

JOHN HARVEY KELLOGG (1852-1943)

**SUBJECT FILES, CA. 1885-1920
(PRIMARILY CONCERNING TOPIC OF
MEDICAL MISSIONARIES)**

**MEDICAL MISSIONARY
CONVENTION/CONFERENCE**

Proceedings of the

**FIRST
MEDICAL MISSIONARY
CONVENTION**

*Convened by the Medical
Council of the General Conference of Seventh-day
Adventists, at College View, Nebraska,
Nov. 21 to 26, 1905*



WASHINGTON, D. C.
MEDICAL COUNCIL OF THE GENERAL CONFERENCE
1906

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INTRODUCTORY NOTE.

"As ye go, preach, saying, The kingdom of heaven is at hand. Heal the sick, cleanse the lepers, raise the dead, cast out devils: freely ye have received, freely give." Matt. 10: 7, 8.

"And the seventy returned again with joy, saying, Lord, even the devils are subject unto us through thy name." Luke 10: 17.

"And the apostles gathered themselves together unto Jesus, and told him all things, both what they had done, and what they had taught. And he said unto them, Come ye yourselves apart unto a desert place, and rest a while." Mark 6: 30, 31.

The convention idea is recognized in the doing and reporting outlined in the above. The great Teacher not only gave the commission to engage in practical Christianity, but he demonstrated the advantage of interspersing Christian activities with experience meetings. A permanent place in the methods of medical missionary work will be granted only to those features which are attested by prayer and successful experiment.

With this end in view, the Medical Council of the General Conference of Seventh-day Adventists held in Washington, D. C., May 11 to 30, 1905, decided to hold a medical missionary convention at College View, Nebr., during the fall of 1905. Pursuant to this arrangement, about one hundred and twenty persons interested in this line of work met at College View, Nov. 21 to 26, 1905. That their communion together was attended by much of the blessing of God was evident to all present; and that the influence of the session may be partaken of by all who truly work in Christ's name, the following report is published.

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Medical Council of the General Conference of the Seventh- day Adventists.

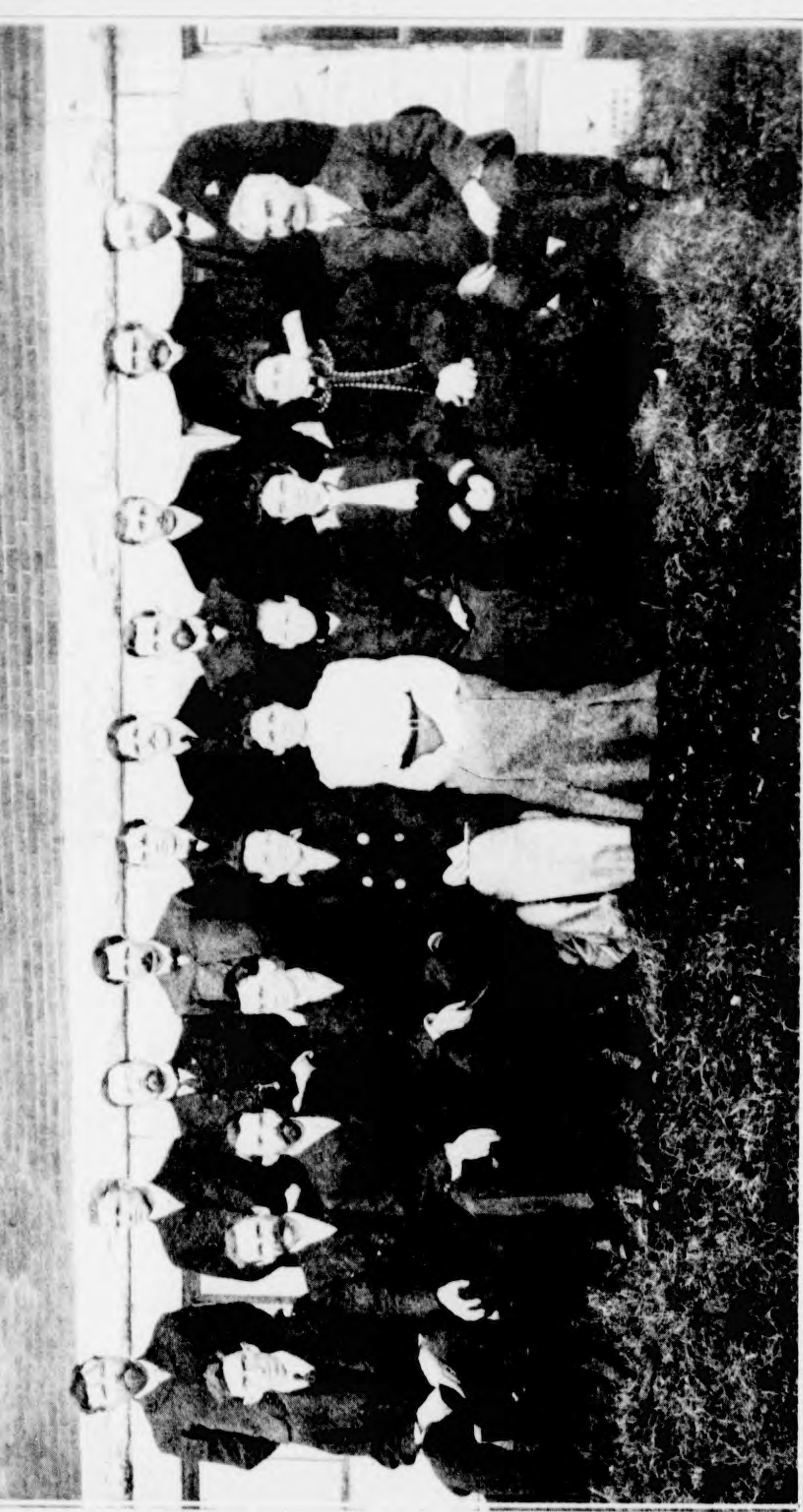
General Office: Takoma Park Station, Washington, D. C.
Organ: *Life and Health*, Washington, D. C.

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Secretary: J. E. Froom, M. D., Takoma Park Station, Wash-
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Elder F. M. Wilcox, care Boulder Sanitarium, Boulder, Colo.
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R. H. Habenicht, M. D., Casilla 481, Buenos Ayres, Argen-
tine Republic, South America.



A GROUP OF PHYSICIANS AS ATTENDING AT THE CONGRESS.

Back Row, Reading from Left to Right: M. M. Martinson, D. C. Ross, W. C. Green, J. A. Lombard, G. J. Harding, J. F. Heald, W. S. ...
 Front Row, Reading from Left to Right: C. F. Jenkins, W. R. Simmons, ...
 Elite M. Martinson, Lyla H. George, Amy R. Humphrey, Ida S. Jeffers, H. J. ...

MEMBERSHIP OF THE MEDICAL MISSIONARY CONVENTION.

At the session of the General Conference held in Washington, D. C., May 11-30, 1905, there was organized the Medical Missionary Department of the General Conference. Before the close of the Conference, the department committee decided to hold a medical missionary convention at College View, in October or November. Later the date was fixed for November 21-26. Pursuant to this arrangement there met at College View the following-named persons interested in medical missionary work:—

PHYSICIANS.

W. A. George, M. D., chairman Medical Department of the General Conference, College View, Nebr.

H. F. Rand, M. D., superintendent Sanitarium, Boulder, Colo.

W. R. Simmons, M. D., superintendent Sanitarium, Portland, Ore.

C. P. Farnsworth, M. D., superintendent Sanitarium, Madison, Wis.

C. Bush, M. D., San Francisco, Cal.

Ida S. Herr, M. D., superintendent Nurses' Training-school, Boulder, Colo.

Amy R. Humphrey, M. D., College View, Nebr.

John F. Morse, M. D., Battle Creek, Mich.

G. T. Harding, Jr., M. D., superintendent Sanitarium, Washington, D. C.

E. P. Hawkins, M. D., chairman Medical Department Northern Union Conference, Montrose, Minn.

G. H. Heald, M. D., editor *Life and Health*, Washington, D. C.

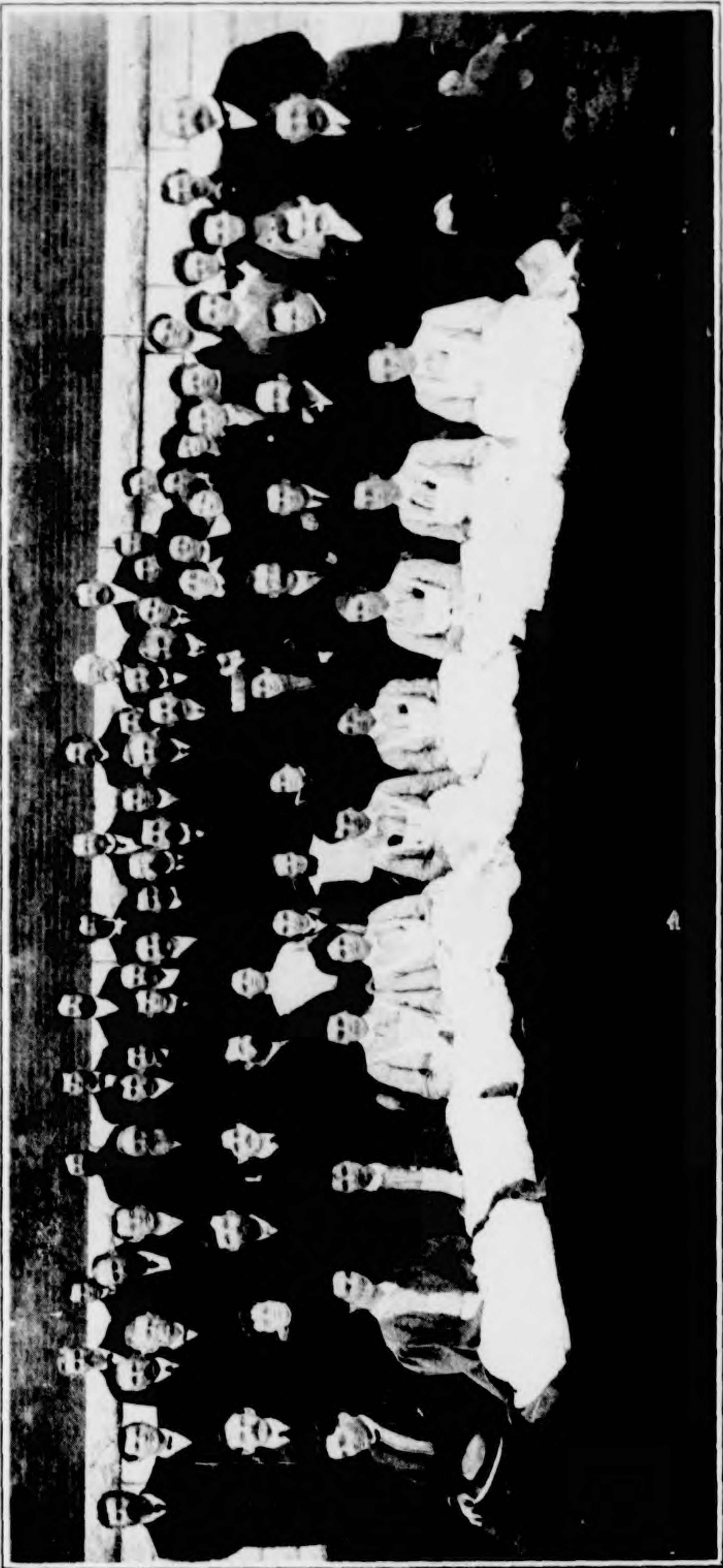
Lyra H. George, M. D., College View, Nebr.

I. A. Dunlap, M. D., instructor in Nurses' Training Department, College Place, Wash.

W. C. Green, M. D., superintendent Sanitarium, Little Rock, Ark.

D. C. Ross, M. D., superintendent Sanitarium, Keene, Tex.

Mrs. Lydia E. Kynett-Parmele, M. D., Union College, College View, Nebr.



THE MEMBERS OF THE MEDICAL MISSIONARY CONFERENCE

- M. M. Martinson, M. D., Graysville, Tenn.
Elsie M. Martinson, M. D., Graysville, Tenn.
M. Alice Mantz, M. D., 603 East Twelfth St., Des Moines,
Iowa.
C. F. Jenkins, M. D., Lincoln, Nebr.
J. E. Heald, M. D., superintendent Sanitarium, Peoria, Ill.
F. R. Walters, M. D., Cleveland, Ohio.
William W. Worster, M. D., superintendent Sanitarium,
Connersville, Ind.
J. E. Froom, M. D., secretary Medical Department of the
General Conference, Washington, D. C.

NURSES.

- | | |
|---|-------------------|
| C. L. Burlingame, Boulder, Colo. | Addie Swartz. |
| L. C. Christofferson, Wichita, Kans. | Martha Segebart. |
| Mrs. L. M. Christofferson, Wi- chita, Kans. | Nina Teeple. |
| Frank L. Hommel, Edmonton, Alberta, Canada. | Louise Scholz. |
| Miss Della Coates, Edmonton, Alberta, Canada. | Lotta Talmadge. |
| R. S. Irvine, Wichita, Kans. | Roger Warner. |
| H. C. Tarr, Nevada, Mo. | Rose Wise. |
| Mrs. Frank Walters, Duluth, Minn. | Nathan Aalborg. |
| Zada Helen George, Battle Creek, Mich. | Ethel V. Ames. |
| Mabel Hebard, 2804 Star Street, Lincoln, Nebr. | Esther Bergquist. |
| Charles H. Wilson, Spring- ville, Tenn. | Nellie L. Davis. |
| Pearl Parker, Rolf, Nebr. | Verna R. Garner. |
| Anna Jenson, Hendricks, Minn. | Hilda C. Hanson. |
| Mary Baerg. | Nellie Jenkins. |
| Jessica Backus. | Ethel M. Jones. |
| Luzetta Dittis. | Bertha McClellan. |
| Mr. C. S. Foss. | Luella E. Reed. |
| Marie Hough. | Nellie Streeter. |
| Stena Jenson. | Rhoda Warner. |
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| | Flavia Barnett. |
| | Dora Burke. |
| | Lillian Farrar. |
| | Carrie E. George. |
| | Ruth A. Jacobson. |
| | J. E. Johnson. |
| | Florence Marrs. |
| | Lena Neumann. |
| | Carrie Shipley. |

Wm. McCabe.
Lena Peters.
Theo. Rohwer.
Hattie Rittenhouse.
Chas. Skinner.

Lou Trease.
Mallie Dominic.
Hannah Larson.
Matilda Erickson.
Oliva H. Westergren.

MINISTERS AND OTHER WORKERS.

A. G. Daniells, president General Conference, Washington, D. C.

G. A. Irwin, vice-president General Conference, Washington, D. C.

W. J. Stone, president Indiana Conference, Indianapolis, Ind.

W. C. White, Sanitarium, Cal.

F. M. Wilcox, treasurer Colorado Sanitarium, Boulder, Colo.

D. R. Callahan, business manager Sanitarium, College View, Nebr.

C. C. Lewis, president Union College, College View, Nebr.

I. H. Evans, treasurer General Conference, Washington, D. C.

A. G. Haughey, president West Michigan Conference, Otsego, Mich.

E. T. Russell, president Central Union Conference, College View, Nebr.

R. C. Porter, president Missouri Conference, Hamilton, Mo.

J. W. Dorcas, business manager Iowa Sanitarium, Des Moines, Iowa.

C. A. Burman, president South Dakota Conference, Aberdeen, So. Dak.

A. T. Robinson, president Nebraska Conference, College View, Nebr.

H. M. J. Richards, Loveland, Colo.

W. M. Adams, president Manitoba Conference, Winnipeg, Manitoba.

W. D. Parkhurst, Grand Rapids, Mich.

L. F. Starr, president Iowa Conference, Stuart, Iowa.

H. Shultz, Lockeford, Cal.

G. B. Thompson, chairman General Conference Sabbath-school and Young People's Department, Washington, D. C.

R. A. Underwood, president Northern Union Conference, Minneapolis, Minn.

George F. Watson, president Colorado Conference, Denver, Colo.

I. G. Weller, Denver, Colo.

Watson Ziegler, Fort Collins, Colo.
C. A. Beeson, College View, Nebr.
A. E. Brown, Grant City, Iowa.
Bert Glasscock, College View, Nebr.
J. S. Hart, College View, Nebr.
Mrs. C. A. Johnson, Lincoln, Nebr.
R. W. Maker, Clinton, Okla. T.
E. M. Nelson, College View, Nebr.
F. J. Ogden, College View, Nebr.
R. W. Parmele, College View, Nebr.
Elnora Reid, Dorchester, Nebr.
R. M. Rockey, College View, Nebr.
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Edith E. Bruce, Hancock, Mich.
U. C. Nelson, College View, Nebr.
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Catherina Ackerman, College View, Nebr.
Anna E. Johnson, College View, Nebr.
Mary E. George, College View, Nebr.
Martina Johnson, Pittsfield, Tenn.
Mrs. Leona Burman, Aberdeen, S. Dak.
J. H. Wheeler, Crawford, Nebr.

CONVENTION PAPERS AND DISCUSSION.

MEDICAL MISSIONARY PRINCIPLES.

BY ELDER A. G. DANIELLS,
President of the General Conference,
Washington, D. C.

TRUE medical missionary work is gospel work. The gospel is set forth in the great threefold message of Revelation 14. That message is now being given to the world by Seventh-day Adventists. This is why we as a people are so deeply interested in medical missionary work. It is a vital, essential part of our cause.

Medical missionary work has a scope and a place in our work that it has not occupied in any other religious movement since apostolic times. This phase of our work was made prominent by the pioneers of this movement in its early days. Captain Joseph Bates may be considered one of the main connecting links between the great movement of the first and second messages and the present movement under the third message. He was the first man who was prominently connected with the first angel's message to catch the light of the third angel's message, and begin the observance of the Sabbath. He was the first Seventh-day Adventist of this movement.

Now Joseph Bates was a medical missionary. He was a temperance reformer. He discarded liquors, tobacco, tea, coffee, animal food, condiments, and spices. He organized the first temperance society ever formed in the United States. He is really the father of temperance organization work in America. When he stood forth as a representative of the third angel's message, he represented true medical missionary principles.

Soon after this movement started, the light regarding healthful living and the rational treatment of disease was unfolded to Sister White by the Spirit of God. It is to the Spirit of prophecy more than to any other source that we are indebted for these glorious principles. The first written document this denomination ever produced setting forth the truth regarding medical missionary interests, came from the spirit of prophecy. In 1866 the pioneers began the publication of a health journal

called the *Health Reformer*. The name was afterward changed to *Good Health*.

In 1866 the General Conference adopted resolutions expressing hearty acceptance of the light on "health reform as set forth in the Testimonies of Sister White as part of the work of God incumbent on us at the present time." The same conference requested Dr. H. S. Lay to furnish articles on this subject for the papers. A few months following this conference a small sanitarium was established at Battle Creek. At the session of the General Conference held in 1867 the delegates expressed approval of this step, and made provision for the writing and printing of a small treatise on the structure, functions, and care of the human body. This book was written by Elder J. N. Loughborough, and was printed early in 1868.

Thus the medical missionary department of the cause with which we are identified was launched at a very early date in our history. In fact, it dates from the very beginning. The light has unfolded, and the work has enlarged, from the first until the present time. Through the earnest labors of Dr. Kellogg and a large company of physicians and nurses, the co-operation of ministers and laymen who love this cause, the medical missionary work has become a prominent and helpful part of our work.

As we are all well aware, the object of our medical missionary work is to minister to men the gospel as it relates to life in both sickness and health. We are not only to do what we can to help the sick to get well, but to instruct all men how to live to keep well. This calls for personal contact with the masses. It means the production and distribution of literature that will teach the people how to live. It calls for house-to-house work by nurses, and the establishment and operation of health institutions.

The true basis of this work must be the gospel of Christ. It is the legitimate work of the church. As such it must be done by conscientious Christian workers. In order to promote this phase of our message we have organized the Medical Missionary Department of the General Conference. This work and this department bear the same general relation to our cause that the Educational, Publishing, and Sabbath-school Departments bear. It will be fostered and carried forward by the denomination in harmony with the gospel principles which have guided us from the beginning of our work.

In behalf of the General Conference Committee, the ministers, physicians, and nurses of our conferences and mission fields, and our loyal people throughout the world, I extend to the officers and members of this convention our deep interest in your work, and our pledge of loyal, hearty, continued cooperation in the promotion of gospel medical missionary work in behalf of sick, suffering, sinning humanity.

HOW TO REACH THE MASSES WITH HEALTH PRINCIPLES.

BY M. ELLSWORTH OLSEN,

Associate Editor of *Good Health*, London, England.

THE masses — what a significant expression! How could the surging tides of humanity in our colossal cities — the laborers, artisans, clerks, shop-girls, seamstresses, and all the rest of the toiling millions — be more suggestively described in the aggregate? Indeed, this new application of the word has had its origin in latter-day conditions. It has come into being on the crest of the great wave of struggling, suffering, relentless humanity which threatens to engulf our twentieth-century civilization. Never before in the history of the world has the condition of the laboring classes figured so largely in the public welfare. Never before have social questions taken such a strong hold on thoughtful men and women.

In discussing the question of the health principles as related to the masses, I shall group what I have to say under two general heads: First, *our proper attitude* toward the masses — whether we have responsibilities toward them, and then the nature of those responsibilities; second, the question of *methods of work*.

Let us then ask, What is our relation as a people to the so-called masses? Do we think of them only in the aggregate, and with a mild indifference to their oftentimes hard conditions? Or do we realize that every one of these millions of human souls is dear to our Father in heaven; that the least of them all is the object of divine, pitying love, and the continual though perhaps unmindful recipient of many heavenly blessings? More especially, do we realize that we are organically related to these same masses — that they have claims upon us, the claims of a common brotherhood; that we owe them a debt, the debt of self-forgetful love and hearty service?

In the days of his earthly ministry, Christ labored incessantly for the masses. He must have adapted his teaching to their needs, for "the common people heard him gladly." He had compassion on the multitudes whom he saw to be scattered abroad as sheep without a shepherd. Their burdens, cares, perplexities, their physical suffering, their hard, commonplace lives, made a strong appeal to him, the "man of sorrows, and acquainted with grief," and he toiled to the utmost of his strength to impart to them a more abundant life, a life full and satisfying here, and giving glorious promise of the world to come. To this end he concerned himself very decidedly with their physical welfare. He did not limit his ministry to a little band of loyal followers; if so, we should only have learned of the healing of Peter's wife's mother and a few like instances. Instead, he went up and down the country healing the sick, cleansing the lepers, opening the eyes of the blind, giving himself day by day a living sacrifice on the altar of suffering humanity. He asked not whether people were worthy — it was always their great need that appealed to him.

And shall it not appeal to us, who are Christ's representatives in this in some ways most needy twentieth century? Should the fact that Christ is soon to return make us less zealous in ministering to the physical as well as the spiritual needs of humanity?— Surely not. Rather this solemn fact should redouble our energy, should fill us with a holy impetuosity of earnest endeavor, and constrain us to make the utmost use of whatever time may remain before the door of opportunity is forever shut. Now for a little time (how long we do not know) we have the unique and glorious privilege of giving our own lives day by day a living, tangible presentation of the character of the great eternal Father; of showing his love and compassion to the unbelieving world, and in so doing drawing many to repentance.

What we *do* for our fellow-men will often teach them more of God than what we try to *say* to them. True religion, as James reminds us, shows itself in deeds. Love of God without love of man is a delusion; it has no existence in fact. "He that loveth not his brother whom he hath seen, how can he love God whom he hath not seen?" And love is ever active — that is a law of its being; it reveals itself in service. "Hereby perceive we the love of God, because he laid down his life for us: and we ought to lay down our lives for the brethren. But whoso hath this

world's good, and seeth his brother have need, and shutteth up his bowels of compassion from him, how dwelleth the love of God in him? My little children, let us not love in word, neither in tongue; but in deed and in truth."

There is a spurious kind of heavenly-mindedness that would lead us to tarry on the Mount of Transfiguration in utter oblivion of the suffering multitudes down in the valley; and there is such a thing as doing great things for God's cause as we understand it, only to find at the last judgment day that we failed to do the essential things when we neglected to discharge our duties toward the sick and the poor and the unfortunate. Philanthropy is bound up in the very heart of the gospel, and can not be torn away without destroying its very life. Our work as a people is defined in the whole of the fifty-eighth chapter of Isaiah, not simply in the last few verses. We are in the world to be the light of the world, and our light is to shine in such a way that men will see our good works, and be led thereby to glorify, not us, but our Father in heaven.

So much for our general attitude toward the masses, which we have found to be that of willing and hearty service. We now come to consider the form that service is to take, more particularly with reference to our health principles. How may we best present to our fellow-men these living, practical truths, which are so instinct with immediate benefit healthwise? Two kinds of agencies are in operation: (1) institutional and (2) individual or personal. The medical missionary sanitariums, our publishing houses, food companies, and pure-food restaurants the world over, are institutions for the promulgation of these principles. The individual work is that done by the believers in the circulation of literature and other forms of personal labor.

It is not my intention in this paper to discuss our institutional work; but I would like to drop one suggestion. It seems to me that one effective way to reach the masses would be by means of treatment-rooms in the poorer parts of our large cities, where treatments could be given for a small charge to the laboring class, and from which as a kind of center, missionary activities could radiate out through the whole district by means of visiting nurses, cottage health meetings, cooking-schools, etc. In connection with such treatment-rooms we would also need a sanitarium in the country where the fees would be lower than in our present institutions, and the plan

somewhat different. An institution of this kind would not be especially for the benefit of the very poor, who are not able to pay anything, but for those earning regular though rather low wages, and very likely with large families. There is an appalling amount of sickness among this class, and at present not to my knowledge any definite agency for its relief. To illustrate the situation, there is not one in ten of our own people able, in case of illness requiring sanitarium treatment, to pay the ordinary fees in one of our own institutions. And yet we are certainly as well off as the laboring classes generally. These are all independent people, not willing on the one hand to be the recipients of charity, and not able on the other to pay regular rates. I am well aware that the starting and carrying on of an institution of this character would present a number of difficult problems, but I do not believe them to be entirely beyond solution if once taken earnestly in hand.

Coming now to personal work, it is the most important of all. It lies at the very foundation of all our institutional work. The success of our sanitariums as healing agencies is largely dependent on their being manned with earnest, consecrated workers; and of course our health publications need widespread and hearty personal labor for their circulation. We see, then, that in order to reach the masses we need first of all to secure the hearty co-operation of our people, church members and isolated ones, throughout the world. To this end we must lay out work for them, and help them to do it. It has been truly said that every Seventh-day Adventist home should be a sanitarium in miniature — a place where the principles of healthful living are loyally observed, and from which rays of light should be shining out in all directions. It is sometimes thought that when tracts and papers bearing on the second advent have been pretty generally scattered about among our neighbors, the message has been given; but this is far from being the case. Our work has a direct bearing also upon the habits and practical life of to-day. A family of believers should and may exert a strong influence in favor of pure, natural living, and in one way or another operate to improve the health of the community. If we are loyal to principle and in touch with the Master, people will come to us for help; and as they get it, they will tell others, and so the good work will grow. I have met families who in this way shed abroad through a very large district the precious fragrance of a living gospel. People came to them from far and

near to get advice about matters of hygiene and home nursing, and they were able to give them a good deal of help, though their knowledge was limited to what they had learned from "Home Hand-Book" and our health journals.

It is not necessary nor best, however, to wait for people to come to us. We may and should go to them. What is there to hinder our sisters devoting an hour or two weekly, or at least an afternoon a month, to calling on their neighbors, introducing our health journals, and inviting a trial subscription. In case the subscription is not given, very likely a single copy would be taken and paid for, and the following month the subscription might be secured. People of the world solicit subscriptions in this way to various popular magazines. Should we be less zealous than they, especially at such a time as this when the public attention has been drawn to health questions as never before in the history of the world, and when the interest in such matters is general? The excuse most commonly urged when these lines of missionary effort are brought up is lack of time. But let us consider it a moment, and see how utterly baseless it really is. It must be allowed that while life is granted us, we at least have *time to live*. But to make some effort to bless and help others is of the very essence of Christian living. Indeed, that life which is not leavened by the spirit of philanthropy, is hardly worth the name — it is mere existence. To say that we have no time for such things is then virtually to say that we have no time to be Christians; that God has bidden us to let our lights shine, but has not given us time to do it. Surely these are contradictory notions; the excuse is therefore utterly invalid. Not *time*, but *conviction*, is wanted. Without it an eternity of time would not suffice to do anything.

House-to-house introduction of our papers is, however, not the only mode of making our health principles known. In many ways we come in contact with the outside world,—the people who live next door to us, tradesmen with whom we do business, chance acquaintances, to say nothing of relatives near or distant,—upon whom we may, with divine help, exert some influence for good. Let there first be in our hearts an earnest determination to do these people a real service, and ways and means will suggest themselves. The single word spoken in season has often accomplished wonders.

The health cottage meeting is an excellent means of spreading these principles. Usually the ground is best prepared by a

general door-to-door canvass with the health paper; this enables the worker to become somewhat acquainted with the district, and determine where it would be best to hold the meeting, and who would be most likely to attend. Hygienic Cookery, Healthful Dress, the Care of Children, and Household Hygiene are among the chief subjects that can be taken up at these meetings. Expert knowledge is not necessary. There is scarcely one of our churches that does not contain one or two sisters who, with diligent, prayerful study, could give such talks to good advantage, the other sisters co-operating to the best of their ability to make the effort a success. Responsibilities of this general character are borne by thousands of women in the W. C. T. U. local branches. But I need not go outside the denomination; such responsibilities have been carried by our own sisters in the past. I well remember the time, not long since, when there were active Christian Help Bands scattered through a number of States, reporting regularly, and doing a great deal of earnest medical missionary work. Perhaps some of this work is still going on; I hope so, but we don't hear much about it. Certainly the people never stood in greater need of such help than to-day, and our churches stand in need likewise of the peculiar blessings which come from such efforts for the uplifting and benefiting of the masses.

The introduction of our health books is a valuable means of reaching the people of various classes. The new book, "Ministry of Healing," presents the whole question of health from the gospel standpoint, making it a book that will appeal quickly to religious-minded people, and one which, by reason of its attractiveness, comparatively inexperienced workers can handle to excellent advantage. The larger books, as well as the booklets and tracts, all have their place.

In speaking in the foregoing paragraphs of personal work I have laid special emphasis on what can be done by the women; because, take it the world over, they are a little more free to engage in such work, and what is perhaps more important, they have easier access to the homes of the people than do the men. The afternoon, between the hours of two and four, is the most favorable time to do this work, and at such times the men are away at work; but the women are at home, and not unapproachable to another woman with a heart full of love and sympathy and a face shining with the light of the gospel.

I wish to close with a few general suggestions concerning

the nature of the instruction to be given the masses. Let us above all things remember the condition and limitations of the common people, and not hesitate to meet them on their level. We need to make our instruction not only simple and clear, but otherwise suited to the condition of those we hope to reach. We need to do that hardest of all things — throw the emphasis where it properly belongs, always keeping in mind as a guiding principle, sanctified common sense. We must avoid letting ourselves be drawn off on tangents by personal idiosyncrasies. Because a certain kind of diet is best for one man, it does not follow that it is best for all mankind. There is some meaning in the fact that the earth brings forth a very large variety of food products. Then, the diet question as a whole, though a very important one, is not entitled to exclusive attention. Fresh air, systematic bodily development, and natural habits in general are all matters of importance.

The principles of healthful living need to be presented as a living whole, not as hard, dry, isolated precepts. It takes an anatomist to see beauty in the skeleton, and a botanist to perceive the beauty of a flower torn in pieces and dissected; but the living form divine or the full-blown rose — we can all feel the beauty of these. It is even the same with the health principles: we must see them in their proper setting, complete in themselves, and yet related closely to other truths, all forming part of the revelation which God has given us of his will concerning mankind. Presented in their inherent beauty by those whose hearts have been touched and made tender by the Holy Spirit, they can not but take hold of the masses, and influence them in such a way as to prepare for the fuller unfolding to them of the divine will.

TUBERCULAR SANITARIUMS.

A VERY interesting and well-written paper by Miss Edna Macune Kilbourn, on "A Tubercular Sanitarium for Southern California," related some very marked personal experiences, showing the manifest care and blessing of God upon a work undertaken in faith without financial resources, the needs of which enterprise were met fully as they developed from day to day and week to week.

The following discussion of the subject presents evidence that many of our workers have earnestly considered this subject,

and also gives definite instruction which may save some devoted workers from undertaking to wholesale this good work by just the same kind of sanitarium care which is effectual with other diseases:—

DISCUSSION.

DR. C. BUSH: I think anybody visiting California would not fail to recognize the importance of this subject. One point emphasized in the paper was the fact that such a great number of tubercular patients go to California. That State is full of people with lung affections. This is a question that should come home to all of us. There are not many families among us into which this disease has not at some time made inroads. I think we ought to take a deeper interest than simply sympathizing with these conditions. Sanitariums of this kind should not only be established in California, where the climate is favorable for this disease, but in Massachusetts and New York, where the climate is very unfavorable, they could be established with good results. California has a great advantage, however, because so many people with this disease go there. Many of them, after systematic medical treatment, are cured. I do not see why it would not be an important thing, and bring men and women back to health and hard work again.

DR. M. M. MARTINSON: Tuberculosis ought to be studied much more than we have studied it in the past. More die from it than from any other disease. It seems to me that with the blessing of God upon our methods of living, we can do more than any one else in this work. We ought to do a great deal in the circulation of literature for tubercular patients. A great many of our own people die simply because they do not know what to do in such cases. People with this disease expectorate on the floors, the germs are taken up in the atmosphere, and we breathe these germs. I do not know but that it is a good thing to have a sanitarium in California, but statistics that have been gotten out lately show that we can treat tubercular cases wherever they are. If they expect to live in this climate, we must treat them in this climate; if they expect to live in Colorado, we must treat them there. I believe, as a people, we should study it more than we have in the past.

DR. J. E. FROM: I very much enjoyed the beautiful picture that was drawn in the reading of this paper. It seems to me that story emphasizes the necessity of providing facilities where

the masses of the people can receive the benefit of them. I was very much impressed by remarks made at the congress, held in Washington last May, of physicians who are devoting their whole time to the treatment of tuberculosis. Statements were made there to the effect that they succeed in curing fifty per cent of all cases by means of outdoor treatment. A physician who made a fight for his life to overcome this disease, succeeded, and has since devoted his life to that work. He has established a very successful hospital in the Adirondack Mountains in New York. What is the special characteristic of his success?—Open-air treatment. The patients all live in the open air, except when they dress or undress. The sleeping apartments for the patients are out of doors, except for the very feeble ones. They sleep out of doors when the air is so cold that the physician visiting them has to put gloves on his hands; but they soon become used to the rigorous climate. When the Father in heaven has provided us so liberally with facilities and Christian nurses, and with our physiological system of treating the sick, what ought we not to accomplish? It seems to me that what the people are looking for is unselfishness on our part. When the world at large realizes that we have a love and care for these unfortunates, they will pour the funds into our hands.

DR. E. P. HAWKINS: I believe that we have a special field open for us in this line. The question as to what to do with a tubercular case has come to me a great many times. Even as far north as Minnesota there are a great many people wandering about homeless and without friends. They say, Where shall we go? Recent statistics show that deaths from this disease are ten per cent less than ten years ago; some statistics show even less than that. This has been brought about by more education on this point.

F. M. WILCOX: If any one is interested in this subject it is myself. Tuberculosis caused the death of five of my sisters, also of my wife and little boy.

Some years ago I received my first test as to whether I believed the Testimonies or not. The Boulder Sanitarium started to raise a fund for the erection of a consumptive institution. I took the matter up in our denominational papers, and secured quite a large amount of money from different sources, and we had the matter quite well started; but Testimonies came to us that the Seventh-day Adventist people were not prepared to operate sanitariums for consumptives, and that we had made a

mistake in making the move we had. I must confess this was contrary to my mind. We gave it up, however. As I look back now, I can see how it would have meant ruin to our work had we done it.

I remember several other things that the Testimonies said. One was that consumptives should not be taken into our institutions. Their breath is poisonous. I know this is true from experience. I never would favor, from my own experience, or from what the Lord has said, the erection of a general sanitarium for consumptives. I believe the best way is to have small institutions, small cottages, where the consumptive patients may be placed by themselves.

(The Testimony to which reference is made will be found in the latter pages of this pamphlet, and is entitled, "Shall We Erect Homes for Consumptives?")

DR. LYDIA PARMELE: I feel very much interested in this subject. I never have been in California, but I have no doubt the climate in that State would warrant building up such a sanitarium. But I believe also that the proper care and treatment of such patients might well be conducted in the Eastern and Middle States.

C. A. BEESON: Last week I met a man whose wife was about to die of consumption. He asked me if it would not be well for him to go to Boulder, and locate in a tent near there, so that he might have the benefit of the Boulder Sanitarium and the counsel of the physicians. The question came to me, Shall we advise such people to go there?

F. M. WILCOX: This is the advice I have given to our people and to those who have written me regarding it: We can not receive them at the sanitarium. If we should receive consumptives, our other patients would leave within a week. The Spirit of the Lord has sent Testimonies that we should separate tubercular patients from our sanitarium. On account of receiving such cases the institution has been hindered in its work. I know several who are living in Boulder in the manner you speak of. Some of our patients are living in tents the whole winter. We send nurses to treat them, and our physicians prescribe for them.

G. F. WATSON: There are two large consumptive homes in Denver, Colo. Sixty per cent of the deaths in Denver last year were caused by tubercular affection. Thirty-three per cent were cases contracted in the city or in Colorado. A terrible condition

prevails in Denver to-day. Men and women are dying with this disease who were born and raised in Colorado.

CONSERVATISM IN SURGERY.

BY C. BUSH, M. D.,
San Francisco, Cal.

CONSERVATISM is a saving process. There are certain things that the surgeon aims to save, and in so far as he succeeds he is conservative. First, he must save life at any cost. Next comes health in its wide or limited meaning. Again, pain calls for the surgeon's interference many times, and its relief forms one of the most imperative indications for many operations. But constantly to be borne in mind, while seeking the betterment of these conditions, is the demand that, while saving for the patient life, health, and pain, there be also saved, just as far as consistent, members, organs, and functions. The proper balancing of these various and often conflicting demands requires the nicest judgment, and a special surgical training and experience that not all who pretend to be surgeons possess. The highest conservatism, then, is that which insures the best surgical results when all of the above factors are considered.

Probably every one present can recall many useless operations that he has seen performed—the proneness of over-enthusiastic or venal men to cut, as the laity say, either for experience or for fat fees. To a surgeon as well as to the general public, these undoubted facts are most disheartening. After advising a patient with chronic appendicitis to have an internal operation, explaining the dangers of the appendicitis and the comparative safety of such an operation as well as its satisfactory results, to meet with the rejoinder that the patient's sister had had just as strong advice to have her ovaries removed, and that after the operation her symptoms were even worse than before,—this, I say, together with the implication—justifiable I admit—that all surgeons are liars and robbers, is a hard thing to answer. There are two forces struggling in the surgical education of the public: the one conservatism toward early operation in certain acute conditions, in abdominal crises or hernias, and the like, and justifying itself by its saving results; the other ultra-radical, using poor judgment or deliberate deceit, and undoing in the indiscriminating public mind the educative tend-

ency of the former. Our friends who do gynecological work are probably largely responsible for the latter force. Women usually seem to be the greatest sufferers from radical measures. Think of the practise lately in vogue, and even now followed in some places, of removing ovaries for all sorts of pelvic symptoms, for dysmenorrhea, for aggravated neurasthenia, and even for small cystic follicles and the like. The sacrificing of inflamed tubes comes in the same category as does hysterectomy for myomata, which can be removed without greatly disturbing the uterus.

The days of unnecessary amputations are about passed. Fortunately, for several years there has been a reaction against such radical measures. The only real measure of power in combating the radical, bad surgery is specialization in surgery. Surgeons should do surgery, and not those who are general practitioners. Just in proportion as this rule is applied, the results will be for conservatism in the highest sense. Is it conservative to treat medically appendicitis through attack after attack?—Of course not. We need not discuss that question here. We all know that twenty appendix cases are badly neglected to one that is unnecessarily operated upon. It is the same with gall-bladder and stomach surgery; while some cases are interfered with that would be better left alone, there are many more that are suffering from neglect.

Each individual case stands on its own merits, and may present perplexing problems. As surgeons are more carefully trained, as they spend more and more years in the operating rooms of great teachers, and as medical men become willing to pass over their surgical cases, expecting from the surgeons medical cases in return, these mistakes will tend to correct themselves. Real conservatism will be advanced. This is the present-day tendency to some extent, though there never was a time when every medical man was so ambitious to do surgery. It is this wild scramble for surgery by all sorts and conditions of medical men that makes the public horror of the art so keen. As long as surgery is done by men of insufficient training and experience in such measures, conservatism can not triumph.

Take, as one example, the matter of carcinoma of the breast. Every country doctor thinks himself qualified to operate for its relief; yet there is not an operation that requires more special skill. The complete removal of the entire breast, of pectoral muscles, of axillary and sometimes cervical glandular contents

in one piece, the immediate and sometimes extensive skin graft, the details of hemostasis and technique requiring skilled assistants, and the question of dressing, constitute this a formidable operation, and one that takes a highly trained man from three to four hours to complete. Yet I have seen a doctor unskilled in either pathology or surgery complete an operation for cancer of the breast within three quarters of an hour, with evident pride in the celerity of his execution. The carcinoma of course speedily recurred.

These men will tell you, as will also the laity, that cancer of the breast is a hopeless condition. Another man I remember who had "worked up" a large surgical practise from his general practise, reported a series of these cases, every one of which had recurred. As a matter of fact, in fairly early cases, such as general practitioners should easily recognize or advise exploration for, the percentage of cure should be from thirty to forty. Now which is the conservative operation?

The greatest field for conservatism lies in making early diagnoses of all surgical conditions. Here the trained surgeon should be the best judge, and the medical man should not be afraid to call him in. This is a day of special training. People have found out the greatest saving or conservatism is through specialization. The conductor of the train does not consider himself qualified to survey the road, run tunnels, build bridges, or repair the locomotive. Why should the practitioner of medicine desire so longingly to operate? I verily believe that there can be no such thing as real conservatism in surgery while such a promiscuous untrained assortment of doctors are considering themselves surgeons.

"Who shall practise surgery, and who shall not? What preparation shall be required of those who propose to stand before the community as properly qualified surgeons?"

"The burden of the following remarks is that those only should practise surgery who, by education in the laboratory, in the dissecting room, by the bedside, and at the operating table, are qualified, first, to make reasonably correct deductions from subjective and objective signs; secondly, to give sound advice for or against operations; thirdly, to perform operations skilfully and quickly; and fourthly, to conduct wisely the after-treatment."

"The community is, perhaps, not to be criticized if it fails to estimate properly the value of professional services when it

sees problems demanding exercise of the highest skill undertaken by men but little trained to solve them. That the community is sincere can not be denied when the lives and health of its nearest and dearest are submitted to the ignorant, the inexperienced, the unskilful. This shows, perhaps, more than anything else the contempt for thorough education and long training which makes possible the evils of which I speak. On the part of the laity, sound opinion is much to be desired; on the part of the profession, a candid admission of certain serious defects. In matters surgical, however, public opinion is hard to mold, for the reason that the results, on the whole, are good, whatever the operation and whoever the operator. An amputation results in recovery of the patient; the surgeon's skill is manifest to the family and friends, who fail to see that the amputation was, perhaps unnecessary. A patient dies after a hysterectomy; the community—realizing that the operation is a dangerous one, and believing that patients seldom recover from it, unaware that the mortality in skilful hands is not greater than that of childbirth—looks on the result as inevitable.

“The consulting surgeon can not but be impressed by the frequency of useless or worse than useless operations. He sees too often the unfortunate results of hastening the patient into operative procedures based on errors in diagnosis and in prognosis. On the other hand, he sometimes sees a patient refused an operation which is called for in the most positive tones.

“Perhaps the most common error, as observed by the consulting surgeon, is the failure to detect at the earliest possible moment those internal lesions which demand, as the only chance of recovery, instant operation.”

“There is, to my mind, no doubt whatever that surgery is being practised by those who are incompetent to practise it—by those whose education is imperfect, who lack natural aptitude, whose environment is such that they never can gain that personal experience which alone will really fit them for what surgery means to-day. They are unable to make correct deductions from histories; to predict probable events; to perform operations skilfully; or to manage after-treatment.

“The chief source of trouble lies in the ambition—perfectly laudable—which so large a proportion of medical men possess, to become surgeons.”

“The surgeon reviewing his years of active practise can not

but be impressed by the responsibilities of his profession. He recalls the frequent misgivings with which, on the strength of his fallible opinion, he has advised and performed operations; the excitement of a critical operation, and the deep breath of thankfulness when he has succeeded in averting some grave complication; his forebodings — so frequently instinctive — of impending disaster, and the sinking of the heart as his foreboding become realities; the too often useless struggle against overwhelming odds; the distressful death; the severe self-criticism and biting regrets. And is not the surgeon, appreciating his own unfitness in spite of years of devotion, in the position to condemn those who lightly take up such burdens without preparation and too often without conscience?"

CONSERVATIVE ATTITUDE IN SURGERY.

BY W. R. SIMMONS, M. D.,
Portland, Oregon.

ANY subject, piece of work, or scientific achievement, that is not worth time, practise, careful thought, and consideration is much better left entirely alone, or turned over to the one who has time and thought, as well as knowledge, to devote to the subject, and thus come to the right conclusions without making mistakes by hasty actions.

If this be true of abstract things, how much more true it is in dealing with human life. It is truthfully said that "medicine is not an exact science." That surgery should be included in this statement is at least partly true.

We do know that there are drugs that have a specific action when applied at the right time and in the right place. In the same way we know that surgery applied at the right time and place will relieve suffering, and often save life. No surgeon will doubt for a moment that when a foot or hand is affected with acute gangrene, the decayed part should be removed, or that an abscess should be opened to allow the pus to escape. These are cases where the knife is the specific remedy, and were it not used, the chances are that in the majority of cases the patient would die.

Our conservatism in surgery should depend more on our knowledge as diagnosticians and less on our knowledge of the

technique of surgery. Delay may be as disastrous to the patient as hasty action, especially if we are lacking in knowledge as to the diagnosis. The physician who allows his patient to suffer and die because he "does not believe in surgery," probably for the reason that he is not a surgeon, is as criminally liable for the death of his patient as the surgeon who rushes into the operation without knowing what he is doing, and meets with the same result.

Our attitude to surgery depends largely upon our knowledge of the case before us. We do not believe there is any reasonable-minded medical man who would not advise the removal of gall-stones if he knew they existed, if the condition of the patient otherwise would permit of an operation. But the question raised in many cases of pain in the region of the gall bladder or liver is, Are there gall-stones present or not? If we are conservative in the matter, we will subject our patient to careful examination after a thorough history of the case; we will apply our knowledge, and seek to determine the cause of the pain by every known means, and then advise operation if we are positive that the stones exist, at the same time using other remedies until the diagnosis is found to be correct. An example is cited where a young physician urged an operation for gall-stones, but this was objected to by an older surgeon. The patient was treated for catarrhal jaundice, made an entire recovery, and for six years has had no gall-stone colic.

The surgeon who depends on his knife to make his diagnosis, who subjects his patient to the dangers of an anesthetic, to several weeks of idleness in bed, and to the payment of hospital bills,—all because he, the surgeon, did not know what the trouble was,—had better lay aside his knife, and allow it to accumulate rust, while he brushes the dust off his text-books on anatomy and physical diagnosis, and proceeds to fill his brain with something besides the technique of surgery.

He who depends on his brother in the profession to tell him "when to operate," labors at a disadvantage, no matter how skilled he may be otherwise. The man who operates simply because he can get a fee, is not worthy the name of surgeon, and should be banished from the society of more honorable men who are working from principle.

The young physician who operates needlessly, for "experience," had much better spend his time in watching the older surgeon until he learns how to perform the operation success-

fully, by being taught. It is true that the young surgeon needs experience, but it is better that he should not subject the lives of individuals to his unskilled hands, at least until he has learned all possible by observation.

It is a noticeable fact that the man who makes a specialty of any one thing is most apt to become so absorbed with his own ideas in that one line only that his reasoning powers on other things are dwarfed. The man who makes a general study of all his cases, viewing them from every standpoint, medically as well as surgically, is much more cautious in advising surgical operations than one who looks at his cases from the standpoint of the surgeon only.

We have noted many cases where an operation was advised for appendicitis whenever a patient had a pain in the abdomen or cramps resulting from the accumulation of gas in the stomach. We have had letters from some of these same cases a few months after their operation, stating that the pain was still there, or the cramps were just the same as before the operation. One poor fellow consoled himself by saying that although the operation did him no good, he was glad that he had the operation, for now he never would have appendicitis.

Another case operated on for appendicitis, died a few weeks later during a severe attack of gall-stone colic. The appendix removed in this case was perfectly normal, and that the gall-stones were present at the time of the operation for appendicitis, there could be no doubt.

That our attitude toward surgery should be conservative, I believe is true. Many a poor creature has been put through the tortures of an operation, suffered evil after-effects, and perhaps lost a valuable part of his anatomy, simply to afford experience to some ambitious youth, or satisfy the morbid fancy of some pet theory, when the operation could have been avoided.

The great Master mind, the God of heaven and earth, the Creator of all mankind, with his wonderful skill formed man as his crowning act of creation, and placed every organ in his body for some use, every member with its work to do, and every cell with its particular function to perform. Why should man with his finite mind, seek to take from or change the natural functions that exist in the human mechanism, to satisfy some theory that may be his? That experiments of this kind have been done is known to every man in the medical profession.

A London surgeon, in one of the large hospitals of that

city, when about to operate on a man that was in a dying condition, and was remonstrated with, said, "There are some of the internes that will finish in a few days, and they must be shown this operation." The operation was performed; but when it was finished, the patient was dead! This suffering could have been avoided.

A young surgeon just starting in a new place, wishing to make a reputation for himself, attempted to remove the spleen in a case of splenic anemia. While performing the operation he remarked to his assistants that this operation had never been performed in the State before, and he would show the doctors what could be done. The spleen was removed; but in doing it the husband was left a widower, and several small children motherless. It is needless to say that the surgeon did not add to his reputation in that case at least.

How many a hand, how many a foot, slightly crushed, could have been saved were it not for the hasty decision that it must come off. How many women to-day in this world could have been carrying out the natural functions as God intended they should be, had it not been for the theory that another way than that of the Creator's was best.

Surgery has its place in our work to-day. To say that we should never operate, would be to say that we should let our patients die. When an organ becomes so diseased as to be useless, causes pain and suffering, and by its remaining endangers other organs or the life of the individual, it should most certainly be removed. Abnormal growths for the same reasons should be taken away. And who will say that when there are poisons in the system, as the result of abscesses that can be removed by the use of the knife, that they should be "left to nature"? The resisting powers of the body are great, but when by a simple process we can assist nature, should we not do it?

On the other hand, we are often too hasty, jump at conclusions, and the deed is done before we stop to consider. Should a part be removed because as a result of irritation a simple inflammation has been started? This is often done in cases of appendicitis, ovaritis, etc. Why not be as hasty in removing a finger or a toe when it becomes inflamed? We might part with a digit with as little inconvenience as with some of the other organs that have a physiological function to perform. It has been well said, that "it is well that all of our organs are not on the outside; for if they were, the surgeon would have much less work to do."

I wish to repeat that our attitude toward surgery should depend more on our knowledge of the case before us, than on our skill as surgeons. We can not all be surgeons; but I do believe that every man or woman who deals with human life as a physician, can and ought to be a good diagnostician.

We should be conservative in all our ways,—in business, in religion, in life in all its phases. The world is full of cranks and fanatics; that the medical profession should have a few is not to be wondered at. Some may say, never operate; others will use the knife when another remedy would do as well or better; but the conservative way, in my opinion, is to operate when, after careful examination and observation of the condition we are called upon to treat, we are assured that radical measures should be used.

Never persuade any one to have an operation against his will, unless his life depends upon speedy action. Avoid surgical procedure when it is possible to do so. But do not hesitate when, by an operation, we may cure the patient.

DISCUSSION.

DR. H. F. RAND: I was exceedingly interested in the papers by Dr. Bush and Dr. Simmons. I believe that a surgeon, above all others, should be a consecrated man,—one who has the fear of God, one whom the Spirit of God will lead to do unto others as he would like to be done by himself. Probably there is no other part of the medical work where there is so much injustice done as along this line. I know the little experience that I have had for a number of years in this line has taught me this. During the first year I was in Colorado, over fifty patients came to us with their minds set on having an operation; but of this number only two had to have surgical work done; and I have seen similar conditions since then. If the surgeon is properly trained, he must certainly be capable of diagnosing the case. If he is not capable of doing it himself, he ought to consult a man who has had the necessary training.

In surgical lines, the treatment that comes before and after the operation often has really more to do with saving the life of the patient than the operation itself. In many hospitals the patients are simply brought in, and may be operated on that day without any preparation at all. The body is already loaded with poisons, and giving the anesthetic means death to the

patient, because the preliminary preparation was left out altogether. Some busy surgeons in the large cities simply come in and do the operation, and know nothing of the patient's condition before or after it. Students recently graduated from the different colleges are put in to do this work, which the surgeon himself ought to supervise closely.

Conservatism in surgery is certainly needed, and it is needed with our own physicians. Some of them have an idea that any person can perform an operation. There is something more important than a surgical operation, and that is to save life, and do things that will help the patient. If the patient needs an operation, we would do better work by first securing an experience rather than by going hastily into something for which we have not had the training.

DR. G. T. HARDING: I wish to express my appreciation of the papers that have been read; for I am heartily in accord with the sentiments of both papers. I feel that in the past we have raised into too much prominence the surgical features of our institutions, and other features have thereby suffered. It seems to me that it is as great a work to teach people how to live to prevent operations as it is to operate when it is necessary. Just a few days ago I was talking with a young physician who is a surgeon. He said that it is impossible for a man to be at the head of an institution unless he is a surgeon; that he would have to take a back seat in a very short time. This ought not to be so. The surgical work of our institutions is simply one of the important features, and being an important feature, we ought to aim to do it with all the skill that is possible, and with that knowledge the profession at the present time possesses concerning surgical diseases.

DR. HEALD: I call to mind a remark that I heard a few days ago: "The success of our sanitariums depends on our female surgery." If a man starts in to work with the idea that he is going to build up a business by his surgery,—you know the working of the human mind: the mind reaches out in the direction of our desires. If I have a certain food, and I know that certain food is putting money into my pocket, that food is a good food, and I am going to push it for all it is worth. If I think that a certain operation is going to put a large amount of money into my pocket, or into a sanitarium over which I have charge, the same thing will work; that is, while I may be honest with myself, or try to be honest with myself, and think that I

am honest with myself, I will reason that that operation is the best thing and the only thing that can be done. Our minds work in the direction of our wishes, and so it is a good thing for us to study this phase of the question.

Regarding one remark in the first paper, it seems that the doctor had in mind especially the work in this country where we have surgeons; but when we send a man to China, India, or some other country, he has to do everything that comes to his hand. It is either do that or death to the patient. I know Dr. Bush would fully coincide with this idea, that a man, even though he be a surgeon, must also be a general man; he must be everything, for specialists can not be found in many of our foreign fields.

DR. E. P. HAWKINS: I believe that in the advancement of every science there is the advance of the subject, and later a reaction comes in the history of it. We know that this is so in surgery more than in any other line. In going back many years we see that the pendulum has vibrated back and forth between conservatism and radicalism. Perhaps now is the time when it is vibrating toward conservatism. We progress in surgical science by experience, and it is not strange that these brethren can tell of cases where surgeons have made mistakes. We are human, and especially in considering the wonderful mechanism of the human body, we are likely to make mistakes; but on the other hand, I believe that the development of surgery is a very important branch in medicine, and I believe that none of us as physicians can disregard it, even if it is only in making the diagnosis. But all of us are called upon to do some surgery, and the more knowledge of surgery we can have in carrying on our work, the better prepared we are for doing all-round work.

I remember when I first began practise that the case of a gunshot wound was brought to me, and the man was lying almost in a dying condition. He required a very serious operation at the time—the repair of the bowel, and there was no time to wait for a surgeon. I had to act as the surgeon. And so we find cases that are not so serious as this one, where we are required to do some surgical work. I believe we have allowed the specialists to do too much of the surgical work; not that we want to experiment or become proficient by practising upon other people, but surgical science is a much more exact science now than it was twenty years ago. We can tell better what is necessary, and what would be the best course to pursue, than we

could years ago. There is much less danger in what is called a radical operation, because we now know the cause of many of the deaths following operations. I believe that in all of our institutions we should encourage some one to become proficient in the line of surgery. To become proficient does not mean that they are to be deficient in other lines of work. I think it is a mistake to pick out two or three men in the denomination, and leave the surgical work to them.

DR. W. A. GEORGE: The word conservative means the opposite of extreme. Now to be conservative does not necessarily mean that we are to drop operations entirely; that would be an extreme. Neither does it mean that we are to operate for everything. I think the idea in these papers is to avoid extremes; for extremes are dangerous. There is nothing worse than an extreme. A person will let people die who might be saved by conservative surgery. If he takes the other side, he will operate, and cause suffering sometimes when it is unnecessary. I think the important point in these papers is that we should avoid extremes. We are not to launch out into surgery beyond what we are fitted for. We might better send a patient to some surgeon who has a good reputation than undertake an operation we can not do; and yet, as has been remarked, our physicians must have training; they must some day do their first operation; but they should not begin on a very serious case.

But there is another point brought out by Dr. Hawkins that I think is important. Shall we, in our conservatism, allow patients who should have an operation because they will not recover in any other way — shall we allow these to go from our sanitariums, while by proper study, practise, and care we can operate upon them in our sanitariums? The important thing, it seems to me, that has been suggested is that we should have in our sanitariums some one who is fitted to do this line of work, or at least be able to call some one from a nearby sanitarium.

Sometimes it is not the best thing for a young physician to undertake severe cases. I have been shocked sometimes when I have heard of some of our young doctors undertaking a serious operation for the first one. Success in such a case is either what the world would call good luck or because the Lord had pity upon them and helped them. I believe that if we are really in earnest and doing the best we can, the Lord will help us out in a remarkable way; and will overrule and help our physicians, not only in surgical work, but in all kinds of medical work.

There are many who need operations, and any conservative surgeon will say at once that the case should be operated upon where the regular medical profession are overlooking these things entirely. We have scores of them where an operation is the only thing that can give them relief. Shall we let a person go on year after year, and suffer constantly simply because there is no danger of his dying at once? Shall we allow suffering to go on when a comparatively simple operation will restore health and comfort? I think it is conservative surgery to operate on all cases where we are satisfied that the operation will give relief, and nothing else will. Yet I think there is danger of our doing operations where proper treatment would produce the same benefit.

DR. H. F. RAND: The position, I think, that we all should take is that we have certain principles given us which, if carefully followed, will prevent what might later necessitate surgical operations. Gall-stones, for instance, are produced because a man allows his digestive tract to get out of order. If we can teach people to live properly so as to avoid this condition, it is a great deal better than to allow them to go on and develop the condition which can only be corrected by surgery. There is a great amount of work done to-day in the line of surgery which, if people were taught to live properly, could be avoided. It is better to prevent wrong conditions than to correct them by surgery. But, as we have to do some operating in every institution, we ought to have a man that can do it properly, a man able to see just when an operation is needed, and do it only when it will put the person in a condition so that he can better glorify God. Sanitariums are planted for the greater purpose of teaching the people how to live.

PRIVATE INSTITUTIONS AND WORK.

BY E. P. HAWKINS, M. D.,
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I HAVE been asked to write a paper on "Private Institutions and Private Work." A definition of this subject, I believe, would be: The work of the medical missionary carried on without any supervision of, or financial relation to, the General Conference or its auxiliary organizations. There is a history of this class of work being done for many years in the past; but it has

a peculiar interest to us now from the fact that this branch of the denominational work is undergoing a reorganization, and the unsettled condition of some of our larger institutions has had the effect of throwing many of our earnest medical workers upon their own resources. To what extent should we encourage or discourage these workers, is the question for us to consider.

To arrive at a working basis in this discussion, I believe we should take a comprehensive view of the medical work in general, and its relation to present truth. That there should be a close relation between the medical work and the evangelical, I believe all here will agree. We find many incidents in the life of our Saviour to show us that these two lines of work are to be carried along together; for he went throughout the cities of Judah preaching the gospel and healing the sick. In his commission to the twelve, when he sent them out to the cities of Judah, he said, "And, as you go, preach, saying, The kingdom of heaven is at hand. Heal the sick, cleanse the lepers, raise the dead, cast out devils. Freely ye have received; freely give." Matt. 10:7, 8. His instruction to the seventy was similar: "And heal the sick that are therein, and say unto them, The kingdom of God has come nigh unto you." Luke 10:9. Pure and undefiled religion is defined as a practical sympathy with distressed humanity, and at the same time keeping aloof from the sinful practises of the world. Nowhere do we see a divorcing of these principles, or any instruction that would lead us to the conclusion that they should be carried on separately. Nor do we find that some of these sent out were to be medical missionaries, and some evangelists; but this combined work was to be done by all. I do not mean that the gifts of the Spirit did not vary in different individuals, but that practical, genuine sympathy for the suffering, and the giving of the gospel in some way, must be the work of every purely religious life.

But some one may ask, Is not the relief rendered to a suffering human being a religious act in itself? I believe not. All over the world are thousands of physicians who are doing efficient work in some lines to lessen the sickness and suffering of mankind, to develop the most successful methods of surgery, in research to find the cause of contagion and the best means of preventing its spread. But are they living religious lives? We find also that a vast amount of money given every year for benevolent purposes by those who do not believe in the gospel of our Lord; but will these benevolent gifts save them? What,

then, is the vital connection between these kind acts to the suffering of mankind and the religious life?

The apostle Paul says in his letter to the Corinthians: "Though I bestow all my goods to feed the poor, and though I give my body to be burned, and have not charity, it profiteth me nothing." Here then is that secret principle, *charity*, which makes the ministration of the nurse or physician or the benevolent giver a part of his religion. This genuine love for the suffering and lost human creature is the warp into which we weave our occupations to form a beautiful fabric — a character of eternal value.

But just what is meant here by the word "charity," or love? Let us consider further to find, if possible, the apostle's meaning: for it is a term capable of many definitions. He gives us in the following verses some characteristics of that genuine charity of which he is speaking: "Charity suffereth long, and is kind; charity envieth not; charity vaunteth not itself, is not puffed up; does not behave itself unseemly, seeketh not her own, is not easily provoked, thinketh no evil, rejoiceth not in iniquity, but rejoiceth in the truth." Notice the climax, "Rejoiceth in the truth." These are some of the characteristics of that unfathomable love of the Father when he gave his only Son to die for the sinful race. It is a love that will not be satisfied with the simple giving of comfort in this life, as food and raiment, and freedom from pain, but it is a love that reaches into eternity, in that it earnestly seeks the patient's salvation. Giving a cup of cold water, then, to the weary traveler, is a kind and loving act in itself; but when given "in His name," it shows a love infinitely greater by giving the thirsty soul a draft from the fountain of salvation.

The nurse, who, by long and patient labor, brings her patient from the pain and suffering of the disease of the body does a noble act; but if she goes "in His name," and, while ministering to the physical needs, aids the patient to free herself from that load of sin that would eventually carry her to destruction, she does an act as much greater as the eternal life is greater than this life. Then what is the measure of our success as medical missionaries? Is it the large number of patients we can get to come to our sanitariums? Is it the large number of successful operations we perform? Is it the financial success of the institution or its popularity? — No, indeed! It is the number that we bring to see and accept the light of present truth.

The blossom of our medical effort may be beautiful and give great fragrance, but it is transient, and may fade. It is only the ripened fruit for the heavenly garner that will endure. Then let us ever keep before us our true mission, and when we are called to see a patient, may we remember that the Lord wants us there for a definite purpose, and that purpose is to represent him.

With this general view of what I believe the work of a successful medical missionary should be, let us come to the discussion of the subject of private institutions. Before every Christian there come two important questions, when deciding what his life-work shall be. These questions are: How can I earn my living? and, How can I work for the Lord? I believe these questions should be answered together, or rather asked together, in this way: In what occupation can I do most for the Lord?

If this question were answered honestly by all, we would find one man going into the ministry, another going into one of our schools as a teacher, another as a Bible worker, fruit-grower, baker, canvasser, nurse, or physician,—each going where his talents can be best used in the service of the Master. But when we consider the vast amount of work to be done for the world at this time, we see at once that some form of organization or division of work is necessary to prevent confusion, and to carry on the work systematically and thoroughly. But such an organization can not supervise all personal work, for the rank and file of our people should all be workers.

It would seem strange, indeed, if one in private life should not feel at liberty to give his neighbor a Bible reading, although some of that work is under the supervision of the different conferences. He may be in such circumstances that he can not go away to a city, and hold Bible readings. Such an independent worker, I believe, should have the advice, sympathy, and moral support of the conference brethren, and he in turn should strive to live and work in perfect harmony with them. The same conditions may control the work of the canvasser, and, in fact, much of the missionary efforts that are carried on. But let there be harmony and unity of action.

There are two extremes in this line of work that should be avoided. One is a too rigid organization, an organization that will not tolerate any work which is not directly under the supervision of its leaders. These leaders may hold the same attitude toward private workers as the disciples held when they saw some

one casting out devils in the name of Jesus, "We forbade him, because he followeth not us." The answer of our Lord will apply to those who are working independently of the organization, but are doing so in the Saviour's name, with firmness and loyalty to the truth.

But there is another extreme which is, perhaps, more dangerous than the one just mentioned, upon whose hidden rocks many have made shipwreck of their spirituality. It is in assuming this attitude: "My medical work is entirely different from the conference work; and why should I in any way receive counsel or advice from them?" His medical work increases, and takes up more and more of his time, so that even attending prayer-meetings and camp-meetings is done at a financial sacrifice, and we find him drifting, drifting away. The Sabbath becomes less sacred. The near return of our Lord, which has been such a pleasure to contemplate, seems to him further away. The truth which was once so clear and bright to him, fades. The mistakes of his brethren and of the conference work are exaggerated correspondingly, and a union with some worldly plan or worldly people seems very inviting.

The only safe plan for the private worker and his institution is to keep in the closest touch with his church and his conference and with the truth in general, to make his institution a true Seventh-day Adventist institution by the closest co-operation with the conference in all lines of work, receiving counsel and advice from them, and in return giving to the conference his support, instruction, and counsel in his special line of work.

All other things being equal, I believe the best policy is to have the institutions under the control of the State or the Union Conference; but I believe this is much less important when there is an intimate relation existing between them, and co-operation in all lines of our work.

We find that many of our conferences are not in a financial condition to originate a medical institution and carry it forward. The financial burden of church and conference schools, the demand for foreign help, and the carrying forward of the evangelical work, severely tax the resources of our people, so that in some cases, if the conference could be relieved of the financial burden of carrying a medical institution, it might be a desirable thing; but it should never free itself from the spiritual supervision. On the other hand, an earnest, aggressive physician, with all the financial responsibility resting upon himself, with

the aid of some faithful nurses, may build up a successful institution, which should be a memorial for God, and a place from which the light of truth should shine.

I believe every conference should plan for a broader and more thoroughly systematic education along medical lines. That our people are far behind in their knowledge of health principles and rational care of the body is evident from the many extremes we see among them, and this educational work I believe every conference should encourage and do. At all our camp-meetings and general meetings, these topics should receive attention, and what vast possibilities lie in the distribution of our literature! This should be done by every member of the church over all the conference field. This will create a constituency that will soon support an institution in every conference and in every country where we have a strong body of our people. Then should not our General Conference, our Union and State Conferences, take a friendly attitude toward loyal private health institutions, looking after their welfare, and encouraging them to be faithful to their work of being light-bearers to the world?

DISCUSSION.

H. M. J. RICHARDS: I fully assent to the spirit of this paper. I am sure if this spirit takes possession of us, the whole question of unfortunate criticism that sometimes mars our enjoyment in these lines of work will be forever withheld.

G. A. IRWIN: I suppose the object of this meeting is to get out all the facts and light we can in regard to the various questions that come up for consideration. The question before us seems to me to be of very great importance, and it is one that should receive careful consideration. Organization is what has really made us the people we are. I believe in just what the Testimonies say in regard to it, that organization will continue in the denomination until the work is finished. And that there will never come a time in connection with the third angel's message when we can do away with organization, and let any one go here and there just as he pleases. Some communications came to the Colorado Conference and to the Boulder Sanitarium that bear directly upon this question. From them I will read:—

“Independent Sanitariums.—Persons who feel at liberty to act from selfish impulse, and to establish independent sanitariums for personal profit, have not properly considered the influ-

ence that such a course of action has on the world. In many cases those who patronize these independent institutions do so because they think that they are conducted upon unselfish Christian principles, in harmony with the Seventh-day Adventist denomination, whereas, in reality, they are not religious institutions in any serious sense.

“From time to time men have started out in the establishment of independent sanitariums with the selfish desire to acquire something to benefit themselves. They have not been particular to take into consideration the effect that their actions would have upon the work of institutions established in the order of God. And by misrepresentation of institutions already in operation, they have labored to divert patronage to themselves for personal profit. Thus by selfishness they are led on and on to do injustice to the institutions established upon an unselfish basis, for the upbuilding of the Lord's work.

“Such men will make a desperate effort to gain the supremacy. A spirit will come in that Christ can not endorse,—a spirit that leads men to attempt to appropriate to themselves the reputation of other institutions. Those who think that it is their right to use for the building up of private gain the reputation of institutions which are working upon an unselfish basis, are making a sad mistake.

“God will not bless those who work without taking counsel with their brethren. All have a work to do. But we must view matters from every side. No one should receive the idea that God has appointed to any man the work of personally building up a sanitarium, even in a new field, without counsel with his brethren. Any one who supposes that in himself he is a complete whole, and that he can safely follow his own mind and judgment, is not to be trusted; for he is not walking in the light as Christ is in the light. There are many who have false views of what they are doing. God desires those in his service to move wisely. He desires them to have clear ideas and deep spirituality, and to weigh carefully the motives which prompt them to action.

“There will ever be among us irresponsible men, who have a very limited conception of the important work which the Lord designed to have done in our institutions,—the work not only of caring for the sick, but also of disseminating the precious principles of health reform. Our sanitariums are to be schools in which lessons are to be constantly taught, by word and by ex-

ample, regarding the value of these principles. In these institutions, the nurses, helpers, and the patients also are to be taught to bring the leaves of the tree of life to sin-sick souls.

“Those who have failed of conforming their life-practice to right principles can not do this work. They need to be thoroughly converted. Those who become so confused as to engage in sanitarium work for selfish profit will not be prospered in their spiritual life, and will be unable properly to influence others aright.”

The conversion of souls is one of the objects of these institutions. The thought that impressed me was that no one should establish an institution, not even in a foreign land, without counseling with his brethren. The question is of no small magnitude. These little institutions are found everywhere. Brethren who are here from the Pacific Coast can speak in regard to that matter. It seems to me it ought not to be passed by lightly, nor be controlled by our personal feelings. We ought to ask God to so enlighten our minds that we will not make mistakes. There is a difference between organizing an institution for private, personal gain and for missionary effort. I believe every soul has been called upon to engage in the latter; but when it comes to establishing an institution like a printing plant, a sanitarium, or a school, it seems to me that the case changes. We do not look with very much favor upon persons in our denomination who establish a printing plant and go to publishing what they claim to be the third angel's message, without counsel or direction. We have had such things as that; but in many instances the things that they publish do not represent the truth, but it passes to the world as Seventh-day Adventist literature. I do not say that all of these private sanitariums do this, but we need to give this careful consideration in a meeting like this. The positions taken by this body will influence not only this country but the whole world. If I understand the scope of this convention, it is really a world-wide convention in its influence, and therefore every question that comes before us for consideration should be considered in view of the fact that it will have a far-reaching influence.

QUESTION: Do you understand there is anything in this paper that is out of harmony with what you have just read?

G. A. IRWIN: I am not sitting in judgment on the paper, but I just want to direct attention to this phase of the question. For instance, on the Pacific Coast the organized work has had to

meet with a great many difficulties. Men go there and connect with the institution for a time, and because they can not have their own way about everything, they leave, and start a private sanitarium. Then all the influence they had while connected with the organized work they gather around them; and so it has gone on until the conference institution has a heavy debt resting upon it, and the Spirit of the Lord is calling upon us to make special efforts to pay off the debt. It seems to me this thing is worthy of careful consideration by this representative body of medical men and ministers. I believe the Lord will give us light along these lines if we seek for it. We have had to face this thing recently, and it was this condition of things in one State that called forth this communication from Sister White.

I understand wherever there are similar conditions existing, it will be applicable. The Lord does not say one thing at one time and another thing at another time. Those brethren wanted to start an institution at Canon City. The Lord knew the outcome of that, and the influence it would have upon his work, and he called a halt upon the enterprise. We should study what the Lord has said to us. This is what I plead for in these meetings.

H. M. J. RICHARDS: As I have approved of the paper so strongly, I feel like saying a word more. As the Doctor has read the paper — it seems it me that he must have read the Testimony which emphasizes the importance of not starting without counsel, and against starting for selfish objects, and the importance of holding up the truth in the institutions, and being constantly in counsel with the conference.

R. C. PORTER: It seems to me this question might appear different in different localities. In Missouri we have no sanitariums, and thus far the brethren do not care to undertake them; for when we see the large indebtedness incurred and all the difficulties encountered, we ministers are not very well prepared to carry on sanitariums and medical work. We have felt that this work could be more successfully managed if it were under the direction of doctors who would take the responsibility of finances, etc. We have felt that this would be better than to have the conference undertake to operate such institutions. I would not in any way favor sanitarium work independent of counsel. It ought to be done in close counsel with the conference committee and laid before the brethren of the conference. For any one to start in opposition work would conflict with the

best interests of the cause; but to start up in some new place where the conference is not able to carry on the work, and the doctor is willing to counsel with the brethren of the conference and to make no move without their approval, and the doctor works to build up the institution and the needs of the third angel's message,—it seems to me there is room for this individual sanitarium work to be successfully carried on.

R. A. UNDERWOOD: I thought the Doctor's paper very good, and after Brother Irwin read what has come to us from the Lord through the Spirit of prophecy, I thought the two were in perfect accord. We are admonished in that Testimony that individuals are not to start up independent sanitariums without counsel, and for selfish purposes. Dr. Hawkins has the moral and spiritual support of all the brethren in Minnesota because he is working in co-operation with the work of the message. The same thing is being done in other fields. I can not say anything that would throw discouragement on brethren and sisters who want to start out in work of this kind, who want to start it on a self-supporting basis, and at the same time want to cooperate with the conference work the best they can, but carry their own financial responsibility. I can not help saying I wish there were ten thousand such self-sacrificing workers that we could scatter all over this field. But where there is already an institution planted by God, and individuals come and start right in in that place and commence to use the influence of that institution to build up a private enterprise, it seems to me the case is entirely different.

I. H. EVANS: If I understand the Testimonies from which Elder Irwin has read, in the use of the word "independent" it does not mean self-supporting work in harmony with the conference and with the organized work, but that the one in independent work absolutely refuses counsel and advice. I do not think this word, used as it is, means self-supporting work. We believe in the canvassing work. We do not pay our canvassers directly, but indirectly. We put the price on our books, and ask our people to go and sell the books everywhere, and the increase from the sale of the books makes them self-supporting workers. They are carrying forward the work as much as the minister, but they get their pay in a different way. Evangelical work is supported by the tithes — the canvasser is supported from the commission on the books he sells. I believe this is right. When a doctor or a nurse takes hold in counsel with the conference, we will see

the brethren helping them and standing by them. Sister White does not say that the physician shall not go into cities like St. Louis and Kansas City and operate a sanitarium. I do not understand it that way; but she says that men should not go out independently of the denomination and establish an institution for mercenary ends. We need an army of men who will go out and establish self-supporting institutions in counsel with the brethren. I should say the more the better of this kind of laborers, when they do not bring in conflicts with our organized sanitarium work. I believe it is the sentiment of all of us that consistent self-supporting work does not mean independent work.

MEDICAL MISSIONARIES AND PROFESSIONAL ETHICS.

BY F. A. WASHBURN, M. D.,
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As medical missionaries we should never lose sight of this greatest of all facts, that we are Christians, and hence missionaries. I believe that when we fully understand that our work as physicians is indeed connecting us with Christ, the supreme importance of our work will be appreciated as never before.

Christ was the greatest missionary the world has ever known; and one of the most important ways through which he gained influence over the *souls* of men for good, was in destroying the power of sickness and disease over them.

In the creation of man, the soul and body were united. And in the work of redemption they are not to be separated.

Let us study the subject first as to work for ourselves; second, as to work for others. Under the first head would come the acquirement of culture and refinement, education general and medical, and our individual religious experience.

By the terms culture and refinement, I refer to all that goes to make the perfect gentleman, as well as neatness in habits and dress.

Never be embarrassed in meeting the wealthy and those called great; have too much respect for yourselves and your profession. Do not think of the impression you are making on others, for if you do, the same thought will, by a direct law of

nature, enter their minds. It will be much more useful to decide upon the characteristics of the *other* individual, and your own individuality will be felt far more. Be careful that your language is refined. Be erect and dignified in bearing. If this is not natural, it should be cultivated. First impressions are always hard to eradicate, and often are the only ones many ever receive of you and your work.

We are ambassadors representing the greatest of all governments, and let everything about us indicate it, even in our dress. I have seen doctors with collars and cuffs so dirty that it was hard to believe that the original color was white; and they evidently tried to equalize matters by seeing that their shoes were not too black.

A doctor above all others should cultivate habits of neatness. I should be almost afraid to trust a doctor, at least in any surgical work, unless he had cultivated habits of absolute cleanliness. In order not to become narrow-minded, we should have a good general education. The great trouble with many doctors is that they know very little else. They act as if there were nothing else of importance, not recognizing that thousands of men have grown old studying lines of thought of which we scarcely know the names.

A man who has graduated from a college or university has at least taken a trip along the highway of education, and has had the opportunity to look down the many long avenues of thought, and see many toilers far advanced, whose hair has grown gray from a lifetime spent in one line of study. And some may be even as important as the study of medicine. But it may be said that "we can not all graduate from a college or university." We can all at least be well informed on many lines, and read something from men whose minds have thought out problems worthy of consideration. And this knowledge, thus acquired, will often be the means of extending our influence to men of education and culture who would not otherwise have been reached.

Our medical education should be the most thorough and exact. We should have some good medical journals, and a good library containing the latest books; and so we may be conservative in many things. We can take the good, and when asked can be intelligent on the subject, and tell why we do not use this medicine, or employ that method of treatment. But there is one kind of education of the utmost importance, which we ought all

to possess, and there is no excuse for not having it. It is now recognized that every minister should be familiar with the important medical facts of correct living. But every physician should be equally well informed in regard to the fundamental truths which make us a denomination, and be able to find the text which substantiates this belief.

It is recognized to-day that the old theory of the evolution of spontaneous life is a myth,—that it is an utter impossibility for life to be generated from anything inanimate. Equally true is this in the spiritual world. Only when we have the life of Christ in our own hearts can we beget it in the lives of others. We can not lead others further than we ourselves go.

A physician who has not a thorough doctrinal knowledge as well as a practical experience in the truths of the Bible, is not a medical missionary. There are many physicians of the world who are fully as well informed in regard to the science of medicine and surgery as we are, and unless we connect the religious or missionary work with the medical, we have no excuse for a separate existence.

It is a sad fact that we find our time and attention so fully occupied along medical lines that we often neglect and even forget to look after our own spiritual welfare. Things which are in close proximity appear relatively much larger than those further removed. Even so the little minutiae and round of business will many times appear so large and important that unless we are very careful it may almost entirely crowd out thoughts of the future life. There is absolutely nothing else than the old way, that we all know so well and many practise so little. We will surely grow cold and indifferent unless we set apart some time each day to the reading of the Bible and secret prayer. It is extremely hard many times for a doctor to have any regularity in this matter. But you and I have tried it enough to know that if this is neglected it is only a matter of time until we will grow cold and indifferent, and ultimately give up this truth. This is something I can not make too emphatic we must remember to practise, lest after all our care and anxiety we should at last wake up to the awful fact, when it is forever too late, that "the harvest is past, the summer is ended, and we are not saved."

Another thing, and especially in institutional work, I know from experience that it is very hard to keep the Sabbath as we should. There is so much work, seemingly necessary, to be done,

that unless we are very careful indeed, all days will seem very much alike to us.

We must remember that not only do ideals influence our actions, but our actions will also influence our ideals. In other words, when a man persists in wrong-doing, his conscience will become less acute, and his ambitions will become correspondingly lowered; so that by having to do so many even necessary and seemingly proper things on the Sabbath, having *used* the day like all others, it will *seem* like other days.

We come now to the second phase of the subject, The work for others. I will not attempt to give a complete outline of how to reach others; for circumstances vary so greatly that only a few general rules will be necessary. For if one has followed the first thought, and is thoroughly right, and filled with the spirit of the great Medical Missionary, like the psalmist his cup will run over, and others will receive of his abundance.

A physician has many times a more intimate acquaintance with the inmost thought and life of the patient than any other acquaintance; hence he is able to give advice in a way that would be remembered and acted upon. He has many opportunities for saying a word for the truth, when the circumstances of sickness or danger to the patient make the mind more susceptible to receiving thoughts and impressions in regard to the future. The physician should carefully and prayerfully study the patient from a spiritual as well as physical standpoint in order to know when to speak and when to keep silent. There are many times for both, but I know from experience that there is a danger of keeping silent too much and speaking too little for religious things. As we sit by the side of a patient who is tired of life and disappointed with the world and its pleasure, and who sees nothing but sickness, pain and unhappiness, he will many times be glad to hear of a land where the inhabitants will not say, I am sick, and to think of a world where unhappiness, disappointment, and death are unknown.

It is not only the duty of the physician but his privilege to study how and when to present these important facts, and he will be surprised to see how willing and even anxious many are to talk of these things, showing that much more thought has been given along these lines than he had supposed, and by those whom he considered indifferent. In our sanitariums and hospitals, religious literature, practical and doctrinal, embracing every phase of our belief, should be accessible; and doctors and

helpers should encourage the study of such literature, and be able to answer intelligently any question in regard to the great truths for this time. Practical instruction in the principles of healthful living should be given, allowing the patients an opportunity for asking questions on points of interest and importance to themselves. To all who ask, wisdom will be given; and to those who are thus guided, difficult things will become plain and duty a pleasure.

The next to be considered is the subject of "Medical Ethics." Webster defines "ethics" as "the science of duty." If we are truly medical missionaries, we will understand and practise the science of duty to others in the truest and highest sense of the term. We will consider our medical duty — first to our patient; second, to other physicians. These are placed in their proper order. Our first and most important duty is always to our patient, and we should never conceal the mistakes or otherwise favor the physician to the detriment of the patient. There is now no other way of serving Christ than to be serving others. The final test of the faithful follower is whether he did or did not do to "one of the least of these."

In examining the patient the one thing which I wish above all others to emphasize is thoroughness. Carelessness in making examinations has led to more mistakes and failures than any other one thing of which I know. There is a temptation many times to be satisfied with the opinion which we may have formed at the first glance, and give it immediately as an indication of our medical brightness and medical proficiency; but though this may work well for a time, it will sooner or later bring us to grief. And one mistake thus made will neutralize our previous brilliancy, and not only bring reproach on us, but on the work that we represent. If it pays to make an examination, make it slowly and carefully, noting the history and findings until the diagnosis is incontrovertible. The practise of medicine is built on the basis of a proper diagnosis. I suppose there is none who can not look back on mistakes made simply because he did not take the time to make the examination as thoroughly as he ought.

The history should always be taken accurately; but it is important that this, or the diagnosis made by other physicians, should not unduly influence your decision. Base your diagnosis solely upon what you yourself see and find, and never upon what others have said; neither admit that you find things which you

do not. As one has tersely remarked, "It is better to know a few things that are so, than to know many things that are not so."

Mistakes will, of course, be made; it is only the do-nothings who make no mistakes, and it is better to do the best we can than to do nothing.

Though it is always well to look on the bright side of the case, and help others to do the same, still it is better to make the prognosis so that the patient will be agreeably surprised rather than disappointed.

In making a very unfavorable prognosis it is usually better to grant the patient at least one chance of recovery, as it is hard to estimate the latent power for recovery the individual may possess.

The subject of treatment, though of the utmost importance, is so large that it would be impossible to enter into discussion of it in this paper. Suffice it to say, I am glad that we have a system of truth in regard to the treatment of disease as clear and logical as is the doctrine which has made us a denomination.

The system of healthful living, dietetics, hydrotherapy, electricity, massage, and general rational treatment has by its success appealed and is appealing to the masses as well as to the keenest minds of the profession at large. I was pleased a short time ago to hear one of the brightest and most successful physicians of New York present to a large class of post-graduate students some simple hydrotherapy measures (which we have believed and practised for years), as the basis of his well-earned success in the treatment of one of the most fatal of modern diseases.

In dealing with other physicians many of us have not always manifested that tact, kindly interest, and consideration that we should. Many times suspicion and antagonism have been aroused, and our influence correspondingly diminished, by undue reserve or by totally ignoring or even unnecessarily discrediting the professional opinion and treatment of other doctors in the community.

