JOHN HARVEY KELLOGG (1852-1943)

CLIPPINGS, CA. 1890-CA. 1965
(UNDATED BY TOPIC)

RACE BETTERMENT

[illegible]ndowed by the Foundation. The [illegible]ege has a student body numbering nearly 500 students, chiefly young women, and is recognized by theNorth Central College Association as an educational institution of the first class.

The latest activity initiated by the Foundation is the organization and development of an aristocracy of health.

President, John Harvey Kellogg, M.D., Battle Creek, Mich.

RACKHAM—HORACE H. RACKHAM AND MARY A. RACKHAM FUND

The Fund was created by the will of the late Horace Rackham of Detroit, who died in June, 1933. The Fund is incorporated for charitable, benevolent, scientific, and educational purposes, with education and science its major activities. The Trustees are permitted to spend both income and capital assets if they deem it advisable.

Director, Mrs. Mary H. Church; Secretary, Clarence E. Wilcox, Ann Arbor, Mich.

RASKOB — BILL RASKOB FOUNDATION, INC.

Created by John J. Raskob and Helena Springer Raskob in memory of their son William Frederick Raskob, second.

The objects and purposes proposed to be promoted and carried on are the relief and assistance of poor orphans and other poor children. Such assistance shall be extended for their maintenance, their education and to help them to get started in life and business. In addition to the purposes set forth the income and principal of the Foundation may also be used for any general charitable purpose that may be approved by two-thirds of the members of this corporation.

7 West Tenth St., Wilmington, Del.

RATSHESKY—A. C. RATSHESKY FOUNDATION

Incorporated in 1916. The object of this Foundation is to receive and maintain a fund or funds and apply the same under such conditions as the donors may prescribe to promote the well-being, to assist in the education, and to give aid and comfort to relieve the suffering of the needy and deserving poor, by service or by contributions, either directly or through the medium of other charitable corporations, associations or individuals.

President, Alan R. Morse; Secretary, Norman A. Walker, 30 Court St., Boston, Mass.

RECTOR—EDWARD RECTOR SCHOLARSHIP FOUNDATION

Established in 1919 by Edward Rector with an endowment of more than $2,000,000. Provides annually one hundred four-year scholarships to DePauw University. Scholarships granted on the basis of outstanding scholarship and character with some attention given to personality and leadership. Its purpose is to encourage scholarship in the high school and in the college.

Director, Dean G. Herbert Smith, DePauw University, Greencastle, Indiana.

RELIGIOUS MOTION PICTURE FOUNDATION

The Religious Motion Picture Foundation, Inc., is an experimental activity set in motion in 1925 by the late William E. Harmon to assist churches and other groups to make effective use of motion pictures as an integral part of their work. The main objectives are to develop practical methods of distribution, techniques for the making and use of pictures both for and by church and educational groups; also to encourage schools of religious

PILGRIM FOUNDATION

Established by Edgar B. Davis of Luling, Texas, New York City and Brockton, Mass. It is a Massachusetts corporation, the capital fund of $1,000,000 being donated by Mr. Davis for charitable purposes, orphans and indigent families, especially children, in Brockton and vicinity.

President, Edgar B. Davis, Luling, Texas; Secretary, Mary L. Papineau, 13 Franklin Bldg., Campello, Mass.

POLLAK FOUNDATION FOR ECONOMIC RESEARCH

The Pollak Foundation was started in 1920 by Waddill Catchings who for the first ten years was the sole contributor. The Foundation is a non-profit educational institution.

The purpose, as stated in the deed of trust, is to study "the means whereby industry may be so organized, and the products of industry so distributed, as to yield the people generally the largest possible satisfactions." The work of the Foundation still has to do solely with the original central purpose. The publications are concerned largely with various aspects of the problem of sustaining the purchasing power of consumers.

The Foundation has made appropriations to finance specific researches at Harvard University, Yale University, and the University of Chicago.

Director, William Trufant Foster, Newton, Massachusetts.

PRESSER FOUNDATION

The Presser Foundation, established in 1916 by Theodore Presser to embrace many of his private philanthropies conducted for several years prior to that time, is one of the largest of music foundations. It includes (1) the Presser Home for Retired Music Teachers. It also maintains (2) a Department of Scholarships, making grants for sch[illegible] ships to colleges, who select the s[illegible] dents benefiting thereby; (3) a Department for the Relief of Deserving Musicians who are in need of financial assistance, and (4) a Department whose object is to assist colleges in the erection of music buildings. Other departments will be established later.

Since the depression the need for relief for musicians has been so severe that department 4 has been temporarily inoperative.

President, James Francis Cooke; Executive Secretary, John E. Thomas, 1713 Sansom St., Philadelphia, Pa.

RACE BETTERMENT FOUNDATION

The Race Betterment Foundation is a trusteeship established and endowed by John Harvey Kellogg in 1906. The main purpose is to promote race betterment through the diffusion of knowledge in relation to eugenics and biologic living.

The major activities of the Foundation have been the holding of race betterment conferences. The first of these was held in January, 1913, at Battle Creek. The second conference was held in 1914 in connection with the Panama Pacific Exposition at San Francisco. The third conference was held in January, 1928.

These conferences are not periodical in character but are held from time to time when the conditions appear to be such as to make the conference a success.

In addition to the holding of conferences the Race Betterment Foundation maintains a Eugenics Registry and holds Fitter Family Contests in connection with state and county fairs, health drives and health surveys.

The most substantial and permanent activity of the Race Betterment Foundation is represented in Battle Creek College, which was organized

Bambino

Children's Hospital

Columbus, Ohio.

December
1917

Shop Early

In the Green-Joyce Closing Out Sale combine sentiment and economy in your Christmas Shopping. Buy in the greatest money saving sale ever held in the city.

Green-Joyce

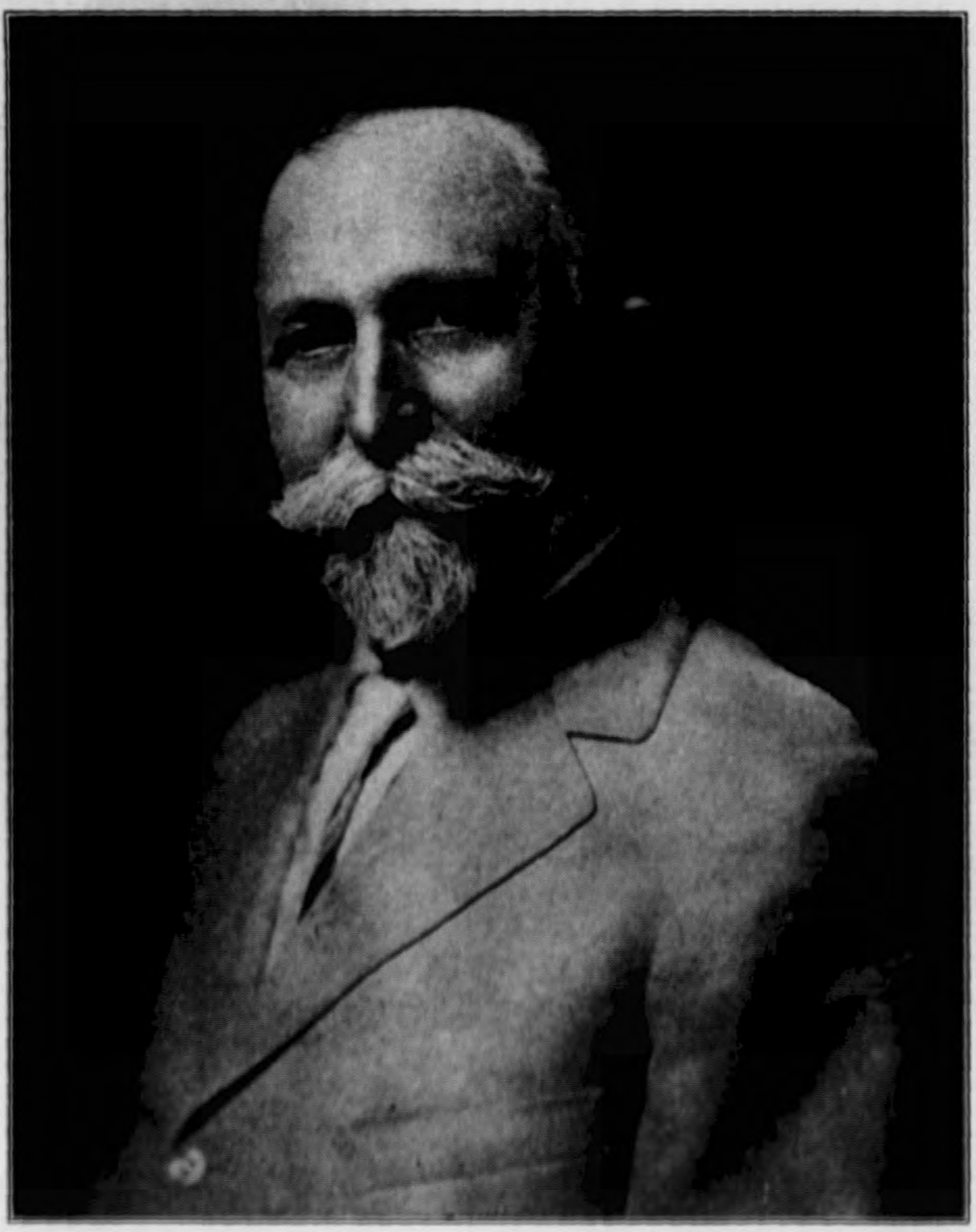
Children's Hospital

Monthly Report for October, 1917

Number of patients remaining September 30, 1917:		
Medical	3	
Surgical	3	
Ophthal	3	
Total	9	
Number admitted during October, 1917:		
Medical	6	
Surgical	9	
Ophthal	32	
Total	47	
Number discharged during October, 1917:		
Medical	4	
Surgical	6	
Ophthal	34	
Total	44	
Number discharged—recovered	37	
Improved	6	
Unimproved	0	
Died	1	
Total number discharged	44	
Number remaining October 31, 1917:		
Medical	5	
Surgical	6	
Ophthal	1	
Total	12	
Surgical operations	11	
Eye, ear and throat operations	32	
Hospital days	277	
Average attendance	8	29–31
Total number treated	56	
Dispensary visits	416	
Dispensary days	27	
Daily average	15	11–27
Dental patients	41	
Dental visits	66	
Mental examinations	8	

Respectfully submitted,

Lily Dale Atkinson, Supt.



J. H. KELLOGG, M. D.

THE BAMBINO

VOL. I DECEMBER, 1917 NO. 7

EDITORIALS

As good citizens we are obeying the commands of those in authority to conscfipt men, to buy liberty bonds and to conserve food, but are you aware that there has gone forth a command that is even of greater significance than any of these? and the command is from the National Child Labor Committee and is to conserve the children. Briefly it is this:

1. Oppose all attempts to break down the school system in your vicinity either by relaxing enforcement of compulsory education laws or by cutting down school funds.

Columbus has just taken a long step backward in defeating the tax levy and school bonds.

2. Oppose all attempts to break down the labor laws of your state, either by giving young children special permits to work, or by exempting certain establishments from the laws limiting hours of labor.

In England where they relaxed the enforcement of the laws they have found *"too big a price is being paid for the output,"* and have returned to shorter hours and regulated labor.

3. Watch the children in your neighborhood. See that they have proper opportunity for play and right activity.

4. Support as usual local and national social agencies.

Do not allow settlements, recreation centers, health boards, juvenile protective associations, child welfare and child labor committees, and other organizations that it has taken years to build up to be destroyed.

5. Support the enforcement of the federal child labor law which went into effect September 1, 1917.

An attempt to block the law resulted in a test case tried in the Western District of North Carolina in which the Judge decided the law is unconstitutional, thereby making it non-operative in that district of the greatest cotton-mill state of the South.

A well-known authority commenting on the decision says it is amazing that "at a moment when the government is directing the mines, the factories and the farms of the nation, is saying what price producers shall receive for their products, is conscripting the manhood of the country for the national armies, it is informed that it cannot regulate commerce with the end in view of conserving the health of *those of whom its future armies must be composed.*"

The Supreme Court of the United States will settle the question of constitutionality and we are convinced the law will be upheld.