Man was designed by the Creator as a social being, and this when properly used may be one of the most important factors in influencing others for good. By coldness and reserve we may go through life with but few friends and very little influence; but when we make it our business to be sociable, and take an interest in the affairs of others, we will be surprised at the number of friends we have, and the increased influence and

possibilities for good that we possess. "A man that has friends must show himself friendly." The life of Christ, the great Medical Missionary, demonstrated this perfectly; but we should always see that we are influencing others for good instead of being led into corrupt error ourselves.

There is a brief axiom which will cover this entire subject. The statement is from one whose authority is acknowledged: "Whatsoever ye would that men should do to you, do ye so to them." This is the highest and finest rule of ethics.

Though we may have toiled long, have been esteemed great, have achieved all the success that this world can give, yet if we have not been guided by this principle, the final outcome will show that our labor has been in vain, and our life a miserable failure. But if our life has been a demonstration of this truth, though we may not have been counted among the great and the learned, and may have been unknown outside of our immediate neighborhood, and our efforts not appreciated even by those for whom we have toiled, yet in the final test we will find the object of life has been met, true happiness realized, and life a success.

THE RATIONAL TREATMENT OF ACUTE MENTAL CASES.

BY G. T. HARDING, M. D.,
Washington, D. C.

THE subject of this paper is worded so as to eliminate from our discussion all that pertains alone to the care and management of the chronic insane. To discuss the rational treatment of more than nine-tenths of the insane, who make up the chronic class, would mean to dwell upon special features of secure and hygienic buildings, upon the maintenance of kind and careful supervision and discipline, upon the selection of proper food and clothing and furnishing suitable work and entertainment for these patients.

For the purposes of our paper we will include under the term of acute insanity all cases of mental alienation that have developed recently, and those cases of a year or more duration, showing such symptoms as to give a reasonable hope for a final recovery.

As a basis for a rational therapy of insanity we must recognize the fact that the disease is a condition of the brain. As Krafft-Ebing states, "Recognition of the fact that all mental manifestations are functions of the brain leads us to attempt to affect the abnormal mental condition by means of psychic influence, in awakening feeling, thought, and will; just as the fact that insanity depends upon anatomic processes in the brain justifies an attempt to overcome the disturbance of cerebral functions by physical and medical measures." We are thus led to see, as a fundamental principle in the therapy of insanity, the necessity of a proper combination of physical and mental treatment.

To carry out successfully the rational treatment of insanity, necessitates that the physician in charge should be already familiar with the manifestations and causes, as far as known, of the various forms of mental disease, by reason of his previous experience and acquaintance with the recorded experience of others. In order to individualize in directing the mental therapy, he must thoroughly know his patient, by investigating his disease, by inquiring into his medical history, learning of his antecedents, family characteristics and diseases, his previous physical diseases, his inclinations and habits of life, and by a study of his personality and character. To direct the proper physical treatment requires a knowledge of the nature and cause of the patient's actual disease, whether it be due to certain changes in the brain itself or due to the influence of some existing general disturbance of metabolism, or certain local affections.

It must be remembered that just as there are general laws of health, in conformity with which our patients suffering from physical disease alone must be placed,—and there yet exists a distinct need of special emphasis on certain of those principles in individual cases or diseases,—even more so in the treatment of mental diseases, along with the leading of the patient into conformity with the laws of mental, moral, and spiritual health, there needs to be special attention paid to applying, in such manner as will best meet the needs of each patient, those principles most needed in each individual case.

Inasmuch as there is comparatively little that we can do to really influence the usual course of acute insanity, the rational treatment of this condition consists practically in being properly equipped and trained for the study and care of irresponsible, unreasonable, impulsive, destructive, disturbed, homicidal, and suicidal patients; in applying to the care of their physical condi-

tion all that our knowledge of disease would indicate to be needed to overcome causal and complicating disturbances in other organs, to improve the circulation, nutrition, and excitability of the diseased brain; and in influencing their physical condition by leading our patients into normal ways of thinking, feeling, and acting by means of suitable environment and associations, by the regulation of their rest and exercise, and by overcoming such disturbances as sleeplessness, refusal of food, and hallucinations.

However much we may do for a patient during an attack of insanity, our treatment will not be complete if we do not teach our patient and his friends what can be done to prevent a recurrence of the trouble and to render the disease less liable to appear in the offspring; in other words, rational treatment must in part consist in spreading a knowledge of how to prevent insanity.

Thus have we outlined the rational treatment of insanity as a disease. Now it may be worth our while to take up certain points for further discussion, and in doing so we will endeavor to elaborate upon such points as seem to us should receive more attention from those who must treat these patients in our private sanitariums.

Some one may raise the question as to whether our sanitariums should receive mental patients. Our answer is that our institutions can never fulfill their mission of carrying the gospel of health to all sufferers, and of training our medical workers to aid those afflicted with all the evils of sin, until the scope of their work is broadened and provision made for the care of all classes of disease in patients from every station of life, and thus bring our work in contact with many who can not now receive benefit from our institutions.

Our sanitariums have always received among their patients many who are in the initial stages of insanity, and thereby have done much good; for many an incipient case upon whom his friends have looked as suffering from physiologic depression, disappointment, hypochondria, nervous excitability, or nervous weakness, have been helped and the full development of an acute insanity prevented by his removal from home, enforced rest, tactful nursing, and restored physical vigor. Our sanitarium methods of regulating rest and exercise, of furnishing the proper kind of food, and the use of massage and hydrotherapy, can only be improved upon by the physician's recognizing the

true mental diseases in these patients so as to see the need of watching the patient more closely, of being more tactful, and of protecting the patient from too much moralizing and criticism.

But certain fully developed cases of insanity, where the patient's self-control is markedly affected, it is our opinion that such cases, unless of the type that runs a course in a few weeks' time and not disturbing to others, should not be received unless suitable provision can be made for them in a separate and distinct and somewhat removed department. Because these patients make up a very worthy class, and because the income derived from their care would be a decided aid in the financial support of our work, we ought to make some effort to properly accommodate such cases.

Any institution that would succeed in the care of insane patients must comply with the requirements of the State laws, which not only guard the rights of the lunatic, but also aid and protect the institution in caring for those who may be deprived of their liberty unwillingly. It must also secure the confidence of the medical profession and of the public. The physician will want to know that the institution to which he thinks of sending his patient is properly located and equipped for such a case, and conducted with the proper kind of medical supervision. He and the patient's friends will insist upon knowing that the work is carried on by honest and humane persons, and that no unkind or unjust treatment by any individual will be tolerated there.

Time will not permit us to go into detail as to the location and construction of the department for insane cases, but we may state that the location and buildings should be conducive to the pleasure and health of the patients, and so constructed and arranged as to make it practically impossible for careless nurses to permit an insane patient to commit homicide or suicide.

In institutions like ours, whose nurses and physicians are not mere hirelings nor time-servers, but intelligent, trained, and conscientious workers, it ought to be impossible for any patient, sane or insane, rich or poor, weak or strong, to be cared for carelessly, or to be treated discourteously, unjustly, or unkindly. Nevertheless, we will not be doing our full duty in caring for this class of patients if we do not give to our carefully selected nurses — those physically strong and naturally kind and patient, persevering and tactful — such training in the nursing of mental diseases as will fortify their natural qualifications by enabling them to better understand their patient's condition and his point

of view, and by making them more watchful and careful in dealing with their charge, and rendering their manner uniformly kind and firm.

In this work, as in all other matters, we must not be content to rely on our sense of right and wrong to guide us, unless we train that sense so that we will more certainly see and choose the right. Proper training of the nurses, and the maintenance of such discipline as will make it impossible for carelessness to go undetected, will accomplish much; but unless the physician sets the example of careful attention, uniform kindness, honesty, and tact in dealing with his patients, it may be expected that many nurses will become careless and unfit for this service. And let it be remembered that nothing is so unprofessional, nor does anything make such an unfavorable and lasting impression upon the patient and his friends, as for one who assumes to care for an insane patient to lose his self-control even for a moment when dealing with one. Proper management will not permit overworked nurses to be subjected to the temptations incident to caring for stubborn, fault-finding, sarcastic, and combative patients.

By far the most prominent and absolutely indispensable part of the rational treatment of insanity is good nursing, and I have for this reason dwelt at some length upon the subject. Her powers of observation, her reliability in reporting the doings, sayings, and physical symptoms of her patient, her faithfulness in executing orders, her continual watchfulness,—in fact, all the qualifications of a good nurse, must be manifested continually and in the best possible form by the mental nurse; and she must have been taught how in the experience of others, dangerous tendencies have been shown by insane patients, and how deplorable accidents may be avoided, so that she will not have to learn all these things by costly and bitter experience at the expense of her patient's welfare and the institution's reputation.

In regard to the medical treatment of fully developed insanity I must speak briefly, for lack of time. Treat such diseased conditions of the body as is needed, but be careful not to do anything that will greatly weaken the patient. Make use of proper hydropathic procedures for decreasing or increasing the flow of blood to the brain, as seems indicated. Rely upon exercise and rest, environment, diet, and hydrotherapy for calming or producing cerebral excitability. For tonic effect, nothing can be found better than the physiologic procedures which we use in

our institutions. All that we know about nutrition and proper diet must be used here, but we must not throw up our hands and do nothing if these patients refuse our manufactured articles. Give a patient almost any form of nourishing food that he will take, rather than forcibly feed him. Never let a patient lose ground because you have not made him take sufficient liquids and foods,—predigested if necessary,—even if you must give him by means of the tube passed through the nostril into the stomach as much as from two quarts to two gallons of water, normal salt solution, and liquid nourishment, within twenty-four hours. It is needless to say that the physician should insist upon perfect cleanliness throughout the institution.

Let it be remembered that there will be occasions where a very noisy or struggling patient must be quieted quickly to be kept from annoying many others, or because of the lack of sufficient nurses or suitable surroundings to enable those in charge to keep him subdued. In many such cases, where other means are not at hand, or can not be administered, or have even failed, we may then have to make use of sedative drugs. It is therefore imperative that our physicians be familiar with their effects, and know how to use them intelligently.

To speak briefly of the psychic treatment, we will but mention the words confidence, honesty, encouragement, firmness, and tact, and urge the use of such principles as are taught us so clearly in the chapter on "Mind Cure" in the "Ministry of Healing."

Concerning the prevention of insanity, we will not go into detail, although we regard the subject as of much more importance than that of the treatment of the disease. Time will not permit us to discuss it now, but let us state that it is our belief that if we will live and raise our children in accordance with the principles of healthful living, and educate them as we should, and practise temperance in the expenditure of our energy just as we do in eating and drinking, and are careful to avoid the errors in our conduct, thought, and religious life against which we are warned, this disease of the mind will be seldom seen among us.

DISCUSSION.

DR. W. A. GEORGE: I was quite surprised to notice in the circulars of some sanitariums that insane cases are refused. I was surprised because in my experience I have had some of

the best success with that kind of cases. I think the greatest satisfaction of my life is to see a serious insane case recover. Physiological methods of treatment, including the use of hydrotherapy, diet, and exercise, will do more than drugs for an insane case. We have a work to do in our sanitariums for this class. Where they are violent, it is difficult to keep them in the sanitarium; but I believe that in every institution we should make some provision for this class of patients. During the several years that I have been in the sanitarium here, we have had from five to ten of this kind of patients all the time, and we have had some wonderful recoveries, even with some brought to us from asylums. Of course there are cases that can not be helped, but the majority of these cases offer a most inviting field.

DR. H. F. RAND: This paper is certainly worthy of notice. It shows that this class of diseases can be prevented by right living. The paper notes the important part that nursing really plays in the curing of these individuals. I think of the advantages that our nurses have over the general hospital nurses. They are taught the value of the human soul. This is generally left out of the training of hospital nurses.

I have seen wonderful and prompt improvement in many of this class of cases, which from a medical standpoint seemed incurable. An illustration of this occurred a few days before I left Boulder. A patient was brought to us whose physician wired me that he thought there was no hope for the patient. They had been using drugs freely, and doing all that they knew, but they could not keep this young woman quiet. She came to us in the afternoon. That evening, after receiving some sedative treatment, she slept seven hours of natural sleep. Before coming to the sanitarium, they had to feed her through the nostril, but we had no trouble. The following day the patient took food through the mouth. She was raving all the time before she came to us, but the second day she was out in the wheel chair, and rested for seven or eight hours the next night without taking a dose of medicine. We simply used hydrotherapy, which experience demonstrates is more powerful than any drug.

I want to give you the testimony of one of the leading specialists for nervous diseases in our country, who said that the less sedative drugs used with these cases the better, and that over twenty-five per cent of their acute cases treated by physiological methods recover, and leave the asylum without using drugs.

DR. C. BUSH: There are one or two practical points that the writer of the paper called attention to that appeal to all of us; that is, the large number of neurasthenic patients who come to our sanitariums — people who are run down and melancholy; and I think we recognize sometimes that these cases need very careful treatment. I was especially impressed with the importance of physical treatment — the forcing of nourishment. I think sometimes we make a mistake in that question of eating. They come to our sanitariums, and we do not take into consideration the patient's tastes. Very often our nurses will talk to such people, and say that certain combinations of food they are trying to take are very bad. I think that is a thing we ought to be very careful about — that is, too suddenly enforcing our ideas of diet on the patient.

DR. W. C. GREEN: One point that should be emphasized in the care of insane patients is mentioned in the paper — the care given by the nurses, and the proper training of nurses to treat such cases intelligently, and sympathetically, and to use good judgment. The greater part of the care of such cases is in nursing. A case of about two years' standing came to my place. At the father's request, I called in counsel one of the best physicians of the city, and he gave no hope at all. He was a special friend of the superintendent of the State institution for the insane, where they had given up the case. By careful nursing, proper diet, regulating her habits of life, and good care for two and one-half months, she made a satisfactory recovery.

DR. E. P. HAWKINS: I believe this paper is a very timely one from the fact that the influences that produce insanity seem to be increasing, and therefore mental diseases are increasing at an alarming rate. There is perhaps no other class of diseases that is increasing with such rapidity as is insanity in some form. Our insane asylums are being crowded. The tension under which the people of the United States are living, their greed for wealth, the long hours of business, and the competition in trade, all tend to develop this disease; and we believe that condition is going to continue. And there are other things — the lack of proper diet, the improper care of the health, and the increase in many ways of intemperance; it seems as if the nervous system and the mental vision of the people of this country is being overtaxed in every line. If this is so, we certainly ought to plan to take a comprehensive view of the needs of the people, and plan for their care, especially the incipient

cases where we can do the most good. There might be a question whether we should spend our means on incurable cases.

DR. W. R. SIMMONS: I just want to speak about our institutions' endeavoring to care for this class of patients. Sometimes we are censured for not receiving them. While I think they can often be cured, we are not always prepared to care for them. Another point I wish to mention is the fact that some of the cases that are seemingly cured are not cured. They are better for a time; but when a person is once insane, we are not able to tell when he may become insane again. I would caution any one endeavoring to take care of these cases to be very sure that the patients are cured before they are allowed to go without an attendant.

I recently saw a report from a large asylum where they had turned over a new leaf in caring for their patients, endeavoring to instruct their nurses to care for their patients from the standpoint of love instead of force; and the experiment worked so well in one ward that they were adopting it all over the asylum. I believe that insane people as well as sane people can be ruled by love much better than by force.

DR. W. A. GEORGE: I would like to emphasize the importance of always being honest with these people. I think one of the most common mistakes with insane patients is to presume that they do not know anything. If you lie to them, you may be sure they will remember it. Many attendants have wrong ideas along that line.

THERAPEUTICS OF LIGHT.

BY M. M. MARTINSON, M. D.,
Graysville, Tenn.

IN the year 1666 Sir Isaac Newton discovered that the rays of the sun were composed of seven primary colors: viz., red, orange, yellow, green, blue, indigo, and violet, which are separated by refracting prisms. He also found that these elementary rays were not of the same refraction. The violet rays at one side of the solar spectrum were of the greatest refrangibility, and the red rays on the opposite side were the least, from which he deduced his celebrated doctrine of the different refrangibility of the rays of light.

Later, Sir John Herchel's investigations showed that the blue ray of the solar spectrum had the greatest chemical power,

but gave the least heat and light of the luminous prismatic radiation.

Scheel, in 1777, followed by Sennebier, found by experiments that silver salts were darkened by the blue rays in fifteen seconds, to the same extent that it took the yellow rays five and a half minutes, and red rays twenty minutes.

In studying white light and blue light we find that they act very much alike on metallic compounds. Their action is that of reduction, and rarely do they act as oxidizers (Eder¹). When we study their action on vegetable oil and animal life, we find that it is that of oxidation; the physiologists believe that the blood will absorb more oxygen than any other compound of the body.

Most of us look upon light as an energy that enables us to see. It is more than that; it helps to combine gases into compounds. We know that it will change silver salts in a few seconds of time. In the plant world light so influences the chlorophyll function that plants give off freed oxygen and retain the carbon in new combinations, such as sugar, gum, starch, cellulose, and albumen (Frennd). In animal life it actually infuses the organs with energy so that metabolic and chemical processes do take place. It changes passivity of tissues into that of activity. It may weaken and strengthen the organs of life. We must not forget that its effects on vital function may be to inhibit, yes, even annihilate, so that we are forced to protect ourselves from the sun. This is illustrated by the destructive influence of light on bacteria.

White light is revealed to our senses as heat, optical and chemical effects; and from the many experiments that have been made upon plant and animal life, we are led to believe that the blue rays, or chemical rays, are the most active as promoters of life. This led General Peasonton to begin his experiments on vegetable and animal life. And he had such success that the United States gave him a patent on Blue Glass cure in 1871; and later he wrote his book, "Blue Rays of Sunlight." He not only had good success in stimulating plant and animal life, but he also treated such diseases as chronic derangement of the secretive, perspiratory, and glandular functions.

White light is composite; it may be separated into component colored parts and reunited by a lens or prism into white light. When we separate it into its component colors, we have a

¹J. M. Eder, *Chemical Effect of the Spectrum*.

center or field of heat, one of lumination, and one where chemical changes are strongest. Heat is at its maximum at the red rays, the luminous at the yellow, and the chemical center is greater between indigo and violet; and experiments lead us to believe that these divisions have different effects on animal life.

Moeller's² Experiments show that the heat ray and the intense ultra-violet will pass through the skull of a rabbit and cause pathologic changes, even sudden death. The vessels of the brain surface were dilated, and showed ecchymosis in numerous places. He also found that when the heat rays were filtered out that the ultra-violet rays did not penetrate very deep, nor have they such actions.

Minin³ points out that certain effects of blue light are the reverse of those of white light. For instance, a granulating surface will become anemic under blue light and hyperemic under white light.

Finsen,⁴ Thayer,⁵ Kime,⁶ and many others have demonstrated that sunlight is undoubtedly the best source of light, and may be used with good results in stubborn skin diseases, and even in morbid growths. Finsen used a hollow lens 20 to 24 c. m. in diameter filled with cold water, carefully excluding the heat rays (ultra-red, red, orange, and yellow), and using the most refrangible rays (blue and blue-violet), which are the germicidal rays.

Thayer states that he has used the solar cautery over two thousand times with good success, treating indolent ulcers, parasites, skin diseases, and carbuncles, and states that infectious chancroid or the Hunterian chancre may be deprived of its contagion in two minutes, so that it will heal as a simple wound. And he "attacks boldly the malignant or morbid growths without fear of injuring the healthy tissue surrounding them."

In 1900, Kime⁷ demonstrated that strong light from his 36-inch reflector could be passed through the chest and affect a sensitive plate on the opposite side. He also reported⁸ a large

² Frennd, page 436.

³ Morrell, page 498.

⁴ Frennd, page 462.

⁵ *Pacific Medical Journal*, October, 1905.

⁶ *Journal A. M. A.*, April, 1903.

⁷ *Scientific American*, September 29, 1900.

⁸ *Medical Record*, November, 1902, page 681.

number of cases of tuberculosis healed by the strong actinic rays which he claimed to get from his large concave reflector. While his results are good, we question his technique of passing the rays through his glass twice in his reflector, and yet get a rich blue or chemical ray. All writers have found by scientific and practical experience that ordinary glass absorbs the blue rays, and this is especially true of lead glass. Not even the "X-ray" can pass it. Rock crystal is the only glass that will let them pass.

When we speak of blue light or chemical rays, we mean to include all rays of the chemical field, such as blue, indigo, violet, and ultra-violet. These rays are also known as Finsen rays. They have very little penetrating power, but are strong in their chemical effects in destroying germs. Sunburn, or erythema solare, is due to an overdose of these chemical rays. This may also be produced by the iron arc light. Yellow and red have no effect on the skin. Most of Finsen's success was due to his powerful lamps, rich in blue light.

Minin used blue light in place of cocain as a local anesthetic to deaden the pain in wounds. It served two purposes: first, to deaden the pain; and second, its chemical or bacteriological effect helped to cleanse the wound.

Blue light is being used successfully in relieving pain. Rosenberg⁹ believes that in the near future phototherapy will occupy a most exalted position as a therapeutic agent. And he has formed the following conclusions, based on his own experience:—

1. The ultra-violet light rays obtained from an iron arc of high amperage (35 ampers with mirrors) are specific remedies in acute muscular pain such as lumbago, torticollis, and pleurodynia.

2. In acute and chronic neutritis, these rays will always relieve pain, and in most cases, especially in acute form, effect a recovery.

3. The bactericidal power of the chemical light rays is easily demonstrated in an inflammatory condition of the skin which is of parasitic origin. In acne furunculosis the curative effect is both prompt and certain.

We have not said anything in regard to the sixteen-candle power incandescent light which Dr. Kellogg introduced into our American therapeutics, and later was introduced by Gibhart into Europe. The sixteen-candle electric-light bath is one of our

⁹ *Medical Record*, October 22, 1904, page 647.

best radiant-heat measures for diaphoresis; yet it does not supply our want as a local therapeutic lamp, as the three centers are not balanced. The incandescent lamp is rich in heat and luminous rays but poor in chemical rays, as shown by Finsen, Frennd, Cleaves, Morrell, and Allen.

In passing through the glass of any phototherapeutic instrument more or less of the blue or chemical rays are lost; and Thayer bears us out by saying that rays of light passed through a window pane can not be used successfully in treating disease.

By studying Abney's¹⁰ table we find that when we increase the current, we also increase the chemical efficiency as well as the luminous field. This has stimulated us to make high-candle power incandescent lamps, so as to increase the chemical center, approaching to that of sunlight, which we believe to be the most perfect light for phototherapeutic use. When we get a lamp that has balanced power up to that of cautery heat, and hung so that it can be easily applied to any part of the body, we may look for more rapid progress in phototherapy.

We believe much has been accomplished by securing these high-candle lamps. The lamp may be held at a distance, but when we wish to treat such diseases as lupus, acne, sycosis psoriasis, the lamp is brought down to almost the focal point on the affected parts for a few seconds, and is then swung away and back again. This is repeated until the desired effect is accomplished.

We believe that with these high-candle power lamps we can treat not only skin diseases, but also deep-seated diseases such as tuberculosis of bone, lung affections, carbuncles, etc. It may be necessary to protect the healthy tissues with asbestos, and use cocain and even general anesthesia in some cases.

We also wish to mention the Nerst lamp, which promises us a good deal, should it prove to be what we think it is. This is an incandescent lamp without a glass globe, and gives a high-candle power from a small amount of electricity. A 500-candle lamp only takes 528 watts of electrical energy, which is only about one-half the amount required for an ordinary incandescent lamp of the same candle power.

This line of study is not new to the scientific world, as time and energy and thousands of dollars have been spent upon it, and it is offered to us as one of the most promising fields for

¹⁰ From *Edere Ausfuhre Handb. d. Photogr. I, i, page 463.*

study; and when we get a better glimpse into the power of light we will see God's power more clearly. We not only may be able to see it, but we can apply it as a physical remedy to many cases that have baffled our skill.

DISCUSSION.

DR. H. F. RAND: The medical world is commencing to appreciate some of these great truths. We are told that in our institutions we should plan in every way to induce people to get out and work in the open air and the sunlight. Colorado is a land of sunshine, and in our State University they have been using all the appliances known to science in producing sunlight, but they find their products not equal to sunlight itself. One of the most valuable features of our institution at Boulder is that we get people to go out in the sunlight.

DR. G. T. HARDING: We never could treat our sick cases in a hospital better than to place them in an out-door colony. We found that patients who lived out there, and absorbed so many of these chemical rays that their skin became almost as brown as the Malay, improved, increased in weight, and were able to fight off tuberculosis, and we have never been able to find such improvement where we tried to furnish the patient light through an abundance of windows. Having made no special study of this, I was not aware of the fact that the ordinary window glass absorbs so much of the chemical rays. It has been our observation that the patients did better where they were allowed to absorb the sunlight as it came upon them directly, and I can speak of the value of sunlight in producing health. I am glad that we have heard this paper, so that we may more properly appreciate the natural method of securing this therapeutic aid.

DR. C. BUSH: The best surgical results have been in those cases where we have been able to get our patients out of doors. The beds are moved long before the patient is able to be moved in a wheel chair, and taken out on the porch in the sunlight; and it is an undoubted fact that a large number of patients receive definite improvement.

DR. W. A. GEORGE: It is evident that the different rays of light have their place in treatment, but there is disappointment along the line of what was at first hoped. It is important that we make use of everything that the Lord has put into the hearts of men, and yet not carry anything so far as to make a

fad of it. I think the X-ray has had its day of wonder and surprise, and its day of great expectations, and it has finally come back to the place where it belongs.

W. K. KELLOGG: I notice the paper stated that Dr. Kellogg was the first to use the sixteen-candle power lamp. I think credit is due to Dr. Kate Lindsay for first having thought of using the sixteen-candle power lamp in therapeutics.

DR. W. A. GEORGE: From that was worked up the electric-light bath.

PRACTICAL LABORATORY WORK IN SMALL SANITARIUMS.

BY W. A. GEORGE, M. D.,

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LABORATORY work is one of the important things in the diagnosis of disease. The doctor who tries to treat his patients without the use of a laboratory to assist in proper diagnosis, will certainly miss many important features in his cases.

Many things can be done in the laboratory along the line of analysis of the body fluids, the study of bacteria, and in pathological work. If the doctor has time, he can profitably spend it in this kind of work; but in our smaller institutions, where two or three doctors are to do all the work, and each one must be an all-round doctor, it becomes quite a serious question as to how much time should be spent along these lines of investigation. It is possible to spend so much time in the laboratory that the treatment of the patient will be neglected in the diagnosis of his case.

In a large institution, where a dozen physicians are employed, and the institution can afford to keep two or three persons working exclusively in the laboratory, it may be perfectly proper to go into details of analysis, and spend much time in working up special methods. There is one disadvantage, however, which ought to be mentioned in this connection. The doctor who is treating the case knows nothing about the experiments made in the laboratory, and the man in the laboratory knows nothing about the patient. This, I consider, a great disadvantage.

There are many analyses of the various fluids of the body which in some particular cases may be of great importance, but in the routine practise are entirely unnecessary. One or two

examples will illustrate this: The average patient will show at a glance whether or not his blood is seriously affected; it seems unnecessary, then, to count the cells in every case. It is, however, very important in some cases to examine the blood, and ascertain the true condition. This would be especially true in cases of anemia, to find out whether or not the patient has pernicious anemia or some other blood disease. It is of course interesting to examine the blood in case of malaria to find the plasmodium. I dare say, however, that our friends in the South would scarcely find it necessary to make this test in order to diagnose a case. It is certainly important to understand bacteriology, so that one can with certainty discover the tubercle bacillus and the gonococcus, and perhaps make a Widal's test for typhoid fever; but it would seem that most of the physicians in our smaller institutions do not have the time to warrant the establishing of a laboratory for the analysis of water, milk, foods, and the various other studies which may be carried on in the laboratory of hygiene.

Every institution should certainly have a laboratory in which can be made the simple quantitative and qualitative tests of stomach fluids, saliva, and urine. It should also be equipped with a good microscope and an outfit for counting blood. One should understand how to make all the quantitative tests of the urine, for in some cases these tests may be of great value. However, in most cases it is unnecessary to make quantitative tests. In the average case all that is necessary is to get the specific gravity, the total quantity for twenty-four hours, and the reaction; to test for albumen and sugar, and if any sediment is present, to examine with a microscope. It is well also to note the color and the odor. With a microscope one should readily detect pus and the various crystals which might be formed. It is seldom necessary to make a quantitative test for sugar and albumen, as the qualitative test, when compared with the total quantity for twenty-four hours, will show at once whether the quantity of sugar or albumen is large or small. Specific gravity will also aid in this mental estimation.

In the examination of stomach fluids a few simple tests, quantitative and qualitative, are sufficient for all ordinary cases. The method which I follow is briefly stated as follows: The total quantity of stomach fluid taken out is either measured or guessed at, which is often sufficient, and after complete filtration, the residue is estimated in the same way. If there is sufficient

fluid, five cubic centimeters are placed in each of three small beakers and three or four cubic centimeters in a small test tube or graduate. To the first beaker we add a drop or two of phenolphthalein solution; to the second, a drop of dimethylamidoazobenzol solution; to the third, four or five drops of sodium alizarin sulphonic acid solution. To the solution in the graduate or test tube add a few drops of Lugol's solution, and note the change in color.

By observing many cases I have noted that this test with Lugol's solution is a fair index of what the condition of the stomach may be. The fluid may remain colorless; if so, the saliva has continued digestion in the stomach and has digested the starch. In this case we would expect to find no free hydrochloric acid. If we get a red or port wine color, digestion has continued to some extent, but has been partly stopped in the stomach, and we may expect the presence of free hydrochloric acid, but not in great excess unless the patient has masticated the Granose Flakes very thoroughly, and thus nearly completed the digestion in the mouth. If we get a purple color, we may look for excess of acid, and the digestion of starch has been stopped at once in the stomach.

At this point, or even before making this test with Lugol's solution, I usually apply the Congo red test. A strip of Congo red paper is dipped in the filtered stomach fluid, and if it remains red, there is no free acid; if it turns purple, the quantity of acid is probably small; if it turns a dark blue, there is an abundance of acid; if it turns black, it may indicate the presence of organic acid. After applying these simple qualitative tests, we are ready to give our attention to the three beakers in which we have placed the three indicators. Beaker number one will now contain a colorless solution. Number two will contain a bright red or yellow solution (the red indicating the presence of free hydrochloric acid). Beaker number three will contain a yellowish or purple solution; if purple, no free acid is present. We now titrate solution number one with a standard solution of sodium hydroxide until the solution becomes not only pink but so dark that further drops will not show a dark color in the solution. Number two we titrate in the same way, if it is not lemon yellow to start with, until the lemon yellow appears and remains permanent. This must be done carefully, as this indicator is not as sharp as some others. Number three is titrated in the same way, if not purple to start with, until purple color remains permanent.

After making this titration, we are ready to make our calculations. Number one is total acidity. Number one minus number three equals combined acids. Number two is free hydrochloric acid. Number three minus number two equals the organic acids. In titrating several hundred stomach fluids, I have come to believe that the presence of organic acid is a very rare condition. In fact, I often find that the titration of number two is slightly in excess of that of number three. Not that such a condition is actually possible, but the indicator is not quite so distinct, and one is apt to go too far with number two.

The Toepfler method which I have described is a practical method for the analysis of stomach fluids, and I have purposely gone into details, as I find that many of our physicians have not learned this method sufficiently well to be able to finish the calculations successfully, even after going through the titrations. I believe this method is complete enough for any ordinary case, and that many of the long methods by which the relations of various functions are shown, are unnecessary and a waste of time. The important thing is to find out in as simple a way as possible the condition of the patient, and then give the time and attention to the study and treatment of the same.

In regard to tests of the saliva, I believe that the test used in the method which I have described is sufficient for most cases. It is well in some cases to examine the saliva more closely, as will be shown by the following case, which is a type of two or three cases which I have met:—

A lady came to the Nebraska Sanitarium complaining of spitting up large quantities of fluid from her stomach. We asked her to save all that she raised for a certain length of time, and found that it amounted to about one and one-half pints per day. We were suspicious that this did not come from the stomach, and upon examination found that it was nearly pure saliva, as it digested starch readily and gave no acid test. A little inquiry showed that the lady had been taking some little pills. One of these pills, when crushed and dropped into ammonia water, immediately turned black, which was positive proof that it contained calomel. We decided that the lady was salivated from the use of calomel, and after a few days' treatment and the leaving off of the medicine, this condition was entirely relieved.

I would not have it understood from what I have said that I favor a limited knowledge of laboratory methods. I believe that

the doctors in every sanitarium, whether large or small, should be wide-awake to advanced light and methods. I am satisfied that if each doctor would do his own laboratory work, he would be able to make better use of the results of the analyses than where he depends upon an expert to do the laboratory work, and merely looks over the reports himself.

There are many things to be noticed in the laboratory which have much to do in forming correct ideas of the condition of the patient when compared with his physical examination and general appearance; while if the physician does not see the laboratory specimen, and make the analysis himself, he is very apt to overlook the apparently minor points. Again, the physician who does only laboratory work doesn't come in contact with the patient, and is shut up with a specialty which gives him little experience, and does not fit him for independent work later.

Practical laboratory work is for many an irksome task, but the doctor who attempts to shirk these lines of work in his practise will miss many valuable points in his cases, and will not succeed like the one who is prepared to do all-round laboratory work in connection with his practise.

In conclusion, let me say that our laboratory methods should be simple, and yet complete enough to be of proper value as an aid to diagnosis.

DISCUSSION.

DR. G. H. HEALD: I have much interest in this paper, and want to concur with what is in it. I think that we are apt to do too much routine work in our laboratories, and, as has been brought out, too much work by persons not acquainted with the case outside the laboratory; and the person who has the case may not get so much information from a long, detailed analysis, run through in a routine way, as he would by a less elaborate personal examination in which he knows what he is looking for. He knows from a physical examination that certain things might be expected, and he will look for them in a different way than one might who is not personally interested in the case. I remember once I told a person that he had tuberculosis, and I sent out a specimen of sputum for examination, and they reported, "No bacilli." I sent another specimen, stating that I knew there were bacilli there; and they found them.

There is another phase, and that is the ability to do advance laboratory work, not in the routine way, but in certain cases

where it may be needed. Now Von Noorden has been doing some work in diabetes which it would be well for us to study. Diabetes is a disease in which there seems to be an inability of the body to store glycogen, and it would seem that the tissues are unable to use sugar in any other form. They are calling for more sugar. They are like the man out in the ocean who has water all around, and can not use it. Von Noorden has been having great success by putting diabetic patients on a limited carbohydrate and proteid diet (the proteids forming sugar as readily as the carbohydrates), and gives them considerable fat, and green vegetables. In a short time the system begins to utilize and store up glycogen, and incipient cases will be brought back to where they will tolerate a certain amount of carbohydrate. In more advanced cases there is danger of poisoning from diacetic acid and oxybutyric acid. These things are produced, as we learn, from the breaking of the fats to produce sugar. Now if a person, by daily quantitative examination of the urine for sugar and for diacetic acid, etc., knows just how far to give fats, and when the danger comes, so that he should begin to feed his patients carbohydrates, he will be able to bring many patients out that would otherwise be lost.

DR. W. W. WORSTER: I am very glad to hear this paper from Dr. George, and to learn that he has found from experience that it is not necessary to carry the long routine into practise in every case. It was during my stay at Boulder, Colo., that I began the use of the Toepfler method, and found that in practical use it was just as good as the other.

There are cases when you only get up a very small amount of stomach fluid, and if you see that you will run short of fluid, instead of taking three beakers, you can take only two, adding to the first the dimethylamidoazobenzol and the phenolphthalein, titrating until the red color leaves for the free hydrochloric, and then continuing until the pink color appears for the total acidity. If you are careful, and note the exact number of cubic centimeters of sodium hydrate solution you run in, you can add enough water to make it a half or a third dilution. From this you can estimate the sugar by Purdy's method. I only do this where the fluid is very small in amount.

It is right for all our sanitariums to have the best-equipped laboratories they can afford; but for our smaller institutions the plan outlined in Dr. George's paper covers all that is necessary.

I want to emphasize one point,—that of the physician who

has the case in charge doing his own laboratory work, or having it done under his personal supervision. After I have examined a case supposed to have tuberculosis, who can put more interest in the search for the bacillus than myself?

DR. H. F. RAND: Laboratory work is one of the most valuable agencies that we have given to aid us in knowing the true condition of our patients, and I think every institution could have just what this paper recommends. The larger institutions can go into these things a little more thoroughly.

I know of one city having about seventy-five physicians, and only two physicians that can do laboratory work; and when we come to our State conventions, this lack is seriously felt.

In every one of our institutions the physician should have sufficient knowledge of bacteriological, microscopical, and chemical work to qualify him for exact diagnosis. For more complicated laboratory work, we can go to our State boards of health, where complete laboratory privileges are provided. I am sure that if every one here will try to follow the simple outline that has been given here, he will find it of great value.

DR. W. R. SIMMONS: One point I would like to mention. You have all spoken in favor of the physician's doing his own laboratory work. I believe, where it is not possible for the physician to do his own laboratory work, that it is well to interest his assistant in the case, and tell him about it, and then he will look for that thing. Very often, while we can not go into all the details of the work ourselves, before the examination is complete, if we find time to run into the laboratory and see what the other doctor is doing, and interest him in the case, he will be more apt to find things that we would find.

DR. F. R. WALTERS: What I have to say is not exactly along the line of laboratory work; but I was interested in what the Doctor had to say about diabetes. I heard something in Cleveland which I think should be of special interest to us. One of our colleagues there, who was very much interested in laboratory work, and especially in stomach examinations, analyzed many stomach fluids which we ordinarily would not think necessary. In several diabetic cases he found that washing out the stomach after he had given the food, made a marked improvement in the cases. The urine was tested every day, and they noticed that the amount of sugar decreased daily. This procedure was conducted in a number of cases, and he found it improved every one of them — just the simple washing out of the

stomach. Observers are quite enthusiastic over it, and some of the medical men have said that it is almost a specific in the case of diabetes.

DR. H. F. RAND: We have tested that recently in two or three cases with marked improvement. We followed this method with a young man whose urine had fifty grams of sugar in twenty-four hours. In just two weeks' time there was not a trace of it. We simply followed the lavage method outlined here.

DR. G. T. HARDING: It may do to say that in the examination of the stomach contents of mental cases,—various cases that come into your institutions where the patient's tongue is dry, lips dry, coated tongue and foul breath, and refusing food,—that it is well to make an examination of the contents of the stomach. We have been in the habit of forcibly giving such cases a test meal by means of the stomach tube, in an hour removing it, and in our examinations we found practically all of those cases had absolutely no free hydrochloric acid, and the combined acid was much diminished. So we found by making a practise of giving the mineral acids that in a short time the patient was taking food of his own accord, because it created an appetite. We had to give the mineral acids because our patients would not lie down and receive prescribed treatment after meals. In some cases of depression, where they abhor food, we have found the same lack of free hydrochloric acid. If you have such cases, and can not make a test meal, you are almost safe in offering with the food this addition to the meal so as to aid their digestion, and in a short time the patient desires food of his own free will.

SYMPOSIUM OF MEDICAL MISSIONARY WORK.

DR. E. P. HAWKINS: The conditions in the world to-day show us the great need of medical missionary work. Medical science has advanced as rapidly in the past few years as other sciences have, but this advance in knowledge has been kept largely within the profession, and not given to the people at large. We therefore find the greatest ignorance existing among all classes of people in regard to things medical. The fact that this ignorance exists appeals very strongly to us.

What are some of these deceptions? — The thought that there must be for every ailment some remedy in the form of a medicine to drive away that diseased condition, is a deception prevailing everywhere. People think that if the physician could only know the condition of the body well enough, he could find some specific remedy to apply to every curable case. This deception leads directly to the people's accepting all sorts of measures that are designed to deceive them and get their money. So we find the people in general flocking to everything that claims to cure — Christian Science, hypnotism, spiritualist doctors, and all sorts of quack remedies and forms of various kinds. Millions and millions of dollars are spent every year by people of this country in their search for some panacea that will relieve their suffering.

Another deception which the enemy of mankind is placing before the people is to lead them to disregard the relation between their manner of living and their condition of health. That seems to be wonderfully hidden from their minds, as they do not reason from cause to effect, although it seems the simplest thing in the world to us who have spent some time in the study of the causes of disease. It seems to us the easiest thing in the world to see why people are suffering in the way they are to-day with preventable ailments.

The decline of morality in the world is accompanied by an equal decline in health. This was illustrated in one of the papers presented on nervous diseases. It plainly brought out the unfortunate condition of a large part of our population, showing that nervous and mental diseases are progressing at an alarming rate; and what is the cause? — It is easy for us to see. The great tension in business, the competition, the desire for wealth, and the seeking for pleasure, is destroying the strength of the mental faculties and of the nervous system, so that we see institutions for the insane rapidly filling up. States have to increase their facilities every year to accommodate the large number of these cases. Yet we know that both the cause and the dreadful results could be prevented in a large number of cases.

In regard to the great increase of gastro-intestinal troubles, we can here say, also, that it is almost impossible for us nowadays to find a person who has a thoroughly sound digestion. Appendicitis is increasing, peritonitis is increasing, and gastro-intestinal diseases in general are increasing; and what are the causes? — We find people in general pay very little attention to

their manner of eating, their time of eating, what and how they eat; so that in this respect the world at large is growing worse. We all know how common that dread disease, tuberculosis, is in the world to-day; yet, through the influence of the medical profession, knowledge has been disseminated to such an extent that in some districts tuberculosis is on the decrease.

But there is another disease which is increasing at a rate that we, perhaps, have not noticed. Dr. Parks, of Buffalo, made the statement at a medical association about two years ago that if cancer increased in the next ten years at the same ratio that it has in the last few years, more people would die of that dread disease than at the present die of tuberculosis, and we see his prediction in regard to this being rapidly fulfilled. What is the cause of this? This may not be so easily answered. But a hint is given us by the Spirit of prophecy that at least one cause for the rapid increase is the excessive use of flesh meats, which we see so prevalent everywhere.

Is the condition in the spiritual world any better? Do we find here any better condition than in the physical world? — I think not. We find in spiritual things that they do not see the truth — the plain teaching of the gospel — as they should. They pay attention to higher criticism, and do not see the gospel in its simplicity.

Then what is the great need of the world to-day? It is certainly a campaign of education along both of these lines, and that is the call of this denomination to show the people where they may improve their health, where they may prevent the disease by right living, and how to recover from sickness by simple, rational methods; to have them know the benefits of proper exercise, of a simple regulated diet, and also to bring them back to see the simple gospel as it was given by our Lord. Combining these two lines together, we have medical missionary work. This is our work.

DR. I. A. DUNLAP: I fully agree with what Dr. Hawkins has been telling us, and if that was the only side there were to this picture, I should say that as a nation and as a world we are in a very bad condition. What are we going to do to help this condition? I do not think we ought to take the position that we should not mind, and let it go; but really do we not do that a good deal? Do we not think, Now there is a family over there, they eat their pork and drink their stimulants, and there is no use of my speaking to them; we will let them go? The first

thing you know, you are not helping anybody. Now what can we do as a school here toward helping the country all around us? This is just the very heart of the whole question. What do you come to school for? Is it not to get an education that will enable you to go out into the different fields from which you have come, and be little points of light here and there? It is proper to study the Bible, and go and teach people the Bible; but that is not the only thing.

In Walla Walla College we fitted up some treatment-rooms, and organized our nurses' course. We had twenty-two that wanted to put their full time in on the nurse's course. We took up a study of diseases, and a thorough study of our different treatments. After studying them in class, we demonstrated those things until our students could give the treatments nicely. And the people of the town were interested. They were anxious to get those treatments, not only in College Place, but the people came in from Walla Walla, so that we had from six to fifteen patients to treat every evening, the gentlemen using the evening, and the ladies the afternoon. An invitation was extended to all of the school to join us in this work. This finally resulted in turning one of the dormitories into a sanitarium, the same as you have done here, and we have made arrangements for our students' treatment class to help in the sanitarium. Within a month or six weeks, their services are valuable.

Now as soon as they learn to give these treatments thoroughly, we take them into a drill of diseases, and the treatments that should be given for those different diseases. We have four and one-half months' drill on bath-room treatments, and then four and one-half on diseases and their treatments. When these students go out to work in the different branches of the cause, and come across a sick person, they can help him out. Not only are we doing that work in the bath-rooms, but whenever called to see patients in the country, I take a student with me. We study that disease, and the student gives the treatment or helps me. I mark out a course of treatment, and the nurse gives the treatment, and follows the work up, and those people are our friends from that time. Thus these students are gaining a precious experience. We do not calculate to make doctors out of these students, neither do we calculate to make thoroughly trained nurses out of them. It takes experience to make nurses. But they can become useful men and women by such a line of work as that. We do not do it for pay always; but there are

many poor people all around there that need help, if they have not the money to pay for it. We give them treatment just the same, and the people in Walla Walla recognize it. We usually encourage our nurses to keep record of the treatments they have given. We have nurses there who have given as high as eighty treatments during the year among such people as that. So we are doing good as we go along, and getting an experience ourselves.

DR. G. H. HEALD: The first speaker of the evening mentioned patent medicines, and called attention to the fact that nearly all have the idea that for every disease there is a specific. At the present time there are millions of dollars invested in plants which do nothing but fill bottles with some colored material and put a label on it, which cures simply by the label. Some of them contain a little whisky, or something of that kind, which for the time being causes a certain amount of exhilaration, and some of them do not even have that. They cure by what we call suggestion; that is, they implant hope in the mind that the person will be cured. The mind does have an effect upon the body, and there are people who are actually benefited by what they read on the labels of the bottles. I should not wonder if there are Adventists who use these medicines, and have hope and faith in them.

Brethren and sisters, when the time comes that we realize that disease is the result of transgression, and that the only way to get rid of disease is to come into harmony with nature's laws — when we come to realize that, we will see the true status of patent medicines, and leave them alone.

There is not a newspaper in the United States that dares publish one thing against the patent medicines at the present time. If a law comes up in your Legislature to restrict the use of patent medicines, the papers are usually silent on it, or else they say something against the law, because there is an association formed by the patent medicine men, which is in communication with the different manufacturers. When the bill is brought before one of our Legislatures, it is made known to the association, and they immediately warn all the different patent medicine manufacturers, and they in turn warn the different papers that they have contracted with, that if that legislation passes, their contracts for advertising cease. How many of you ever saw a daily newspaper that did not carry a large amount of patent medicine advertising? They all do, and they

are all entirely silent concerning the evils of patent medicines. They are just as much under the iron rule as the papers have been in Russia, although they talk in favor of the free press.

I hope there is no one in this room that has got so far from the real principles of health that he is depending on such efforts for health. I hope that, as you see your neighbors using these medicines, you can show them that these so-called remedies are not remedies. They contain nothing whatever that can build up the system, and their only result is to lead to a false hope, and to lead a person away from correct principles. As Adventists I do not believe that we can consistently use these, nor approve of any one else using them.

DR. W. A. GEORGE: I am satisfied that there is more than one way of doing medical missionary work. Dr. Dunlap is succeeding with his way, other people are succeeding with their way; but it will take all together to make up a whole work; and not only the doctors and the nurses, but I believe that every individual in this denomination who will go through to the kingdom, will have something to do in carrying out this medical missionary work, and will learn these simple methods and make use of them. The kind of work that Dr. Dunlap has been doing we might class under the head of Christian help work. It is an opening line of work in all parts of the world, and I trust that we will wake up on this question of studying simple methods, and carrying out plans which are fitted for the community in which we live.

I want to say just a few words in addition to what Dr. Hawkins has said about the great ignorance of the world to-day, and the great need to overcome this ignorance. I believe that the thing most needed along these lines to-day is the study and practise of simple living. We find the idea prevalent throughout the world that there is something mysterious about disease. People do not reason from cause to effect, but they simply reason after they get sick that it must be their luck. Our work is an educational work, a work which is to carry to the world the gospel of health — to take to the people the third angel's message, and at the same time use the opening wedge that God has given to us to make that third angel's message enter in and reach their hearts. We can often do this much better through their physical needs than by presenting to them the spiritual side first.

The important thing is education, and medical missionary

work should receive a much larger portion of study by all of our people than has been allotted to it in the past. There is danger of giving too much time to other subjects, or at least of neglecting this subject; and when students go out into the world, they find that they lack something. I meet this on every hand as I go out through the various conferences. Our young people who have been here in school and have perhaps finished some course, when they get into practical work, find sick people, and say, "If I had taken more pains to learn how to treat the sick when I was in College View, how much more I could do now."

It is irksome to some to learn to treat the sick. They think that is something to be left for the nurses and doctors; but we will not be fitted for the work until we make this a special study. I believe every man, woman, and child should study the principles of simple living, simple treatments of the sick, how to care for those who are in need and suffering, and make this a part of their education, whether they go to college or not. They can study our excellent health journals, and can make use of them. They can study our books; and let me say that one of the most valuable books for your study, one of the most valuable books to give to your neighbors to give them the light on health reform, is this new book, "Ministry of Healing." There are some pages in that book that I dare say would be worth hundreds of dollars if we would study them and make use of them.

W. C. WHITE: As I heard these physicians painting the picture of the world's condition, as I thought of the light that the Lord Jesus has given this people that they may be co-workers with him in teaching the people the cause of this suffering, and teaching them the cure, my heart was filled with the wish that some power would cause us to see as we are seen. Would that our eyes could be opened, and that we could look upon this world as the angels see it, and that we with them could turn our minds to the remedy which Christ has provided, and the power that he has given his church to apply that remedy. Would that we could look over the land and see these millions of people suffering through ignorance, who would gladly free themselves from the conditions that bring sickness, if they had the light which God has given us to give to them. And what do these angels see as they pass over our homes, our churches, our schools, and our conferences? — They see a people favored by being chosen of God as his stewards to receive and to distribute to the world the remedy that Christ has so freely given,—a knowledge of those

principles which, if lived, will give us power to minister, and make us an example to the world. The angels see us entrusted with this, and what are we doing with it?

In the parable Christ told of the householder calling his servants and giving them talents — some ten, some five, some two, some one; and the one that had the one talent went and hid it in the earth, and what was the result?— Eternal separation from the Lord, because he had misused that which his Lord had given him to be a benefit to others. Has Christ given us but one talent? Has he given us ten, and are we using them as he would use them? Are we working as he worked? He came and lived here to show us how to live, how to labor; and he did not locate himself, and tell the people to come to him. He went forth among the people from city to city, from suburb to suburb, from street to street, from home to home, and he told us to labor as he labored.

There is need for us to build colleges and sanitariums as a means of education, and God grant that we as a people may support them, and help them do the work God has put them here to do; to unite hand in hand in educating and training hundreds to go forth from home to home to work as the Master worked. If our schools and sanitariums fail to train workers as their Master did, to leave the place of their choice, to leave the comforts of home and the association of those they love, and to go forth to find those who most need their ministry, we have fallen short of our mark. Has the Saviour given us talents — one talent or ten? As these brethren were talking I began to think about some of the things he has given especially to this people.

He has given us the light on healthful living, and with it instruction that we are to study diligently into the laws of our being, into the science of health, so that we can teach it from a scientific standpoint. We receive it as light from heaven, and as we go forth into the world we will meet people who will receive it as light from heaven; but we will meet many others who will only receive it as we are able to teach it from the standpoint of physiology and science. Therefore the duty rests upon us to make our study deep and thorough and comprehensive, so that we may meet the different minds and carry the truth to their hearts.

He has given us treasures saved by temperance. Brother Daniells, will you kindly tell me the result of your calculation as to what this people save as a result of their temperate habits?

A. G. DANIELLS: For liquor, tobacco, tea, and coffee, a million and a half dollars a year.

W. C. WHITE: Seventh-day Adventists are saving a million and a half dollars a year. To whom does it belong? — To God. And don't you think he would be pleased to see them spend a large part of that million and a half saved by temperate habits in supporting sanitariums, in supporting the medical department in our schools, and in supporting missions in which our people will go forth and teach these principles, so that other people may save their hundreds of millions? Brethren, how are we using our talents? How are you using what you have saved during the year 1905 because of the temperate habits that you have been taught?

Another talent that he has given us is power — physical power, mental power — influence with the people because of these habits of temperance. How many are there, do you suppose, in this room that would have been in their graves to-day if it had not been for the light of health reform? And our power to work is increased immensely by the light we have on health reform. This belongs to God, and he holds us accountable for the way we use it.

Another thing he has given us is the healing,— the lives in our sanitariums, and the education in these sanitariums on these principles.

Another, education in our schools. I am so glad that in our schools this matter of the nurses' course, the course in physiology, hygiene, nursing,— the medical missionary course,— is being developed, and that more and more we are sending out students from our schools who know how to preserve health, and how to minister to those that are near them; and thus we are becoming continually an increasing power in this direction.

Another talent that he has given us is the special health foods. These we may use as an agency for him, and are we using them to the best of our ability as an agency for advancing the precious cause of Christ?

Another is our health literature. He has given us a precious health literature; and think of what it has been in the past, and what it might be to-day. Think what precious truths are being printed month by month in our health journals, and what those truths would do for the people if they were read with seriousness and acted upon. Their influence upon the people will be gauged very much by our lives, **by** the confidence which we manifest in them, **by** the fidelity with which we live the truths.

He has given us also the approval of the medical profession. Now that is a marvel. Twenty years ago the medical profession was fighting our institutions and our men and our methods; but the Lord in his good mercy has given us to a large extent the approval of the medical profession upon this method of work.

He has given us the confidence of the people, all the way from the one who comes into our health food stores and buys his goods there, and says, "We believe we can trust what we get from you," to the cases illustrated by a little experience in New Castle, Australia: A woman's child was taken sick. She did not know what to do. It was something that needed immediate attention, and she rushed to the next-door neighbor's, and said, "What shall I do?" She said, "I do not know anything about what to do, but there is an Adventist over the way, and all of the Adventists study nursing," and the two women rushed over the road with this child. Unfortunately that sister happened to be one that had not been attending the lessons. In our tent-meetings there, we have lessons right along, and this good sister happened to be one that had not attended. She said, "I do not know, but Sister Brown, who lives next house, knows," and so they hurried to Sister Brown, and she knew what to do, and the baby came out all right. That is an illustration of how it ought to be in every community. Christ has given us the commission, and wherever there is a commandment from God there is a promise of power. We must visit our neighbors, we must not be so busy that we will only visit the neighbor when we have a paper to give him or a book to sell. We must make friends. When we present our literature, we must do it in such a way that there is a feeling of friendship follows that visit. The message is a message of life and a message of health, and the people want it, and Christ has given us this talent, this good literature, to give to our people.

R. A. UNDERWOOD: Some years ago I was told that I did not belong to the medical missionary class. Since I have come to this council here the brethren have convinced me that I am one of the medical missionaries. Perhaps a few items of my experience may be of interest. I thank God that we have a message that cleans up people. When I think that a billion and five hundred million of money is paid out annually in the United States for liquor and tobacco alone, and Seventh-day Adventists are entirely free from those things, and many other things that are along the same trend, we ought to be a grateful people. It is said

that ninety-seven per cent of the revenue collected to run the general government comes from tobacco and liquor. I am glad that we don't have to support the government along those lines.

Now the brethren have been talking about how to do medical missionary work, and they referred to some things away back. Some one has referred to the Health Almanac. I well remember that. It was my first work in medical missionary lines. About the next thing that I had any special part in was with my good Brother Lewis in the Battle Creek College. There were forty students down with typhoid fever, and I had eight boys to look after night and day. I had to be with them myself or get somebody from the church or from the students to take care of them. There were eighty cases in the city, and thirty of the eighty died; but not one of our students died. The simple treatments that we used under direction of doctors were effectual. I had never done such a thing in my life before, but we worked at it night and day, and kept the fever down, and they all came through.

Another interesting point in my early experience was the privilege of being at the sanitarium — the old Health Institute; and I want to tell you that the things I learned then have done me more good than all the medical lectures I have since heard. Dr. Parrot, who was then in charge, gave lectures three days of the week. At one of these lectures he advertised to patients that he was going to give a sample of how people eat. He usually gave his lectures right after dinner. There was a boarding-house right across the way. The doctor went over there, and brought over a tray with apparently everything on it. Then about a dozen glass jars were brought in. He said, "I am going to show you how some people eat. This jar represents a good temperance man," and into it he put grains and fruits and a little water, and set it aside. Into the next one he put fruits and vegetables and grains. Into the next one he put acid fruits and vegetables, grains, pickles, and a little of all sorts. He put the same into the next, but he added meat to it. Into another one he put simply vegetables, grains, and meats. He said, "I am going to set these away where they will be in temperature about the same as that of the stomach, and later will let you see them."

I was at the next lecture, and that object-lesson has stayed with me. In the glass jar that contained fruits and grains there was scarcely any fermentation, but the glass jar that contained acid fruits and vegetables showed commotion. The one that con-

tained pickles and many other things showed still more disturbance, and the glass that had the meat and vegetables and grains showed simply a little fermentation; but the one in which he added meat with the other things presented a terrific condition.

The doctor said: "People will put into their stomachs a combination of food that will burst an iron band, and then come to me and wonder why they are sick. God designed that things should be compatible with each other."

Now I said to myself, When I get home, I am going to try to put into practise some things that I have learned; and we tried it. We arranged to have grains and fruits for breakfast, and then for dinner we had vegetables and grains, and left out our fruits. I suggested that every member of the family be weighed, and in a month's time every one of us had gained in flesh.

I believe it is a shame for us ministers to go around just ready to fall into the grave. We want to learn what will give us strength. Everywhere we go we want to take hold and help poor souls. The world is in need, and I am thankful for the precious light of truth that God has given us.

A. G. DANIELLS: For certain reasons I have been forced to feel an interest in this medical missionary work. In an early day my people came West, and located west of the Mississippi River before railway transit was available. I was started in life with a poor physical inheritance, and amidst the rigors of pioneer life my health was not successfully looked after. I grew but little during the first few years of my life, but when I was five years old, my mother received what we term present truth. The ministers who brought it taught the people they should not eat pork, and taught them as best they could how to live. My mother gladly accepted these points on health, and right away she took away greasy articles of food, pork, tea, coffee, etc. During the next five years I became free from disease to a large extent, and by the time I was fifteen I was entirely free, and the last three years shot up something like a sunflower stalk.

Now I believe that these principles of healthful living brought to me the health that came, and I have been well all my life since then. I am indebted to this light and this truth for these years of health, and I thank God for the truth and for the light that will help a man in that way. And in my early days I was led to take some part in this work, and so became interested in it from that standpoint. When I went out as a missionary to New Zealand, we had no doctors, no nurses, in that country. We had

no one to say anything about health and temperance and all these other questions; but I took along with me two sets of charts and our medical books, and tried to do the best I could, and I had a great blessing in working along health and temperance lines. I lectured not only on the evils of strong drink, but I tried to show the people their need of good, fresh air. I had a little tin house made with glass doors and windows, and I used that in all my talks. Every week, on Tuesday night, I had a health meeting. That was a part of my third angel's message to the people, to give them one good square talk once a week on health and how to live. I would take this little tin house, and illustrate to them the effects of bad atmosphere; and then I illustrated in other ways, until I got some reputation as a doctor and as a lecturer on those things.

I found people very receptive of instruction along these lines; and I do believe our ministers ought to take this up in our public services. We ought to inform ourselves, and teach the people along this line. The people like it, they become interested in it, and it does them good; and I know some families that came into the truth through this means. I urge the ministers and the students here to become intelligent on this subject; take our literature and our good books on this subject, study them, and teach the people. The people are as responsive to this question as to anything that we can place before them. And I am in very great sympathy with this idea of educating along this line. We can not all be doctors, nor surgeons, nor graduated nurses; but we can all impart information to the people along simple, practical lines with which they have to do every day, and I hope this meeting here to-night will prove an inspiration to many. I hope this convention will be the beginning of a splendid work in the denomination. It is the beginning of a good work, it is an omen for good regarding the health and temperance truth that God has given us.

DR. W. A. GEORGE: I am sure if we all study these questions as we should, and make use of them, and teach them to those with whom we come in contact, that the light of health reform will go much faster than it has in the past; and I hope that this meeting will have an influence that will spread to the remotest bounds of the earth.

EXTRACT FROM A LETTER FROM DR. JULIA A. WHITE.

HERE are a few expressions of interest and sympathy representing the sentiment expressed in a large number of letters received from those who were not able to be present at the convention: —

DEAR BRETHREN: I can not tell you how sorry I am not to be with you. I feel that God in his providence has called this meeting, and has many things to make known to his people, and that from this time on the medical missionary work will take on a new phase. There are some among us who saw this work start out in its first glory, and now see it in comparison as nothing. The testimony comes constantly to us that we are farther away from the truth along these lines than when we first started out, and that we must return and do our first works.

As physicians we must break our connection with the world and worldly practises, and follow the example of the Great Physician, whence cometh our help.

If the eighty thousand Seventh-day Adventists professing to believe that the work is to close in this generation, would arise to their God-given privilege, responding readily to the extent of their ability, to carry forward the work in every department, as the Lord has instructed us, we would see such an onward move, not only in making efficient the present instrumentalities already started, but thousands more would quickly be brought into existence in such a way as to convince the world that there is a reality in the message we profess.

Loma Linda, Cal.

JULIA A. WHITE, M. D.

HOW TO SECURE MISSIONARY ACTIVITY ON THE PART OF NURSES GRADUATING FROM OUR TRAINING-SCHOOLS.

BY IDA S. HERR, M. D.,
Boulder, Colo.

THIS question appeals to me as a most important topic for our consideration. It means, how shall we train our nurses so that they will carry a burden for souls sufficient to impel them to

bend all their energies to lift up the standard of light and truth before their benighted fellow-creatures?

From Vol. 6 of the Testimonies, pages 135 and 136, I quote the following on this question:—

“God designs that all our institutions shall become instrumentalities for educating and developing workers of whom he will not be ashamed, workers who can be sent out as well-qualified missionaries to do service for the Master; but this object has not been kept in view. In many respects we are far behind in this work; and the Lord requires that a zeal be shown in it infinitely greater than has hitherto been manifested. He has called us out from the world that we may be witnesses for his truth; and all through our ranks, young men and women should be trained for positions of usefulness and influence. . . .

“In our schools missionary nurses should receive lessons from well-qualified physicians, and as a part of their education should learn how to battle with disease, and to show the value of nature’s remedies. This work is greatly needed. Cities and towns are steeped in sin and moral corruption, yet there are Lots in every Sodom. The poison of sin is at work at the heart of society, and God calls for reformers to stand in defense of the law which he has established to govern the physical system. They should at all times maintain an elevated standard in the training of the mind and the culture of the heart, that the Great Physician may co-operate with the human helping-hand in doing a work of mercy and necessity in the relief of suffering.”

The first essential toward accomplishing this desired missionary activity in our graduate nurses, is to have consecrated, God-fearing instructors for these young people who are in training, that there they may see in those who would be their leaders a practical demonstration of what may be done to help their needy fellow-creatures to a higher plane of living, both for this life and the life to come. Missionary nurses will have to be taught by precept upon precept, and line upon line, until it thus becomes a very part of them.

One most important quality to be developed in a nurse is that of observation. By this trait she becomes quick to see and utilize opportunities for doing good. But back of all this, ere a nurse can or will be an active missionary working to save the souls of those with whom she has to do, she must first be converted to the Lord Jesus Christ, thankful from the depths of her heart for the salvation that has been so graciously

given to save; and further, be wholly yielded to the influence of the Holy Spirit that it may work in her both to will and to do of the Heavenly Father's good pleasure. She will have to be led to study diligently the life of Jesus, that she may labor as he labored; for Christ lived the life of a genuine medical missionary.

The nurse's work, which is with the sick and dying, ought to lead her to ever keep fresh in mind the responsibility that rests on her as her brother's keeper, since the patient for whom she is caring may never have another opportunity to behold the Lamb slain from the foundation of the world, whose grace is sufficient to save.

Another fact that needs to be firmly impressed on the minds of the pupil nurses, is that they are being given their training to enable them to do more efficient missionary work, and that the remuneration received for services rendered is but a means of sustenance afforded them while they are doing this missionary work, rather than an opportunity for them to hoard up money. There is a factor outside of the training-school that would be potent in securing missionary activity from our nurses, and that is a more certain support and affiliation from the conferences in which the nurse labors.

It appears to me that the nurse entering the home with her healing balm, gaining the confidence of the patient, there opens the way for a Bible worker's effort to be accepted in that home.

In developing active missionary service from graduated nurses, it would be well for those who have charge of the training of the nurses and the conference workers to conjointly observe where the openings present themselves in the home field or abroad, and encourage, yea, even urge, the nurses to see that there is a call for their talent; and let them feel that they have your confidence, and will have your support, both in influence and finance if need be. It truly is fitting that the older workers show confidence in the nurses, and let them feel that they are needed and appreciated in this closing work of warning the world.

Canvassing with the "Ministry of Healing" will be helpful in getting the nurses interested in active missionary work outside of their usual line of work. Yet I believe that the nurse does much missionary service that does not so much appear to the eyes of the public as does that of the Bible worker or canvasser, for the Spirit of prophecy tells us that at the final test

many who have been under the influence of the sanitarium workers will take their stand for the side of truth as it is in Jesus. I thank the Lord for this assurance.

The nurses must have an aim. They should be encouraged by our constantly holding a high standard before them in their education, for "higher than the highest human thought can reach is God's ideal for his children. Godliness — godlikeness — is the goal to be reached."—*Education,* page 18.

We have found at the Colorado Sanitarium that Young People's Societies in the Sanitarium enable the nurse to develop active missionary interest by affording opportunity for the study of foreign and needy fields. It is acquaintance that awakens sympathy, and sympathy is the spring of effective ministry. In training youth, let it be a part of their education to become acquainted with these foreign lands and their peoples. In this line much might be accomplished in our schools by leading the pupils to study the lives of such men as the apostle Paul, Martin Luther, Moffat, Livingstone, and Carey.

Now, to make a brief answer to the question, How shall we best secure missionary activity from the nurses graduating from our training-schools? it resolves itself into the following three propositions:—

1. There must be consecrated teachers who carry an active burden for souls.
2. There must be genuine conversion and consecration on the part of the nurses themselves.
3. There must be affiliation and co-operation from the conferences in which the nurses labor.

Let us labor more diligently, and pray more earnestly that we may do for the dear nurses in our institutions what God wants us to do.

DISCUSSION.

A. T. ROBINSON: I can best state what is in my mind by expressing a wish that we had about one thousand nurses trained according to the ideals presented in the paper, and then perhaps I would wish that we had conference men who had the good sense to know how to put that talent to work. What I say will be just a few words in reference to one of the three points in the summing up of the Doctor's paper; that is on the point of affiliation between sanitariums and the conferences in

the employment of the nurses who graduate from these schools. It certainly is discouraging to a person who has spent two or three years in hard work studying and fitting himself for work to find nothing to do, and that he must find some other way to make a living. I have believed for some time that there ought to be such co-operation between the sanitarium and the graduate nurse that just as soon as a nurse graduates from the sanitarium, unless there is sanitarium work in which she is to continue, there ought to be a door open for her to engage in medical missionary work; and if she is trained as suggested in this paper, she will be ready for work.

We have had a little experience in this work here in Nebraska that I wish to speak of. We said to the doctors in the Sanitarium, If you will recommend two or three of your nurses to us, we will see what we can do in putting them to work. We talked with some of the nurses in regard to this matter of support, and decided that it should not be an uncertainty,—that we could not ask such a consecrated class of workers, who have fitted themselves to do a line of missionary work that others can not do, to go out under any more uncertainty than our other workers. We said to these workers, If you will take up the work in the conference, we will assure you seven dollars a week, the same as we pay our Bible workers, and then if in your special line of work the way will open for some thing a little better,—if you earn ten dollars per week,—you may have that amount; but should you earn more than ten dollars per week, the balance should be turned over to the conference to create a fund to help others just beginning in the work. The nurses were pleased with that plan of work and entered heartily into it. We had four nurses at work during the year. I will give you in round numbers the salaries they received and the amount of it that they earned.

First one, salary \$62; receipts from treatments, \$21; that left us \$41 to pay out of the \$62.

Second one, salary, \$155.18; receipts, \$94; leaving \$61.18 for us to pay.

Third one, salary, \$211.91; receipts, \$247.50; then she turned back \$35.59 more than she earned,—she received \$10 per week.

Fourth one, salary, \$171.25; receipts, \$97.50; leaving \$73.75 for us to pay.

Total salary, \$600.34; total receipts from treatments, \$460; leaving \$140.34 that it cost the conference for that amount of

work. The value of the work done by these nurses can not be estimated, for they have been able to reach a class of people in a good many cases that could not be reached in any other way. Possibly no other class of workers could gain access to these homes. They do Bible work in connection with their treatment work.

There is one point in the paper read by the Doctor that I think should be strongly emphasized, and that is in the training of the nurse for practical missionary work besides giving treatments. I think it would be a great blessing and help in their work, as they go out, if they are qualified to give Bible readings as they do their other lines of missionary work. You can see that we had \$600 worth of work done of the highest class of work, and it cost the conference only \$140.34, and then you must remember that this is only a beginning. If workers in this line would continue their work, we would have a class of self-supporting workers.

G. A. IRWIN: We have had some experience along these lines, and I believe there is a way that our sanitariums and our training-schools may connect with our evangelical work in the field to excellent advantage. I believe that what Elder Robinson has outlined in their experience is just the way God would have this line of work connected with the evangelical work. The Lord has united these lines of work, and *what God has united, we are told no man should put asunder.*

In Australia we did this same way. Persons would be taken from school into the sanitarium and trained as medical missionaries, and they were trained in all lines. When they came through that course, they could do anything. They could go to the kitchen and do the cooking, they could give Bible readings, or anything in connection with an institution. When they got through, openings were made for these nurses. Some would go to our cafés as cooks, matrons, and waiters, and others would connect with the ministers in the field. Some of them would go out by themselves in self-supporting missionary work.

There should be perfect union between the evangelical and the medical missionary work. Let the individuals themselves feel free to connect wherever the Lord seems to direct, and not be controlled by some one man, or set of men, who think they must perfect the arrangements. I believe there is a great field of usefulness right in the line which the paper and Brother Robinson has outlined. I am glad we have lived to see the

day that this has been brought about, and we should encourage this more and more. Let us fill up the gulf that has been made between the evangelical and medical missionary work in the past. We are all brethren. I believe where we combine in this way, we can look for God's blessing on the entire work.

F. M. WILCOX: Unfortunately there has come in something of a spirit the last few years to lead our nurses to feel that they constitute a class of workers by themselves, and the conference workers constitute a class by themselves. Unfortunately that education has been given them, and it seems to me that if we could lead them to feel that we are all one, and that we are all engaged in the same work and for the same object, it would be a good thing.

L. F. STARR: I have felt that we should encourage nurses as much as possible to engage in evangelical work; we have had eight nurses engaged in evangelical work, and we have encouraged them to join with our force of conference workers in tent and evangelistic efforts. They can enter homes and treat the sick, and give the truth to those who are unable to come to the place of meeting. Medical missionary work gives a prestige, and a greater opportunity to carry the third angel's message to the people. I am certain that in the study of the medical missionary work we must go back to the days of Christ and his apostles, to find true medical missionaries.

DR. I. A. DUNLAP: I believe one of the best ways to get the nurses to work is to work ourselves. When you are called out to visit a patient, take your nurse with you, and talk with the patient just as you would want the nurse to talk with him. Do the actual work yourself — let your nurse be with you and help you. That seems to me the most practical way to get our nurses to do personal work. It helps the nurse as well as the patient. We should teach our nurses to do by doing.

DR. W. C. GREEN: I think the first and most important thing for the nurse is to have the Spirit of Christ. When he has that, then the next thing is to know how to work. I find it a good plan to have your nurses hold your Bible readings in the institutions. Let them take turns, and plan their Bible lessons so as to take up some line of thought that they agree on. Encourage Bible study for the nurses by letting them take their turn in conducting the Bible lesson or the Sabbath-school lesson Sabbath evening, and in that way you will keep up the interest, and teach them how to do by doing.

A. G. DANIELLS: I fully agree with these statements that the workers need to have the Spirit of the Master. I have not heard any one yet suggest just how these workers are to get this Spirit of the Master. It is a thing they can not put into their hearts themselves. What shall we do to secure workers who have the Spirit of the Master, or to help those who are within the circle of influence to secure this Spirit? It seems to me this is a very vital question. I suppose first it means that we should exercise great care in the selection of our nurses, or persons who are to become nurses:

Recently we have received instruction through the Spirit of prophecy that far greater care should be taken in the selection of young people for nurses and for our medical missionary work, and that we can not take every one that offers himself or herself; that we are to exercise as great care in selecting these workers as we do in selecting Bible workers. I do not see why this is not perfectly clear and logical, that we ought to be just as careful to know that persons who offer themselves for the nurses' course are converted and are Christians, that they have had an experience, and that they are substantial young people, just as much as though they offered themselves for the Bible work; for I believe that true nurses, good nurses, should become Bible workers in connection with their medical work. We hear a good deal said about the ministers and Bible workers becoming nurses; I think the converse is true that nurses should be ministers and Bible workers, and have a Christian experience and a knowledge of God's word that will enable them to be good Bible workers; and if this is true, we shall have to be careful — may I say, more careful than we have been? — in selecting timber that is to be used for nurses.

Another thing is to help those young people to find the blessed Spirit of Christ. When young people desire to go into the Bible work or the ministry, while we look for those that are converted, we do not understand that they have that deep experience in spiritual things that they ought to have, and so we take hold and help them to a higher standard, help them to open their hearts to a larger measure of God's Spirit. That will also have to be done for the young people who take the nurses' course. It throws a great responsibility on us when we say that the young ministers and Bible workers must be filled with the Spirit of Christ. I am taking the position that I must be there, and that I must stand where I can help them to secure that experience.

Then, my brother physician, you must be a man filled with the Spirit of God if you want the nurses to be filled. When you talk to them about having the blessed Spirit, if you do not have it, they will be likely to say, What do you think about having it too? Is not that the way people talk? When I hear a man talk about being honest, and I know he is not honest, I feel like saying, My good fellow, then why not be honest. People reason that way. I am glad to hear these suggestions about the nurses having the Spirit of God. That is right — it must be so. It is the power that will win its way to the hearts of the people. It is not simply the service, or doing the work of a nurse, that wins the way to the heart; there is something more powerful — it is the Spirit of the living God. There is many a nurse in the hospitals that does not make the impression that a Christian nurse in our sanitariums makes. So I would recommend to our nurses, who have to work hard and have day and night service, that you need the presence of the Spirit of God. Lay hold upon it. I feel glad for these suggestions, and I say, brethren, let us give attention to this matter, see that we possess this Spirit, and are where we can help the nurses.

DR. C. P. FARNSWORTH: When our nurses graduate, and there is no opening for them to work, we place them in a nurses' home, so that when they are not on duty they can come there and rest, or engage in other missionary work. We correspond with other physicians, and they employ the nurses. The nurses also spend some of their time in canvassing for our publications.

R. C. PORTER: In the Missouri Conference we have taken up the matter in this way: We recognize our doctors and nurses as workers, and give them conference papers. They go out in conference work the same as any other workers. Wherever we have nurses they do their work under the sanction, and with the co-operation, of the conference. The same thing is true of the doctors within our borders, and we feel that we are all one.

E. T. RUSSELL: While in Texas we had quite a good many nurses located in Houston, Galveston, and San Antonio, and it has been our custom to grant them papers from the conference, and we assisted them in getting started; then when their work became self-supporting, they were to refund what money the conference had let them have. I do not believe the conference was the loser in the transaction, and I am confident that as the result of the work they did in the city of Houston, our denominational work was greatly advanced. The same has also been

true in our experience in Kansas. There it was our custom to grant missionary licenses to our nurses. I am impressed that this ought to be done. I think our State conference should grant papers to them as well as to the other workers in the conference.

R. C. PORTER: Our conference has asked Dr. Droll to open up medical missionary work in Kansas City on a self-supporting basis. The conference advanced him some money, and took it out in treatments. We send in patients to be treated, and take our treatments in that way; and we also encourage some of our brethren to help in this way until that work shall get started.

CO-OPERATION OF ADJACENT SCHOOLS AND SANITARIUMS IN THE TRAINING OF NURSES.

BY PROF. M. E. KERN,
College View, Nebr.

FROM a study of recent Testimonies, I deduce the following statements:—

1. There is a decided advantage to be gained by locating a sanitarium and a school in close proximity, that their work may be carried on in conjunction.

2. Thorough instruction in gospel medical missionary work should be a part of the regular work of the colleges and training-schools, that many students may receive instruction along this line.

3. Those in training to be nurses and physicians should attend our colleges and training-schools.

4. When a sanitarium is located near a school, it may add greatly to the medical missionary course in the school by assisting in the training of students desirous of becoming medical missionaries for field service.

5. Circumstances must determine the details of such co-operative arrangements as are suggested.

It is plainly implied, I believe, that a far larger number of our young people should receive training to become medical missionaries. By the term "medical missionary," I do not understand, however, that trained nurses are necessarily meant, but those who have ability to combine with evangelical gospel work the care and treatment of the sick. This kind of training,

I understand, our training-schools and colleges are encouraged to give. The work of promulgating the health principles which have been committed to us is an integral part of our work, and I believe that our schools should do more than they are doing to prepare young people for this line of the work. I believe that there is plenty of room for improvement in our schools along this line, and in biological science. The training of students to give simple treatments, and the study of the laws of health and disease from this standpoint, will give added interest to the much-neglected study of human physiology. When circumstances will permit, the sanitariums near a school may be called upon to assist in the development of students along these lines.

The institutions located near together may be helpful to each other. The sanitarium is naturally better equipped to give practical instruction in the treatment of disease, while the school is better equipped to give literary training. We are constantly in danger of becoming one-sided. The working together of schools and sanitariums will help to give the young people a better-balanced education.

The high character of the work committed to us demands the most thorough spiritual and intellectual qualifications. Our nurses need this training as well as a thorough course in the art of treating the sick. "The third angel's message is the most solemn message ever given to mortals, and all who connect with the work should first feel their need of an education and a most thorough training process for the work, in reference to their future usefulness. . . . The missionary operations are constantly embarrassed for want of workers of the right class of mind, and the devotion and piety that will correctly represent our faith."—*Christian Education*, page 138.

The fact that many of the men whom God has chosen to do a great work in connection with the cause, have been men of meager school education, and that the message itself is one which proclaims the shortness of time, has led, I fear, to much being lost in the lack of thorough training of workers; so much so that we are told, "There is a dearth of educated ability among us."—*Christian Education*, page 138.

Our nurses need all the literary training which it is possible for them to obtain, and many have shown their appreciation of this by taking up school work after they have finished their course in training. A nurse with a well-trained and developed mind, with a fund of information from the great book of

nature, a knowledge of history and literature, and above all a thorough knowledge of the Word of God, is worth far more to the cause of God in dealing with any class of people, especially with sick people, than one who has not this training and knowledge.

There is no short-cut that I know of, even to a thorough knowledge of the Word of God. It takes hard study and more of it, I fear, than can be obtained in the strenuous life of nurses in one of our sanitariums, when they pay their whole way by work.

This leads to a query whether it would not be well for our nurses' training-schools to require a certain standard of scientific, literary, and Biblical knowledge for graduation. This might be accomplished in two ways:—

1. Require students who do not have the required training, to obtain it before entering upon the nurses' course. But this might debar some of our most worthy students from a place in the Lord's work,—students who make good nurses. For such I would suggest,—

2. That the training course be extended over a longer period, and the students be required to do a certain amount of work in the adjacent school.

Another method might be to withhold the diploma after the course is finished until the required work is done.

DISCUSSION.

G. A. IRWIN: The principles are so thoroughly covered in the Testimony¹ that about all that is necessary is to work out the details in the locality wherever you are. I see that provision is made for that to be varied according to circumstances. In our work in Australia, the school and sanitarium have co-operated. There has been the most thorough and hearty and mutual understanding between them, but they are seventy-five miles apart, and the school has no special courses. The way they co-operate there has worked very well, and they are very well satisfied with the plan. The ministers go out to the camp-meetings, and urge the people to send their young people to the school, and keep them there just as long as possible. When they get all the education their means will permit of, and the time comes for them to enter into some branch of the work, then there is careful consideration given to the matter. Usually Dr. Kress

¹ The Testimony referred to is entitled "Co-operation Between Schools and Sanitariums," found on page 139.

and the general canvassing agent would go to the school and confer with these students, and learn their individual preferences. The faculty was questioned very closely as to these young people,—how they had deported themselves in the school, whether they had been obedient to the rules, and whether the faculty could recommend them as reliable and moral persons, such as would make good nurses after a course of training. Those who were recommended favorably were taken into the sanitarium. Of course these young people then had to go through the examination to see whether they were physically sound or not. They have graduated three classes of about fifteen each, and the greater proportion of them have been students that have attended our Avondale school, and that makes an opening from the school into some branch of the work. It makes a connection between the school and the sanitarium. When they graduate they can go out in the field as evangelical workers and nurses. There has been the very best of feeling and hearty co-operation on the part of the school and sanitarium officers.

DR. W. A. GEORGE: The subject under consideration is "Effectual Co-operation of Adjacent Sanitariums and Schools in the Education of Nurses." The Testimony read does not state that nurses should be trained in the college. I think you will all agree to that. I believe that a close relation should exist between our schools and sanitariums, and I think Professor Kern has brought that out very nicely in the idea of requiring special training in the school work,—the training that has not been received already by each nurse,—and possibly allowing the nurse to enter a nurses' course with conditions which they will have perhaps two or three years to work off, so if they have not their complete literary training to begin with, they can complete that during the course. This, however, would be a problem which would be difficult, as the time which that nurse spends in the school work would be just the time of day when they are most needed in the sanitarium. This difficulty might be avoided by having some special classes, or possibly by having evening classes for such students.

There is another point also in this connection; that is, that the preparatory and scientific work should be done before entering the nurses' course. It is rather a disadvantage to try to train a nurse who does not have the proper preparation. On the other hand, there is quite a question as to the possibility of some young people getting a nurse's training at all, or get-

ting fitted for the Lord's work, unless they can have the opportunity of working their way through a sanitarium. Of course if some means can be provided by which young people could secure the schooling which they need, I should like to see a much higher standard in our nurses' training, but it seems a pity to shut out some of the young people when they have a chance to take the nurses' course. I have in mind some young people who have taken a nurse's course in the sanitarium and have become our best nurses.

F. M. WILCOX: The question I wanted to raise is whether schools and sanitariums should be established at the same place. That is a practical question with us in Colorado. We are about to start a conference preparatory school.

W. C. WHITE: I would say that in answer to letters asking for advice regarding the establishment in London of the printing work, the school work, and the sanitarium work, that mother has written to them two or three times placing before them the great advantage to be gained by locating these three institutions close enough together so that students can find employment in the sanitarium and in the printing house, and so that the employees of the printing house and of the sanitarium can have the advantage of contact with the teachers in the school, and so that the faculty of each of these institutions can help each other. This is in harmony with her advice regarding the work in Takoma Park and in other places.

In California we thought that we were greatly blessed in getting away from the Battle Creek plan of having three institutions so located that the presence of each was a perplexity to the other. The school, the sanitarium, the printing house, each had its different system of government and discipline, and being organized upon the old plan before we had made the progress of recent years in the matter of co-operation, there were great evils which arose, great difficulties, and we felt that in California we were greatly blessed in having our printing house in one place, our college in another, and our sanitarium in another, and I presume for the time it was a blessing.

But we find in our sanitarium that it is necessary to establish much more of a school, and at greater labor and inconvenience than would be necessary if we were near the college; and in our school we have found it necessary to establish a nursing department and to keep trained nurses as part of the faculty. This we have done, and with some degree of success. The questions

these brethren have been discussing about the credit that should be given by a sanitarium for college work are very perplexing.

I wish, Mr. Chairman, if time will permit, to say a word about the general features of this proposition. It seems to me that from the standpoint of the trained nurses' association, from a commercial professional standpoint, that this is a very poor proposition. It might be like an effort to flood the profession with too many nurses. But I do not understand that we are studying these matters from that standpoint. When we come to look at it from the missionary standpoint, when we consider the world's great need, the call of the Master, the commission of Christ to his people, and the special demands of the present hour, it looks very different indeed. The world is full of sickness, and if we have a commission from heaven to deal with the sick, we must have medical missionaries; if we regard the medical missionary work as the right hand of the last gospel message, to open the door for the message, and then consider in how many villages and towns and sections of our cities the door has not been opened, we must recognize the need of many nurses to open the door; and I do not understand that all of these need be trained nurses. We need many trained nurses, those who have received the greater part of their education in the sanitariums, and who have received their diplomas there; for it is only the training-schools in connection with the sanitariums that can give trained nurses their diplomas. I do not think our schools should attempt to send out trained nurses. They can educate missionaries, and these missionaries can be well trained to work with our literature; they can be well trained as Bible workers; they can be educated as nurses, and taught how to minister to the sick. But these missionaries that ought to go out by the hundreds should not pose as trained nurses; they should simply go as the messengers of Christ to do his work and to fulfil his commission, to say, "The kingdom of heaven is come nigh unto you," and to heal the sick. These should be led, as far as possible, by trained nurses.

Can not we have a system of work by which, when the vacation comes, we shall send forth from our schools and sanitariums scores of groups of workers, that will go into different sections of the cities and the country, under the leadership of trained nurses, who are also trained Bible workers and trained canvassers? With such leaders and teachers the group of workers would accomplish much.

To-day Elder Porter was telling me that he believed in Missouri there were more than a hundred villages where the message of Christ's soon coming has never been introduced. If the medical missionary work is the right hand to open the door for the entrance of this message, we need to do the work that has been proposed here to-night in training all we can in our sanitariums, and many more in our schools, to be missionaries who understand nursing, and who as they work in groups will be both evangelists and nurses.