But we need your support in keeping the public informed as to the law, so that they will encourage its enforcement and not block it as its enemies will attempt to do.

England's verdict as to the children leaving school for work in war time is

"We have no right to handicap these children because of the State's necessities of the moment."

Will you help us to see that American children are not handicapped?

THE SUN AS A SURGEON

By J. H. Kellogg, M.D.

IN this country the wonderful healing powers of the rays of the sun are little appreciated, but in France and some other European countries the use of the sun's rays by the methods known under the general name of heliotherapy is in great vogue. Sun baths are used, not only in the treatment of various chronic infections of adults, but particularly in the treatment of the diseases of young children including many cases which are commonly regarded as requiring the attention of the surgeon, especially the orthopedic surgeon. Cases of Pott's disease of the spine and white swelling of the knee and various other affections of the vertebrae and joints are found to yield surprising results as the result of exposure of the skin to the action of the sun's rays in the open air.

The summer is naturally the most favorable time for the application of heliotherapy. The accompanying cuts may give something of an idea of how the method is applied.

In figure one, is shown one method of applying sun-light in the open air.

Figure two, shows a method of treating Pott's disease of the spine. The patient is lying upon a cot placed on a porch. The patient has been so often and so long exposed to the action of the sun's rays that his skin has become as dark as that of a negro. The effect of the sunlight is to stimulate the natural forces of the body to increased activity so that the healing powers of the system, which the

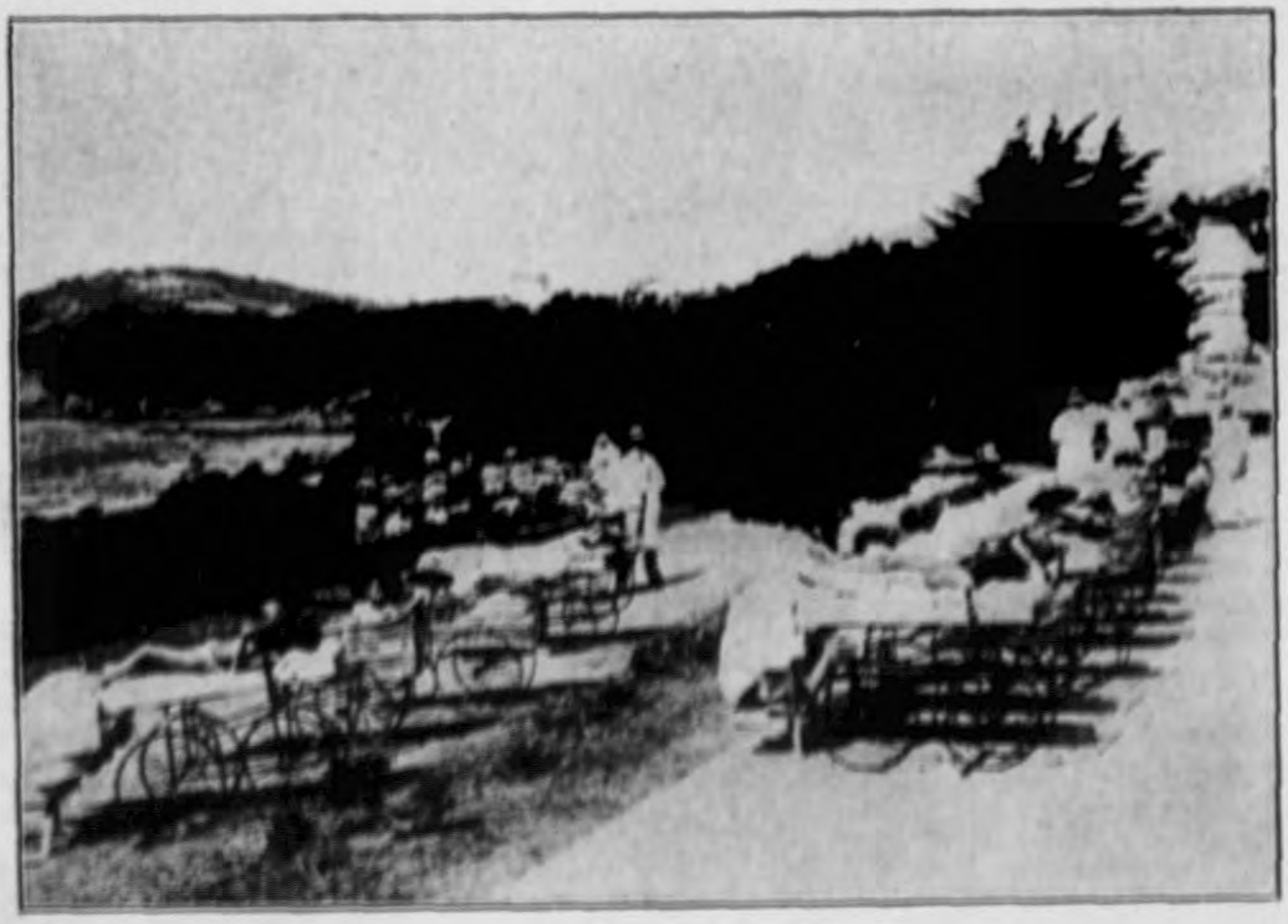


Figure 1

ancients called "Vic Madicatrix Naturae," are enabled to overcome diseased conditions present and to restore the patient to health. The results reported by the emminent French physicians who have employed this method, are so much better than those which have been accomplished by any surgical means heretofore known that the sun must be accorded first place as a curative measure in a class of disorders which, until recent years, were looked upon as belonging exclusively to the domain of surgery.

We are all so familiar with sunlight that it is hard to appreciate the marvelous potency when applied directly to the skin that it has acquired in its therapeutic use. The dark clothing with which we usually cover our bodies excludes the sun's rays so that with the exception of the skin of the hands and face, the surface of our bodies is seldom touched by the direct rays of the sun.

The great power of the chemical light rays is rudely appreciated, however, when the direct rays of the sun are allowed to fall upon the bare skin for a short time. The usual effect is the production of redness or so-called sunburn. A very prolonged application may be decidedly injurious if made before the skin has become accustomed to the contact of the light rays. To avoid injury, a graduated method is employed. The first application has a duration of not more than five or ten minutes. After a week the length of the application is increased to fifteen minutes. The duration of the bath is increased daily five or ten minutes until the exposure lasts

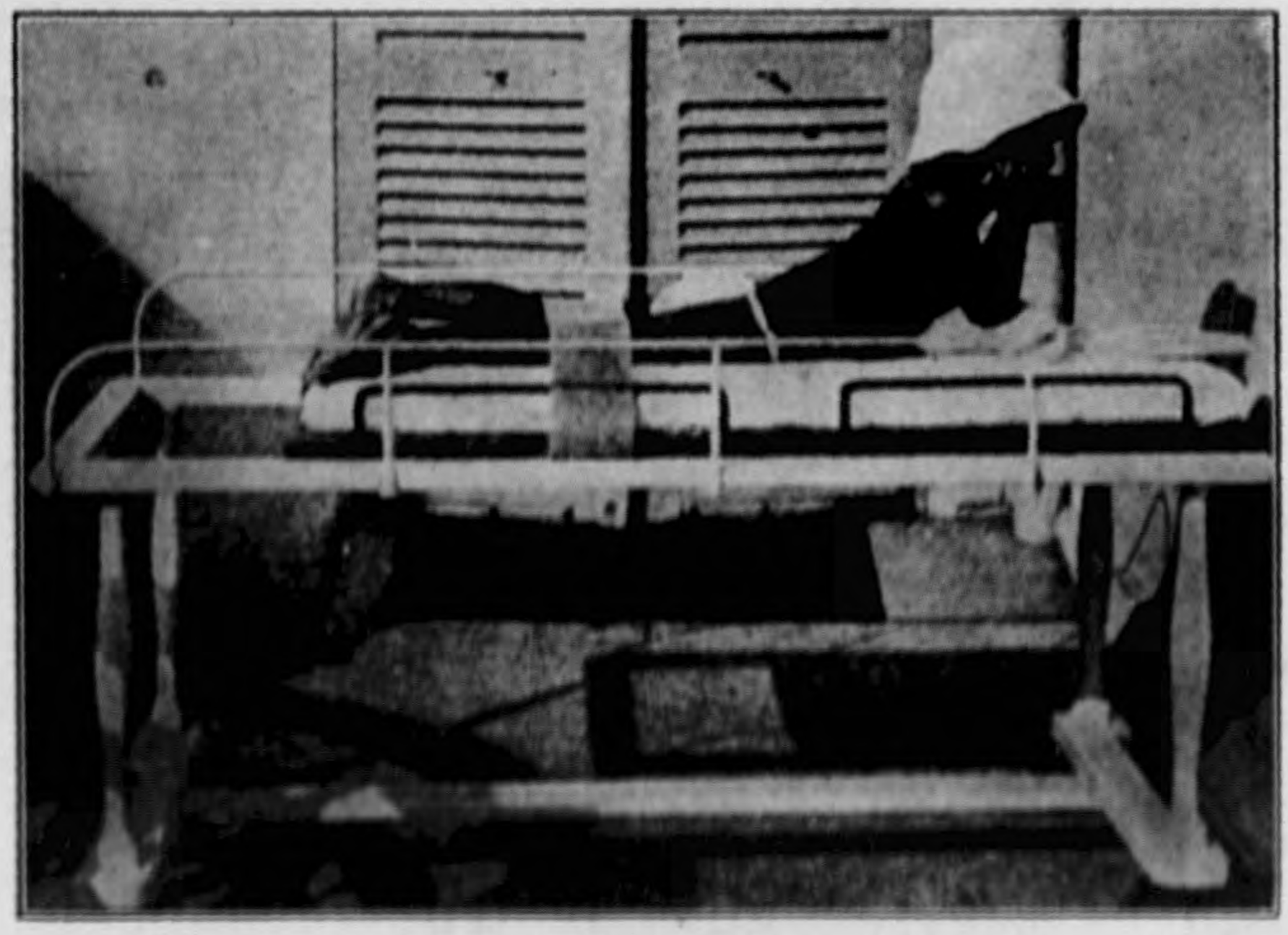


Figure 2

for an hour or even two hours. In some cases, exposure to the light is extended to three or four hours. Under the influence of these solar baths chronic ulcers heal, supurations cease, swellings disappear, the general health improves, the appetite increases and the whole body is revitalized and the general nutrition improved to a marvelous degree.

It is to be hoped that this excellent method which has long been in use in a few places in this country may become more generalized so that thousands of children who are suffering from tuberculosis of the joints, from Pott's disease, rickets, rheumatism and various other disabling maladies may have the benefit of this new and powerful method.

Every hospital, especially every childrens' hospital should have a solarium or sun room for use in cold weather and a broad uncovered porch for use on warm summer days.

Every school should have connected with it an out-of-door gymnasium arranged in two sections, one for boys and one for girls. In these enclosures, the children should have an opportunity to engage in sports of various sorts with the greater part of the body surface exposed to the direct action of the sun and air. The play ground equipment should include a swimming pool in which every child should be taught the art of swimming. If every school were provided with this sort of play ground, the need for children's hospitals and the number of crippled children who are compelled to hobble through life would be very appreciabely diminished.

CANADA AND HER SOLDIERS' CHILDREN

HOW Canada provides for the wives and children of her enlisted men is described in a report by Mr. S. Herbert Wolfe, of New York, prepared at the request of the Secretary of Labor and just published by the Children's Bureau of the U. S. Department of Labor.

In presenting the report, Miss Lathrop, says:

"In the 50 years since the Civil War, legislation affecting the family and its economic status has shown marked growth. Mothers' pension laws and minimum-wage laws are recognized examples, and it is acknowledged that their result has not been to pauperize but distinctly to improve the power of the family to protect itself. In view of this tendency it is to be expected that a system of compensation for soldiers and sailors can be developed whereby the Government will make possible for their children, the home life and parental care which are the common need of every child."