A. G. DANIELLS: I feel that we are considering one of the most important problems introduced into this convention—the question of educating our young people to do the nurses' work. I confess that I am not satisfied, and have not been for some time, with what we are doing for the education of nurses. I have wished that we might give a more thorough technical education, and also that we might shorten the course a little, so as to hasten more people into the field. Of course I see that it is difficult to give a better education in shorter time. I do believe that our nurses need better education in the matter of the technical features of the profession to which they are called. I have traveled about considerably, and wherever I go I endeavor to visit the sanitariums, and talk with the physicians and nurses. I like to meet them in their classes. I do not go around talking privately, trying to draw out criticism, but I go right into the class-room, and meet the students with the teacher, and talk matters over with them. I talk with the physicians, and learn something about the plans that are adopted.

Generally I find that there is a good whirl of business, and lots of work to do in the sanitarium, and that they are perplexed a good deal of the time about their classes, and how to get in their work, learn their lessons, and have the lessons heard. Oftentimes these classes come at night after they have worked hard all day, and they are tired and sleepy, and sometimes the one who should give the lesson can not give it that night, and it goes over; and in some sanitariums there is carelessness on the part of those appointed to give the lessons.

In some sanitariums the nurses are disappointed and discouraged because they do not have the lessons given to them regularly, and they tell me how many classes during a year they have missed, and the proportion is alarming. Now I am satisfied that our nurses are not getting the real, thorough

instruction in their course that professional nurses ought to have who go out into the world to work. I have thought a good deal as to how we can take this matter up, and furnish the nurses with a better technical knowledge of all that pertains to the profession of their choosing. I have felt that if we could take them into our training-schools, if our schools would arrange in giving their courses to let the prospective nurses take a year in the school right along technical lines, get a thorough drilling in anatomy, physiology, chemistry, and some of those things, and give that first before they ever enter a sanitarium to do practical work,—then when they come to take their nurses' course they would not have to begin that part of the work away down at the bottom and master these studies by digging away and struggling away while they are scrubbing floors, washing pots and pans, making beds, and all that sort of thing, as many of them have to do.

At Washington we have studied this matter some, and we propose that the prospective nurse begin his nurse's course in our college, and take nine months in the college, with four classes daily, and pay for it as any other student pays for his education—seventeen or eighteen dollars a month. During that time we have a physician there—a man who is thoroughly qualified to lead them those nine months through that class of work. Then when the school year closes, let that person go into the sanitarium, and we hope by that method to give the nurse in the next fifteen months just as good a training as he would get by taking the other course in three years. I believe that the nurse who takes nine months in the college under a good teacher, and works faithfully every day, having his classes regularly, having set lessons, and learning those lessons, will come out at the end of the twenty-four months a much stronger nurse than the one that takes a three-years' course under the old régime.

During the fifteen months in the sanitarium, let them put in good, earnest, intelligent, practical work in caring for the sick. In that way the nurse would not do so much in the way of domestic work, but during the fifteen months the nurse ought to be thoroughly trained in those lines of domestic work that pertain to the sick-room,—bed-making, house-cleaning, and everything essential to the sanitation of the room. Now, really, does the nurse need to spend so much time in work the principal value of which is to the institution only, and does not

pertain directly to the profession of a nurse? I do not believe we have considered a more important question in this convention than the matter of how to give nurses a quick and thorough training, so that we may double their numbers, and send them out into the world better qualified for their important and blessed work.

THE RELATION OF COLLEGES TO ADJACENT SANITARIUMS.

BY G. H. HEALD, M. D.,
Editor of *Life and Health*, Washington, D. C.

CAN colleges co-operate with sanitariums in the education of nurses with advantage to all concerned?

This question may best be solved by answering a number of others.

1. What studies in a nurses' course could be given in a college curriculum?
2. Would it be of advantage to the sanitarium?
3. Would it be of advantage to the student?

I am aware that many, perhaps most training-school workers, will be ready to pronounce against such a plan as being impractical, visionary, and subversive of the interests of student and training-school, and as tending to keep out of the nurses' training-school a worthy class of young people, and to fix a graduation standard which will not be recognized under the State laws. Perhaps a consideration of the above questions will in a measure set aside these objections.

1. What studies in the nurses' course can be given in the college? There is a very general belief that the studies pursued by nurses, to be effective, must be given in connection with practical work. This opinion is held by the instructors in hospitals as well as sanitariums. But there is at least one hospital which reports that it has introduced with advantage a preparatory course, consisting of anatomy, physiology, and allied studies.

In former years, medical courses were so arranged that students received clinical instruction during the entire course. At the present time no reputable school is run on this plan. The first two years is devoted to giving a foundation so that

the clinical instruction of the last two years will be the more valuable. The student who has had a broad foundation consequent on a knowledge of underlying principles is far better prepared to profit by the practical part of the course. In a similar way, the time may come when a nurse will get the larger part of his theoretical knowledge before beginning his practical work.

The studies which might appropriately be taught in colleges are:—

Anatomy and physiology, with especial reference to the practical application of these studies in hygiene and treatment.

Physics of light, heat, and electricity, sufficient to give a comprehension of the therapeutic application of these forms of energy.

Chemistry, sufficient to prepare for a comprehension of the elementary principles of dietetics of digestion, and metabolism.

Principles of hydrotherapy and massage, including the underlying physical and physiological principles.

Hygiene and sanitation, with dietetics and physical culture.

Bible doctrine, or Bible missionary study.

2. What are the advantages to the sanitarium?

First, there is the advantage of a class of young people, well instructed in the principles of treatment, and thereby the better prepared to begin the practical drills. In the present arrangement there are a number of studies which the student should know at the beginning, but which must be strung out through the course.

Another advantage, especially in small sanitariums, is the burden taken off the physician in not having so many of the foundation studies to teach, thereby giving him more time to devote to his patients or to private study.

3. What are the advantages offered to the student? It offers the advantage of uninterrupted study hours and recitation hours. In most sanitariums it is the experience that too often practical work cuts across study periods and recitation periods in a way not at all conducive to good scholarship. After eight or nine hours spent in work, and one or two hours in the recitation room, most young people are not in condition for energetic study. Many students would much rather pay a tuition fee and have time for uninterrupted study, than to pay for tuition by labor in the sanitarium.

One advantage to both sanitarium and student is the fact that it will not be necessary to crowd in studies at the rate of two a day, and the time now devoted to these foundation studies can be used exclusively for drills and practical studies.

EDUCATION OF OUR MEDICAL STUDENTS IN OUTSIDE SCHOOLS.

BY H. F. RAND, M. D.,
Boulder, Colo.

So much has been written and said on the subject of education that it is difficult to select important points that have not been repeatedly discussed; and yet all know that much must still be said, written, and done before much-needed reforms are effected.

Numerous definitions of education have been given, but perhaps none could more fully cover its meaning to us as a people than that it means to become acquainted with God and his works.

Every true science leads up to the Author, God. When we fail in any way to be led back to the Author, our method is not true science, but "science falsely so-called."

The general tendency of the present age is to separate God from science. This is especially true of two of the leading professions — law and medicine; and yet in these two branches men are brought into close relation to their Maker. In "Christian Education," page 196, we read: —

"God is the foundation of everything. All true science is in harmony with his works; all true education leads to obedience to his government. Science opens new wonders to our view; she soars high, and explores new depths; but she brings nothing from her research that conflicts with divine revelation. Ignorance may seek to support false views of God by appeals to science; but the book of nature and the written Word shed light upon each other. We are thus led to adore the Creator, and to have an intelligent trust in his Word. . . .

"His word controls the elements, he covers the heavens with clouds, and prepares rain for the earth. 'He giveth snow like wool; he scattereth the hoar frost like ashes.' 'When he uttereth his voice, there is a multitude of waters in the heavens, and he causeth the vapors to ascend from the ends of

the earth; he maketh lightnings with rain, and bringeth forth the wind out of his treasures.'”

And again we read, on page 194:—

“Yet men of science think that they can comprehend the wisdom of God, that which he has done or can do. The idea largely prevails that he is restricted by his own laws. Men either deny or ignore his existence, or think to explain everything, even the operation of his Spirit upon the human heart; and they no longer reverence his name, or fear his power. They do not believe in the supernatural, not understanding God's laws, or his infinite power to work his will through them. As commonly used, the term ‘laws of nature’ comprises what men have been able to discover with regard to the laws that govern the physical world; but how limited is their knowledge, and how vast the field in which the Creator can work in harmony with his own laws, and yet wholly beyond the comprehension of finite beings!

“Many teach that matter possesses vital power,—that certain properties are imparted to matter, and it is then left to act through its own inherent energy; and that the operations of nature are conducted in harmony with fixed laws, with which God himself can not interfere. This is false science, and it is not sustained by the word of God. Nature is the servant of her Creator. God does not annul his laws or work contrary to them; but he is continually using them as his instruments. Nature testifies of an intelligence, a presence, an active energy, that works in and through her laws. There is in nature the continual working of the Father and the Son. Christ says, ‘My Father worketh hitherto, and I work.’”

What a beautiful thought it is, and how important to impress upon the mind of every young man or woman who studies science, the fact that in their research they are really observing the Father and his Son at work. Also how important to impress upon students in worldly schools the danger of deceptive skeptical influences that are sure to be brought to bear against the truth.

As to the true object of education, the Author of all wisdom has caused the following to be written on page 62 of the work above referred to:—

“The object of education is to restore the image of God in the soul. In the beginning, God created man in his own likeness. He endowed him with noble qualities. His mind

was well-balanced, and all the powers of his being were harmonious. But the fall and its effects have perverted these gifts. Sin has marred and well-nigh obliterated the image of God in man. It was to restore this that the plan of salvation was devised, and a life of probation was granted to man. To bring him back to the perfection in which he was first created, is the great object of life — the object that underlies every other. It is the work of parents and teachers, in the education of the youth, to co-operate with the divine purpose; and in so doing they are 'laborers together with God.' "

The tendency of many scientific men is to divert the mind from God, and center it upon themselves. Many teachers ignore the great principles laid down by our Saviour. His was an all-around education; not only in the knowledge of books, but he took into consideration every faculty of the being and every talent. He appreciated the fact that it was important to have a sound body in order to have a mind that can do the best work. His great methods of teaching not only called the learned ones to him, but it was put in such plain and simple ways that even the unlearned could appreciate and enjoy the things that were being made known to them.

Much of the popular teaching in the schools of to-day tends to obscure truth, and make its comprehension so difficult as often to discourage many students of ever being able to arrive at correct conclusions. I have come to this conclusion after several years of intimate and pleasant association with teachers of large reputation who are carrying weighty responsibilities in some of the first-class universities of the United States.

Because of this, I feel most keenly the necessity of doing everything possible to overcome these influences, and to protect the young from their dire effects. I realize how much would be gained by restraining our young people from attendance at schools where only man is glorified, and providing them with equal educational opportunities, and, at the same time, surrounded by influences calculated to lead them to know God.

The Spirit of prophecy has told us that the Christian physician has tenfold greater opportunities for influencing the sinner toward the reception of a knowledge of the Saviour than has the follower of any other profession. And if such advantage is afforded to the Christian physician, it must be equally true that the unchristian physician may have proportionate soul-destroying powers.

When I took my medical training, we had no medical school of our own, and had to be under influences that were not good; but by careful perusal of the Spirit of prophecy, with much Bible study, prayer, and caution, we were enabled to follow such principles as were right and true. In view of the fact that it is almost impossible in such schools to find teachers who do not exalt man rather than to point to the great God of the universe, how urgent now is the necessity of warning our young people against these dangers, and insisting upon their making use of every available means of protection against the wiles of the great deceiver. Note the following from "Christian Education," page 27.

"Students must be impressed with the fact that knowledge alone may be, in the hands of the enemy of all good, a power to destroy them. It was a very intellectual being, who once occupied a high position among the angelic throng, that finally became a rebel; and many a mind of superior intellectual attainments is now being led captive by his power. The sanctified knowledge which God imparts is of the right quality, and will tell to his glory."

Again, on page 42:—

"Without the influence of divine grace, education will prove no real advantage. The learner becomes proud, vain, and bigoted. But that education which is received under the ennobling influence of the great Teacher, will elevate man in the scale of moral value with God."

Concerning the health of students I read:—

"Mind and body must both receive attention; and unless our youth are versed in the science of how to care for the body as well as the mind, they will not be successful students. It is essential that students exercise their physical powers in such a way that their physical strength shall not be disproportionate to their mental development, and therefore a judicious system of physical culture should be combined with school discipline, that there may be a harmonious development of all the powers of the mind and body. Nothing that pertains to physical perfection should be looked upon as of little importance. In eating, drinking, and dressing, the laws of health should be diligently followed, and in regulating the hours for sleep there should be no haphazard work. No student should form the habit of sitting up late at night to burn the midnight oil, and then take the hours of day for sleep. If they have been accus-

tomed to doing this at home, they should seek to correct their habits, and go to rest at a seasonable hour, and rise in the morning refreshed for the day's duties. The student who desires to put the work of two terms into one should not be permitted to have his own way in this matter. To undertake to do double work, means with many, overtaxation of the mind and the neglect of proper physical exercise. It is not reasonable to suppose that the mind can grasp and digest an oversupply of mental food, and it is as great a sin to overfeed the mind as it is to overload the digestive organs, giving the stomach no periods of rest. The brain is the citadel of the whole man, and wrong habits of eating, dressing, or sleeping affect the brain, and prevent the attaining of that which the student desires — a good mental discipline. Any part of the body that is not being treated with consideration will telegraph its injury to the brain."

Through the medium of the press, knowledge of every kind is placed within the reach of all; and yet how large a share of every community are depraved in morals, and superficial in mental attainments. If the people would only become Bible students and Bible readers, we would see a different state of things.

In an age like ours, in which iniquity abounds, and God's character and his law are alike regarded with contempt, special care must be taken to teach the youth to reverence and obey the divine will.

Education not only fits us for the enjoyment of this life, but if it is of the proper kind, its influence extends to eternity. We have the privilege of starting into a system of learning here, which, if continued aright, we will be permitted to follow during all the ages to come, under the personal instruction and in the visible presence of the Saviour himself.

THE EDUCATION OF MEDICAL MISSIONARIES.

BY W. B. HOLDEN, M. D.,
Portland, Oregon.

THE highest Christian and moral attainments are required by the medical missionary. Equally high professional qualifications are demanded. A poor nurse can not be a good medical

missionary, however earnest and conscientious she may be. A cheap doctor can not be a first-class medical missionary.

Let us take a brief review of the history of nursing. Training-schools for nurses are a modern enterprise. They have been established only during the past few years. Formerly a nurse was a kind-hearted, middle-aged or elderly woman whom circumstances had forced to take care of some sick friend or neighbor. We see this type of nurse all too often even now. They are absolutely untrained, often ignorant, superstitious, generally egotistical, self-confident, and unmistakably sure in their opinions. The old midwife was a high order of those nurses. The old midwives are the bane of modern obstetrics. Their inexcusable ignorance has rendered many families motherless. The following is an actual case:—

A midwife attends a woman—common antisepsis is unknown, germs are not real to her. The third day the patient has a violent chill, and as chills mean malaria, the patient is given quinine. In a few days the arms and legs become tender and sore. "Rheumatism," she says. Within a week seven children are motherless,—one the babe,—and Providence is credited with the horrible work. The real steps in the case were these: Ignorance, dirt, infection, general metastasis, abscesses, and death from pyemia.

I could recount several such cases that have come under my personal observation in the past three or four years. Nurses' training-schools will soon stop such ruthless slaughter.

Now the best nurses' training-schools are requiring a good common-school education, even to high school, and a three-years' course with constant study and practise. Our sanitariums must increase their requirements, else be in the rear. I believe the amount of domestic work too much. The time will have to be more fully given to study and practical nursing. Too often the nurses' training-school is secondary to the idea of getting the laundry, chamber, and kitchen work done for nothing. A small amount of domestic work is necessary for training. Many hospitals now require a tuition, even as much as \$100 a year. Nurses in training can not labor at hard physical work eight or ten hours a day, and then study their lessons. I know our sanitariums must make a radical change, and do more efficient, thorough training, or they will be in disgrace. Indeed, were it not for their massage and hydrotherapy, they would be now. Our schools are giving instruction in massage and water treatments, and are likely to excel in those lines.

In my opinion our course should make the following fundamental requirements in addition to the moral and Christian qualifications:—

1. Preliminary education at least ninth grade.
2. Three-years' course.
3. A minimum of domestic work.
4. More time for study and practical nursing.
5. Tuition, if necessary to support school.
6. Training-school first, and not secondary to other interests.
7. A competent, experienced nurse as superintendent of training-school.

I think it a mistake to urge all young men to take the nurses' course. Every young woman is benefited by the nurses' training. Women are more adapted for nursing than men.

I believe it proper to urge every physically and mentally able young woman to take the nurses' course. It will develop her far more than a classical education. By giving more scientific training and less domestic work a better class of young women will be attracted to the training-schools.

In regard to the education of physicians, there is much misapprehension. Formerly a doctor was any one who chose to call himself such. He need pass no State boards. He had likely read a few months in the office of the town physician, and at his earliest opportunity began business for himself. Probably his first impulse to become a doctor was while witnessing some emergency operation.

Until twenty years ago one could practise medicine after attending two winter courses of lectures in a medical college, the second year's lectures being a repetition of the first. Except a little dissection, there was no laboratory work. Fifteen years ago, medical colleges began to require a grammar-school education for entrance. Laboratories in chemistry, anatomy, and bacteriology were opened. A three-years' course was adopted. The college fees were raised. The education of a doctor became more expensive. Large sums of money were expended for laboratory buildings and equipment.

In the past ten years a four-years' course has been demanded. Laboratory courses in anatomy, physiology, bacteriology, chemistry, pathology, histology, hygiene, therapeutics, surgery, and other branches are given in all first-class colleges. The expenses have increased faster than the student's fees have been raised. The annual fee is from \$125 to \$200 per year. Entrance

requirements include a high-school course in most colleges, and even a Bachelor's degree in a few of the very best.

In a way it would be possible for the Seventh-day Adventists to start and maintain a school in a very creditable manner, if these were all the requirements. But in the past two or three years much progress has been made in medical education. Laboratories were a great advancement over didactic lectures. The best schools are now giving bedside clinics to small groups of students. We have been educating students about disease, but they were unable to recognize the disease when they saw it. Whereas laboratories were expensive, bedside instruction is much more so, inasmuch as it demands large free hospitals, and large investments. Pay patients object to the publicity of a clinic. Hence a modern medical college must have access to a large number of public hospital patients. This last requirement quite firmly rules out the feasibility of a denominational medical college. Bedside teaching demands a large number of experienced teachers of the very highest attainments. The increased demands upon medical education are making it unprofitable for private medical colleges. Some are closing their doors. Within a few years many will cease to exist. The medical college of the near future will either be under the State universities, and supported by appropriations, or in connection with rich universities heavily endowed.

Medical knowledge is increasing so rapidly that our physicians must be on the alert, else be found wanting. A knowledge of mush, toast, fomentations, and massage is not sufficient. The world is likely to become wiser in the use of our own tools than we ourselves. They have some very excellent tools that we sometimes fail to utilize, either because of ignorance or bigotry, neither of which traits are compatible with the highest type of a medical missionary.

My conception of a medical missionary is one who possesses a Christian character in its fullest degree, and in addition is a generally well-educated, refined man,—a deep student of medical science, progressive, wide awake, up to date, a keen observer, in science unbiased, impartial, open to conviction, ready to accept truth, anxious to renounce error,—in fact, a first-class doctor, who does not expect the Lord to excuse or prevent the blunders of indolent ignorance because of his high missionary profession.

DISCUSSION.

DR. W. A. GEORGE: Dr. Rand has made reference to our experience in Ann Arbor. We belonged to what might be called the first medical missionary class. A dozen or more of us went there with fear and trembling. We studied the Testimonies before, and we went feeling that we were on Satan's enchanted ground, and we felt that unless we had God's blessing, care, and support all the way through, we should be entangled in the snares of the world. We lived together in one house, and I might say that during the last year of my course there, I believe I spent more time studying the Testimonies along these lines of proper treatment of the body, etc., outside of lecture work, than I did in the study of our medical books, and I have never been sorry for it.

During the first year that we were there, we got hold of the little books, "How to Live," and "Spiritual Gifts, Vol. 4,"—a little book that was published a great many years ago. There were some wonderful things on health in them, which we appreciated at that time. We tried to do missionary work while we were there.

It is all-important for the one who goes off to a worldly school to engage in the study of medicine, to go with the realization of his danger. Such an attitude is far safer than to say, "Others have been over this road, they got along nicely, and so will we."

Among those who joined us in the course of two years after our first class went to Ann Arbor, there were young men and women who did not appreciate the danger, and I have since seen those young people apostatize. You will find that it is the all-important thing to go to these schools with the idea that temptations will be met, and so go fortified by the Bible, and the Testimonies, and especially by the Spirit of God.

G. A. IRWIN: I can not leave the meeting without speaking just a word of my appreciation of the paper that has just been read, and the principles which have been given. It has been my privilege to be very closely associated with some of those who graduated in that first class referred to, and I know that they are fully rooted and grounded in the truth. The Testimonies are made the basis of all their instruction to their training-schools.

Whether we go to a worldly school or to one of our own

schools, if these precautions are overlooked and made of minor importance, we are sure to fail of obtaining the right education. God has not given us these principles to trifle with. I would like to have them imbedded in the hearts of all of our young people.

DR. C. P. FARNSWORTH: I heartily agree with the first paper, and shall make it my endeavor to study more deeply into those things than I have in the past.

With reference to the second paper, I feel too sorely the need of the things which it speaks of myself, and I find every day that I know so little, and I have to place so much dependence upon the Lord. He has power to bring to our remembrance the things that we do know. It takes a large share of my time to keep up, and study and find out the things that I should know, and I feel very incompetent to carry on the work that I have in hand. I heartily approve of the idea that we must give up all superficial conceptions of this work. I did think that I knew a great deal, and when I came to practise, I found that I knew so little — so very little — that I was ashamed to meet my patients, and I am to-day. I believe that we ought to desire a higher medical education than we have at the present time. It is not meet that the Lord's people should follow in the rear.

DR. W. A. GEORGE: It is certain that the physician's study just begins when he graduates from school. It is when we come in contact with the patients that we have to study hard. If they would all feel as Dr. Farnsworth expresses himself, I am sure they would succeed.

TEXT-BOOKS FOR NURSES' TRAINING-SCHOOLS.

BY IDA S. HERR, M. D.,
Boulder, Colo.

IN treating the subject of text-books for nurses, we touch one that has already been much considered, and upon which much earnest, careful, painstaking effort has been made by men and women of experience. In attempting to arrange a standard, we had far better accept and make the best use of the text-books already presented and approved by the medical profession than to compile something inferior. Our nurses and institutions must have the very best for their text-books that

they may stand in the front ranks, and not trail in the rear because of a low standard of text-books.

The best text-books have been compiled by specialists who have spent time, money, and years of scientific research, experiment, and experience in their particular line, and so are qualified to bear a substantial, authentic opinion on their specialty of which the majority of us have only a general knowledge. Therefore let us see to it that any text-book that may be written shall not fall below the standard in its particular subject.

It seems to me, however, that the following plan is one that might be feasible for the time being at least: Let each training-school continue its work with its present text-books, and meanwhile let the various teachers do their best to improve and test their course of instruction, and in time there may be developed some excellent manuscript work on certain subjects that stand the closest test, and so be a help and honor to the profession.

It seems to me that the Lord could hardly sanction having his people place before their nurses inferior text-books, even though members of the denomination have compiled them. We have, for example, the education of Moses, Joseph, Daniel, Saul of Tarsus, all great men in the world, faithful unto God, who were educated from the very best text-books of their day, yet remained true to God and principle. It leads me to think that others may do likewise.

From the book entitled "Education," page 225, I find that God maintains that "true education does not ignore the value of scientific knowledge or literary acquirements." So in this matter of text-books for our nurses, God desires his people to be the head, and not the tail.

I have with me some manuscript of Dr. Kate Lindsay. Dr. Lindsay, as some of you know, is really the founder of the nurses' training-schools in our denomination. She is still very zealous to make them a success, and labors hard to do the very best for the young people who come under her influence by way of her teaching, text-book, and manuscript work. In addition to her long experience, she is continually studying and keeps abreast with the times.

The following is a list of the subjects of manuscript work which she, in accordance with request, has submitted for our consideration at this convention:—

Ten lectures on General Nursing.

Ten lectures on Christian Help Work.

- Thirteen lectures on Personal Hygiene.
- Ten lectures on Household Hygiene.
- Ten lectures on Nursing Gynecological Cases.
- Ten lectures on Advanced Gynecology.
- Ten lectures on Children's Diseases.
- Two synopses of Infant Feeding.

It might be of interest to some for me to give you a list of the text-books that are used in the Boulder, Colorado, Sanitarium Training-School for Nurses:—

Anatomy, Gerrish; Anatomy and Physiology, Lewis; Diseases of Children, Räthe; Obstetrical Nursing, Fullerton; Surgical Nursing, Fullerton; Advanced Obstetrical Nursing, DeLee; Practical Nursing, Weeks-Shaw; Care of Baby, Griffith; Gynecology, Davis and Ladies' Guide; Medical Dietetics, Ruräh; Manual for Fever Nursing, R. W. Wilcox; Materia Medica, Stoney; Electricity, Neiswanger; Infant Feeding in Health and Disease, Fischer; Bacteriology, Stoney; Hydrotherapy, Kellogg; Massage, Kellogg; Gymnastics (Corrective), (Medical), Hartelius; Chemistry, Williams; Hygiene and Sanitation, Parkes; Personal Hygiene, Pyle; General Diseases, Kellogg; Accidents and Emergencies, ———; Toxicology, Stoney.

We do not maintain that these are necessarily the best text-books for nurses, but they are the best that we have found and are using at present, and we are ever ready to change for better ones whenever they present themselves to our knowledge as something that would better our school.

From "Testimonies for the Church," Vol. 6, I quote the following:—

"Our work is reformatory; and it is the purpose of God that through the excellence of the work done in our educational institutions the attention of the people shall be called to the last great effort to save the perishing. In our schools the standard of education must not be lowered. It must be lifted higher, far above where it now stands."

Thus we see that there is a great field for consecrated study and research on the part of those who would be instructors in God's institutions, in order that they may bring to a higher standard the work committed to them.

TEXT-BOOKS FOR NURSES' TRAINING-SCHOOLS.

BY P. E. MARSH, M. D.,
Otter Lake, Mich.

NURSING has come to be justly regarded as one of the learned professions, and in its relation to the welfare of the human family it may be considered second only to the work of the physician. In fact, it frequently happens that the favorable termination of a case of sickness is due rather to the faithfulness and thoroughness of a conscientious and consecrated nurse than to the skill of the physician. The nurse, too, is brought in closer touch with her patient than the doctor, and has opportunities for missionary work that he is denied. It is therefore essential that our nurses should be as thoroughly trained in everything that pertains to their special work as should the physician.

While the practical side of the nurse's training may by some be considered the more valuable, and while the unceasing pressure of manual duties in our sanitariums tends to the interruption or neglect of class work and the faithful study of theory, didactic instruction must be given; and as this can not be properly given without suitable text-books, it therefore becomes an important question in the management of our nurses' schools.

In selecting a series of text-books for this purpose, the missionary idea should, as a matter of course, be kept uppermost in the training of those who are to help give the last message of mercy to a world sick morally as well as physically. So no list of text-books would be complete which did not include first of all the "Book of books," the Word of God. Next to the Bible, we find the new book "Ministry of Healing," and other testimonies of the Lord's Spirit, indispensable. A judicious and prayerful use of these by the instructor will offer one solution to one of the problems to be discussed by this convention,— "How to secure missionary activity on the part of nurses graduating from our training-schools."

With the Bible and the Testimonies for a foundation, it will be necessary to add other books giving more specific directions for carrying out the details of the nurse's work. No nurse can be considered competent to undertake her work without a general knowledge of the structure and functions of the human

organism, and this makes necessary suitable text-books upon anatomy and physiology. These should be followed by a book on general hygiene.

The next requisite is a book on general nursing. If this is sufficiently condensed, and everything not really essential left out, it would seem quite possible to bring within the compass of a single moderate-sized volume all that is needed on this subject. It could include sections on surgical, gynecological, and obstetrical nursing, or these could be left for a separate volume.

In the same way hydrotherapy and rational medicine, materia medica and therapeutics, electrotherapy, mechanotherapy, and massage should be provided for with a concise treatise on each.

The question naturally arises, What books shall we use? It is true that there are many good works on the subjects enumerated above, but all except the mere manuals are too voluminous for general use. The nurse, like the doctor, leads a busy life, and during the course of her training does not have time to wade through the voluminous literature of the subject. The tendency of all modern education is to be too superficial, to cover a vast amount of ground at the expense of what is really practical and essential.

In the instruction of nurses at the Otter Lake Sanitarium, the writer has felt the need of a series of text-books prepared with special reference to the needs of our work. Our literature already includes some books well adapted to the purpose. A series of books thus prepared would eliminate much that is out of harmony with the light given us on this phase of our work and the relation our nurses should sustain to it, and secure uniformity of work and methods in all our institutions.

A KNOWLEDGE OF DENTISTRY AS A QUALIFICATION FOR MEDICAL MISSIONARIES.

BY J. E. HACKNEY, D. M. D.,
St. Helena, Cal.

THE medical missionary movement, in the interests of which this convention is held, stands for the development of the highest possible degree of the health of the whole man. The aim of every medical missionary, whether physician, nurse, teacher, parent, or guardian, should be moral, intellectual, and physical

perfection. In brief, a medical missionary is one who goes forth practising the art of healing, and carrying with him the message of salvation.

The gospel commission is broad enough to take in every Christian as a worker. But in order that one may be efficient as a medical missionary, a special preparation is necessary. The work itself is so varied and of such magnitude, that "as one striving for the mastery" is temperate in all things, so those going forth to engage in this work should in no respect ignore the laws of nature that govern the functions of the human organism.

As we study the habits of the people in the care of the body, we find that but little intelligent thought is given to the care of the teeth. Even among fairly well-educated people, the care and treatment of the teeth is almost wholly given over to specialists. Specialism is one of the tendencies of the age. We have our specialists in surgery, in medicine, and in dentistry. And again these branches have their subdivisions.

The time is not far distant when all lines and branches of the medical profession will be classed as specialties of the medical profession, and we hope that the day is not far distant when there will be a greater degree of co-operation between the physician and the dentist, and when a more complete preparation will be required for this work.

While in the past half century the dental profession has made prodigious strides toward the goal of perfection, there is a still greater problem confronting the dentist of to-day than confronted him fifty years ago; for the destructive processes of dental caries and of diseases of the tissues surrounding the teeth has made even greater progress in the downward path than science has made in the upward path.

The dentist of to-day can not fail to look upon the situation as appalling, when he sees whither the race is tending. It does not need a prophet to tell him that in a few short years people will be toothless by the time they reach maturity.

The honest dentist is perplexed beyond measure as mothers come to him bringing their daughters in their teens, with perhaps not a perfectly sound tooth in their mouths. This condition was perhaps well established before the mother was aware of it. Horrified at the thought of her otherwise handsome daughter having to undergo the pain of extraction and the inconvenience of wearing artificial teeth before she is twenty, she exclaims: "Doctor, what can I do to save my child's teeth?" The den-

tist can but answer: "It is too late now to save these teeth, but for the benefit of the younger children, if such there be, I can perhaps give you some helpful hints." Thus an opportunity is presented to give some instruction on the anatomy, physiology, and hygiene of the teeth.

The teeth are covered with an intensely hard calcified tissue composed principally of lime salts. This tissue is by far the hardest found in the human body. This thin coat of enamel has great powers of resistance, but no means of repairing itself is provided by nature. The Creator intended that one set of teeth should last from youth to old age. But the enamel, hard as it is, is acted upon by many of the acids. For illustration, if a drop of sulphuric acid is placed upon a piece of the enamel, the chemical reaction will readily be observed. Thus the acids formed in the mouth by fermentation of particles of food lodged about the necks of the teeth, the result of the germ life that infests the oral cavity, are capable of gradually corroding the enamel.

Parents may not be able to understand why their children's teeth are so imperfect when their own showed no signs of decay till a much later time in life, although they never used any dentifrice germicide, and in many cases not even a tooth-brush. This is but a question of "sour grapes." "The fathers have eaten sour grapes, and the children's teeth are set on edge." Inherited weaknesses, with such predisposing causes as bad diet, bad air, poor ventilation, catarrhal conditions, acid dyspepsia, retarded circulation, cold feet, fevered brain, forced-draft business methods, loss of sleep, eating soft food, insufficient mastication,—these and many other causes, reflect directly or indirectly upon the quality and power of resistance of the children's teeth.

These suggestions open up a large field for discussion. But we must try to come at the matter more directly. The direct cause in many cases may be bad hygiene of the mouth, careless habits, and a weakened resistance of enamel against acid decalcification.

One of the greatest of these evils, in which lies a direct and predisposing cause of diseases of the teeth and surrounding tissue, is the use of fine-flour bread, and such soft foods as require little or no mastication. The muscles of mastication become weak and poorly developed, and the teeth are rendered comparatively useless.

I shall not attempt to offer any sure path to health along these lines. This is a day of fads and new departures, and of gospels of health not a few. Time and space forbid mentioning all the gospels and systems that offer to correct our degenerate organisms and disordered functions. Many of them contain great and good principles. Each one must decide what is best for himself, using his own common-sense; for no doctor or dentist can tell one just what to eat and when to eat, or how or how much to eat.

But observation teaches that frugal habits, plain, simple diet of such things as the earth produces in abundance, avoiding excess of sugar, supplying all the salts that nature requires to do her work well, with plenty of pure air, water, and exercise, not forgetting scrupulous cleanliness, will greatly assist nature in her battle for health against disease.

Now returning to the medical missionary phase of the subject. What should a medical missionary know about the technique of dentistry? And how much of this should be taught in our institutions of learning?

In reviewing medical missionary reports for the last ten years, one would be astonished to see how little has been done along these lines.

A Mr. Johnson tells how he went forth among the villages of Jamaica with his dental instruments and Bible in one side of his saddle case and his medicines and tracts in the other side. He would ride from one settlement to another, and when in range of several small villages he would blow his bugle, and the people would gather by the hundreds. He would then proceed to remove all aching teeth, administering medicine for fevers and the relief of pain, then preach the Word to them.

This is the natural order in which medical missionary work should be performed. First relieve pain, restore health of body and mind, then the door is open for the gospel.

In order properly to masticate one's food it is necessary to retain, if possible, all the teeth, for the strength of an arch depends upon each stone being in its place. So it is with the dental arch. It is a perfect self-supporting one, and the loss of one tooth would weaken it. In order to retain every member of the group it becomes necessary that one should possess sufficient knowledge to do emergency work to that extent that he could thoroughly clean and prepare a cavity and insert a simple filling. He also should be able to remove a dead nerve from the

pulp chamber and nerve canals, or devitalize an exposed nerve and remove the contents of the canal, and treat sufficiently to preserve the tooth, as a nurse would say, "until the doctor comes."

The removal of calcareous deposits from the necks of the teeth is often a simple process, but far-reaching in its results, since to allow these deposits to remain means in some cases the loss of the teeth, also the destruction of the alveolar ridge, thus rendering the wearing of an artificial set an impossibility. Sometimes a very small deposit will set up an irritation, and cause a flow of pus to exude from the cervical border of the gums. This suppurative process and continued sloughing poisons the whole system, and sooner or later undermines the health. Thus the importance of some knowledge along these lines.

A knowledge of the treatment of simple alveolar abscesses and how to avert the same is also of great importance.

Last, but not least, a more or less thorough knowledge of how, as a last resort, to extract a tooth, is important. If painlessly and carefully done this will win many friends to the operator.

We have endeavored to set forth some of the principal points relating to this subject, but time and space forbid a more lengthy discussion.

VEGETARIAN RESTAURANTS.

BY E. G. FULTON,
San Francisco, Cal.

VEGETARIANISM is gaining in popularity, and is no longer considered a fad, the idea of a peculiar people, as was the case a few years ago. In this country it has grown from a very small beginning within the last few years until we now have several organized vegetarian societies, a number of journals printed in the interest of vegetarianism, and a few well-patronized restaurants. Instead of there being about twenty restaurants in this country, we should have one or more in every large city. I believe in no other line of work can we do more toward physical uplifting and getting people ready for other features of the third angel's message than in this work. We are brought

into contact with a busy class of people that we might never be able to reach in any other way.

We find the *Signs of the Times* one of the best mediums of interesting people along religious lines. In the San Francisco restaurant we take a club of twenty. These papers are placed on the tables, and are quite generally read, and many are carried away. A fresh supply of tracts is also kept, and these are carried away by the thousand. We hope to see precious souls gathered into the fold of Christ as a result of these tracts and papers.

I will here mention a few of the most important points to be considered in starting a vegetarian restaurant. First, we must have a good location. Secure a well-ventilated room, and make it as attractive as possible. Our restaurants should be located in the center of the business portion of the city, and near other well-patronized restaurants, if possible. We have to go where people are, rather than expect them to come to us. Do not start in with too large a place; small restaurants do not incur as much expense, and are more satisfactorily managed in every way. In some places the mistake has been made of opening up restaurants on side streets, and a long distance from the business portion of the city, with the idea of getting cheap rent. In nearly every case this plan has proved a failure. Move this same restaurant to the best location, with the same management, same cooks, etc., and it can be made a grand success.

This work being comparatively new, it is necessary to do some advertising. We have found that one of the best ways to do this is to come into personal contact with the people. We have gotten good results from distributing bills of fare, blotters, cards, etc., in the immediate vicinity of the restaurant. Another effective way to advertise is to have a good window display. A show window need not be an expensive one in order to be attractive, although of course it ought not to be entirely out of style. Novelties are what add to the attractiveness of a display window, as they cause the people to look in or stop and examine the display. At first one may not hit upon anything particularly novel or extremely catchy, but if he aims to have the display neatly arranged, and to have the window kept bright, he will have made a good start toward attracting attention. Change the window often, and be the first to display fresh fruit and vegetables in season. Arrange the food in an attractive manner to tempt the appetite, and invite people in.

Another thing that is absolutely necessary is competent help, without which it is impossible to run a vegetarian restaurant successfully. We find that cooks who have had years of experience in sanitarium cooking have an excellent foundation, but must have additional training in order to do restaurant work well. A greater variety of dishes is needed, and almost a complete change of the menu daily is required. Keeping foods fresh and palatable all hours of the day is an important point, and one that all cooks do not understand.

After the food has been properly prepared, I might say half the battle is won, but only half, for the dishing up and serving of food is a very important point in making the work a success. Your help must be trained to dish up just so much food to each portion. It is one of the easiest things in the world for a cook to dish up a little too much each time, and in this way waste more than his salary.

That one can not prepare and cook food well without having been taught, goes without saying. If we had schools where cooks could be trained, intelligent, skilful cooks would not be so scarce. The subject of cookery is vital and practical, and why should it not be made a branch of study in our schools? It is a mistaken idea that this subject can be picked up and mastered on short notice. It requires years of practical experience to become proficient in this art. The cook's palate should be so delicate that it will immediately detect the slightest fault. To blend the toothsome with the wholesome is an art that requires much skill. The stomach is the mainspring of our system. If it be not sufficiently wound up to warm the heart and support the circulation, the whole business of life will, in proportion, be ineffectively performed; and as a result we can neither think with precision, walk with vigor, sit down with comfort, nor sleep with tranquility. It is not only necessary that food be made palatable, but it should be wholesome as well, a point which is often overlooked by so-called good cooks. The world does not produce a cook who knows how to do every branch of cookery well, be his genius as great as possible.

The dining-room should be a model of cleanliness. A more pleasing sight can not greet the hungry guest than a spotless array of linen and dishes. Too much stress can not be laid on this, and it is a point that requires constant watching.

For waiters and waitresses we should have conscientious young people of noble character, those who have had a Chris-

tian experience and will exert a right influence over those with whom they come in contact. I prefer young ladies, as they are usually better adapted to this line of work, and are more easily managed. Every waitress should thoroughly understand the bill of fare. It should be made a study, until they can suggest a well-combined meal for the sick as well as for those who are well. Waitresses can do much toward building up or driving away patronage. It is important to have up-to-date help in the dining-room. Pay good wages, secure the best help, and then demand first-class work.

I believe the arrangement of the food on the bill of fare also has a great deal to do with the success of the restaurant. Foods must be placed on the menu in an attractive way; one should harmonize with the other. The newest food you have, the most expensive ones, and the ones you are most desirous of selling, should be placed on the bill in the most prominent place. Remember that to excite the good opinion of the eye is the first step towards awakening the appetite. If there is a dish enumerated on the menu which does not return a profit, raise its price or omit its name altogether. Have all your foods cooked and served in a way that will bring a good price and at the same time please your customer.

The menus should be printed on good stock, and should be printed each day, rather than written with a pen or on the typewriter.

The buying for an institution of this kind is of some importance; but it is not a great task, and is the smallest part of the manager's work, provided he does his work well, and knows how to buy. He should know what he is buying, and the price. He should also know how much he will make on each article he buys.

A home should be provided for restaurant helpers where they can have home advantages and privileges, and be shielded from the many temptations found in all cities. We should work for the salvation of our employees as earnestly as for our guests.

We feel that the time has come for us to take advanced steps. We should be educating young men and women to carry on restaurant and health-food work.

In conclusion let me say I believe there should be vegetarian restaurants in all cities with a population of 70,000 or more. As the work grows in the larger places, it will be only a matter of time until the smaller ones will support the work.

RESOLUTIONS ADOPTED.

THE convention reaffirmed the following nine resolutions calling for aggressive medical missionary work, passed by the General Conference in May, 1905: —

EDUCATIONAL EFFORT.

1. *Whereas*, There is great need on the part of our people, and the world as well, of fuller knowledge of the principles of healthful living; therefore —

We recommend, That there be inaugurated a vigorous health and temperance educational campaign throughout the world: —

(a) By the circulation of an efficient and up-to-date health and temperance literature.

(b) By encouraging those conducting sanitariums, treatment-rooms, hygienic restaurants, and food stores to continually endeavor to make their work educational gospel enterprises.

(c) By aiding in making all our sanitariums, treatment-rooms, hygienic restaurants, and food stores centers for the circulation of our health and temperance literature.

(d) By encouraging our physicians and nurses who are doing independent, self-supporting missionary work to make their work evangelical, and to be active in the circulation of our health and temperance literature.

(e) By inviting all our ministers to heartily unite in this campaign by preaching more frequently on health and temperance subjects, and encouraging all our churches to engage in this work.

(f) By holding conventions for our physicians, nurses, and other medical missionary workers, where practical questions on all phases of medical missionary work may be considered, and plans of work laid.

(g) By conducting schools of health as opportunity may make it advisable.

2. *We recommend*, That our people be encouraged to utilize medical missionary and health publications as far as possible in their missionary work.

3. *Resolved*, That provision be made for systematic instruction in medical missionary lines, including simple treatments, general hygiene, physical culture, and dietetics in our schools and our general gatherings as far as consistent.

HEALTH LITERATURE.

4. *We recommend*, That the publishing houses be requested to give the same attention to the publication and circulation of health and temperance literature as is given to other lines of publications.

5. *We recommend*, That the literature committee be requested to make a careful study of the most pressing needs in these lines, and of the special qualifications of individuals to meet these needs, and that those whose experience and other qualifications are suitable be requested to prepare and submit manuscripts for the use of this department.

STANDARD FOR NURSES.

Whereas, The work of the nurses' training-school is fundamental to good medical missionary work,—

6. *Resolved*, That we approve of the effort that is being made to bring our training-schools for nurses to the highest possible standard.

7. *Resolved*, That everything possible be done to increase the missionary spirit, zeal, and efficiency of our nurses' training-schools.

8. *Resolved*, That the course of study, requirements for entering the schools and for graduation, be referred to a standing committee on training-schools for nurses, and we recommend that this committee consist of the General Conference medical missionary secretary and the superintendents of organized nurses' training-schools.

Whereas, The work of nursing is an important part of the great work of introducing and carrying forward the gospel of Christ, therefore,—

9. *We recommend*, That our nurses' training-schools seek a closer co-operation with their respective conferences, with a view of enlisting as fully as possible the services of nurses in missionary work.

REPORT OF COMMITTEE ON PLANS AND RESOLUTIONS.

The committee on plans and resolutions submitted to the convention a report, which, with slight modification, was adopted, as follows:—

SIMPLICITY AND ECONOMY.

Whereas, Experience, both in home and foreign fields, has abundantly demonstrated that successful medical missionary

work is not dependent on elaborate appliances, large buildings, or prestige other than that earned by workers locally engaged,—

10. *We recommend* those engaged in pioneering health enterprises to exercise simplicity and business conservatism in their initial expenses, depending more on professional skill and the application of loving personal service in the use of natural therapeutic measures.

DISCUSSION OF RECOMMENDATION NO. 10.

F. M. WILCOX: We should study how we can make the best use of the money we get, and make it go as far as possible, as well as study how we can get money from our people to carry forward this work. I believe we should study simplicity and economy of effort. I do not believe we ought to adopt the standard of the world, and feel that outward show is what our success depends upon. I believe we should realize that the power of our work lies in the power of the truth we represent, the principles we are carrying to the people, and in the Spirit of God that goes with it.

DR. W. A. GEORGE: This recommendation is designed for those who are fitting up sanitariums. There are some here who have had this experience of starting out with a small amount of means, and gradually working up. We would like to hear from some of these.

MISS MARTINSON: If we teach the principles that Christ has given us to teach, we can not build up sanitariums for show, because it is contrary to what He wants us to teach the people. The things that make people sick are those things that are just for show. I was impressed with that fact in my work in Chicago. It is necessary to teach people simplicity in their dress and daily habits. If we endeavor to show them what simple life is, I believe we will make much more of an impression on the people.

DR. W. C. GREEN: I am very much in favor of this resolution, because I believe on that principle rests the real success of our future medical missionary work. I believe in what the Testimonies have told us,— that we should not attempt to make a display, but it is by the truth we represent that we are to influence the lives of those with whom we come in contact. We started out with some cotton curtains for partitions,— our facilities were very meager indeed. We had one bath-tub, one spray,

a lawn hose, a shower bath, and some oil-cloth curtains to enclose the shower. We got along very nicely with that for a year, when we prepared well-equipped bath-rooms, and everything that is necessary to give our treatments. We work on a cash basis. If we do not have the money, we wait until we get it. Thus we have made our earnings pay for the equipment, until to-day we have a well-equipped plant from cellar to garret, and the institution is more than paying expenses.

One patient, whose ailments had been caused by things peculiar to society life, said, "Every time I come into this house I notice a special influence about this place and your workers that I can not resist. There is a holy influence here that I can not explain." This is the character that I think should permeate our institutions; not display and useless expenditure of money. In many of our institutions money is just thrown to the birds by being spent carelessly. Working upon the principles of economy will give us a standing with the stanch business people. I believe we can gain an influence with Christians by using economy.

E. T. RUSSELL: I am very much in sympathy with this recommendation. But I was thinking as I listened to the remarks of Doctor Green of a story I used to hear while attending school, entitled, "More Haste, Less Speed." I think we have been making a great deal of haste in the line of establishing large and expensive plants. We establish them without having any idea of the great expense we are bringing upon the denomination. And not only this, but it has a tendency to tie up our young people in institutional work, and thus we are "corraling," so to speak, the young people of this denomination, when we believe they should be educated in medical missionary lines, and should go out and carry these principles to the homes of the people. They ought to go out and labor for the masses. I believe as suggested in this recommendation, that we should establish comparatively inexpensive institutions where we can reach the masses, and then as our business increases, gradually increase our facilities. I believe God will bless us if we undertake the medical missionary work in this way.

W. C. WHITE: From the view-point of a patron, I would like to say that some of the best treatments I have received were taken where the facilities were very limited. The doctors and nurses said, "Now we haven't expensive appliances, so we will have to make it up by skilful work," and so it proved to be.

There is a caution I would like to drop in connection with this matter, and that is when we are obliged to commence with small facilities, and we are praised for the simplicity in the manner of managing our institutions, do not settle down and be satisfied with present attainments. We should always strive for improvement. We should not allow the fact that we are able to do a good business with limited facilities to lead us to become neglectful. I have seen business men who have allowed their facilities to run down and things become very dirty, and, if I may use the term, slovenly. The thought is to practise simplicity — do the best we can with the facilities we have, and God will bless; and He always wants us to work for improvement, and everything that can be done with our own energy and earnings ought to be done to make improvement. I have been in places where the physician, and sometimes the trained nurse, was complimented because of his ability to put up a little frame and cover it with oil-cloth and put in a cheap spray; but after it was run a year, the oil-cloth was torn, and everything looked dirty. I wish every man and woman connected with these small places would use the same persistency that the housekeeper does in keeping things nice and clean, and I believe the continual blessing of God will be with them, and financial prosperity will attend them.

G. A. IRWIN: I do not understand from the reading of this resolution that it is designed that this body shall condemn our present established well-equipped sanitariums. The Lord has spoken in regard to these, that we ought to have them; but in establishing new ones in new fields we must not think that because we can not have all the modern appliances that we have in our larger sanitariums, we can do nothing. We can start the Lord's work and do it very successfully with very meager facilities, if it is necessary. It seems to me that this recommendation is driving at the thought that we can do medical missionary work with very meager facilities to begin with, and the Lord will bless our efforts. He wants to see improvement along these lines, and just as soon as we can add better facilities we should do so; and all the time let cleanliness and meekness characterize the work we do.

DR. J. E. FROM: A letter just received from Dr. Geo. K. Abbott, of Loma Linda, Cal., touches this question to quite an extent. I will read it with your permission: —

To the Medical Missionary Council, held at College View, Nebr.

DEAR FELLOW WORKERS: We are all much encouraged in believing that this convention will meet a long-felt need. At its inception all branches of the work were designed and conducted for one grand purpose,—that of carrying the “gospel of the kingdom” to all the earth for a witness unto all nations. The Medical Department was essentially evangelistic and missionary. We are further from the object of these institutions than when we started. The Lord has told us that we must return to the unalloyed truth as it was delivered to His people, and hold higher than before the principles of simple, natural living.

Sanitariums should not be established for the advancement of scientific medicine, as such; but should be a means of bringing to a knowledge of the truth for this time, those who come to them seeking physical restoration. The honest, careful, and scientific work done in them should not be belittled, for we can not afford to be second. God does not design that our physicians should come short on these lines; we should be the head, and not the tail. But we have become absorbed in scientific research for which we have neither the time nor the means, and neglected the welfare of perishing souls whom God has placed under our care. These medical investigations can better be accomplished elsewhere, and by those who have the time and means necessary, and we yet have the benefit of it.

How many sanitariums have been crippled at their very beginning by unwise and extravagant expenditure of money in expensive apparatus for research, analysis, and burdensome calculation, which, when finished, adds absolutely nothing to a clearer knowledge of the case in hand, nor does it prove a benefit to the patient who pores over a complicated record of his own misery. He becomes more and more self-centered and introspective. How much better to direct his attention to perfect life and health, and encourage the spending of much of the day amid the vivifying, health-giving scenes of nature. By beholding we become changed. Let him look to the great Source of all life. Let him study nature as God made it, and not man as sin has changed him. Keep constantly before him the healthful activities of life instead of the scientific data regarding his particular ailment, which can not transfuse the life-giving power of God into his disease-ridden body.

Simplicity in diet is essential to the treatment of digestive

maladies. Complicated mixtures, and fancy dishes made of many things, are often productive of more harm than meat. A variety is essential; we all tire of sameness, but this variety should be had during several meals, instead of so many dishes at one meal. Let the menu be brief and simple, but frequently changed. We would be content with a more limited menu, if the dishes were more simply made, and as near as possible to the natural state. Graham gems and breads of a similar nature do not tire the appetite, and are relished morning after morning, while so much dry food becomes a weariness. Nuts in their natural state are more quickly and easily digested than when cooked and prepared after expensive processes, which place these foods beyond the reach of mankind. Better to encourage active life in the garden among the shrubs and flowers, thus producing a real desire for food, than to resort to many artificial methods of creating an appetite. We are told that the appetite is five times more potent in the stimulation of digestive activities than any other means.

The gymnasium work should be in hoeing, raking, and cultivating flowers and gardens, training and tending vines, shrubs, and trees, instead of tiresome indoor manipulating of machines and pulleys. The very life out of doors is health-giving, and makes unnecessary the weariness and purposeless swinging of the arms and clubs.

The patient is tired by the ceaseless round of sanitarium régime, and literally worn out and exhausted with overmuch treatment, all of which is good in the proper quantity. The body requires rest and time to build up its strength and restore energy expended by the tonic measures, which when short and well-directed do so much to hasten the sluggish currents of life. Fewer nurses would lose health and be compelled to seek other vocations, if these things were faithfully carried out in our institutions. The helpers are so bound up in the routine of sanitarium life that they have little time for out-of-door recreation or spiritual advancement. Can we hope for or expect an active Christian experience in one whose physical being is constantly taxed to its utmost? Let us take time to be holy, and more time for the study of God's Word.

The very atmosphere of the sanitarium should be so filled with the spirit of the Christlike life that not one will go away without being led to inquire for the secret of such restful happiness and abundant joy. All who come within the sphere of its

influence, will be led to exclaim, " We never saw it on this wise before."

All the signs in the world about us tell of the exceeding shortness of the time and the great work to be done. Let us not, therefore, waste our energies and God-given talents in so many nonessentials, but make all we do subservient to the one great object of medical missionary work, the warning of the world, and the saving of such as will come unto Him.

May the spirit of consecration and unity be felt throughout the entire assembly. We are many members, but one body, and all have not the same work. So let us labor together in love and fellowship for each other and for the sick and sorrowful. Praying earnestly that we may be kept by the power of His might, and ceasing not to implore the Lord of the harvest to send forth laborers into the great wide harvest field, let us go in faith, knowing that He is with us even unto the end of the world.

Trusting that we all may be brought to a fuller knowledge of the truth and to a more earnest consecration to His service, I am

Yours in the blessed hope,

GEO. K. ABBOTT.

DR. W. A. GEORGE: In this, as in all these other topics, we need to be conservative. We do not want to take an extreme position either way. Our large institutions, where we expect to treat wealthy people should certainly differ from the smaller places where the work is beginning and there are only a few patients. From the standpoint of the equipment of our larger institutions, I wish to say a few words. It is not necessary to put in an expensive apparatus when a more simple apparatus will do as well. If you can make something that will cost only ten dollars, which if bought ready made would cost from fifty dollars to one hundred dollars, and simply use some one else's mind, I think it would be better to make the apparatus. I would not suggest that any one try to make his own instruments, or to do work with poor instruments; we will lose the lives of our patients if we do. But when a thing will cost only one dollar if we make it ourselves, which otherwise would cost five dollars, and we can save four dollars for the work, I say it is the proper thing to do. This applies to those starting up in a small way.

In the training of our physicians and nurses in our larger institutions, they are apt to get the idea that they can not do any-

thing unless they have just the same facilities that they had when in training. They should be taught to get along with simple appliances, and still do a good work for the Lord.

DR. RAND: I have had a little experience in starting treatment-rooms during the last fifteen years. It is not the outward adorning that is needed, but it is the spirit of the individuals who work that makes it a success. I know of several little bath-rooms that have started in that way, and have done wonderful work, and others that started out well equipped have been closed up after a short time. I have known very influential people of the city to come to simple treatment-rooms to get their treatments, when they could have gone to places where elaborate Turkish baths and many conveniences could be had; but they came to us because they could get help. It is the Christian spirit of the individuals that counts.

F. L. HOMMEL: I want to refer you to a text found in Zech. 8: 23: "Ten men shall take hold of him that is a Jew, saying, We will go with you, for we have heard that God is with you." That is the best equipment a sanitarium can have. I believe in progress, and in such treatment as will enable us to do the very best work; yet the progress of our sanitariums depends upon the spirit in which the work is done. We must never forget that we are wholly dependent on God.

In starting our work we had a little room twelve by fourteen feet, with a little oil stove and a tin pail, and in that room we worked for a year. To-day we have well-equipped rooms in Alberta, Canada, two thousand miles from here, and the influential people of the city are coming to us for treatment. We were led to depend wholly upon God, and he has blessed us richly.

ORGANIZATION OF NURSES' BUREAUS.

Whereas, There is a growing demand on the part of many nurses in our denomination for the organization of a nurses' association as a means whereby closer unity of effort may be secured in methods of work and Christian co-operation; therefore,—

11. *Resolved*, That immediate steps be taken for the formation of such an association in each Union Conference, and that a committee of seven be chosen by this convention to give study to this question, and to formulate a plan for this organization.

12. *Voted*, That notice be published in the *Review and Herald*, Union Conference and State papers, requesting the

trained nurses throughout the different conferences to send their names with both present and permanent addresses, to persons named in the published announcements, with the view of organizing a nurses' association.

13. *Voted*, That the president of each Union Conference recommend representative nurses to attend the next session of their Union Conference, for the purpose of organizing a nurses' association.

14. *Voted*, That Drs. W. A. George, J. E. Froom, and G. T. Harding constitute a committee to execute these plans.

DISCUSSION OF RECOMMENDATIONS FOR NURSES' ASSOCIATIONS.

DR. I. A. DUNLAP: Is it intended in this that the nurses in the various Union Conferences will each organize a local nurses' association, or will there be some plans outlined to present before these conferences and ask them to join in a general association?

DR. W. A. GEORGE: Let each Union Conference organize its own nurses, and perhaps the committee to whom the details are referred will recommend that a general association be formed of the nurses' bureaus in the various Union Conferences.

I. H. EVANS: I am interested in this thought of a nurses' bureau. I believe in it. I see no way by which we can help our nurses so much, or use their labors so effectually for the dissemination of our work, as the proper creation of bureaus. This has not been tried by us, and so will have to be worked out. There is a great demand for trained nurses in our large cities. I have thought for some time that we should use the hundreds of nurses scattered throughout this country in training our young people to go out and represent our work. A nurse in New York City has more than seventy in her training-class. This training-school maintains a self-supporting home for nurses, and utilizes their ability where it is needed. This recommendation of the committee is all right so far as they have gone; but our plans will have to be developed. It seems to me it would be wise to appoint a committee to study this organization, and suggest methods of operation, and map out plans by which it can be made as near self-supporting as possible,—to outline methods as to how it shall exist and how it shall be supported.

Some of our Union Conferences will hesitate about launching out into an organization that they know nothing about and have not seen worked out.

DR. W. A. GEORGE: I was interested in the plan that was adopted in the South Dakota Conference this summer. The idea in this conference was to have a secretary, who should keep in touch with all the nurses in that conference, and ask them to report if any were out of work, and keep in close touch with the secretary at all times. Any one needing a nurse would report to the secretary, and thus their nurses avoid being out of work long at a time. I believe they planned that some of the nurses should go out in tent companies to engage in work in every way possible. These nurses would be kept in touch with the conference, and they would also have reports published in the conference paper. I would like to see some plan carried out, whether it be a Union Conference association, or a State association. In some conferences, each conference would have enough nurses to have an association of their own.

Dr. C. P. Farnsworth and Elsie Martinson, M. D., spoke of the need of nurses' training-schools having a more uniform standard of terms, entrance requirements, courses of instruction, etc.

Some very earnest statements were made by members as to our responsibility to make announcements of our training-schools in a conservative manner, and to "absolutely refrain from making announcements until we could deliver the goods."

An observer of large experience, in close touch with our health institutions in many countries, stated that in making inquiry of the sanitarium employees as to their training, the nurses were very appreciative of what they received, but said that it was very common to have their classes interrupted or give place to the urgent duties and emergency demands upon the attention of their busy instructors.

PUBLISHING ANNOUNCEMENT FOR TRAINING-SCHOOLS.

Attention was called by Dr. Farnsworth to the danger of publishing in our denominational papers the announcements of unqualified or unauthorized training-schools, who essay to graduate nurses on short terms. The convention advised that the officers of the General Conference Medical Department furnish a list of qualified and approved nurses' training-schools to the editors of our denominational papers.

The following resolutions were then unanimously adopted:—

CANADIAN FIELD.

Whereas, The Canadian field, especially Manitoba and Alberta, is greatly in need of medical missionary effort; and,—

Whereas, Earnest appeals have come from this field for physicians; therefore,—

15. *We recommend*, That several physicians be encouraged to prepare themselves for active work in the Provinces above mentioned.

16. *Resolved*, That we express our gratitude to God for the marked evidences of his favor that have attended this meeting: in the clearing up of difficulties, in the establishment of a genuine brotherly feeling, in the special light that has come to us through the Spirit of prophecy, and for the assurance we have of renewed prosperity in the medical missionary work as a part of the third angel's message.

PATENT MEDICINE.

17. *Resolved*, That we increase our efforts to educate the people in the simple and rational treatment of diseases, thus protecting them from dependence upon patent medicines, and from the unscrupulous efforts of mercenary advertisers.

FINANCIAL AID FOR HEALTH INSTITUTIONS.

Whereas, We appreciate the importance of at once beginning an energetic campaign in behalf of "Ministry of Healing"; and,—

Whereas, We realize that the success of this campaign will depend quite largely on our attitude toward it; therefore,—

18. *Resolved*, That we, individually, as members of this convention, pledge ourselves to give our earnest moral support to this movement, that by our example others may be encouraged to engage in the sale of the book, "Ministry of Healing."

ANOTHER CONVENTION FAVORED.

19. *Resolved*, That we request the officers of the Medical Council to arrange for the holding of another convention next year.

PROCEEDINGS TO BE PUBLISHED.

20. *Resolved*, That the proceedings of this convention be published in pamphlet form, for free distribution, and that the chairman, secretary, and Dr. G. H. Heald be a committee on publication of the report.

HOSPITALITY RECOGNIZED.

21. *Resolved*, That we express our appreciation of the generous way in which we have been entertained by the Central Union Conference, the Union College, the Nebraska Sanitarium, and the brethren and sisters of College View.

The calm, earnest attendance of busy physicians throughout a six days' convention, the evident presence of God's Spirit in every session, the freedom from all spirit of debate, and the absence of flattery and the exaltation of men, moved the entire congregation to close the convention by heartily singing, "Praise God, from whom all blessings flow."

W. A. GEORGE, M. D., *Chairman*.

J. E. FROMM, M. D., *Secretary*.

TESTIMONIES PRESENTED TO THE CONVENTION.

CO-OPERATION BETWEEN SCHOOLS AND SANITARIUMS.

BY MRS. E. G. WHITE.

I HAVE been instructed that there are decided advantages to be gained by the establishment of a school and a sanitarium in close proximity, that they may be a help one to the other. Instruction regarding this was given to me when we were making decisions about the location of our buildings in Takoma Park. Whenever it is possible to have a school and a sanitarium near enough together for helpful co-operation between the two institutions, and yet separated sufficiently to prevent one from interfering with the work of the other, let them be located so as to carry on their work in conjunction. One institution will give influence and strength to the other; and, too, money can be saved by both institutions, because each can share the advantages of the other.

In connection with our larger schools there should be provided facilities for giving many students thorough instruction regarding gospel medical missionary work. This line of work is to be brought into our colleges and training-schools as a part of the regular instruction. This will make it unnecessary for our youth from all parts of the land to go to Battle Creek, or to any other one or two places, to obtain a thorough and satisfactory education and training.

Those in training to be nurses and physicians should daily be given instruction that will develop the highest motives for advancement. They should attend our colleges and training-schools; and the teachers in these institutions of learning should realize their responsibility to work with and to pray with their students. In these schools, students should learn to be true medical missionaries, firmly bound up with the gospel ministry.

Our people who have a deep interest in the children and

youth, and in the training of laborers to carry forward the work essential for this time, need not be left in perplexity and uncertainty about the steps to be taken for the training of their youth as medical missionaries. God will open ways before all who humbly seek him for wisdom in the perfecting of Christian character. He will have places ready for them in which to begin to do genuine missionary work. It is to prepare laborers for this work that our schools and sanitariums are established.

For the strengthening of this line of effort, counsel has been given that in connection with our larger schools there should be established small sanitariums. Whenever a well-equipped sanitarium is located near a school, it may add greatly to the strength of the medical missionary course in the school if perfect co-operation is established by the managers between the two institutions. The teachers in the school can help the workers in the sanitarium by their advice and counsel, and by sometimes speaking to the patients. And, in return, those in charge of the sanitarium can assist in training the students who are desirous of becoming medical missionaries for field service. Circumstances, of course, must determine the details of the arrangements that it will be best to make. As the workers in each institution plan unselfishly to help one another, the blessing of the Lord will surely rest upon both institutions.

No one man, whether a teacher, a physician, or a minister, can ever hope to be a complete whole. God has given to every man certain gifts, and has ordained that men be associated in his service, in order that the varied talents of many minds may be blended. The contact of mind with mind tends to quicken thought and increase the capabilities. The deficiencies of one laborer are often made up by the special gifts of another, and as physicians and teachers thus associated unite in imparting their knowledge, the youth under their training will receive a symmetrical, well-balanced education for service.

In all these efforts, there will come many opportunities for manifesting gentlemanly courtesy. The Christian is always courteous. And by association with his fellow-workers, he becomes more and more refined. He learns to overlook little points of difference regarding questions that are of no vital consequence. Such a man, when in charge of one of the Lord's institutions, is willing to deny self and to yield his personal opinions on matters of minor importance, in order that, with all brotherly kindness, he may co-operate heartily with the man-

agers of another institution near by. He will not hesitate to speak plainly and firmly when occasion demands; but his every word and act will be mingled with a courtesy so kindly, so Christlike, that no offense can be taken. Powerful is the influence for good that is exercised by a consecrated, active Christian gentleman. And when the managers of our institutions in close proximity learn to unite their forces, and to labor unselfishly and untiringly for the upbuilding of one another's work, the results for good are far-reaching.

The benefits of hearty co-operation extend beyond physicians and teachers, students and sanitarium helpers. When a sanitarium is built near a school, those in charge of the educational institution have a grand opportunity of setting a right example before those who all through life have been easy-going idlers, and who have come to the sanitarium for treatment. The patients will see the contrast between the idle, self-indulgent lives that they have lived and the lives of self-denial and service lived by Christ's followers. They will learn that the object of medical missionary work is to restore, to correct wrongs, to show human beings how to avoid the self-indulgence that brings disease and death.

The words and actions of the workers in the sanitarium and in the school should plainly reveal that life is an intensely solemn thing, in view of the account which all must render to God. Each one should now put his talents out to the exchangers, adding to the Master's gift, blessing others with the blessings given him. At the day of judgment, the life-work of each one is investigated, and each one receives a reward proportionate to his efforts.

That the best results may be secured by the establishment of a sanitarium near a school, there needs to be perfect harmony between the workers in both institutions. This is sometimes difficult to secure, especially when teachers and physicians are inclined to be self-centered, each considering as of the greatest importance the work with which he is most closely connected. When men who are self-confident are in charge of institutions in close proximity, great annoyance might result were each determined to carry out his own plans, refusing to make concessions to others. Both those at the head of the sanitarium and those at the head of the school will need to guard against clinging tenaciously to their own ideas concerning things that are really nonessentials.

There is a great work to be done by our sanitariums and schools. Time is short. What is done must be done quickly. Let those who are connected with these important instrumentalities be wholly converted. Let them not live for self, for worldly purposes, withholding themselves from full consecration to God's service. Let them give themselves, body, soul, and spirit, to God, to be used by him in saving souls. They are not at liberty to do with themselves as they please; they belong to God; for he has bought them with the life-blood of his only-begotten Son. And as they learn to abide in Christ, there will remain in the heart no room for selfishness. In his service they will find the fullest satisfaction.

Let this be taught and lived by medical missionary workers. Let these laborers tell those with whom they come in contact that the life that men and women now live will one day be examined by a just God, and that each one must now do his best, offering to God consecrated service. Those in charge of the school are to teach the students to use for the highest, holiest purpose the talents God has given them, that they may accomplish the greatest good in this world. Students need to learn what it means to have a real aim in life, and to obtain an exalted understanding of what true education means. They need to learn what it means to be true gospel medical missionaries, — missionaries who can go forth to labor with the ministers of the Word in needy fields.

Wherever there is a favorable opportunity, let our sanitariums and our schools plan to be a help and a strength to each other. The Lord would have his work move forward solidly. Let light shine forth as God designed that it should from his institutions, and let God be glorified and honored. This is the purpose and plan of heaven in the establishment of these institutions. Let physicians and nurses and teachers and students walk humbly with God, trusting wholly in him as the only One who can make their work a success.

November 14, 1905.

LETTERS TO A PHYSICIAN IN PERPLEXITY.

“ELMSHAVEN,” SANITARIUM, CAL., Feb. 22, 1903.

DEAR BROTHER: I have wished so much that I might have an opportunity to talk with you. Could I see you, I should say to you what I have been saying to you recently in the visions of the

night. You were apparently undecided as to what you would do in the future. I asked, "Why are you perplexed?" You replied, "I am perplexed in regard to what is the best course for me to pursue." Then One who has authority stepped up to you, and said, "You are not your own. You have been bought with a price. Your time, your talents, every jot of your influence, is the Lord's. You are his servant. Your part is to do his bidding, and learn daily of him. You are not to set up in business for yourself. This is not the Lord's plan. You are not to unite with unbelievers in medical work. Neither is this the Lord's plan. His word to you is: 'Be ye not unequally yoked together with unbelievers; for what fellowship hath righteousness with unrighteousness? and what communion hath light with darkness? And what concord hath Christ with Belial? or what part hath he that believeth with an infidel? And what agreement hath the temple of God with idols? for ye are the temple of the living God: as God hath said, I will dwell in them, and walk in them; and I will be their God, and they shall be my people.'

"'Wherefore come out from among them, and be ye separate, saith the Lord, and touch not the unclean thing; and I will receive you, and will be a father unto you, and ye shall be my sons and daughters, saith the Lord Almighty.' 'Having therefore these promises, dearly beloved, let us cleanse ourselves from all filthiness of the flesh and spirit, perfecting holiness in the fear of God.'"

You are to receive the grace of Christ, the great Medical Missionary. His divine wisdom will be given to you if you will refuse to yield to the inclination to link up with the world. God desires you to place yourself where you can work in connection with other physicians. You and the one with whom you are associated may not be of the same temperament. It is better if you are not. That which one needs the other may supply,—if each will learn to wear the yoke of Christ. "Take my yoke upon you," he says, "and learn of me; for I am meek and lowly in heart; and ye shall find rest unto your souls. For my yoke is easy, and my burden is light."

My brother, choose to obey Christ. In his meekness and lowliness receive his counsel. Stand shoulder to shoulder with your brethren, and this will encourage them to stand shoulder to shoulder with you. Hide self in Christ, and the Saviour will be to you a present help in every time of need.

God's people have many lessons to learn. They will have

perfect peace if they will keep the mind stayed on Him who is too wise to err and too good to do them harm. They are to catch the reflection of the smile of God, and reflect it to others. They are to see how much sunshine they can bring into the lives of those around them. They are to keep near to Christ, so close that they sit together with him as his little children, in sweet, sacred unity. They are never to forget that as they receive the affection and love of God, they are under the most solemn obligation to impart it to others. Thus they may exert an influence of rejoicing, which blesses all who come within its reach, irradiating their pathway.

This is where the people of God make so many mistakes. They do not express thankfulness for the great gift of God's love and grace. Selfishness must be expelled from the soul. The heart must be purified from all envy, all evil surmising. Believers must constantly receive and impart the love of God. Then unbelievers will say of them, "They have been with Jesus, and have learned of him. They are living in intimate companionship with Christ, who is love." The world has keenness of perception, and will take knowledge to some purpose of those who sit together in heavenly places in Christ Jesus. The character of God's human agencies must be a transcript of the character of their Saviour.

Many things were said,—things that made my heart burn within me. I awoke praising God.

I write this to you, my dear brother, in the hope of helping you. You are in an unsettled state of mind, and are tempted to do a strange work, which God has not appointed you to do. None of us are to strike out alone; we are to link up with our brethren, and pull together, and God will give us influence and self-control. We are to draw near to God, that he may draw near to us.

No one can gain completeness in Christ, who, having the means of gaining a deeper experience in the things of God, fails to realize that every ray of heavenly light, every jot of blessing, is given to him to give to all who come within the sphere of his influence. If we are qualifying ourselves to live in heaven, we are daily drawing nearer and nearer to our Redeemer. We are to represent Christ in every phase of character.

What is the Bible test of character? "If a man love me, he will keep my words; and my Father will love him, and we will come unto him, and make our abode with him." No one need

perish in spiritual blindness. A plain "Thus saith the Lord" has been given for the guidance of all.

My brother, I send these words to you in the love of Christ, and I pray that you will act upon them.

(Signed) ELLEN G. WHITE.

"ELMSHAVEN," SANITARIUM, CAL., Feb. 24, 1903.

MY DEAR BROTHER: There is need for every physician closely and critically to examine himself. What is his religious experience? Does he allow self to rule? Does he make his own wishes and desires supreme? Does he keep the glory of God ever before him? Is he learning daily of Jesus? If this is your experience, those with whom you are connected will be led nearer to the Saviour. Why? — Because you are constantly beholding Him who is the Way, the Truth, and the Life.

You will not need to try to shine. You will not be able to help shining. As you behold Jesus, his brightness comes into your life. In your words there is elevated thought and sanctified intelligence. Those with whom you associate take knowledge of you, that you have been with Jesus and have learned of him; for you reflect his image. You have esteemed his words more than your necessary food. You have sat at his feet and learned of him. Your words and works testify to your union with Christ.

I wish to say that there is danger of our physicians taking themselves into their own hands, thinking that they understand best what they should do. They think that those who offer them counsel do not understand their capabilities or appreciate their value. This is the stumbling-stone over which *some, at least,* have fallen. You are not beyond the temptation of thinking that you can do better work alone than when linked up with your brethren. The very ones who think this are the ones who need the companionship and help of a fellow laborer.

My brother, the Lord needs your help in his work. Will you not be his helping hand? It would be a serious mistake for you to accept a worldly position, where it would not be possible for you to do the medical missionary work that God desires you to do. Do not make this mistake. Place yourself under the guidance of the greatest Medical Missionary the world has ever known. Under his direction you will gain increased capabilities for doing his work.

The Lord's people are to testify, by Christlike lives, that God

has a people on the earth who represent the pure and holy company that will meet round the throne of God, when the redeemed are gathered into the holy city. Those who in this earth love and obey God will be accounted true and pure and loyal, worthy to dwell with him in the heavenly courts.

Will our people awake to their individual accountability? Will they realize that as those who have a knowledge of present truth, their work is clearly defined? We are to show plainly that we are on the Lord's side, fully identifying ourselves as believers in the principles that called us out from the world to take our stand on the platform of eternal truth. We are to proclaim the message for these last days,—the message that the coming of the Lord is near. Let every one resolve to be like Jesus. Let us wait and watch for the coming of our Lord in the clouds of heaven with power and great glory. Christ is the head of his church. He alone is to be exalted and honored. When his ambassadors fail to honor him by refusing to give evidence that they are God's peculiar people, they are going backward, and not forward.

“Now the Spirit speaketh expressly, that in the latter times some shall depart from the faith, giving heed to seducing spirits, and doctrines of devils.” Soon this will come to pass; for we are near the close of this earth's history. “But ye are a chosen generation, a royal priesthood, an holy nation, a peculiar people; that ye should show forth the praises of Him who hath called you out of darkness into his marvelous light; which in time past were not a people, but now are the people of God; which had not obtained mercy, but now have obtained mercy.”

I pray that the people of God may not cast aside the peculiarities of their faith. Christ is glorified by a life of constant, well-defined faith. Paul declares, “The life which I now live, I live by the faith of the Son of God, who loved me, and gave himself for me.” Christ is to be glorified by the living, working faith of his people. The just shall live by faith.

Christ has not left his people to stumble along in darkness. He has marked out the way before them. He says, “He that will come after me, let him deny himself, and take up his cross, and follow me.” It is along the path of self-denial, the royal highway cast up by the Redeemer, that God's people are to travel.

My brother, bow in submission before him who has brought life and immortality to light. Let your will and the will of

Christ be one. Talk this, pray this, live this. God's word to us is, "Go forward," and this word we are to obey, though we shall meet with obstacles seemingly as insurmountable as the Red Sea. Let us trust the Lord God of heaven to open the way before his people. "Commit thy way unto the Lord; trust also in him, and he will bring it to pass." This patience of the soul is the rest of faith. The Lord will bless his tried, faithful people. He will not leave them to become confused.

In the last great day every word, every act, will be subjected to the crucial test of the Judge of all the earth. The new covenant that God has made with his elect will not cover one trace of evil. God says, "Then will I sprinkle clean water upon you, and ye shall be clean; from all your filthiness, and from all your idols, will I cleanse you. A new heart also will I give you, and a new spirit will I put within you; and I will take away the stony heart out of your flesh, and I will give you an heart of flesh. And I will put my spirit within you, and cause you to walk in my statutes, and ye shall keep my judgments, and do them."

The beginning of all true reformation is the inward cleansing of the Holy Spirit. It is this regeneration that constitutes men and women children of God. Thus they are prepared to worship him in spirit and in truth. Those whose souls are lifted up unto vanity dishonor the name of Jesus. They are not transformed in character, and therefore they are not prepared to show what it means to be a medical missionary, working in connection with Christ.

The Lord calls for a heartfelt repentance from those who claim to be his people. Self-indulgence is to find no place in their lives. The church of God is to be jealously guarded from every phase of dishonesty, every taint of corruption. The love of Christ is directly opposed to all avarice, all pride, all pretense. The Lord calls for humble, contrite hearts. He will work by his Holy Spirit upon all who will be worked, all who love him and keep his commandments. And they will make the presence and power of God so manifestly to appear that the enemies of the truth will be compelled to say that God and his angels are indeed the friends and helpers of those who serve him.

Schism and division are not the fruits of righteousness; they are of the wicked one. The great hindrance to our advancement at this time is the selfishness that prevents believers from having true fellowship with one another. The last prayer that Christ

offered for his disciples before his trial was that they might be one in him. Satan is determined that this oneness shall not be; for it is the strongest witness that can be borne that God did indeed send his Son to reconcile the world to heaven. But the union for which Christ prayed must exist among God's people before there can be in the church here below the enlargement and power that God longs to see.

(Signed)

ELLEN G. WHITE.

SHALL WE ERECT HOMES FOR CONSUMPTIVES?

BY MRS. E. G. WHITE.

SANITARIUMS that are erected for consumptive patients should be placed some distance out of the city, where there is plenty of open space, a clear stream, and land which can be cultivated. Then the patients can be drawn out into the fresh air, while those who are strong can cultivate the soil. The institutions built for consumptives which have not these accompaniments can not benefit the patients. Such an institution Seventh-day Adventists are at the present time unable to maintain.

The Lord has not laid upon our people the burden of erecting a sanitarium exclusively for consumptive patients. Large numbers of persons with this disease should not be gathered together in one home. Many who come to such institutions are hopeless invalids. Others have but faint hope of recovery. The very fact that there are kept before them daily those in the various stages of the disease, and that they are called upon to see their fellow-sufferers wasting away before their eyes, is sufficient to destroy in them their last hope of recovery. In no case would I feel inclined to send a friend or relative to such a place. With these consumptives at the table coughing and spitting as so many do, who could retain their appetite for food?

The very best talent is required in those who have charge of these homes, but no one person should be confined to this line of work for a long period at a time. It is not pleasant for persons to go to an institution where they are called upon to see daily those whose lives are gradually wasting away. The coughing and expectoration also is very objectionable. To place persons of tact and ability in such a place is to entail upon them a tax that might better come upon the relatives of the patient.

I know what I am talking about; for my husband's brother, Nathaniel White, died of consumption in my home; also Sister Annie White, and the foreman of our printing-office in Rochester, N. Y. I could not bring on these the painful experience of being separated from their family, and placed in a home with a large number of consumptives. I placed them where they would be comfortable, and where they could receive the attention of their friends to the last. Every precaution can be taken when one in a family is afflicted with this disease, and his friends can give him loving attention and watch-care. But separate him from his home, and he is painfully conscious of the cause. And the sight of the sick and the dying around him hastens his life to its close.

When you come to number those who have money who would be willing patients, you would find that there would be few who would patronize a home for consumptives. The fewer consumptives a person attacked with this disease is required to associate with, the better it is for him in every way. The number of poisoned breaths brought together in one place not only hastens the course of the disease in the patients, but entails death upon those who care for them.

I never supposed that an institution was to be built by our people exclusively for consumptives. Some with throat and lung trouble would be benefited by treatment, but there are many who would receive no help in such an institution. The fact that such an institution means a constant outlay of money, with no hope of returns, must be considered. If a home for consumptives is to be established, let it be near streams of living water, away from the city; near forests of pine or hemlock; for there are healing properties in these. Then publish the fact that such an institution has been established, and call for volunteers to carry on the work. As the sanitarium in Colorado has been established, let it be appropriated to the use of those who are sick who have some hope of recovery.

We are to be awake to the necessity of suffering humanity. But it would be no mercy to sacrifice lives to the special work of treating consumptives. I have not one word to give in encouragement of this. It may be necessary to provide a place where patients who are dying of consumption can be cared for, but such a building should not be placed in the city, but isolated from the city. Let all who are troubled in regard to this question remember that it means much to impress upon individuals that it

is their duty to take charge of an institution for consumptives. Persons may come to such an institution who are said to have consumption, but who are really suffering from stomach trouble. If these associate with consumptive patients, they will certainly contract the same disease; for they have lost the power to resist the effects of any exposure.

I would not, could not, from the light I have, encourage our people to build up an institution for consumptives, or to take charge of such an institution. There are many others suffering from various diseases who could be treated with some hope of saving life. As far as possible I would dispose of consumptives in their own homes, to be cared for by their friends, whose duty it is to do this. Let those who can, aid these friends with means and religious counsel. But it is a hopeless task to appoint any one to care for a large number of consumptives. The same care thus expended could be employed in behalf of patients whose lives would be preserved. Thus many would learn of the truth. Those going from the institution will impart that which they have received; and many lives would be dedicated to the work of saving souls.

** June 19, 1899.*



IOWA CIRCLE SANITARIUM, WASHINGTON, D. C.

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PROCEEDINGS

OF THE

Third Medical Missionary Conference

(Interdenominational)



At the **SANITARIUM**

Battle Creek, Michigan

January 5, 6, 7 and 8, 1911



THE BATTLE CREEK SANITARIUM

FOREWORD

THE Midwinter Medical Missionary Conference was an experiment three years ago, but it has now become an established success, as is clearly shown by this report of the third annual session of the Conference. The report comprises nearly one hundred thousand words, but is a meager abstract of the addresses and discussions which filled to overflowing with interest each meeting of the session. No verbal report, however, can possibly picture these elements of the Conference which constituted its chief and most interesting feature, the personality of the individual missionaries assembled from the veritable ends of the earth, as these accredited ambassadors of the King of kings told of the trials and the triumphs, the sometimes failures, and the ultimate success of their efforts in the various portions of the great vineyards nobly represented by them, the cause and work of missions became a living issue. To look into the faces of these devoted men and women, worn and wasted by their prodigious toils and self-sacrifice, was a privilege and an inspiration to the hundreds who eagerly listened to the addresses and discussions. The faces of these sturdy pioneers often seemed luminous with a joyous light of consecration. To mingle with them in social converse in the dining-room and elsewhere between meetings was indeed a precious privilege.

One of the most delightful results of the Conference was the joy manifested by the missionaries in meeting for the first time colleagues whose names had been familiar for years and whose struggles and triumphs in some far-distant corner of the earth had been watched with keen and sympathetic interest. Those who stay at home are afforded opportunities to meet a large number of the leading missionaries during their itineraries when at home on furlough, but the foreign missionary himself is

rarely offered the privilege of meeting more than a very few of those whose life interests are one with his own.

A large proportion of those who gathered at the Conference expressed extreme gratification for the opportunity of meeting the missionaries of other boards, and those engaged in work in widely scattered regions, and thus profiting by an exchange of views and experience.

The presence of the missionaries, their evident consecration to their chosen work, and especially the inspiring messages which they brought from their various fields, filled with zeal and enthusiasm and led to renewed and deepened consecration the students carrying on their work under the supervision of the American Medical Missionary Board, who were present at the Conference in a body, through special permission granted them by the medical college faculty.

The missionaries also seemed to be cheered by the prospect of coming recruits for their needy work, and evidently enjoyed answering the many eager questions asked by those who had dedicated their lives to foreign missions, and are bending every energy to make complete as possible their preparation for service.

The students rendered most valuable help in entertaining the large body of guests. They acted as ushers, and guides about the establishment, took charge of the singing, and formed a most attentive and appreciative section of the audience.

The presence at the various sessions of the venerable Bishop Thoburn, who in conjunction with his wife, a physician, rendered great service to the cause of medical missions in India, and of that nestor of African Medical Missionaries in Africa, Rev. R. H. Nassau, M. D.; and Rev. Joseph K. Green, one of the pioneers of mission work among the Moslems, were a veritable benediction to the Conference by their presence and coun-

sel drawn from their rich experience. The Rev. Joseph Clark, of the Kongo, stirred us deeply by his vivid description of the situation in the Belgian Kongo region, and of the splendid results which have followed the efforts of the missionaries to bring about a reform of the government of the Kongo State.

Doctor Shepard, of Turkey; Doctor Wanless, of India; Doctor Scudder, representing the third generation of medical missionaries to India in the same family, as well as many others of the missionaries present, showed clearly by their intelligent, up-to-date discussions of medical topics that the medical missionary, though charged with a double mission, and though largely isolated from professional colleagues, is able, notwithstanding, to keep fully abreast with the march of progress in scientific medicine.