The report points out that in Canada two notable elements have been added to the Government provision for soldiers and their families: First, insurance on the lives of soldiers is carried by various municipalities, and, second, the Dominion has undertaken as a part of its military system the re-education, in a suitable occupation, of the disabled soldier so that he can assume again, in whole or in part, the care of his family.

The Canadian compensation for the soldier and his family includes not only $33 of monthly pay for

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BATTLE CREEK, MICHIGAN, TUESDAY, JANUARY 3, 1928—CITY EDITION

PRICE THREE CENTS

DR. CLARENCE COOK LITTLE SOUNDS PARLEY SPIRIT

LISTS PURPOSES OF CONFERENCE NOW IN SESSION

Willingness to "Drop Petty Thoughts and Study Limitless Problems" Expressed.

KIEFER, CARREL SPEAK

State Health Commissioner, Famous Scientist Included In Evening Program.

Willingness to "drop petty thoughts and study limitless problems" was the declaration of the spirit of the Third Race Betterment conference made by Dr. Clarence Cook Little, president of the University of Michigan, last night.

Outlines Objections

He gave the principal address of the first evening of the conference at Battle Creek, outlining the conference's objectives and bringing before the distinguished group of scientists, educators and students from all over the United States, and other countries, the serious thought of the complications brought by progress in medical science.

Dr. Little is doubtful if the advancement made by science in prolonging the human life will benefit the human race as a whole.

Is Open to Question

"There seems to be little doubt from statistics and direct study that the average duration of life is being increased," he said. "This has been aided by improved methods of infant hygiene, combatting infections, correction of constitutional deficiencies, repairing wear and tear and perhaps actual rejuvenation. However there is the question of whether a good many of us should live longer.

"Those persons whose constitutional deficiencies have been bolstered up by treatments will be weaker than those who could have survived under more rigorous treatment. To some extent such weakness will be inherited, thus repeating the problem. An increasing number of individuals with decreased vigor will thus be preserved and retained."

The educator said such a condition will develop a demand for means to prevent production of the unfit and the spread of information on how it may be done.

Represents Governor

Dr. Little's address, of which more is told below, was preceded by a paper, "The Role of the State in the Reduction of Degenerative Disease," by Dr. Guy L. Kiefer, commissioner of health of Michigan, representing Governor Fred W. Green, who was unable to come to the conference.

Dr. Kiefer first expressed the regret of the governor for his inability to attend and conveyed the executive's belief that the conference's undertaking was of extreme importance.

"How long before the slogan, 'Have a health examination on your birthday' will have been translated from platform announcement to accomplished fact?" Dr. Kiefer asked.

"It is perfectly obvious to those of us who will take time to investigate that while the death rate from each of the scourges of child life is falling annually, the death rate from the diseases that play greatest havoc during the working span of life has been increasing. Degenerative diseases, which strike down the individual at the time of his life when he is economically most valuable, have taken their places. The death rates from diabetes, nephritis and heart disease have been mounting steadily during the years that life saving measures have been carried out which carry more people into their adult years.

Here Dr. Kiefer brought forward one of the things to be considered by the Race Betterment foundation.

Is Biggest Problem

"What, then, are we to do for those individuals who have been guided through the shoals of the diseases of infancy and early adulthood and have now reached the age of productivity? The economic value of these lives is far greater than at any other time in their careers."

Dr. Kiefer then described the growing tendencies toward health examinations, such as school inspections of children, insurance company examinations, [illegible] examinations, [illegible] by high grade executives who appreciate the importance of an inventory of their most valuable stock in trade—their health. Many of the great industries and employers of labor are realizing that the annual physical examination of their employees is not a [illegible] but an important service to their employees and stock holders.

The concluding [illegible] of this first evening session of the conference was given by Dr. Alexis Carrel of the Rockefeller Institute for Medical Research, New York, which [illegible] as the scientist who has been able to keep a piece of chicken heart [illegible]

(Continued on Page 2, Col. 2)

STATE'S ENTIRE EQUIPMENT PUT INTO USE TO CLEAR HIGHWAYS OF SNOW.

Lansing, Jan. 3.—(AP)—Every available piece of equipment has been put to work in an effort to clear snow-blockaded roads, Frank F. Rogers, state highway commissioner, stated today.

The most serious situation is in the southwestern part of the state. Equipment there is to work night and day until the roads are open. To hasten the relief, B. C. Tiney, chief of the department's maintenance division, and S. R. Burton, departmental specialist on snow removal, were despatched to the scene by Mr. Rogers today.

EVERY MALE MEMBER OF TRIBE IS KILLED

Irak Is Scene of Brutal Slaughter, According to Advices from Bagdad.

Bagdad, Irak., Jan. 3.—(AP)—Every male member of one of the Irak tribes, including even male babies, has ben slain by Sheik Feisel Ed Dowish and his raiders, advices reaching here state. Thousands of cattle were carried off. A miserable remnant of women was left to starve.

Feisal Ed Dowish was one of the chieftains of Ibn Saoud, king of Hejaz, but now is apparently in revolt against the king.

HOLD LOCAL MAN FOR FEDERAL BOND THEFT

Lou Gonyou, 32, Rearrested When Released from Kalamazoo County Jail.

Lou Gonyou, 32, Battle Creek, was arrested here last night by state police a few hours after being released on bond in Kalamazoo on a liquor charge and was taken to Lansing to be arraigned in Howell today, accused of robbing a Livingston county farmer of several thousand dollars worth of federal bonds.

Gonyou was arrested in Kalamazoo three weeks ago and charged with operating a large still which Kalamazoo county officers confiscated with a considerable quantity of liquor. While still held there in lieu of bonds, the charge that he was implicated in the bond robbery was lodged against him. State officers waited until he secured his freedom on bail and then rearrested him. He was lodged in jail at Lansing last night and was to be taken to Howell this morning. The formal charge against him in connection with the bond theft is robbery while armed.

Another local man was arrested three weeks ago charged with aiding Gonyou but was later exonerated and released.