A careful perusal of the following pages will give the reader only a partial conception of the rich feast of good things, informing, instructing, inspiring, and even entertaining, enjoyed by the participants in the Conference. The

actual experience will be remembered always by those who were present as one of the events and opportunities of a lifetime.

The Medical Missionary Board wish to express their earnest thanks to the secretaries and other members of the various mission boards for their kind cooperation; and to the missionaries representing all of the leading missionary societies in the United States for their efforts, by which alone the Conference was made a success. Many of them came long distances to be present, and all heartily did their part. Only two or three speakers were unable to meet their engagement as announced in the program.

Already we are looking forward with expectation to the next Conference which will be held early in January, 1912, and for it we bespeak the prayers and efforts of those who love the kingdom of Christ.

J. H. KELLOGG, M. D.,
*President American Medical
Missionary Board.*

THIRD Medical Missionary Conference

(Inter-denominational)

AT THE

Battle Creek Sanitarium

January 5, 6, 7, 8, 1911

THE third meeting of the above series, an account of which follows, was in every respect a worthy successor to its predecessors. In point of attendance and interest it fully upheld the high standard already erected. Coming as it did a few months after the great Edinburgh Council, it was a most favorable time for securing the attendance of representative men and women from all parts of the mission field. It would be vain to undertake to mention the names of distinguished laborers in either the evangelical or medical department of mission work who were at this meeting, for a reading of the following pages will reveal the fact that they were all distinguished and able men and women with living experiences and burning interests in the cause to which years before they had dedicated life and strength and all that life held dear.

The Meeting in General

ABOUT one hundred and fifty missionaries were in attendance, and these represented practically the entire mission field, though representatives of the work in Latin America were too few, and but one occupied the platform. Nearly all the principal mission societies were represented by their laborers.

The roster of officers was the following:

President—Rev. Charles C. Creegan, D. D.

Vice-Presidents—C. E. Stewart, M. D., Rev. Robert Hamil Nassau, M. D., D. D., Bishop J. M. Thoburn, Rev. Alexander McLachlan, D. D.

Executive Committee—Chairman, John H. Kellogg, M. D., F. R. M. S.; Vice-Chairman, Rowland H. Harris, M. D., F. R. C. S. E.; Secretary, George C. Tenney; Associate Secretary, Mrs. Geo. D. Dowkontt; W. F. Martin, M. D., W. C. Kellogg, M. W. Wentworth.

Reception Committee—Chaplain L. McCoy; Chairman, A. J. Read, M. D.; Miss Abbie J. Aldrich, Mrs. M. S. Foy, Mr. Geo. E. Judd, Mr. J. C. Riggs, Miss Carrie Zahn, C. G. Wencke, B. G. Stephenson, Archibald Orbison.

The laborers came together as members of one family, and being housed under the same roof and eating at the same tables, were given the best opportunity for interchange of acquaintance, experiences, suggestions, and queries. Throughout the entire company and during the entire session there did not appear a discordant note, a single word or act to offend or cause any other than the most cordial and brotherly relations. Denominational lines were for the time at least, and largely for all time, we believe, forgotten, and all were in the eyes of all members of one family in spirit as well as body.

Not only did the most cordial fraternal relations exist, but best of all, there prevailed a large measure of the divine blessing. The angels mingled with the people of God, and although they were invisible, their presence was manifest. The addresses were necessarily brief, and this had the effect to make them pithy and full of power. Each speaker crowded the utmost into his allotted minutes.

The Work of Presiding

was most efficiently and acceptably done by Chas. C. Creegan, D. D., president of Fargo College, and for many years a secretary of the American Board. A few years ago he made a tour of most of the mission fields, and consequently was personally acquainted with the fields and with many of the workers who were present, having seen them on the field. This was a valuable aid to the interest of the meeting in various ways. Doctor Creegan was a model presiding officer.

Doctor Creegan was ably assisted in his work by the vice-presidents whose names are given above. The venerable Bishop Thoburn, Dr. Robert H. Nassau, and Joseph K. Greene gave great honor to the occasion by their presence, while their words were weighty with wisdom and good counsel. The former, as is well known, is resting from his labors in Meadville, Penn., where his daughter-in-law, Mrs. C. R. Thoburn, keeps the home for the united families. He has well earned a period of quiet, after having spent fifty years of the most arduous toil in India, for many years at the head of the Methodist missions in that country.

Doctor Nassau gave fifty years of his life and strength to Western Africa, "the white man's grave," and is now living with his friends at and near Philadelphia. Dr. Joseph K. Greene has but recently returned from giving fifty-two years to Turkey, thirty-five of them being spent at Constantinople. Many other heroes and heroines of the Cross graced the meeting with their presence, and their gray hairs were in our eyes veritable crowns of glory, because they were won on the field where dangers are thick and where the conflict is strong.

The Conference was held particularly for the encouragement and promotion of medical missions, and it was not thought strange that doctors of medicine should comprise a large portion of the speakers. It will be observed that fully two-thirds of the speakers were physicians. And those who were not medical experts had valuable experiences and observations to present along the lines of the spirit of the meeting.

The Opening Banquet

Plates were set for almost two hundred

guests in the south dining hall on the sixth floor of the Sanitarium at noon on Thursday, January 5, and before the meal was over all the places were filled. Trains were somewhat delayed, and some of the guests were a little late in arriving. The dinner was given by the Sanitarium medical staff to the members of the Conference and the city pastors. No speeches were delivered at the tables; indeed, it seemed to be a time for action rather than discussion. All were pleased with the delicious and health-giving viands selected from the Sanitarium dietary, which, as a sample, bespoke good fare for the days to come.

The First Meeting

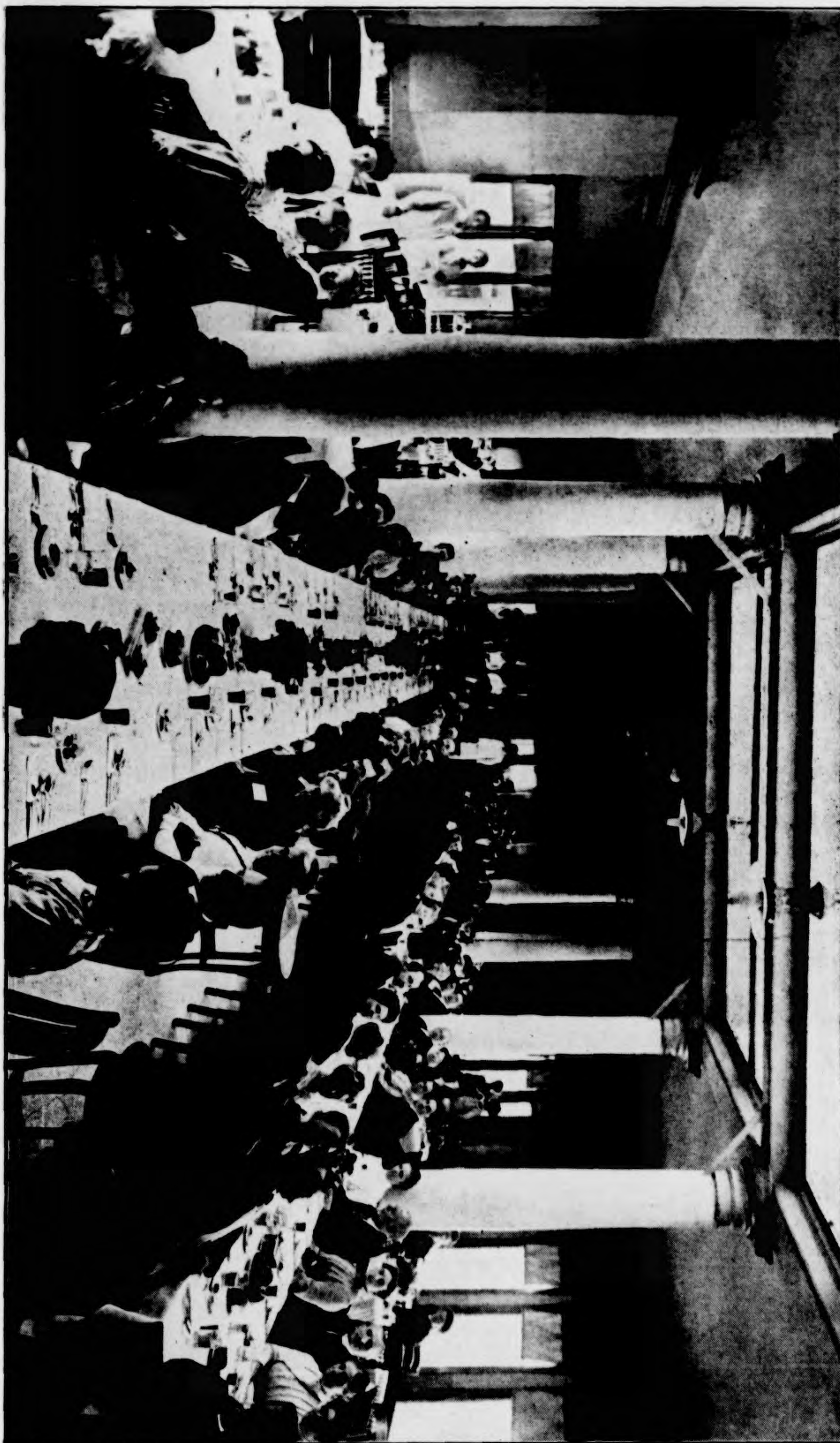
Going directly from the dining hall to the chapel, the meeting was called to order and the program indicated was followed out with the exception of Doctor Headland's part, which was taken up by Dr. W. A. Mansell, president of the Theological Seminary at Bareilly, India. Doctor Headland's train was delayed, and he arrived while the meeting was in progress.

The greetings and responses were cordial and hearty. The president's address was a masterly presentation of the missionary situation at the present juncture and of the opportunity afforded by the Conference. This opinion may be confirmed by a reading of the document, which appears in full in another place.

Having been so successfully launched, the session now continued throughout without a break, and with very little deviation from the printed schedule. It is superfluous to say that all the addresses were of the highest merit, and many of them sent thrills of intensest interest through the large audiences that were in attendance upon all the meetings.

Meetings for the Discussion of Medical Subjects

Three of these meetings were held, each under the direction of medical men of wide knowledge and experience. It was not anticipated that the general attendance would be much interested in medical topics of a purely technical character, but in reality these meetings proved to be very instructive and profitable even to the non-medical members, who attended them in large numbers.



LUNCHEON TO THE CONFERENCE ON THE FIRST DAY OF THE MEETING, GIVEN BY THE SANITARIUM STAFF

The Conference photograph was taken on the second day of the session. There are so many faces that it is not practicable to name them, though many will be discerned by those acquainted with them. Unfortunately a slight jar was given the camera by the explosion of the flash by which the picture was taken, causing a little blur on some of the faces.

Medical Missionary Students

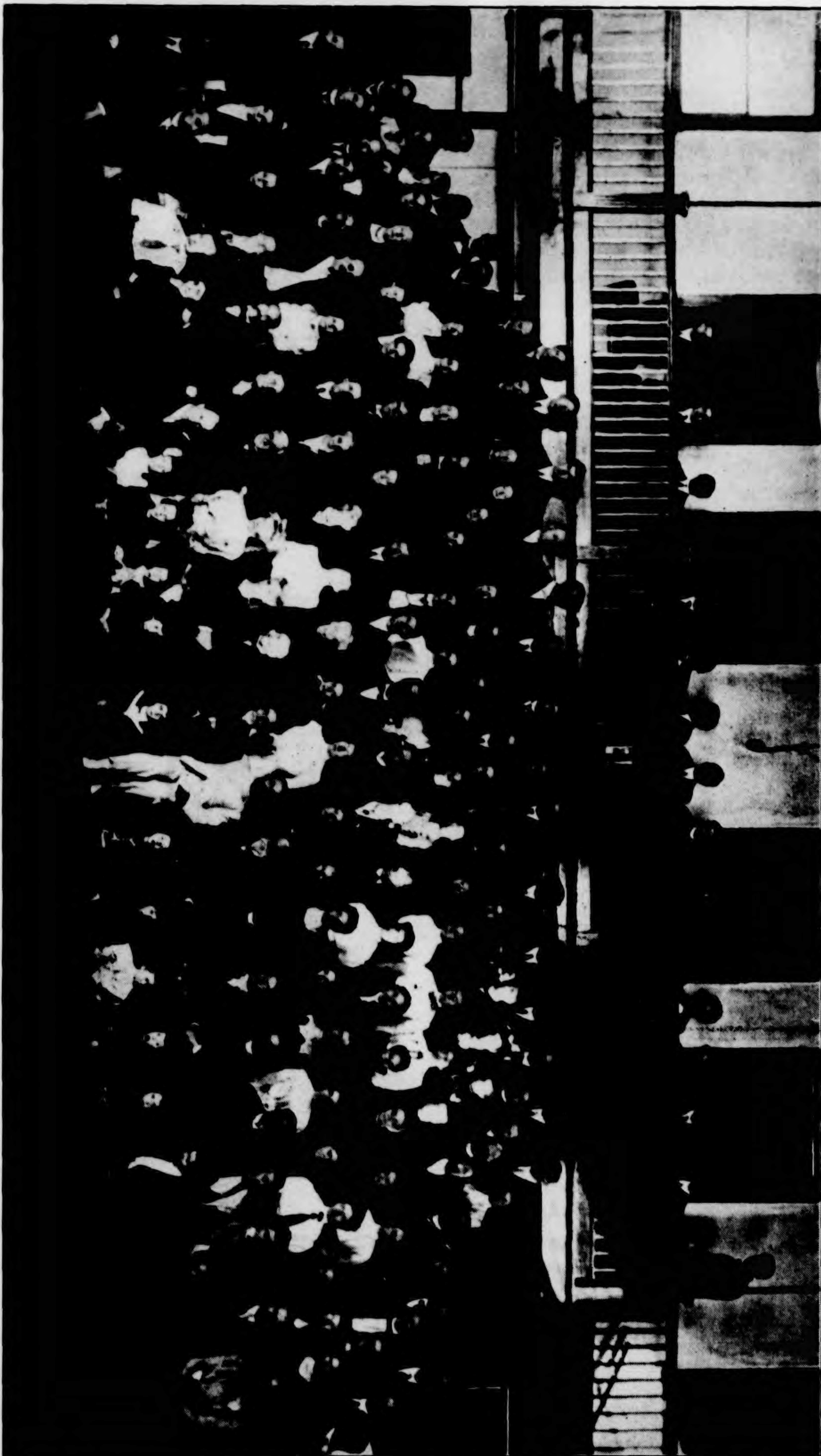
About forty of the former students of the Medical Missionary College were present by special arrangement with their school in Chicago, and they rendered valuable help throughout the Conference in many ways. A quartet of the young men sang at the various meetings very beautifully. And in all departments of the Sanitarium there was a willing co-operation in making the Conference the success it proved to be under the blessing of God.

We are now looking back with gratitude for the three good conferences we have had, and forward with an earnest desire that future occasions may also be blest and prospered. It was decided to hold the next meeting at the same place and at approximately the same time in the year, viz., the first week in January.

Missionaries in Attendance

Ayers, Mrs. Flora E.—Burma . . . A. B. C. F. M.
 Adams, Gordon C. . . . Medical missionary student.
 Bare, Rev. Chas. L., D. D.—India M. E.
 Bare, Mrs. C. L.—India M. E.
 Bancroft, Rev. W. E.—India M. E.
 Bostwick, Rev. Henry J.—China . . . A. B. C. F. M.
 Bostwick, Mrs. H. J.—China . . . A. B. C. F. M.
 Buchanan, Rev. J., M. D.—India . . . Can. Pres.
 Buchanan, Mrs. Mary, M. D.—India . . Can. Pres.
 Bashford, Mrs. J. W., M. L.—China M. E.
 Beals, Lester H., A. B., M. D.—
 India . . . A. B. C. F. M.
 Beals, Mrs. Rose F., A. B., M. D.—
 India . . . A. B. C. F. M.
 Barnhart, Rev. Paul—Africa M. E.
 Blackburn, Elisha, M. D.—
 B. E. Africa Friends.
 Baum, Della F. Med. miss. student.
 Creegan, Rev. C. C., D. D. A. B. C. F. M.
 Clark, Rev. Joseph—
 Kongo, Africa . . . A. B. F. M. S.
 Clark, Mrs. E. A.—
 Kongo, Africa . . . A. B. F. M. S.
 Clark, Chas. E., A. B., M. D.—
 Turkey A. B. C. F. M.
 Clarke, Rev. Wm. P.—Macedonia . . A. B. C. F. M.
 Cober, Rev. Alvine A.—
 Porto Rico A. B. H. M. S.

Cober, Mrs. A. A.—Porto Rico . . . A. B. H. M. S.
 Cody, Mrs. Mary A.—Japan M. E.
 Cady, Rev. H. Olin—N. China M. E.
 Canright, H. L., M. D.—W. China . . . Methodist.
 Canright, Mrs. H. L.—W. China . . . Methodist.
 Cleland, Miss Laura—India U. Pres.
 Critchett, Rev. Carl, A. B.—Korea M. E.
 Critchett, Mrs. C.—Korea M. E.
 Cottrell, A. Raymond Med. miss. student.
 Cottrell, Mrs. A. R. Med. miss. student.
 Carleton, Mary E., M. D.—
 China . . W. F. M. B. of M. E. Church.
 Cameron, Marjorie Med. miss. student.
 Coleman, Mrs. Mary L.—President of General
 Society of Free Meth., Mich.
 Coldren, Mrs. M. J.—India Free Baptist.
 Dowkontt, Rev. Geo. H., M. D.—
 Africa Baptist.
 Dowkontt, Mrs. Geo. H.—Africa Baptist.
 Duffner, Mary L. Med. miss. student.
 Draper, Frances, M. D.—China.
 Evans, Miss Alice E.—Africa . . Free Methodist.
 Ely, Georgia S.—Turkey A. B. C. F. M.
 Fuller, Columbus C., C. E.—
 Africa A. B. C. F. M.
 Field, Rev. J. C.—Bolivia M. E.
 Field, Mrs. J. C.—Bolivia M. E.
 Fox, Roy E. Med. miss. student.
 Frederickson, S. H. Med. miss. student.
 Frymire, Wm. A. Med. miss. student.
 Gault, Mrs. W. C.—West Africa Pres.
 Glennie, Miss Katharine T.—
 Turkey C. of S. Pres.
 Graybiel, Miss Mary—India C. W. B. M.
 Gloss, Anna D., M. D.—China M. E.
 Gerow, Miss Katharine—India . . Woman's Bapt.
 Greene, Rev. Joseph K., D. D.—
 Turkey A. B. C. F. M.
 Greene, Mrs. Mathilde M.—
 Turkey A. B. C. F. M.
 Green, Geo., M. D.—
 N. Y. Post-Graduate Med. School.
 Henry, L. M., M. D.—Egypt U. Pres.
 Henry, Mrs. L. M.—Egypt U. Pres.
 Hall, Mrs. Rosetta S., M. D.—Korea . . . M. E.
 Hambleton, R. S., M. D.—Turkey Pres.
 Hambleton, Mrs. R. S.—Turkey Pres.
 Headland, Rev. Isaac T., Ph. D.—China . . M. E.
 Headland, Mrs. Mariam, M. D.—China . . M. E.
 Hamilton, Miss A. M.—India U. Pres.
 Hemingway, A. T.—Chicago.
 Higginbottom, Rev. Sam.—India Pres.
 Higginbottom, Mrs. S.—India Pres.
 Jaime, Nicolas Med. miss. student.
 Jespersson, S.—Algiers, N. Africa . . . S. D. A.
 Jespersson, Mrs. S.—Algiers, N. Africa . S. D. A.
 Jensen, Mrs. Lillian C.—
 Treas. of W. F. M. S., Free Meth. Soc'y.
 Kelly, Rev. J. F., M. D.—China Pres.
 Kelly, Mrs. J. F.—China Pres.
 Knapp, Mrs. Grace—Turkey M. E.
 Lowry, Geo. D., A. M., M. D.—N. China . . M. E.
 Lowry, Mrs. G. D., A. B.—N. China . . . M. E.
 Lerrigo, P. H., M. D.—Philippines . . A. B. F. M. S.
 La Force, W. B., M. D.
 Martin, Miss Lizzie E.—China M. E.
 Marker, Miss Jessie—Korea M. E.
 McDowell, Mrs. E. W.—Persia Pres.



THE CONFERENCE PHOTOGRAPH

MacLachlan, Rev. Alex., D. D.—
 Turkey.....A. B. C. F. M.
 Mansell, Rev. W. A., D. D.—India.....M. E.
 Mansell, Mrs. W. A.—India.....M. E.
 McIntosh, Miss Isabel—China.....Can. Pres.
 Marden, Mrs. Etta D.—Turkey...A. B. C. F. M.
 McClanahan, Frank.....Med. miss. student.
 Nassau, Rev. Robt. H., S. T. D., M. D.—
 W. Africa.....Pres.
 Neipp, Rev. H. A.—Africa.....A. B. C. F. M.
 Neipp, Mrs. H. A.—Africa.....A. B. C. F. M.
 Neeld, Mrs. Emma L.—India.....M. E.
 Nickey, Barbara M.....Med. miss. student.
 Noble, Mary R., M. D.—India.....Pres.
 Olson, Miss Annie—China.....S. A. M.
 Otte, Mrs. J. A., M. D.—S. China.....R. C. A.
 O'Hara, Margaret, M. D., K. I. H.—
 Central India.....Can. Pres.
 Ostrom, J., M. D.—Africa.....A. B. F. M. S.
 Peter, W. W., Ph. M., M. D.—
 China.....Evangelical Ass'n.
 Page, Miss Pearl—China.....A. B. F. M. S.
 Phillips, A. H.....Med. miss. student.
 Palmborg, Rosa W., M. D.—China...S. D. Bapt.
 Peeke, Mrs. H. V. S.—S. Japan.....R. C. A.
 Pieters, Mrs. Albertus—S. Japan.....R. C. A.
 Pieters, Miss Jennie A.—S. Japan...R. C. A.
 Peters, Jessie I.—India.....W. F. M. S.
 Peters, Miss Alice—China.....M. E.
 Parmelee, Mrs. Moses P.—Turkey...A. B. C. F. M.
 Parmelee, Miss Ruth A.....Med. miss. student.
 Puffer, Rev. W., D. D., Dist. Supt. M. E. Church.
 Paulson, Miss Gerda C.—Japan...W. B. F. M. S. W.
 Patterson, Inga—Japan.....Baptist.
 Paul, Chas. T.—Principal of Miss. Training
 School, Indianapolis, Ind.
 Pearson, Ernest B.....Med. miss. student.
 Quinter, Miss Mary N.—India.....Brethren.
 Ross, Sam. J., M. D.—British Guiana, S. A.
 Ramos, R. A.....Med. miss. student.
 Rolman, Miss Eva S.—Japan.....Baptist.
 Steinmetz, H. H., M. D.—Philippines..Baptist.
 Steinmetz, Mrs. H. H.—Philippines...Baptist.
 Smith, E. G., M. D.—India.....Can. Baptist.
 Smith, Mrs. E. G.—India.....Can. Baptist.
 Simpson, J. P., M. D.—India.....U. Pres.
 Stokey, Fred E.....Med. miss. student.
 Stauffacher, C. J.....Med. miss. student.
 Shedd, Rev. John C.—Persia.
 Scudder, Lewis R., M. D.—India.....R. C. A.
 Scudder, Mrs. L. R.—India.....R. C. A.
 Silverthorne, Myrtle M.....Med. miss. student.
 Shellabear, Mrs. W. G.—Malaysia.....M. E.
 Shepard, F. D., M. D.—Turkey...A. B. C. F. M.
 Todd, Miss Delia N.—W. Africa..United Breth.
 Terril, Mrs. W. C.—E. Africa.....M. E.
 Thoms, S. J., M. D.—Arabia.....R. C. A.
 Thoms, Mrs. S. J.—Arabia.....R. C. A.
 Tompkins, C. E., M. D.—China.....Baptist.
 Tompkins, Mrs. C. E.—China.....Baptist.
 Thomson, W. L., M. D.—Africa...A. B. C. F. M.
 Thomson, Mrs. W. L.—Africa...A. B. C. F. M.
 Thoburn, J. M., Bishop—India.....M. E.
 Thoburn, Mrs. C. R.—Meadville, Pa.
 Tucker, Francis F., M. D.—
 N. China.....A. B. C. F. M.
 Umlauf, Mrs. H. Luella—India.....M. E.
 Vollmer, Maud, M. D.—Samoa.....S. D. A.

Whitney, H. T., M. D.—China...A. B. C. F. M.
 Whitney, Mrs. H. T.—China...A. B. C. F. M.
 Worley, J. H., Ph. D.—China.....M. E.
 Worley, Mrs. J. H.—China.....M. E.
 Wright, Frank G.
 Walker, Chas. C., M. D.—Siam.....Pres.
 Williamson, J. C.....Med. miss. student.
 Winget, Rev. Benjamin, D. D.,—
 Sec'y of Free Meth. Board, U. S. A.
 Winget, Mrs. B.
 Whipple, Miss Eleanor E.—
 China.....Evangelical Ass'n.
 Wanless, W. J., M. D.—India.....Pres.
 White, Marguerite.....Med. miss. student.
 Wencke, C. G.....Med. miss. student.



FIRST MEETING

Thursday, January 5, 2:00 P. M.

Rev. Chas. C. Creegan, D. D., Presiding

THIS session of the Conference was opened by a hymn, and devotions were conducted by Rev. Alexander MacLachlan, D. D., president of the International College at Smyrna, Turkey. As a Scripture lesson, passages were read from the first and fifth chapters of Joshua, and from the twenty-eighth of Matthew, and prayer was offered.

THE CHAIRMAN: The first words of welcome to this Conference will be by Dr. J. H. Kellogg in behalf of the Sanitarium. I have the pleasure of introducing to you Doctor Kellogg.

DR. J. H. KELLOGG: My heart is so full of welcome that I hardly know how to give expression to my feelings in looking over this assembly. We have been looking forward a whole year, and I have been looking forward for two years to this opportunity. Last year I was compelled to be absent, and so missed the meeting, of which I heard such enthusiastic reports that I decided not to miss this one if it were at all possible to be here. I am exceedingly happy to be here, and to welcome you to our home. I wish to say that in my opinion there is not another place in the world where you could be more heartily welcome than you are here. This institution, though in the home land, is

Really a Missionary Institution,

and has been such from its inception. Some time ago Senator Hoar, of Massachusetts, said that what we needed was not so much to get civilization into hea-

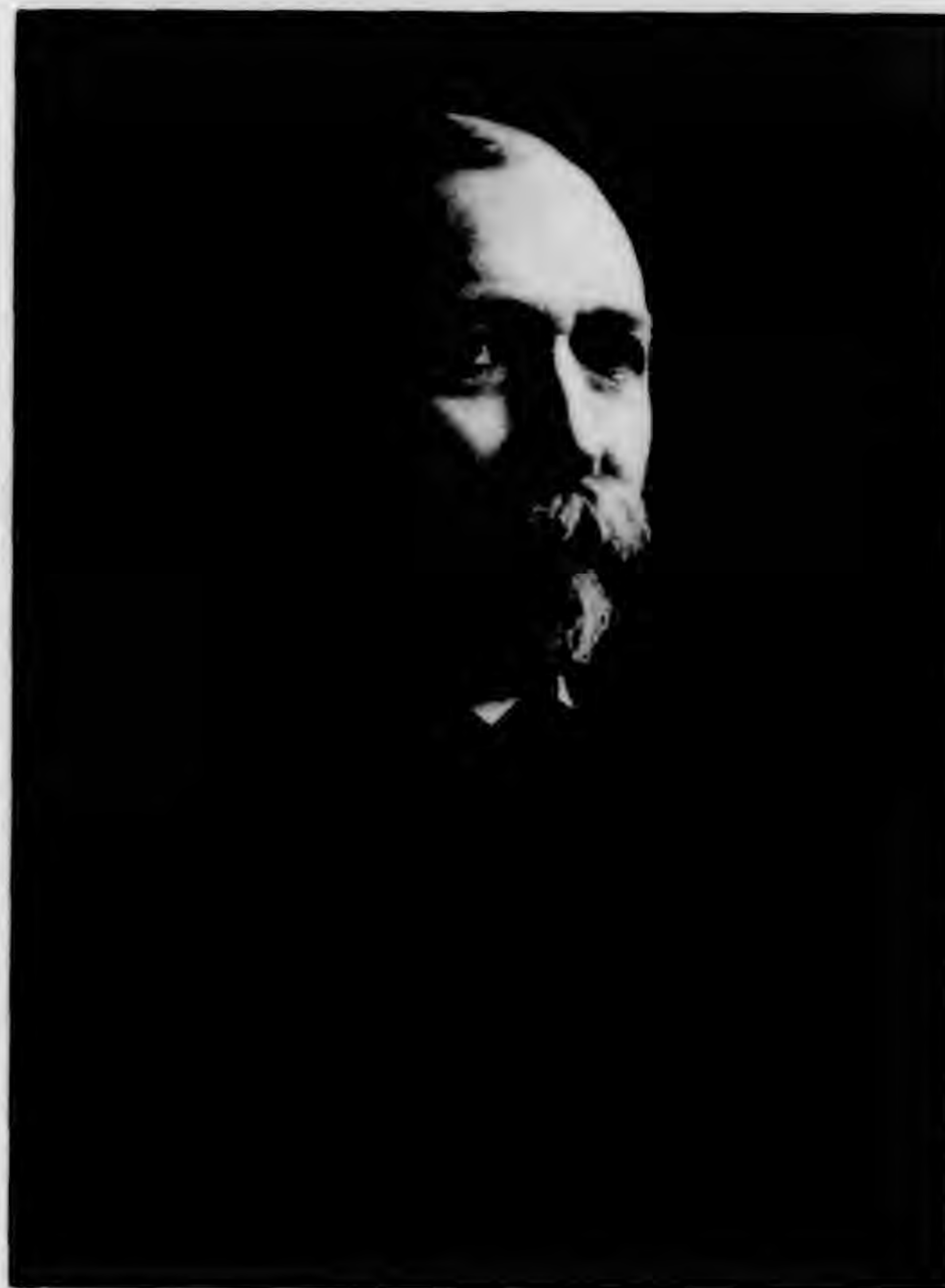
thedom as it was to get heathenism out of our civilization. So, while some of you are in foreign lands, trying to introduce civilization to the heathen, some of us are here at home trying to get heathenism out of our civilization.

Another reason we are interested in missions and missionaries is because we feel that the things we are working for are identical with the things you are trying to do in the foreign field. Our work has always been altruistic, and from the very beginning an effort has been made to train missionaries. It was made a rule in our nurses' school which we organized about twenty years ago, to receive no pupils unless they would promise to devote five years of life to mission work; and for many years this was observed. No young man or young woman was received into our nurses' training school who would not make a declaration of intention to spend five years in the mission field. We have trained, I think, something like two thousand nurses. About two-thirds of these have taken the complete course of training. Some dropped out before their course was completed, on account of illness or other conditions.

Then We Organized a Medical College

because we felt that we had opportunities here for doing something for foreign fields through that means; and I think between \$200,000 and \$300,000 has been spent in this educational work. Though we have graduated some two hundred physicians, we have not succeeded in getting as many of our graduates into the foreign field as we wish we might have done. We find, however, that more of our recent graduates are going to the foreign field, and we have learned by experience better how to get them to the foreign field. So we have felt that our work here was really kindred to that of foreign missionaries.

Personally, I should have been quite unwilling to settle down in this country if I did not feel that I was doing something that was real missionary work. In my boyhood days, one of the first books I read was the life of the Judsons, and I am sure you will all agree with me that no one could read that book without being inspired with an interest in the



DR. J. H. KELLOGG

mission field; and I determined when I read it that if Providence would open the way for me, I would be a foreign missionary.

I still find myself in this country, and I often have regretted it very much. I have visited, on a few occasions, various foreign mission fields, and I always wished I might remain there. It looks to me to be the greatest opportunity on earth for anybody who wants to help his fellows, and especially for a medical man it seems to me the foreign mission field is the greatest opportunity in the world, and that the present opportunity is the greatest that there will ever be, for the opportunity is really passing by. The time will come when the foreign countries will be furnishing their own doctors and trained nurses.

So I feel very eager to do all that I can to encourage this work, and I assure you that these missionaries who come here on vacations from their fields of work, and especially these gray-haired missionaries who have spent half a century or even more in the mission field in work for God and humanity, certainly inspire the very greatest reverence and respect in my heart; and I repeat there



REV. B. F. TABER

is no place in all the world where you could possibly be more welcome than here at the Battle Creek Sanitarium. I hope you are going to feel at home while you are here; and I assure you it will be a very great pleasure to us to do everything we can possibly do to make you at home. I trust you will not only feel at home now, but as opportunities may afford, that you will be dropping in upon us whenever you have a chance. You certainly may always be assured of a cordial welcome. I heartily greet you in the name of the Sanitarium family.

THE CHAIRMAN: Rev. Mr. Taber, pastor of the First Baptist church, will now speak the words of welcome for the city churches and pastors.

REV. B. F. TABER: I count myself happy in having the privilege of extending to you in behalf of the pastors of this city our most hearty and cordial greetings. Since coming to Battle Creek some six years ago,

I Have Met More Missionaries, and learned more about missionaries, than ever before. Some time ago one of

our district secretaries wrote me from Chicago that he had a treat for us,—a returned missionary who might be secured for an evening address. I wrote to him that it would be like carrying coals to Newcastle; that we always had here a devoted band of men and women from all parts of the earth whose presence and whose addresses have brought great blessings to the churches of this city. And I am glad to be able this afternoon, as one of the pastors, to bear testimony to the result of the efforts of these missionaries in our city. I think we have here a degree of interest, missionary intelligence, and a responsiveness to missionary truth that is a little above the average in towns that have not been so much favored. These men and women come here to this Sanitarium seeking rest and recuperation. I have sometimes thought that we imposed upon them in calling upon them so often, but we have always found them ready cheerfully to respond to the invitations to speak to our congregations, our young people, our Sunday schools, our women's societies; and only eternity will reveal the result of their sowing.

One of the missionaries remarked to me at the table this noon that the Battle Creek Sanitarium had been a great blessing to the missionaries in teaching them how to live physically; and I wish to say now that the missionaries who have come to this Sanitarium have been a great blessing to the churches of Battle Creek, and to the Sanitarium as well, I believe.

This institution has

Welcomed Many Notable People,

but I do not think it has ever welcomed people who have more reason to be proud of their name and proud of their succession than these missionaries. I came upon what struck me as quite a remarkable statement from Doctor Hillis not very long ago. He said that in the history of every great nation of this earth there could be found in the very opening chapter the name of a missionary. Judson founded Burma; Livingston founded Africa; Mackay founded Uganda; Coan founded Hawaii; and Carey founded India; and in the very first chapter of the history of the na-

tions of northern Europe there is imbedded the name of a missionary. And I believe that history proves this. You certainly have reason to be proud of your succession.

You may not make very much, or you may make a great deal, of your apostolic succession; but as missionaries you certainly have great reason to be proud of your missionary succession. And it must be very encouraging to you to come back to this home field and see the awakening interest in missionary things. There always have been men and women who have thought and prayed in terms of the whole world. They may never have stepped across the boundary line of their own country, but their faith and prayers and hopes have compassed the whole world. And there never was a time, I think, when so many people had caught the world vision as to-day.

This is a day of great conventions, when the largest auditoriums in our cities are not sufficient to accommodate the great throngs of people that come to attend missionary convocations and hear missionary themes discussed. It is one of the outstanding features of our times, it is a sign of the times, and it must be a great encouragement to see this change in the home land, to you who have labored so many years in these far-away lands.

But it seems to me it is a good time for us to remember two things—the first is the real scope and purpose of the great Commission.

What Is It?

Nothing short of the establishment of the kingdom of God in this world; nothing short of the bringing about of a universal golden age; nothing short of the fusion of mankind into one great brotherhood; not merely to change the human heart, but to change the customs and relations of men so that they shall be brought into accord with the spirit of the Master. The great commission is not fulfilled in the mere act of preaching the Gospel and baptizing those who believe. There is a great work of teaching and training that the Master emphasized in the words, "teaching them to observe all things whatsoever I have commanded you." That means the translation of

the golden rule into everyday life. And that takes time.

And while it may be true that consecrated men and consecrated money may be able to carry the message of the Gospel over the world in a single generation, it is a good time for us to remember that it is going to take more than one generation to bring the world under the sovereignty of Jesus Christ; that through the printing press, and through the hospital, and through the school, and through the college, and through the industrial school, as well as through the churches, the work must be carried on until the song of the multitude in the Apocalyptic vision becomes the song of Christianized humanity—"The kingdoms of this world are become the kingdom of our Lord and of his Christ."

It seems to me that it is

A Good Time for Us to Refresh Our Minds

concerning the real scope and purpose of this great commission; and it is a good time for us to remember also that there is no such thing as fail. We are out upon a victorious campaign; we are engaged in a crusade that can not fail. Other enterprises of men have failed; merchants and inventors have buried many of their ambitions; many soldiers of earth have been obliged to retreat; but we are under a Captain who never fails. To go into the whole world and preach the Gospel to every creature seems like a tremendous task, but "Lo, I am with you always, even unto the end of the age," fills our hearts with confidence and with assurance.

In behalf of the ministers of this city, brothers and friends, our representatives on the foreign fields, I am glad to bid you a hearty welcome.

THE CHAIRMAN: There will be two responses to these words of welcome to which we have just had the pleasure of listening. In the absence of Rev. Dr. Headland, of China—we hope we shall have the pleasure of seeing him a little later at this Conference.—I will call upon Rev. W. A. Mansell, D. D., president of the theological seminary at Bareilly, in Northern India, to speak a few words.

REV. W. A. MANSELL, D. D.: Mr. Chairman: One of the last things they

told me before I left India was to

Beware of Many Conferences and Conventions,

and especially missionary conventions, and to beware of too much deputation work. And, strange to say, I have just come to this Sanitarium after three months of deputation work, and I feel just as happy in my personal experience as I did any time when I was on the field in India. I find it is a great inspiration and encouragement to me to be here. Perhaps the injunction to beware of conferences did not apply to Battle Creek, because, I suppose that they will look after the missionary while he is here and see that he does not do anything that is contrary to his health during this conference.

I assure you that as missionaries we heartily appreciate the cordial words of welcome that we have received from the Sanitarium itself and from the pastors of the city, and it can not but be an encouragement to the missionary who looks into the faces of a congregation like this. All the missionaries in the world are not on the foreign field.

There are a good many missionaries, missionaries in heart and in life, who would give themselves, if God only gave them the opportunity, to serve on the other side of the world, but who have been for some reason or other called to serve here. And the number of such missionaries on the home field is constantly increasing, I believe. I think there is a missionary revival on in the churches now such as Christianity has never seen. I think it would be rather difficult to explain the origin, the causes of this wonderful missionary revival, but I am sure that one of them is the tremendous impetus in missionary information and education.

One of the Most Remarkable Things

that we have seen in recent times is that course of missionary books that has been prepared by the Interdenominational Committee of Women's Societies. That course of instruction in missions I believe has much to do—more to do, perhaps, than any other single thing with the missionary revival that is characteristic of the times.

I know that this is a medical missionary conference. It would be impossible for me not to be interested in medical missions. The last six years of my life have been spent in service in the city of Bareilly, India. It was to Bareilly that the first female medical missionary was ever sent to India—

Dr. Clara A. Swain,

who was called to her reward only last Christmas morning. Doctor Swain's work in India is a monument that is imperishable, not only to the good women of the missions and to her own work, but to the society that sent her, and to consecrated Christian womanhood in America that made it possible to send the missionaries that have gone to all the countries in the world to minister to the wrongs and to the needs of degraded heathen womanhood.

I wish I could transport you to the city of Bareilly. I wish I could let you see the stream of people that come every morning to the hospital; there are hundreds of them every day, people of all classes. There is the poor woman tottering along on her stick or her crutch, hardly able to reach the hospital. She receives her treatment exactly the same as the wife of the richest banker in the city as she comes in her own private equipage and attended by a score or more of servants. The poorest woman in Bareilly may have her turn right along with the rich; Christians and non-Christians who come receive alike the treatment that they require.

We are not only glad for the doctors who come from America to India, but that there is now in these latter days a training of doctors and of nurses from the young women of India itself; there are medical training classes and medical training institutions in quite a number of the cities of India. It was only two years ago that a nurses' training class, the first of that particular kind of work, was established in Bareilly; and this nurses' training class is doing excellent work, and those consecrated girls are beginning to realize that there is no higher service in all the Christian church than the service of nurses given to the ministry of the suffering. It is well to remember, too, that

It Was a Medical Missionary,

sent from this country, a lady missionary, who was perhaps more instrumental than any other person in India in bringing about that wonderful reform in India, the raising of the age of consent—one step in the direction of trying to do away with the evils of child marriage in India.

I was going to tell you just a word more about Doctor Swain. After having served for some time in Bareilly, she felt that there was a call of duty to her to go to a neighboring native state where she was called to minister in the rajah's household; and that state, with its doors closed to Christian influences, impossible for the Gospel to enter, opened its doors to that medical and Christian missionary. Doctor Swain for years was an honored member of that household, and brought Christianity, not only to the kingdom, but to the hearts of the people. She believed, and we have reason to believe, that a number of those in the king's household, of the ladies of the royal household, were really Christians at heart before she finished her ministry there. We are all one, whatever our work may be, whether your work is here in the Sanitarium or whether you are working in the churches, or on the foreign field—whether we are working as medical missionaries or as evangelistic missionaries, or as educational missionaries, our work is one; our Master is one; the bond that unites us is one; and God grant that we may all be faithful to the duty and the privilege that he gives us of ministering to others until we meet him face to face.

THE CHAIRMAN: In circles where the names of medical missionaries are fairly well known, perhaps to-day it would be difficult to find any name that is better known than

The Famous Medical Missionary,

Dr. F. D. Shepard, of Aintab, Turkey, for more than twenty-five years at the head of the great hospital there, having within his influence, reaching out through the whole of the interior of Turkey, a region of country as large as New England, and winning, in spite of the opposition of the government at times, the confidence of the people to

such an extent that he received a decoration from the Sultan of Turkey himself. It gives me very great pleasure to introduce to you Doctor Shepard, of Aintab, Turkey.

DR. F. D. SHEPARD: Mr. Chairman, It is a great pleasure to me to speak on behalf of my missionary colleagues here in reply to the warm words of welcome from the Sanitarium and from the city. And that pleasure is greatly enhanced by the evidences at this meeting, and at the great World's Conference in Edinburgh, and at the meetings of the American Board in Boston recently, and wherever I have been since leaving Turkey.—the many evidences I have had of the growing solidarity of the forces of Christendom in the face of the counter forces of the non-christian world. I wish that all branches of the Christian church had the same vision and the same joy which pervades that little church of the Moravians, which has one missionary on the foreign field for every forty members in the home church.

I have been astonished at the progress that is being made in the United States of America along certain lines since my last visit here nine years ago; along financial lines, and the lines of great combinations in railway systems and manufacturing enterprises and great financial enterprises of many kinds.

Are There No Consecrated Financiers

in the Christian church? Has the time not come when the men of money and of mind shall see the vision, shall give themselves to organizing in something like an adequate fashion the power of the church for this great foreign missionary enterprise? God has given the church abundant means, abundant money, and able, abundant brains. I do not think that the members of the Protestant church in the United States lack in capacity and power properly to organize and finance the foreign missionary problem. But they have not done it; they have not begun to do it. I do not see any indication of their doing it as yet. The Laymen's Movement has been in the right direction, and, as compared with anything in the past, it has been a great movement; but how utterly inadequate to the problem before us!



REV. CHAS. C. CREEGAN, D. D.

Why, take Turkey alone. We have been praying in Turkey for fifty years that the Gospel might have free course among all the peoples of that land, and to-day our prayer is being answered, and we want the men and money to carry on that great work, to take hold of the opportunities before us.

We ought to have a hundred new missionaries to put into Turkey to-day. Our present institutions there are not being adequately manned for the work they now have in hand, which is confined entirely to the nominal Christians of Turkey. We have done nothing for the Mohammedans directly. And I rejoice, consequently, wherever I see any indication, even though it be inadequate, of the fact that the Christian church is awaking to the magnitude of the enterprise and to the necessity of the union of all sects and denominations in this great work before us. And if this conference to which we have come with such pleasant anticipations and great hopes, shall be instrumental in some small measure in

arousing the men of America who have this great power in their hands to do something more than mere talking,—then I shall rejoice still more.

THE PRESIDENT'S ADDRESS

REV. CHAS. C. CREEGAN, D. D.

When our friend from India, the head of the divinity school at Bareilly, Doctor Mansell, said that there were missionaries who had not gone to a foreign field, I was comforted; and I recalled that I first began to breathe the missionary spirit toward the closing days of the great Civil War that came so near tearing this beloved land of ours asunder, when a hero came home from the war to die in the bosom of his family. While that beloved father of mine, who gave me the first ideas of heroism, was gradually sinking in death, I was reading the story of David Livingstone, the greatest missionary, many think, since the days of St. Paul, cutting the way for other missionaries to follow after him, so that that land which has been called the "Dark Continent" might have the light of life. I caught that spirit—the spirit of the hero who was dying, whom I called my father, and the spirit of the hero who a little later died on his knees in Africa praying with his last breath for the evangelization and Christianization of the Dark Continent.

Then when my school days were over, I asked that I might be sent. But in those days my life was so uncertain that the great missionary board whom I afterward served for twenty-one years as one of its officers, refused to send me; so I found myself in the home land later to serve as best I could up and down this land, pleading with young men and young women in our colleges, pleading also with men blessed with worldly goods, that they might consecrate all to the service of Christ their King. Perhaps that service gives me some right to appear here to-day.

I have felt moved to speak to you for a little while on what would make many volumes if it were written out in full—

A Century of Missions.

I do not forget what has already been said this afternoon, that there were missionaries before Carey. We have learned

of noble souls, the Moravians, Schwartz, of India, and many more who gave their lives to the service of Christ as foreign missionaries and rendered noble service. But here in America we have accustomed ourselves to think of missions dating back only a little over 100 years to William Carey, and particularly here of late we have been inclined to think back only to that one who by common consent we speak of as the greatest American foreign missionary, Adoniram Judson, the man who has had the honor of acting as the leading spirit in the formation of two of the greatest missionary societies that have yet been formed on the American continent. In order to get the full connection, we go back to the time when, under the lee of a haystack, a group of half a dozen young men, students in Williams College, driven there by the storm from the neighboring grove, and continuing their prayer meeting which had commenced in the maple grove, said, "If it please God, we will go in person to carry the Gospel to the pagan lands." And a little later, you know, came the formation of the first foreign missionary society on the American continent, for the express purpose of carrying the Gospel to the heathen. The cause of missions was not popular then. One hundred and six years ago, in glorious old Massachusetts, in one of the most highly honored educational institutions, that little band of students were obliged to keep their records in cypher, lest their secret should be discovered and they be made to suffer. I have seen those records, for, happily, before the last member of that band died, he made a translation; so I was able with the translation to write out the minutes of those secret meetings of this first missionary band in America.

Some of this band entered Andover Theological Seminary, then just founded, and here they met a powerful ally that came up from Brown University in the person of

Adoniram Judson.

Being a born leader, he became naturally the leader of this little band; and they said, "Now the time has come for us to form an organization having for its purpose the sending out of our own membership and others who may be willing

to join us, but we know that the fathers in the churches in New England are not up to our conception of this world-wide movement, and therefore we will not all apply to the Massachusetts Congregational Association, for we shall overwhelm them if six or seven or eight of us should ask to be sent out at one time." So they agreed that four of them, Judson being one of the four, should make their application in person. After praying and laboring and persuading for three long days, they finally won from these fathers of the churches in good old New England, the promise that they would try awfully hard to send out at least a part of the four. The organization that was formed was broad enough to take in all the churches of the country, as their name showed, "The American Board of Commissioners for Foreign Missions," and they said, "Send in your money." One year passed by, and all the Protestant churches and individuals in America, having a chance to give, to send out some of the choicest young men America has ever known, laid on the altar the princely sum of one thousand dollars less forty-eight cents. Those were the good old days. And then these venerable fathers said, "Mr. Judson, if you ever go out to India or any other pagan land, you must go over to England and try to persuade the London Missionary Society or some other society to furnish the money;" and he sailed. The best piece of advice that John Bull through some of his consecrated sons ever gave to America was given to young Judson when he made his plea for that money, and they said,

"Return, Young Man, to Your Own Country,

and get money from America to send out the sons and daughters of America to the foreign field." He came back with a heavy heart to tell the doleful story, but before he had a chance to tell it, a consecrated woman who had watched this movement for months, and who knew that her hold on life must soon be given up, sat down and wrote in her last will and testament that 30,000 silver dollars should be given to the American Board of Commissioners for Foreign Missions. She had passed to her reward before Jud-

son learned the news a few days after he landed. They could not find the thirty thousand silver dollars in Salem; and with her Yankee shrewdness she did not want the society to suffer because of the shrinkage of this wild-cat currency. So they had to go to Boston to complete the \$30,000. Then it was to be turned over to the treasurer of this new organization. He said, "I can not receive it, because this organization has no charter."

Hear me: In those glorious old days of our great-grandfathers they fought that thing out as only tigers in the jungles of India fight, for weeks in the legislature of Massachusetts, before they could gain a charter for this firstborn foreign missionary organization on the American continent. You may find the record if you go to the Statehouse in Massachusetts to-day. Intelligent graduates of Harvard College stood up and with remarkable frankness said, "We have no religion to export." Therefore they were opposed to the formation of this organization. Finally, by a bare majority vote, the charter was given. Mary Norris's 30,000 silver dollars came into the treasury and put the American Board on a financial pedestal where it has remained through all these years.

Here, Then, is the Beginning.

Then Judson sailed, and for reasons which I suppose the recording angel has carefully put down on the records, when he arrived in India, Judson found himself a full-fledged Baptist, and begged Carey to immerse him, which he did. Then in those good old days, he dreamed that the Congregationalists, Presbyterians, Dutch Reformed, German Reformed, and all the others that were backing the American Board, were not broad-minded enough to still stand back of him, so he wrote home to the Baptist churches and said, "I am no longer a Congregationalist; you must form another missionary organization to keep me in the field, otherwise I must go home."

Oh, would to God there had been

Breadth of Spirit Enough

in those days to have simply said to him, "Go on, go on; you have gone out to convert the heathen; go on with Christ's

commission, and we will stand back of you. We are not in the hair-splitting business of theological questions."

But those were the good old days, remember, and they didn't do that. Well, after all, I thank God down deep in my heart that that didn't happen, because the Baptists all at once found themselves aflame with missionary zeal, and they formed the Baptist Foreign Missionary Union, and Judson inspired it as he inspired the formation of the American Board, and it was formed only four years after the oldest of all the foreign missionary societies in America.

A little later Judson found himself in Burma behind prison bars and half starved, and he would have starved to death had not his wife in her weakness carried food to her starving husband, and when the food ran short she took the rings and jewels that were placed on her at the marriage altar, converting them into bread. And amid all these trials he was hard at work on a translation of the Scriptures, and whenever he would hear a footfall, for fear the manuscript might be destroyed, he hid it under his pillow of straw until the intruder or visitor passed away. When some friend in Boston wrote and asked how he fared and what were the signs of the times, he wrote to that friend, "They are as bright as the promises of Almighty God." Talk about heroes—there is one! Thank God for the Baptist Foreign Missionary Union! Thank God for the great Judson, and for the inspiration he gives, even to-day, after the lapse of these decades, to the young men in our churches and seminaries as they read the story of his life.

And now let us drop down just a few years; and we recall the year 1819, when a band of young men and women gathered in Park Street Church, Boston, in what they used to call in those old days, and what some profane people call still, "Brimstone Corner." These young people, twenty of them, formed themselves into a little church, not to preach the Gospel in Boston, but rather to put it on a sailing vessel which was to drop it down on one or more of

The Hawaiian Islands.

The captain, when he saw them going

on board the ship, said, "I have been cut there, and I know what will happen when these young people who know nothing about the heathen out there see those unclad savages. They will all beg to be brought back." The owners of the vessel said, "Well, just as a surprise, when they come around and say they want to come back, you can tell them you have permission to take them all back to Boston." But the surprise was on the other side, that not one of them intimated that he or she wanted to return. They had gone out in obedience to the command of Christ, and they went in that spirit, expecting to do their work. A mighty revolution followed in those islands. When I was out there a little while ago, I found one of the most beautiful cities on the face of the globe. I preached several times in Honolulu in a church that cost about \$145,000, in which religious services are held every Sunday in seven different languages.

We Go into Turkey

just for a moment. I see before me to-day the venerable Dr. Joseph K. Greene. Fifty-one years ago he went out to Turkey. I have seen him out there on the banks of the Bosphorus. I wish you could have gone with us, only you would have had to say to that venerable man who has been out there for over half a century, "Please don't walk quite so fast; I can not keep up with you."—going from place to place, showing to us signs of the development of the kingdom. As I left Constantinople, the most beautiful city you will see on a tour around the world, the sun was going down in the western sky, and we looked back upon a thousand minarets and towers of that magnificent city, as viewed at a distance. Seated by my side was a New York merchant, and we fell to talking about Constantinople. I asked him if he had seen anything of missions. "Missions?" he said; "Missions?—why, they haven't any." Here were two men coming from the same city, both having a pair of good eyes, both spending perhaps a fortnight or so there, seeing all they could see, and one left without having seen the Bible House, without having looked into the face of Doctor Greene, or any of the splendid missionaries

there, without even having seen the Stars and Stripes floating from Robert College—that noble institution founded by Cyrus Hamlin, one of the greatest missionaries of modern times. It depends entirely upon what we try to see when we make a tour around the world. If we are looking for the slums in cities, heathenism at its worst, we probably will see that; but if we go out to see what the Lord has wrought, we will see it wherever a missionary has been long enough to make people understand what he is there for.

We Are Still in Turkey.

Let us go out into the interior just for a moment, and as we land at Alexandretta, this man sitting here on the platform (Dr. Shepard) welcomes us with his horses, with his cook and carriage, and we make our journey of three long days to his throne of power at Aintab. At our first stopping place, on Thanksgiving day, up on the side of the mountain, we hunt up the Armenian pastor, and sitting down in Turkish fashion upon the Armenian floor, around a great, common vessel, we eat our Thanksgiving dinner. No knives, no forks, no spoons. We got fairly started when a messenger came, calling for the beloved physician, and that call had to be heard. He never finished his Thanksgiving dinner. Anywhere from sixty-five to one hundred people were there, and they would not take no for an answer. And with his Armenian assistant he worked and worked until it became so late that we had to hasten to make our appointed place for the night, reaching it late in the night to find the experience of the noon hour repeated; and so at each stopping place for three long days this beloved physician was besieged by people who somehow had heard his fame, that he must come and try to heal them. This gives you an idea of what missionaries are doing, especially the medical missionaries.

Let Us Go to Northern India.

I see two men here to-day who welcomed me a little while ago over there at that great Methodist Jubilee in the shadow almost of the Himalayas, what Kipling calls "the Hills." One of them spoke to us a few moments ago. The other is the

venerable Bishop who is with us to-day, and whose name has become a household word throughout Christendom, Bishop Thoburn. Never to my dying day shall I forget the impression I got when that venerable man arose, surrounded in that vast tent by four thousand people, most of them being native Christians, preachers, evangelists, teachers, and common, hard-working people, representing, I was told, thirty languages. We heard him tell of the time when he was welcomed there fifty years before that time, by young Butler, the founder of the mission, who said to him, "You will never have but one language to learn out here." But there that day were at least thirty different races and tongues represented in that Methodist Jubilee. And here was Mrs. Butler, who stood by her husband's side in that awful Sepoy rebellion when that heroic soul was driven out, saving his life, as it were, by the skin of his teeth. The Christians at home said, "We put our money into the mission, put up buildings and all that, and now it is all snuffed out as you would snuff out a candle." So it was. But the prayers were not snuffed out; the consecration was not snuffed out; the heroic souls that lived there were not snuffed out; and here was the man standing up after the lapse of fifty years, with clear, eloquent language telling the story of the beginnings there. Then he told us of the efforts in India under the Methodist banner alone, 175,000 church members in India and Burma and the Straits Settlements; and yet there are people who say, "What about this waste? Has it paid to send out these missionaries?" Ask our Methodist brethren who celebrated that Jubilee. I confess that I have not read the recent figures to tell the additional story of it that needs to be told to bring it up to date.

But now,

About the Medical Missionaries

once more. Here it was my privilege to look into the face of Dr. Clara Swain, that consecrated woman, the first medical woman to carry the medical chest and along with it the gospel of woman's love and sympathy especially to the women and children of India. It was a fitting thing for Illinois to vote to put a statue

of her queenly woman, Frances E. Willard, under the dome of the Capitol at Washington, by the side of the great Emancipator, Lincoln. It would be a fitting thing one of these days for the women of America, many of whom are wasting their millions in fashion and frivolity, to build somewhere a monument in the shape of a noble hospital in memory of that queenly Doctor Swain, the first woman to open up to the women of India the possibilities of the Gospel through woman's love and woman's sympathy.

Now, we come down into Southern India, and I shall never forget the woman who caught the spirit of Doctor Swain, and said, "I will go and do likewise." I refer now to Doctor Parker, a frail woman who never weighed quite 100 pounds. She came to New York when I was serving the American Board in that city, and said, "I want to sail." So I arranged for her to go on a certain day; I went down to see her off, and I shall have the picture as long as I live of that venerable father, whose hair was white, sitting there holding the hands of his only daughter, with the tears running down his venerable cheeks, saying, "How can I, how can I, how can I give you up?"

My Heart Almost Gave Way

when I saw that sight, and I wondered, if my only daughter had seen fit a little later, when she was matured, to go likewise, whether I would have met it with a braver heart than did that venerable father. When I saw that apparently frail young woman going out to that unfriendly climate of India where six months of the year it is hot, and the next six months of the year it is hotter, I said, "She will die inside of a year." As usual, I proved to be a false prophet. Fifteen years afterward I saw her over there in her hospital, cheerful, light-hearted, growing more beautiful, still not weighing quite 100 pounds, but in the esteem of the natives I think they thought that that little Miss Parker weighed a ton, going out on her tours with the missionaries, living in tents under that burning sun, receiving from 100 to 200 patients a day—14,000 patients

coming on an average in a single year to that woman's hospital.

I must hurry on to a conclusion, and call, for a moment, at China, and put our feet down on the place where Dr. Peter Parker, the first medical missionary in that great land of Sinim, opened up, as has been said truthfully so many times, China with his lancet; breaking down prejudices, opening the way for preachers of the Gospel and teachers to come in. And there on that very ground came Doctor Kerr, who was in his day one of the greatest surgeons in the world; and he was followed by a small army of workers, many of whom are with us to-day.

I say, weighing my words when I say it, that if nothing else had been accomplished by the missionary work in China, than to unbind the feet of the girls of that empire, it would have been worth while. But that is not all. A few years ago the decree went out from the throne that the officers of the government must give up the opium habit; and then a little later all the people must give up the raising of the poppy plant from which the opium is made, and must also give up the use of opium. So to-day a fight is going on such as perhaps the world has never before seen. But you ask, "Are those people really good Christians? Would they average up to the Christians that we know here in America?" If they did not do just a little better than the average Christians here in America, I would be raising a very big interrogation point in my own mind whether it would be worth while for some of us to spend our strength trying to save that land. My own conviction is that when you once get a Chinaman to understand the Gospel and get his feet firmly planted on the Rock of Ages, you have got a stalwart Christian, you have got the Scotchman of the Orient, you have a man you can tie to to the very end. You who went through the Boxer movement, you who were there when my personal friend, Horace Tracy Pitkin, fell, do not need to be told whether those Chinese Christians are worth saving or not. Doctor Gibson said that 30,000 of those Chinese, who died martyrs, might be living if they had been willing to do the simple act of putting the toe of their

foot down on the sign of the cross that was made by the Boxers in the dust. When you can find that sort of thing, you can face the whole world when they ask the question, "Is it worth while to try to make Christians out of those simple Chinese?"

Does It Pay?

If there is anything under the heavens that pays, it is the missionary cause. I know my own heart to-day when I say if it were mine to choose whether I might stand in the shoes of some statesman, some great warrior, or to stand in the place of some of these men and women who go out to the lands like China, Africa, Turkey, or India, and never one word of their hardships or trials, because Christ has said, "Go," and their happiness consists in living for him, and if it be his will, dying for him, I should choose the missionary's part of sacrifice. If there is any young man or young woman present who is looking out into the future and wondering where he can put in his life to reap the widest swath, I beg of you not to hesitate for a moment when you have had a chance to listen to the words of these men and women who have come fresh from the field to tell the triumphs of the Gospel. Go thou and do likewise; go forth there to heal the sick, to preach the Gospel, to lift up those people toward God's stars, and his blessing will rest upon you, and his kingdom will be built up.



SECOND MEETING

Thursday, January 5, 7:30 P. M.

Rev. Chas. C. Creegan, D. D., Presiding

Prayer by Dr. Joseph K. Greene, of Constantinople.

Song by the quartet.

THE CHAIRMAN: An exceedingly difficult task has been assigned to the presiding officer to-night, viz., to indicate to those who have spent, some of them many years, and all of them fruitful years in these far-away lands and come back full of their subject, when their time is up.

THE CLOCK STRIKES TWELVE IN SINIM

THE CHAIRMAN: The first speaker of



DR. FRANCIS F. TUCKER, OF WILLIAMS, CHINA

the evening, Dr. Francis F. Tucker, has been remarkably successful in Northern China. His wife is also a physician, and the two together have accomplished a work about which we shall all hear with great interest.

FRANCIS F. TUCKER, M. D.: The title may need a word of explanation, "The Clock Strikes Twelve in Sinim." When the statement in Holy Writ was made, "these from the land of Sinim," then was when it struck one; and that clock has been striking through the ages solemnly, slowly,—one, two, three, and on, and to-day as we listen we hear it striking *twelve*.

Not long ago I saw at Hartford, Conn., the massive door of a safety vault, weighing twenty-five tons, yet so delicately poised that a child's hand can move it. It works, of course, by a time lock, and at a definite time it opens. It has seemed to me that the land of China with its teeming millions has

A Time Lock.

The door is now opened, and we find these valuable souls within. Ere it closes again, we must see to it that what we want to put into that vault of God and what we want taken out of it are given

due attention. Are we listening to what God has to say to us regarding this great land? Can we hear the clock tick? I speak especially to the young men and women who perchance feel that God is calling them to missionary work. In this field we deal not with such valuables as silver and gold, stocks and bonds, but with souls; and what is the value of a human soul? Four hundred millions of them—let them file by, one a second, and it would take seventeen years for them simply to pass in review.—these are they from the Land of Sinim. We look down upon them, or we have; but they are brothers of ours,—neighbors, if you please, with the Pacific Ocean daily growing narrower.

What are we doing in China? Creating a new spiritual atmosphere, and in fact, a moral climate, a new spiritual climate. God is doing it, and it is a task for God. It is a task in which his representatives need great power that they must call upon God for. We appreciate what in these last days is so prominent, namely, a national consciousness of our duty to those who have been less fortunate than ourselves. We must not stop to discuss just how this national consciousness has developed; here it is, and now is the time to use it, as these hands on our clock of Time point to the supreme opportunity. Not alone in the Christian church, but throughout the nation, in all the walks of life, an interest has been awakened in the evangelization of the world; and among those who are not Christians, for the uplifting of the world. We have decided to take a practical interest in raising the standard of living of the Chinese people, and no nation is so favorably looked upon by China as the United States, for reasons that we can not now stop to discuss. One reason might be mentioned: that splendid action of the United States in giving back the unused portion of the Boxer indemnity; matched, if you will, by the wisdom of the Chinese government in deciding to use it along educational lines for the training of young men in the United States. There are now hundreds of young men and some young women being trained to return to their own land as potential powers, perhaps Christian; this is our opportunity in this line. One

of our national executives stated not long ago that

"Good Manners Should be International,"

and so our treatment of the Chinese has changed somewhat of late. We are realizing that we must cultivate them; not alone because they are people that need to be saved for time and eternity, but because we must look out for ourselves and our selfish interests. With our common sense and our trade instincts, we realize that the trade centers of the Atlantic are largely used, and we must turn to the Pacific for the future trade opportunities. We are right, but that is not all. It is far better to see therein, as Christian men and women, an opportunity for serving Jesus Christ as he has never been served. It is well that we use this supreme time in the tide of the world. Do we believe in the survival of the fittest? Then, as the world clock ticks toward the noontide of opportunity,

China is Fit.

When China was old, Egypt was young; and we might draw many historical parallels and go back to times when there was a relatively high degree of civilization in this ancient land, when our ancestors were, we know not what, perhaps Druid worshipers. This great continent of Asia is the birthplace of the human race, and what the West owes the East is beyond calculation.

Ten or twelve years ago there were only fifteen or twenty newspapers in China, and now there are about 250. Think of the power of the press! The manager of one of the great publishing houses in China, and one of the great ones of the world—the Commercial Press of Shanghai—says that he has never published and never will publish a single page of literature which is antagonistic to Christianity.

In the government of China you know what advances have been made. The national parliament—and it is to come—will mean much for this hoary empire. It will be found to have been accomplished without bloodshed, something which has been unknown in the history of the world. The senate which has recently met and carried on its business with such common sense and good judg-

ment is an earnest of the condition that is to maintain when the parliament, a few years hence, is established.

I have spoken of the trade advantages, and a specific instance might be mentioned. I visited at Hankow not long ago a splendid steel plant that is operated with some of the unlimited cheap labor, six to eight cents a day; and there is enough coal in the province of Shansi alone to last the whole world for several thousand years, and China affords also unlimited iron ore; so here will be the steel-producing center of the world a few generations hence. Let us see to it that ere the clock strikes again, some of the industrial centers of the world that are to be, are well provided for spiritually as well.

There is much that might be said in regard to education in China, and the modern schools that are being established. I recall one circumstance, to be concrete, of a country village in which it was desired to establish a school along modern lines—not the ancient school where the classics of Confucius and other sages are committed to memory with the face of the learner far to the past, but looking forward. They had no building, and they decided that the gods of the village temple should be taken out and buried and that building used. And so with very little ceremony they dragged these gods out into the front court and dumped them into a muddy hole; and then there was such a kicking of the remnants with their feet and such rough handling as the gods of China could not have without a "dissolution of continuity."

Medically we can say but a word. We might go back to B. C. 2958, to the time of one of the ancient emperors when was written an elaborate treatise which has been followed largely by the native practitioner, or the native quack, and the essence of it is used to-day. How would *you* like to have pointed out on *your* body the 400 places where it is perfectly safe, supposedly, to insert the needle for the purpose of counter-irritation, or letting out the pain or disease? The new medicine is coming in but slowly. All of these reforms that we read of in this ancient land can not come over night. Some of the magazine articles would

make you think China has changed in the twinkling of an eye. Not so. It is a matter of generations, perhaps; certainly it is a matter of years; and during this particular time of opportunity, let us see to it that we are wise in entering the door, in making use of the leverage which medicine, education, and other advantages have given to us.

There are all diseases in China, all the ills that flesh is heir to, and then some more. This has seemed to me particularly true among the women of China. With my wife a physician, I have seen that there is a splendid opportunity in this line. I will give some figures from our own hospital, and there are others here who might speak with far greater efficacy of their splendid work in other hospitals. We have had in the thirty years since the hospital was established, 335,331 days of stay in the hospital. We have treated a total of something over 16,000 in-patients, and sometimes as high as 25,000 dispensary patients in a year;—continuous treatment—not of bodies only, but of souls. Here we have a physician to every 577 of the inhabitants; in China where I am, one to one and a half million; and indeed, in some parts of China, the proportion is much less. So we see that this clock which strikes twelve in Sinim is slow; but momentum is figured by the product of the mass and the velocity; and the mass in China is so great that if the velocity is slow, the momentum will be tremendous.

An authority has stated that one-half of the churches that are formed in my part of China are the result of hospital work. I remember speaking in one little church in Shansi province where eleven years ago every church member was killed. I went to the spot where they were killed and took off my hat, and the tears came to my eyes as I realized how indeed the blood of martyrs became the seed of the church; for at that moment there were more church members in that place than there had been before the Boxer uprising.

"I will take sickness away from your midst," is a prophecy that must surely apply to this land. When it strikes twelve here, let us remember, then, that it is midnight in China; and may we try to see to it that that midnight hour is not

one of spiritual darkness, but one of light, changing the darkness into light by the power of God.

The three great scourges of the world are famine, pestilence and war. Famine has been largely done away with by railways and commerce, and this is true to a degree in China, with 5,000 miles of railroad developed and more coming. War has been largely done away with by Christianity. Pestilence, the other scourge, is to be done away with by Christian medical science as you and I by the power of God shall apply it in this land. I think, as I must come to the end of my talk, of a remark made by Mr. John R. Mott as he closed the wonderful Edinburgh Conference, that "the end of the planning is

"The Beginning of the Doing."

And if we have been attuned during these last months and years, even during these hours that we have already been privileged to spend here, to the opportunities in China and other lands, we have been, potentially speaking, getting ready for some doing; and may the end of the planning indeed be the beginning of the doing. I verily believe that there are more foot-pounds of pain to the square yard in China than in any other land in the world. And if we wish to add materially to the world's Christian civilization, we will see to it that we help in every way that is within our power to reduce this number of pounds of pain, if we can so measure it. There is energy in China, potential, perhaps, but let us see that it becomes used for the Lord Jesus Christ. This is the time of times, friends; this is the hour of hours. Let us see that the God of gods is not hindered in the work which he would do for these four hundred millions of our brothers and our sisters.

HOW MEDICAL WORK OPENED A PROVINCE TO THE GOSPEL

THE CHAIRMAN: The next speaker, Doctor Lerrigo, went first as medical missionary to Alaska. A little later he married a daughter of the late Doctor Dowkontt and sailed for the Philippines, where he has been toiling for a number of years with marked success.

P. H. LERRIGO, M. D.: When the work of our denomination in the Philippines was opened, it was understood that work in this province would be difficult, and that it was an exceedingly unhealthy province. Perhaps that was the reason why they thought it was a strategic point to send a doctor, and we were designated to open up the work there. Capiz province was not only unhealthy, but unpleasant in other respects, for there was a very healthy hostility toward the Gospel, rife on all sides. I feel sure that the medical work was the one thing that could have been used for such a work. I think that we as physicians must be a little careful how we ascribe too much to the power of the medical work. God uses wonderfully other agencies. And yet, as we work in the field we see the way in which the medical work is bound up with the warp and woof of the life of the church.

I simply want to give you

A Few Illustrations

which will prove to you how God used the work in this respect in Capiz province. The churches in the foreign field are not usually the first thing the missionary starts. If he be a medical missionary, the dispensary, nine times out of ten, is his very first work. And such it proved on our field. The dispensary was the place where we became acquainted with the people. I remember the eighty or ninety patients which appalled me at my first clinic in the Philippines. My supplies not having arrived, we had only a can of calomel, and another of quinin, and I succeeded by a very liberal use of these two remedies in prescribing for those eighty patients. The long string of patients commenced on that day has not stopped yet. There are many faces that I recall; and as I think of where I saw them next, I can realize the close union which exists between the medical work and the work of the church.

One man who passed into our consultation room and out again was a little, chubby, round-faced Filipino, of whom one of the ladies at first said, "He doesn't look like a man of any marked ability." Yet, when that man gave his heart to Jesus Christ, he first became the architect of the new church which was



P. H. LERRIGO, M. D.

built in the provincial capital; then he became the contractor and builder for the putting up of that church; and subsequently he became the senior deacon of that church. Now, let me not attribute that man's conversion wholly to the dispensary; but I do believe that the lesson of God's love written large in the dispensary had a great deal to do with opening his heart to the Gospel of Jesus.

Another man whose face we first saw in our dispensary, was a rugged character, a tailor, who looked as though he were fitted for better things. Before very long he invited us to have services in his home; and the first service we had there was attended so freely by his neighbors that the whole floor of the house gave way and the meeting was precipitated *en masse* below, with the exception of a few who were able to cling around the bamboo walls. The owner of the house has become the second deacon in that church.

Another, a young fellow, bright, clean and clever, came to the dispensary with the dread scourge of the Orient, tuberculosis. You think you know something about tuberculosis in this country; let me tell you you don't know very much

comparatively. The Orient is where you see tuberculosis in all its flourishing horror. This young fellow had tuberculosis, and passed through the dispensary. The message laid hold upon his heart, he learned to know of Christ, and he became a very good preacher, and God for two years used him in the work of going up and down the province and preaching to large numbers of his own countrymen.

Let me speak of another, a Spanish lady, a woman who had been brought up from her girlhood in the Philippines, and who lived in a distant city. When we visited that city, she came to the meeting with the distinct understanding that she was to cause a disturbance or mock at the message. She heard the word, and she saw also a large number of people who were treated after the meeting by the little pocket case of instruments and a few remedies we were able to carry; and she herself developed a little difficulty and passed among the others through our consultation room. What was the result? The woman eventually became the leader of the Christian movement in that town, and the superintendent of the Sunday-school.

Another case: a dear old lady who had not very long to live. She came to the dispensary and the Lord touched her heart, and she opened her house to the preaching of the Gospel, and subsequently learned to know Christ herself. She became one of the deaconesses of the first church that was organized there.

Let me speak of another, a sad-faced Filipino girl with eyes totally blinded through neglect in her youth, though they might have been saved by the slightest intelligent treatment, who came into the dispensary suffering from a severe type of melancholia. She had no medicine; she needed none except the message of Jesus Christ; but she became a sincere and earnest Christian, and immediately commenced to work for the Gospel of Jesus. This girl, blind as she was, would get some one to lead her by the hand, and thus would go out into the province, visiting villages in some cases thirty or forty miles distant, in order that she might tell the people whom she had never known before, the message which had saved her.

We had been traveling for some days

and arrived at a village on the extreme border of our province, and were there met by one of the principal men of the province, who said to us, "I haven't any use for your message at all; I don't care to hear it, and we don't want it in our town, but if you want to get off your horse and stay here awhile, you are perfectly welcome." So we got off and stayed in his house; and when he learned that there was a "medico" among the missionaries, he immediately wanted a consultation, and in that consultation was the first opportunity of getting in anything about the Word of God. A number of years after, this very same man said to me that he had learned to know about Jesus and was trusting in him. I can multiply these instances indefinitely, as I suppose almost every medical missionary could; but I have given you just these few because I want you to see that the medical work is not simply a side issue; it touches the very warp and woof of the life of the church. As I stand upon the platform in our churches and look before me into the audience, I can recognize the faces before me as having been seen for the first time in the consultation room of the dispensary. It seems to me that if it were only a question of the suffering and the pain of which our brother from China has spoken, we should be amply justified in all the expenditure of health and of strength, of life and of money that is put into this medical missionary work; but I thank God that the medical missionary comes closer than that to the people. He touches not only the painful spots, but he reaches right down to the very soul of the man or woman who comes into his dispensary, and there he can bring to them the true healing of the Great Physician.

MEDICAL MISSIONS IN INDIA

THE CHAIRMAN: When I was in India, some 200 miles east of Bombay, I fell suddenly ill, as many strangers unused to that terrible climate do, and was cared for by a skilful physician. Little did I dream then that I should have the pleasure of introducing him to you tonight. I take great pleasure in introducing to you my personal friend, Lester H. Beals, M. D., of Wai, India.

LESTER H. BEALS, M. D.: The medical situation in India differs in one important particular from the medical situation in such countries as China, Persia, Turkey, and other important mission fields. The British government, which rules in India, has spread

A Network of Hospitals and Dispensaries, government institutions, over that land from north to south, and east to west, and I would like to say a word with regard to these hospitals and the situation with reference to them.

India is divided, for administrative purposes, into large provinces that might be compared to the provinces of Canada, and these are again subdivided into districts which we might compare with our congressional districts, and these in turn are subdivided into what we might call counties. In the provincial centers, the capital city of the provinces, the British government in India has established well-equipped hospitals with a corps of well-trained English surgeons and a trained staff of assistants. Also in the chief town of each district there is a government hospital under the charge of an English surgeon. These surgeons always have a number of native assistants, and the hospitals have accommodations for in-patients in addition to the usual out-patient dispensary. Again, the smaller divisions, which may be compared with our counties, have small government dispensaries—one in each county, each in charge of a government doctor, who is a native of India, with some training in western medicine.

I speak of this because I find that it is not very generally understood in this country that the British government is providing some medical help for the people of India, and because in this way the medical situation there differs from that in many other mission fields. And this situation has some bearing upon the call to-day for new medical missionaries in India, and also some bearing upon the location of the medical missionary workers in India. Though the presence of government medical aid should not be looked upon as having too much bearing on medical missions in India, still it is a fact that the people of India are not dependent upon the medical missionaries

and the native quacks so absolutely as they are in many other mission lands, and India is moving forward, slowly, to be sure, but forward, toward the time when she will not require medical help from the outside. Government medical schools established in Bombay, Madras, Calcutta, and two or three other centers, are contributing to this progress.

The Demand for New Medical Missionaries in India to-day is, for the most part, to fill vacancies, to reinforce established medical work that has outgrown the resources or capacity of the members of the staff to care for it, and also for some few special situations which occur here and there throughout the land, where other lines of missionary endeavor are not able to reach the people, and where the government provisions are lamentably failing to meet the medical needs.

What I have said with regard to the demand for medical missionaries does not apply to the work for women. Though a large fund, bearing the name of Lady Dufferin, has been established for the founding of hospitals for women, and a large number of Dufferin hospitals for women are scattered over the country, still they are so few that they do not really affect the problem. One might almost say that medical work for women is needed in every mission station in India.

Now, I would like to speak a little in detail about one of the places where special conditions exist which have made medical missionary work a necessity. The Brahmins of India are not only the religious, but they are also the intellectual aristocracy of the country. They constitute about five per cent of the people, but in the colleges of India ninety per cent of the students come from this five per cent of Brahmin population.

In Wai, the station in Western India where it has been my privilege to work, over fifty per cent—according to a recent census, nearly seventy-five per cent—of the people are Brahmins. It is a place peculiarly sacred to the Hindus, situated on the very holy Kristna River. It is on the main thoroughfare that goes up to Mahableswar, the summer seat of government, and Europeans going and coming from that delightful hill station

are continually struck by the great number of temples up and down the river banks at that point. We have some twenty temples there which for nearly three centuries have attracted a large population of Brahmins to the holy waters of the sacred river, and have made it a place of great influence religiously throughout all Western India. Hardly another place on that side of India offers such attractions for a home to a devout Brahmin.

Our mission has been working there for fifteen years with a highly developed educational and evangelistic work, and the work has made excellent progress among the other castes of the people. But to the present day I think

There is Not a Single Brahmin

in our schools there. It is a stronghold where pure, orthodox, ancient Hinduism has its grip upon the people as we have not seen elsewhere in India.

A year or so ago my wife, who is also a doctor, and I were permitted to open medical work there, and the patients came in very large numbers. We treated ninety patients the first day the dispensary was opened, and we have treated regularly fifty to one hundred and fifty patients a day. Several times we were called upon to treat over 200 patients in a single day. A preaching service is held daily in the dispensary and the patients listen attentively.

At the close of the year, Mr. Lee, one of our missionaries, brought a Brahmin convert down from another station to speak to the people there. I wish I had time to tell you something of the life and work of this Brahmin convert. But we secured a hall for him to speak in, and invited the people of the town to hear him. A large number came, practically all Brahmins, and when he had finished speaking, a man of influence in the town rose and said: "It is not right that this message should be heard only by those who can come to this hall. Won't he come down by our temple where we hold our mass meetings and give this message to our people?" And the next night he stood by that Hindu temple by their own invitation, and pointed those people to a new life in Christ that is bound to

have a steadily deepening influence in that place.

Wai is Not of Commercial Importance,

and many things from the West that are making such a deep impression upon India to-day have left that burning fire of Hinduism in that place largely untouched. But new light is coming in there. Much devoted, self-sacrificing labor has opened the way, and now the medical work is being used of God to extend the work. I agree with the last speaker that we doctors and medical missionaries are perhaps prone to overestimate the importance of our work, and feel that this is *the* way to get hold of people. We ought to say it is *the* way for *us* to get hold of people. But it is also a method of work which in special circumstances and under certain conditions will reach those who are inaccessible to other lines of work. We certainly do find people's bodies one of the most open avenues of approach to their souls.

MEDICAL WORK FOR WOMEN IN INDIA

THE CHAIRMAN: Nothing will appeal to a Christian who is visiting India for the first time more than the need of the women and the girls of that vast land. Tens of millions of them never can be reached in the world except by some sister who goes with the Gospel, perhaps as a medical missionary. We are fortunate in having with us to-night one who for a considerable number of years has given herself to this work among women, who has the honor of being at the head of the only training school in all India to prepare the native women for medical service. I have great pleasure in introducing to you Mary R. Noble, M. D.

MARY R. NOBLE, M. D.: I am not at the head of the North India School of Medicine for Christian Women. I am only one of the helpers, fortunately, and Dr. Edith M. Brown, who founded the school sixteen years ago, is at its head. The school is just about sixteen years old, and is the only Christian women's medical college in the whole land. It is not the only place, by any means, where women may study medicine; they may study in the government institutions and

one or two other places under mission auspices; but they have in all those other places to study in the classes with men, and we are not finding co-education advisable in India.

The school is called the North India School of Medicine for Christian Women. We are just about to open our doors to Hindus and Mohammedans also. That means undertaking something that we are scarcely prepared to cope with yet. I do not need to tell you of the degradation of Mohammedan homes, or of Hindu homes, to make you understand that just one child from such a home coming into our Christian community is something we all stand aghast at, and we wonder what the outcome will be for our seventy girls.

I should like to be able to tell you what our medical curriculum is like. We give the medical students who come to us from all parts of the land four years of hard work. We have a second group of students who are called "compounders"—that is, they are studying to be druggists and pharmacists—who study only two years. Then we have a group of students who are nurses in our nurses' training school.

I can not tell you how we house our pupils. They come to us from homes that are poor. We can give them only the humblest surroundings, curtained off spaces which will hold just a bed, a chair and the table, and space enough to turn around. We have just had a gift of £1,000 to put up new dormitories, and we are going to watch very anxiously until those dormitories are built and our girls have a little better housing than we have now. I look around here and see how you house American students, and I wonder if the time will ever come when we can adequately house our Indian students without giving them any luxury. I do want adequate comfort, perfect sanitation, and a certain amount of dignity about our surroundings, which we can not give them now because we are so poor. It is an interdenominational institution. We are the servant of all, and the child of no one board. That is why we have such a financial struggle.

I am going to take you now right across to the hospital, for I must not spend more time telling you about the

school; and I want to try to give you a picture of the inside of our Ludhiana hospital. With all due apologies to China, Korea and everywhere else, it is

The Nicest Hospital on Earth.

Our hospital is a series of low, one-story brick buildings built around a hollow square, as many buildings are in the Orient. We have no elevators or stairs to climb, but we sometimes feel when we get through a morning's work that we have walked miles through those verandas going from one department to another. If you should go down the street, you would be quite struck with the architecture. I sometimes think it is the ugliest building on the face of the earth. But step inside, and you forget about how it looks outside. The first door leads you into the inner office, and you look down on either side into the Hindu and Mohammedan wards. There is no kind of patient from any social status whatever in India that could present herself at our doors that would be turned away because we did not have accommodation for her. It might be an outcast, one of the untouchable ones, in such fearful condition that it is difficult even for those of us who are used to it to stand near her; we take her in and find a place where she will be perfectly comfortable.

I do not suppose any physician ever went to the Orient with more ideas of

How to Run a Hospital

than I did. I have had to embalm many of my ideas and lay them away, for they did not work out there. But there are some I am still holding to, and cleanliness is one of them; still you would not get the same impression that you get in a clean hospital here at home—everything shining, glistening, spotless, immaculate. You would see in the first place only a mass of color. Our patients are not all dressed in white and all on white beds that are beautifully clean, and our nurses are not dressed in very light colored clothes, although they do have clean white aprons; but as you look down the wards, you get the impression you ought to get and ought to want to get—all the colors of the rainbow. And when we are dressed up for government inspection, we are positively

gaudy, no two patients dressed alike, every tint and color imaginable. We are trying to keep them clean, but they are not going to co-operate with us. Not a single woman in bed is going to try to keep herself clean when we have once started; and it is a good deal easier to put her in colors than in white, for that reason.

An Oriental Hospital Ward

As you go down the ward, you see that the floor is slate, and the ceiling is white, and the walls are white down to about four or five feet from the ground; but we can not have the wall white down to the baseboard, for one of their favorite ways of cleaning their hands is to wipe them on the walls; so the lower part of the walls is dark colored. In this season of the year the women are given rich red over garments and pink skirts.

These women do look ill. That is about all there is that makes you think it is really a hospital ward, because there is a group of people there who have no business to be in a hospital, if you look at it from the western standpoint. When a woman comes to our dispensary, she has to have a friend with her. In this land our friends may come to visit us at the hospital at certain hours of the day, but in India the patients will not stay in the hospital unless they have a friend with them. "Very well," we say, "bring your friend with you." Then they say they must bring their children. "Very well; bring your children with you." Of course, we can not clothe and bathe all those children and relatives; so here is a crowd of people who are not sick, but who have every right to the freedom of the ward, and come and camp down at the bedside of the sick patient. Now, any trained nurse who had to nurse in that ward and was told to bring system, order and immaculateness out of a situation like that, would want to turn and run before she tackled the job. But our little Hindustani nurses go at it, and with all the terrible conditions and all the difficulties they have to face, they do, in a remarkable way, succeed in making the ward a place where we are really healing bodies in spite of all the things against us. In spite of lack of co-opera-

tion, we really have a very fair outcome. These wards that have just been described are the free wards.

Now, the patient, instead of being one of those poor creatures, very filthy and full of disease, may be an aristocrat covered with silks and satins and loaded with jewelry. If she wants a place in the hospital we have that for her, too. If she wants to pay for it, she may have a private ward. Some people are willing to pay for the privilege of not bathing and putting on clean clothes, and we give them a little alcove for sixteen cents a day; and we go from that up to a round sum that we charge civil and military people and those who want a room which is comfortable and well-furnished, where they can have the comforts they need just as much as in their own bungalow at home. We have what we call "family wards," where the whole family comes and lives with the one sick patient, and that pleases them best of all.

The Fame of Our "Family Wards"

has gone the length and breadth of the land, and we have families traveling long distances to bring a patient who needs a long course of treatment and wants all her friends about her while she stays with us.

Doctor Brown maintains that after all we are not there to run a modern Western hospital, much as we want to. Our primary aim in everything we do in connection with the hospital is, not to make as many sick women well as we can under perfect surroundings with our western sense, but to get just as many people to come within the sound of the Gospel of Jesus Christ as we can possibly get. We take in relatives so that the women will stay contentedly with us as long as they need treatment, and it brings more people within reach of the good news we are there to tell.

We had in the main dispensary and its two small branches, one in the city and one in an out-village, 65,000 visitors last year, not counting the relatives. We have women coming and living weeks with us who go away with a different idea from anything they have ever had in all their lives before; and I say we have no right to call ourselves a mission-

any institution in any sense if we are not preaching the Gospel day and night to them. If I thought I was not working "directly" for the women of India to bring them to Christ, to show them what the Gospel was, I should resign from the board to-morrow, and I should seek to go into a "direct" work; but I do believe medical missionaries are a "direct missionary agency." I believe that every woman who comes into our hospital from the bazaar or off the street, knows the difference the minute she lifts the curtain and steps inside our hospital. She knows the difference between what she has left in those most degraded places on the face of the earth,—Mohammedan and Hindu homes.

We want no doctors, no nurses, no students in connection with our hospitals who are not daily and hourly, through the whole twenty-four hours, preaching Jesus Christ by the tones of their voices, no matter what they say, by the lines of their faces, and by the very touch of their hands. I sometimes say if I had to choose between being allowed to talk to them a little while and then go off and not do anything for them, and being dumb and being allowed to minister to them, I should say, "Make me dumb, but let me minister."

Now, some of you remember I said here a year ago that I thought the most difficult thing any missionary has to do is to give a true picture. When I talk about our hospital, one will say, "Oh, yes, how glorious! One would like to do missionary work if it is like that all the time." I will not deny it is fascinating. There is not a single one of us here to-night who would change places with any one who wants to stay here in America and work; but it is not the fascination that keeps us.

"It matters not how deep entrenched the wrong,
How hard the battle goes, the fight how long;
We will keep on. To-morrow comes the song."

THE CHAIRMAN: Doctor Kelly will now tell us of

OUR DEVIL REFUGE HOSPITAL IN HAINAN

REV. J. F. KELLY, M. D.: Hainan is off the south coast of China, 18° north of the equator, one day's journey south-



REV. J. F. KELLY, M. D.

west direct from Hong Kong, due west of Manilla or the Philippines, and just east of that Tonkin Bay that lies off the east border of the French possession of China. We are in tropical China, an island, the southernmost point in the empire, belonging to the province of Kwangtung, and we have two or three millions of people in our island. We can count eighty or ninety or one hundred villages just in front of our compound, as we stand on a little elevation looking out upon a circumscribed circle of a very few miles. We have Chinese and all classes of people among them—the aborigines of the mainland of China who lived up in the mountains; and the wild, aboriginal Li people who are the great demon worshipers, and are our next-door neighbors to the south from our station. We have upward of 100,000 of these Li aboriginals who have not a single foreign missionary in their midst. We can not speak of an up-to-date China. Kindred to these Lis are their domesticated relatives who live in the lowlands, two or three dialects of them. And we have the Ha-Kahs that come to us from all over China. We have a good many that come to us from the west, Kwangsi; and we

have quite a big band of Cantonese miners that come to work our tin mines. We had a Korean peddler at our clinic one day, who was there to treat the natives with his medicines! We have also several other tribes and dialects from the mainland, and number in all about ten dialects. In my medical work I have to speak five dialects, at least, to save time; and for the rest of the dialects, we have to use interpreters and waste time. We have a hospital with thirty beds, and with a floor above the ground floor which takes the place of the Chinese bedboard. The women usually prefer the plain boards on the floor, and spread their mats out upon the floor. In this way we are able to accommodate as many as fifty or sixty, on occasion. We have a large dispensary practice, aggregating about fifteen thousand a year, which we consider is quite enough.

These people are great demon worshipers. This is ancestor worship on its practical side. These ancestral spirits are not angelic according to the Chinese conception. They do not think of them as up in a happy, beatific heaven; Celestials though we may call the people, their ancestral spirits are demons that prowl about among the graves and in the darkened homes of the people. They are afraid those spirits will "do them." That is the idiomatic Chinese expression to-day,—“to do” them, to inflict injury and calamity upon them. Confucius did not give to the Chinese all the doctrines which they follow. We live near these aboriginals, and they are very strong in point of devil worship. While the Chinese natives themselves despise these people and look upon them as inferior, yet they freely imbibe their superstitions and resort to their practices.

One day when I had not been long in the station, and was a tenderfoot, a greenhorn, I was called out to see a case. We distinguish there between the sexes among the children, by the fact that the little girls wear earrings, but the boys do not. The child that I was called to see had earrings, and I concluded it was, of course, a girl. On my return I was telling my fellow missionaries about the case of this little girl. How did I know it was a girl? She had earrings. They laughed; they knew the family, and

that the youngest member was not a girl, but a boy. But why the earrings?

It Was to Fool the Devil!

You know, in China they do not think much of girls, and, after their anthropomorphism, they suppose even the devils do not think much of the girls, and would not inflict much evil on the home of a little girl; therefore, why not fool the devil—put in earrings and make him think it was a girl? That is a very common practice among these people.

I had a very severe case of demonology. A young woman was brought into the hospital out of her mind. All over her body from head to foot were suppurating burns. Doctor Tucker speaks of using needles, and pricking little holes to let the disease out. They are more desperate than that down our way; they burn the devil out. This young woman's husband and mother and sisters were afraid of her. They all chaperoned her to the hospital, and they handled her very carefully. The patient with insanity in China is turned out upon the streets as a rule, and they caution us to be very careful how we approach such a subject. In this case, the family did not have faith. After a day they took the patient home, and did not even give us a chance.

A Demon-Haunted Room

We had a demon-haunted room in the hospital, and the doctor that preceded me could get no patients to stay there. Perhaps he might fool a Chinaman occasionally, and he would pass a single night. The next morning he would learn about the reputation of that room. Why was it demon haunted? A patient had died there. If a patient dies outside of his own home in China, his spirit remains to haunt the place and to pursue anybody that thereafter inhabits that room or house. When I assumed charge, I had the room altered, an extra window and an extra door put in; and in that way we raised a big racket and drove the demons all out; and thereafter we had no difficulty in getting patients to stay there.

Let me tell you of another case in which we can report better success. I was called to see one young woman in a

neighboring market up next to the mountains who was out of her mind, possessed of a high fever. It was reported to me as a case for which there seemed little hope. The woman was supposed to be dying, and she had fled from the home of her Christian husband to that of her own mother. Now, her mother was a rich woman in that market town, and a woman of great influence. I found that I could do very little for the case under the circumstances, but I prescribed at once, and finding that my prescriptions were not carried out, I could do no more than to insist upon the patient's being brought to the hospital. The mother-in-law would not agree to that, so strong was her conviction that the woman was devil-possessed. Thereafter she had her own way. They called the priests to "do" the devil. They got out the old ancestral spirit, represented by an idol. Sometimes these spirits are canonized saints that date farther back than the canonized saints in the Catholic church, and they fear them. They must propitiate this awful demon by sacrifice, that he might leave the body of this unfortunate young wife. Therefore the idol was instated upon a palanquin, brought into the family home and put upon the altar. Many sticks of incense were burned before him. To render the rite effective to the finish, they took red-hot irons and burned both thumbs of the patient, the last phalanges, very severely, to the bone. I was called to see her when on a visit to the place, and found these burns in a state of suppuration. I could do nothing but insist upon her being brought to the hospital; upon those conditions alone would I treat her. No, the mother must have her own way. A month passed, and she wasted away to a skeleton. Finally, with the return of the high fever, she became desperate. The girl herself in her delirium spoke very bitterly against her mother and insisted upon being taken to the foreigner's hospital, and she was brought to us in this state, almost dying. We did what we could for her. Her husband and all our Christians prayed for her. We extracted these phalanges from the surrounding suppurating flesh, and she miraculously improved under the treatment and under our prayers. This

woman recovered and is living to-day to testify to the grace of God.

Many other like incidents show us this devil-refuge character of the mission hospital in Hainan.

INDUSTRIAL EDUCATION IN THE N'DAU TRIBE

THE CHAIRMAN: The next speaker, Mr. C. C. Fuller, is not a medical missionary, but a civil engineer, who for a number of years has been winning for himself distinction in industrial work in East Central Africa.

MR. C. C. FULLER, C. E.: It is with no apology that I stand before this medical missionary conference to-night as a special pleader for industrial training in the mission field. But at the very beginning, lest some one here at the close of what I shall have to say, comes forward with the charge that the speaker has in his enthusiasm for one form of missionary service underestimated other forms, I want to say that the preaching of the Gospel of our Lord Jesus Christ is the heart of all missionary service. And if there is one thing more than all others in this world that I had rather be, it is a medical missionary. Now, with this preliminary, let me go into my subject.

Where is the home of these N'Dau people? Perhaps some of you think they are Indians; some of you may think they are Eskimos. No, they are Africans; and if you will turn to any good map of Africa you can locate them very quickly in Southern Rhodesia and in Portuguese East Africa. Seventeen years ago the pioneer missionaries of our board went into this new field in Southern Rhodesia. Now, unless in some way I can bring you to realize the condition of those people, it would be useless for me to speak to-night upon the value of industrial or any other training for the African. In that territory you find the people living to-day just as they lived seventeen years ago, except here and there where small numbers have been touched by the preaching of the Gospel of Jesus Christ; living in small huts, small inclosures, many of them so narrow that when a man lies down at night to sleep he is unable to stretch his limbs to the full extent, living litt'e better than



MR. C. C. FULLER, C. E.

animals, polygamy the common custom of the country. The standing of a man in our community is measured by the number of wives which he has. A man with one wife is looked down upon with contempt; a man with six wives is a pillar in society and is looked up to with admiration and respect. I could spend all my time this evening trying to tell you something of the sufferings, something of the wrongs, something of the burdens borne by the women of Africa. We know something about beer drinking in this country, but in our country, at certain seasons of the year, all the people, men, women and children,

Make a Business of Getting Drunk.

The fire burns in the center of the hut, in a little clay inclosure, and it often happens that when the drunken mother is lying on the floor in a stupor, the babe crawls into the fire and is burned, perhaps to death, or disfigured for life. Those things are so common that when we see children who have been burned in that way, we hardly notice them.

You have heard to-night of the superstition of China and India, but it seems to me that superstition means more in

Africa than in any other place in the world. Those people are so under the power of superstition that it often happens that a mother, who loves her children just as much, friends, as you mothers love your children, with her own hands puts to death her child, simply because of the power of superstition.

From the very beginning of the work of our mission,

The Importance of Industrial Training

has been emphasized. The first boys and girls who came to the school there were taken by the missionaries and trained. Many of the boys were taken through the forest to the brick yard on the other side and taught to make bricks and roofing tiles. Other boys were taken into the great forest and taught to cut down trees, saw them up into logs, then with the pit saws to cut the logs up into the lumber which was needed for use in our mission buildings. Other boys were trained to work on the farm, a few in the printing office, and a few were taught the rudiments of carpentry.

The poor, naked, hopeless, stupid girls, without ambition, were taken into the homes of the missionaries and taught to sew, wash, iron, bake, cook, take care of the house, and nurse the children; and as the years went by, the value of this kind of missionary work became so apparent, not only to the missionaries and the white people of the district, but to the native people themselves, that some ten years ago the mission appealed to the American Board to send out some one who would go to the field and organize the industrial work of the mission. In the providence of God the call came to me to go out across the ocean to the other side of the world, to what was then truly to me a dark land. Time fails to tell of the months which were spent in purchasing equipment for our industrial work. It is enough briefly to mention some of the things which we took out with us. The traction engine, the saw-mill, the planing mill, the flouring mill, the sugar mill, machinery for making bricks and tiles, all kinds of tools for the carpenter and blacksmith shops, and machine shop equipment in order that we might do our own repair work; tools for the farm, new equipment for the

printing office,—these things were bought nine years ago and shipped out to the field. And on the seventh day of May, 1902, we followed after. I would I had time to tell you of the months spent in getting this machinery from the coast, across Portuguese East Africa, up into the mountains of Rhodesia. After one year of effort, of discouragement, of anxious waiting, this equipment reached its location up there in the mountains; and just one year from the day we reached the station tired, hungry, ragged, wet, half sick and discouraged,

The Old Sawmill Began Operations

in the heart of the forest; and from that day to this hundreds of thousands of feet of lumber have been sawn for use in mission buildings, in our carpenter shops, and for sale to the white settlers throughout the district. In those seven years men and boys have been trained to work in the carpenter shop and at the brick yard; in the printing office, and the blacksmith shop, and to operate the sawmill. Multitudes have been taught to work on the farm.

Now, what has happened? Those people living in huts like dogs are on a low plane of life; but I would like to ask you how far would you go, how high would you climb and take your wives and children with you, if your earning capacity was limited to twelve cents a day and board yourself? How much would you do for your church and for the community if you were working for \$2.50 a month and eat your own food? And that is the average wage of the men of our district. The first reason for industrial training in Africa, and in all mission fields where conditions are similar, is this, that it raises the people from one plane of life to a higher plane. Do you think those young men who have been trained at Mt. Silinda, go to work for twelve cents a day and board themselves? No. Our men are at work to-day all over South Africa, and they are earning from \$20.00 to \$40.00 a month; and when one of them comes back after two or three years of work and marries one of our Christian girls, he does not live in a hut. He builds himself a good house with two or three rooms in it, and he has a table and a chair, and a clock on the

wall; and his wife may have a sewing machine, and instead of wearing one piece of cloth tied around her waist, she wears a dress which she made herself. His children are well dressed and go to school. And what has happened? You have lifted one family out of the dark, out of the dirt, at least as high as a table and a chair.

And the second reason for industrial training is that it brings under the influence of the Gospel of Jesus Christ many who would not be reached in any other way. At Mt. Silinda we have boys and girls who have come hundreds of miles for an education. Do you think they walked hundreds of miles to school at Mt. Silinda, carrying everything they had in this world tied up in little bundles on their heads, because they wanted to be Christians? No, very few of them. They came because they had heard of that school from which no boy and no girl, no matter how poor, no matter how small, no matter how naked, no matter how stupid, was ever turned away. And ninety per cent of the boys and girls who go through the school and stay one year, do become Christians; and ninety-five per cent of the members of the church at Mt. Silinda came into the church through the school. Now, friends, if these things are true, if this revolution in the lives of people can be made by this form of missionary activity, then I ask, What is our responsibility in the matter?

THE CHAIRMAN: I will ask our old friend Doctor Thompson to speak at another session, for the hour is now late. I will ask President Chas. L. Bear, of India, the head of the Methodist College at Lucknow, to offer prayer.

(Closing prayer by President Bear.)



DEVOTIONAL SERVICE

Friday, January 6, 8:30 A. M.

Summary of Remarks by Rev. Joseph K. Greene

I invite your attention to the words found in Matt. 28:20—"Lo, I am with you always, even unto the end of the world." Who was he that said "I"? The man Christ Jesus, born at Bethlehem, brought up at Nazareth, crucified

in Jerusalem. But how could the gracious promise of Christ be fulfilled unless he were more than man; unless, in short, he were omnipresent and omniscient and omnipotent? This the church of Christ has ever clearly perceived, and so has worshiped him as divine.

At the same time the words of Christ come from a heart in perfect sympathy with men. His name was Immanuel, God with us, God in the flesh. The real secret of his human life is found in Heb. 2:10, 16, 17, 18. He was made "perfect through sufferings"—perfect in sympathy, perfect as an example, perfect as a Saviour, atoning for sin by his blood. Lo, such is the Being who commissions us,—one fitted both by his divinity and his humanity to fulfill his most gracious promise.

Who were meant by the word "you"? Evidently they were the disciples of our Lord,—those who were commissioned to make disciples of all the nations. But these disciples could not complete the work, continuing in it to all time. Hence the "you" means the successors of the apostles, all believers, in short, who have learned the old, old story and are told to tell it. In a special sense it is a gracious promise to all Christian teachers, ministers and missionaries. Christ did not send us forth in weakness and ignorance *alone*. He meant that his disciples should be prepared for their work by the "Comforter," promised in John 16:7. The change wrought in the disciples on the day of Pentecost was a change in their conceptions, their desires, their purposes, their character. It was the spiritual presence of Christ, made real by the power of the Holy Spirit, which was promised to the disciples and to all believers.

And this Christ was to be with the disciples "always." What a blessed word! With us missionaries on parting from parents and friends and leaving our native land; with us on the voyage; with us while learning the language; with us in trial and bereavement; with us in sending our children away for education; with us in trying to enlighten, persuade and save the poor, sinking, suffering people; with us in watching over their growth in Christian character, and in every form of disappointment and

opposition; with us when the heart is sad and the body weak, and when age advances. Yes, Christ's heart is with us and his hand under us, *always*, even unto the end. No wonder, then, that Paul could say, "I can do all things through Christ which strengtheneth me" (Phil. 4:13). Said Chrysostom, "It is as if Christ said to his disciples, Tell me not of the difficulties you must encounter, for *I am with you always.*"



DISCUSSION OF MEDICAL TOPICS

Friday, January 6, 11:30 A. M.

Led by Dr. Francis F. Tucker

THE CHAIRMAN: This is a meeting largely of those who are engaged, or expect to be engaged, in medical work, especially abroad, and we may be free as a family of physicians, or physicians-to-be, to speak our minds in any way.

One of the excellent suggestions made by one of our number is the topic of

Surgery Without Hospital Facilities

I have had a number of young missionaries ask me if they could be sure that when they went to a foreign field they would have a hospital to work with; they did not want to go unless they would have a hospital. From a personal standpoint, that is a great desideratum; but so many of us are caught on horseback, or in the foreign carts, or on muleback, here, there, and everywhere; and while our hospital is not a folding kodak to be carried with us, yet we have to be equipped to use our sanctified common sense under any circumstances. I am going to ask Doctor Shepard if he will say a word or two on this subject.

DR. F. D. SHEPARD: Of course, any one who has been in the field for any length of time could narrate indefinitely experiences along this line, but that I do not intend to do, but merely to allude to some ready methods which I have found practical and serviceable.

You are called upon to do all kinds of things at unexpected times and in unexpected places, and with very meager equipment, and the question is, what can you do? Shall you touch a case at all? Shall you leave your patient to die with-

out any attempt to do anything simply because you have no facilities with you? Or shall you attempt to do something with the meager facilities you have? For some years I have always carried a bottle of tincture of iodine in my saddlebags, and with this you can sterilize perfectly the surface of the body preparatory to operation. You need not hesitate to open an abdomen by an incision through skin that has been well treated with tincture of iodine. The surface of the skin will be sterile. You do not need to wash the surface before you apply your iodine. As a matter of fact, you get a more nearly perfect asepsis if you do not wash the skin before you apply the tincture of iodine, the reason being that the water causes the epithelial cells to swell and to exclude the tincture of iodine from the deeper layers which it reaches if the water has not been applied.

You can almost always find some kind of dish in which to boil things. If you have some alkali with you, preferably bicarbonate of soda, to put into the water, you can sterilize your instruments by simply boiling them. If you have not the soda, do it without. Your instruments will suffer, but the sterilization is just as efficient. You can sterilize at the same time, in the same pot, your dressings and your towels for use during the operation. I have done many an operation in the field, in dirty Turkish villages, in that way,—operations for obstruction of the bowels, volvulus, incarcerated hernia, with perfect success, with a perfect aseptic course of the case afterward. For your ligatures and sutures, silk or common thread, which you can find almost anywhere if you do not happen to have silk with you, can be boiled with the instruments and dressings, and it is safe. It is not so satisfactory as your suture material which you have in the hospital; but it will do the work and you will save life in that way.

I remember very well finding a man lying beside the road with a stab wound in the abdomen, and about eighteen inches of the small intestine protruding, covered with the dirt of the road. Getting some men from a nearby village to come and carry him to the village, I cleaned the surface as best I could, in the simple manner I have been stating,

and I resected the eighteen or twenty inches of small intestine and sewed it together with common cotton thread which I found in the village; and the man made a perfect recovery. He did just as well as he would have done if I had had him in the hospital. A little ingenuity in these cases, and a willingness to do the best you can under the circumstances, will very often enable you to save your patient under the most adverse conditions.

THE CHAIRMAN: I always carry a pocket knife with a metal handle rather than one with silver or gold mountings, for the reason that it can be boiled before and after being used.

BISHOP THOBURN: I want simply to tell a little story. I am not a doctor, but I had the good sense to marry one. When traveling in the mountains of northern India, riding a vicious little horse on the hill road, my weight came down upon the right hand on the cart and broke the arm close to the wrist. There was no board of any kind for a splint, and no axe we could cut anything with, and yet it was very necessary that that broken bone should be set. They had shingles put up on the public roads with directions on them for travelers, and one of those was attached to the building where we were. My wife courageously made that little notice board into a splint for setting the broken bone; and we got six strong men to carry me twenty miles to the nearest station where we could get medical attendance. If I had only let that alone when I began to get well, I should have had straight fingers to-day. You see I have not, just because I got a professional surgeon to come and see that my wife's work was well done. It was so much better done than anything the surgeon could do that he spoiled the whole operation. My advice is to you young men who are here and who are going into the mission work, when you get married, select a woman who has studied medicine.

THE CHAIRMAN: What do you do for absorbent cotton when you have none?

Most countries, of course, have cotton, and you can secure it, but it is not absorbent. By boiling with the proper proportion of any cheap alkali you can remove the oleaginous substance and secure

cotton which is usually cheaper than any you can import. You may do as the Japanese have done in emergencies, burn straw and use the ashes which result, which are, of course, sterile, and may be applied in place of cotton.

P. H. LERRIGO, M. D.: I want to call attention to the very extensive use to which bamboo may be put for splints, for example. I call to mind one case in which I found bamboo particularly useful. The Filipinos use very commonly a small bed made of bamboo, and in the treatment of a fractured thigh I found one of these beds, which are extremely cheap, of great advantage. It was a case where the patient was not able to stay under my care, and I found it a very easy thing to put him upon such a bed and erect a pulley over the foot of it, and let them carry the patient away on the bed, giving them simple directions how to care for him. By that means a perfect result was secured, although the patient did not remain under my own supervision. It seems to me that bamboo beds, which are very easily procured in most tropical countries, may prove of great service in such cases.

DR. W. J. WANLESS: I do not know how many here are familiar with the dressings which are now quite extensively used in India, of sawdust. We use the ordinary pine sawdust, which is very cheap there, and it is saved and sewed up in little bags of various sizes and shapes, and sterilized in an ordinary oven. It may be sterilized by boiling, if you have nothing better, and the bags may be put out on the clothes line to dry in the sun in a tropical climate. It is exceedingly cheap, and it has been the means of saving many hundreds of rupees in our work in India, and is used very extensively in the various missionary hospitals.

I suppose most medical missionaries find great difficulty in their own stations in securing a place in which they can do surgical operations. It is surprising how many of us have to improvise operating rooms in various places. In our own case, in the town I first went to twenty-one years ago, in India, we had nothing but a little bathroom in our own home, which we fitted up for an operating room. We had to take a school room, and carry on

our dispensary between classes. That did not work very well, because all the boys in the school wanted to become doctors; so we finally moved into the town, where we got a shack about ten by twenty feet, with mud walls and a thatched roof. Every time it rained we got a shower bath; but still we went on with the work in that place.

I have a very vivid recollection of our first operation. Very much depends upon the success of the first operation. There are times when you are called upon to operate, and there is no getting out of it; but you can very often select your cases in the first instance, and it is very important to make sure you are going to make a success of your first operation. We employed a man who professed to have a knowledge of anesthetics, but he had not. It was a case of gangrene, with the lower extremities requiring amputation at the middle of the thigh; and as I was about to saw the bone off, the patient stopped breathing. It was a breathless time for others besides the patient for a moment, and it took a good deal of exertion to restore him; but he got better, although he had his convalescence on the mud floor of a mud house. You may have to put your patient in the first place right on to the floors, and we find a native patient will often do as well on the floor as in bed.

I wish to say to the young missionaries, Do not be discouraged if you have not a hospital to start with. I remember having a sore back for two weeks after doing an obstetrical operation on the mud floor of a native house. But you will get over that after a while, if you do not get discouraged at the start.

REV. ISAAC T. HEADLAND: My wife is a doctor, and that is my only excuse for telling a story, but it is not about her. Doctor Atterbury, a missionary who worked with my wife, imported a lot of wire mattresses to make beds of, and always when the patients had been put on those wire mattresses they slipped off one side and got on to the brick floor.

During the second summer I was in China, I went out to a river side, and a whole village on the opposite side of the river came out to meet us; and I said to the doctor who was with me, "What is this, a mob?" As we forded the river

and got down on the other side, we got off our carts and shook our hands at the people, which is the proper thing to do there, and they fell on their faces, kowtowed to us, and invited us to the village to rest. We went, and they put us into a little room where they had a brick bed and some cakes on a table, and five naked babies on a cot. It made me think of that little poem of Kipling's:

“The poor, benighted Hindu,
He does the best he kin do;
He sticks to caste
From first to last,
And for clothes he makes his skin do.”

They asked Doctor Lowry to baptize these children. He said to them, “I did not know you had a church here.” “O, yes,” they said. “How was it established?” They told us Doctor Hopkins used to visit that part of the country, and he came to their village, and there was an old man who was blind, and he examined his eyes and said he could cure them. They said it was impossible to make a blind man see, but he took him to his dispensary and treated his eyes. They said, “This old man looking at you is the man upon whom the operation was performed.”

Another story: There was one of the court painters, who said he had been eating fish in the palace a few days before and had gotten a fish bone stuck in his throat. One of the great physicians of the court gave him medicine to dissolve the fish bone. He came to me and inquired whether one of our physicians could take it out. I took him over to Doctor Hopkins, who took him to the front window, opened his mouth, took a pair of tweezers and took the fish bone out. That was a surgical operation the great court physician of China could not perform.

THE CHAIRMAN: Let us consider some of the treatment for cholera. We have it in nearly all of our missionary countries. We can not take up an exhaustive study of cholera, but

Hints in the Treatment of Cholera Cases.

It is endemic in certain regions, and it is remarkably fatal, at least in China. It is a case, perhaps, of “the survival of the fittest,” although we can not be sure

of that. Now, what do you do for it? Do you let it alone?

BISHOP THOBURN: I am not a medical man, but there is one thing we do not do, and that is to let it alone. I have known cholera nearly all my days, and seen a great deal of it. One rule is to

Do Something, and Do it Quickly.

Do not put it off; do not waste time. Almost any carminative, any preparation of pepper, is used in India. They take red pepper, for instance, and make a little tea of it, if they can not do anything better. But now in most parts of India you can get cholera mixtures or medicines. If you go at it very quickly and keep still, and do not try to get well too fast, you will get over it. I have a notion that sometimes the cholera comes in a more fatal form than at other times. Sometimes hardly any one recovers from it, and at other times a good many recover, and doctors tell us it is the genuine cholera in each case. Cleanliness is worth a great deal as a preventive, and moderation, and total abstinence, and wholesome food.

DR. G. D. LOWRY: In our part of China we have epidemics of cholera occasionally, about every four years; and the treatment I have found most successful is quinin and aromatic sulphuric acid.

REV. JOSEPH K. GREENE: In Constantinople, at one time, 60,000 people died in two months,—1,000 a day. There was no possibility of burying them except in the Sea of Marmora. It was at that time that our distinguished Cyrus Hamlin and a few other missionaries gave their whole time to the care of these cholera cases. There is a Hamlin mixture composed of laudanum, tincture of rhubarb, and tincture of camphor, and with that given quickly, and by restraining the thirst, withholding water, a great many people were saved. Not one of our missionaries was taken ill. We had a good many cases in the city of Brusa, sixty miles south of Constantinople. I spent my whole time looking after those cholera patients, and I knew nothing but just a few simple things. It was to give this cholera medicine, and to make the people abstain from drinking water. I treated quite a lot of people in different

stages, and only a few of them died, and those who died were people who would not obey instructions. Now, I do not know whether at the present time that cholera mixture is counted for very much, but anyhow it did a great work there. It was composed of equal parts, if I remember right, of laudanum, camphor, and rhubarb. We used to give terrible doses. Doctor Hamlin said it did not matter how much was given provided it was a very severe case. I used to begin with perhaps half a teaspoonful of that tincture, and repeat it frequently until it began to have effect. And no injury seemed to come when they were in that terrible state with dreadful diarrhea.

BISHOP THOBURN: I had the cholera once, and I had a sister who treated it very successfully, and she was not a doctor. Whether that was an advantage to both of us, I do not know. I state the facts. We were living in Lucknow, and cholera was in a very fatal form. My sister had lived there as a missionary many years. She was a very successful nurse, and the government doctors used to secure her help very often in these cases. She had instructed me to act very promptly. I was in my office a mile from home when the cholera struck me, and I was just as well aware of it as if it had been a bullet. Fortunately my buggy was hitched up at the door, and I drove home as rapidly as I could. As I was driving up to the house, my sister came to the door and said, "What is the matter?" I said, "I am very sick." She said, "Come in and lie down on your bed." And she turned around and went into the house. In about a minute she returned, and she had in one hand a little bottle, and in the other a teaspoon, and she gave me one dose, and then said, "Lie perfectly still." She went back into the room and gave an order to have a big fire built, and to have a cot put right in front for me. She gave me two kinds of medicine alternately. One of them was an Italian medicine, and the other was chlorodine. That evening at eight o'clock I was propped up on a lounge in front of a hot fire, correcting proof, and the next morning I was well. I mention this as an illustration of what can be done by one who is not a medical

person but has studied one subject thoroughly and acts promptly.

DR. LESTER H. BEALS: There was one practical suggestion that came to us at the Bombay medical conference a year ago. Most of us had tried salt solution, getting it into the body in some way in the extreme cases and the later stages, particularly the stage of collapse. Getting it in subcutaneously is slow and not very effective, when the case is pulseless. We inject the salt solution by the intravenous method, and we find it much more satisfactory; and by continuous use of salt solution in that way, we keep the patient going for a considerable time. The trouble is, when we put in the salt solution the pulse runs up, and very soon the diarrhea begins again. Rogers of Calcutta has made the suggestion, having used it in a good many cases, that a practical way of getting the salt in the patient is through a trochar. We always use a trochar to tap cases of ascites, and we can rapidly get in a considerable quantity of salt solution into the abdominal cavity and use it in that way when we are not prepared to do it otherwise, because the subcutaneous method is too slow. It is spoken of very favorably by those who have tried it.

DR. CHAS. C. WALKER: An interesting line of treatment for cholera was told me upon my first visit to Siam. It is said to be a classic in that country. A physician there at the time of the epidemic had treated a great many cases with success, and his own health ran down, and suddenly he came down with symptoms of cholera. His treatment of his own case was quite unique. He permitted no one to come into his room but his own personal servant, a Chinese boy. He had the curtains lowered, and a pail of filtered rain-water brought in, with an ordinary coffee cup, and put beside his bed. He kept on drinking that water at stated intervals until he had drunk the whole pailful, then he had another pailful brought in. In the course of a day or two he was well again.

DR. J. H. KELLOGG: The story Doctor Walker has just told anticipates a story which I had in mind to tell you. Dr. Stephen Smith, the veteran surgeon of New York City, who is now about eighty-seven years of age, and hale and hearty

and almost as vigorous as a young man, tells a story of his experience with cholera at Buffalo some years ago. After the cholera had struck New York, when he was a medical student at the medical school in Buffalo, Dr. Austin Flint and Dr. Frank Hamilton began to instruct the students in the treatment of cholera, because they knew the disease would strike Buffalo by spring. The instruction that was given them was that they should give the patient ten grains of calomel every hour, and large doses of laudanum in addition, until the patient died, of course. The cholera finally struck the place just about the time the medical school was out, in early spring. The students were very glad to leave, but Doctor Smith was asked to stay and take charge of the hospital. He was frightened nearly to death, for he suffered from chronic diarrhea, and he thought as soon as he came in sight of a cholera outbreak he would have it and die within a week. But he took the place, and the patients began to come in, and they gave them ten grains of calomel every hour, and they, of course, promptly died within twenty-four or thirty-six hours. Almost every patient who came in one morning was carried out the next or the second morning. He did not save a single case, until an Irishman came in, who said, "Now, I don't want a drop of your medicine. I won't take it. I want you to bring me a pail of water and a dipper." He put this pail of water and the dipper beside his bed, and drank a big dipperful, and almost immediately after he swallowed it, it was ejected with tremendous force. He drank another dipperful of water, and that was disposed of in the same way. When the pail was emptied, he called for another pailful. So he continued, and by the next day he was pretty well, and by the second day he was entirely well, and he went up and down the wards making sport of the doctors, telling patients they were fools to take medicine.

By and by the epidemic was over, and the last patient had been discharged, and the doctor was walking home from the hospital feeling thankful he had escaped, when he began to feel the premonitory symptoms, and by the time he reached home he was very sick, and knew he had

the disease himself. The late Dr. Frank Hamilton came to see him, and when he told his symptoms, Doctor Hamilton said, "Well, my boy, I guess you have got it. What do you think we had better do?" "Well," he said, "Doctor, I am thinking of the Irishman. Won't you have a pitcherful of water put here beside the bed?" He followed the Irishman's treatment. The next day he was very much better, and in the course of three days he was quite well.

We are coming to see that the real trouble in this disease, the thing that kills the patient, is his inability to eliminate the toxins produced by bacteria. The old proscription of water I really can not understand. We need water, and the addition of a little salt when injected is necessary because so much salt has been removed from the body. We must have a normal salt solution for the blood, and the introduction of the saline solution seems to be the most rational thing that could possibly be done.

DR. F. D. SHEPARD: Old Doctor Hamilton, the inventor of the prescription that has been alluded to, used to say that if it was given sufficiently early in the case, there was no more danger of the patient's dying of cholera than there was of his being struck off the earth by the tail of a comet. It is true it is quite efficacious if it is given early. The keynote is the one that Bishop Thoburn sounded in the first place—the quickness of action—that is *the* thing. If you can get your cholera patients within an hour of the beginning of an attack, you can cure about ninety-five per cent of them. And if you get them in the last stage, you lose about ninety-five per cent. At least, that has been my experience. I have been through three severe cholera epidemics in Turkey. I think it is true that epidemics vary in severity quite decidedly, but in my experience there was no variation. The three epidemics were equally severe, and the earlier cases are more fatal than those later in the epidemic. I gained great prestige and reputation in all our part of Turkey from the first cholera epidemic which I encountered, and it was not so much what I was able to do for the patients myself as it was that, anticipating the occurrence, I had begun

A Campaign of Education

in the city, and had succeeded in impressing upon the people the necessity of prevention, of drinking absolutely no water that was unboiled, and eating no raw food of any kind. All food and all water was to be cooked. Then we arranged to have physicians stationed at several known points in the city where they could be called immediately when a patient was taken with it. We had organized to have it actively and thoroughly impressed and driven home, by preaching in the mosques by the Mullahs, and by placards on the streets, by the preaching of the Christian priests in the churches; and the result was that that city of 60,000 people lost only 300 cases of cholera, but in all the surrounding region the cities were decimated, and some of them were more than decimated. In one city of 20,000 people, 1,200 were lost by the cholera. In Antioch, a city of 25,000 people, they lost 2,500, and Aintab lost 300 cases only. Of the 600 cases I treated personally, I lost only six per cent.

The treatment was what I learned from old Doctor Palmer of the University of Michigan when I was a student there. It was simply giving, in the first place, one large dose of calomel and following that by carminatives. I started in with Hamlin's mixture. I did not find it very satisfactory, and I dropped it and gave large doses of bismuth, and powdered camphor and powdered opium combined—a dram of bismuth with two grains of camphor and a grain of opium in each dose. I gave that dose every fifteen minutes, and I withheld all liquid. That may have been a mistake, but in the early stage I think it is not a mistake. In later stages of the disease, I think you must have the liquid if you are going to save the patient, either by transfusion or hypodermoclysis, or by continuous irrigation of the bowel. Doctor Ussher, of Van, on whose judgment I place great reliance, writes me that in his last epidemic of cholera he used with great success sulphate of quinin in ten-grain doses every hour or every half-hour, and that it acts finely.

DR. S. J. THOMS: I have used one-fifteenth grain of strychnia, given every fifteen minutes or half-hour, with ap-

parent success. We sometimes are able to save patients who come to us apparently moribund, in a state of collapse, by those huge doses or injections of strychnia. Later on, at this stage, we have found that the continuous injection of a normal salt solution per rectum has been a great help in supplying fluids. By elevating the foot of the bed and allowing the solution to run in warm, at a temperature of about 110°, it is not ejected so rapidly, and we find it a great help.

THE CHAIRMAN: We will now pass to another topic, although there is much more to be said on this.

REV. I. T. HEADLAND: How many of the physicians here strike sprue in their various localities?

THE CHAIRMAN: Turkey, Siam, India, Philippines, Battle Creek, the world. One of our China missionaries has just been invalided home with sprue. Doctor Kellogg, what would you suggest as

An Epitome of Treatment for Sprue?

DR. KELLOGG: You have asked me a hard question, Mr. Chairman—an epitome of treatment. About the only way to get that would be to get each one of these missionaries to tell what he has tried. I believe that would give us a pretty good summary. This is a disease of the tropics, and we have the disease frequently with us here, because we have people from the tropics, particularly missionaries, and we have had also some other patients from the tropics who were suffering from this disease. So far as I have been able to form an opinion in relation to it, it has been that there is no specific treatment for it. We find it necessary to treat it as a very obstinate form of chronic intestinal autointoxication; and by building up the patient's general resistance and putting him upon an antitoxic diet, and using antitoxic ferments, treating the colon in a very thoroughgoing way to relieve it of its infections, we have succeeded very well in these cases. I would be very glad to hear what methods have been used successfully in other countries.

DR. W. J. WANLESS: There are only two suggestions I will make. The use of dermatol in our hands seemed to do a great deal of good in several cases. I

would suggest the use of the operation of appendicostomy. I have not tried it myself in case of sprue, but I think on general principles it ought to do good in flushing out the colon. I had a case myself of membranous colitis, a man who had been ill ten or twelve years, upon whom I did this operation with very marked benefit indeed. He kept the tube in about a year and a half, but he succeeded finally in getting entirely rid of the membranous discharges and the mucus. I think this ought to be a help in cases of sprue. I do not think it will reach the entire seat of the disease, but it ought to go a good way in that direction. I think what Dr. Kellogg has said is perhaps the most important thing in regard to it—a building up of the general system. On the whole, however, I think it is a pretty hopeless condition, and I question whether any missionary who has been invalided home with sprue ought ever to go back to the mission field. I think the chances are if he is going to get better at all he will get better in this country, and where I have had to give advice in these cases, I have advised them not to go back to the mission field.

DR. MARIAM HEADLAND: I know a case who was invalided home on account of sprue. He was taken with sprue in August of the year we came home, and lost flesh at the rate of a pound a day for twenty-one days. We had had a friend who had died of the disease in this country, and although we have very little sprue in North China, I recognized it in my husband when he had had it only a few days. I then called in Dr. George Lowry to help me control this patient, and we decided to put him on a milk diet. We did so, but he continued to lose flesh. Finally we decided we would give him three grains of santonin every morning in olive oil. He took that for a month, and stopped losing flesh. We decided, however, it would be wise for him to come to this country. The question of our return to China, of course, depends on whether there is danger of his getting it again. I would very much like to hear from other people, while the question is before us, whether we should return or not, and I would like to hear of others who have had ex-

perience, and of any who have gotten quite well and have returned to their field.

DR. CARLETON: One of the missionaries in Foochow contracted the disease, and the doctors tried santonin, a milk diet, and in strawberry season they used strawberries and found them almost better than the milk diet. This patient improved very much, but they thought best for her to return to England for a while, and there the doctors used large doses of sweet oil. She afterward returned to China, and is, I think, now at Foochow.

DR. F. D. SHEPARD: We have very little sprue in Turkey, but bearing on this particular point, we had a German missionary lady who had sprue in China and was invalided home to Germany, who recovered completely from it, came to Turkey, was located in the station of Corfa, which is a very hot city, and had a relapse of it. I treated her for some months in the hospital at Aintab, where we have a good, relatively cool climate. She improved in Aintab but very slowly, and I sent her to Germany. She recovered again in Germany, and then went to the north, where the climate is cool, and has been living there without any relapse for some years. I think the climate is quite an important element in these cases. I should suppose that a moderately cool climate, at some elevation above the sea, might be quite allowable for a missionary to return to; but the trying climates of southern China or India, I should say, are exceedingly risky. And the milk diet, I should say from my experience and theoretically, was about as bad a diet as could be given to a patient with sprue; but if you will give the lactic acid fermented milk, madzoon, yoghourth, they might be able to use it all right.

DR. J. F. KELLY: The natives in our field do not seem to be afflicted with this trouble, only the foreigners. The history of these patients generally shows some indiscretion in diet. In the London School of Tropical Medicine, the strawberry diet is followed, also the lactic acid treatment, with success.

THE CHAIRMAN: I happen to have in my hand a book just come from the press, "Diseases of China," an excellent book,

in which occurs this sentence: "Early, with proper treatment, there is in nearly all cases a speedy cure, in many to the extent of allowing a return to the East."

DR. KELLOGG: I would like to inquire a little more particularly with reference to

The Strawberry Treatment.

What is meant by that? Does it mean an exclusive diet of strawberries?

VOICE: Nothing at all but strawberries for a month or six weeks. A saucerful many times a day is given. The London physicians who have been treating sprue for so many years with strawberries recommend it very highly, not only in saucerfuls, but in quarts. They recommend persons to eat as many as they can possibly eat, beginning early in the morning, and eating throughout the day. They recommend men who are suffering from the condition in India, when they are ordered home, to begin in the southern part of Europe where strawberries ripen first, and travel north as the strawberries diminish, and go clear to the north of England; and sometimes the treatment is carried on through eight months, and possibly three or four quarts of strawberries are taken by a patient in a single day.

DR. KELLOGG: It seems very reasonable that that should be an excellent method. In our bacteriological laboratory we have made many experiments with reference to the culture of pathologic bacteria in fruit juices, and we find they do not grow. Fruit used in sufficient quantity is one of the very best means of combating intestinal auto-intoxication.

An Observation Upon the Milk Diet

THE CHAIRMAN: I am reminded of a particularly obstinate case in North China—the only case in a child I have known of personally. It was a heathen child who seemed to resist all treatment until it was finally suggested that the milk be not boiled but given in the fresh state; and under the treatment with fresh milk just as it came from the cow, the child has improved most creditably. I received a letter only to-day telling me that child had doubled in weight during the last few months as the result, ap-

parently, of giving fresh milk instead of using boiled milk. Just how or why that is, I do not know.

DR. KELLOGG: Doctor Combe of Lausanne has made a very extended study of the subject of intestinal auto-intoxication, and he, as well as Winter-nitz, and Tissier of the Pasteur Institute, attribute the advantages of the milk diet entirely to the sugar of milk which the milk contains. I have found in our observations here that while there are some cases in which it is possible to establish intestinal asepsis with the milk diet, or the sour milk or fermented milk diet, there are other cases in which it produces the very opposite effects, and I think it is due to the difference in the way in which the intestine treats the milk. If the sugar of milk is all absorbed, and the lactic acid is absorbed before the casein or nitrogenous part is digested and absorbed, then the curds will find their way into the colon and will undergo putrefaction there and encourage infection and intestinal auto-intoxication; but if the patient has good, strong gastric digestion, and good pancreatic digestion, so the casein is quickly digested and absorbed, the milk acts as an anti-ferment, and is valuable.

REV. I. T. HEADLAND: Just as soon as I was discovered to have sprue, Dr. George Lowry put me on a milk diet, which continued for nine weeks. Milk may not operate on everybody in the same way, the same as cold baths do not always operate in the same way; but the milk was good food for me, and I liked it. At the present time I feel as well as ever I did. I ran down to 114 pounds, but now I am seventeen pounds heavier than I ever was before.

DR. MARIAM HEADLAND: My theory is that the taking of santonin every day for a month destroyed the germs that are connected with sprue.

THE CHAIRMAN: The santonin should be exposed to the sun and allowed to yellow thoroughly before it is used, and taken five grains at a dose.

VOICE: Did anybody ever use permanganate of potash in cholera? My husband gave as an experiment quite a strong solution of permanganate of potash, and he took it himself when he was very ill with cholera. He thought it

cured him. Also he gave it to one of our preachers, and used it in a school that had quite a bad epidemic of cholera. Some of the parents would not allow their children to take the medicine, but those who took it got well, and all the others who had the cholera died.

VOICE: I used permanganate many years ago in cholera in irrigation of the bowels, and I did not know what to attribute the cures to—whether to the permanganate or to stimulating the bowel of the patient. In the large government hospitals in India they give no water to drink without giving permanganate in it. Their water is quite pink.

DR. WANLESS: I would like to call attention to the use of adrenalin in cases of cholera. You may sometimes be able to save a case by heroic use of adrenalin hypodermically. One of our Indian surgeons has used it extensively. Also nitroglycerin, but this is a drug that is not always positive or definite in its action, and I do not think it ought to be given by anybody but a physician; but it may be able to save some of these cases for us. They should not be given together.

THE CHAIRMAN: May I ask a question as to the dosage of potassium permanganate?

VOICE: I do not know how much we used, but the solution was quite dark red.

THE CHAIRMAN: In opium cases we find quite large quantities of permanganate solution may be taken direct with impunity. Frequently as much as thirty grains have been retained by the patient. The solution is usually made up in proportion of about five grains to the pint.

I wish some one would say a word in regard to the training along medical lines which missionaries might with wisdom take when they are not expecting to be medical missionaries.

DR. MARGARET O'HARA: I should say if they are going to India, they ought at least to take midwifery.

DR. WANLESS: I would like to call attention to the opinions of missionaries who went to Edinburgh. It was discussed pretty fully in Edinburgh, and is reported in the ninth volume of the conference.

THIRD MEETING

Friday, January 6, 2:30 P. M.

Dr. Chas. C. Creegan, D. D., Presiding

Prayer by Dr. Geo. D. Dowkontt.

PRESENT POLITICAL SITUATION IN TURKEY

THE CHAIRMAN: The first speaker of the afternoon is President Alexander MacLachlan, D. D., president of the International College at Smyrna, Turkey.

REV. ALEXANDER MACLACHLAN, D. D.: There are special reasons why Turkey to-day challenges the attention and interest of the entire Christian world. The primary reason for this is that it is there that the rival claims of Christ and Mohammed are to be finally determined. It is in Turkey that the Cross and the Crescent are to-day entering upon the final stages of their conflict,—a conflict for supremacy in the hearts and lives of men, not for the possession of the land itself, or of its so-called holy places. Nor is the conflict carried on in the spirit of the old Crusades, that medieval spirit which was more pagan than Christian, both in its conception and in the manner of its execution, and which has done more to embitter the relations between Christian and Moslem, and so hinder the progress of Christ's kingdom in that land than has perhaps any other single cause.

In my use of the word "conflict" in referring to Christian effort in Turkey in its relation to Mohammedanism, I do not wish it to imply a spirit of antagonism, for I do not believe Christianity will ever conquer Mohammedanism by attacking it, or by entering into any kind of a conflict with it. Christianity can only

Conquer Mohammedanism by Winning It,

and it will accomplish this, and is accomplishing it by simply bringing the light and the love of God, as these are revealed in Jesus Christ, to bear upon the hearts and lives of our Moslems. Nor do I believe they will ever be won to Christianity by any amount of subtle intellectual argument; nor yet by any attempt to prove the insufficiency of the religion of the Prophet to satisfy the deepest longings of the human heart, but only by presenting the positive and essential truths



ALEXANDER MACLACHLAN, D. D.

of our Christian faith to our Moslem brethren.

The special significance attaching to Turkey as the arena of this final conflict between Christ and Mohammed finds its explanation in the fact that Turkey is the key to the entire Mohammedan world. The two hundred millions of Mohammedans in all parts of the world acknowledge the Sultan of Turkey as the Caliph or successor and representative of Mohammedanism. For we must understand that Mohammedanism is not merely the state religion or the established church of Turkey. Turkey is a Mohammedan state; for Mohammedanism is a religion possessing state, or governmental, functions. Weaken therefore the power and influence of Mohammedanism at its fountain head, its central stronghold in Turkey, and you have at once brought the entire Mohammedan world within easy reach of conquest by the missionaries of the Cross. I do not say within easy conquest, for Mohammedanism is itself a missionary religion, and it is extending its conquests in northern and central Africa more rapidly than is Christianity in those regions.

The other special reason why world interest to-day centers so largely in Turkey is because of the present political situation there—a situation which is directly the product of the revolution of July, 1908; and this revolution was itself indirectly the product (in some considerable measure, at least) of the slow but steady progress of educational and missionary work in that country during the past three-quarters of a century. But before I take up the subject of the present political situation in Turkey, let me say that I do not pose as an expert authority on this subject. My nearly a quarter of a century of residence in that country has not been devoted to studying political conditions there. My position, however, as the responsible head of a large educational missionary institution, has brought me into close contact with actual political conditions, and into close personal relations with leading governmental officials—imperial, provincial and municipal,—and so I speak out of these personal experiences and from the standpoint of an interested observer of these conditions. I have lived too long in Turkey to venture a prophecy as to what the immediate future holds in store for the people and government of that country. It is the tourist who spends a few days along our shores who is most confident in his predictions.

In order to get a proper understanding of present political conditions there we must look for a moment at the revolution which two and a half years ago so startled the world, by its suddenness as well as by its bloodlessness. For so sudden indeed was it that our first intimation regarding it was the cry of our newsboys in the streets of Smyrna,

“Constitution Granted! Liberty!”

And this shout of liberty was itself the first cry of an unmuzzled press, and was our strongest possible guarantee that the startling news must indeed be true.

The value of that revolution, however, as a panacea for the political and social ills of Turkey has without doubt been entirely overestimated. This will at once become apparent when we point out the numerical weakness of the revolutionary party, and the incongruous, divergent elements of which the present constitu-

tional party in Turkey is composed. For we must remember that perhaps not twenty per cent of the entire Moslem population in that Empire were even capable of appreciating what is meant by civil liberty or constitutional government, and that of this twenty per cent comparatively few outside of the army officers and a few civil administrators were intelligent supporters of the new régime. The revolution succeeded in overthrowing the old order of things, and therein lies its chief value. But it succeeded not because it had intelligent popular support, but simply because it was essentially a military movement.

The New Régime

The present weakness and uncertainty of the new régime is not, however, limited to the numerical weakness of the constitutional party, nor to the incongruous divergent elements of which it is composed. There is another and perhaps a more serious peril to which it is exposed. I refer to the fact that many of the leaders, even, seem to be under the hallucination of supposing that because they have secured a constitution on paper, and a parliament sitting in Constantinople, they have thus reached the status of European and American governments. Indeed, some of them openly boast of this achievement, and fail entirely to appreciate the fact that all the revolution has actually accomplished for them is to afford them a basis, or a starting point upon which, or from which, it is now possible for them to begin to work out their political salvation along constitutional lines. So that, although there is a form of parliamentary government at Constantinople, we are still far from enjoying the real benefits of civil and religious liberty under constitutional government in Turkey.

Perhaps I can not better illustrate the uncertainty of feeling that prevails even in Turkey as to the permanency of the new régime than by referring to a conversation I had only a few days before leaving Turkey, with an intelligent Turkish official whose son was a student in the college. In the course of our conversation I asked him, "Well, how are things politically?" His first reply was, "You see, we can not make much prog-

ress with our reforms so long as this Cretan question is on." Then, becoming more confidential, he added, "Well, between you and me, I think it is a good thing there is a Cretan question, and the longer it lasts, the better for the government." And the meaning behind this apparent volt-face opinion was that as this was practically the only question upon which all the varied and conflicting elements in Turkey were united, *i. e.*, opposition to the claims and designs of Greece in regard to Crete, there was serious danger of internal strife in Turkey if this question were ever settled.

But apart from all these aspects of the political situation in Turkey, there is another and perhaps a still more fundamental one which we can not take time to examine here, but it is one which concerns the present position of Turkey as a Mohammedan state in its relations to the principles of constitutional government. The question to which I refer is this: Are the teachings of the Koran consistent with the principles of constitutional government? In other words, under the Sheriat, or sacred law of Mohammed, is it possible to carry on a constitutional or popular form of government? In answer to this question, the Sheik-ul-Islam, or spiritual head of the Mohammedan religion, says, "The Turkish Parliament is the most exact application of the Koranic law, and constitutional government is the highest possible illustration of the Caliphate." We will not attempt to disprove this claim, but I will quote to you the opinion of two authorities on the other side of the question.

Lord Cromer states in his book entitled, "Modern Egypt," that, "It has yet to be proved whether Islam can assimilate civilization as we understand it, without succumbing in the process," and gives it as his opinion that,

"Reformed Islam is Islam No Longer."

Doctor Shedd, who has spent most of his life in Persia, says in regard to the possibility of constitutional government under the Sheriat, "One might as well attempt to bind together the American constitution and the Talmud, and make the latter supreme and inviolable."

But to return to the revolution: I be-

lieve the only fair estimate to place upon the political aspect of the revolution of 1908 is to regard it as a phase or evidence of a slow but sure evolution—political, social and religious—which has been working there for more than half a century, toward a more stable and efficient form of government, and which may or may not eventuate in real constitutional government as we understand it. If it ever does, as we earnestly hope and trust it may, we must be prepared to expect serious setbacks in the process. There will be times when it will seem that the backward swing of the pendulum is undoing all the progress already achieved. But we may be assured that even when the pendulum is swinging backward, the hands on the dial are always moving forward. Whatever the immediate future may have in store for the government and people of Turkey, and some of the possibilities are not pleasant to contemplate, of this much at least we may be absolutely sure,—Turkey will never again revert to the cruel despotism that characterized the rule of Sultan Abdul Hamid.

If in what I have already said I seem to have drawn a dark picture of present political conditions in Turkey, it is not because I am pessimistic as to the future of that country. There may be much of uncertainty as to the immediate and near future of political conditions there; but there can be no question as to the ultimate issue of the forces—educational, moral and religious—that are slowly but surely transforming Turkey, and I am therefore an ardent optimist; for never in the past history of that Empire has there been so much substantial ground for encouragement as there is to-day.

There is another and a brighter side of this picture, and we would see this if we had time to look at some of the redemptive agencies, educational and missionary, in that country, upon which depends our confidence regarding its future. These agencies or forces are moving along three parallel and co-ordinated lines, and may be designated as missionary, publication and educational work. All three are missionary in their spirit and aim, and all three are also educational in their spirit and aim.

PRESENT MISSIONARY OPPORTUNITY IN TURKEY

THE CHAIRMAN: We shall now have the great pleasure of hearing from Dr. F. D. Shepard.

F. D. SHEPARD, M. D.: No land so appeals to the sentiment and imagination as does the land of Turkey. The reputed cradle of the race, her alluvial plains and rich upland pastures, "flowing with milk and honey," have ever been the desired of the nations; and have in turn been the prize of the Mede and Persian, of Syrian and Assyrian, of Greek and Roman, of Saracen and Turk. The geographical position and relations of the land made it the highway for all the great migrations from central Asia, and at the same time the great trade route between Asia and Africa on the one hand and Europe on the other.

You have only to mention the names of Boghaz Keouy, Carchemish, Nimrud, Niffer, Babylon, and Petra, to remind yourself that beneath the soil of Turkey, preserved for the perusal of the ages to come, lies the story of the ages that are past. I can only mention Homer and the gates of Troy, Xenophon and the Ten Thousand, Haroun al Raschid, Saladin and Richard Cœur de Lion, leaving each of you to place his own estimate on the part they have played in his life. How many millions are uplifted as they speak in hushed tones the words, Bethlehem, Nazareth, Jerusalem? And let us not forget that more than 200,000,000 other hearts are stirred with much the same reverent feelings when they voice the words, Medina, Mecca, Nejeffoor, Kerbella. There are but

Two Missionary Religions

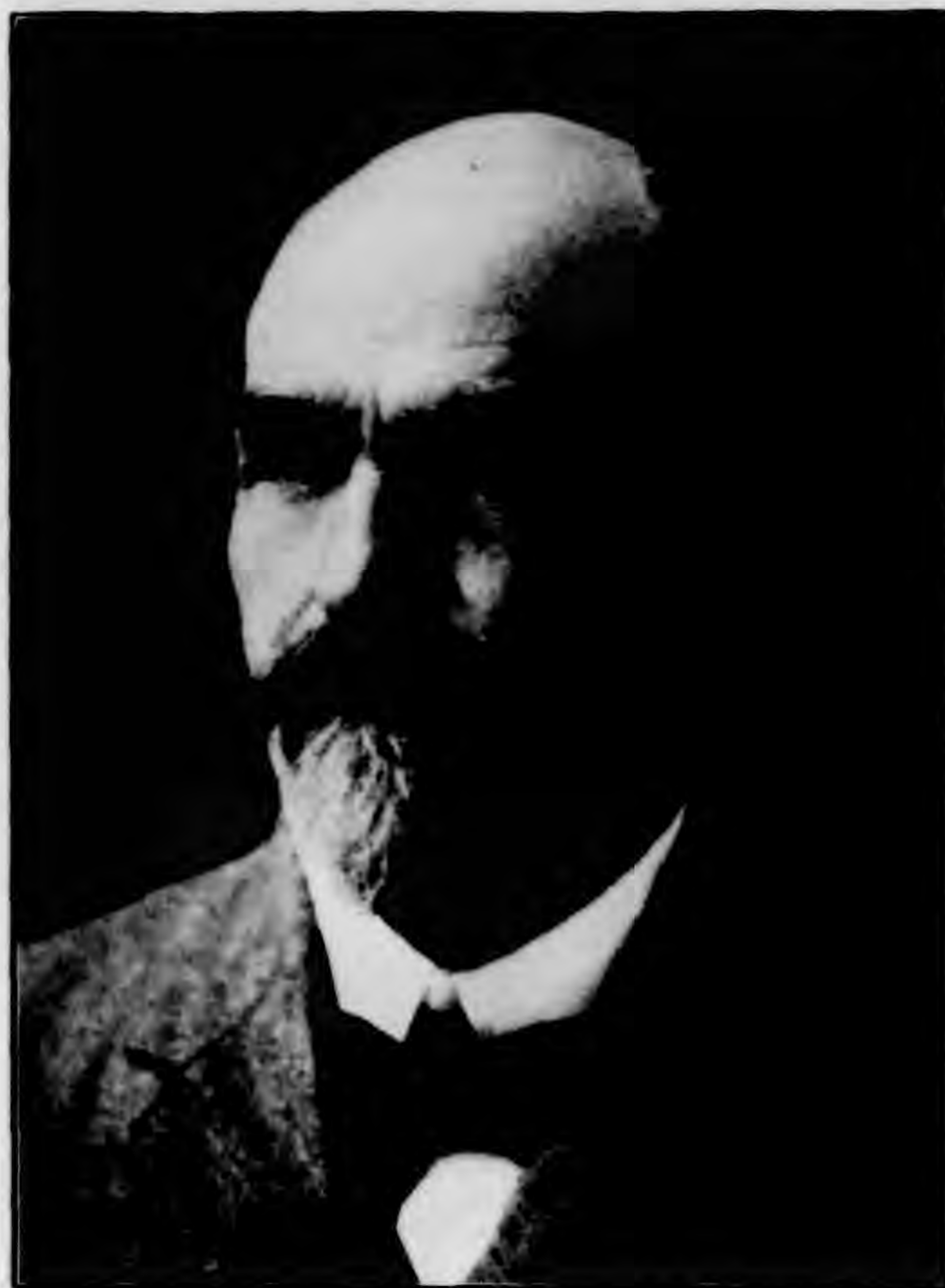
in the world to-day—Christianity and Islam. Both are offshoots of Judaism, both claim to fulfill and supersede the parent stock. The Moslem world has seen only the caricature of Christianity presented by the Romish and Oriental churches, and has met from the so-called Christian nations only arrogance, greed and aggression.

It was the consensus of opinion at the great World's Missionary Conference in Edinburgh that the greatest task before the Church is the evangelization of the Mohammedan world, with its 230,000,000

people. Islam has a solidarity, a self-sufficiency and a propagating power not possessed by any other non-Christian religion. But the magnitude and difficulty of the task is no reason we should shun it. Quite the contrary, if we are loyal followers of the Lord Jesus.

Turkey is the strategic center of the Moslem world. Its sacred soil embraces the scenes made memorable by the Prophet's life, and the holy shrines of Mecca and Medina. The Sultan of Turkey is the Caliph, and the Sheik-ul-Islam the Pontiff of the Mohammedan world. Quite aside from all this, the Osmanli Turk has a greater political capacity than any other Mohammedan race; is more enlightened and civilized, and less fanatical than any other Mohammedan race, and has seen the vision of political freedom. He has had the courage to inscribe upon his banner the potent words, Liberty, Equality, Fraternity. And he means it; although no one knows better than he the incompatibility between traditional Mohammedanism and the sentiment of that motto. The young Turk has before him one of the hardest and most complex political problems of the century, and I bespeak for him your sympathy and tolerance. Were the population of Turkey a homogeneous one of Osmanli Turks alone, the task of making the transition from absolute monarchy to a democratic form of constitutional government would have been no light one. But contemplate with me for a moment the actual state of affairs.

Within the Empire are some four or five millions of Arabs, and contiguous to them three or four millions of other Arabs who have never submitted to Turkish rule; these seven to nine millions of Arabs are among the most fanatical and truculent of Mohammedans. In the north and northeast are two and a half millions of Kurds; in European Turkey another discordant element in the warlike and treacherous Albanian; these, not to mention three or four smaller peoples, make up the bulk of the Mohammedan races of the Empire. Add to these the two million Armenians, and the two and a half millions of Greeks who are Osmanli citizens (again omitting the lesser Christian peoples, Syrians, Nestorians, Maronites, etc.), and you have



F. D. SHEPARD, M. D.

A Conglomeration of Diverse Races

and opposing interests such as can be paralleled nowhere, except, perhaps, in India.

In the providence of God there seems to have been a special preparation for the conditions of to-day in Turkey. Through the labors of eighty years, American missionaries have raised up a purified church of Christ, given the Bible to all the races of the Empire in their own languages, and planted a notable group of educational institutions, hospitals and orphanages. Not only does this organized Protestant church, with 15,000 members, its schools and charities, make a base of operations, a great plant ready for use in evangelizing the Mohammedans of Turkey; but incidentally, while at work for the nominal Christians of the Empire, the American missionaries have through their philanthropic work, hospitals, orphanages, relief work at times of epidemics and massacres, personal influence upon those officials and other leading Moslems with whom they come in contact, done much to allay suspicion and win friendship and confidence. Let me cite a few instances that

have come under my own personal observation.

Rustem Bey was appointed as Kaimakam, or Governor, of Aintab. He was an able and upright man. The day after his arrival he called together his provincial council, and among other things said to them, "I am sorry to see that you have a nest of foreigners here; I have always found them troublesome"—referring to the American missionaries, the only foreigners then in Aintab. After he had been for some years governor of the place, he said one day to his council, "You remember what I said to you about the Americans when I first came to Aintab. Well, I wish to take that all back. I never saw foreigners like these. They do not know how to lie."

After the massacres in Adana and vicinity, when they organized the International Relief Committee in Constantinople under the patronage of His Majesty, Sultan Mehmed V, they made an American missionary, Mr. W. W. Peet, treasurer and executive secretary. The Imperial Parliament appropriated \$440,000 for assisting the Christians in rebuilding their burned houses, and \$132,000 to feed the hungry in the same district. His Excellency Jemal Bey, governor-general of the province, in appointing a central relief commission to supervise the use of these funds, made our missionary in Adana, Rev. Wm. Nesbit Chambers, a leading member of the commission, and made Doctor Shepard of Aintab chairman of a commission in charge of the work in three sub-provinces. Doctor Shepard was later

Awarded the Order of the Medjidieh

by the Sultan, in recognition of his services in this relief work. In a word, the American missionaries in Turkey are recognized by all classes as the disinterested friends of all classes, and are in a providential position of prestige and opportunity.

We have seven colleges for men and two for women, and a good many high schools and academies. Heretofore Mohammedans, with insignificant exceptions, have not been permitted to attend these institutions; but they are now crowding into them, and there is pressing need for increased endowment to enable

them to meet the increased demands upon them. Of the whole number, only Syrian Protestant College at Beirut and Robert College at Constantinople are adequately endowed. Central Turkey College at Aintab, Euphrates College at Harpoot, and Anatolia College at Marsovan are in positions of large opportunity and struggling along with very inadequate equipment and meagre endowment. It is especially desirable that agricultural and industrial departments be added to the equipment of these three colleges of the interior, because Turkey, with great agricultural, mineral and industrial resources, is far behind the times in all these activities.

From the beginning medical missions have played an important part in Turkey. The American Board has hospitals connected with its work at Aintab, Adana, Marsovan, Talas, Van, Sivas, Mardin, and is about establishing others at Diarbekir and Konieh; and there are other hospitals of other societies. All these institutions have been a great power in the past, and are capable of being made a much greater power in the immediate future. Take the Azariah Smith Memorial Hospital at Aintab as typical of them all.

We treat at the dispensary tri-weekly clinic between four and five thousand patients a year, of whom four-fifths are free patients and one-fifth paying. This means over 50,000 treatments and about 30,000 prescriptions a year; or, to put it another way, about two hundred and fifty people brought into contact with the hospital workers daily at the dispensary.

In the hospital, with its forty-two beds, we treat about three hundred patients a year. These are practically all surgical cases, as we do from five to six hundred important operations a year, and our forty-two beds will accommodate only part of our operative cases. Of course, we have an opportunity to make a much deeper and more lasting impression on the patients who are with us for some time in the wards than on those who only visit the clinic. Here again an increased endowment would enable us to do not only a more efficient but much expanded work, from both the philanthropic and the evangelistic standpoint. To illustrate: we need a ward of at least twelve

beds for medical cases, and a ward of at least twelve beds for tuberculous patients. The latter should be in a separate building, a fully endowed sanatorium, where we can teach prevention of this dread disease, which is much more prevalent than in this country, and where the general average of education and intelligence is so low that there is little hope of teaching prevention, except by the objective method, training patients in the wards.

Coming to the evangelistic work: there are within a radius of forty miles from our hospital as a center, more than two thousand Moslem villages. There is not a single Christian living in them, nor has the Gospel ever been preached there. I should be welcome in them all, but I have more work than any one man can do at my hand in Aintab. We need the salary of another medical missionary, as a colleague for Doctor Shepard, that one of the two may spend part of the time in touring these villages.

What I have said about Central Turkey College and Azariah Smith Memorial Hospital is true, in varying degree, of every mission station in Turkey. There is unlimited opportunity, but wholly inadequate means with which to do the work. Truly, the harvest is great and the laborers few.

THE CHAIRMAN: I doubt if you all understood that the speaker himself is the one who received the decoration from the Sultan of Turkey for distinguished medical work among the people of that land.

TWENTY YEARS OF MEDICAL MISSIONARY PRACTICE IN PEKING

THE CHAIRMAN: I understand that Rev. Isaac T. Headland, of Peking, is a Methodist, but I am very sure that it was foreordained that he should take to himself one of the beloved and faithful Presbyterian girls to be his wife. We shall have the pleasure of hearing from that—shall I say, ex-Presbyterian girl?—Mrs. Headland, M. D.

MRS. MARIAM HEADLAND, M. D.: One cold day in January I was called to a woman who lived in the Southern City, four or five miles from where I lived. She was supposed to be dying. They



MRS. MARIAM HEADLAND, M. D.

had called in the doctors, and the necromancers; and the friends had gone to the temple to pray to the gods, to beg that her life might be spared.

In China when hope is given up, the etiquette of the country requires that word should be sent to all the friends, so that they may come and say farewell to the dying. Among the many friends who came was a woman who said that she had heard of a person who had been cured by a woman, a foreigner, who lived in the northwest part of the city; and, strange to say, this doctor did not want a large sum of money to come to see the patient; all that she asked was that her cart-fare should be paid.

They sent for me, and as I was working over my patient, I saw a little child two or three years old sitting beside me. The little fellow was without his upper garment. It was cold. In China we do not have warm rooms; even in the homes of the very wealthy the temperature is not more than two or three degrees higher inside of the house than it is outside. They put on more clothes when it is colder, but they do not heat the house. This little child was blue with cold.

I said to the grandmother, "Why don't

you put on that little child's upper garment?"

She said, "O, yes, Doctor, we will put it on."

By and by I looked again, and I said, "The little boy will be ill if you do not put on his upper garment."

"Yes, yes, we will put it on," she said.

Instead of doing it, she took up the child and, Chinese fashion, opened her garment and put him in against her breast and pulled the garment over and held it there. When I finished with my patient, she took out the child, set it down again, and conducted me out to the cart.

As we were jogging on toward the gate of the city, the wind blew cold in the cart, and I drew my fur garment about me. "A pretty cold night this," I said to the carter.

"Yes," he said, "it is a cold night; it will be bad for people that have no clothes to-night."

That reminded me of the little child, and I told the carter about it.

"Doctor," he said, "the reason that woman did not put on the child's garment was that they had used all the money they had in hiring doctors, and they had pawned everything they had in the house. There was nothing left except this child's garment, and they took it out and pawned it to pay me for going after you."

"Did you take the money?" I asked.

"Certainly," he said, "we have to take our money."

"Let us return and give that woman back the money, so she can get her garment."

"Well," he said, "if you go back I am afraid the city gate will be shut and you will not get in to-night."

"I can not help that; let us go back."

"Why," he said, "these foreigners—truly they have good hearts;" and back we went.

It was into homes like these we went, when twenty-three years ago I began my work in China. It was into the homes of the poor we were called. It was not the officials, nor the wealthy, but the poor, that came to us; and I did all that I could to help them. I just "put out my heart to them," as the Chinese said, as much as if they had been wealthy, titled

and learned; and it was not long before the reputation began to go abroad that here was a foreign doctor who was willing to treat these stupid women exactly as if they were cultivated ladies.

One day as I was working in my dispensary, there came in one of the underlings from a large official judgment hall.

He fell down on his face and hands before me, and said, "Honorable devil, save life, save life."

"What is the matter?" I questioned.

"Why," he said, "a woman was judged by the official, and she committed suicide, and we want you to come quickly and see if you can save her life."

When I got there, I found the woman lying with her cut throat in front of the judgment hall, and the officials were standing around wringing their hands. Not one of them dared touch her for fear the evil spirit would get into them from her if she were dead. I got down beside her and found she was still alive; and I said, "She is living; you need not be afraid of her spirit; carry her into the side room."

I sewed up the wound, and the officials stood there in amazement at seeing me sew up the flesh just as if it were a bit of cloth. They thought that would surely kill her. However, she got well. The fame of that cure went abroad; and one day as I came in from a visit to a poor home, my gatekeeper came to me in great excitement.

"Doctor," said he, "there is a high official in there; he belongs to the board controlling the imperial household; and he wants you to come and see his wife, who is very ill."

When I went in, I found the official dressed in his garments of state, and he said, "My wife is dying; will you come and save her life if you can?"

I went to his home and found the lady dressed in beautiful embroidered garments, lying on the death-couch. She had been ill for five or six days, in great jeopardy; and now they had given up all hope. In China no woman had ever passed through that stage and got well. In no heathen land, strange to say, has any device ever been made to aid woman in her hour of greatest need; no systematic study has ever been given to the subject of helping her at such a time.

After giving her a little whiff of chloroform, I was able to operate; then I stayed with her until I was sure she would live. She took hold of my hands and said, "Don't leave me; save my life." So I stayed with her, making her home my headquarters, until she was out of danger. The news of this wonder went abroad, and many women of the official class consulted me.

One day I was called to a lady who was supposed to be going out of her mind. She could not sleep or eat. At first she paid very little attention to me, but after a time I gained her confidence and she told me her story.

"My two daughters," she said, "are in the palace; they were called to be the first and second concubines of the Emperor."

"Why, you must be very pleased to have them with the Emperor," I replied. "What a great honor to your home!"

"No, no," she said; "you don't understand all the intrigues that are going on in the palace. I see those daughters of mine every day and every night; I can not sleep. I shall never see them again in the flesh, but I can not help thinking about them. Anything may happen to them. They may be killed."

She spoke too truly, for the older one was murdered in the palace by the command of the Empress Dowager because she had sided with the Emperor during the troubles of 1900. The younger daughter I saw later in the palace.

It was my privilege to be called one day to the home of a high official, the brother of the Empress Dowager, in whose house the Empress Dowager's own mother lived. After I had been in the house a few minutes, this old white-haired lady came in and handed me a cup of tea, and talked to me for a short time. So it was that little by little I gained footing in the homes of many Chinese nobles and princes.

There is nothing more satisfactory than being a medical missionary, especially a woman medical missionary. A man goes in and prescribes for the patient, but he does not become acquainted with the family. A woman gains the confidence of the family; she sits, hand in hand, beside the women on the kang, while she listens to their accounts of their

children, and tells them in turn about her own little ones. Sometimes the foreign woman speaks of her husband, and his tender care of her. As we talk we become very well acquainted, and racial prejudices are broken down.

When I used to go into these homes, many of these women would call me "devil." They did not know any better; they meant to be really nice, and I did not say anything. Often when I first visited a sick woman, I would find her lying trembling, with her eyes closed, and I could not get her to answer anything. Later we would become well acquainted, and she would say, "When you first came I did not dare open my eyes; I thought it would kill me if I just saw you, because I heard you foreigners were such terrible creatures."

In such ways we broke down prejudice. One day I was called to the home of a prince, whose wife was the sister of the present Empress Dowager. After the princess was better, she said, "I wish, although I am better, that you would not give up coming to see me."

"You know," I replied, "that my time is very full. Can't you come and see *me* sometimes?" I always tried to get the people to come over to our compound.

"Well," she said, "you know I could not go unless I asked the Empress Dowager,"—that wonderful woman that not only had the power of controlling the great Empire of China for over forty years, but also of governing her relatives in the minutiae of their daily lives.

"If you ask her," I replied, "I hope that she will let you come." And sure enough, she did let her come.

The wife of the American Minister wished to have some one to act as interpreter for her at an audience to be given to the diplomatic ladies; and knowing that I was physician in many of the official homes, she asked me if I would go with her. That was the first time that the Empress Dowager ever had talked to a foreign woman in the Chinese language. She was greatly pleased.

After the audience, we were sitting in the theater, the Empress at a distance from the rest of us, when she sent a eunuch to summon me to her side. She then told the eunuch to bring me a chair.



H. L. CANRIGHT, M. D.

As I sat down beside her, she said, "I hear that in your honorable country the women are all taught to read, just as the men are."

"Yes," I said, "boys and girls are all taught alike."

"I wish," she replied, "that the women of my country could be taught to read; but the people are so poor that they have much difficulty even in paying for the education of their boys."

Then I told her about our system of supporting public schools by taxation; so that rich and poor are taught alike.

"Ah, that might do in America," she said, "but it won't do in China. We are poor in China; China has all she can do now with her taxes."

I had been in many homes, and I knew ladies that were giving ten thousand dollars' worth of silver for a headdress, and one hundred ounces of silver for a bracelet. Yet they were unable to read, and had no interest in the education of women.

I said, "I know how very much power the Empress Dowager of China has; this great people loves her. If the people knew your wishes, would they not educate their daughters?"

Mrs. Conger, the American Minister's

wife, spoke to her many times on the subject of the education of girls; and finally the Empress Dowager issued the famous edict advising that China educate her women.

WEST CHINA

THE CHAIRMAN: We have another voice from China. Harry L. Canright, M. D., of the extreme western portion of the empire, will now speak to us.

HARRY L. CANRIGHT, M. D.: A few weeks ago I heard Bishop Bashford say in this building that China has been looking backward for two thousand years. Now China begins to look forward, and those four hundred millions of people, a quarter of the world's population, are beginning to demand our modern civilization. They are demanding a constitutional government and halls of legislature; they are building railways. Ten years ago we did not have a thousand miles of railway in all China; now we have thousands of miles, and are building thousands more. The old school system of China has been literally swept away, and we have a school system composed on modern lines. We are taking, through the Y. M. C. A., some of your best young men from America to teach in those schools.

When I first went to China we spent a good deal of time in the hospital, helping some of those poor women and girls to unbind their feet. You know half our population are cripples. In those early days, too, we spent a good deal of time in our churches, in our pioneer work, trying to induce the people to give up this terrible custom of foot binding. We do not have to talk about foot binding much now. In a single generation this terrible curse will be done away with. I need not tell this audience that opium is also doomed. You have been fighting the rum traffic in this country for several decades, and you have not yet succeeded in eliminating it entirely. But over there in old despised China, we are going to show you that the curse of opium is to be done away with in a single decade.

A Revolution Without Bloodshed

We have seen a revolution in Turkey in the last few years, *with* bloodshed;

we have seen a revolution in Portugal also; but there in China a more mighty revolution is going on than the world has seen before, *without* bloodshed, and it scarcely attracts any attention. One-fourth of the world's population having the most mighty revolution of modern times, or, in fact, any other times, and yet it attracts very little attention.

I should like to take you on an imaginary journey to Chung-King; then from there on another 500 miles to my home. Up there the Yang-tse is called the "Great River," and still further up it is known more frequently as the "River of Golden Sand"—Kin Sa Ho. After traveling six weeks or two months on one of the native boats, we branch off from the Yang-tse itself and enter the Min River. If you were to go up that stream at this time of year, up in the western part just before you reach Ching-tu, you would find the water very shallow indeed. The reason for this is that we have a great system of irrigation. Did you ever hear of famine in West China? No; and you probably never will, because we have this great irrigation system.

A mighty river comes down from Thibet, and 2,000 years ago one of those so-called despised Chinese by the name of Li-Ping, divided the stream into seven branches and sent the water out all over that broad plain. Just at this time of year it is not a very deep stream. There is a famous temple built in honor of Li-Ping, literally covered with lacquer and gold. About this time of the year (February) there are thousands of coolies taking out the silt and débris in the bottom of the river. They have to dig down every year and expose the great iron bar that Li-Ping put in the bed of the river; so a dam is built and the water is turned out of these irrigation streams and sent into the natural channel. As we near Ching-tu, the water is so shallow it is very difficult to get up stream in the winter; and I remember a few years ago one of our lady missionaries who was going down stream on her way home on furlough, wrote back that her boatmen actually had to build a dam in front of the boat to get water enough to carry the boat through some of those shallow places.

I should like to tell you about the city

of Ching-tu, my home—a great city dropped down in the midst of the plain with this old system of irrigation all about it. It is one of the finest cities in the whole empire. The wall is nine miles around, with only four gates, and inside the walls are the imperial city and Manchu city as well. Within a radius of fifty miles of that city are scores of other cities, not to mention the villages and hamlets scattered all about. That is where we have been doing medical missionary work during the last two decades.

My own work commenced in our little native chapel. Everybody was at first very curious, and we used to see from sixty to one hundred patients daily. In a year or two we were able to build a brick dispensary; and that was the first foreign building that was erected in far West China. For many years we have been seeing on an average one hundred patients a day.

One of the first inspirations I received in this Conference was when I saw the device on the front of our program, "Healing for Body and Soul"—

The Double Cross.

About fifteen years ago I adopted that device, from Doctor Dowkontt's original, for my dispensary tickets in West China, and put on it the same words, only in Chinese.

After doing work in this little dispensary for a decade or more, in the last four or five years we have been able to build a large hospital. We have one hundred beds in it, but that is all we have. We need everything else that goes to make up a mission hospital. I only had the privilege of using this hospital building one year before coming home on furlough.

We are still doing pioneer work in West China, and yet in some things we feel that we are in the very forefront of Christendom. One reason for that is our Advisory Board, through the influence of which we have been making rapid advances. This board is made up of one or two missionaries from each mission working in West China. The first result was a periodical, the *West China News*, published monthly. Another big result of the Advisory Board is a division of the

whole of West China, the three western provinces of the empire, into districts, and the missionaries of every denomination know just what territory they are to work; hence there is no overlapping. In that way we do our work systematically.

Another result of this West China Advisory Board was our West China Conference. There we formed a Church Union, and a common church letter will take a man from any one of these denominations to any other in West China. The natives sometimes distinguish between us in a laughing way. They refer to us as the "Big wash," the "Little wash," and the "No wash at all." Of course I need not explain to you what it all means.

Another great result of our Advisory Board is an Educational Union, which is doing grand work. We begin with the day school, then the high school, the middle school, and on up to the University. About a year ago our first class commenced in University work proper.

We have as many people in West China as you have in the whole of the United States. In Si Chuan alone, the province in which I live, we have sixty-seven millions of people. They are not contaminated by bad foreign influence; they are unsophisticated, free and open, willing and glad to receive the Gospel. We have our Christian martyrs in West China. Thus the seed of the church has been sown in that mighty empire. Some one has said, "God has melted the old China. Who will mold the new?"

THE CAPACITY OF INDIAN YOUTH FOR CHRISTIAN SERVICE

THE CHAIRMAN: The next speaker will be Rev. W. A. Mansell, D. D., who will speak of the capacity of Indian youth for Christian service.

REV. W. A. MANSELL, D. D.: The capacity of Indian youth for Christian service is as great as the great throbbing heart of India. And do you know what that means? Think what the heart of India has been able to endure through its misconceptions of devotion to its gods. But when those misconceptions are righted, and when India understands who its God is and what this God wants, all India will be ready to serve to the ut-

termost Him whom the people of India will love with a devotion that can not be overmatched by that of any country in all the wide world.

Christianity means service, but in the beginning Christian missions in India met with an obstacle which was peculiar. I do not think that in all the treasury of the devil's inventions there has been any one thing that has been more wonderfully planned to hinder the progress of the Gospel than the invention of caste. Caste means an absolute boycott to any one who accepts Christianity. In the beginning of Christian missions, that boycott was so complete and so perfect that the first converts were taught Christian service in a strangely perverted way. Christianity meant to serve, but somehow to them it came to mean to be served. They were the recipients, the ones that were to be cared for, cherished and nourished until they became able to do something for themselves. So Christian missions began with a system of helping the converts; and it has taken a long time to get that misconception out of the Christian church.

The Call to Sacrifice

But conditions are changing rapidly in these days. There was a time when every Christian youth who was in any of the Christian mission schools was expected to go out as a mission worker of some kind. He was expected to enter some school as a teacher or become a preacher or a worker in some capacity. To enter the mission meant to enter some kind of mission employment. The circumstances made it almost imperative that it should be so. I say, things are changing. No longer is it a foregone conclusion that every student in a mission school becomes a mission worker. Avenues of employment are opened in every place; and now the Christian young man has openings in government and in commercial service, and in various forms of industrial employment which give him from two to ten times the salary that he would receive in mission service. There comes now therefore a new call to Christian youth in India. It is the direct and definite call to sacrifice as well as service. And the question comes to us Christian workers with a good deal of importance,



REV. AND MRS. W. A. MANSELL, BAREILLY, INDIA

How will our young men meet the new crisis? And shall we be able to supply our ranks of workers as we did in the old days? It is good to know that our Christian youth are nobly meeting the crisis and are proving themselves worthy of all that has been done for them.

I want to tell you some of the things that are helping us to feel that the Christian youth of India are going to make good, and to rise to their responsibility. We begin very early to teach our young people that Christianity means service. I was present at a convention of Christian Endeavor one day, and I heard them talking about some of the things they do in their Junior Endeavor Societies. One committee that was organized gave the surprising story of work in an orphanage school at a time of famine. Little fellows that had been eating grain mixed with clay, had come into that orphanage, and because of their eating adulterated food their hands and feet were covered with sores, and were absolutely horrible to see. The matron had all she could do to take care of the little children that were there, and some one was wondering how they could take care of these new ad-

missions to the orphanage. One of the committees of the mercy and help department said, "We will undertake that service." So they formed themselves into a sub-committee; and the report which they gave at the end of the quarter was the exhibition of the company of new boys that had come into the orphanage. This group of eight or ten new boys were called to the front, and they held up their ten pairs of clean hands for view. That is one way in which we begin with the training in the idea of Christian service.

I spoke yesterday of Dr. Clara Swain. With Miss Clara Swain went out the first missionary of our women's society, Miss Isabella Thoburn. When she went to India she felt that it was her divine mission to proclaim to the people of India that the young women of India were to be saved for service; and that is the motto of the Isabella Thoburn Woman's College in Lucknow to-day. It means that these girls from all classes are being trained with that idea uppermost. You have seen in this country one of those trained young women, convinced of her divine call. Many of you have been ac-

quainted with Liliwati Singh. Some time after she had finished her course in college and taken a university degree, there came an opportunity for her to serve in a government college with a salary far greater than she could ever hope to receive in the mission; but she turned the application down. She said, "I am called to serve." And what she did, countless others of India's young womanhood, princesses every one of them, are doing to-day. These queenly women, educated, cultivated, refined, are able to show what Christian youth can do in India for India's salvation. Let us ever remember that if India is to be saved, it is to be by its own sons and daughters.