BURY VETERAN JEWELER

Paw Paw, Jan. 3.—(AP)—Guy E. Chappell, who for 44 years conducted a jewelry business here, was to be buried here today. Chappell died at the age of 92 years in Niles Sunday. Since his retirement in 1921, Mr. Chappell has made his home with a son, Ray E. Chappell in Niles.

FRIGID BLASTS SEND MERCURY TO TWO BELOW

Low Level for Winter Reached Here Last Night As Another Layer of Snow Is Added.

BEGIN TO OPEN ROADS

Traffic Moves with More Freedom in Trail of Plows—No Break in Cold Forecast.

Another layer of snow, one inch deep, was added last night to that which obliterated the countryside Saturday and Sunday, and was accompanied by frigid blasts that sent the temperature to a new low level for the winter.

Two Degrees Below

From midnight until about 5 o'clock this morning, the mercury shivered around two degrees below zero on the thermometer at number three fire station. About 8 o'clock this morning it was rising hesitantly, struggling up to two degrees above but by midday had gone no higher than six above, indicating that yesterday's maximum which was 13 above, would not be reached today.

An Enforced Rest

Yesterday's holiday was in a form an enforced rest for many. Walking out of doors for more than a few blocks was an ordeal, the bitter cold and blustering wind that accompanied it defying mufflers and overcoats, and the streets of the city were deserted most of the day. Steaming radiators, the creaking of wheels on the snow packed roads and streets, and iced windows constituted further substantiation this morning to the thermometer.

No cheering word was forthcoming from weather sages this morning who saw at the best only a continuance of present temperatures and in the north and west even further drops.

Traffic Moves Slowly

Blockaded for two days by the season's heaviest snowfall that kept all but the principal highways buried, traffic in Battle Creek and

(Continued on Page 15, Col. 3)

ROAD CONDITIONS

The condition of roads leading to and from Battle Creek, according to latest reports are:

To Kalamazoo: Upton avenue road cleared; Lafayette road rough and rutted; Main street cleared.

To Climax: Prairie avenue cleared to Climax; side roads not completely passable.

To Marshall: Pavedway, cleared of snow.

To Bellevue and Charlotte: Open, but driving bad.

To Union City and Coldwater: Roads all open, cleared by snowplow.

To Athens and Sturgis: Open but with numerous drifts.

To Homer and Litchfield: Snow deep but passable.

To Nashville: Road cleared by snowplow; traveling is slow.

Muffled Splash of Falling Plane Is Heard; Believed Missing Dawn

Portland, Maine, Jan. 3.—(AP)—Evidence that Mrs. Frances Wilson Grayson's missing plane, The Dawn and its four passengers came down not far from the tip of Cape Cod accumulated today.

A schooner's crew here swore they heard the hum of a plane's motors and a muffled splash as it crashed into the Atlantic on the night of Friday, December 23.

Their story substantiated that told earlier by a radio operator aboard the steamer Oakey L. Alexander when that ship docked here. The operator, Jerome Knowles, said that at the same hour, as his ship was passing Cape Cod, he heard a message, presumably from the plane, requesting radio bearings from the Chatham station of the Radio Corporation of America. A few minutes later came the words, "Plane down," he said.

The latest evidence that tragedy overtook the plane on its flight from New York to Harbor Grace, N. F., just as it put out to sea came from the master and crew of the Nova Scotian stern schooner, Rose Anne Belliveau.

The Schooner was 18 miles northeast of Nauset Beach light. A gale was blowing, occasional flurries of snow obscured the view, and heavy seas were crashing over the deck, Capt. R. V. Comeau related.

Off the windward rail of the schooner's bow those aboard heard sounds which the captain said he was certain came from airplane motors. Then the droning increased only to end abruptly and to be followed almost immediately by a heavy splash.

Only a staunch vessel could have lived in the sea that was running, the captain said. The schooner heard about The Dawn by its radio, but had no transmitting apparatus.

REBEL LEADER IS DRIVEN FROM HIS FOREST RETREAT

Reinforced Garrison of United States Marines Defeats Nicaraguan Leader.

CASUALTIES INCREASED

One Dead, Five Wounded Toll Of Most Recent Fighting; Forces Hold Quilali.

Washington, Jan. 3.—(AP)—Two battalions of marines under the command of a marine general have been ordered to Nicaragua to participate in a drive against the bandit Sandino in the province of Nueva Segovia.

Managua, Nicaragua, Jan. 3.—(AP)—A reinforced garrison of United States marines today held Quilali after fierce fighting in which six marines were killed and 28 wounded. General Augustino Sandino, rebel leader, had boasted he never would be driven from Quilali.

Casualties Increased

The reinforcing Sunday of the patrol which captured Quilali Friday cost one American life and five marines were wounded as they pushed their way through the rebels and joined their comrades. In the capture of Quilali, five marines were killed and 23 wounded.

The rebel casualties in the two encounters were not determined because dead and wounded were quickly removed to save them from vultures.

Planes Bomb Rebels

Once the marines had established themselves in Quilali, their planes under Maj. R. E. Rowell bombed

(Continued on Page 7, Col. 4)

TRADE OF A FARM FOR FLORIDA LAND STOPPED

State Supreme Court Prohibits Deal on the Grounds Of Alleged Fraud.

Lansing, Jan. 3.—(AP)—A lower court decree prohibiting the consummation of an alleged fraudulent land deal involving 1,400 acres of Chippewa county land and a Tampa, Fla., apartment house and other property, was affirmed by the supreme court today.

John M. Grosvenor entered into a deal with the Johnson Realty Investment company of Tampa, whereby he was to trade the Chippewa land for the Tampa property. Later, it was charged, it was found the Florida land was heavily mortgaged and was worth, in its encumbered state, much less than the Michigan land.

A new trial was granted Dr. Rud N. Dunnington, against whom the lower court ordered a judgment of $15,000 in favor of William Ballance, who claimed his foot was injured so badly by x-ray treatment it had to be amputated. Errors were found in the lower court trial.

PATROLMAN FOUND SHOT IN A VACANT BUILDING

Detroit, Jan. 3.—(AP)—The body of Patrolman George Bulder, 25, with a bullet wound in the head, was found today by a group of children playing in a vacant foundry building. Police have been unable to determine wether the officer was slain or ended his own life.