The real leaders of India are not to be found among the so-called leaders of the old religions. I want to tell you of

A New Army of Leaders

that is coming up in our young people's movements. One of the most remarkable things in India at this time is the young people's forward missionary movement, which is organized in India as well as in America and England, and which began its organization in a joint convention of the young people's societies of North India. It began one night at midnight. A company of India's young people at such a convention had come together to bow down in prayer before God. Pengwern Jones, the leader of that wonderful revival in the Khassia hills, was there. The Holy Spirit was present in power, and it struck twelve that night before the people arose from their knees; but when they arose, it was with a song of triumph on their lips. Those young men and women went out from that room consecrated, ready to do anything for India and for India's salvation. A band of them at once organized themselves as a volunteer evangelistic band; and they went up and down through our college towns, and through the school towns in North India, and there were a score of revivals started as the direct result of that one movement. One who was present at that meeting felt that God wanted him to go out and see whether the young people in our schools were not ready to consecrate themselves for service, and he went up and down through some of the Methodist schools. As the result of

his visits, in one month's campaign, nearly 400 of the choice young men who were in the upper classes of the high schools and in the college consecrated themselves for mission service; and every one of those young men who made that consecration knew that in giving himself thus for mission service he would take for his salary a bare support, whereas for him doors of usefulness were open in government and commercial offices, in all kinds of secular employment where he could also serve God; but God was calling him to higher, holier and more direct service in leading him to give himself definitely to Christian mission work.

I have not time to tell you of our young Christian laymen in India, how when they get a vacation they go out and teach freely and voluntarily in our mission schools. I have not time to tell you of the organization and successful carrying forward of the National Missionary Society, nor of a splendid movement that is now going on in India under the direction of a young man, himself an Anglo-Indian, who is thrilling with the idea that one thing all can do is to give the Lord the tithe of our time in voluntary Christian service, and this idea is taking hold of our Christian young men and women. Pray for India, believe in India; believe in the church that is growing up in India; and you can not do better with your money than invest it in the education of young men and young women in India.

THE FIGHT AGAINST TUBERCULOSIS IN SOUTH INDIA

THE CHAIRMAN: One more voice from India. It was in 1819 that John Scudder started for Ceylon, the first medical missionary that sailed from America. A little while ago I stood in the old house where all of his children, I believe, were born. And all of them that grew to manhood, nearly a round dozen, engaged in missionary work. The next generation has come to the front, and I do not believe anybody has yet counted up how many there are of that generation who are now engaged in missionary work. One of them we shall have the pleasure of listening to to-day, a grandson of the

famous John Scudder, a son, I believe, of William Scudder, Dr. Lewis R. Scudder.

LEWIS R. SCUDDER, M. D.: It is always the case that human extremity gives us our greatest opportunity. We know of the ravages of tuberculosis in this country. We know of the large amount of money that is being expended to-day throughout all civilized countries to fight this great plague. But I am afraid that there are many who do not appreciate the fact mentioned by Doctor Shepard on this platform only a few moments ago, that this same fight is on us in the Orient as well as in the Occident; and that one of the great opportunities that is to-day opening up before God's church and God's people is the opportunity of stepping into this crisis and doing for the Orient in the name of the Lord Jesus Christ what is being done in the Occident very largely in the name of science.

In India to-day tuberculosis is making very rapid strides. A few years ago we were not perhaps awake to the fact. Within the last five or six years, statistics that have been kept in our medical missionary stations have shown a very rapid increase. The medical missionaries were perhaps the first to take up this question of tuberculosis and its meaning and its opportunity, and after careful discussion to try to plan out certain rules and regulations, and certain methods of approach to this great problem that would enable the missionaries and the Christian church to take the right attitude with reference to it. We were perhaps many of us asleep, I say, to its real significance, so that there was a rude awakening in many missionary institutions. There are some boarding schools under missionary control in which nearly one-half of the pupils, when the facts came to be studied, were found to be infected by tuberculosis. Many of the missionaries in South India, and one or two of the most efficient of our medical missionaries, have been stricken with this plague and have been sent away from India because of it.

Not only have we as missionaries seen this opportunity, but the government in South India has recently awakened to the fact that tuberculosis is spreading



LEWIS R. SCUDDER, M. D.

with marvelous rapidity, and that it ought to take some steps to try to check the spread of this disease. The Madras government in South India appointed a committee upon which two medical missionaries of South India were invited to sit to consider this whole problem and to suggest what the government shall do in fighting this great plague. The committee drew out a scheme in which in Southern India in the Madras Presidency three large sanatoria were to be established, one in the northern section, one in the central section, and the third in the south, with a large hospital in the vicinity of Madras, for the treatment of incurable cases, and to start a propaganda that should go through the whole of that presidency, instructing the people with reference to this disease, and showing them how they were to fight and overcome it. This scheme was placed before the government, and the government felt that it was a very much larger scheme than they were warranted in undertaking. But that government, at the same time, knowing of the fact that we missionaries had already started a plan of our own, came to us and said they were perfectly willing to let the large central sanatorium be placed under the

charge of the medical missionaries, and we might have the whole of the central part of that presidency for fighting tuberculosis, while the government would do something for the North and South. But when that committee had reported to the central government itself, that government, feeling the scheme was too large, finally cut it down to only one sanatorium in South India, leaving the center for the missionaries, and saying they would not be able to do anything for the present for the North; nor were they able, they felt, to start a large hospital in the vicinity of Madras for the treatment of incurable cases.

Now, what is the opportunity before us? It is just that we, as those who love the Lord Jesus Christ, should take the center of that great presidency of Madras and build up in the center of it

A Large Sanatorium

that will appeal to all the people of that country, where they may come and not only receive treatment for the disease, but where they may learn of the Lord Jesus Christ. We want to put that sanatorium upon a basis where we may do the very best work in the combating of that great disease. The scheme that was drawn up by the missionaries of South India, under the South India Missionary Association, was that all the missions of South India should attempt to contribute each one a little toward the plant and toward the upkeep of such a large sanatorium. This scheme has been sent out to the missions with the request that each one of them will not only back the scheme up, but, as far as possible, that they will urge their boards at home to contribute toward the fighting of this disease.

But the only difficulty is that such a scheme is altogether inadequate in its extent. We are not able to fight tuberculosis by such a plan as that. Missionaries generally are altogether too modest. You remember Bishop Brent, in an article in the *Outlook* a little while ago, was saying that after a long experience with missionary estimates he had never yet found one that erred upon the side of asking too much; but he had found a great many that erred upon the side of asking too little. If we start such a sanatorium as this without sufficient or ade-

quate support, we can not occupy the field as it should be occupied; we can not make a demonstration to all the people of that country of what Christianity and love for our fellow men should lead us to do. I am trying to get others to become associated with me in this matter, to place before the people of America the opportunity that there is to-day to fight that great disease, in the name of the Lord Jesus Christ, in Central India. We need at least \$125,000. We need \$25,000 for the plant and the buildings, the stationary part of our scheme. If we can get that \$25,000, we shall get \$12,500 of property in grant from the government of Madras to supplement that work; and that will give us sufficient to put up a fine building. We need \$100,000 to give us the needed means for the recurring charges for the upkeep of that institution. With that \$100,000 we can pay the salary of the missionary, the nursing staff, and all of the other expenses in connection with the institution. The government will probably give us again one-third of the income, so we shall have probably 2,000 rupees or more a month to carry on this fight against tuberculosis. Here is the opportunity that stands before us, and I do hope that through this Conference we may place before the country at large the opportunities that face us to-day upon the field of the world—great opportunities where money invested now will accomplish even more than it can possibly do in this country or in almost any other place. We can do this work in India at one-third or one-fourth the amount it would cost to carry on that same work in this country or in any other of our Occidental lands. Let us, as medical missionaries, place before the people at home these conditions and ask them that they will come down handsomely in support of our work.

In South India

All Our Institutions Are Starved.

You know just as well as I how many cases there are of arrested development, where work that should have gone on with tremendous results has simply been arrested and has not developed and grown because people have not understood the opportunities for investing

their means in the carrying on of such work.

We want for South India the largest and the best equipped institution, because Christ demands the very best in all the work that we are to do for him. If we have that, thousands upon thousands of the people of South India will come into our institution and will there not only receive physical restoration, but the knowledge of the Lord Jesus Christ. We can have in connection with the sanatorium a large number of little rooms or little houses built, where those who often through caste prejudice are unwilling to come into our large institutions and wards, can come and hire their places and put themselves under our instruction and influence. When we consider that all cases that come to that institution must stay there a number of months if they are to receive the benefit they have come for, we see again what great opportunities are opening before us for teaching these people, high and low, rich and poor, the knowledge of Christ and the love of Christ.

(Closing prayer by Bishop Thoburn and song by quartet.)



FOURTH MEETING

Friday, January 6, 7:30 P. M.

Dr. R. H. Nassau, Presiding

Prayer by Rev. J. N. Hayes.

A NEW FORCE IN AN OLD EMPIRE

THE CHAIRMAN: Not an old man beyond his years of usefulness, nor a young man still making his mistakes, but one in the prime of life and with influence of which we are all aware in the educational interests of China, and at home, also, in the Laymen's movement of this country, —I have the honor of announcing the name of Rev. Isaac T. Headland, of China.

REV. ISAAC T. HEADLAND: The greatest force that this world has, is the power of the Gospel of Jesus Christ. I only need to refer to the fact that all the great governments, since the coming of Jesus Christ into the world, are under the sway of the Gospel. All the sciences of the world, or the knowledge of good, is in the



REV. I. T. HEADLAND, PH. D.

minds of those who have been developed by the Gospel; and the wealth of the world is in the hands of the same people.

I am to speak of a new force in an old Empire. The force is the Gospel of Jesus Christ; the old empire is China. We do not think usually of women doing great things; the world has been inclined to put the great things into the hands of men. May I refer you to certain facts this evening which will indicate that when a great force is in the hands of any one, whether male or female, that force *works*?

In 1894 the Christian women of America and England who had gone to China, and the Christian women of China, decided to give a birthday present to the late Empress Dowager. After thinking of various things, they decided to give her a New Testament. They had new type made, they printed it on the best kind of fine paper; they bound it in silver embossed bamboo pattern; they inclosed it in a silver box, then inclosed that silver box in a beautiful red plush box, then inclosed that in a teakwood box, then inclosed the whole in an ordinary pine box. They then sent it to the British and American ministers, and they

sent it to the foreign office, and they sent it to the Empress Dowager.

Now, there is a lot of ceremony about that, but the Chinaman loves ceremony. So sending this box to the British and American Ministers, and they sending it to the foreign office, and they to the Empress Dowager, was just such a thing as would please her. It comes into the palace,—an ordinary pine box. It does not look promising, but the Empress knows the Chinese do things in just that way. So she has the pine box opened, and there is a beautiful carved teakwood box, carved the same as the frame of her portrait that is now in the Smithsonian Institute at Washington.

Everything in China that wishes you happiness is red. These ladies wished the Empress Dowager happiness on her sixtieth birthday by the red plush box. She opens that and there is a silver box. The Chinese coinage system is on a silver basis, hence the silver box. She opens that, and there is the Word of God bound up in silver.

The Empress Dowager was

The Greatest Woman of the Nineteenth Century.

She was a little girl born in a humble home in Peking; she had been taken into the palace and made a concubine of the Emperor; she studied until she could read the classical language as well as the officials could read it, and so rose to the position of wife, then became the mother of his only son. Her son died. She took her nephew and put him upon the throne and had herself made regent. She dethroned her nephew, and when she was about to die, she took her grand-nephew and made him Emperor. There you have the spectacle of a little girl born in a humble home, made concubine of the Emperor, the wife of an Emperor, the mother of an Emperor, the maker of two Emperors, dethroner of an Emperor, and the ruler of four hundred millions of people for twenty-seven years, in a country where woman is supposed to have no power.

The next morning after she received the New Testament, the boy Emperor sent out to the American Bible Society and bought a New Testament similar to those which were being sold to his people.

That boy had been taken out of a great, big, beautiful world, where he could have all kinds of little children to play with, and taken into a brick-paved world half a square mile in size, without a child as a companion. The eunuchs went to the Chinese stores and bought Chinese toys and brought them in for him; but he was not pleased with them. They went to a foreign store and bought foreign toys and brought them in to him. Some of them were mechanical toys; that was what he wanted, something that would move of its own energy. As he got bigger, they bought him Swiss watches and cuckoo clocks. I went into his palace once, and it was filled with clocks, all ticking. There was a beautiful desk and a clock on the desk. There were watches hung about the walls. I sat down in a big, French upholstered chair, and a music box began to play, and that set off an electric fan on the wall, which kept me cool on that August day. Then he heard of the "fire wheel cart;" so he had a little railroad built on the west shore of Lotus Lake, and two little cars made in which he could ride with the officials of the palace. He also had a steamboat made in which he could take people for a ride. Then he heard of the telegraph and brought it into the palace; and now the telegraph is used all over the empire. Then he heard of the telephone. So the young man got telephones in there, and now they are all over Peking and in all the great palaces and houses. Then he heard of the "talk box"; and some of the officials came over to our Peking University and got a phonograph. That boy Emperor had all the great inventions of modern times moved into the palace; he moved the world into his little world.

He got the Bible and studied the Gospel of Luke. My assistant pastor and one of my church members were constantly invited into the palace to dine with the eunuchs, and they told these friends of mine that the Emperor had a part of the Gospel of Luke copied on paper for him, and he studied it for some time. Then a eunuch came to me one day and said, "The Emperor has heard there are a great many books translated out of the Western language into the Chinese language, and he would like to have

some. I sent him in some college textbooks. The next day he came and said the Emperor wanted some more books. I sent him some, and the next day he sent for more; and every day for six weeks that eunuch was sent from the palace to get more books for the Emperor. He bought every book that had been translated out of the foreign languages into the Chinese language. One day he saw my wife's bicycle. He wanted to know how to ride it, and I rode it a few times around the compound. He said, "This is queer; why doesn't it fall down?" I told him that when a thing is moving it can not fall down, and that will apply to other things than bicycles. The next day the eunuch came and said, "The Emperor would like to have your bicycle." So I sent this bicycle in to the Emperor, and it was only a short time afterward that it was reported all over Peking that in trying to ride the bicycle his queue got tangled up in the rear wheel and he had a fall; so he gave it up.

The boy Emperor studied those books constantly from 1895 to 1898; then he began issuing those wonderful edicts. One was to establish a board of education, a university in Peking, and one in the capital of each of the provinces. When I went to China in 1890, there was just one school established by the government to teach foreign learning, and that was established by Doctor Martin, who went to China as a foreign missionary. Bishop Bashford wrote me a short time ago that there are now forty thousand schools, colleges and universities established by the Chinese government to teach foreign learning.

His next edict was to establish a board of railroads. When I went to China, there were just 100 miles of railroad in the whole empire. At the present time there are 5,000 miles, and 4,000 more miles projected, and they are trying to borrow thirty million dollars from Europe and America to build another thousand miles. When I went to China, you could not get any coal except on donkeys' or mules' backs. He issued an edict to establish a commission of coal mines. I have seen plenty of women scratching around on the earth to get something to build a fire with, oblivious of the fact that just beneath them were great coal

mines. They did not dare to dig into it because of spirits. But where the Gospel of Jesus Christ comes, spirits will fall. There are no spirits in China where the Gospel of Jesus Christ has gone; and now they are sinking great shafts and taking out millions of tons of coal.

Now, why all these colleges, schools, coal mines, railroads,—everything that is making the people comfortable and happy? Because the Christian women of Europe and America and of China sent the Gospel of Christ into the palace as a birthday present to the Empress Dowager.

THE WOMAN PHYSICIAN IN INDIA

THE CHAIRMAN: The gracious womanliness of women gives them an influence in missionary work of which we men might be envious; and when there is added to that influence other powers, for instance, a medical education, then that influence and that power become something that we men might pray for. I have the privilege of introducing to you Doctor O'Hara.

MARGARET O'HARA, M. D.: The woman physician in India needs to be strong physically and mentally, and to have a deep spiritual nature. She has to go to the hut, she has to go to the palace; she has to suit herself to the conditions under which she finds her patients, whether they be high or low. She has to be the same to each—sympathetic, kind, firm, loving—she has to represent Christ Jesus. If she does not, her work is a failure. She needs to see what her Master did; how kind he was, how sympathetic, how true. If there is one thing she needs more than another, it is to be true. The people of the East read us; they know all about us far better than we know each other. I think there is scarcely a woman who comes to the dispensary that does not inquire through the servants and every one else all about her private life, what she does, where she goes, and what she says. We are an open book to them; we are the witnesses these people have of Christ Jesus. If we are not true to our Saviour and to ourselves, we are failures in the foreign field.

I should like to speak to-night to the young people here, whose lives are be-



MARGARET O'HARA, M. D., K. I. H.

fore them. We have heard of the need in Turkey, we have heard of the need in China; we have heard of the great need in India. We need schools, we need leper asylums, we need these sanatoria we have heard of. But above all, we need people who are willing and ready to carry on the work in these institutions, people who are willing to give themselves, soul and body. No half-hearted service will do there. You must give yourself. Some people have the idea that missionaries go out to have a good time. It is not easy work—to be twelve thousand miles from your own home, to be cut off from all that makes life dear to you here in society and friends. Some of us have been in the native states where we are thirty-three miles from a railway station, where there are no Europeans but ourselves. We have been in there lonely and sad, but Christ more than makes it up to us. There have been times when I thought there was very little need of being there; but it was

The Hardest Thing I Ever Did

when I left to go home, because I was needed there so much. I may be able to go back for a short time, but it is only for a short time. Who are the ones who

are going out to take up this work that we will have to lay down sooner or later? I came home for this purpose, to ask if there are no young women who will go to college to prepare themselves. You can not be too well prepared in every way. To be a medical missionary in India you need to be more than simply a physician. You need to be able to do more than to make a correct diagnosis and to operate fearlessly. I do not think there is a lady missionary in our field who has not, since she went out there, had to assume responsibility that we never could call medical work. We have had to take charge of orphanages; to take charge in famine times; to assume the responsibility in cholera and plague and smallpox epidemics, where there was no one else to do it. We had to tell the people how to disinfect their houses, and unless they love and respect you they will not carry out your orders. You can not have too good a training to go to a foreign field; you want to know as much as you can on every subject.

And what is the reward? O, there are rewards in this world—the joy of seeing souls come to Christ. There is no joy like it. I remember some years ago a woman coming to our hospital, whose husband, a Brahmin, died when she was quite young. You know that when a woman loses her husband in India, they think it is because of her own wickedness. She had taken many pilgrimages. For eight years she traveled with her parents, trying to wipe out this sin. She went to all the holy places, and just before I knew her, her parents died. When she came to our hospital she heard the story of Jesus and his love, and she believed. She said to me, “I know that is true. I have traveled to so many shrines, I have worshiped at so many places, but I never heard the story of love before;” and she there and then gave her heart to Jesus. Shortly afterward she came to church, took off her beads, and was baptized. The joy of seeing one case like that is worth all.

One of our medical ladies in India worked through two epidemics of plague. After one of them was over, the late King Edward sent her the Kaiser-i-hind medal. We thought that a great honor. The second epidemic of plague came and

she threw her whole heart and soul into it, and at the close she died. She went to her Master to hear the "Well done, good and faithful servant," and that was worth it all.

THE PLACE OF THE MEDICAL IN MISSIONARY WORK FOR AFRICA

THE CHAIRMAN: If you should go over to Southern Africa and Rhodesia and ask the natives there throughout the length and breadth of that great province, the name of the man who for eighteen years has been traveling up and down that region, among the best beloved missionaries of that country, they would tell you his name is Thompson. It is with great satisfaction that I ask Doctor Thompson to come to the platform.

W. L. THOMPSON, M. D.: If we are to have an intelligent idea of the place of medical work in the whole great work for Africa, we must first have some conception of the work as a whole and of the object in view, and of those things which serve to distinguish the work for Africa from that of the other great mission fields.

Our object is the salvation of souls, but we are coming to realize as we did not formerly that "no man liveth to himself," so I will state the object to be the salvation of a race. Africa differs from the other great mission fields in many respects, some of which are as follows: 1. Its natural resources are in a less developed condition. 2. The people are lower in the scale of civilization, having no literature, science, art or commerce. 3. There is no African nation (in the political sense); only millions of savages scattered over the vast continent, like incubator chickens without a mother. 4. Its population is comparatively sparse, roughly, about one-tenth as many to the square mile as in China or India. 5. As a result of the above conditions, the other peoples of the world are turning toward Africa as the last great undeveloped area for exploitation and settlement.

Many would doubtless hold that the most important difference is an innate inferiority of the negro race, and would cite as positive proof the fact that this

race has remained savage while others have become civilized. I do not include this in my enumeration of distinctive features, for I doubt if the conclusion is based upon due consideration of all the facts. The considerable number of American negroes who have risen to high positions can not be cited as "exceptions which prove the rule" until we can show that the race as a whole, in this country, has been placed in equally favorable circumstances with the white race; and it would be absurd to hold, with regard to those native Africans that have shown high ability when educated in American and European institutions of learning, that there are no others of equal natural talent among the millions of heathen Africa. It is the difference between their environment and ours that accounts for the difference in our lives.

Let us now briefly consider how the peculiarities in the African mission field affect the character of the work to be done. The barbarous condition of the native, together with the presence, actual or prospective, of other races, renders it imperative that proportionately more attention be given to education, in the broad sense of the word. I say, in the broad sense, for we are too apt, confused by names and conventionalities, to think of education as beginning when a child goes away to school; whereas, nine-tenths of it is secured outside of the school. When we seek to educate savages, we try to begin with them where we began as school children, forgetting the much more important part of education furnished by parents and associates, and life in a Christian, civilized land, before our school days began. We forget that

The First Law of Teaching

is: "Begin with the known, and proceed to the unknown by easy and natural steps," and that our first duty, therefore, is not merely to learn the native language, but to learn to know the native, so that we may begin with what he knows. And since it is impossible that school text-books of other lands should fulfill this condition of teaching to the African, these should be prepared on the ground.

Our educational scheme for the native

African should seek to bring him the blessings of Christian civilization; these came to us largely through civilized industries, so industrial training must occupy a large place. As commerce is so important a factor, we should seek to teach him Christian business principles. It is thus necessary that our educational work for Africa embrace a larger number of branches, each beginning at a more elementary stage than in other mission fields. As fast as suitable candidates for "higher education" can be developed, this should be provided, up to the point of producing men, fit to go out

will state as the second item in meeting the peculiar conditions that, to be financially economical or spiritually successful, missions in Africa should be large. Already the "race problem" is

The Great Problem of South Africa.

This problem of peoples so diverse (I do not refer to color), living together in peace, purity and mutual helpfulness will be the problem of Africa—a world problem, in fact. The "Kongo Atrocities" and the "collapse of the jury system" as an instrument of justice between black and white, in southern Africa, not to speak of the lynchings of our own land, are symptoms of a dire malady. The Gospel of Christ is the only remedy. Shall we wait until we have a raging epidemic to deal with, before we apply the remedy with energy?

Having thus attempted to sketch roughly even so few of the peculiar features of the African mission field, I will try to place the medical work. And, first, let me say that apart from the other



DR. AND MRS. W. L. THOMPSON

and, standing with men, maintain their rights and bear their responsibilities. But, here as elsewhere, "many are called but few chosen." The "many," to whom we call in our beginning work, must be enough so that the "few" who reach the goal may be enough for economy in training and for leadership when trained. Nor is this largeness of beginning work merely a matter of finding the best. The winners would never have reached the goal but for the stimulus of struggling with many competitors; nor, without the support of these many, who though less successful, still stand with them in the fight, could they maintain their position. We need a large work to make it possible to do a good work, so we

work, I could feel no enthusiasm about medical work for Africa. The relief of suffering is a good thing, and yet I could feel little enthusiasm about giving a hypodermic of morphine to relieve the pain of an abscess if I had no lancet to open the abscess. But, on the other hand, it is practically impossible to do mission work in Africa without medical work. The native is so profoundly ignorant of medical science that even one who would ordinarily say, "I know nothing about medicine," begins to realize that he does know something; and he feels that in the presence of such deep ignorance, superstition and helplessness, he must act. There have been missionaries who never studied medicine who, in the absence of

a professional colleague, have treated thousands yearly.

The care of the health of the mission is an important item in the work of the medical missionary in Africa. This alone, especially in a large mission, such as African missions should be, justifies his presence. To improve the sanitary condition of the region and rid it of those agencies which may account for and prevent escape from the degraded condition of the inhabitants seems a noble enterprise, and often feasible enough if intelligent co-operation of the inhabitants could be secured. But the necessary intelligence must first be produced, then co-operation of the educational department.

The Foe of Superstition

Medical work may be made a great power in overcoming the dense superstition of the native. The native doctor is the great champion of superstition. His whole practice is based upon it and his fees depend upon it. The medical missionary, by giving relief where his rival fails and, at the same time, disclaiming all connection with magic, creates distrust of the latter. If this can be followed up by simple instruction in physiology and hygiene and the natural laws upon which these are based, the great power of the witch doctor, so great that it often holds in subjection our professed Christians of years' standing, may be broken, and the difference between virtue and vice made apparent.

Medical work is, perhaps, the most direct and powerful means of gaining the confidence of the native and demonstrating to him the truth of the Gospel message. His habit of mind is one of suspicion. When we tell him that we come with glad tidings, he at once jumps to the conclusion that we have an "axe to grind." But when sickness comes upon him and his body is racked with pain and his mind tormented with fear, then he realizes his need; and help, regardless of reward, suggests friendship—he begins to see what we mean when we speak of the love of Christ.

A word as to my personal work. I can not report many thousands of cases annually, as can those from India and China. But walking or even bicycling

over bad roads, up to sixty-five miles to see a patient, means a good deal of work for a few patients. When we arrived at Mount Silinda to establish our mission, we found that a company of white settlers had preceded us to the district. As no physician came with them, it fell to my lot to attend them in sickness, which soon came upon them, as they had no idea of the precautions necessary in such a land. Although many were poor, most of them could pay something for the help received, and this help in time of need has done much, we believe, to establish friendly relations between the settlers and the mission, and to disarm prejudice against our work for the natives. The fees from white practice have made the medical work about self-supporting. Receipts from native work have been nominal.

Some years ago a husband, bereaved, wished to build a monument to his departed wife. He had less than \$1,000 that he could devote to the purpose. He offered it for the erection of a hospital building in Turkey. It could not be accepted because the amount was so inadequate. So it came about that it was offered to us at Mount Silinda for the same purpose. We believed that, with our industrial equipment to help out, we could erect quite a building with this money, so accepted it, and a good brick building with tile roof is the result. But it is not finished, nor is it supplied with equipment. We hope others will help to complete and equip it for its service and that a trained nurse may be secured to help in the work. It is often very discouraging, trying to help such childish people without having them under control. In an epidemic of dysentery, we lost none of our cases among our boarding-school scholars, where they were under control, while we lost a number of those treated in their homes.

AFFAIRS IN THE KONGO BELGE— PAST AND PRESENT

THE CHAIRMAN: I am proud to introduce to you a friend who was a neighbor of mine in Africa—our homes were only 500 miles apart—Rev. Joseph Clark. I will not take any of the valuable minutes that belong to him for his address



REV. JOSEPH CLARK

by speaking of his distinctions and his work.

REV. JOSEPH CLARK: With regard to the past and present of the Kongo Belge, let me remind you how the government arose there. The various powers of Europe and the United States of America were interested in the development and partition of Africa. A conference was called for, which sat in Berlin. That conference arranged that the territory now known as the Kongo Belge, recently known as the Kongo Independent State, should be handed over to the representative of the "Association Internationale." The leading spirit in that association was King Leopold, and practically at that time he was the whole association. Only a few Belgian gentlemen were then connected with this whole affair. The United States of America agreed to the handing over of all that tremendous territory with probably twenty-five or thirty millions of men and women, to the rule of King Leopold, who as absolute monarch could make all the laws that were to be imposed upon these people, although he had never seen them nor their country, and knew nothing about the conditions of the natives except what he

had read in books or heard from travelers. The United States of America agreed to that—one of the greatest shames upon our government. Of course, the other powers did the same. England agreed to it, too; so did Germany, France and others. But they were deceived in the man. They thought he was a great philanthropist.

After King Leopold had obtained charge of this territory, he made laws to suit himself, and these laws led first of all to the taking of the land from the natives. He said they did not require anything except what their houses were built on and the little spot of ground which they had for their gardens. Then, having stripped them of their territory, and of the possibility of getting anything for export or trade, taxes were required from the natives. King Leopold issued a notice to all the world that he would tax the Kongo people in a way that would be within their reach; that is, he would not ask for money in payment of taxes, but he would give them the opportunity of paying taxes by labor. It became forced labor.

First of all he emptied their pockets, stripped them of all they possessed, then, with a gun at their head, held them up and commanded that they should serve him. The forced labor was

The Collection of India Rubber

in the heart of the African forests. Also before the railroad was built, transport service was commanded from the natives. If you had gone with me into the interior of Africa then, you would have found here and there along the road the whitening bones of those laborers who had been forced to carry the goods for King Leopold into the interior. He took the natives from their homes to bear heavy loads on their heads, as his transport had need in all seasons. Without shelter, they slept on the ground; they were underfed and weakened by overwork, and then came the sleeping sickness which swept them away by the thousand.

In the interior the natives were sent into the forest for India rubber. It was not hard labor, but in the forest they were in no man's land. A man going there carried his bow and arrows, a big

spear, and had a knife slung from his shoulder. There were spirits there he could not see, and he was afraid of them. Worse than that, there were enemies there, the dwarfs of the heart of Africa, or enemies that belonged to some other village that had been offended; and while he worked with one hand, he would have his tools of war ready to the other hand so that he could defend himself. A demand of a certain quantity of rubber was laid upon him, and he had to wander through the forest searching for the wild vines from which he could extract the juice, and carry the India rubber into the villages. Black soldiers, not soldiers from King Leopold's white men, but in almost every case, soldiers from cannibal tribes, were left in charge of those villages, in charge of those homes, in charge of the wives and daughters of the men who were out there searching for India rubber. You can easily understand where the shoe was pinching them, and when a man stood for the defense of his own home, he was shot down on the spot; and all the excuse that had to be made was that the man had not got a sufficient amount of India rubber, and therefore he was killed.

Thank God, that has changed. King Leopold has died. A new and better king reigns in his stead, and new conditions have arisen there. King Albert does not hold the control of the Kongo Belge native that his uncle had. King Leopold made the rules absolute without any reference to his parliament, but now the laws are being arranged by the Belgian parliament, and King Albert signs them. He may make suggestions good for the natives, but all these things must be accepted by the parliament of Belgium before they can be imposed upon the natives of the Kongo Belge; and there are men in the Belgian parliament just as earnest and honest in seeking after good as there are in any other parliament in this world. Belgium has been aroused. We missionaries were placarded as liars and scandal-mongers, and everything was said against us. But now the public have their eyes opened to this thing. They know that we told the truth, and that King Leopold and his agents were liars. We have new hope. The government sees that the Protestant missionary

is not its enemy. We are not spies sent out there by America or England; but we are honest men, seeking an opportunity for benefiting the natives, carrying on the work that King Leopold himself said he wanted to do,—to raise and elevate the natives, to give them the benefits of civilization and education. That, and a lot more, is what we are doing.

What of the native himself? Things have changed with him also. Here is the past so far as the doctors are concerned. You would hear a lot of tom-tom beating. Going to the place, you would see a big circle drawn, and inside some poor individual with two men, one on either side of him. He is a fever patient and is to be cured. If the man is capable of standing, he is made to stand; then, as the drums are beaten and the witch doctor is shaking his rattles, this poor fellow is shoved from side to side until he says he feels better. If he could not stand, he would be made to sit, and they would shove him from one to the other until he said he felt a good deal better. That is the old way of doing things. But now for 500 miles along the Kongo River, you find the missionaries dotted here and there; and the native has sense enough to go to the missionary and to obey his instructions.

In the Olden Days

all round about we could hear the sound of drums beating, telling of witch doctors, and of people being accused of witchcraft and having to drink the medicine cup. They were made to dance until it was seen that the medicine was beginning to affect them, when the onlookers would rush upon them with knives and with clubs and beat them to death or cut them to pieces, possibly even a father being the first to strike his own son or daughter, and everybody rejoicing because the country had been purged of those witches.

But now up there you will find the native chapel—a little hut, possibly sixteen feet by twelve,—and in it a few Christian people worship God. They are having a little school there, and without any payment from any society, there are hundreds of natives now carrying on their

school work and religious work, and the witch doctor is gone from those places. Compare the present with the past, friends, and you will be satisfied.

In my own place, some of my young folks talked of going out and preaching the Gospel. They went against my advice, into one of the worst places in the district, and when they came back after a week, there was such a lovely smile of satisfaction upon those black faces, it looked as though there was a light inside gleaming through. They had been in over one hundred villages preaching Jesus Christ and him crucified; and twenty-two of those villages never before had even heard a missionary or a native evangelist; they had never heard the name of the God of love, or of the Saviour of the world. When, after telling their story, they stepped off the platform and were going away, I called one back and said, "Why, you haven't told us of the difficulties or dangers of your journey. Weren't you threatened at any place?" He said, "Yes, in two or three places they gathered around and said they would kill us. In two places particularly they stood with knives and spears raised over us." I said, "How did you defend yourselves?" He folded his arms, looked into my face with a heavenly smile, and said, "White man, we didn't defend ourselves; we stood there in their midst and

"God Defended Us."

Only three years before he came out of a heathen, cannibal home. We are not ashamed of the Gospel of Christ, because we see it is the power of God unto salvation.

In June I was up in the interior and Dr. Johnson Myers, of Chicago, was with me, and among other men a big fellow came and shook hands with him, and I said, "That is one of our preachers." He said, "He is a fine-looking fellow." That man had been the second in command at a big cannibal feast that involved the death of two white men and eighty black soldiers not far from my station, and now he is preaching and seeking to win men to Jesus Christ. What an awful past, was it not? And what a wonderful present!

YOUNG CHINA

THE CHAIRMAN: A young man who I understand was a pupil of Doctor Whitney's in China, Mr. M. U. Ding, is now a student in Oberlin College. It is something grand to think of—that the far East, the land of Sinim, has come to us for education in the far West.

MR. M. U. DING (native Chinaman): It is always a great pleasure for me to speak for my own land. A few years ago there was a Japanese circus went over to Foochow. I went there and saw a great many young men standing together, piled up in the form of a pyramid, and finally a very young boy climbed up at the top there, and he spoke for them. To-night I am standing here like that little boy, speaking for four hundred million people—I feel that I am buoyed up by them.

Last night we heard that the clock had struck twelve in China. But to-night it is not one yet. China is young to-night—*young China*. China is changing rapidly. A friend of mine gave me an illustration: A man went into a big factory. He saw two wheels, one very big, and the other a little wheel. The little wheel revolved around its axis rapidly. Once in a while he looked up and said to the big wheel, "You clumsy fellow; it takes a long time for you to turn once;" but this big wheel looked down, saying, "Little boy, I am revolving slowly but steadily as is good for me and good for the world." China is like the big wheel. He said, "If I revolve at once rapidly, I am afraid I will crush you into atoms and upset the whole world."

China to-day is moving. In 1876 there were only fourteen miles of railway built from Shanghai to Woosung. The railroad was built by an English company, and the people were so alarmed that they compelled the government to buy it from the English company; and as soon as they bought it, they dumped the engine into the Womba River and tore up the bed of the railroad. Now, to-day, we have 5,000 miles of railroad throughout the Empire. Recently I read a home paper informing me that China will go to Europe and America to borrow money for the railroad building. They will build 29,633 leagues, about ten thousand miles. A telegraph line was started in

my city in 1874, only three or four miles distance. Well, the whole city was alarmed, and the people tore down the poles and cut off the wires. Now, to-day, throughout the Empire you can find telegraph and telephone lines anywhere. I counted forty-six telephone lines in my own city.

The government is changing. China had its political department about twenty-two or twenty-three centuries before Christ, fifteen centuries before the Roman Empire; they handed it down fifty-two dynasties; the longest dynasty is about eight hundred years. Now we are beginning to adopt a constitutional government. The year before last I helped to establish in my province a state legislature, and it was opened in a Y. M. C. A. building. This year they opened a senate, a national assembly.

The Y. M. C. A. in China

is doing powerful work to-day. Fifteen years ago there was only one secretary, Mr. Willard D. Lyman, and we had only a few associations scattered here and there; but to-day we have seventy associations, and we have five summer conferences like Northfield. In my city, for example, the Y. M. C. A. secretary went to the Chinese government college to volunteer to teach for them, but they refused. A few years later they came to the Y. M. C. A. and asked the general secretary to find foreign teachers for their government colleges. In Foochow now we have six foreign teachers secured by the Y. M. C. A. general secretary. And up in Tientsin and Hankow and a great many other places, the Y. M. C. A. is doing a lot of work to lead young students to Christ. China is a nation of students. Students occupy all the official posts. The Y. M. C. A. is leading that kind of men to Christ. Our general secretary, Mr. Brockman, has recently secured a building for Tientsin, a building for Hankow, two buildings for Shanghai, one building for Foochow, and one building for Canton; and he tried to secure another for Hong Kong and another at Tokio for the Chinese students there, and another at Korea for the Koreans. The Y. M. C. A. is working among the most important class of people.

When Paul went over to Troas, God

forbade him to work in Asia, and he went over to Europe, because he dreamed that night there was a Macedonian calling him over. Here to-night is a Chinese student standing before you, a real Chinaman, calling you to come over to help China. I hope my word will be weightier than that man in Paul's dream.

MEDICAL MISSIONARY EDUCATION IN INDIA

The Need and the Call

THE CHAIRMAN: What Doctor Wanless does not know about medical work in India it would be folly to inquire. What he does know, he will tell you a little of to-night. I have special pleasure in calling upon Doctor Wanless.

W. J. WANLESS, M. D.: Among the nations of the Orient, India is perhaps the most favored in that under the beneficent rule of Great Britain there has developed in that country a very efficient medical service. I say efficient, but it is not sufficient for India. Travelers will tell you that India is well supplied with hospitals, dispensaries, physicians and surgeons; and that is true of our large cities. But we must remind ourselves that India is essentially

A Nation of Villages.

Ninety per cent of the people of India live in villages. Ninety per cent of the doctors live in large towns, in cities; and the result is that the great mass of our village population of India is not attended in times of sickness. Some twenty-five years ago Sir William Moore made a statement that at that time the system of medical aid did not reach more than five per cent of the population. He said that in order to provide efficient medical service for the people of the Presidency of Bengal, they would need forty times as many doctors and medical institutions as then existed. I think the medical institutions and physicians under the government in India have doubled since that time; and it would be perfectly safe to-day to say that eighty per cent of the population of India are without competent medical aid in the villages.

I have not time to-night to tell you of the diseases which prevail in India—the



DR. W. J. WANLESS

pestilence that stalks over the land year by year, carrying away its millions. But here is one single fact: the mosquitoes of India are responsible for deaths annually in India nearly equal to the population of the city of Chicago, by inoculating the inhabitants with malarial fever.

In this country religion stands for sanitation; it stands for health and cleanliness, and for all that makes for the good of the people. In India it is one of the causes of disease; at least it is one of the direct causes of the spread of disease, in that, owing to the superstition which abounds all through the country as the result of religion and as one of the tenets of religion, we are not able to destroy the disease carriers, such as the fleas and the rats. The government is up against a tremendous proposition in India to-day in its endeavor to stamp out the plague; they can not do it at all, because the people will not destroy the rats.

I am to speak to you regarding medi-

cal education in India. We have in that country four universities. In connection with those universities there are 1,600 medical students. Of those 1,600 medical students, I learned recently, 102 are Christians,—that is, they are professed Christians; and I think it would be safe to say that not more than a dozen of those men are definitely planning to give their lives to Christian medical missionary service for their own people.

All the medical missionaries in India under the various societies number now three hundred odd. We have 150 nurses, 100 hospitals, and 120 dispensaries. There were treated in those dispensaries last year more than a million patients; more than fifty thousand in-patients were treated, and more than sixty thousand surgical operations were performed. You say that is a large work, and it is; but, after all, it is but a drop in the bucket as you think of the tremendous physical needs of the people of India.

You ask whether there are any doctors in our villages in India. Yes, there are native doctors. The educated physicians of India do not settle in the villages for the most part. It would be a most unusual thing to find in a village of India with a population of six or eight thousand people, an educated physician; and that for the obvious reason that in these villages the people are poor. We have two hundred millions of people in India whose per capita wealth is

Two Dollars a Month and Six Children,

and people with that degree of poverty are not able to pay very large doctors' fees. The result is that the educated physicians of India settle in the large towns; and the people must depend upon the village doctors who go about from village to village and do cataract operations on the curbstone at fifteen cents apiece.

Now, we medical missionaries have been feeling for years that it is up to us to train for ourselves men who will do this medical missionary work. We have first of all the native state problem of India. One-third of the territory of India belongs to the native rulers; and twenty-five per cent of the population live in those native states. Missionary work is not nearly so easy in those native

states as it is in British territory; and a great many of the native rulers are not naturally kindly disposed toward the work that missionaries are doing. Here medical missionary work in India finds perhaps its greatest usefulness as a pioneer agency.

I will give you one illustration of this: A maharajah in our part of India for many years was only passively interested in the work we were doing in his state. Many things led us to suspect that he was opposed to our work. A couple of years ago that man was wounded in a hunting expedition, and was brought into our missionary hospital, and was operated upon and sent back to his village. In the course of a few months he offered to build a mission hospital in his own city. He already had a large hospital there, splendidly equipped in many respects, with a graduate of the Edinburgh University in charge of it; and yet he said to me, "I must have a mission hospital in my own city." I said to him, "Maharajah, it is not our custom or purpose as missionaries to establish hospitals side by side with large government hospitals or institutions." He said, "I don't know about that, but there is something about your people that inclines me to the belief that my people will be much better off if they have your missionary hospitals, and I won't be satisfied until I get it." He is getting it to-day and providing everything for it. That is one illustration of how the young Christian Indian men and women that we are training in our hospitals impress those native rulers. We find the young men who graduate from government colleges are not spiritually inclined, to say the least.

When we began our work in India twenty-one years ago, we had to employ non-Christians, and to-day in many of our missionary hospitals missionaries are obliged to employ non-Christian helpers, doctors and nurses. Manifestly that is not a good thing, because they will undo the work the missionary seeks to do. We had that experience, and just as soon as we could we got rid of the non-Christian helpers in our hospital, and to-day every nurse and doctor and worker in our hospital is a Christian, doing definite, personal Christian work.

Every one of the medical missionaries in India has, to some extent, to train his own workers. That amounts to this, that a large number of our physicians of India are giving a little of their time every day, and some of them a good deal of their time, to training one or two or three men all over the country. We have in India some five medical missionary schools for the training of hospital assistants.

Medical Missionary Schools

First of all there is the School for Christian Women in Ludhiana, in North India. The only trouble about that institution is that there is only one of them. Then we have in Travancore another little medical school that has been in existence for some years, connected with the London Mission. They have trained all their own men for the work in that native state of Travancore, treating something like twenty thousand patients annually in their dispensaries there to-day. Then there is our school in Miraj which began a few years ago, taking a few students, until we now have eight students in the class. There is another school with eight or ten students in the Madras Presidency. Now there is a situation in which we are wasting a great deal of energy because we are not combining in this matter of medical education.

Two years ago, when the medical missionaries of India met in Bombay, they discussed this matter of medical education and decided that medical missionaries in India, in spite of the fact that the government is training its own men in the four universities, ought to have in India two or three medical schools that would fully qualify Christian men to take the government examinations in order that they might go out to work among their own people in the villages.

Another work that is developing in India is the branch dispensary system. Our greatest field is in the village centers of India where there are no physicians. Now, we can not get the government doctors to go to those villages, nor any physicians who have not the spirit of Jesus Christ. We are trying to develop a branch dispensary system in connection

with our various hospitals; having in each large village a central institution, and a number of branch dispensaries radiating from it, where we will place one of these men we have trained, with a teacher as a distinct evangelizing agency. That is going to call for a very large number of men, and we are not beginning to train the number we shall need for this great work. There are several hospitals in India that would furnish a sufficient basis for such schools if we only had the money to inaugurate such a work and to develop it.

Popularity of Missionary Hospitals

When I tell you that the people who came to our hospital last year traveled an average distance of 108 miles to reach the institution, and came from more than 700 different villages, you will realize that these people in India need medical aid and appreciate the work of the medical missionary. I say without any degree of egotism at all that the missionary institutions of India, certainly in the village districts, are the most popular medical institutions in the country. You will find that where there is a missionary institution and a government institution, invariably the missionary institution is the more popular, and the people are much more free to come to it in spite of the fact that there is preaching going on in connection with all these missionary institutions. This is because the people are not blind to the work that we are doing; they see the Gospel in this tangible, practical, ocular, palpable form, and it draws them to the missionary dispensary. In the government hospital they will not be received very kindly if they are low caste people. They will not be received very kindly even if they are high caste people unless they are able to fee the doctor or the one in charge; and they come to know that the medical missionary is no respecter of persons; that he is just as kind to the low caste man and the outcast man as to the rich man.

Now, what we want in India is

Co-operation in Medical Education.

I believe there are a number of societies

which would be ready to enter upon a scheme of co-education among the various missionary societies, having two or three institutions in the country, the same as they have had in Ludhiana in connection with the North India School of Medicine for Christian Women. We want to raise the money to establish these institutions, and we have the men who could co-operate in the teaching. Instead of overlapping as we are now, a man here and there, scattered all through the country, giving a little time to his teaching, we might have all these at once in one of our institutions and train a much larger number of men and at comparatively small cost.

Work in a Plague Hospital

Let me in conclusion give you one illustration of some of the conditions that prevail to-day in these village districts. I myself have been through some six or seven epidemics of plague. In the year 1897 when we went back to India from our second furlough, we were asked to take over the state work in connection with a plague hospital. There was a state doctor who had had charge of it, but the people had lost confidence in him, and the work was in chaos. We found eight or ten patients in the hospital, two of them dead, and no one to lift them out; and the best I could do was to get in a sweeper to lift out these dead bodies and bury them. We carried on our work, and the people of that village were willing to do anything the missionaries asked them to do, while they positively refused to obey their own officers in that city. They had found out the missionaries were their friends.

After all, India, as has been said here to-day, must be evangelized by her own sons and daughters, a host of young men and women who will be willing to make the sacrifice of a small salary and the inconvenience it will involve to go out to those villages and live among the people to win them to Jesus Christ. The day has gone by when a doctor going about the country with a box of drugs, castor oil, and sulphur ointment is enough for the people of India. We need men who can go out and intelligently care for them in their own village homes.

FIFTH MEETING

Saturday, January 7, 10:30 A. M.

Rev. Chas. C. Creegan, D. D., Presiding

Prayer by Pastor Geo. C. Tenney.

**TWENTY YEARS MEDICAL WORK IN
KOREA**

THE CHAIRMAN: If there is one mission field in the world more promising than another, in my judgment, after having inspected many fields, I would say that that field is Korea. It is possible that political complications may defeat to some extent the work of the missionaries; but it did seem to me that I had seen nothing quite equal to it anywhere else,—thousands and tens of thousands coming into the kingdom. We shall have the pleasure of listening this morning to one who for a score of years has been a medical missionary in that land, Mrs. Rosetta S. Hall, M. D., who will speak upon twenty years of medical work in Korea, including work for the blind and the deaf.

MRS. ROSETTA S. HALL, M. D.: Since mission work in Korea was only five years old when I went there, my work has been largely pioneering—training medical helpers and building hospitals. On my arrival, I took charge of the hospital that had already been opened by Dr. Metta Howard, your neighbor at Albion, Mich., and I also opened two new dispensaries. The one at the East Gate has grown into a large medical work that is now needing two more doctors, and also a trained nurse to take charge of the training school for nurses that has been established there. A large church has grown out of this work, which is attended by a thousand people on the Sabbath day; and also from it have grown several smaller churches out in the country districts. In 1892 Dr. W. J. Hall began work in Pyong Yang, then a very wicked city, known as the "Sodom of Korea;" but now I suppose there may be a greater percentage of Christians there than there are in this city to-day. I went there with my baby boy when he was six months old, and we were the first white people to keep house in that large, northern walled city. There also it has been my privilege to open medical work for



MRS. ROSETTA S. HALL, M. D.

women. I built two hospitals there. The first one contained the first brick chimney ever built in that city; and it was the first two-story building with a staircase, my carpenters having never seen such a building! Later this was burned; and, not long before I came home on this my third furlough, I built the first brick hospital, semi-modern at least, to be built in that city. I am sorry to tell you that I had to go away and leave that hospital without any woman physician in charge.

Among the medical helpers I have trained, several are doing good work. Perhaps the best one was Esther Kim Pak, whom I brought home with me on my first furlough, and she later entered the Woman's Medical College of Baltimore, where she graduated with honor and returned to Korea, the first woman Korean physician. About that time we were fairly well equipped for woman's medical work. There were two doctors then in Seoul, and this doctor made the second woman doctor in Pyong Yang. But a little later, Dr. Lillian Harris died of typhus fever. That was nine years ago, and since then no other woman physician has come to Korea.

But the work has not stood still. There has been an average of

One Christian Convert for Every Hour, day and night, since Christian missions were opened there twenty-five years ago. You can easily see that we women physicians can not even touch our own Christian constituency, let alone the heathen women we went out to save. I expect that now I am absent, there are at least fifty thousand Christian women and children for each of the women doctors left there!

At our late general executive meeting in Boston, of all the candidates who came forward to go to the mission field, there was *but one medical woman*, Doctor Stewart, from Chicago; and India and China, the Philippines and Korea all tried to secure her. It was some time before it was settled which should have her. I am glad to say that Korea will secure her; but in the meantime I learn that one of our other physicians there will need to come home; and also since I left, Dr. Kim Pak has died, so that our work really is not reinforced, after all. We had to drop the training of native medical women at the time Doctor Harris died. I want, if nothing else, to impress you with the dearth of medical women in Korea to-day, and how we must be reinforced to carry on even the work that should be done among the Christian women and children. We must have more women physicians to train these native women. They are ready; we have several now who desire to study medicine, and would have been already at it if we had not been so depleted in our medical force.

I have here a picture which represents

Five Generations of Christians.

A little bride, perhaps twelve or fourteen years of age, who needed an operation was brought to me some eighteen years ago, accompanied by her mother-in-law, and she in turn by her mother-in-law. They had to return a number of times for treatment. They met with Christian teaching and became converted, and took the Gospel home with them to the old grandfather, who also became interested and came to learn more. Of their own free will they took down

their ancestral tablet, before which they had been offering worship, and each one took a hand in destroying it. One took it down, another split it up, and a third put it in the fire. Then, without our having said anything about it, they gave up smoking. In Korea the women smoke as well as the men. From what they read in their Bibles, and heard taught by the missionaries, they felt it was wrong to use tobacco.

As Koreans are always noted for their generosity and hospitality and liking to share every good thing, they soon began to bring in their neighbors. They brought another man and his wife who were also converted, and little by little that neighborhood became a Christian center. That little bride has become the trained medical helper of the East Gate Hospital. Her heathen mother-in-law has served as a Christian Bible woman; her son is a motorman on the Seoul electric railway, and her daughter-in-law and grandchildren are baptized Christians. The five generations are under one roof, as is customary in that country. The dear white-haired, great-great-grandmother of them all is yet living, and I visited her just before leaving Korea. It is certainly a great privilege to do medical mission work where such is the result,—five generations of Christians in a score of years!

I am also to speak of another branch, an outgrowth of our medical work, and that is the

Work for the Deaf and the Blind.

Of course, in my work, I am very often able to help those who come with trouble with their eyes or with their ears; but sometimes it is too late, and I have to write in my record book, "Hopeless." That is a very hard word to write, especially if a woman has come several hundred miles with a baby or a young child tied to her back, and you can merely tell her there is "nothing to be done, she has come too late!"

When children with seeing eyes and hearing ears come to me, I very often am able to induce them to attend our mission schools. After my hospital burned and I had to begin work over again down in a little rented mud hut by the river-side, we had another small building there

that was vacant, so we opened a day school, and out of this dispensary work alone we got a school of forty children! We felt that it was no more than fair that we should do for the deaf and the blind what we are trying to do for these normal children. We carry it on in connection with the work for the seeing and hearing, and it does not take much more time. The first teachers I had to train, and I had to adapt the New York point system to the Korean, not a very great task. Then, as soon as the children learn to read as far as through the first reader, they enter the classes with the seeing children. They have the same text-books; we put them into point so they could feel with their fingers what the other girls studied with their eyes. They recite in the same classrooms, to the same teachers, and take the same examinations. We have had three girls who have graduated, with three seeing girls, from our day school; and one of these is now in charge of the new blind girls, and the other two are going to school at our Presbyterian and Methodist Union Academy.

The work for the deaf began a little later, and they also are beginning to go to the schools with the other children. It is a work that any one can take up in connection with other school work, and done in this way it does not take much more time or money, and it gives every one a fair chance. For the deaf and the blind who walk in real physical darkness amid the mental and spiritual darkness of heathenism, Christian education is the only help and the only hope.

THE OPPORTUNITY FOR NURSES IN THE ORIENT

THE CHAIRMAN: This morning is given up especially to the nurses connected with this Sanitarium and those who are receiving training for missionary work and service elsewhere. We are fortunate in having speakers who have had a very large experience in the foreign field, and who can speak words of wisdom and inspiration to the nurses who have gathered here this morning. The first speaker bears a noble name; she has been doing noble work, making good in India.—Mary Riggs Noble, M. D., of Northern India.

MARY R. NOBLE, M. D.: I am glad this morning to have the opportunity of talking to nurses. Yet, when I look at the topic, "The Opportunity for Nurses in the Orient," it seems to me as though I have been asked to elucidate something that is perfectly obvious; so I am going to modify my topic, and we will, then, talk about the different phases of the opportunity.

The church really has waked up at last to the fact that womanhood the world over is all one. We can not, a group of privileged women in America, sit down in our contentment and all our comforts, and ignore the rest of the world. You remember the first missionaries were not women at all; they were not concerned in missionary work except as the wives of men who went out. Then the church woke up to the fact that single women must go out to do a single woman's work in the citadel of the Orient; for in India, womanhood is the citadel. If we can get the womanhood of India, we have got India.

Now, given pain and suffering, it must have care. Doctor Tucker the other day said he thought there were more foot-pounds of pain in China than anywhere else in the world. God help China if it is worse than India. The worst homes, the worst degradation, the worst conditions for women are there. Therefore, we need women's hands and women's hearts to help those women.

The Kind of Nurses that We Want

out there we have only just waked up to also. I went into a mission board room one day, and they told me we did not need trained nurses from home in India; what we wanted out there was trained native nurses. I had to keep my mouth shut, because I had not been out then; and while I still thought that native nurses could be trained only by western trained nurses, I could not say that I thought that till I had been out. Now, I think there is no greater opportunity and no greater need in the whole of India than the need of American or British trained nurses. We are training up native nurses out in India, but the profession of nursing is so young over there that there are almost no native trained nurses that can take hold and manage

and superintend. Consequently, the very special field we want nurses for over there is to manage and superintend in institutions. There is not a single hospital, and there is not a single dispensary out there that does not need at least one trained nurse; and in Ludhiana we want three, and we want the best that can be had.

The time has long since passed that we want any kind of missionary that is good, and nothing else. I do not care what variety of work they are going in for—educational, preaching, industrial, doctors or nurses—we do not want those that are just good, but we want

The Most Efficient Kind with the Most Perfect Training.

We do not want a nurse who is not good enough to take the best kind of position at home. We want nurses with all the virtues and gifts, all the genius and talent that can possibly be used in the treatment of one human being by another. We want people who have zeal and ambition, and energy, and a patience that is everlasting. We want people who have had an adequate training here so that they know how to make other people enter into the kind of spirit that they possess.

In order to show you just what will be demanded of you if you should go out to the Orient, I am going to try to show you what conditions you will have to deal with. Connected with the North India Medical School, we have a nurses' training school, with little children, practically, coming and asking us to train them as nurses. We take in our students at seventeen, but picture to yourself what a child of seventeen is! You are not allowed to enter a nurses' training school here at seventeen. Many nurses can not enter until they are twenty-one. But these children at seventeen in the Orient are where you are in this country in some particulars at twenty-four; but in other particulars they are just little children still, with childish ideas.

Most children that come to us at seventeen years of age have to be moulded into good, efficient nurses. It lies with the American and English nurses who come over to mould that kind of material. I think the native girls in China make a

little better quality of nurse, and have a little more stamina than the native Indian girls. These little children come into the wards from places where they did not know how to keep themselves clean.—I mean, clean in the western sense. They do not know how to keep the little space that is given to them in an orderly manner. They do not know what method is, what it is to be systematic, nor any of the things you know when you enter the training school.

Moulding the Native Nurse

When you go over there, you have this handful of girls to teach almost from the beginning what they have to do. Now, they haven't any of them the variety of sense that is known as common. They may have some kind, but it is not the common kind. You have got to instil into them common sense. You have to make over the oriental material that is given to you into western nurses. Not one of these girls wants to hurry, to carry out orders exactly, nor to execute them on time. I have had a secret delight, sometimes, although it is not good discipline, when I saw a Hindustani nurse running down the veranda to carry out my order. Somebody says, "But do you want to instil into the Orient some of your American rush?" If I thought there was any danger of it, I would sit back; I could not get it into the Orient if I wanted to, but I will get in as much as I can. When they can hurry a little a little more than they do, and not hurry quite so much as we do, they will be about perfect.

I think of a good illustration of nearly everything I want to say about the nurses' training school. A little girl came to us with her hair down her back and her skirts up to her shoe-tops. We had to keep her in purdah for a few days until we could get her skirts down and her hair up.

Now, this little Annie seemed to be able to go along for a few days and make a good record as a nurse; then she would do some appalling thing so lacking in sense that she had to be put back at the beginning again. She had an ugly disposition. She was a Eurasian, and had come from a little better home than the other girls, but she had her own ideas.

and they were so firmly fixed in her that she did not want to give up her way to any one. She sulked, was ugly to her patients, not polite to the doctors, and did not seem to have the patience or sympathy that any nurse is supposed to have. This went on for two or three years, and we felt that we could never trust her beyond a certain point. In the third year she was given abdominal patients to nurse. Again and again we had to take Annie off from this serious work because she would make some awful mistake. Perhaps the patient did not lose her life, but she might have died just because of Annie's apparent lack of common sense in her third year of nursing. We thought it was going to be perfectly hopeless, and perhaps she would not even get her degree. Then there came

A New Influence

in Annie's life. Somebody came to the hospital who put into her a different kind of spirit. She got hold of Annie's heart in a way that none of us had, and she began to go up hill from that moment. Her whole work after that was colored with the new Christian spirit she had got from this new soul that had come to live in the hospital. When I left the hospital, Annie James was in full charge of the operating room and all of the details of all the surgery that was done there. We had something like 1,200 operations in a year, and every single detail was trusted in the hands of Annie James. She was absolutely trustworthy, or we could not have put her there. When she first went into the operating room she said she did not see the use of all the fuss over sutures, dressings and all the little details. Annie had only to have charge of one or two patients whose stitches did not come out right before she saw the use of the fuss; and when I left, Annie was hanging over every single abdominal case out of which the stitches were being taken, with more anxiety than the doctors, to see whether the fuss had paid or not. I have picked out one of the worst cases who turned out to be one of the best.

Here in America you have been getting cleaner and cleaner as you have gone on with the nurses' training. You did

not think about keeping your hands surgically clean the first year; the second year you thought more about it; the third year you were positively fussy about your cleanliness. I know how you would feel if you went out to India. The first morning I was there I went to the dispensary with the doctor, and the filthiest woman I ever saw came into that clinic, and the doctor did not seem to mind contact with her in the least. I thought it was perfectly appalling, and that I should never be able to love these women. I had spoken with considerable unctiousness before I went out about my love for heathen. I woke up one morning to find that I hadn't one particle of the kind of love I supposed I had. I wrote to my mother I thought I should only stay in India a little time; I thought I had made a great mistake.

I want to tell you about the first time I was hugged. I went to a dispensary in the place of the doctor in an adjoining village who was going away for a few days and who asked me to do her work. The professional part of the work I loved. I forgot about the dirty people I should have to come in contact with, and I went with joy to that dispensary. There came in the first day a woman who thought she recognized me. The Mohammedans clothe themselves in long white garments with yards and yards of cloth wound all around, very soiled if the woman is respectable. If she wears clean clothing she is not apt to be a respectable woman. This was a very respectable woman. She raised her arms and folded me in that dirty cloth, and I did not have a single shiver! I found then that

I Had Turned My First Corner

in love for those women, when I could stand that kind of thing and not feel revolted. That is what you will all have to do when you go out, you know. The whole Orient is one mass of filth, and perhaps the women that come into the dispensary are just one degree worse than the men, because they crowd up to you and want you to touch them and put your arms around them, and not act as though they were something you did not want to touch.

The day is passed when we can have

an absolutely indifferent attitude toward the question of missions. A logical Christian must have some attitude toward foreign missions that is outspoken and definite and positive. You can not say you have no responsibility because you know you are going to stay in this land. Whether you stay or whether you go, you are obliged to have some positive interest. There are responsibilities that we can refuse to assume, but this is one that we can not set aside. If we are not actively, aggressively, believing in and working for the cause of Jesus Christ the world over, then we are betraying a sacred trust.

THE MISSIONARY NURSE AS AN EVANGELIZING AGENCY

THE CHAIRMAN: When I had ended some three months of almost constant travel in India, inspecting the work of a dozen different boards, and was about to sail, several medical missionaries said, "Your visit to India can not be complete unless you see the work of one man that by common consent stands at the very top." We shall have the pleasure this morning of hearing a few words from that man—W. J. Wanless, M. D.

W. J. WANLESS, M. D.: Twenty-one years ago when I went out to India, I think you could have counted the missionary nurses in India on the fingers of one hand. When some missionary doctors in India suggested that missionary nurses be sent to India, these good secretaries at home said, "Why, that is secular work." After what we have heard this morning, the work may be secular, but it takes divine love to do it. There is a great call in India for women who will go out and do this work of nursing people into the kingdom of Jesus Christ. Doctor Noble spoke of a single woman going out to do a single woman's work. I have known of one single woman who has gone out and done half a dozen single women's work, because the call is so great.

We have in India to-day 150 missionary nurses, and they are doing a grand and noble work; but I this morning want to testify to the value of and the necessity for this

Work in Missionary Hospitals in India.

We have a fairly large missionary hospital in our part of India. There were performed last year something like 2,700 operations in that hospital, and over 1,500 were major operations. Now, I do not think a quarter of that would have been possible if we had not had a thoroughly trained missionary nurse, Miss Patterson, at the head of our hospital. We have had times when we have had as many as a dozen major operations on three days in the week, and from six to twelve operations the other three days, and from ten to thirty eye operations; and it is one of the greatest comforts that we have in our work to know that when we ask for a dressing it is not only available but it is sterile; and when we ask for anything in the way of requirements for our work, they are always on tap; and they would not be if we did not have a thoroughly trained missionary nurse at the head of our institution.

Now, what can a missionary nurse do to help evangelize the world; for, after all, that is the primary purpose of all this great missionary work we are doing. And the first point I want to make is that the missionary nurses can do a great deal by adding to the efficiency of the medical work. I believe that the more efficient our professional work is, the more effective it will be as an evangelizing agency. The thoroughness with which we do our work will in itself constitute an appeal when we go to them with the Gospel of Jesus Christ. The missionary nurse does a great deal to make the work of the doctor, especially the surgeon, effective. I want to emphasize that point. As the co-worker with the doctor, the missionary nurse is peculiarly important.

We men doctors have not the time to give to the organization of the nursing work of a hospital. We need nurses to organize the nursing work of our hospitals. If you go into a hospital that has not a missionary nurse in it, it is evident almost at once, if you have previously gone into a hospital that has a missionary nurse, and compare the two institutions—the order, cleanliness, effectiveness of all the various departments of the organization. That is another way in which the missionary nurse can render

splendid service indirectly in the evangelization of the world.

Another point is that they can do a great deal in caring for maternity cases. Now, all over South India, the women are much more accessible than the men. We do not have the purdah system as is necessary in North India; so our men can do a great deal of this work. But there are a great many cases we are never called to in which the missionary nurse can do the work. In our own institutions we men have had very little to do with maternity cases. The ordinary cases have been taken charge of entirely by the missionary nurses, and they have managed them splendidly. They can go into the homes and manage the simple cases as well as the doctor.

Then, again,

The Training of Indian Nurses.

We must have women who will go out from this country and train these native nurses. They have not instinctively those qualities which usually make a good nurse. Here and there you will find one that has. You have got to develop them. It is a matter of education. We have in India to-day a nurses' association, made up of nursing superintendents of all India, and they are combining to form a curriculum that will be suitable for the whole of India. Here is a splendid opportunity for women who want to go out and develop this great field. All through these villages there is nobody appreciated so much as these missionary nurses. Manifestly a European nurse can not do much of this village work if she has a hospital, but she can train many others; and here is a splendid opportunity to help evangelize the villages in these foreign countries.

Then, in the matter of house visitation: the doctors are so occupied with their work that they can not visit all the patients who ask them to come to their houses, and there are a great many cases who can be visited and attended to equally well by a trained nurse. There is an old saying that a little knowledge is a dangerous thing; I would add, *especially if it is very little*. Now, our nurses who go out from this country are not women usually with little knowledge. They have sufficient knowledge to pre-

vent their undertaking things which they are not trained to do; and I think the missionary nurse is the safest of all the non-professional doctors, to go into the homes. You will find men go out who have had a smattering of medical knowledge in this country, and they are very apt to undertake cases that they are not qualified to care for. The training of the missionary nurse prevents her from doing that, but she can do a great deal of the work that the missionary doctor has not time or strength to do.

The Opportunity for Personal Work

All this you might call work of indirect evangelization, yet it is very effective. What can a missionary nurse do *directly* for the evangelization of the world? She can do a great deal if she learns the language. The great difficulty with many of our foreign nurses who go out is that they get into the work almost from the hour that they land, and the acquirement of the language becomes quite a problem for them. Those who go out ought to acquire the language; and if they do it, they have an opportunity which even the doctor lacks. The opportunity for personal work is unparalleled in any other form of work you will find anywhere on the mission field,—the work of the nurse who is willing to go into the hospital and into the homes and care for the sick. After all, we must win these people one by one. We have to get down to this personal, definite contact with individuals, and the missionary nurse has an opportunity that no one else has.

In conducting the religious work of the institution, a nurse who has the missionary spirit has a great opportunity. This does not require of you that you have a theological education; but it does require that you have a consecrated spirit; that you have love for souls; that you understand the Word of God, and that you have the desire and the willingness to impart it to others as you have opportunity.

It is required of you, too, that you be strong in body. I do not advise any nurse to go out who is not physically strong, for I do not know of any work on the mission field that is so exacting as this work of the missionary nurse and the nursing superintendent in our

hospitals. Even the doctor, with all his trials and all his arduous toils, I do not believe has as difficult a position to fill as that of the missionary nurse if she is devoted to her work.

There is another phase of missionary work the nurse can do more effectively than any other worker. That is the caring for sick children in our orphanages. I believe that in every missionary station where we have a large orphanage or a girls' or boys' school we should have a missionary nurse. We have found the great value of our missionary nurses in many of our institutions in India, especially since the time of the last famine, where they have gone into these orphanages and helped to nurse these children back to life and health again, educated them, and they have become ministers, evangelists and teachers in our schools.

Livingstone once said, "I will place no value on anything that I possess, save in relation to the cause of Jesus Christ. If anything that I have or may possess shall advance that kingdom, it shall be given or kept as by giving or keeping I can most promote the glory of Him to whom I owe all my hopes for time and for eternity." Furthermore he said, "God had an only Son, and he gave him to be a missionary and a physician; and a poor, poor imitation of him I can expect to be; but in his service I hope to live; and in it I wish to die."



DISCUSSION OF MEDICAL TOPICS

Saturday, January 7, 12:00 M.

Led by W. J. Wanless, M. D.

THE CHAIRMAN (Dr. Wanless): The first topic that has been suggested for discussion is

MALARIAL FEVER

We are not concerned, particularly, about the pathology of the disease, but with the treatment of it and with the care of our patients.

DR. F. D. SHEPARD: We certainly see plenty of malaria in Turkey. I passed through one epidemic where I saw four or five patients die in the second chill, and one or two patients in the first chill.

I wish to say just one thing about ma-

larial fever, and that is, Do not be afraid of quinin. I give it freely enough to control the fever in every case. It is the sheet anchor—the only thing that you can pin your faith to in malarial fever. If you do not get the results, it simply means that your quinin is not present in the blood of the patient. You may put quinin into a patient's mouth and not get it into his blood. If you do not get prompt action from it given by the mouth, give it hypodermically.

A Personal Experience

To give point to my remarks, I will give a little personal experience. I made a forced journey from Aintab around by way of Antioch and Alexandretta and back home. A few days after I reached home in the evening, I felt some premonitory symptoms of malaria. Fortunately I was very familiar with it and knew what was coming. That was in my early days, before we knew the source of malaria or knew how to protect ourselves from it. I have not had an attack of malaria in seventeen years, since I knew how to prevent it. I took ten grains of quinin and went to bed, expecting to awake in the morning free from malaria. I awoke in the morning with a temperature of $107\frac{1}{2}^{\circ}$ F. I took twenty-five grains of quinin sulphate and thought I should be better. In the afternoon my temperature came down to $100\frac{1}{2}^{\circ}$ again, and there was no sweating. The next morning in the course of an hour I took ninety grains of quinin, fifteen of it hypodermically; and about two o'clock in the afternoon I effervesced, and very nearly deliquesced. Had I been delirious, as most patients would be under those conditions of fever, and been treated by any physician in the city of Aintab, I should have died from that malaria, because they would not have given me enough quinin to control the condition. I simply mention that incident to show that I have the courage of my faith.

DR. W. L. THOMPSON: Dr. Shepard has gone ahead of me in taking quinin. I have taken as high as sixty grains a day. Perhaps I may say a word on the question of sterilization of quinin and the instrument in giving it hypodermically. It is generally easy to get boiling

water to sterilize the instrument; but I once had trouble in giving quinin that was not sterile. It was from a solution that had been made up for some time, and the result was a bad abscess. Since then I have taken the precaution to make up my solution of quinin fresh at the time, and have never had any more trouble.

The question that interests me very much in connection with malarial fever is that of overcoming it and keeping free of it in our country (Africa). We might say that one should not allow himself to be bitten by mosquitoes; but I have been traveling with natives carrying my baggage, and the native with my mosquito net is behind, and when night comes my mosquito net is not present. It seems to me that a mosquito-proof suit, that one could have with him wherever he goes, would be the thing.

DR. C. C. WALKER: In Siam we have the mosquito present with us all the time. But it is interesting to note that in the city of Bangkok, or in any of the larger cities of Siam, where the mosquito abounds, malaria is not so prevalent as it is out in the jungle where the mosquito is not present in such large numbers. When we go out touring, we have to be very careful. We generally make a fire, and the smudge and smoke is a protection to us; but we find that if we or any of our servants lie on the ground for the night, the next morning the symptoms of malaria set in. Our natives will not sleep on the soil; all the houses are built upon posts, some as high as eight or ten feet. We find that in caravans the men who ride on elephants are least affected with malarial symptoms when they go through the jungle. The men who are on horseback are nearer the ground, but are, however, not as much affected as the men who are barefooted and walk on the soil. So we are all very careful to keep away from the soil. I think that is a prophylactic measure worth knowing, especially for us out in Siam.

DR. MARGARET O'HARA: When I first went to India, we had several cases of malaria and they were not getting on very well, and I was advised never to give quinin when the fever was high; always reduce the fever first, then give the quinin. I found that a very good rule.

Many of the people come to us from the villages, with very high temperature, sometimes 105° and 106°, and enlarged spleen. Often after giving them a hot bath with mustard or eucalyptus oil, the temperature falls; then I administer the quinin. I follow with a very laxative mixture. I generally give calomel for constipation. That is my treatment for malaria, and I find it is very effective. I have given up to a dram a day of quinin, but half a dram in an ordinary case.

DR. G. D. LOWRY: A good many years ago I read in a pharmacy journal that castor oil taken into a room would drive mosquitoes out. The castor plant grows very abundantly around Foochow. Many a time when I have gone into my bedroom or the bedrooms of other people's houses, and found a great many mosquitoes, I have sent a coolie out to get a branch of the castor oil plant. I would trample on it, and there emanated a rather sickening odor, and it always drove the mosquitoes out of the room.

DR. J. BUCHANAN: There is one thing that we find a very great help in our Bhil Christian community. Every single day after service we invite everybody to come forward and have a nice drink of quinin. We do not insist on it, because it might drive them away from the church altogether; but we see that the orphan children and all minors under our control have a dose, anyway. A dose of quinin twice a week we find the best way to cure malaria—to cure it before it begins. Most of our church people generally come and take their quinin, and the difference between the Christian community and the heathen community is very manifest. When the heathen community are lying about, sick with fever, very generally the Christian community taking these doses right along in the malarial time, are preserved from the disease.

DR. H. T. WHITNEY: I have not been in favor of giving large doses of quinin because in my early days I saw some ill effects from it. In regard to what Dr. Shepard said about his taking large doses of quinin, from the description of the disease for the first two or three days, I should judge he was coming down with a case of remittent fever. We would not dare to undertake any such large doses

of quinin in so short a time. But there is a point here: whether that in taking these large doses of quinin so frequently, the remittent fever can be shortened. It runs usually from two to three weeks with ordinary doses of quinin. The quinin seems to have no effect upon it, but after about two weeks the fever begins to recede. It is a matter worth considering, if these large doses of quinin taken at the beginning will abort the attack.

We have in Foochow all forms of malaria, including the malignant form, where patients die even in the first chill. We found that giving the sulphate of quinin in powder did not seem to have much effect, and it was not always easy to get the bisulphate, which is more soluble. After a time I began to use it in solution, dissolved in hydrochloric acid. Afterward I came across a formula which one physician had prepared and used for a good many years—a solution of quinin in hydrochloric acid, combined with bromid of potassium in the same quantity. I have used this now for a number of years. The giving of a few doses of this solution seems to have almost immediate effect. The bromid helps the action of the quinin.

DR. L. M. HENRY: We have scarcely any malaria in the country in which I live, Southern Egypt; but I practiced medicine for some years in the western part of this country when we had a very great deal of malaria, and I had pernicious malarial fever myself. I was attacked with a seizure in the morning about ten o'clock with a pernicious chill. When I came out of it I called in four of my neighboring physicians. I was not a Christian, and I expected to die the next day at ten o'clock, and I knew I was unprepared to die; so I had a pretty severe proposition before me. My physicians came in, held a consultation, and prescribed large doses of quinin and other remedies. Although I fully expected to die the next day, still I had a good deal of faith in quinin from my experience, and I thought I would take the risk of doubling all their doses. I suffered most intensely, mentally, during those twenty-four hours; but by the blessing of God, the quinin had the proper effect, and the chill did not recur. I promised the Lord that if he would

heal me I would serve him the rest of my life. I am very thankful for the malaria carrier, because it carried me into the kingdom of heaven and out into the land of Egypt.

THE CHAIRMAN: We are interested in the subject of the

OPERATION FOR CATARACT.

I have been asked to say something on the subject myself. I have not had as large an experience as some missionaries in this particular operation. I have done over four thousand cataract extractions; but we in India are coming more and more to believe in the operation of Col. Smith,—a man who has done something like 25,000 cataract extractions in the Punjab. This operation is unquestionably one of the best if not the best operation for cataract under certain conditions. I do not think any surgeon ought to undertake it who has not done a considerable number of cataract extractions by the old method of capsulotomy and iridectomy; but given a man who has done a fairly large number of cataract extractions, and who has seen Col. Smith do his operation, or some one of his pupils, I think he is in a fair way to be very successful with this operation.

The main thing about the Smith operation is that it leaves nothing behind to cause irritation. It takes out the whole lens in its capsule, and the risk is reduced to the minimum. It is an operation which requires a first-class assistant who has been trained either by Col. Smith or by some one who has himself been trained by Col. Smith. I will not describe the operation now, but the emphasis should be put on one or two things in doing the operation.

The work of the assistant in holding the lid: it is of importance to keep the lid up and forward away from the globe of the eye. After having seen Col. Smith do the operation, I was surprised to find I could operate upon the most nervous patient. I found I had perfect control, following the directions of Col. Smith, using the lid elevator holding the lid forward, instead of the speculum. You should not do this until you have seen somebody do it who has been taught by Col. Smith.

I think for a beginner the old opera-

tion is better, doing the capsulotomy, and always doing iridectomy. I believe in all cataract operations we ought to do iridectomy. Perhaps the vision may not be quite as good as in some cases where we do not do it; but post-operative results are always much more satisfactory. I will call upon Dr. Beals to say something upon this operation.

DR. L. H. BEALS: As Dr. Wanless has said, the Smith operation is the removal of the lens in the capsule, and is coming more and more into general use in India. These points he has emphasized are the important ones—the removal of all exterior pressure on the eyeball by elevating the lid, and also the retracting of the muscles with the fingers of the assistant, the removal of all external pressure upon the eyeball except what the surgeon applies himself with the instrument, in order that there shall be no escape of vitreous, and no pressure except what is desired.

I want to suggest a modification of this operation which I have seen done. The incision Col. Smith makes is nearly wholly in the cornea. I have seen the incision made where just the conjunctiva was cut through and folded back up over the cornea and allowed to lie there until the completion of the entire operation; then with the back of the knife it was laid back again, and sealed up the wound and held the incision in place. This has been done in a way which has impressed me as a real addition to the operation and in no way interfering with it.

I think every one who has had any experience with this operation will agree that it is not an operation to be done by one who has only a few cases. For the most part, iridectomy and capsulotomy is the operation for one who does only a few cases; but if one can acquire the technique of this operation, it is, surgically, the ideal operation.

After Treatment

THE CHAIRMAN: In the old operation of capsulotomy, we held the patient a week after the operation. In those cases where we did capsulotomy, we usually made the conjunctival flap, such as Dr. Beals has referred to, and that secured the prompt sealing of the wound. Moreover, the incision for the

old operation is smaller, and with the conjunctival flap there is much less danger of prolapse of the vitreous subsequent to the operation; consequently in these cases we allow the patient to get up off the table and walk to his room in the ward, and we give him liberty to do much as he pleases in his room, and he can sit up or lie down. However, in the Smith operation there is a larger incision, and I think there is more danger of the patient losing the vitreous after the operation, if he is not careful; so in these cases we have the patient put upon a stretcher which lies upon the table, and as soon as the operation is done, he is lifted and carried into the ward, and is requested not to rise for at least ten or twelve hours. After that he is at liberty to get up and go about the ward just the same as other cases.

Col. Smith advises keeping the cases bandaged for eight days after the operation. I think as a rule he does not look at his cases unless there has been some indication for it at the time of the operation, or the bandage should get out of place, or there should be some pain. In the last correspondence I had with him on the subject, he said he was increasing the time to ten days. Personally, I do not think that is a very good thing, because these patients will work the bandage loose anyway inside of twenty-four or forty-eight hours; and our practice is to go around the second day and change the dressing. We do not allow the patient to open his eye or to move it; we simply put on a fresh dressing. That is one good thing about the Smith operation—the very few complications there are; but in the other operation, you are likely to have complications.

One surgeon I read of made the statement that he kept his patients under treatment for a week before doing operations, training them to look down. We have had our cataract patients come off the street and operated upon within an hour after coming into the hospital. We take them in and carefully examine the eye to see that there is no gross infection in it, and we instil a few drops of argyrol half an hour before the operation, and then about fifteen minutes before the operation we begin the use of cocain, about one drop every four minutes, to

four drops. The final drop is adrenalin. When the fourth drop is put in and adrenalin dropped into the eye, the patient is ready for the operation. The results are remarkably good, and it is very rare that we have infection. We run through sometimes as many as 300 cases without infection. I am referring to the ordinary run of cases in our wards.

DR. F. D. SHEPARD: What do you do for trachoma?

THE CHAIRMAN: We have a great many cases of that. If they are in the early stage with much granulation, we usually operate. If they come in at the end of the second or the beginning of the third stage of trachoma, with thick lids, and there is a little chronic discharge of the eye, we usually slit up the canaliculus and keep them quiet for a few days. If they are cases that have had trichiasis with entropion, we usually do an operation on the lid before operating for cataract. A great many of our cases have pterygium, and we do not operate for this before doing the operation for cataract. It usually takes several weeks for the wound to heal up, and the patient becomes dissatisfied and goes away, and you probably miss the opportunity of operating upon the cataract. Usually we leave the pterygium and operate upon it later if at all.

One great advantage of the Smith operation is that you can operate on the immature cataracts. That is a tremendous advantage, particularly under our conditions in India. To wait for the ripening of the cataract in many instances means months, and some take years to ripen. In those cases, if the two eyes are affected, we usually do operation on one eye and allow the other to ripen. It is more risky to remove the immature cataract, even with the Smith operation, and exceedingly dangerous by the old operation. By using the pressure hook, Col. Smith succeeds in a great many cases. He causes the lower segment of the lens to tip up and present in the wound first. Then if the lens capsule should burst, it bursts at the front, where the lower segment is in the wound, and can be removed by the forceps after the lens itself has been removed.

I think Col. Smith's position in regard to the incision is the right one—

that is, the large corneal incision,—because the lens more readily slips through it than when it is made high up. We make the incision in the cornea entirely, taking in at least two-fifths of the periphery of the cornea. In making the conjunctival flap, you are apt to have bleeding, particularly if you use adrenalin. It does secure prompt healing, and that is a good thing to do where you expect infection. In ordinary cases we prefer the pure corneal incision.



SIXTH MEETING

Saturday, January 7, 2:30 P. M.

QUESTION BOX

Opened by **Dr. R. H. Harris**

DR. CREEGAN: The leader of the meeting this afternoon needs no introduction.—**Dr. R. H. Harris**, who has been for some years a member of the medical staff of this great Sanitarium, and who, after taking his medical course in this country, went over and took the Fellowship of the Royal College of Surgeons in Edinburgh.

THE CHAIRMAN: We have so many very interesting questions here to be answered, and so many very able folks here to answer them, that I am not going to take up your time with anything that I might say in the way of introduction.

Q. Should medical students plan to take a year's internship in a hospital in this country, or should they plan to go directly to the field on the completion of their course?

THE CHAIRMAN: I should like to hear from some of the missionaries on the field who have a chance to observe the amount of preparation the students have in this country.

DR. H. L. CANRIGHT: I have a very decided opinion that they should take their internship before going to the field.

DR. F. D. SHEPARD: I have the same opinion. It is absolutely necessary that they should have an internship, and in general it would be better to take it before going to the field. There might be special cases where they could get the work on the field to advantage while they

were learning the language, but they would have to be at some other station than the one where they were going to work afterwards, so as not to have their medical work interfere with the acquisition of the language. It must be very special circumstances that would permit them to combine the two to good advantage.

DR. O'HARA: A young man asked me that question since I came home, and I advised him strongly to go to India and do his surgery with Doctor Wanless instead of staying in Canada to do it. I think he would get to know the language and the people, and get better surgery and more out there than he would in Canada.

DR. MARIAM HEADLAND: I should think it would be a very good thing not only to take the intern course, but also that they should learn the institutional work, and how to build a hospital and conduct it. The physician when he goes to a foreign field very often has to build the hospital, so a knowledge of institutional work will be of great advantage to him.

Q. Is the climate of India and other similar fields favorable or unfavorable for the open-air treatment of tuberculosis?

THE CHAIRMAN: It would seem to me that the climate of India would be favorable in that the patient would not be exposed to such inclement weather as we have here; but on the other hand, it might be that the extreme heat would be adverse to outdoor treatment.

DR. J. BUCHANAN: I think the experience has been to send men and women who have contracted tuberculosis out of India. The debilitating climate of India, I think, goes a good deal against keeping them there.

DR. MARY NOBLE: There have been a number of instances where European tuberculous patients have been cured by a prolonged stay in the hills. There is a great discussion in all parts of India about the advisability of establishing sanatoria for natives. The climate of India is not favorable in most places on the plains for outdoor treatment, but there are several places in the hills where these sanatoria could be established and outdoor treatment could be carried on, pro-

vided you can get the co-operation of the patients, and can overcome their antipathy to the treatment.

Q. Are eggs and milk obtainable in the mission field? If not, what foods are used in the forced feeding of emaciated patients?

DR. O'HARA: They are found, I think, everywhere.

THE CHAIRMAN: What about West China?

DR. CANRIGHT: We get milk there at about the same prices you pay in this country. And they always have to bring the calf along with the cow; it is a traveling milk wagon. Eggs are very cheap, that is, about four cents a dozen the year round.

VOICE: I had four cases of tuberculosis. We could not get anything for the patients that they could assimilate very well. I tried madzoon or ya-hourth. This is very easily assimilated, and I fed these tuberculous cases with the madzoon and a food made of rice, and they assimilated it very well and gained in weight. Three of them got benefit from this diet and they are living now. I think in foreign countries, particularly French countries, all the people, rich and poor, eat madzoon. It is more easily digested and assimilated than milk.

DR. F. D. SHEPARD: Perhaps I had better give you the method of preparing madzoon. It is a very simple matter to prepare it anywhere, provided you have the special ferment for it, of course. It is the lactic-acid ferment of which Metchnikoff has made so much, in his experiments in Paris. It is found anywhere from Mongolia west, I think. To make it properly, the milk should first be boiled to exclude the other microorganisms. To make it more palatable, it is well to allow the milk to simmer for half an hour, enough so that it shall concentrate and so get rid of a part of the water of the milk, especially if it is not very rich milk. Then it should be cooled down to about blood temperature, anywhere between 90° and 98°, and the ferment introduced. In the Orient they simply introduce a little of the old ya-hourth. Parke, Davis & Co. sell the ferment in tablets under the name of but-

termilk tablets, and you can get it from various firms in Europe also. The tablets are supposed to keep for a year so long as they are kept in tablet form. You introduce one of these tablets into about four or six ounces of milk and keep it at about 90°. That can be done very simply by wrapping it up in flannel or putting it into a fireless cooker; and if you have about the proper proportion of ferment to the milk, four hours is enough to complete the process. When the milk has become in consistency about like an ordinary custard, it should be put on ice until it is used, or kept in as cool a place as may be available. If you cultivate it from these tablets, your first product will not be palatable; but by reculture for six or eight times, you will get a product which is very palatable after you have learned to like it.

Q. Will the use of hydrotherapy in the treatment of fevers on the mission field be possible without an extensive popular education?

DR. O'HARA: They object very strongly to the bath unless there is some medicine put in it. They think their dose of medicine in this way will work through the skin, and so they will consent to it, whereas otherwise they would not. When patients come into our hospital we can not give them a bath. If we should they would leave. We have to leave them alone and wash a little bit at a time.

Q. Why is it that so little work is done in South China as compared with the work done in North and West China?

DR. TUCKER: I am inclined to doubt the implication. There is a great deal of work done in South China, perhaps a little less in southwestern China than in some other sections. Certainly some of the best work has been done, especially along evangelistic medical lines, by such men as Doctor Hagar and others in South China.

DR. C. C. WALKER: I should like to speak of what I have seen in Canton, China. I am further south, from Siam. I visited the southern part of China, and in Swatow I have seen splendid work done by American Baptists and English Presbyterians. The Baptists have gone

in very strongly in evangelistic work. I believe they teach no English in their schools, so that the natives are educated in their own language and saved for the work. In Canton I have seen one of the grandest medical works, I believe, in the world. I was impressed with what Dr. Swan is doing there.

DR. CREEGAN: At Swatow the American Baptists have a beautiful plant and are doing splendid work, and the English Presbyterians also. One can not go to Canton and see all the missionaries together as I did without feeling that there is a mighty host there; and the great hospital will impress any one. There is a great deal of splendid work in south and southeastern China.

Q. Should a medical student preparing for the foreign field go into debt in order to finish his course sooner than he otherwise could?

DR. C. C. WALKER: I have seen several cases where it has been unfortunate that the young man went to the field in debt. We as a mission have now practically requested our board not to send to the foreign field a young man that has any indebtedness, because the salary will not allow it. To start in with, mission expenses are great, and indebtedness is simply a hindrance.

VOICE: I worked my way through college and went out to Arabia with a debt of \$800. The expenses there are higher than they are in most mission fields, much higher than they are in India. I have been out twelve years, and I succeeded in getting rid of that debt. I think that one should not go out with a much larger debt than that; but I think something smaller than that, with due care, one can raise, after going to the field; and it is better to do so than stay at home two or three years to get on your feet, and thereby lose that valuable time in your life. I think any man with good determination can raise it on the field without hurting his general work and efficiency.

DR. WANLESS: There is one reason why a young man with a small debt should not stay at home, and that is that he is likely to get tied up permanently. I found a number of men in the Student Volunteer work who felt they must stay

at home to pay off a small debt, and they were ultimately prevented from going to the field at all.

DR. P. H. LERRIGO: Some men who find themselves at the end of their resources when they get through the medical course are inclined to hurry to the field to avoid incurring debt. It seems to me it would be desirable that they should incur a small debt to enable them to spend sufficient time in this country to get the proper hospital experience, rather than to hurry out simply to avoid indebtedness.

DR. A. MACLACHLAN: I can see there would be a danger in a board setting a precedent in such a matter; but it seems to me there might be circumstances in which it would be possible for a young man who had a small debt to be helped by his board. I believe under certain circumstances boards might be prepared to say, "We will help you out if you go now."

DR. J. BUCHANAN: I went out twenty-two years ago with \$200 debt, and I think it was wise to go rather than to wait. I should like to hear Doctor Wanless' opinion in connection with the other question—whether a young man should stay here perhaps for a year in a hospital and maybe incur debt, or whether he could get just as good an opportunity in some of the principal mission hospitals in the foreign field.

DR. WANLESS: I do not think that any young man or woman who contemplates doing medical and surgical work on the field, ought to enter upon that work until he or she has had hospital experience. I do not think it makes a great difference whether he gets it in this country or on the field. If he is going to a field where he is not likely to be able to avail himself of hospital experience, he should by all means get that before he goes. If there is a probability that he will get that experience on the field in one of our large missionary hospitals for a year or two before he goes out for himself into a new territory, then I should say that he had better go to the field at once. There are opportunities offered in some of our large hospitals in foreign fields that are quite as good as those in our hospitals at home, and in some respects they are better. There is

this danger, however, that any one going out into that kind of work may be hindered from getting the language. It is particularly important that every missionary should get the language. If he can go into a hospital where he will be free to study the language, giving a suitable amount of time to it, then I should say he will get quite as good a knowledge in a large hospital on the field as he will at home. Every missionary going out to a tropical country ought to have some special knowledge of tropical diseases. He ought to take one of the courses that are offered in this country or in Great Britain. He ought also to have some special knowledge of diseases of the eye and of the skin. These should be special studies as post-graduate courses in addition to his regular college course and the tropical study.

Q. What is your experience in the employment of non-christian hospital helpers? What is your experience with Christian assistants trained in government medical institutions?

DR. L. R. SCUDDER: My experience is decidedly against using non-christian assistants, even to the extent of putting oneself under considerable disadvantage. My experience, on the other hand, in the employment of government Christian men has been peculiarly satisfactory. I have now in charge of my hospital a Christian Hindu who has been trained under the government and is a very efficient man; but I presume such men are very difficult to get, and in securing him I have had the advantage of special circumstances.

DR. O'HARA: All of my assistants have been trained by the government. The first one was satisfactory as a medical worker, but she was not interested at all in Christian work, and she left me after two years of service. The second one was the most satisfactory woman that I could imagine. She was ready to assume responsibility. She was trained in school as a hospital assistant, and was certainly a treasure.

DR. E. G. SMITH: Government trained assistants are very apt to be commercial in spirit, and therefore unsatisfactory. I have had some government trained men; but in some other mission hospitals

they have had to dispense with government trained assistants because they insisted on practicing for their own benefit outside of hospital hours, and they demanded salaries that could not be paid. The commercial idea seems to get into the hearts of those educated in government schools.

DR. WANLESS: I am collecting data along this line, and am anxious to know what has been the experience of many. I should like to hear from China.

DR. J. F. KELLY: The difficulty which has already been mentioned with regard to the employment of non-christian workers is present there; they are too commercial. They want to work outside of hospital hours for their own benefit. Not only have they been unsatisfactory during their terms of employment, but they will leave us in the lurch, and our experience on the whole has been rather unpleasant. I have had charge of a hospital in the interior of the island, where we had Christian assistants, and they have been on the whole very satisfactory.

DR. H. L. CANRIGHT: Many of our doctors in West China have spent a great deal of time in training their medical assistants, and as soon as they get the training, the commercial spirit is so strong they leave us. Dr. McCartney, my colleague, has had several very sharp disappointments in that line. He has trained half a dozen, at least, of these men, and as soon as they finish their training, or just a short time before, there would be some trouble, and they would leave and go off into life for themselves, with the idea of making money.

DR. CREEGAN: I am certain that I saw not less than a dozen medical missionaries on my tour of the world who, if they were in New York and had anything like the number of patients that they treat, and especially performed anything like the number of operations that they perform in their mission hospitals, would be having an income of from \$25,000 to \$50,000 a year. And I do not know one of them who is receiving anything more than just a bare support. Now, I do not know any company of men and women of cultivation who have put a great deal of hard work and a great deal of money into getting a thorough preparation, that are making to-day from a financial point

of view anything like the sacrifices that the medical missionaries in connection with our various mission boards are making.

DR. WANLESS: In China there is a very large movement in the matter of co-education. Various boards are united to form union medical colleges for the training of men to practice medicine in China and for the work of medical missions; and we in India are up against the same proposition. We have in North India an institution connected with the government college. The students receive their education in a government college, and part of their tuition, and their Biblical training in an institution. Many of them have been very satisfactory, but a very large percentage of them have left mission service because they were not paid enough. They go off into government or railway service, and leave the medical missionaries in the lurch. So we in India have come to feel that in order to get the men and women to make sufficient sacrifice in the matter of salary, we must do the professional as well as the Biblical training ourselves. I know of a number of men who have been sent to government colleges and had their tuition paid with the expectation that they would enter upon missionary service or take charge of some of the smaller dispensaries connected with the various missionary societies, and the commercial spirit has been so strong during the days of their student life, that when they have completed their course they have succeeded in some way in paying up their obligations, and refused to go into mission service. In these institutions, the whole spirit is commercial. The government doctors in India, who teach in these institutions, are, many of them, not Christians. There are a great many Hindus connected with these institutions, and there is little there that gives a man a preparation to do real missionary work. They will do our professional work for us very satisfactorily; but we want men who are soul winners and who take an interest in the spiritual welfare of their patients, who will be willing to make the definite sacrifice of smaller salaries.

Q. What in general is the character of the present generation of young mission-

aries going out to the field? How do they compare in equipment with those who went out a generation or more ago?

DR. J. K. GREENE: I sometimes think that there is nothing like the old times. I do not know where a crop of men could be found to match Dwight, Hamlin, Riggs and others who went out then. We have the second, now the third generation of missionaries, and we have some splendid men still in our field. We have now sixty-three male missionaries in Turkey. Out of those, ten are doctors, one is a treasurer, and of the others, forty-two are ordained men. Out of those forty-two ordained men, nineteen are over sixty, and quite a number over seventy years of age; and how the work is to be kept up when this large number of old men go I do not know, and how we are going to get the match of them. I do think that there are some first rate men, and our faith is in God. We do not believe he is going to let this work peter out; and if it is not, it has got to have men equal to those that started it. Indeed, the maintenance of the work—the cultivation of these societies, the maintenance of Protestant and Christian institutions—is a bigger job than the starting of it. Think of the nine colleges in Turkey alone at present, including the great institution at Beirut, and how those are going to be manned and maintained, and what men they demand! The whole higher education of Turkey is in the hands of these institutions. I am in hopes that we shall find men who will meet the demand. I have thought that in recent years quite a large number of missionaries were hardly up to those that came first; but at the same time, there are some very splendid men that we have had within a few years, and my trust is in God, that he who is the Captain of the host and who rules the hearts of men will stimulate the Christian men here and turn their attention to foreign lands.

DR. R. H. NASSAU: As to *qualifications*, if that is the word to be emphasized, it is true that in our own Presbyterian Board they do require to-day a great many more qualifications than they required a generation ago. I do not think I was asked any particular question, when I applied to be sent out,

as to what sort of health I had, what live Christian work I had done in America; but now they send you a great list of questions as to who you are, and about your family, and your health. They require a doctor's certificate; and besides that, they ask you to name some three or four men and women in the vicinity who know you, to whom they will send a private letter asking questions about you. As to number of qualifications, they are very much more than they were formerly; but I feel as my Brother Greene, that there is a difference, and I can not just put my finger on it; I do observe this, that the younger men and women of the present *do not stay* as we old fellows did.

DR. F. D. SHEPARD: I should like to inquire how a man that has been on the field only five years is going to stay fifty,—demonstrate his stay, I mean.

DR. NASSAU: They come back in two or three years.

DR. SHEPARD: I think the only one who can look at this thing impartially is the man who stands in the middle of it, who is neither very old nor very young. And it is my conviction that there is no essential difference between the missionaries who are going to foreign fields to-day and those who went to the field forty years ago, either in consecration to the work or in capability or capacity. As to training for the work, of course, the younger generation has the advantage over those who went out forty years ago. They have the disadvantage that it is a comparatively easy thing to do now, and does not require quite the same degree of heroism, of firmness, of moral fiber which it did forty or fifty years ago. But we must remember that for every missionary that went forty years ago, there are twenty going now. I doubt very much, if we had accurate statistics, whether you would find a larger proportion coming back to the home land after two and a half to five years as failures than there was among those who went out forty or fifty years ago. I feel sure the young men who are coming up to take the places of our veterans and patriachs in the work will carry the great responsibilities that are falling upon them with equal credit and efficiency to that noble band of veterans and pioneers

who are now about laying down their work.

DR. CREEGAN: I want to speak from the standpoint of mission boards of the home land, a word of caution to young men and young women who are thinking of going out to mission service.

Mission Boards Are Not Infallible

Do not assume that God has no work for you to do in some foreign land because some particular board of foreign missions may not see fit to send you out. A man died the other day who has won more souls, I suppose, and has baptized more than any man, probably, that has lived in modern times, and that was Doctor Clow, of the Baptist Missionary Union. And he had the biggest kind of fight to persuade them that he was at all fit to go to India, simply because his training was not exactly along the lines that theologians in the good old days used to think was absolutely essential. He was not quite up in the matter of Hebrew and one or two other things, and they held him off for three or four weeks. Finally one of the secretaries, who had come to feel that under that western railroad engineer and surveyor there was something that was worth while, said to him, "Suppose when our executive committee have their meeting they decide not to send you out, what will you do?" "Do?" said Mr. Clow, "I will take the first ship that will carry me to India. While I prefer to go under my own Baptist Board, my call is from the divine Lord, and I shall go to India." And when he reported that to the executive committee, they thought it best not to stand in his way. When I was over there I saw the spot where that man superintended the baptism of 2,222 souls in one day, and fifty thousand following in years afterward, and I saw the hoary-headed man still toiling for the Master. I remembered him in my boyhood out West. It was a great honor to me that in my boyhood word was sent by him to my father, "Can you spare that little boy to carry water from your spring to my men?" when he surveyed through my father's farm the line of railroad that runs through Iowa there. I did not know what I was doing when I carried that water; but I thanked God

when I was out in India and saw the work of that man who had such a fight to get out there, that it was my privilege to carry some drops of cold water to him in my boyhood.

Did you know that Livingstone had an equal fight to get out, and finally when he did get out, it was by a majority vote of one? What a responsibility that one man would have undertaken if he had turned down probably the greatest missionary since St. Paul. I happen to have seen a medical missionary out in China that impressed me as one of the most useful men in all China, that was turned down by one of the grandest mission boards we have in America. By and by another board was persuaded to take him up; and when I thought of the work that man did during the Boxer trouble, and during the siege of Peking, and of all he has had to do out there in North China, I thanked God that there was one board that took him up after another board turned him down. Mission boards are not infallible.

Q. Can malaria be cured without the use of quinin?

DR. J. H. KELLOGG: I have no desire to promote any remedy which I think has more power over the malaria parasite than quinin. But I would like to call attention to one thing, and that is, that after all, no matter what you administer to the patient who is suffering from malarial infection,

It is the Body that Heals Itself.

It is not the medicine that cures the man. The healing power is in the body, and the thing we have to do, whether combating malaria or any other malady, is to aid the body in its battle against the disease. In relation to this particular disease, I remember a story which was told by Dr. Austin Flint when I was a medical student at Bellevue Hospital College. He said that he had a patient who suffered from malarial fever for a number of weeks in spite of all the quinin he was able to administer. He had increased his doses until he was giving forty or fifty grains every day without any effect. Finally the doctor happened to run across a paper by Doctor Currie, the physician of the Liverpool Infirmary,

written a little more than one hundred years ago now, which told about curing malarial fevers with the wet sheet pack. Doctor Flint tried the wet sheet pack at once, and to his great delight, in two or three days the fever was controlled, and in a couple of weeks the patient was convalescent and made an excellent recovery. I got Doctor Currie's book afterward, and I was astonished at the scientific exactness with which he had made use of water. Priessnitz, a peasant who lived at Graefenburg at about the same time, made use of the wet sheet pack for the treatment of this disease. The sheet is wrung out of cold water and wrapped around the patient, then he is wrapped up in blankets and made to sweat. The idea was to break the fever by producing a very vigorous perspiration.

One fall I had seventy cases of malarial fever, and I treated them all with the wet sheet pack, with the result of curing every case within a week after the treatment had begun. I will tell you something of

The Method of Treatment

The patient was carefully watched, and on the day when his chill was expected, his temperature was taken in the morning as soon as he awoke, then within an hour taken again, and as soon as the temperature began to rise, which was an indication of the approach of the chill, the patient was put into a wet sheet pack. He was made to drink a quantity of hot water, bricks heated in the stove and wrapped up in flannels were packed around him, and he was induced to sweat. If the treatment was rightly managed, the chill was aborted and the fever which usually followed did not occur.

I had an experience in Mexico with the more malignant type of fever. I was in the sitting-room of a dispensary which I had something to do with starting down there, when a Mexican came in with his two daughters. Soon one of the girls turned very pale, and fell over in a convulsion. I examined the patient and found she had a temperature of 106° , and was evidently suffering from malarial fever. She had just come from the west coast of Lower California, where they have a very malignant type of the fever. This young woman was given the

sweating pack, and immediately afterward the cold pour and another sweating pack, and in a few days she was entirely cured. She had one or two slight chills afterward, but a single ten grain dose of quinin was quite sufficient to effect a cure.

I had an attack of the fever myself at that time. The mosquitoes swarmed about me one night and I was bitten several times, and within a few days I had a hard chill. I waited until the next day, and when I found my nails getting blue and my temperature rising, I had a very hot bath, immediately followed by a pailful of water containing ice poured over me; then I was put at once into a pack, with hot blankets about me, and I got into a vigorous perspiration. I had a very slight fever that day, and the next day had none, without taking any quinin at all. On another occasion I was traveling on horseback through the mountains of Mexico on the west coast and was half eaten up by mosquitoes one night in a Mexican hut, and three or four days later when riding horseback I found myself having a very severe chill with a temperature of $103\frac{1}{2}^{\circ}$. I did not have conveniences for taking a bath, so I hunted up a doctor and got forty grains of quinin. I took ten grains at three o'clock in the afternoon, ten grains more at six o'clock, ten grains at nine o'clock, and ten grains about six o'clock in the morning, and I had no more fever.

We had here a young man from India who had a very malignant type of the disease, and was much reduced. We applied cold baths and hot baths, but did not quite cure the disease; the paroxysms still continued. Twenty grains of quinin, however, was quite sufficient to cut the disease short in connection with other treatment.

The investigations of Winternitz and others have shown that the only way in which the malarial parasites are really conquered is by the phagocytes being stimulated to develop in such numbers that the parasite can be captured and destroyed. Quinin temporarily paralyzes the parasite so that the white cells may be able to cope with it; but it has been shown that while the quinin impairs the activity of the parasites, it has

a similar effect upon the white blood-cells; and sometimes the effect upon the white blood-cells is greater than it is upon the parasites. In such cases, when the parasites are in the blood, the administration of a dose of quinin will sometimes produce a regular malarial chill.

We had with us a short time ago a lady who had been a missionary nurse in Java, who suffered from malarial fever a long time, and quinin even in large doses did not subdue the disease. She had come to the point where a dose of ten grains of quinin at once produced a malarial chill. An investigation of this subject showed that quinin impairs the activity of the white blood-cells to such a degree that the parasite is able to gain a foothold and grow and develop, and the paroxysm is reproduced. Winternitz made the observation that when a person takes a hot bath immediately followed by a cold bath, the leucocytes are brought out into the blood in great numbers. In some instances the leucocyte count has been found to be nearly doubled; so the ability to attack the parasite is very greatly increased. I think where conveniences are at hand, it would be found very useful in many cases, especially chronic cases, to administer a short hot bath, following it by a cold bath of some sort. Cold water poured over the patient will do just as well as a cold pack; but the patient must be wrapped up well, so that there will be a vigorous reaction. There is no specific influence from a hot or cold bath except in the reaction. This will bring out the phagocytes, and encourage the natural method of cure. We have had cases here that have been suffering from malaria for a long time in some tropical country, and we find the use of cold applications, building up the vitality of the patient, encouraging leucocytosis, very effective indeed; and generally it is not necessary to give quinin at all. I believe very strongly in using it in good-sized doses when it is used at all.

DR. WANLESS: Undoubtedly there are many cases of malarial fever that are self-limited. We know that in many infections, if the resistance of the body is sufficient, the disease runs its course, and the patient gets better, without any treatment whatever. I have seen many

cases where patients have recovered from malarial fever without any treatment. But it is not desirable to assume that is always going to be the case. I think for missionaries it is the safest thing to take a little quinin. We must remember that malaria may remain dormant in the system for many years. I know physicians who had not suffered from malarial fever for eight or ten years, and yet in the examination of their blood the crescent forms of the malarial parasite have been freely found. The person may bear the parasite in his blood without any harm, and yet may at any time have an attack. I think the use of water is an excellent thing. I had a very severe attack of malarial fever myself, in which I was given up and was unconscious for two days, and I remember with a great deal of pleasure the use of the wet pack; but it did not cure my malarial fever. I was not cured until I was given quinin by intramuscular injection. It is absorbed more slowly than in the skin, and is less likely to cause abscess.

DR. E. G. SMITH: Has any one here used a drug called palm olive? It is claimed that it is a single drug like quinin, and it certainly yields very fine results. I had some few cases that were treated by it that had failed to respond to the quinin. They claim that this will succeed where quinin has failed; and they also suggest that in the few cases where this apparently fails, quinin should be given, and it does succeed there. The objection to it is its cost. The dose is a half ounce, and the preparation costs about a dollar for a six-ounce bottle; but half a dozen doses are sufficient for a severe case of remittent fever.

VOICE: I tried this remedy, being led to do so by having patients who could not take quinin on account of its affecting the stomach. I found that in the ordinary cases of malaria ten doses were sufficient to effect a cure. But in a case of remittent fever I used it for some ten days with seemingly no effect whatever.

Q. What are the missionaries doing to stamp out plague?

DR. WANLESS: I have had some experience in this work. We used to do a

good deal more than we are doing to-day. We were very zealous at first, when we did not know as much as we do now, and we did a good many things that we should not have done, and we left undone a good many things we ought to have done. But the best thing, I think, that the missionary can do to stamp out plague to-day is the encouragement of inoculation, as it is used in India to-day, and

The Evacuation of the Villages.

The people take to evacuation much more naturally and readily than they do to any other form of prophylaxis. They know nowadays when the plague is coming by the fact that the rats begin to die, and so they will quite readily evacuate their villages. But in the rainy season it is not possible for a good many of the village people to go out and live in the little shacks in the country and on their farms, and if they stay in their houses, it means death in a great many cases. I have seen whole families swept away in a very few days. In such times it is a good thing to

Encourage Inoculation.

In our compound when the plague comes and when Christian people can not get out because of their employment, we insist that all people living there and working in connection with our missionary institution be inoculated. I myself have been inoculated many times, and many of our Christians have, and the result is we do not have any plague among our Christian community. The only death in five or six years was the case of a woman who failed to be inoculated. These are the only two ways of combating plague in India,—inoculation, and running away from the villages. Live in the country until the infection has subsided and the houses have been disinfected.

One year all the plague work in our place was given over to us. That gave us great opportunity to help these people, and we did it by providing a hospital for them. That year we treated 313 cases of plague in the plague hospital. Nowadays the people prefer to have their own places outside, on their own farms. I have been asked if we can do nothing to

Destroy the Rats.

Yes, but we can not get a great deal of co-operation, because it is running against the strong prejudice of the people. The Hindus and the Brahmins will not kill them. The government is doing a great deal along this line, but it seems a hopeless task in India, where we have this awful religious prejudice and superstition to deal with. All missionaries ought to see that there are no rats allowed to run about in their compound. Another good measure of prophylaxis is, in building the house, to build it so that the rats will not find a place to burrow in the foundation. If you build places that will harbor rats, you will incur the spread of plague later on. Build lime and stone foundations, at least for the first two feet above the ground. After that you may use sun-dried brick, as they have to do in some parts of India.

DR. J. F. KELLY: There is a method that is practiced in Hong Kong, to destroy not only the rats but the fleas. Make a strong solution of soapsuds and kerosene in water, and deluge the house with it. In my experience in the island of Hainan, we publish literature and distribute it freely among the Chinese, calling upon them to use such medicines as we can supply them for fighting fleas, cleaning out their homes, also getting them to forsake their villages. This they do quite readily. Those who live in the market towns are very loath to give up their places because of their business interests, and so they try to conceal the fact that they have plague in the towns. But in the villages there are no commercial interests at stake, and the villagers flee very readily; and so very few deaths from plague occur in our villages.

DR. WANLESS: The plague bacillus itself is destroyed very readily by sunlight; so articles likely to be contaminated by fleas should be put out in the sun for a few hours every day; and if you can take the tiles off the roof, do so to admit the sunlight and fresh air.

Q. What age would you place as the limit for a medical missionary student to go to the foreign field?

DR. O'HARA: I think it is left to the board and the people themselves. Some

say twenty-five, and some forty. It depends on the individual case.

Q. What is the policy of the boards with reference to age?

DR. SHEPARD: No general policy, of course, can fit all cases. The principal trouble about a person going out late in life is the acquirement of the language, and for most people it is impossible to acquire a foreign language with any success after forty years of age. Of course, one who has been learning a language every two or three years through life, or who has been using four or five different languages, can acquire another with comparative ease; but an American who knows no language but English ought not to think of attempting to go to a foreign field and acquiring a new language after forty years of age.

WORK AMONG THE LEPERS OF INDIA

DR. CREEGAN: A request has come from more than one source, that since we did not have the question of the work among the lepers discussed at the time announced on the program, on account of the absence of the speaker, we hear from Mr. Higginbottom, of Allahabad, India, for about ten minutes this afternoon.

MR. HIGGINBOTTOM: My work has taken me into a leper asylum, and in the few minutes I have, I should like to say a little about it. On my return from India I had spoken in the city of Dublin, and had quoted from the tenth chapter of the Gospel according to St. Matthew, where our Lord was sending forth his twelve disciples, and said to them, "As you go, preach, saying, The kingdom of heaven is at hand; heal the sick, *cleanse the leper.*" I had used this as an argument for the church of Jesus Christ helping to cleanse the leper.

A man came to me and said, "I was very much interested in what you had to say, but I do not like to hear a man wrest scripture."

"I am with you on that," I said; "I don't, either; but I suppose your talking this way has reference to something I said."

"Yes," he said, "it does; I don't con-

sider that command was binding on any except the twelve."

If you will estimate the number of lepers there were in Palestine at the time of our Lord, you will find 2,500 or 3,000 was the limit. According to the census report, there are in India to-day about 150,000 put down as lepers. Any government officer will tell you that is wholly inadequate. There is a certain social disgrace connected with being a leper, or having a leper in one's family; so a great many lepers are not so reckoned. So it is estimated that there are to-day not less than

300,000 Lepers in India.

One of the Church of England missionaries last summer, in one consecutive twenty-four hours inspection of Calcutta, found over five hundred begging lepers on the streets of that one city. It seems to me that if our Lord were here to-day he would not say less, but more, about the duty of the church to care for these poor people.

In India, both Hindu and Mohammedan regard the one afflicted with leprosy as one who has committed an unpardonable sin, and who is an enemy of God, and it would be dangerous to themselves to assist such an one. So this poor, unfortunate creature, instead of being helped, as a rule is cursed, reviled, stoned, cast out. I remember a middle-aged, cultured, refined-looking man coming into our asylum one Friday morning. The following Sunday at the service he literally sat at the feet of the preacher who was preaching from that miracle recorded in Matthew, where the leper came to Jesus and said, "Lord, if thou wilt, thou canst make me clean." This man sat with his knees tucked under his chin, arms folded, face upturned, listening to the emphasis which the preacher was laying upon the fact that Jesus had loved the leper. He stood it just as long as he could, then he said, "Stop! Do you mean to say there was once somebody on this earth who loved a leper?" "Yes, Jesus Christ." "Where does it tell about him?" "This Bible tells about him." "Is it written in Hindi so I can read it?" "Yes, I will give you a copy if you will read it." He said, "Isn't that strange—somebody once loved a

leper." After the service was over, he told me that for two years he had been battered from village to village, and he said that was the first time he had ever heard that any one, anywhere, loved the leper.

My work is teaching in the Christian college at Allahabad. I teach some of the Brahmins, beginning at the top of the social circle of India; and I know of nothing that has so struck the people of India as what the Christian is doing for the leper. They say to me, "Oh, yes, you could not get a living in your own country, so you come out here to live easily and comfortably; and while, of course, you say you come because you are a Christian, still you come because of the easy life." But I find the work the Christian missionaries are doing for the leper is having more effect as a witness-bearer for Christianity than any other one fact I know about Christian missions in India to-day.

The Mission to the Lepers is both international and interdenominational.

Twenty-Five Dollars for One Year

covers the expense of caring for a leper. Some of us who have been caring for orphans on fifteen dollars a year think twenty-five dollars is a large sum to care for a human being for one year. There is, however, this difference: the leper as I know him must have medical attention, and even with the large sum of twenty-five dollars a year, with my inadequate knowledge of domestic science, I have found that I have had to go very carefully to spin that twenty-five dollars out so as to have the leper comfortable, happy and well fed.

An Economical Problem

This work for the leper is not only a religious problem, but it is an economical problem. Every individual who becomes a leper is at once removed from the category of wage-earners, producers in society, to that of dependents, and the British government in India so recognizes these people and is contributing about half the expenses for their maintenance. The Mission to the Lepers will finance any missionary or any mission board that will promise to care for lepers; and in this way it seems to me that

it is doing a work which all the churches are vitally interested in, but it is doing it more economically than the churches could do it themselves.

There was a young girl trained in the Reformed Episcopal orphanage at Lalipur. There came on the joints of her fingers big sores, and there was no healing. After a while they called in the English civil surgeon, and he looked at her and said, "That girl is a leper." Her brother had just graduated from the Methodist Seminary at Bareilly, and he at once brought his sister up to our leper asylum.

I often think that leprosy is very much like strong drink; it is very pitiful when it gets control of a man, but it is unutterably awful when it gets control of a woman. I know of no word in the English language that can adequately describe what some of those leper women looked like—so dirty, and their faces so unspeakably hopeless.

This young girl came in beautiful white clothes, with her brother, and she caught sight of a group of these women; she took one look, then threw her head on her brother's shoulder and sobbed as though her heart would break. "My God," she said, "is that what I am going to be?"

Her brother had to go back to his work and I had to go back to mine, but before leaving I said to the doctor, "Watch that girl." Several days later I said to her, "Look here, Miss Frances; you have had your chance in life, haven't you? You know there is something better than the way these women and these children are living in this asylum. How would it be if you tried to bring into their lives some of the things that have made your life richer?" She said she would. She started out with a little school, and my wife used to take things to her and give her suggestions. Words can not describe the marvelous transformation that has come over the women's department of that leper asylum; nearly every one of the fifty women in it are Christian because of the life and the work of this girl.

When the very hot weather came and my wife had to go up to the hills, I went to the women's hospital and said to the lady in charge, "I wish you would go

over and cheer those leper women up a bit." She said she would be delighted to go. When she came back she said, "Miss Frances opened her heart to me to-day. She said when she first went into that leper asylum she didn't believe there was any God, or if there were, she did not see how he could be a God of love and afflict any human being as he had afflicted her; but she said, 'Do you know, every day of my life now I thank God that he made me a leper, because by making me a leper he has given me a work to do for him that I could not have known anything about in any other way.'"

I know of no other human life into which a greater cross has come; nor do I know of any other that has taken that cross and with such bravery and such patience borne it to the glory of God. I do not know what our asylum would be without the life and the influence of that girl; and it is facts such as these that make me feel grateful to God every day of my life that he drove me into this work for which I was not looking and which I did not want.



SEVENTH MEETING

Saturday, January 7, 8:00 P. M.

THE NEW HYGIENE

Lecture by J. H. Kellogg, M. D.

About thirty years ago some of the health officers of New York City were evidently so incompetent, being political appointees, and none of them being doctors or physicians, that the city found the situation intolerable, and appealed to the Governor for assistance. The Governor appointed a commission at the head of which was Dr. Andrew White, of Cornell University. Doctor White published a report of the investigation made, and the conversation with some of these health officers was very interesting. One of them remarked that he had had some cases of smallpox in his neighborhood. When asked how they progressed, he said, "Well, I hardly know; I didn't call on them because I was afraid I should catch the disease, but I believe

they all died except a case that occurred in a family of hygienics, and that one got well." The doctor asked the next man who came in, "Have you any hygienics in your neighborhood?" "Yes," he said, "I had several cases, but they all recovered." The next man he asked to define hygienics. He considered a moment, and then said, "Hygienics, sir, is a bad smell arising from dirty water."

The Old Hygiene

Now, the old hygiene consisted very largely in the study of bad smells and the examination of dirty water. It was what might be called a science of bad smells and of bad water. But within the last quarter of a century there has been developing a new hygiene, and I want to give you to-night something of an idea of the need of this study.

Thirty years ago I made a prophecy. I was at that time a member of the State Board of Health of Michigan, and we were holding conventions about the State to educate the people on the question of hygiene. I took pains always to tell the people that we were going down hill as a race, and were bound to be exterminated by our bad habits if we did not reform; that our public hygiene, all the attention we were giving to bad water and to bad smells, would ultimately result in killing us off. The bad smells and the bad water operated as a sort of biologic selection by means of which the weak and the feeble were killed off. That was the weeding out process. Cholera epidemics, typhoid fever, and other things of that sort were simply a means of wiping out the weaklings, and those who survived were strong enough to be worth while. Keeping all these people alive by means of public quarantine and hygiene, and sanitary cordons, etc., would naturally result in the weakening, and, finally, in the extermination of the race. We must

Add to Public Hygiene, Personal Hygiene.

I could not prove my point at that time, but the data has been collecting within recent years, until at the present time we are prepared to prove that the race is rapidly going down hill; that the attention which has been given to public hygiene and sanitary regulations has

actually had the effect of weakening the race. Although the average longevity has increased, the number of persons who attain great age is decreasing. Statistics show that at the present time we have in the United States one centenarian to every 25,000 of the population. In Bulgaria they have one centenarian to every thousand of the inhabitants. In England there is one centenarian in every 200,000; in France, one in 190,000; in Germany, one in 700,000. The real test of the vitality of a race is not the average longevity, but it is the proportion of people who attain great age. The nation that has the largest number of people who attain great age has the greatest essential vitality. Statistics show most conclusively that longevity is decreasing.

We have succeeded in cutting off a great many epidemics, and the result is that the number of persons who die from acute disease is lessened. But at the same time, the number of deaths from chronic diseases has been rapidly increasing. Statistics have been collected by Dr. Rittenhouse, who is president of the Provident Life Assurance Association of New York City, which show that within the last thirty years the mortality from chronic disease has doubled, while the mortality from acute diseases has been halved.

Some diseases are increasing at an amazing rate. Cancer has increased in this country 500 per cent in sixty years. One person out of every twenty that live to-day in the United States will die of cancer. We heard to-day about leprosy in India, and leprosy is a terrible disease; but cancer is worse. It is perhaps just as incurable, and it is more terrible, if that could be possible, in its ravages. There are 300,000 lepers in India, we were told this afternoon, and that is a terrible thing; but there are 400,000 persons suffering from cancer—the leprosy of civilization—in this country to-day; and the number is increasing every year. Every year's statistics show that cancer has made an onward march, till at the present time it has come to be so common that among people over forty years of age, one in every twelve will die of cancer. Of all the women living in the United States at the present time,

between forty and fifty years of age, one out of every seven will die of cancer.

Insanity is marching on at the same rate; it has increased 300 per cent in fifty years. In the State of New York there are to-day thirty thousand insane people locked up in the asylums. In the United States at the present time, we have 150,000 insane people in the asylums. A few weeks ago I talked to an audience in Texas upon this theme; and the superintendent of the State insane asylum of Texas called on me the next day and said, "I want to endorse what you said last night, and I want you to read my last year's report. In it I said to the people of Texas, that if we did not do something to stop the increase of insanity, it would not be long before the insane people would outnumber the sane, and would break out of the asylums and put us in." We can not ignore the fact that the human race is degenerating in civilized lands. This progressive degeneracy is advancing from year to year.

The Causes of Degeneracy

Degenerative disorders differ from acute maladies in that they are steadily progressive and show no disposition to recovery of themselves, unless conditions are changed. They arise out of our habits of life. There is something in the conditions of our lives, of our environment, of our habits, which occasions them; and they do not make their appearance until after the defensive power of the body,—the power of the body to adjust itself to meet emergencies, to overcome difficulties, to do its work normally under abnormal conditions,—is broken down.

A degenerative disorder is like a fire in the house—it keeps on burning until the house is consumed. Acute disease is like a rain storm; it comes up, passes over, and the sun shines again. One who has a degenerative disorder travels in a straight line, going down hill continually. An acute disorder is like a race course: it begins at the starting point, and by and by gets around to the starting point again under the natural recuperative power of the body. But degenerative diseases go straight to death.

Degenerative disorders are, in my

opinion, to a very large extent the result of a breakdown of the liver. The liver is in my estimation

The Most Wonderful Organ in the Body, with the possible exception of the brain. There is no other organ that has such a variety of functions. First of all, it is a bile-making gland, which removes the most poisonous waste matters from the body. When we drink water which passes through lead pipes, the liver seizes upon the lead and holds it back from going into the rest of the body where it might do great damage. We need to keep that in mind when we are administering medicine sometimes. What is true of lead is just as true of mercury, iron, or any other substance taken into the body—the liver gathers up these substances and holds them as much as it can, to protect the rest of the body against their action. So when we give a patient a dose of morphia by the stomach, we give a dose twice as large as when we give it hypodermically, for the reason that the liver will destroy half of that morphia and will rob us of its use.

Prof. Dujardin-Beaumetz, Bouchard, Roger and others of the French school have been particularly active in calling the attention of the profession to the importance of the poison-destroying function of the liver. Somebody has said the liver is a closed door to keep poisons out of the body, while the kidneys are an open door to let poisons out. Poisons that are received into the alimentary canal are first filtered out by the mucous membrane, which to some degree destroys them and hinders their entrance. Colloid poisons are quite thoroughly excluded, but crystallized poisons pass through the membrane readily, and these are retained by the liver, which hinders their entering into the general circulation. The blood brings the poisons to the liver, they are passed through the cells and pass out into the bile through the bile ducts, but a larger proportion is carried on through the veins to the kidneys in a less toxic form, to be eliminated by the kidneys. Indol, for example, produced by putrefaction in the intestine, is in the liver converted into indican or indolacetic acid by a process of conjugation, combining with sulphuric

acid or acetic acid, so is carried on to the kidneys and there eliminated in a comparatively non-toxic form. How the wonderful liver can do all this work with its simple cells which look all alike, is one of the marvels of physiology.

Overtaxing the Liver

If the body takes in a larger quantity of toxins than the liver can deal with, these poisons pass on, and mischief is done all over the body. For example, if a person takes into the intestines a quantity of decomposing foodstuffs, the putrefactive process may become so active in the intestines that the liver is not able to deal with the poisons; then there will be acute ptomain poisoning. There may be more or less of that going on all the time, and as the result the liver will be gradually worn out. If a man is a user of tobacco, tea and coffee, the liver is overtaxed. If we are in the habit of using curries, mustard, pepper, pepper-sauce, ginger, and things of that kind, we are loading work upon the liver. Professor Boix, of Paris, made some experiments with rabbits and guinea-pigs some years ago, and showed that the acetic acid of vinegar has four times the power of gin to produce gin liver, and that black pepper has six times the power of alcohol to produce gin liver. The destructive influence of these substances upon the liver is shown by the histological changes which take place, and which Doctor Boix portrays in a very interesting work, "The Liver of Dyspeptics."

When visiting the laboratory of Professor Pawlow, of St. Petersburg, four years ago, I saw an experiment on dogs which illustrates this point. The experiment was what is known as Eck's fistula. The portal vein is attached to the ascending vena cava. A slit is made and they are connected together so that the blood passes from the portal vein directly into the vena cava instead of passing through the liver. In a few days the animal recovers and is fed, and gets along well, and appears like any other dog, so long as it is fed on a special dietary; but if it is fed upon a meat diet it dies in three days. This shows that the putrefactive processes which result from a high-protein diet must be opposed by the liver; when these poisons are no

longer acted upon by the liver, but are allowed to pass on directly into the body, the animal dies.

There is another gland which recent studies have shown has an extremely important part to play in this poison-destroying function,—the thyroid gland. The thyroid gland seems to be connected with two other glands in this work. The pituitary body in the brain, as you know, has two parts, a gland part and a nerve part. The nerve part seems to be a sort of smelling or tasting arrangement by which the blood is inspected. When toxins, especially those produced by putrefaction in the intestine, are found present in the blood, the nerve part of the pituitary body notifies the gland part, incites it to activity, and certain substances are formed which are carried by the blood to the thyroid gland, and the thyroid gland is thus excited to activity, and thyroïdin is produced. The thyroïdin, entering the blood, is recognized by the suprarenal capsules and excites them to activity, and thus adrenalin is produced, and by means of this adrenalin the toxic matters found in the blood are burned up. The adrenalin acts as a ferment which causes the oxygen of the blood to combine with the toxins.

This exceedingly interesting story which French investigators have worked out within the last few years shows us

The Function of the Thyroid Gland,

and explains the interesting observations made some years ago. The thyroid gland was removed from dogs, guinea-pigs, rabbits and other animals, and it was found that the dogs died, while the rabbits lived. Further experiments proved that when the dogs were fed upon a rabbit's diet, or upon a bread and milk diet, the dogs also lived, while they very soon had convulsions and died when they were fed upon a meat diet. This shows that the thyroid gland has something to do, as well as the liver, with destroying the poisons which result from the putrefaction of undigested excess of protein in the intestine. The thyroid gland we often find in a state of excessive activity, as in exophthalmic goiter. It has been suspected for some time that these putrefaction poisons in the intestine might

have something to do with exophthalmic goiter. We observed here more than twenty years ago that an antitoxic diet would frequently result in the cure of cases of exophthalmic goiter. At that time we did not, of course, know exactly what influence the diet had upon it, but at the present time it seems very clear that the antitoxic diet is extremely important in cases of exophthalmic goiter. In these cases the gland is over-excited, and the only thing that will over-excite the gland is toxins, because it is an antitoxic gland. Anything that increases putrefaction and toxins in the intestine must result in the excitement of the gland. If the exophthalmic goiter is a result of the toxic diet, it is evident that we should remove the cause, and if we do that, the patient will in many cases very greatly improve, though sometimes something more is necessary; but in every case it is highly important that the antitoxic diet should be adopted, so that the gland should not be any further excited and should not be taxed any more than is necessary.

The kidney has to bear the brunt of the work in the elimination of the toxins. When the thyroid gland and the liver do not do their work, then

An Enormous Extra Burden

is thrown upon the kidneys and they degenerate. In this country and in all civilized countries renal disease is constantly increasing because of the use of tobacco, beer, tea, coffee, and condiments. I am sure most people do not realize that in an ordinary cup of coffee there is more than twice as much uric acid as in the same quantity of renal secretion. An ordinary cup of coffee contains four grains of caffeine, which from a physiological standpoint is identical with uric acid. It would not be possible to make a worse combination than beefsteak and coffee, which is a very common breakfast. Beefsteak contains fourteen grains of uric acid to the pound, and coffee four grains to the cup; so a pound of beefsteak and a cup of coffee would introduce into the blood about eighteen grains of uric acid. The normal output of the kidneys is six grains of uric acid in twenty-four hours. It is no wonder, then, that the kidneys are breaking down

so rapidly in civilized countries where coffee and meat are so largely used.

These toxins which rapidly break down the liver, kidneys, thyroid gland, suprarenal capsules and other poison-destroying glands, act upon the blood as well as upon other parts of the body. The large white blood-cells which are called macrophags, are

The Scavengers of the Body;

they eat up the refuse. The microphags destroy bacteria; they fight for our lives continuously. They find their way through the walls of the blood-vessels and attack the bacteria. The macrophags, finding the cells of the body deteriorated and depreciated through intoxication, like the poor drunkard who lies down in the gutter and becomes the prey of robbers, attack and destroy them. They steal away the little particles of pigment which give the hair its color, and the hair becomes white. They attack and destroy the nerve cells, and we get various forms of paralysis. They attack the bones, which in this way become softened and diseased in aged persons and those suffering from chronic intestinal autointoxication. They attack the blood-vessels so that they lose their normal contour and bulge in various places; aneurysms result, and by and by chalk is deposited in the walls of the vessels and their caliber is diminished, so that they are not able to transmit the proper amount of blood. The work of the heart is consequently increased, and the person suffers from high blood-pressure. The normal pressure is about one hundred. We sometimes find a patient with a blood-pressure of three hundred. The result of such high pressure is that the heart is worn out, and the blood-pressure falls; secondary low-pressure appears, and the functions of the body are so seriously interfered with that the patient soon dies.

The Cause of High Blood-Pressure

is very important for us to give attention to, for it is becoming exceedingly common. Huchard and other European investigators have shown that the ordinary spices and condiments used on the table are productive of high blood-pressure. When extract from these con-

diments was made and introduced into the body, it produced degeneration of the arteries in the course of four or five months. Of course, the dose was larger than that ordinarily taken at the dinner table, but these poisons mingled with our food unquestionably have a continuous influence, little by little producing a damage which by and by appears in gross form. Tea and coffee operate in precisely the same way, and also the toxins from meat. This was shown by Voix in his experiments in Paris ten or fifteen years ago, and he also showed that the colon bacillus has the same effect in producing degeneration of the arteries. If we wish to avoid degenerative diseases, if we wish to check the race degeneracy which is going on at such a terrific rate, we can accomplish it only by giving attention to our diet, and to the removal of all other causes of poisons in the blood deteriorating its quality.

One of these causes, a very simple yet an extremely common one, is bad positions in sitting. Among civilized people it is a very uncommon thing to find the colon where it ought to be; it is commonly enlarged and elongated, and folded up in various ways. The result is that decomposing foodstuffs remain in the pendent and enlarged parts, and putrefaction is enormously increased. One of the chief causes of this condition of the colon is wrong position in sitting. Many people are in the habit of relaxing completely when sitting down to rest. The abdominal muscles then lose their tone and are no longer effective in holding the viscera in place. It is of the highest importance that the blood-vessels of the abdomen should be supported, because these large vessels are capable of holding all the blood in the body. When the abdominal muscles are relaxed, the blood runs down into these stagnant veins, they become over-filled and there is an insufficient amount of blood to keep the brain going and to support the activity of other parts. Our Sanitarium chairs are constructed with a little curve that fits into the hollow of the back. You can get the same effect by putting a little cushion into the chair just behind the back before sitting down. This will keep the chest up perfectly, because you can not get the chest down without curving

the spine backward; so the liver, stomach and other organs will have the proper support and will be kept in place.

There is no doubt that diet has an immense amount to do with the production of disease. Improper food is, perhaps, a larger factor than any other; but the amount of food eaten, and the way in which it is masticated, also have much to do with our health or ill-health. It will be worth while to consider for a moment

Meats and Meat Extracts Not Essential Nutrients.

Professor Chittenden a few years ago made an experimental study of the subject of diet, and he arrived at the conclusion that the average man eats three times as much protein as he requires. He established a protein ration so low that it is practically impossible to add flesh food to the ordinary bill of fare of fruits, grains and vegetables, without increasing the protein to a point abnormally high,—according to Professor Chittenden, so high as to produce disease.

We find that the various meats are not so nourishing as is generally supposed. Rice in a dry state has about 1,600 calories to the pound. In porterhouse steak, the number of calories is only 1,100 to the pound; in beef liver, 600; in bacon, 2,000. Oysters, which are considered particularly nourishing, have only 235 calories of food value to the pint. Beef tea has only three calories to the ounce, according to the government report. Some people consider beef tea very valuable, but, as an eminent French physician said, beef tea is a veritable solution of poisons. It is simply the poisonous part of the meat, the waste material which is in solution on its way to the kidneys to be eliminated. Dr. Austin Flint some years ago made an analysis of beef tea, and found it tallied almost exactly with that of urine.

Vegetables, which are largely composed of water, have a smaller nutritive value; and yet the number of calories in some of them is quite as high as that of some meats. Potatoes have a nutritive value fully equal to that of fish. Sweet potato has a nutritive value higher than that of fish, and very few vegetables have a lower nutritive value than the oyster.

The oyster is about equal to the same weight of squash in nutritive value. Beans have 1,600 calories to the pound, so beefsteak has less than three-fourths the value of beans. Oatmeal has 1,800 calories, while beefsteak has only 1,100. The cereals as a rule have a little more than 100 calories to the ounce in nutritive value.

Some time ago we made an experiment in our laboratory, the results of which are quite interesting, for the purpose of determining what foods have the highest antitoxic value. We took, for instance, equal quantities of different kinds of meats and infected them with putrefactive bacteria in equal quantity, and put them under conditions similar to those in the intestines, in a moist, warm chamber, at the same temperature as the body, for three days. The result was that we very often produced in that time two and seven-tenths milligrams of indol—the poison resulting from putrefaction—from beef; 12.42 from fresh pork; 13.72 from mutton. Unboiled milk produced only six-tenths of a milligram of indol. Boiled milk was a little less than unboiled milk, because some of the bacteria were destroyed by boiling. We see why milk is better than meat for a person suffering from sprue, for instance. Cheese prepared by the use of the *Bacillus Bulgaricus* produced only .12, but ordinary cheese produced 22.9—nineteen times as much as yogurt cheese. That is the reason why yogurt cheese is used here instead of ordinary cheese.

When we come to vegetable foods, we find still better figures. For instance, only .05 of indol for cereals of all sorts. It is a curious fact that raw cabbage is quite atoxic, while cooked cabbage is very much less so. We inoculated both cooked cabbage and raw cabbage, and at the end of twenty-four hours the number of bacteria increased in the boiled cabbage, but raw cabbage actually destroyed some of the bacteria. So you see why some people can eat raw cabbage and lettuce when they can not eat cooked cabbage. Bananas had an average of .18, as compared with the large number produced by the flesh food. It is very natural we should have this result, for the reason that these animal substances contain the very material which putre-

fective bacteria thrive upon; and not only that, but, as taken in the ordinary way, they contain the bacteria of putrefaction in great numbers.

Cold storage beef has been very properly condemned by Doctor Wiley recently, because investigations made by French bacteriologists some years ago showed that while the meat is in cold storage the bacteria are growing; that there are certain putrefying bacteria which will grow at a temperature just a little above the freezing point. They do not produce aromatic poisons, so there is no odor, and you would imagine the meat is perfectly sweet because it does not smell rancid or putrid; but in a very short time after such meat is removed to the open air, these bacteria grow rapidly, and the meat undergoes very rapid changes and becomes absolutely unfit to be eaten. From my standpoint it is unfit to be eaten all the time, because it contains this vast number of putrefactive bacteria.

Another fact of considerable importance to which I wish to call attention is the difference in the work required of the kidneys on a high-protein and

A Low-Protein Diet.

The increased flesh-eating habits common in our great cities lead to the enormous increase in disease of the kidneys. We have made careful observation in our laboratories, by chemists trained in the best laboratories in the country. We have made original studies of quantities of various substances found in the urinary secretion and compared them with the ordinary standing on a mixed diet. The acidity in the low-protein diet showed less than half that in the high-protein diet; and all the other figures indicated very clearly that on a low-protein diet the work required of the kidneys in eliminating waste matters is enormously less than when the ordinary mixed or high-protein diet is used. This is a matter of very great significance, for the failure of the kidneys in chronic renal disease is the result of abnormal work being required of them to eliminate an excessive amount of toxins. If we can reduce those toxins one-half or two-thirds by a normal diet, we shall do something of very great importance in

the prolonging of life and the warding off of chronic diseases.

The low-protein diet also has a remarkable effect upon the blood. The average blood count of a thousand persons taken just as they came to the institution was 3,885,000; but after treatment the average of the same people was 4,359,340, showing a gain of twelve per cent on a low-protein diet. In several cases the hemoglobin increased in even higher proportion—fifteen per cent. In seventy cases of pernicious anemia, in which the blood count was very low, the increase was very much greater, fifty-eight per cent, while the hemoglobin increased twenty per cent. The distinguished practitioners of Berlin at the present time, Doctor Strauss for example, heartily recommend a non-flesh diet in the treatment of pernicious anemia, as the best means of weeding out the putrefactive and pathogenic bacteria which are growing in the intestine, and which feed upon meat and meat products. This prevents the destruction of the blood, which is the real cause of pernicious anemia.

The efficiency of this low-protein diet has been shown by some very careful tests made by Professor Fisher, the head of the political science department of Yale. One of these was

An Endurance Test.

holding out the arms. He used thirty-two of our nurses and doctors here. He found they were able to hold their arms out very easily, almost every one of them, more than thirty minutes, quite a number of them more than an hour, and one of them three hours and twenty minutes. He went to Yale and subjected the athletes of the Yale gymnasium to the very same test, and found there was only one man there who could hold his arms out twenty-two minutes. These Yale athletes included wrestlers, men of tremendous power, who could pick up any of our men, throw them over their shoulder and carry them off a mile, perhaps; but they could not hold their arms out more than twenty-two minutes. Why? They lacked endurance. These were all men in training for athletic events, and they were on a hearty meat diet. They were subjected to other tests, but some of

them suffered so much from the after effects that Professor Fisher could not get any more men to take the tests because it interfered with their training and studies to such an extent; whereas the low-protein folks here were able to go right on with their work after taking the tests. One man made the deep knee-bending test 5,002 times, then ran downstairs and went about his work as usual, whereas an athlete who made that same test 300 times at Yale was not able to rise from the floor, but had to be carried away by his companions and was laid up for a couple of weeks. The aggregate of fifteen of the low-protein subjects among our nurses and doctors in holding out their arms was 1,336 minutes, and of the fifteen Yale athletes 150 minutes, or only one-ninth as long a time, which shows that there must be some high efficiency in the non-flesh dietary, and that meat is not necessary for endurance. With pure blood and clean tissues, endurance is far greater than with tissues contaminated with toxins.

Professor Sherman of Columbia University has called attention to the very important fact that among civilized people there is going on

A Process of Lime Starvation

Doctor Sherman shows that at the present time in the United States, at least half of the people are suffering from lime starvation; and this lime starvation he attributes to the use of cane sugar, and of a meat diet. This is the way he demonstrates it: The hog eats corn in which there are found the starch, carbohydrates, protein, the fat and the lime necessary for the building up of the entire body. Now, when the corn is taken, the protein goes into the muscle, the carbohydrates go into the fat, the lime goes into the bones. When we eat the hog, we do not get the corn all back again. We eat the soft parts only, and do not get the lime in the bones. If we are going to get the whole corn, we must eat the whole hog. If we omit to eat the bones of the hog, we are not getting the lime which our bones need. The lime in the corn was intended for us to eat, but in passing the corn through the hog,

we have lost the lime. If we eat our carbohydrates in the form of starch—cereals—we get the lime; but if we allow the sugar trust to separate the cane sugar from the lime which is associated with it in the sugar cane, and give us only the crystallized sugar, we lose the lime which is associated with the carbohydrates; and here is another source of lime starvation. Consequently, in the free use of cane sugar and meat, we are losing about half the lime that belongs to us. A pound of peas contains fourteen grains of lime. Mother's milk contains 24; lime water contains 120, while cow's milk contains 150. Cow's milk contains more lime than lime water. It is well to remember that. The different milks differ very considerably. Mother's milk is 24, horse 110, cow 150, goat 210, sheep 260, dog 450. The amount of lime contained is in proportion to the length of time which the animal requires to double its weight. A cow doubles its weight in eight days; a sheep doubles its weight in seventeen days; the horse doubles its weight in sixty days, and the human infant in 180 days, and this is the reason why the amount of lime in mother's milk is smaller in proportion. So if we give cow's milk to the infant, it is very important to reduce the amount of lime by diluting the milk.

I dare say there is not a person in this room who has thirty-two sound teeth. Degeneration of the teeth is almost universal. Nine-tenths of the children in the schools of New York City are found to have decayed teeth. This is one of the results of the lime starvation that is going on, and is an evidence of race decay.

These maladies which are the result of our wrong habits must go on increasing, because of the operation of

God's Great Bookkeeper, Heredity,

that never makes any mistakes. Heredity takes note of every infraction of the laws of health, and its consequences are passed down. If you cut a finger, that is not passed down; but if a man destroys his liver, he does something to injure his whole constitution, damaging every cell of his body, and that has an effect which is passed down by heredity,

and will appear in succeeding generations. The influence of heredity has been studied until its laws are established, and the causes of pathological conditions can be traced back to the parentage as easily as the color of the eyes.

Pawlow, the greatest physiologist living at the present time, has done much to stay this tide by his marvelous experiments that have shown us so much about digestion. I visited his laboratory four years ago and found that his experiments bore out entirely our practical experience here. He made a small stomach divided off from the stomach of a dog, and the small stomach was connected with the skin, and a great number of experiments were made with this little stomach. By this means he found the reasons for various things which we did not understand about digestion and indigestion. He found, for example, that when the dog ate meat, he produced highly acid gastric juice. In his experiments the esophagus is divided so that the meat falls out into a pan. The dog goes on eating for several hours, getting more hungry all the time. He enjoys his breakfast hugely for four hours; then he is fed. In the meantime the gastric juice has been pouring out through a tube, and the dog is in this way earning his bread. Each dog produces a quart of gastric juice, and this juice is sent all over Europe, and is found to be much more powerful than any artificial gastric juice. If we find a patient who can not make any gastric juice, we let him have a small amount of Pawlow's juice.

The Sum of These Experiments

Meat produces a highly acid juice and excites the stomach to the highest degree of any food; fats stop the secretion of gastric juice entirely; cereals produce a very active and not very acid gastric juice, while milk produces a gastric juice which has a moderate degree of activity and a small degree of acidity. Pawlow showed that fats inhibit the flow of gastric juice, so we understand why it is that fats cause biliousness. Olive oil stops the flow of gastric juice and to some degree lessens its acidity. Formerly in cases of acidity we gave meat because it made the patients more comfortable. It

absorbed the acid, and so lessened the acidity, and the patient felt better, but the stomach was stimulated all the while to make more and more acid gastric juice. Now, instead of giving meat, we give a diet of well-dextrinized cereals, while olive oil or a considerable amount of fat of some sort very easily controls the acidity. If we give cereals without fat, the patient suffers terribly from sour stomach. He thinks the cereals have fermented, which is not so; but the stomach is making gastric juice as it ought to for the digestion of meat. The starch of the bread requires very little gastric juice for its digestion, so there is a large amount of free acid which irritates the stomach. So we give the patient a couple of tablespoonfuls of olive oil, or a considerable amount of butter with the bread, and the result is the acidity is controlled, and the patient soon becomes comfortable. Alkalis, such as are used, for instance, in baking powders, sodas, saleratus, etc., Pawlow showed had a most pernicious effect upon the pancreatic secretion as well as the gastric secretion, inhibiting entirely the flow of gastric juice. He found, for example, that a pint of water would cause a very abundant outflow of gastric juice; but two grains of soda put into the water inhibited entirely the production of gastric juice. But if we have cases in which there is too much gastric juice produced, then, of course, there is no harm in giving a little soda a couple of hours before meals, to help to neutralize the gastric juice and prevent any more formation. Pawlow has contributed more than any other man to the elucidation of the physiology of digestion.

About nine years ago a gentleman came here and told me that he had been visiting the physiologists of Europe and talking with them upon the subject of diet, and had been making experiments upon himself in the thorough chewing of food, and he was satisfied the practice of discarding flesh foods was right, and that he was going to help to demonstrate it. That was Mr. Horace Fletcher. Since that time he has been stirring up the world with Fletcherism, teaching people everywhere to chew. Chewing seemed to have become a lost art. He himself has been rejuvenated so that he

has been able to return to the athletic activities of his boyhood, although over sixty years of age. Before he began his experiments he could not obtain life insurance, but had been rejected by every company he had applied to. But after three or four years of the thorough mastication of food, he had no difficulty in getting all the life insurance he wanted.

Metchnikoff has taught us the importance of having flowers in our alimentary canals instead of weeds. He has called our attention to the fact that there is a natural flora which grow in the intestine and keep out unfriendly and disease-producing bacteria, and that these natural bacteria are similar to those found in sour milk. Some of them are identical with sour milk germs, and these germs prevent putrefaction. We have down in our cooking school a beefsteak which has been in some Bulgarian sour milk, or yogurt buttermilk, as we call it, for two years and a half, and it is still perfectly sweet, with not the slightest evidence of decomposition. Metchnikoff has shown that by the use of these friendly germs, the putrefaction germs may be driven out. We have another great reform which has been introduced in recent times.

The Outdoor Life

Tuberculosis and many other maladies are doubtless the result of the indoor life. Most missionaries, I trust, live almost outdoors; you do not need to be protected from the cold as we are here, so some of these problems are not present; but in this country there is no question at all that the large number of chronic diseases from which we suffer are house diseases, the result of our living indoors. Dr. Trudeau instituted in this country a reform which had begun some years before in Germany and other parts of Europe in the treatment of tuberculosis, by putting the sick man out of doors, and feeding him properly; and the result was that sixty per cent got well. Now, it is a fact that if all these persons had lived outdoors before, they would not have become sick. Instead of forty per cent of them dying from tuberculosis, they might have been alive and leading useful, active lives.

DISCUSSION OF MEDICAL TOPICS

Sunday, January 8, 12 M.

Led by Lewis R. Scudder, M. D.

THE CHAIRMAN: There are numbers here who have had large experience along various lines, and this meeting is to give each of us an opportunity to contribute something out of our experience toward the work of others. There is a subject that has been very close to my own heart. It might be helpful to spend a few moments considering

THE TUBERCULOSIS PROBLEM,

with reference to what has been accomplished in the way of establishing sanatoria and their maintenance.

DR. W. L. THOMPSON: We have a tuberculosis problem in South Africa, and some have even prophesied that tuberculosis is going to exterminate the original inhabitants of South Africa. I do not think that is a probable prediction, but it is a matter that will have to be taken in hand. I think that in South Africa one of the greatest things to be accomplished is to instruct the people. The tuberculosis of South Africa is very largely confined to the natives, and that is because they are so ignorant of the means of prevention. The white population, who are intelligent on the subject and live in comparatively healthful conditions, are not greatly affected by it. In fact, South Africa is considered a suitable place for those afflicted with tuberculosis to go for recovery. A campaign of education which will make the general public intelligent on the subject is one of the greatest needs.

THE CHAIRMAN: Has anything been done in establishing sanatoria in South Africa for the treatment of tuberculosis?

DR. THOMPSON: The only thing I know of definitely now is Lovedale Sanatorium, which probably represents the high-water mark of work for the natives of South Africa.

DR. MARY NOBLE: I should like to know about the treatment of tubercular sinuses in limbs, and so on. We were just beginning it when I came away, and I should like very much to know what other people are finding. We have had

very good success so far as we have gone with bismuth paste, but I should like to hear from others.

DR. FRANCIS TUCKER: This subject was discussed at the recent triennial meeting of the China Medical Missionary Association, and a number reported considerable success with the Beers treatment. Among others Doctor Hemmingway, of Shansi, and Doctor Stephenson, of Tientsin, reported indirectly with regard to the bismuth paste, but of course the treatment had not been used for any term of years, so it could not be given unqualified endorsement.

THE CHAIRMAN: What is the prevalence of tuberculosis in China?

DR. TUCKER: It is very widespread—bone tuberculosis, pulmonary tuberculosis, lupus; and this is true not alone in cities where we have among the submerged nine-tenths the worst conditions of life, but it seems to be remarkably prevalent in the country districts. China is, as some other mission fields, a region of dwellers in the country, yet tuberculosis seems remarkably widespread, with so little to combat it in the dietetic line. This is one of the difficulties.

THE CHAIRMAN: Is there anything peculiar in the way they live that makes its spread more rapid there?

DR. TUCKER: Perhaps so. We find some of them living in houses that have a remarkably small amount of sunlight and air present, especially in the winter season; yet in some parts of North China a large amount of light is admitted to the houses and they seem to live practically outdoors. This is true not alone of China, but in Mongolia, and the nomadic races that live in tents outdoors; yet there is a very large amount of tuberculosis present among the Mongolians, and it carries off great numbers of the people, although they pick up their tents and move occasionally, and so get away from some of the old infections. It is present apparently everywhere.

THE CHAIRMAN: Has anything been done in China in the way of sanatoria?

DR. TUCKER: Nothing except on paper, I think.

DR. MARIAM HEADLAND: It is a very rare thing in North China to find a family with no members of it suffering from

tuberculosis, either of the lungs or bones. The Chinese houses have brick floors. They always spit on these floors. The cholera patients vomit upon them. There is no effort made to keep the floors clean, except that sometimes they go out on the street and get some dry dust of the street and sprinkle that on, then sweep it up. Then when they are going to bed to sleep, they roll themselves with their heads in the quilt, and they breathe and rebreathe this vitiated air. A campaign of literature on the subject might be of value, especially now that the people are waking up to outside influences and are very much interested to know what is being done outside.

DR. C. C. WALKER: Tuberculosis is quite common in Siam. It is interesting to know that there it is confined, especially in the city of Bangkok, to Catholic communities. Our Catholic friends years ago offered protection to the Siamese and other people living in Siam, and the idea was to get them all to live within the shadow of the cathedral spire; so they crowded in. In a space about the size of this room, I imagine, there are about six homes built, and each home has perhaps a litter of pigs underneath the house. It is a regular wallow; the stench is awful. Again and again I have been called to these Catholic communities in Bangkok to treat tuberculosis patients. It is very hard to institute a campaign of education among them. We sleep under nets, and frequently the mother who is infected will have her daughter sleeping with her under the same net, and the disease is carried from one to the other member of the family. It is my hope that some day we shall get the co-operation of His Majesty's government and establish a sanatorium for these unfortunate people.

DR. P. H. LERRIGO: It seems to me the sleeping arrangements of these people have a great deal to do with the prevalence of tuberculosis. Among people who are dwellers in the open air, you will often find a great deal of tuberculosis, largely dependent upon their sleeping habits. When I was among the Eskimos, I noted that though they themselves are usually a hardy race who pursue their hunting operations in the open air, their sleeping arrangements are un-

fortunate. They build small huts with small sleeping rooms in them heated by seal oil, and they heat these rooms to a most excessive temperature. Then they lie upon reindeer skins for beds, and the expectoration, and so on, collects upon these skins very often for years, and the result is there is considerable tuberculosis. It seemed to me that the tuberculosis was very largely due to the fact that they slept in these rooms with the excessively heated air, and the expired and re-inspired air was vitiated so that it was impossible for it properly to oxygenate the blood.

I found a somewhat similar state of things in the Philippines. They live there almost wholly in the open air, but their superstitions lead them to shut tightly the houses they are in, and they will very often cover their heads with sleeping garments or clothes which they wear during the day. We have tried sending some of our tubercular patients up to the little Christian communities found in the hills, and giving them proper instructions and having them dwell there for a time. I have in mind a plan to establish very cheap sanatoria. It is to build small and cheap little houses or huts in the neighborhood of the mission compound where we can oversee them and care for their diet, and keep them under our supervision for a matter of months. I think that these very cheap buildings will be found within the means of most medical missionaries, and we may be able to do something in the way of sanatoria without the large expense of stable structures.

DR. H. L. CANRIGHT: I believe there is one other element that enters into this widespread tuberculosis in China that has not been mentioned yet. The natives in West China, at least during the hot months, have their mosquito netting down over the beds to keep the mosquitoes out; then in the winter time they have them down to keep the cold out; so the year round the mosquito nets are around the bed, and among the poorer classes these nets are not mosquito netting, but closely woven cloth. So they breathe and rebreathe the vitiated air.

DR. W. L. THOMPSON: It is the universal habit, I believe, as I know the natives in South Africa sleep with their

feet to the fire and a blanket covering their heads.

THE CHAIRMAN: How do the doctors treat the problem of these tuberculosis cases coming to them and into their hospitals? Where we have no sanatoria, what can we do? To take these cases into our hospitals always means a very severe risk. I wonder what is being done in different countries with reference to the question?

VOICE: Speaking for South China, I think the form we usually meet is the surgical form. The changes of temperature there are never so sudden as to bring on pulmonary trouble to such an extent as they will further north. Many of the poorer people live in thatched roof cottages, and the masonry is never plastered solidly together. The tiles are sometimes weighted down with brick, and there are always many holes and chinks in the walls to admit of fresh air. I think this may account for our not meeting it as often as we could expect. The form we most frequently meet is tubercular sinuses and suppurating glands, especially about the cervical region. These forms lend themselves to treatment with some fair degree of success. We give them cod-liver oil rubs, and a little more recently, olive oil rubs; and I have found some success with the use of a compound liniment of iodine. With regard to the pulmonary form, the hospital treatment has been very unsatisfactory in my experience.

VOICE: We have a strict rule that no pulmonary tuberculosis patients are kept in the hospital; and we have met the difficulty by having temporary structures outside in the foothills of the mountains. We have two temporary structures, one for men and one for women. The one for men is simply bamboo and matting surrounding the building on two sides, nearly but not quite to the eaves, to keep off the chilly winds which come down from the hills. Two sides are entirely exposed. The one for the women has sides surrounded with corrugated iron hung on hinges at the top, but they are usually kept open throughout the day, and the tubercular patients are kept there entirely.

MRS. MARTIN: The sanatorium of Doctor Eddy, the woman physician of

Syria, has tents, and she moves her sanatorium to Lebanon, where the air is very dry in summer, and lower down in winter. She treats only women, but she has been remarkably successful in her treatment of pulmonary tuberculosis.

VOICE: The money question is always present with the missionary, so in Foochow we have tried to find a substitute for cod-liver oil, and it may be of interest to some people to know that we have used peanut oil with our tubercular patients and with very good effect. We find it is very much cheaper and that they improve on it almost as well as on cod-liver oil.

THE CHAIRMAN: Does not this really show a most deplorable condition throughout our whole mission field, where those who ought to be taken out of their homes and treated are the very ones we have to exclude from our hospitals, and they will go back to their homes and continue to be sources of infection for this disease? And is it not time that we should try to wake up the community here at home, who are themselves awakened to the dangers of this disease, to the great need there is for effort along this line throughout the whole Orient? I believe a resolution is to come before the resolution committee with reference to it. I hope it may be made broad enough and strong enough to enable those of us who need to try to raise funds along this line to use it with success. Is there any further statement that any one wishes to make with reference to this condition?

DR. W. L. THOMPSON: We sometimes make a temporary shelter for tubercular patients in Africa and burn it when they are through with it.

DR. J. H. KELLOGG: I think that it is generally conceded at the present time that the old method of stuffing patients is quite a disadvantage. The observations at the Phipps Institute have shown that the patients who die of tuberculosis really do not die of the lung lesion. It is very seldom, in fact, only when one dies of hemorrhage or from septicemia, that he dies of lung lesion; but the patients nearly all die of kidney lesions. Eighty-six per cent of all patients who die at the Phipps Institute are found to have serious kidney lesions, and more

than ninety per cent are found to have serious liver lesions. These lesions are not due to infection of the organ with the germ, but to the constant influence of toxins or tuberculin. Tuberculin acts upon the kidney and the liver in a most pernicious way, causing cirrhosis of both these organs. It has been long noted that persons who recover from tuberculosis often die of Bright's disease two or three years later. There can be no doubt that the high-protein dietary which at one time was greatly in vogue in feeding these patients has hastened the death of a great many. While they recovered temporarily from the tuberculosis, they died two or three years later from Bright's disease, in many instances without the cause being suspected. It is just as important to take care of the kidneys in the treatment of this disease as it is to promote the health of the lungs; for it is the kidney upon which we must depend to eliminate the toxins which are produced by the bacteria and which really are the actual cause of the disease; so that the over-feeding, especially the high-protein diet, is particularly objectionable.

We had some experience in an institution out in Colorado, some years ago, where we treated a large number of cases of this sort; and we found when we put our patients on a low-protein or non-flesh diet, the fever was more readily controlled, the patient gained in flesh more rapidly, and his resistance was improved. A young man who came here to get an education as a medical missionary, developed tuberculosis after he had been with us a couple of years, and his case was so bad before the fact was discovered that I despaired of his life. I sent him to Colorado with some instructions, and I never expected to see him alive again; but a couple of years later when I visited Colorado, he challenged me to a run up the mountain, and he left me far behind in a very short time. In less than two years he made a complete recovery, came back to his work again, finished his medical education, and became an athlete of remarkable vigor. He could run twenty-five miles without stopping in about three hours, and was in the habit of running regularly every day from ten to fifteen miles at a rapid

rate. It was his regular exercise that saved him. He never tasted flesh during all this time, and very seldom eggs, and very little milk. His diet was a low-protein diet and of a purely non-flesh character.

Personally, I am satisfied that

The Low-Protein Diet

is a great advantage. What the patient wants is fat, increase in flesh; he needs protein enough to replace the protein which he loses, of course, but he does not need any surplus of protein. Chittenden's experiments have shown that the body can not store protein, but it can use only that which is necessary for use to-day, and all the excess protein must be eliminated through the kidneys. Any surplus of protein is a poison in the body and lowers vital resistance; diminishes the alkalinity of the blood which is naturally diminished in tuberculosis; increases greatly the work of the kidneys, which are already overworked in the elimination of tuberculin, and so in every way renders the situation of the patient rather less favorable. In Germany not very long ago the idea was dominant that a meat diet was necessary in tuberculosis, so an institution was started in which patients were to be fed exclusively upon raw meat, so as to get the full benefit of it. The institution lingered out an existence of about four months, and then they were obliged to close it up. It expired of ptomain poisoning. The patients got worse so rapidly that they could not be induced to remain on that diet.

The outdoor life is unquestionably of immense advantage for tubercular patients. It is the sheet anchor of the treatment, but it is not the whole thing; and it seems to me there is a mistake sometimes made in doing nothing else for the patient but just asking him to live outdoors. A Scandinavian physician who practiced at Rio Janeiro some years ago made some interesting experiments in

The Hydriatic Method of Treatment

of tubercular patients. He began by the application of cold water in a very careful way, just a little dash and vigor-

ous rubbing afterward, then a little colder water, and a little longer application, and finally, at the end of a few weeks' training, he was putting his patient into a bath tub of very cold water with vigorous rubbing for half a minute; and he reports a very large number of cures by this method. I think this method is somewhat heroic; but Winternitz of Vienna, who is one of the professors in the great Imperial University there, told me that his success with tubercular patients had been very great, that he had cured three-quarters of all the cases he had treated, and that is much larger than the ordinary percentage.

I found at Davos, which I visited some eight years ago, that the cold morning spray had been introduced, and every patient was encouraged to take it. The patients were well warmed first, and then they had a douche of cold water. The purpose is to bring the blood into the skin to invigorate it. If the resistance of the skin can be increased and built up, the other tissues seem to rally, and their resistance is improved. Anything that improves the circulation, improves the heart action, strengthens the nerve centers, and aids the body in combating this disease. The cold bath has the special advantage that it increases the oxidation. The body of the tubercular patient is filled with toxins. The application of cold water stimulates the antitoxic glands, and so stimulates the elimination of toxins, and improves heart action and raises the vital resistance. Cold seems to have the power to raise vital resistance. It seems to me that in a hot climate in particular the application of cold water in some way would be very beneficial.

Measures for Relieving the Cough

Other hydriatic measures are of great importance as accessories. There is nothing that will relieve the cough of the patient so quickly as the drinking of hot water, and the application of a compress to the chest. I have seen many patients who had been kept awake all night coughing, made to sleep by simply wringing a towel out of cold water and applying it to the chest and covering it with flannel. The sipping of water as

hot as can be swallowed will often relieve cough, especially the dry cough.

There is something before tubercular infection, and that is lowered vital resistance. Now, I am satisfied that intestinal autointoxication, the absorption from the intestines of toxins which overwhelm the body, is an exceedingly frequent cause of the tubercular infection taking effect. Combe has shown that fats are exceedingly likely to produce intestinal autointoxication. Fats encourage intestinal putrefaction; and so in the use of fats there is great danger of taking something that encourages the autointoxication and lowers the vital resistance. My own observation is that it is not necessary to use such large quantities of fats. Starch is much more easily assimilable; carbohydrates are much more easily taken. We have a form of carbohydrate which is predigested and may be used very easily. It is malt sugar, which is easily digested. Cane sugar is irritating to the intestine and is not easily digested. Mosso, Ogata and others have shown that a ten per cent solution of cane sugar will create a very irritated state of the intestine. Malt sugar is very easily digestible. So this malt sugar, when it can be obtained, is of very great service, and I am satisfied it is very much better than using large quantities of oil.

An Analysis of Cod-Liver Oil

So far as cod-liver oil is concerned, we never use it here. I saw not long ago an analysis of cod-liver oil, which showed that the only characteristic properties of this oil are certain ptomains which result from the decay and putrefaction of cod livers, while they are waiting to be stewed up for the extraction of the oil. Decomposition begins very quickly after the death of the fish, and the ptomains which are present are really the only way in which it differs from other animal oils such as are found in butter and cream. The peanut oil, or possibly sesame oil, and olive oil are very much preferable to animal oils because, as Combe has shown, they do not excite intestinal autointoxication to a remarkable degree, and so may be taken in greater quantities.

THE CHAIRMAN: The time has come for us to close this meeting. I think we have all felt it has been a profitable meeting. Others may have felt that we should have had other topics up, but we have not had the time to do so. This is probably the last time we shall gather in a distinctively medical conference. I am sure all of us have felt the conferences that have been held have been suggestive and helpful. It might perhaps be suggested that it might have been made more successful and helpful provided a definite topic had been selected to be discussed at each meeting, some one who is an adept on that subject giving a paper first to be followed by discussion. I think we might perhaps throw that out as a suggestion or a hint with reference to any future conferences of this kind.



EIGHTH MEETING

Sunday, January 8, 10:30 A. M.

Bishop J. M. Thoburn, Presiding

Scripture lesson from Isaiah 61, and prayer by the Chairman.

THE CHAIRMAN: We are now to be favored with an address from Dr. Greene, to which I know you are looking forward with particular anticipation.

THE NEW CRISIS IN AN OLD EMPIRE

REV. JOSEPH K. GREENE, D. D.: I fear that some may feel that they are being unduly fed on Turkey, but perhaps this may be excused on the plea that Turkey is not our ordinary diet.

The missionary problem in the Turkish Empire is the salvation of the entire people of the land. This means the apprehension, on the part of eight millions of Oriental Christians, that men are to be saved, not by rites and ceremonies, but by a living faith in Christ. It means the formation and growth of evangelical churches, whose members shall recognize that they are called to be witnesses for Christ and to advance the kingdom of God. It means, also, on the part of some thirty millions of Mohammedans, including those in Egypt and Arabia, not only that there is no God but God, but

also that Jesus Christ is the One Divine Messenger of God and the Saviour of man. Finally, it means the end of Mohammedan fanaticism, plundering and massacre, and the development of a capable and honest government. In other words, the missionary problem in Turkey contemplates both the spiritual reformation of men and the general well-being of the people.

Ninety years ago the American Board began its work in Turkey, and both through the missionaries of the board and through other and manifold agencies, God has clearly undertaken to reform and to save Turkey. Three generations form a brief period in the reformation of a people; it suffices, however, if we have assurance that the work has been well begun and is making progress.

Are there, then, signs which warrant such assurance? Modestly but confidently we answer, Yes. First of all, let me premise that

Turkey is a Land Worth Saving

Even in its present reduced dimensions the empire is eighteen times larger than the State of New York. It is a land of fertile soil, of rich natural resources, of great historical and archeological interest, the land of God's chosen people, the land of Christ and the Apostles.

The members of the Oriental churches, though greatly reduced by centuries of oppression and massacre, still constitute the red blood of the social system of Turkey. National aspirations and the desire to maintain church unity in order to realize those aspirations, still to a large extent control the Christian races. At the same time, the enlightenment of both clergy and laity is advancing, and the time of deliverance of Oriental Christians from the spirit of intolerance, from religious error and from spiritual deadness, is surely approaching.

The small Turkish tribe, which, some seven centuries ago, emerged from Central Asia and eventually established the Turkish Empire, has largely lost its original Tartar characteristics. Renegades from all the Christian races,—Greek, Armenian, Bulgarian, Servian and Albanian,—joined the Turkish host and professed themselves Mohammedans, in



BISHOP J. M. THOBURN, VICE-PRESIDENT

order both to preserve their property and to secure civil and military advancement. In the course of two centuries the corps of the Janissaries added some two million of *Christian* youth to the Mohammedan body, and the marriage of Turks with Christian and Circassian women has never ceased. Thus the Mohammedan body is very considerably changed, the nomadic habits and the warlike traits of the Turks have largely disappeared, and changes of thought and policy are bound to ensue.

In the revolution of July, 1908, the controlling Mohammedan forces came from Macedonia and Thrace. This force was largely European in ancestry and was largely governed by European ideas. It was the same force which in April, 1909, fired by the enthusiasm of two Albanian heroes, rushed to suppress the mutiny and reaction instigated by Sultan Hamid, and saved both the inhabitants of Constantinople from massacre and the constitutional government from destruction. This body of European Mohammedans, reinforced by Asiatic Mohammedans—all known by the name of Young Turks—found its chief support in the three corps d'armée stationed



REV. JOSEPH K. GREENE, D. D.

in European Turkey, and through an extensive reorganization now controls the entire Turkish army. This army is henceforth to be recruited not only from Mohammedan, but also from Christian, youth, and will have, we trust, a powerful influence in restraining, and ultimately in extinguishing, the old Mohammedan thirst for the blood and property of the Christians.

It should be noted that by means of enlightened Turkish preachers and teachers and a liberal-minded press the Mohammedan population is being taught that, even according to their own sacred book — the Koran — legitimate government is of and for and by the people; that

The True Idea of Islam

is not autocratic and despotic rule, as in the past, but is government according to the will of the people; that equality and brotherhood are henceforth to be understood, not as confined to Mohammedans, but as belonging equally and of right to all Ottoman subjects. This is, in fact, an attempt to revolutionize the Mohammedan thought and practice of centuries, and we wonder and praise God.

It is a great work which the Young Turks have undertaken, and its accomplishment will require lots of time. We know not the secrets of the future, but we do know that *now* is the time for all American Christians to do all in their power to help the Young Turks in the enlightenment of their countrymen. For the first time in history, we have in Turkey a body of Mohammedans who apprehend in part their deficiencies, who feel their need of light and guidance, and who turn toward the Christian, especially the Protestant, nations for counsel and assistance. To approach such a body of men, to secure their esteem and confidence and to enlighten and persuade them, no hasty steps, no sensational methods, should be taken. As our Lord quietly sowed the good seed and patiently waited for its germination and growth, so must we. In working for the enlightenment of Mohammedans there is no short cut, no place for startling and sensational methods.

Many are the facilities of approach to Mohammedans under the new régime. No religious meetings in private houses were permitted under the despotic rule of Sultan Hamid. Now men pray and sing when and where they please. A few months ago a band of 400 native Sunday school children, bearing beautiful banners, with mottoes in Turkish, such as "God's Love Conquers," marched for two miles through the streets of Stamboul, singing all the way in English, "Onward, Christian soldiers, marching as to war." Clubs for social, moral and intellectual improvement, composed of both Christians and Mohammedans, have sprung up in many places. During the past winter weekly lectures on useful and moral themes were given in the house of the American Mission in Stamboul, and were largely attended by Mohammedan students, religious leaders and officials. At these lectures the chief speaker was Dr. Riza Tevfik Bey, one of the most enlightened and eloquent members of the Ottoman parliament. In Cæsarea a boys' club under American management, established both for amusement and instruction, has brought together, week by week, a considerable number of Mohammedan youth. An ever increasing number of Moslem boys

and girls is demanding admittance to American high schools and colleges. In short, social, educational and literary facilities of approach to Mohammedans are multiplying day by day.

Now, in addressing themselves to the great work of the evangelization of Turkey, what are the forces at the command of the missionaries? There is already on the ground a witnessing body of 16,000 evangelical church members, with 44,000 adherents; the missionaries have model translations of the Bible and a great body of educational and religious books in all the principal languages of the land; in forty-four boarding schools and in nine colleges, including the independent institutions of Robert College for men and the American College for girls, there are some 4,600 students, whose power ere long will be profoundly felt; the medical branch of the missionary work, including hospitals and dispensaries in eight of the principal cities of Turkey, with a total number of indoor and outdoor patients considerably more than 100,000 a year, exerts a wide and weighty influence; various forms of charitable work undertaken in times of epidemic disease, famine, war and massacre, have given the missionaries a reputation for courage, benevolence, efficiency and honesty. Thus the missionaries in Turkey, free from the suspicion of being influenced by political motives, familiar with the languages, customs, thoughts and interests of the country, reinforced by a noble band of native workers, far more numerous than themselves, and all animated by a Christlike love for all the people of the land—such a body of Christian workers clearly constitutes an important part of the instrumentalities evidently chosen by God to accomplish the evangelization of the great empire of Turkey.

Surely such a body of Christian workers deserves to be generously supported and to be constantly recruited by men of faith and prayer. The times in Turkey call, not for doubters, or sluggards, or cowards, but for men and women who have implicit faith in God and in his revealed Word; persons who recognize that they are sent, not merely to educate the people of Turkey, but also to evangelize and save them.

NINTH MEETING

Sunday, January 8, 2:30 P. M.