Snow and ice encrusted on Bulder's clothing gave rise to a theory that he might have been slain and his body dragged into the building. However, his revolver, with one cartridge discharged, was found near the body.

Lindbergh Flies High in Order To Avoid Bullets from Rebels

Tegucigalpa, Honduras, Jan. 3.—(AP)—The "Spirit of St. Louis," bearing Colonel Charles A. Lindbergh, was sighted from the aviation field here at 1:42 p. m., central standard time.

San Salvador, Jan. 3.—(AP)—A flight almost within earshot of the battle being bitterly waged between rebels under General Augustino Sandino and United States marines was the task of Colonel Charles A. Lindbergh today.

A few miles south of Tecucigalpa, Honduras, his objective today, six marines have given their lives to capture the rebel stronghold at Quilali, near the Honduran border.

Over the actual fighting terrain Lindbergh will fly when he leaves Tegucigalpa for Managua, Nicaragua. He has been advised to fly high because the rebels, armed with machine guns and anti-aircraft guns, are considered likely to take a shot at any plane passing over their retreats, especially since marine corps planes bombed them yesterday.

Lindbergh has under consideration extending his present goodwill tour to include Colombia and Venezuela. He will make a decision after reaching Panama, where he is expected some time after January 8. Lindbergh believes that atmospheric conditions are favorable to a Central American air mail service and he has urged its inauguration.

Some 10,000 persons flocked the streets here when the flier passed on his way to a reception at the national palace. A thousand others congregated at the Ilopango airdrome to view the "Spirit of St. Louis." Extra police were called out to keep the crowd at a safe distance from the plane.

President Bosque pinned a gold medal upon the flier at the reception. He said that Salvador delighted to honor "The greatest conqueror of the air and cruiser of the blue vault of heaven." He asked the flier to accept the medal as a symbol of the love which Salvador bore him.

Detroit, Jan. 3.—(AP)—Mrs. Evangeline L. L. Lindbergh, quiet and unassuming mother of a famous son, who yesterday stepped from the cabin of an airplane which had carried her to Mexico to visit Colonel A. Lindbergh, today resumed her duties as a teacher of chemistry in the Cass Technical high school here.

"The trip was perfectly lovely," she said. As calmly as she stepped into the cabin of the giant Ford monoplane two weeks ago to visit her son, so did she step forth yesterday afternoon to be greeted by friends, including Mr. and Mrs. Henry Ford.

The two landings made during the past three days due to sleet and snow storms, Mrs. Lindbergh declared were not absolutely necessary but were considered advisable by Pilot Harry Brooks who, according to Mrs. Lindbergh, would take no risks.

HICKMAN TAKEN INTO COURT FOR HIS PLEA TODAY

Confessed Kidnaper and Slayer of Child Has Three Alternatives.

EXPECT INSANITY CLAIM

Long Drawn-Out Trial May Ensue if Youth Tries to Escape Death Penalty.

Los Angeles, Jan. 3.—(AP)—The court in which the punishment of William Edward Hickman for his confessed kidnaping and slaying of little Marian Parker is to be determined today awaited the plea of the youthful desperado.

Court attaches pointed out that, barring another postponement of plea, Hickman had three alternatives at his arraignment in superior court today on the indictments charging him with kidnaping and murder. One was a plea of guilty with an added plea that the court examine Hickman's mental condition before pronouncing sentence. A second was a plea of "not guilty by reason of insanity." The third was a simple plea of guilty.

Expect Insanity Plea

Statements made by the young Kansas City attorney, Jerome Walsh, who will defend Hickman, indicated that the first might be chosen in the fight to save his client from the death penalty. The prosecution, through District Attorney Asa M. Keyes, frequently has announced it would demand the extreme penalty, if Hickman's guilt is pled for, proved and his sanity shown.

The belief that Walsh would enter an insanity plea for his client was strengthened further by the report of jail officials that three physicians have called upon the prisoner within the last few days.

Whatever the plea of the confessed slayer of the Los Angeles school girl may be, attorneys said he would undergo a trial. Even in the case of a simple guilty plea, the court will be forced to hear all of the evidence against the youth in order to determine the degree of guilt.

May Be Long Trial

A plea of "not guilty by reason of insanity" might mean a long drawn-out trial, attorneys said.

Since his arrival here, the 25-year-old defense attorney has made no direct statement for publication concerning his plans. It even was doubtful whether he would be assisted by a California attorney, Joseph Ryan, former deputy district attorney, who quit the prosecutor's office recently after firing a broadside of charges against its management, announced he had declined an invitation to be associated with the youth's defense.

AUTO INDUSTRIES ARE OPTIMISTIC OVER 1928

Pontiac, Jan. 3.—(AP)—Pontiac's four major automobile industries paid out more than $36,850,000 in wages in 1927, according to a report by officials. A 40 percent increase in production for the Fisher body, Oakland Motor company, Wilson Foundry and Machine company, and the Yellow Truck and Coach Manufacturing company, during 1928, was forecast.

UNIVERSITY STUDENTS RETURN TO ANN ARBOR

Ann Arbor, Jan. 3.—(AP)—Michigan's student body of 10,500 with its various assortment of grips, handbags and suitcases, hurried back here last night for the beginning of classes today. Beginning today the students of the Literary college will meet members of the class committee as a preliminary to the beginning of the second semester, only a little more than a month away.

DETROIT PRO QUINTET DROPS OUT OF LEAGUE

Franchise Canceled When Team Fails to Draw Money-Making Crowds.

Detroit, Jan. 3.—(AP)—The American league franchise of the Detroit Cardinal professional basketball team has been cancelled, it was announced last night by the management of the Olympia Gardens sports arena, holders of the franchise.

Failure of the team as a drawing card was announced as the reason for the action. Basketball is not a popular sport here, officials said, and it was felt the returns accruing from exhibitions at the arena were not worthwhile.

TRAIN DERAILED WHEN COLD BROKE A RAIL

Five Men Are Injured, Two Seriously, As Result of a Wreck in Ohio.