Rev. Chas. C. Creegan, D. D., Presiding

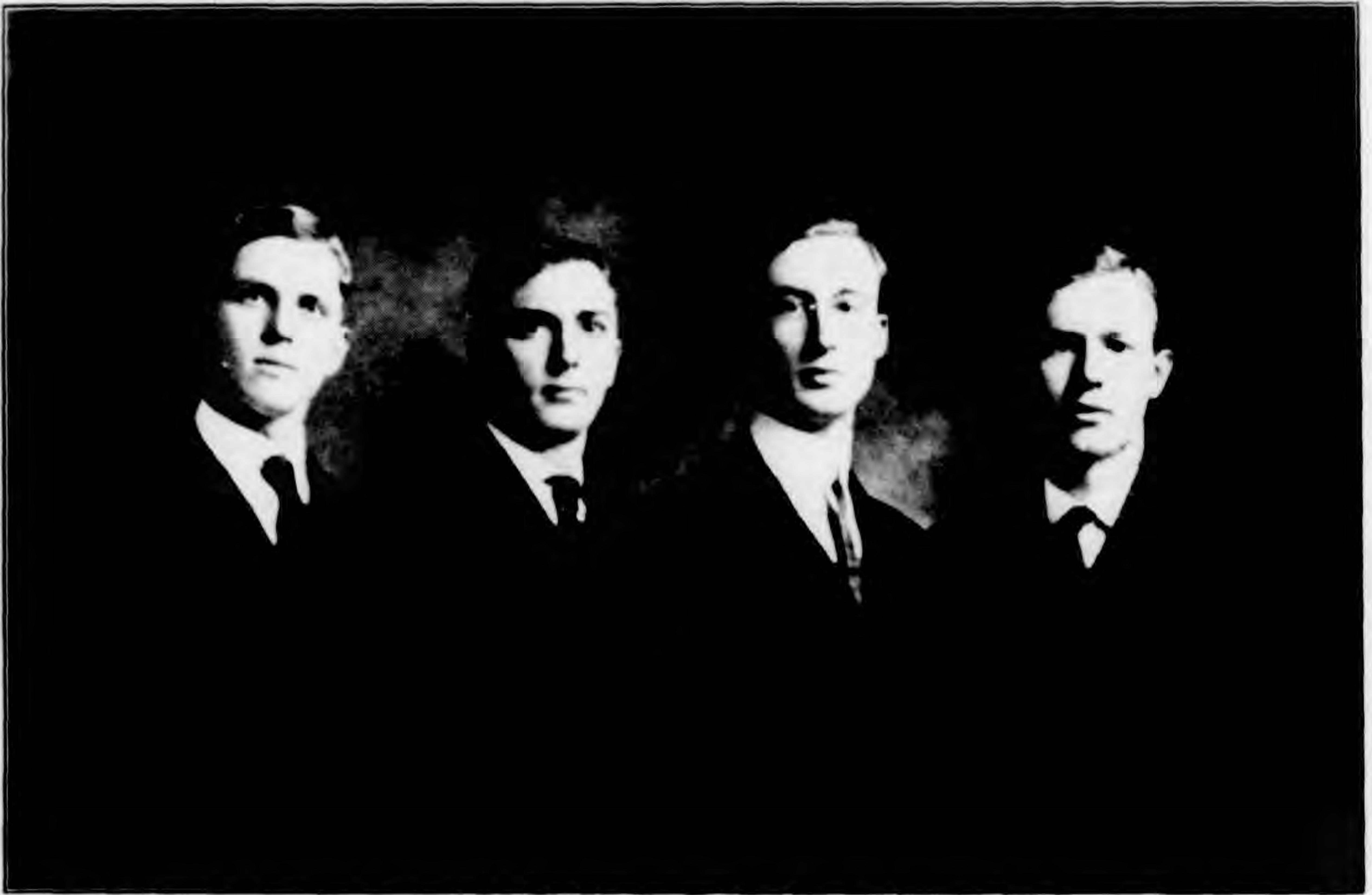
Prayer by Rev. Wm. P. Clarke, of European Turkey.

Song by quartet.

MEDICAL MISSIONARY STUDENTS

THE CHAIRMAN: I want Dr. Kellogg to say a single word about these young men and young women who are preparing to go out to the foreign field.

DR. J. H. KELLOGG: I thank the chairman very much for an opportunity to say just a word in behalf of our young friends here who are preparing themselves for the foreign mission field, and who represent about twice as large a number who are now in college. They have pursued their studies in Battle Creek until this year, but the technical part of the school has now been merged in the medical department of the University of Illinois. Students who are getting their education in a medical college connected with a university will be able to go out with a double degree, with the B. S. or A. B., as well as the M. D. degree, and so acquire better standing in the foreign mission field. The standards are being raised to such a degree that in a short time two years of college work will be required of any student who enters upon medical study in the United States, in any recognized medical school. Two years of medical work is counted twice—on the medical degree and also on the scientific degree. When I attended the meeting of the secretaries of mission boards in New York three years ago through the kind invitation of Dr. Creegan, I found the sentiment seemed to be almost unanimous that it was highly important that the missionary going out into the foreign field should have the very highest attainments and the most thorough preparation, because so many from heathen lands, especially Japan and China, are coming to this country for scientific study. It is important that the missionaries should be prepared to take the lead in the advance of civilization in heathen lands. In the case of our medical students, it would be a hardship inflicted upon them if they had to



THE CONFERENCE QUARTET, COMPOSED OF MEDICAL MISSIONARY STUDENTS

have two years of college work without credit for it; while if they obtained their degree from a university school, they would have the bachelorship with the medical degree without any additional work. The school here could furnish all the necessary instruction and first-class facilities, but we could not give the university degree; and we could make no arrangement by which the work of the students in the medical school could be made to count on the scientific degree. So it seemed to be in the interests of the students themselves and of the missions that we should make the change. We very much regretted to do it, it was like burying a child; but it seemed inevitable.

I feel very thankful that the Lord has moved upon the hearts of these young men and women to give their lives to this work. The institution has no other purpose than to advance the interests of our common humanity, and we desire that as much as possible of the instruction given here shall be utilized in the missionary cause. We are hoping that our nurses' class will again become a missionary nurses' class, as it was formerly. Some

changes took place that made it necessary for us to admit a considerable number without requiring of them the missionary pledge, but we hope to get back again to that position; and we hope the missionary conference will help us in maintaining in the institution the missionary spirit, missionary enthusiasm and aspirations. I sincerely hope that each one of these students who has started in this good way will have perseverance to go on. We have invited them to this conference, not only as an evidence to the missionaries gathered here that they have given their lives to this work, but as a means of strengthening their own faith and resolution. I trust that each one that has stood in the presence of these venerable men and women who have spent their lives in the mission field, will feel that he is under double obligation to make good. The medical student is tremendously exposed to influences that would lead him into personal medical work. There are many objectionable influences in the ordinary school, but the student who is able to resist these influences ought to be the better missionary when he gets to the foreign field.

MEDICAL WORK AN INTRODUCTION TO THE GOSPEL

THE CHAIRMAN: We are now to have the pleasure of hearing an address by Rev. E. G. Smith, M. D., of India.

REV. E. G. SMITH, M. D.: There are two or three things which especially oppose the Gospel in India. The one that is mentioned oftenest is caste. Briefly stated, the people of India believe that men are placed in certain social positions according to the merit which they have acquired in previous births; that a man's position is fixed by his birth in this world; that if a man is born into a certain caste, he must be holier than a man born in a lower caste, and that the things that he does will have very little effect upon his respectability in this life. A man may be wicked in every sense of the word, yet his neighbors, when asked about him, refer to his caste and say that he is "a very respectable gentleman."

One instance will help you to realize just what caste means to a Hindu. I know a young man whose father was the priest of a certain Maharajah. He himself lived a very wild, dissolute life. His elder brother, who was very good as morals go in India, was converted and baptized. As a result his funeral was celebrated by proxy, and he was cut off from his family.

A short time after, the younger, dissolute one came to his mother and said, "I believe in the Lord Jesus Christ; I intend also to be a Christian."

The mother said, "My boy, I have often scolded you for your wildness; henceforth you may come and have your sprees at home; I will never object. I have often scolded you for wasting your money on wicked women; you may bring them and keep them in my house, and I will wait on them; *but don't be a Christian.*"

Even the low castes speak of joining Christianity as *getting down* into Christianity. Christianity is the only religion in India that provides for the intermingling of men of all classes; therefore it is lower than the lowest of the outcasts, and caste is and must be the enemy of Christianity.

Another great obstacle is the belief of these people that all things are ordained

of God. A man comes to me with a disease brought on by his own sin. I try to speak to him about his responsibility in the matter. He touches his forehead and says, "What could I do? It is written here that I should do it." Then, again, they think that a man may have countless periods of probation, opportunities in which to gain heaven; so, if he fails in this life, he will have a chance to try again in another birth. These three beliefs as to lack of responsibility spoil their approachability on the part of the Gospel.

Medical missions, as has been stated here before, are not an infallible approach to every heart, but they certainly do afford an approach to a great many. When I went to India, we had no medical work in our mission. I was acquainted with a certain Brahmin there, whose wife had had her horoscope taken as a child.

He came to me one day in great distress, and said, "My wife's horoscope foretells that she will die when her seventh child is born, and we expect that event soon to take place."

"You are educated in the English language," I replied; "you are a Madras College man; you say you believe in God, and yet you are afraid."

"What can I do?" he said. (Everything in India is met by that one question, "What can I do?")

I told him we would help him, and when the time came, Mrs. Smith, who is a trained nurse, went with me to his house. Fortunately, in India at such times a certain part of the house is ceremonially defiled; otherwise it would have been crowded with neighbors; but the outside of the house was filled with the mob of people who had come to see that woman die as had been foretold. She was frightened almost to death, but we reassured her. After a time we were able to tell her husband that everything was well and her child was born. Then the man came, and before I could get away from him, caught me by the feet and said, "Worship him, worship him; he is our god." His oldest child was a widow of about fourteen. She brought her baby and bumped its head on my feet while the father held me so I could not get away. He also brought the other

children up to worship me. I did not feel like laughing; I felt like crying. I had done something which they could not do; that was all. But that crowd of neighbors gathered around got their first shock in the matter of belief in horoscopes.

The natives have a great suspicion of missionaries. The first question they ask is, "How much does the government pay you for teaching us this?" One cause of the present unrest in India is the widespread belief that the English government exists for the purpose of mixing up all the castes; they think that we get a bonus for every man that is baptized. But there come times when they are in an emergency, and that is our opportunity. They have medical men of their own, who at the present time are almost all quacks of the worst description.

It was mentioned here that we have a class of

Native Hospital Assistants

in India. On the Bombay side they may make good; they certainly do not on ours. I had one day a boy ten or twelve years of age brought to me with a nasal polypus which was projecting beyond the nose. I said to his father, "Why don't you wash that boy's nose? What is the meaning of all this dirt on that polypus?" "Sir," he said, "we took that boy to the government hospital. The doctor tried tannate of glycerin and other things, and finally he told us he was to wear for a week a plaster of horse dung; that is what you see on the boy's nose." That was a government hospital prescription. Our district surgeons have told me that it takes a little less time in South India for a man to go back to his quackery and his native line of treatment than it took him to learn the English medicine; and my seventeen years' experience almost inclines me to the same belief.

But these people come to us in their sickness and in their emergency, and we are able to help them. They have a new thought born into their hearts, they wonder how it is that we spend our time in trying to help them. "How is it," they say, "that you can come near to these sick people and show them kindness, and handle them?"

"We Do Not Handle Them."

One reason they do not touch their own sick when dying is that they are afraid the departing spirit will come to the last person who has handled them, and may annoy him. They are afraid to be with their own dear ones at the time of their dying.

Our present medical station is Pithapuram. Our board selected that station about twenty years ago, but they could not secure land. It was a Rajah's town. The estate was administered by the government with a Brahmin overseer. Any person who would offer us land was threatened with excommunication and the loss of his own land. We tried for seven or eight years to get land, and then gave up in despair.

One man who had been particularly active in keeping out Christianity was a school teacher, in league with an older man who was also a teacher. They made special vows in order to keep Christianity from their town, which is the third sacred town in India. One of these men came and drove out our missionary colporter from the government school, and compelled the boys to go home and burn their books and change their clothes because they had been in contact with an outcast man.

A short time afterward the wife of one of these teachers was ill. She was sent to her mother's home, as expectant child mothers are always sent. Her husband called a government hospital physician, who told him his wife was likely to die. He asked him to call the missionary. "I won't call the missionary," he said; "it is bad enough to take government medicine; I will not have people who let outcasts cook their food, and hence themselves are no better than outcasts; I would rather my wife would die." He let her wait for four days, and in his desperation made vows to all the gods he knew of in South India, and there are a great many. On the fifth day, when the hospital assistant said, "Your wife will die in about fifteen minutes," he came and caught me by the feet and said, "Come and save my wife." With a great deal of trouble, and by God's blessing, his wife's life was saved. That man became friendly. A few years ago

he took a Bible as a proof of his friendship.

The other teacher's boy had lockjaw; with a great deal of care and a great deal more of prayer, that boy recovered. These two men, the brother of the sick boy and the other teacher, got the land on which

Our Hospital in Pithapuram

now stands, and asked us to come and take the deeds for it. That man was himself baptized two years ago, and his wife has since been baptized, and he out of his poverty gave last year seventy-five dollars for the spread of the Gospel in Pithapuram.

While these people do not understand our language or our customs, while they can not understand our motive in going and preaching the Gospel to them, they can understand that universal language of love which we show in our endeavor to heal those that are sick, to have pity upon those who are in distress. That language of love is an old language, and it is one which medical missionaries have an opportunity to speak to others even before they can learn the tongue of the peoples to which they go. I hope that there are some here who will find their way to India, because, although India has 326 medical missionaries, we have need for at least that many more.

INSTANCES IN MEDICAL WORK IN EASTERN ARABIA

THE CHAIRMAN: Arabia, until very recently, has been considered one of the neglected and one of the most difficult fields of the world. We are to hear from one who has toiled there, S. J. Thoms, M. D.

S. J. THOMS, M. D.: Arabia has been known as the neglected peninsula. We have a quarterly magazine published on the field, called, *Neglected Arabia*; and to bear this out I can say that at our Conference here I think almost every country of any size in which missionaries are working has been mentioned except Arabia.

We work entirely among the Mohammedans. Arabia is the seat of the Mohammedan religion,

The Cradle of Islam.

These people are noted for their bigotry, fanaticism, ignorance and intolerance. But I think there is no work that is so very telling as a pioneer agency, at least among the Mohammedan people, as the medical missionary work.

In the first place, the dispensary is the only means we have of getting audiences together. In some places, India, for instance, they have bazaar preaching, but that would not be tolerated in any place in Arabia. So the only possible chance of getting together a large crowd for the ministers and the doctors is in the dispensary. At our hospital last year we treated 18,000 or 19,000 patients. All these patients gather in the waiting-room of the dispensary and have the Gospel preached to them. Prayer is offered for the work and for them and their families, and that is the first way of approach to them.

The second way is up in the wards. That gives us an even better chance of reaching the people than in the dispensaries; because very often the people come to the dispensary only once, but up in the wards, while they are lying in a susceptible mood, thinking of themselves and their condition, their past and the future, we have an opportunity of going to their bedsides and talking with them. Every afternoon we have a ward service. A simple Gospel sermon is preached, and prayers are offered, and after this set service we go to the patients and do personal work, talking with them first about their homes and their families and their condition, showing them our sympathy; and then we are able to speak to them about their souls and about sin and salvation. Before this, the most of these patients have been operated upon, and they have been impressed by the love and devotion that we have shown to them and the work.

But the third and most telling of the methods, I think, is the treatment itself.

Every Treatment is a Sermon

of the most effective nature. The Arabs, from time immemorial, ever since the "Arabian Nights Entertainments" were written and before, have been noted for



DR. S. J. THOMS

their ability to tell stories. When we have preached to a company of Arabs, they merely say, "Well, that was a pretty good story." But when they see us taking off our coats and going into the plague-stricken cottages and huts and working over filthy patients that they themselves would not touch, they realize that we must surely love them. That is the way their hearts are opened to what we have to say about the Gospel.

Let me give you an example of the way in which the medical missionary work opens up whole fields to the Gospel. When we first went to Arabia, one of the islands especially was noted for its fanaticism, and was closed to all mission work. Colporters who had gone to this island had been stoned and driven away, and the missionary who had been stationed there some little time before the medical work was started, had also been stoned and driven out. But shortly after we arrived, one of the sheiks of the island came to us with what all of the native doctors considered an incurable disease, known as ectropion, a turning out of the lower lid of the eye. We operated and

he was entirely cured; and he was so pleased that he gave us what out there is considered a huge fee of about one hundred dollars, 300 rupees. More than that, he said, "Any time you want to come to our island, come along, and bring your friends." So we went over with our medicines and treated the sick, and took colporters and sold Bibles all over that island, and since that time we have had no trouble at all in that place.

The question is often asked, do we have any system of medicine out there.

The Only System of Medicine

they have is the old translation from the Greek of Hippocrates, the father of medicine. They divide their diseases into hot and cold, and dry and wet. For instance, if you have a hot disease, such as any of the intestinal troubles, you take something cold, and about the coldest thing they can get hold of is cucumbers; so you take cucumbers and muskmelons for diarrhea. In their treatments they use the cautery very extensively. We get patients with deep burns across the abdomen and different parts of the body, and very often they die from blood poisoning from suppuration. We have to treat not only the original trouble but the burn also.

They have great faith in charms. They take a portion from the Koran, put it in a bag, and tie it around the neck to keep out evil spirits. One man came to me with a very bad ear, and on examination I took from his ear a foreign body which I found to be a piece of paper wrapped up as small as possible, and on it some writing from the Koran. I asked him how that happened, and he said he had had a very bad toothache, and had gone to the Mullah—one of their teachers,—and he had put this sacred writing from the Koran in his ear. That caused his ear to ache, and he had a very bad ear trouble; we had to pull the tooth and treat the ear besides. Another method of treatment is by writing some words from the Koran in saffron ink, putting that into a cup of water, stirring it up, and then drinking the water from it. There is really no rational treatment out there.

When we first came to our station we

had no hospital. We had to set up our first operating room in the dark downstairs room in a rented house, or out in the open courtyard where flies and dust were flying about. We knew that if we failed in any one of our first cases, we might be driven out of the place; and we realized how very necessary it was to have these first operations successful. We prayed most earnestly, and the Lord wonderfully blessed our work. In spite of all the unfavorable conditions, and in spite of our having very little experience in surgery, the Lord blessed us to such an extent that although we did a great deal of operating, for four years we had not a single death of any case that had been operated upon. I want to testify to blessings through answered prayer in our work. It is done under difficult circumstances, but he has upheld our hands and blessed our work.

At Muscat we had just the same experience. The Sultan opposed our coming, and forbade us to open our dispensary; but we did, and within three weeks we were treating over two hundred patients a day. Fortunately, a man came to us with a cataract, and we operated upon him. When the Sultan heard of this operation he sent word to the man to appear at the palace. He went to the palace, where the Sultan was sitting with a large following, and the Sultan gave him an Arabic letter to read. The man, who had been blind for years, took the letter and read it to the Sultan and his retinue.

That Opened Up Muscat.

The son of the Sultan soon came to call on us. Before this I had wanted to call on the Sultan, but had been told it was not convenient; but now the Sultan sent his eldest son to call on us and bring presents and salaams from His Highness. So the work goes on in this new province of Oman in which we are establishing the medical missionary work. We have few converts in our part of the field as yet, but there is a great undercurrent of inquiry, and we see decided changes in the attitude toward us and the Word which we preach, and with the eye of faith we see prayers answered and a garnered harvest.

THE ACHIEVEMENT OF A MEDICAL MISSION IN FORTY YEARS

THE CHAIRMAN: When I was in China, among those who extended to me hospitality which I shall never forget, was the next speaker. He was then reading proof of a work on Anatomy, giving to the Chinese in their own tongue substantially what we have here in our colleges and medical schools on the subject of Anatomy. It gives me great pleasure to introduce to you Dr. Whitney, from Foochow, China.

H. T. WHITNEY, M. D.: When I was asked to speak at this Conference, I chose this theme because quite a number of questions had been asked me from time to time with reference to the real object in sending out medical missionaries to the foreign field,—what their duties were, and what they were expected to accomplish. It occurred to me that I might take our own medical work as an illustration, and in that way answer many of these questions, especially as there are a number of medical students here who are preparing for foreign mission work.

The duty of a medical missionary appointed to go to any foreign field is, first, to look after the health of the station. The second duty is to look after the health of those in mission employ. Third, it is his duty to care for the native Christians.

Beyond that, what is the object of his going out? What is he going to try to accomplish in the foreign field? Briefly stated, the first object is to open up the field, removing hatred and prejudice against the foreigner, and preparing the way for the clerical missionary. The next is the training of medical students. We desire to reproduce ourselves on the foreign field; otherwise when *our* work stops, *the* work stops. We may have successors, but so far as our work and its influence are concerned, they largely stop when we stop; so one of our objects is

To Reproduce Ourselves

on the foreign field. This leads, of course, to the further object and duty of preparing medical literature, including medical textbooks. Lastly, the one great object is to make Christians. That is the

main object for which we go to the foreign field; and these other things are only means to that end.

The methods by which these objects are accomplished, I will name briefly. First, is that of the medical itineracy; that is, making medical tours through the field. This we have found a very potent help in removing the prejudice against the doctrine and against the foreigners; and this also helps to open up the way for the clerical missionary. Another means is that of bedside practice. This is something which in former years

times come hundreds of miles to the dispensary, and in that way come within hearing of the Gospel.

The next thing in order is, of course, the establishment of a hospital. Our younger medical missionaries who go to the field often think first of the hospital; but do not be in a hurry about that. You want first to get on your feet with the language, then perhaps after about the second year, if you are able and have the funds, establish your hospital. Then there is the literary work, the development of medical literature for the benefit of those we

train, also to help enlighten the people so that they will understand something of what the native physician may tell them when he comes to prescribe for them.

Religious Work in the Hospital

Connected with all this work, of course, is the preaching of the Gospel. In the larger dispensaries we have a regular religious service before the clinic, and during the clinic personal conversation with the patients while they are waiting. In this way, in some of our larger dispensaries, we calculate that we reach some 15,000 a year who have had the opportunity of hearing the Gospel one or more times. In the hospital we have our regular morning prayers; and when the hospital is large enough, we have a medical evangelist, who talks or reads to the patients and explains to them the truth.

Our work, which started in 1870, was the first regular medical missionary work established in Foochow. During these forty years we have had nine physicians connected with our work, four men and five women. I myself have been the longest in the field; it is now thirty-four years since I first went to China.



DR. AND MRS. H. T. WHITNEY

was very much neglected. When I went to China I always improved every opportunity which I had of getting into the houses, because I found that bedside practice was one of the most potent influences for bringing the people into a friendly condition where they were willing to listen to the truth. The next thing in order is that of establishing dispensaries. The first thing a missionary does now when he goes to a field is to open a dispensary. Of course, we choose the strategic point in the mission field, and when we establish our dispensaries, we put them where they reach a wide area, not only in a large population which surrounds the dispensary itself, but in scores and hundreds of villages in the surrounding country. Patients some-

The labor of these nine physicians aggregates about 145 years of medical work which has been expended in that region of Foochow and the country round about. We have treated in that time 650,000 patients. This includes, of course, several thousand in-patients, and four thousand and more for the curing of the opium habit. It includes many thousands of bedside patients, and the itinerating work; and the rest is confined to the regular dispensary work. We have performed altogether some 23,000 surgical operations, major and minor. We classify as major operations all those which require an anesthetic; and the others are reckoned under minor operations. For instance, the operation for cataract, harelip, and all operations of that kind where we do not give an anesthetic, are classed as minor operations.

The Translation of Medical Literature

We have educated about fifty medical students, men and women, to help us in our work and to go out in practice. Three medical works have been prepared. I first prepared two physiologies, which we use in our mission schools, one grade for the common school, and one for the high school and college grades; and after that the translation of Gray's Anatomy, the standard work in our own medical schools here in this country. This was first translated by my predecessor, Dr. D. W. Osgood, who went out in 1870. He began it in 1877 and was three years in preparing the abbreviated translation of Gray's Anatomy which was used for twenty years. The development of the medical nomenclature of China, and the medical work generally, necessitated a new translation, which I undertook in 1901; and in 1904, three years later, I finished the translation, which is now being circulated and used all over China.

During the first twenty years of my work in China, I was able to get a fairly accurate idea of the influence of the medical work in leading to Christianity. In Foochow, including four stations, I estimated that about one-seventh of those who came into the church in our own communion came in through the influence of the medical work; and in the far interior, at a station 250 miles from

Foochow, I estimated that about one-fifth came in through the influence of the medical work. Aside from that, there were quite a number who went into other communions. Nearly three-fourths of our work for many years went for the benefit of the other missions. I have had many testimonies, both through the missionaries and the native helpers, from those who said they first learned about the truth in Ponasang hospital, showing that the results were not only in our own mission but in others. I do not know the exact percentage, but I know the medical work has been very influential all these years.

We have now in that field five medical works, three for women and children, and two for men. We are now needing three lady physicians and one man physician to help in the field and go on with the work which we have developed to this point.

MEDICAL WORK IN BRITISH EAST AFRICA

THE CHAIRMAN: Medical Work in British East Africa will be discussed by Dr. Blackburn.

ELISHA BLACKBURN, M. D.: British East Africa, as you all know, has recently been made famous by our ex-president. In order to reach it, we go from New York City through the Mediterranean Sea, down through the Red Sea, through the Indian Ocean to Mombassa. Six hundred miles inland is the mission with which I have been connected the past six years. This is an industrial mission, and I must in the first place say something about the industrial missions, though my subject is the medical work.

Every speaker from Africa has had something to say about industrial work. Our proposition in Africa is not only to take the people the Gospel in the generally accepted sense of the word; not only to take them medicine and surgery and learning, as far as educational work is concerned; but it is also to lift them up from an industrial standpoint. You do not have that situation in India and China and some other countries, as we have it in Africa; therefore the missionary who goes to Africa must have a thor-

ough equipment not only in his special line, but he must, if possible,

Know Something About Everything.

British East Africa is a little country on the east coast of Africa, with an area of about 350,000 square miles, and about 4,000,000 African people. In recent years the population has been increased by an immigration from South Africa. The mission I have been connected with, as I said before, is an industrial mission. Besides helping in the industrial work, I have treated about six thousand cases a year. I have been home almost two years, and have just completed raising sufficient funds to build a hospital out there that will accommodate about thirty or forty beds.

We find the African living in a little squalid hut about fifteen feet in diameter, not with his family only, but with his sheep and goats. If you could go with me about sunset and stand in front of one of these huts, we should see a couple of women and their children going in, then the young men and the older men. After them, to our surprise, we see the cattle coming; then the sheep and goats are driven in, and finally even the chickens. These all come in for the night. If you can imagine Christianity flourishing under such conditions, I can not.

The Equipment for Missionary Work

in Africa is necessarily something more than for almost any other field. It takes something besides your profession. It takes the whole man. He has to deal with the entire situation, with everything connected with the uplifting of the natives, and therefore we must have industrial missions.

The medical missionary work is first in Africa as elsewhere. To illustrate: There was a little section of the field we were prohibited from entering by the government, on account of the danger; several white people had been killed there. I was up in this north country once, and a man of about twenty-five years of age who had been lame from boyhood came to me and asked if I could fix his foot. I examined it and told him to come to my dispensary and I would

treat it. An operation was performed, and several pieces of necrosed bone were removed. This young man was the son of a chief of that hostile district. In due time he returned to his country, and for a long time I did not hear from him. Once after that I was up on the border of this same country, and when this chief heard I was there, he came out and said, "You remember my son whose foot was operated upon? He is all right now; he walks like other folks, a thing he had not been able to do since he was nine years old. We want you missionaries to come over into our country and preach the Gospel to us. Men who can do that sort of thing are the kind that we want in our country." The result of the treatment of that man's foot is that we have a mission station established in the center of this territory which before we could not enter.

The first operation I performed was done on three sunlight soap boxes, which I used as an operating table. The patient was a little girl nine or ten years old, and the case required anesthesia. We operated on her with a great crowd of people all around us looking on; we could hear them saying, "Why, he has put her to sleep;" and the question was, "Will she ever wake?" They watched intently, and when the operation was over, to their great surprise, she awoke. We were obliged to put her into a native hut, but she got along very well.

You ask, What does the government do for these people? The government in our part of the country does just as little as it possibly can in a medical way. This is not saying anything against the British government. We have government men who come through there itinerating; they work around among the tribes, remaining in each place for a week; but they go only to the government posts and do not touch the homes of the people at all; so in the homes of the people all the diseases that are rife in that country must be treated by medical missionaries.

The question arises, How many medical missionaries are there in that part of the country? As I said, we have four million people in British East Africa, and only three medical missionaries. That is more than a million apiece. We

have just three hospitals and I hope to put up the fourth.

The chief of the prevailing diseases in British East Africa is malaria. The next most prevalent disease is pneumonia; then we have sleeping sickness, epidemics of bubonic plague, and all the diseases resulting from a hot climate. We also have smallpox, and that reminds me of a word I want to say right here: Do not ever get an idea that anything will cure smallpox aside from vaccination.

We lack a great deal of equipment in our missionary work; all missions do. We need medical men, we need nurses, we need the equipment of hospitals and operating rooms, and Africa must have them. The old Africa of Livingstone and Stanley is passing away, and things are rapidly changing.

The question came up in this Conference to start with, Are missions worth while? I expect we as a company are a long way past that sort of thing; but should that question ever enter our minds? The question is not, Are missions worth while? The question is, What is my command? My command is to go to the uttermost parts of the world and preach the Gospel of Jesus Christ. When we buried our second little girl away on those hills 7,500 feet high, from pneumonia, that question came back to me after being there almost five years.—Is it worth while? Is it worth the price we have had to pay? Friends, it is not a question of whether it is worth while or not. We have simply to obey the command.

MEDICAL WORK IN BOLIVIA

THE CHAIRMAN: Now we are going to have a voice from a far-off land that we have not heard from before—Medical Work in Bolivia, by J. C. Field. We are glad to greet him.

J. C. FIELD: We have been very much interested in studying India and China and a few of the other parts of the world, but I come this afternoon to speak to you of a comparatively unknown, recently discovered part of the world. No, I am not Dr. Cook, nor is my name Commander Peary or Lieutenant Shackleton; but from a missionary point of view at

least, I do represent a part of the world that has recently been discovered. We are beginning to realize that close to us lies a continent, so close that we have not seen it, and have not appreciated the great opportunities and the great needs for missionary work in that land. We have gained a great deal of our information from globe-trotters who have passed around the border of the continent and seen something of the varnish or the veneer of civilization which has covered that continent in parts, and we have decided that the work is going on well and that there is no need there for us. South America is practically as far away as any of these other fields we have been hearing about. It took Mrs. Field and me thirty-five days to reach our destination when we went out there a few years ago.

The most potent factor in the civilization of any country is the religion, or the controlling church. I want to base all that I have to say upon that one remark. We may judge a tree by its fruits, and thus we must judge the church which has had control of the South American continent by the fruits that she has produced while she has had full control of that continent for over four centuries. The priests came with the conquerors to settle the country. It was a priest who betrayed the last king of the Incas, and asked that the man should be decapitated; and it was he who held the crucifix that the man's eternal life might be saved before he was strangled. The Roman Catholic Church has had full control during the past four centuries or more, and we must judge her by the conditions existing at present. She has controlled practically all the governments of South America up to a few years ago. Laws have only recently been made giving religious liberty in many of these republics.

What are some of the moral conditions we find in South America? Sanitation will depend very largely upon the moral conditions, and vice versa. There are thousands of priests in South America who

Have Never Seen the Bible.

who know practically nothing of what it contains except what they have read in

pamphlets given to them by their church. When our colporters are selling "The Letters of St. Paul," the priests say, "Why, I never heard of such a thing; I would like to read the letters of St. Paul and see what he has written." It needs only a glance of the eye, not a study of the face, of one of those priests, as you meet him on the street, to know something of the depravity and the debauchery of his life. I took the book of statistics in which the students in our city had been enrolled, and found that their fathers had sworn that more than twenty-six per cent of the children were illegitimate; in the higher grades the percentage was about forty. In the orphanages you will find a revolving cylinder where little babies can be placed at any time, and no question will be asked; as the cylinder revolves, the baby is taken in from the other side. Just before we left South America, the daily paper told of three different instances in which babies had been abandoned down by the river side.

Alcoholism is practically decimating our Indian population, and this has been brought about by

The Religious Feast Days.

The success of these feast days is judged entirely by the number of Indians that die as the result; and the Indian thinks he is giving religious devotion to the gods. You can imagine something of the immorality that takes place at such a time.

Another thing that is killing off the Indian very rapidly is the chewing of the coca leaf, from which cocain is made. It does away with hunger, and he prefers it to food.

On the way down, at Antofagasta, I was surprised to find sulphur sprinkled upon the door sills. I found they had fumigated the whole city in that way because they had been having plague and smallpox. In one side of the city was a pit into which people were dumped as fast as they died of the plague. People often climb down in there and rob the bodies of rings, pieces of clothing, etc.

If a poor man dies he may have left only money enough to pay the rent of a niche in the cemetery for a little while. In South America if you do not pay your

rent, you are put out; so in a short time the man's body is taken out to one corner of the cemetery where the bodies are burned. The poorer class of people are buried in the ground, but after a short time their bodies are dug up to make room for others, long before the clothes have decayed or the hair left the skull, without any consideration of the kind of disease from which they died.

We have one great blessing in the city of La Paz,—a "ditch" into which all the garbage of the city is dumped for nine months, then comes the rainy season and it is all carried down below.

We have a few hospitals, but they are very inefficient. One of our servants dislocated his shoulder. I did not want to take care of the case myself, not being a medical man, so we sent him to the hospital for care. The bone was not placed where it ought to be, and he is a cripple for life. If only we had a modern hospital with the right kind of nurses, they would soon begin to pattern after us, just as they do in educational lines. Some of the doctors in the large cities have been to foreign countries and learned something about medicine; but because of their egotism and irresponsibility, they are not to be depended upon. One of our boys had an arm set, and it was afterward found to be very crooked. A doctor will not be called out at night, even in the worst cases. One of the medical missionaries in Peru says she has to serve a warrant upon a doctor if she needs him present in a surgical case where an anesthetic must be given; that is the only way she can get him there. In the villages we have the Indian doctors with all their different kinds of prescriptions, as we have heard about from other parts of the world.

Personal hygiene is practically an unknown quantity. Many of the men have very bad sores because of the fact that they never bathe. I had a note from a boy's mother one morning telling me I must never have her boy bathe again, because five months ago he took a bath, and had had a cold ever since. We are very glad to say that we do have

The Month of Baths

in La Paz and throughout all of Bolivia. One month is given up to bathing, and

that takes care of it for all the year. You must have at least fifteen baths consecutively; even if you have had fourteen and miss one day, you must go back and get the whole fifteen. That is true from the lowest Indian up to the higher class of people in La Paz, which is practically the capital of our country, where you may see the very latest Paris gowns costing \$250 or \$300, being dragged up the promenade on Wednesday and Sunday afternoons. The river is the source of all the bath water. After one man has used the bath in the higher part of the city, the next man down below has an opportunity to use it a little later in the morning.

The infant mortality among our Indians is very great, and there is what you might call "the survival of the fittest"—only the very strongest of them live to grow up. It is said that an Indian is sick only once, and I believe that is comparatively true, because the man is never taken care of, and it is decided that because he has become sick he must die.

In conclusion, let me ask that you investigate what some of our greatest men have said during the past few months, after visiting our continent of South America and going into the interior, and seeing something of the real conditions of the country. Consider what Robert E. Speer says, or Bishop Bristol, or Josiah Strong; and William Jennings Bryan, who visited us and gave us a very interesting lecture under the auspices of our school a few days before we left. When we have worked as long in South America and invested as much of time, money, and sacrifice as in these other places of which we have heard so much, we shall find exactly the same results coming from South America, according to that which we have invested.

THE NEW WOMAN OF CHINA

THE CHAIRMAN: If these men think they have done all the speaking that is to be done here this afternoon, they are greatly mistaken. We are going to have now one of the very best. Mark Twain used to have a way of saying, "Cheer up, for the worst is yet to come." We might change just one word and say,

"Cheer up, for the best is yet to come." If there is any man in China that is more successful, more useful, more of a statesman than Bishop Bashford, of the Methodist Church, I do not know who that man is; and his wife, as he says, is his better two-thirds.

MRS. J. W. BASHFORD: Let me introduce to you one of the new women of China. She is a native Christian physician—Dr. Mary Stone. A simple incident may hint at her wide influence in a great city.

A little girl in the home of the city magistrate of Kiukiang fell ill on the Chinese New Year's day. It is very unlucky to be ill at the opening of the year. At New Year's time you must be well and prosperous; you must have all your debts paid and wear your best clothes—have new ones made if possible—if you expect the gods to look with favor upon you during the year. Here was a family in trouble. As the child was only a girl, and not big enough to work, you might think it was not of much consequence, and in many families it would not have been; happily in this home, where there were not many daughters, a girl was as great a treasure as a boy. Fortunately the family knew of a good physician, a Chinese woman. There was no prejudice to be overcome, for she was not a foreigner, so they hurried the little girl away to the hospital at once. It was a serious case, but in a few days, with the good care of Dr. Stone and her trained nurses, the child was well again. A great sorrow was averted and there was rejoicing in the home.

The magistrate considered what he could do to recompense the good physician. He was not satisfied merely to send her a merit board to hang in her gate-house; that was already overcrowded with big wooden tablets which tell of this wonderful doctor as

"An Auxiliary of the Creator,"

"a mender of the works of creation," a worker of magic. This progressive official decided to give the doctor a building site on a mountain a few miles away, where she could erect a simple bungalow in which she and her helpers might rest for a little while in the summer.—a



MRS. J. W. BASHFORD

really valuable gift. Then he decided that his wife must have some education and that an older daughter should be sent to school; so the one was entered in the woman's Bible Training School, and the other in the girls' school. The whole family is thus giving its influence to Christian education and to the work of missions.

This incident is typical of what is happening wherever there is a hospital in China. In the case of this Chinese physician the influence is perhaps more marked because, as one of the people, she has ready access to all. Here is a woman who is an example to a city and a province of what young womanhood may be; for in all that region the fame of Mary Stone is known and sounded, and she and her nurses are everywhere in demand. So wise has she been in the training of nurses that when she is unable to respond to a call in person she is often able to send, in times of crisis, two trained nurses who are as welcome as she, so successful have they been in many instances. She stands as a model to all the girls in the missions, in the day

schools, in the government schools; they look up to this woman and revere her, and many a family desires that a daughter shall be trained as a physician. Recently two young women who have been under her influence, and have received a good education in mission schools, have come to this country to be trained as physicians.

It would rejoice your heart to go with Dr. Stone through her hospital, to see her at work in the operating room with her skilled nurses. It would rejoice you to see her in the morning chapel service with the patients and all the hospital helpers, and to feel the Christian purpose that actuates all those who with her are engaged in saving life—the life of body, of mind and of spirit. It would delight you to visit her in her home, and to see the sweet womanliness with which she guides four little boys, near of kin, for whom she makes a beautiful home atmosphere. It would rejoice you to go with her through the city streets and to hear her name spoken by one and another, softly, with a look of reverence and of love, because of what her life means to all that vast region.

This is the sort of woman that we desire to multiply by the hundreds and the thousands. The educated Christian physician stands as the highest type of the new womanhood of China. Hers is the largest field, the widest influence, and the greatest honor; but we have many who as teachers are devoting their lives to the uplift of their people with the same singleness of purpose, the same utter self-giving. The representative woman of China to-day is in many cases a Christian; or she is a woman educated in the mission schools who may not have become a Christian, but has been moulded by Christian influences; or she is a woman educated in private or government schools who has caught much of the spirit of the western learning and of the ideals of Christian lands.

Remember the wonderful educational edicts that have issued from the throne of China within the last few years, and have included education for women as well as men. While this education has not yet gone very far, and while the schools are comparatively few, the standard has been set and there is al-

ready an eagerness for learning that is almost western in its intensity.

The girls in government and private schools as well as in mission schools have unbound feet.

The Unbound Mind

goes with the unbound feet. Women are treated with a respect entirely different from anything known in the past. The wife is honored, the mother is honored. She is no longer nameless. It is no longer an improper thing to inquire of a man concerning his wife.

At Christmas time last year a student in a Christian college sent to his wife in a distant province a present of a gold bracelet. Within it he had engraved her name and a quotation from the Bible, Eph. 5: 25—"Husbands, love your wives even as Christ also loved the church, and gave himself for it." He told his teacher that his wife would be pleased with that sentiment. What wife would not? And did not the young man show rare discernment? He did not quote, "Wives, obey your husbands," but penetrated to the very heart of Christianity, to the principle of self-sacrifice whose observance will transform the homes of any people. Neither the student nor his wife is a Christian, but both have Bibles and read them. You see the pervasiveness of Christian ideals.

A New Family Life

It is interesting to note that the new men of China, the educated, progressive men, are everywhere desiring for their wives and daughters education and the best opportunities for a new kind of life. When we see this state of things we feel that we can not be too sanguine concerning the China that is to be. As Consul Denby said, "When a Christian wife and mother is the center of even a few of the homes of China, the most optimistic imagination can not take too hopeful a view of the future." The new woman means a new family life, a new childhood, a new opportunity for all; it means a new national life, a transformed empire.

The new women of China are throwing themselves earnestly into the matter of opium reform. Within a few weeks letters have been sent by young women

in the schools to the British nation, beseeching them to do away with the opium traffic. Similar letters have recently gone from the young men in the schools of China, and these appeals will carry great weight. A new patriotism is stirring the hearts of China's youth. The new woman is setting herself against the cigarette habit, and it was a joy to be made an honorary member of the anti-cigarette league just before I left Peking last spring. Women of the official classes have united in this new movement to save the young women, especially the girls in the schools, from the cigarette habit. The wife of a descendant of Confucius is president of the new league, and it promises to be an influence for good in stemming the dangerous tide.

The new life of the country has its basis in the Christian missions, so to strengthen these is to enlarge the opportunities for the widest and best training of the youth of China. We have need in particular at this time of training schools for women physicians, and to make my subject quite practical in the development of the new womanhood of China I wish to conclude by asking the privilege of introducing one who for a quarter of a century, in the city of Peking, has been laying a moulding hand upon the lives of hundreds and thousands of young women, and who in the last few years has undertaken a new enterprise to meet the great need for women physicians.

Dr. Gloss will speak.

UNION MEDICAL COLLEGE FOR WOMEN

DR. ANNA D. GLOSS: Mrs. Bashford has asked me to tell you one of the plans which the Christian missions have for helping to train the new woman for her position in the new China. Many mission hospitals have for years been training the Chinese girls as nurses and as dispensary assistants, but I believe the first school which aspired to give the Chinese woman full medical education was the Presbyterian school in Canton. That school has been having marked success for some years. About three years ago the Union Educational movement in North China decided to organize a union



ANNA GLOSS, M. D.

school of medicine for women. The school was organized about three years ago, and we have in Peking preparatory schools and the Union Women's College, where girls coming from other schools can go to make up any deficiencies in preparation.

This new school is to be located in the Methodist Mission. The dean of it is a Presbyterian, and the faculty is made up of all the medical missionaries in the American missions in Peking. The American gentlemen who teach in the Union School for men, which is one of the best medical schools in China, give the same lectures to the women.

Our first class has just finished its third year, and I am sure you would be interested to know the really high class work which these girls have done, the great interest they have taken in their work, and the devotion which they have in training themselves, not with the commercial spirit, which has been mentioned here so often, but with a desire to lead their own people to Christ and minister to them in their suffering. They are doing Christian work in all their leisure hours on Sunday, and whenever they have an hour that they can spare in the

hospital, in leading the women to Christ. The officials are very much interested, and have applied to have a number of their girls enter. The government can not yet educate women in medicine. They have no women trained to educate the girls, or girls trained to take the education. We have several daughters of officials in our preparatory schools now preparing for this course.

Though the school is very new and the number of students is small, out of seven pupils we represent three provinces. We have students from the South, from Central China, and from North China. We are hoping that missionaries from all over China who do not wish to send their students to take the education in Cantonese, but prefer the Mandarin language, when looking for a place to send the girls who are aspiring to practice medicine, will remember our school and send them to us.

I should not be a typical missionary if I did not tell you I am seeking funds to put up a building for this school. We have reached the point where we can not any longer fulfill our pledges without a proper building with lecture rooms, laboratories and dormitories. We hope soon to have a full equipment to give a good, thorough medical education to those new women of China.



TENTH MEETING

Sunday, January 8, 7:30 P. M.

Rev. Chas. C. Creegan, D. D., Presiding

Prayer by Bishop Thoburn.

MEDICAL CONDITIONS IN CHINA

THE CHAIRMAN: There are some names identified with Northern China that will go down through the generations into missionary history. One of those is the name of Lowry. The one who is now to speak to us went through the siege of Peking, the news of which has gone over the whole world. All of us remember with what anxiety we waited for days, running perhaps into weeks, before we knew whether our friends there were dead or alive. While the anxiety of all who had personal friends there was great, how much

greater must have been the anxiety of some who had husbands there, and did not know whether they were among the living or the dead. Such was the case with the Lowry family, the wife being here with the children, and the husband being there. We shall now have the pleasure of hearing from Dr. Lowry, upon "Medical Conditions in China."

G. D. LOWRY, M. D.: Although China is the most ancient country on the face of the earth, she never has had a rational system of medicine. She has a system of medicine, and books on medical topics, and a very extensive encyclopedia on medical subjects. Anybody wishing to practice medicine may read these books and practice on his own responsibility. Not only are there large numbers of prescriptions given in these different books on medicine which the Chinese follow in prescribing for their people, but there are prescriptions that have been handed down from generation to generation. It is only since the time of medical missions in China that medical schools have been established. Of course, it was necessary that each missionary hospital or dispensary should train its own men in order to carry on the work.

It is only since 1900 that medical colleges have really taken a forward move. There are several schools now in existence in China. In the southern part of China, in Canton, the Canton Christian College and Princeton University have formed a union in establishing a medical college. Further north, in Shanghai, we find two or three medical schools, one of which is in connection with St. John's College. The teaching in this school is all done in English. There are those in China who think the medical education of China will necessarily have to be done in the English language; but I think the large majority are of the opinion that Chinese is the language in which you will have to teach the Chinese medicine. In Shanghai there is also a medical college conducted by the Germans. The teaching there is done in the German language, and the course requires seven years. They teach the German language in addition to the regular medical studies. The tuition fee in that school is very high, so that the students



DR. G. D. LOWRY

are almost exclusively of a class that are sent there by the Germans themselves.

In Nanking there is a projected school to be formed by the union of the Nanking University and some other missions. Further up the Yang-tse River we come to Hankow and Wuch'ang, and both places have medical schools. In the province of Shangtung, in the capital of the province of Tsinan, there is a medical school, of which Dr. Neal is the president. The school has been in operation only one year, but its prospects are very bright indeed, and it probably will be one of the best medical colleges in the country.

The Chinese government as such has no medical college in the Empire, but there are several provincial schools, one of which is located in Tientsin. The Chinese army medical college in Tientsin has a staff of teachers composed of one Frenchman, several Japanese, and a few Chinese. The teaching is done mostly through interpreters. The Frenchman gives his lectures in the English language, and this is translated into the Chinese. The Japanese teachers, of

course, have the advantage in being able to use the Chinese character. Their lecture work they write upon the blackboard, and it is then copied by the students.

In Peking we have what is known as the Union Medical College. This institution is formed by the union of the North China Educational Union and the Peking University. The North China Educational Union is composed of the Presbyterian mission, the Congregational mission, and the London mission. These, with the Peking University and a Methodist institution, form the Union Medical College. In addition to this, the London Medical Missionary Society has sent out instructors for these schools; also the Anglican mission. The Presbyterian mission and the Congregational mission each supply two teachers; the London mission has five; the London Medical Missionary Association supplies three; the Peking University also supplies three; and the Anglican mission at the present time supplies one, making a faculty of sixteen. There are a number of medical missionaries in the vicinity of Peking who come periodically to deliver lectures on special courses.

The school was opened in the winter of 1904-05. At the opening of this school the government was very well represented. The Empress Dowager sent a representative to attend the ceremonies. She made a contribution of ten thousand taels toward the running expenses and the erection of a plant for this institution. Since that time the government has made an annual contribution of ten thousand taels (about \$8,000). A number of different government boards located in Peking make contributions toward the support of this institution, and there are also contributions from numbers of the gentry.

The Curriculum of the School

corresponds to the best medical schools of America and Europe. The teaching is all done in the Chinese language. At the beginning of the last school year, there were one hundred men enrolled in the school. The first class graduates this month. There were twenty-four members in that class. A large number of these students are sent by the missions

for preparation as assistants in the hospitals and dispensaries, although a large proportion of them are self-supporting, independent students. The tuition fee for the five-year course amounts to about \$150. That is very much cheaper than you could get an education of the same kind in this country.

In addition to the Union Medical College for men, there is also the Union Medical College for women, of which you heard this afternoon. Their course is a six-year course. The teaching there is also done entirely in Chinese, and with the exception of the ladies, the teaching staff is practically the same as the teaching staff of the Union Medical College for men.

Of the men who are graduated from the school, those that are sent by the mission boards will return to their missions and give their services to the boards, according to the contracts which they entered into at the time of admission to the school. Quite a large number of men will doubtless go into the government service, either in the army or navy, or the public health service. They are very anxious to have the best trained men for these positions, as the new army and the new navy and the public health department are being advanced; so the men who go out from these schools, although they come from missionary institutions, will probably have a very strong temptation to accept the offers of high-salaried positions made by the government.

The topic assigned to me this evening was medical conditions in China. I have confined myself to the present status of medical education.

THE MEDICAL MISSIONARY'S OPPORTUNITY FOR EVANGELISTIC WORK

THE CHAIRMAN: The next speaker is not only one of the leading, if not *the* leading medical missionary in Siam, but he is putting a great deal of emphasis on the evangelistic side of the work,—Dr. Chas. C. Walker, of Siam.

CHAS. C. WALKER, M. D.: I believe you will all agree with me that our mission is two-fold, and no more fitting emblem could have been selected for this third annual Medical Missionary Confer-

ence than our double cross—healing of the soul as well as of the body. It is true that no man has a monopoly of the preaching of the Gospel. Our ordained colleagues have the authority of the church back of them, but the medical missionary and the trained nurse, not having this special authority, yet have the authority of Jesus Christ to preach the Gospel. We have a unique position. The people love us because of our work, our philanthropic, our humanitarian work; but as a rule they do not care for our message. In my country, Siam, where we have perhaps the purest form of Buddhism that you may find anywhere, this is very true. They care very little for our message, but they love us for our humanitarian work.

I firmly believe that there is no more effective agency for the spread of the Gospel in Siam than the work of a medical missionary—the ministry of healing. In our street chapels we often stand before our audiences from morning to night, and practically make no impression upon them. They will nod their heads in assent, and smile, get up and leave the building, and that is often the end of it. Our people in Siam are

A Hard-Headed Lot;

they are all “from Missouri,” every one of them. You have to get them down upon their backs in the hospital before you can get a favorable hearing. It is when they are down and in trouble and in physical pain that they are most susceptible. When they see the medical man tenderly ministering to their comfort, they begin to believe in him and his message.

I recall a man who came to the hospital some time ago suffering from stone. We operated and gave him relief, and day after day we spoke to him very tenderly about Jesus and about his soul. One day he looked up at me as I stood at his bedside, and said, “Doctor, I have heard all this before.” He then told me that twenty years ago he was syce for our beloved Dr. E. B. Dunlap, our senior missionary, looking after his horse; and as was the custom of Dr. Dunlap, he called in the servants for worship every morning; but, mind you, this early teaching

made no impression upon this man. Now he was in torture, from stone, and it was after we gave him relief that he opened his heart and we were able to speak to him of Jesus. That man and his wife went away converted and baptized members of the church. It is when they are down near the gate of death that they are most susceptible and you can reach them. When there is nothing the matter with them, they are like statues of Buddha; you can make no impression upon them.

As medical men and women we have the best opportunity of leading men into the kingdom of heaven. We are often apt to think we are too busy, or that the work of preaching the Gospel and speaking to our patients can be left to the native evangelists or to our ordained colleagues. I believe that we ourselves should hold regular services with our in-patients in the hospital, and not leave it to our colleagues entirely. We should show our interest in the work of preaching the Gospel. Our chief business is that of soul winning through the ministry of healing, and our place is in the hospital, not in the street chapel. It is better for our work if we save our strength for the hospital, for it is a God-given opportunity.

God Fills Our Beds with Material,

and we need not look elsewhere for it. Our obligation is not fulfilled when we call in our ordained colleagues; this does not excuse us from taking some regular service daily, or showing some unusual interest in the work of teaching our patients. The patients love to hear the story of Jesus Christ from the lips of their doctor.

In Bangkok we have a little hospital of five wards with eight beds in each ward, a gift from His Excellency, the Under Secretary of State. I was first called to Bangkok to start a work for young men, known as the Young Men's Institute, and gradually my medical work sprang up, so that my verandas were crowded with patients. One day His Excellency passed by, and told me he was going to give me a hospital. He gave us a beautiful building with artesian well water, rent free throughout his

lifetime, to be used for hospital purposes. For the last two and a half years we have carried on medical missionary work in that place. God has been with us, and although our work has been small from the beginning, we believe it is going to grow. We have four evangelists, one of whom has been a Christian for nearly sixty years. Every morning all the patients in the hospital are compelled to attend service in the chapel, and these men take their turn mornings, and very tenderly will read the Scripture and explain it and try to interest the people in things that pertain to the kingdom of God. My colleagues, Dr. McClure and Rev. Snyder, have often come in and assisted me, and in this way we have tried to interest the people.

For the last six months that I was in the country, I had charge of the evening service. The morning service was compulsory, but the evening service was not. At first we had just a few, but toward the end, that little chapel room was filled, and it was interesting to see how the eyes of the people would open wide and their ears be all attention. What a difference between a hospital audience and a street chapel audience! For six months we had a modest, unpretentious revival in the hospital. Morning and evening we spoke to them. If a man was with us one month, he had sixty hours of instruction. It is very difficult to instruct people who live in the villages, because our ordained men can go out but once or twice during the year; but when you have them in the hospital, you can go through a definite course, instructing them in all the essential doctrines of our religion.

For six months, morning and evening, we held services in the little hospital building. When the various corporations of the city of Bangkok were drawing up their balance sheets, I remember one corporation, a cold storage company, declared an annual dividend of eleven per cent to its stockholders; another corporation that was operating a railway from Bangkok down to the sea coast, declared a dividend of twenty per cent for the year. We found after we had carefully counted up the names of our converts, that we had for those six months,

A Gain of Twenty-five Per Cent

of all of our in-patients. In January, seventeen were baptized and admitted into church fellowship; in March, ten more; in April, the month in which I left, seventeen more; making a total of forty-four in-patients in our hospital during these six months who were baptized and admitted into church fellowship. This is a small number, but work in a Buddhist country like Siam is uphill work. Our hearts were rejoiced to see this number, just a few score, but we hope soon to see them come in by the hundreds. Many of these patients had never heard of Christ before. Oh, what a joy it was to see women come out! In Siam, women have no hope. According to the Buddhist faith, a woman can not enter into the kingdom of heaven as a woman; she must be reborn as a man before she can enter. We were able to hold out hope of salvation to those unfortunate, hopeless women.

The government of Siam recently made me two offers, trying to secure me for government service, once as a medical inspector of the provinces at a salary of four thousand dollars a year, but I refused; I had rather serve the Lord in that land in our humble hospital, than to serve His Majesty the King at a handsome salary.

THE BENGALI WIDOW IN NORTH INDIA

THE CHAIRMAN: No one can spend a few months in that exceedingly interesting land of India without being impressed that there is no class of Christian workers who are more needed and who are doing a greater work than are our lady medical missionaries. They reach the women and the girls, and it is practically impossible for anybody else to reach them. We shall have the pleasure of hearing from one of these noble workers—Emma Scott, M. D.

EMMA SCOTT, M. D.: You have had described to you several times since these meetings began, one of the sacred cities of India. I wish to bring to your attention to-night another of these sacred cities, one situated in Northwest India. You will be able to see, I am sure, from the descriptions you have already had of

some of the cities, the river winding about the city, with its banks covered with temples and shrines, with its bathing places, and here and there large spreading trees under which are encamped some of the devotees—the sacred men clad in their costume of matted hair, and long strings of beads, and mud. All through this city there are great temples. There is not a street but has several temples, and one is reminded of how St. Paul must have felt when he visited Athens and found the city wholly given to idolatry. Some of the largest temples of the northern part of India are found here. You will find roaming the streets the sacred bulls; the city is also infested with hundreds of monkeys. This place is renowned for the large percentage of the high caste and the Brahmins and priests in the population. All the Indian people who know it well call it "Satan's Seat"; and others say that they have lived in many other Indian cities but have never found the depth of wickedness that they find here.

In most points this city of Brindaban resembles other sacred cities; but in one respect it is peculiar, and that is the number of widows who have come to this city to spend their lives. The last report gave the number as

Ten Thousand Widows.

The most of them are from Bengal. You wonder why they have come here. It is because they are told that here they will have an opportunity for gaining salvation, for atoning for the great sin which, committed in this or some previous existence, has been the cause of the death of the husband. No man dies except because of some sin committed by his wife, and she is ever afterward under a great curse, despised by her own people and treated in the most cruel manner. But she is told that if she will give up her life to this temple service, she will hereafter gain a place in heaven. There are agents out all through India to gather these women and bring them here. It is also an opportunity for their friends to get rid of this curse from the household. They do not like a widow living with them; it brings ill luck; so they gladly send their daughters here. Many of the widows come of their own accord



EMMA SCOTT, M. D.

when they hear of this opportunity to gain salvation. In order to escape from the ill treatment which they receive in their homes, they gladly come to this place, not knowing what lies in store for them here.

There is one condition on which these women are admitted to the temple, and that is that they give all they possess into the hands of the priests. Some of them may have been wealthy, but they are obliged to give up all their money and jewelry, and even their clothes must go. They are clad in the coarsest of thin garments, and in the cold winter season of the north to which they are not used, they shiver about the streets in these thin clothes. They are given only a mere pittance of grain or flour from the temples, where they have to go and beg each day, and they have to cook and do all the drudgery of the house in which they live.

In connection with the temples, there are from one to several large buildings which will contain 100 or more people, given up to the housing of these women. Morning and evening when the temples

are open and people are going to their worship, the streets are crowded with widows hurrying along to the temples. You wish to speak to them, and perhaps you stop one and say something to her. She eagerly listens to hear what you will say; but just as you are in the midst, perhaps, of telling the message to a little group, some priest will come up and motion them away.

Go to one of the temples and watch them as they come in. They are not a degraded class of women. Occasionally you see a hard, bold face among them, but as a rule the women are refined, and many of them are educated; yet there is a depth of despair and hopelessness on these faces that I never saw on any other face. They go in to take the holy water, and they drink this and prostrate themselves on the cold ground. You watch to see whether there is any ray of comfort or hope in their faces as they rise, but they are just as cold and as hopeless and despairing as they were before. While you may not speak to them, occasionally you can slip a Gospel into the hands of some woman who can read it in secret if she will. If it has been seen by any one, she will be obliged to tear it up and throw it away.

These women go in behind the temple doors, which are then locked and barred. We do not know what goes on behind those doors. I know only a little that some of the women have told me, but I would not dare tell you that. As I think of them now, I think not only of the fact that they are the despised women of India, but it seems to me it is

The Degradation of Womanhood

everywhere; for can any member suffer and not the whole body suffer with it? Can these women of India be treated like slaves and prisoners, and abused in this manner, and it not be a reproach upon Christian womanhood the world over?

There was an attempt a number of years ago on the part of some of the missionaries of adjoining stations to open mission work there. They went about from house to house begging an opportunity to get in and talk to the women—not these widows; that would be impossible,—but into the homes of

the people. No admission was granted except in a few of the low caste or poorer homes on the outskirts. Then they thought perhaps this would be a good place for medical work, and that a doctor would open the homes. An opportunity was secretly obtained for buying a piece of land. When the Hindus heard of it they greatly opposed it, and fought it in the courts for a number of years. It was finally decided in favor of the mission, but one building which was in process of erection was torn to the ground. They did not want any mission work in their city. Finally a doctor came and began work in a little mud dispensary, and after six months a native house was rented in the city and the doctor went there to live. Gradually homes were opened, and Bible women are now able to go about and teach in the homes of the people, and after a time some of these widows even began coming to the dispensary, and occasional visits were made by the doctor into the temple houses. But no evangelistic work was allowed in the temples or among the thousands of widows who are still behind these closed doors. It is only in the homes of the women who have their husbands and families that this work can be done.

We have in our homes one of

The New Women of India,

a Bengali girl whose mother when she was a child was a widow in one of these Bengali homes. She ran away to the missionaries, and this child was educated in the mission school, graduated from the high school, was a teacher in one of the high schools, among companions of her own age and race, and congenial friends. But she felt the call to go out and work among these widows, and the people shut up in their homes who had no opportunity to hear; so she left her friends and pleasant surroundings and came to live with us. She has no one with her who is congenial. She is a Bengali, and had to learn the language of the country in order to work among the people, except these widows of her own race. A more refined, gentle, modest, sweet spirit I have never seen in any young woman. She goes boldly out into all sorts of disagreeable and dan-

gerous places in order to bear her message; she goes among the high castes and the low castes, and is a living example to them of what any one of them might become. In her we see what these women of India might be, and what, under the grace of God, we trust many of them in time will be. Some few of them through the dispensary and through medical work have become Christians, but the great mass of them are still to be reached. Just when or how this door may be opened, we do not know, but we believe that God holds the key that will at some time in some way allow us to get access to these women, and that many of them will be saved.

MEDICAL WORK AMONG THE BHILS OF CENTRAL INDIA

THE CHAIRMAN: We shall have one more representative from that interesting land of India in the person of J. Buchanan, M. D., who has had a large experience in Central India, not only doing the ordinary work of a medical missionary, but reaching out among the lepers. I think most missionaries in India, so far as I visited them, have been very active in reaching out to these afflicted people.

J. BUCHANAN, M. D.: I wish to speak to-night, not especially about the leper work that I had a little part in, but about another portion of the community in India which is despised by the Hindus. Whether we look at India from its languages, forty-eight or more, from its religions and its nationalities, or its millions of people, it must be considered as a continent. We have heard before during this Conference, of the fifty millions of low caste and outcast people that are despised and down-trodden by the prouder sections of the community.

The Bhils are a wild tribe, wrongly thought aboriginal. They are supposed to have come in from the Northeast, over the Himalaya mountains. One of the noble band of civil servants in India, an earnest, Christian, faithful man, urged upon our Canadian Presbyterian Mission the opening of work among the Bhil population. His point was that we have there a people that are

Open to the Gospel

—oppressed, despised, wild, freebooters, and yet open to the Gospel; and when by God's grace, we were permitted to go, we found, as he had said, an entrance. Not only the Bhils, but the Santals, and other classes of people in the hills, are open to the Gospel. We do not need to stand to-day knocking at closed doors in India. With fifty millions of outcast people, it is for the man who has the sword of the Spirit, which is the Word of God, to go in and use it, and by his grace we shall conquer.

Even after we got permission from our home church to go in among these wild people, we found difficulties in the way. The Bhils were so wild and barbarous in their habits that it was supposed that the missionaries might be massacred. The political agent was apprehensive that some such thing might happen. He said, "I know you are quite willing to take the responsibility; but questions will be asked in Parliament." Until he got some officer to take the responsibility, the way was closed. But this British civil servant of whom I have spoken came forward and took the necessary responsibility, impressing upon the superintendent and other officials of the state, that they must be responsible for the missionaries so far as possible.

After a surveying tour it was decided that we could go in to begin the work, and we chose the wildest part of the native state of Ali Rajpur. When I came over one of the spurs of the Vindia mountains, about nine o'clock, with one Bhil before me, whom I could only see at times because of the darkness, we heard a tremendous din and hullabaloo of these people having

One of Their Night Carousals.

They have a big drum, which they make themselves by cutting off the section of a tree. They beat upon these drums and dance, the men in one circle and the women in another, and drink liquor which they make according to their own appetites and desires, which are generally unlimited. When we went up to them they became quite excited. They had formerly been tremendously oppressed. Sir William Moore tells how the Maharattas in former times shame-



DR. J. BUCHANAN AND FAMILY

fully ill treated the Bhils. Their noses were slit up and their ears cut off, and a policeman was entitled to shoot down a Bhil without any question being asked as to the reason. Such treatment naturally made them very suspicious of any one coming into their midst. One of our senior missionaries told me when we first went to India twenty-two years ago, that he had been forbidden by the authorities even to tour in the Bhil territory, because of the danger.

When we came to that crowd, they began to inquire who I was, and what I had come for. They were told I had come to live there. They had experienced that when any official came to live there, it generally meant chickens and eggs, and butter and goats, all without any pay. They seemed to think that their land and their oxen would go, and there would be nothing left; so the desire was to treat this missionary "as a serpent's egg which hatched would as his kind grow mischievous," and to

"Kill Him in the Shell."

The Bhil who was with me took the part

of the missionary; however, we thought it was better to have no more talk with them, so went on and slept under a big tree in the tiger jungle. We came on to the place where we were to begin work, about ninety miles from Dhar and about 130 miles from Indore.

As in Africa, among the common people we find the industrial element is very much appreciated; so we decided, having had eight years' experience, and most of that time as the convenor of the Building Committee of our mission, to leave out all contractors, masons and carpenters, and make the necessary mission buildings, bungalows, schools, and whatever we had to build, industrial agents in themselves, and to use these ordinary Bhils as the artisans. A good many of you have lived in India, and you know a little of the difficulty of taking these low caste or outcast people, who think they can do but one thing, and teaching them to do something else.

We had medicine to give out to any one that was sick, and I do not think I ever experienced so much help in medical lines as I did that first year in India. It seemed as if God used the medicine in a miraculous way. So far as we know, not one single person died that came for medicine that first year. These poor people's confidence had to be won; and I do believe God directed and led the cases to a successful issue. One woman was brought in from down the river, and over one of the spurs of the Vindia hills, jerking along in a way that you would think might have killed a healthy woman; when she arrived it did not seem as if there was any breath in her. She was put out on the ground, and I felt utterly hopeless. However, I got a little stimulating soup, the best kind of medicine I knew for that woman, and by and by she began to revive a little. She lived, and I heard it reported afterward in another village that the woman was dead and that the Sahib brought her to life. These things began to tell upon the people.

In Getting the Bhils Started

with the industrial work, I said to them, "Now, we want to make brick."

"We can not make brick," they said; "we never made any brick."

"You can dig," I said.

"Yes, we can dig."

I had taken in pickaxes, shovels, and a few other things with which to begin our industrial work. We did not have quite as big a plant as most industrial agents think is necessary. We chose a place where we thought there was good clay, and I set them to work digging.

"Now," I said, "you can throw water on this." So they threw water on it, and got it nice and soft.

"Now," I said, "you Bhils are very fond of dancing; suppose you get in here and have a dance. You can dance around here until you are tired." Enjoying the humor of it, they got happily to work.

We got a little place smoothed off on the ground and they brought the mud and I filled it into the brick mold and packed it down, smoothed it off, and lifted up the mold, and there was a brick. Then I made another one. I then said to one rather bright fellow, "You come along now and make a brick." They all said to him, "Oh, you will be a big contractor some day," and they began to laugh at him. But he came and made his brick. We got a few more men started, and thus gradually we wheedled them into making brick. Then came the difficulty of getting them to lay bricks to make a wall, following a plumb line. Many a time I came along and found that they had gotten rid of the plumb line altogether.

Without going into further detail, I will just say that in the thirteen years since we first went in, we have built six bungalows and outhouses, and schools, and industrial buildings for our farm operations and dairy operations, besides eleven miles of road for which we took the contract from the government. We did not require any big output for industrial work. I throw out that hint for some who are anxious about how they can do industrial work.

When I got my first wall of a little bit of a building, of sun-dried brick,—I did not know how to make burned brick at that time,—about three feet up, one of the officers came down for a day's hunting, and we took a day off. We had such a fine lot of young fellows, brawny, stalwart, sinewy, a picture to look at. They

form themselves into a horseshoe shape and drive on the wild animals to where the hunter is waiting for them. That day Captain Holmes, the man who was hunting, got a bear. There are wild boars there also. The Bhils say about the wild boar that whichever way his nose happens to be pointed when he is aroused, that is the way he will go, and he bores where he goes. One young fellow came beating along through the dense jungle and came upon a monstrous wild boar; its nose was toward him, and it went on and gave him a tremendous rip up the side of the leg. I went to his house and sewed up his leg after washing it and getting rid of the dirt. I put the stitches through and tied them up, and there was not a flinch. This young fellow, about twenty-one, sat there and held his leg. As I was working, I said to myself, "I wonder what kind of people these are; they don't seem to have any feeling." But when I looked at his face, I found big beads of perspiration standing out on his nose and forehead, and I said to myself, He feels the pain as much as we do, but

He Has Grit.

What I saw that day did me tremendous good, because I thought that people with grit like that, if once filled with the blessed power of the Spirit of God, will be a source of influence and good in the country.

And that is what we have found. Six hundred and twenty-eight have become Christians in a short time. We have twenty-five in a theological class. Thirty-one volunteers among those people go out every Sunday to preach the Gospel. None of them are supported by outside funds; we are trying to make the church there self-supporting, self-governing, and self-propagating. Thirteen are supported locally. One of these young fellows went out to tell the old witch doctor about the Gospel. The witch doctor said, "I will shoot you on the spot," and he started to do it. The young man threw his arms around him and said, "I am going to tell you the story any way, no matter what happens." He held him while he told him of the love of Christ which passeth all understanding. "Do you think it is going to do harm?" he



ROBERT HAMIL NASSAU, M. D., S. T. D.

said. "It has done us more good than we can tell, and we want you to accept Christ, too." He held him there until the bows and arrows dropped from his hands and he said, "Sit down and tell me more about this." The witch doctor and his family are now Christians. We want men for this work.

FAREWELL ADDRESS

THE CHAIRMAN: We are coming now to the closing moments of this Conference. We will ask our venerable friend who fifty-two years ago sailed for Africa, Robert H. Nassau, M. D., S. T. D., to speak the farewell words in behalf of the Conference.

ROBERT H. NASSAU, M. D.: From the terms of the program, I suppose that my "remarks" are to represent the parting thoughts of the more than 150 who have been, for the last five days, guests under this hospitable roof. For, on any occasions, those who are going away are they

who say "Good-bye," or at least "Au revoir."

But, what a task! An honorable task; but, how impossible for one individual properly to represent the varied thoughts of a hundred others, even when that individual knows perfectly well that those varied thoughts are every one of them strung on but one cord, a cord of love and gratitude. The hour passes; and the Conference becomes a memory. How much of our lives consists only of memories! In childhood, life is anticipation. True, childhood has indeed both pains and pleasures. But the pains are apt to be forgotten next day. And even the pleasures fade in anticipation of something greater to-morrow. The Christmas tree of two weeks ago, with its fruitage of gifts, is already beginning to be eclipsed by expectation of bigger, greater glory next Christmas.

But in the later part of our existence life becomes a memory of the past. True, the future may be a possibility, but the past was a reality; and memory reproduces it in a constant present. A poet describes a woman sitting in a convent mourning for the loss of the love she had failed to accept. There, in the seclusion of a convent, from which nevertheless she was utterly unable to exclude memory of the world she had lived in, where she had loved and which she had lost, she counted her rosary. "Each hour a pearl, each pearl a prayer." For her, her rosary was only a bitter memory; ours is to be a memory of brilliant success.

How shall I, in the pitiful paucity of words, and in the impossibility of language properly to express thought,—how shall I say what I want to say? I do not like to be formal, but the occasion almost compels formality. I would prefer, if I could, to sit down, in the homelike manner of this house, and chatting with our noble host, and dear Mrs. Dowkontt, and my faithful Brother Tenney, grasp their hands, and ejaculate from the bottom of my heart, I thank you! I thank you! I THANK you! And then they would pass on our warm thoughts to their skilful, patient, polite, and efficient body of assistants.

I wish to say for my brothers and sisters, to you, our dear friends of the Sanitarium, that our memory of these days

shall be pearls undimmed by any tears, and consecrated by many a prayer. Or, if there be tears, only such tears as sometimes come from the very intensity of happiness.

Memory of, O so many happy things! Kind words, a merry laugh, thoughtful attentions, loving hand-grasps, inspiring, uplifting songs, heartfelt prayers, earnest thoughts, interesting discussions, valuable information; and for those who return to their chosen life work, new incentives, and strengthening zeal for service. And for a few others who are standing and waiting (for "They also serve who only stand and wait") there is this joy that, having ourselves "sown in tears," we may be glad in rejoicing with the gladness of those who are "bringing in their sheaves." Thus will we do, until there comes the day when in a new service we shall be where we shall see in his beauty our King.



RESOLUTIONS

THE CHAIRMAN: At this point we will hear the resolutions which have been prepared by the committee appointed for the purpose.

DR. FRANCIS F. TUCKER (Chairman of Committee on Resolutions): I am reminded of the two lines:

"Words, O Christ, are dead and useless
Till thy life they gain."

When we see these resolutions in print, let us remember that unless they are reinforced by our endorsement of prayer, they are useless.

1. *Resolved*, That we desire to put on record our sincere appreciation of the generous hospitality, helpful attentions, and loving sympathy of the officers and attendants of the Battle Creek Sanitarium, which have marked our reception by their entire body. We pray that a hundred-fold of blessing may be returned to them from Him who reckons the giving of a cup of cold water to a thirsty soul.

2. *Resolved*, That we record our grateful recognition of the divine blessing that has attended this Conference and the benefits it has conferred upon us individually and upon the cause of Christian missions.

3. *Resolved*, That we accept the invitation of the Board of the American Medical Mis-

sionary Association to hold the next annual meeting in this place.

4. *Resolved*, That we hereby give expression to our cordial sympathy with the publication of the *Medical Missionary*, which seeks to supply a recognized need in presenting the special subject of world-wide medical missions, and that we would be in hearty sympathy with a fuller co-operation on the part of medical missionaries at large in contributing to it and aiding further in its effectiveness, and in accordance with the suggestion of the present management, recommend appointment annually from our number of an advisory and contributing Editorial Board whose regular and scientific contributions would be a recognized feature of the publication.

5. *Resolved*, That the Conference hears with pleasure of the improved condition of the natives of the Belgian Kongo, and expresses its appreciation of the improvements effected by the rule of His Majesty King Albert and the Belgian Parliament.

The Conference appoints that a copy of the foregoing resolution shall be sent to the Belgian plenipotentiary in Washington, D. C.

6. *Resolved*, That we rejoice at the stand taken by the men, women and students of China in their reinforcing, by separate appeals, the unanimous action of the Chinese Senate in its determination to finally abolish the production, the importation, and the use of opium during the present year, and that we express the hope that Great Britain will co-operate with China in bringing to a successful issue this greatest of all efforts at the reform of a national vice which has ever been attempted by any nation.

7. WHEREAS, owing to the ignorance, poverty and underfed condition of a large part of the people in Oriental lands, the alarming prevalence of tuberculosis opens up a great opportunity to those who have large means to do a greatly needed service to humanity,

Resolved, That we commend efforts in all lands for the establishment of sanatoria for the treatment of this scourge, along lines similar to those projected in South India.

These resolutions were unanimously accepted and adopted.

THE CHAIRMAN: These resolutions, it would seem, call for an editorial and advisory committee to assist in editing the *Medical Missionary*. I had knowledge of these resolutions, and anticipating that you would pass them, I appoint the following committee, subject to your approval:

Dr. R. H. Nassau, Africa; Dr. F. D.

Shepard, Turkey; Dr. Mariam Headland, China; Dr. Lewis R. Scudder, India; Dr. S. J. Thoms, Arabia.

We can not part to-night without

A FEW WORDS FROM DR. KELLOGG

DR. J. H. KELLOGG: We have looked forward for a long time to this occasion, and we have enjoyed it so much that it seems quite impossible that it should have passed so quickly. I wish that we might continue it for a month. The presence of so large a number of missionaries in our home seems like a veritable benediction to us.

Although the Conference may close to-night, the influence of it will go on and on. We all feel that it has lifted us to a little higher plane of spiritual interest and a little higher level of spiritual life. We trust that this influence will remain, so that the next conference will find us a little in advance of the point at which this one found us.

It certainly has been a very great delight to us to meet these representatives of nearly all the mission boards of the United States and of nearly all lands of the world. We feel a little closer in touch with the rest of the world than we were. The world does not seem so big as it did before we began having these conferences. It seems like China and Japan and all the other countries of the world coming here to visit us. Though we are not really engaged in the foreign mission work, most of us feel as though we were somehow in touch with it, and having a little part in it.

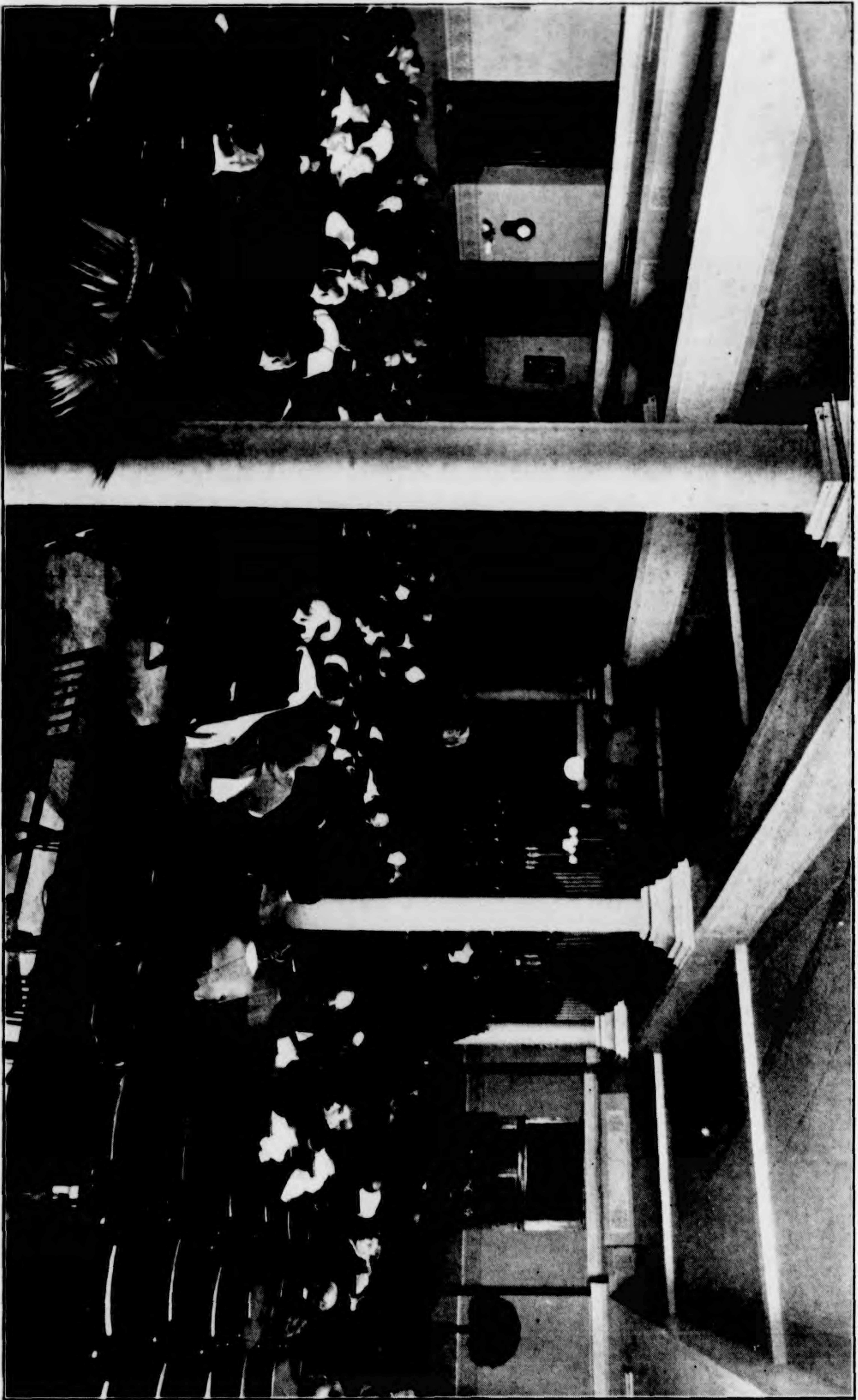
I hope that this Conference, as those that have preceded it and those which may come after it, will be the means of cementing this family and this work to the medical missionary work of the world in such a way that it may become an inseparable part of it. It is the earnest desire of the Medical Missionary Board, under whose auspices this Conference is held, that the Battle Creek Sanitarium shall become the recognized headquarters for missionaries who come back to their native land, and that it may be a source from which there will be going out recruits to the various mission fields of the world.

I trust that the missionaries here, on going back to their fields, will feel that

they have a home here at the Battle Creek Sanitarium. So long as this institution stands, you may be assured that missionaries will always find the latch-string out and a place at the hearthstone, and a hearty welcome. We want you to feel that so long as you are in the United States, this is your home; and when you go away, we hope you will carry with you memories of this place, and that we shall sometimes hear from you. Certainly we shall always bear you in our minds, and in our hearts and prayers.

THE PRESIDENT'S CLOSING WORD

THE CHAIRMAN: It is down on the program that the president of this Conference will speak at this time a closing word. In view of the fact that the president spoke quite at length, though without proper preparation, at the beginning session of the Conference, I do not think it wise to say more than a single word. I want to say, however, that it has been a delightful task to preside over most of the sessions of this Conference, the work being shared in counsel and assistance by these veteran vice-presidents who have rendered service for which I am very grateful. It has been an easy task, because every speaker, with possibly one or two exceptions, whose name appeared on the program, has been present to respond to his name or her name. This is something almost without a parallel in my experience, which runs over something like twenty-five years, in having to do with conventions, chiefly missionary conventions, in many parts of the country, and to some extent in several lands. I am delighted that such has been the case. Furthermore, it has been a delicate task, or would have been, to call speakers to time as I was instructed to do, and as necessity required, but for the fact that the speakers have all accepted the situation with such amiability that it has made my task a very easy one. Of course, you all understand that the chairman of the program committee, Mr. George C. Tenney, and his co-workers, are entirely responsible for this splendid program. I confess, as a veteran in having to do with the preparation of programs of missionary conventions of one kind and another, that I do not quite understand how they



CLOSING MOMENTS OF THE CONFERENCE

succeeded in getting together so many rare spirits who were so thoroughly prepared to discuss the topics assigned to them,—succeeded not only in getting their promise that they would be here, but in getting them here on time, every one of them thoroughly prepared. I congratulate you upon your success.

With one exception, viz., that of the Ecumenical Medical Missionary Conference, which met in New York City ten years ago, and which required a year or two of preparation, and brought in the Protestant missionaries from all lands in the world,—with that exception I have never seen together at one time so many medical missionaries as have gathered here during these last four days. I am told that there are more than there were last year. If this convention or conference keeps growing, I am not quite sure but Dr. Kellogg and his staff will have to add to the size of this chapel to accommodate those who soon will be responding to your invitation and crowding these seats, and perhaps causing overflow meetings.

A Rare Body of Men and Women

I had occasion to say, in an address that I delivered here at the Sanitarium on a previous occasion, that it had been many times a regret to me that a plan formed in my early life was not fully carried out, namely, that I myself would be not only a missionary, but a medical missionary. Some of you know that I studied one year with that in view, but Providence seemed to point in another direction; so I gave up a plan which for a long time I had cherished. Many times my heart was made tender when I visited these missionary hospitals and dispensaries, and went on tours lasting in some cases several days with beloved medical missionaries, some of whom are here to-night, and was reminded of those cherished hopes of mine in my early life. When I saw these men and women reaching their thousands, even tens of thousands of people, healing their bodies and saving their souls at the same time, my heart warmed toward them. I honestly believe that there is not any position in all the wide world where a man with fair

ability, or a woman with a good, normal mind and thorough training, with a consecrated heart, in each case, can do more for the building up of Christ's kingdom than as a first-class medical missionary, in one of the lands represented here by these beloved missionaries in this Conference. Those of you who are not medical missionaries,—do you not agree with me what a rare body of men and women they are? Has there been a single address here that has not interested us, while some of them have thrilled us? And if we could have spent four more days here, or even five, we could have gone on in just the same way, and probably not exhausted the talent that is gathered here in this greatest of all the world's sanitariums.

It has been a great pleasure to look into your faces, to hear about your work, and to come to know you better. We will follow you with our prayers, and may we not all indulge the hope that those men and women who have so much of the gold and silver of the world will hear the pleas that you have been making here, and their hearts be moved to respond, until you shall have well-equipped hospitals and sanitariums, and asylums for the lepers, and all that is needful to make your work what you long to have it? May that day speedily come!

Now we come to the farewell. We hesitate very much to speak those words. I think I will not try to speak them. Let us all indulge the hope that we shall meet again, if not here, in that sweet by and by when we shall walk the streets of the city of gold, and there will be walking beside us, let us hope, men and women from Siam, and from China, and from Korea, and from Japan, and from Africa, and from Turkey, and from Arabia, and from Egypt, and from India, and the Philippines and all these lands that you represent. Looking forward, then, to this hope, we come to the closing moment of our meeting; and before the photograph is taken, I will ask the quartet who have served us so faithfully at all the sessions to sing to us once more, and following their singing we will all sing those words written by the late President Rankin, "God be with you till we meet again."

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