Marietta, Ohio, Jan. 3.—(AP)—Five men were injured, two seriously, when B. & O. Train, number 73, was derailed by a broken rail at Raven Rock, West Virginia, 22 miles east of here, today. Railroad officials said the rail was broken by the intense cold.

The two seriously injured are: Keller, Ashland, Ky. and Daniel Welsh, Ravenswood W. Va.

The other three, who were only slightly injured, were members of a railroad construction crew.

BILL PROHIBITING SCHOOL EXPENDITURE DISMISSED

State Supreme Court Rules in Favor Of Mason County Board of Education.

Lansing, Jan. 3.—(AP)—A bill of complaint against the school district and board of education of district 6, fractional, Amber township, Mason county, seeking to prohibit the expenditure of a $40,000 school addition, was dismissed by the state supreme court today.

The district held an election last January and voted the $40,000. Thomas D. Smith, Edward Kobe and other tax payers sought to restrain the action. They contended that under Act 319, of 1925, the board of education had not divided the districts into voting precincts. This act was repealed in 1927 after the election. The court held that the 1925 act clearly stated the board of education may come under the act but was not compelled to, therefore if it did not the election was legal nevertheless.

HIGHWAY OFFICIALS MAY ALTER PROPOSED ROUTES

State Supreme Court Rules in Favor of Road Commissioner of St. Joseph County.

Lansing, Jan. 3.—(AP)—Township highway commissioners may deviate somewhat from the course set forth in highway petitions, the supreme court ruled today. It held that while the general route must be followed, slight deviations may be made to meet circumstances.

The opinion was in answer to the complaint of Jonathan Yoder that N. L. Myers, highway commissioner of Colon township, St. Joseph county, altered a road route.

LUDINGTON TONNAGE IS 15,237,632 TONS

Ludington, Mich., Jan. 3.—(AP)—Captain Nels Palmer of the coast guard today reported there were 5,207 boat arrivals and departures in Ludington harbor in 1927. The gross tonnage carried by these ships was 15,237,632 tons, which is believed to have been the greatest in any port on the east shore of Lake Michigan. It was a decrease of 1,524,195 tons under the 1926 tonnage, which was the highest on record.

FRESHLY FALLING SNOW IS ADDING TO DIFFICULTY OF STRANDED BOYS.

Modesto, Calif., Jan. 3.—(AP)—Freshly falling snow Monday hindered a rescue party that pushed its way over a snow choked mountain trail toward a party of 25 boy scouts and their leaders marooned in the Sierras 32 miles above here.

The scouts, who trekked to the mountains last week for an outing, planned to return to their homes in Stanislaus county towns Thursday, but were prevented by heavy snowfall that piled drifts to a depth of 14 feet.

REMUS IS DENIED A NEW SANITY HEARING

Cincinnati Jurist Also Denies a New Bond for the Former Bootleg Leader.

Cincinnati, Jan. 3.—(AP)—A new sanity hearing for George Remus, wife-slayer, was denied today by Judge William H. Lueders, of probate court, who last week found Remus insane and ordered him committed to the state hospital for the criminal insane at Lima. Judge Lueders also denied bond for the former "King of Bootleggers."

In the court of common pleas, Judge Charles S. Bell heard long arguments on a petition for a writ of Habeas Corpus to free Remus, and announced he hoped he might be able to give his decision next Thursday morning.

RELICTED LANDS ARE OWNED BY THE STATE

Court Decision Firmly Establishes Title for Those Made By Lake or Bay Waters.

Lansing, Jan. 3.—(AP)—The state's right to relicted lands again was established by the state supreme court today.

The decision was made in the case of William P. Kavanaugh against John Baird, former conservation director. Kavanaugh sought to gain the title to lands between the meandered line and the present waters of Saginaw bay. He claimed he owned the land above the water line prior to the reliction and now owns the new land. The stretch of property is known as Aplin beach and lots have been leased to tenants.

The supreme court held that the title of lake bottom lands and relicted lands is firmly fixed in the state.

A lower court decree giving the state title to the land was affirmed, with a modification that permits the owners of property back of the meandered line access to the water over the state land.

The court declined to go into the dispute as to whether the state-owned relicted land shall be leased.

LONE BANDIT HOLDS UP BRANCH BANK AT FLINT

Escaped with $650 in Cash After Locking Manager and Two Customers in Room.

Flint, Jan. 3.—(AP)—Covering the manager of the Industrial Savings bank branch on South Saginaw street with a pistol this morning, a lone bandit scooped up approximately $650 from a cash drawer at the tellers' window and escaped after locking the manager and two customers in a room.

The manager, Joseph O. Bulsak, was talking over the telephone in an office adjoining the cage when the bandit entered, shoved a pistol in his face and ordered him to "keep on talking." He then forced Bulsak, Ralph Frazier and John Colburn, customers, to go into the room where he locked them in. They finally broke out and sounded an alarm.

Asks Steps Be Taken to Preserve Any Messages Left by S-4 Victims

Washington, Jan. 3.—(AP)—Secretary Wilbur was requested today to take every precaution to preserve a possible "farewell message" that may have been left by the six members of the crew of the S-4 who lived for several days after the submarine had sunk.

Representative McClintic, of Oklahoma, democrat on the house naval committee, in a letter to the naval secretary recalled that several years ago in a Japanese submarine disaster such a message was found and he urged that the "water tight compartments be not opened until adequate precaution had been taken.

"With the thought that the six men who were known to be alive in the S-4 for several days," McClintic wrote, "would, if possible, chronicle their sensations, giving to their loved ones a farewell message before their life ebbed away, I respectfully request that you advise those in charge of the raising of this ship that if possible the water tight compartments be not opened until such precautions are taken as will make it possible to protect any such records made.

"As an addition to the knowledge now at the disposal of submarine experts, it seems to me that the condition of the dead in the various compartments of the S-4; their positions when life became extinct; the object or objects they may have in their hands and the notes of various kinds and notes would be extraordinarily valuable to those who will be charged with submarine responsibility in the future. Therefore, I want to respectfully request that you take the necessary steps to obtain and protect all information of this kind."

COLONY AFFAIRS BELIEVED TO BE NEARING CRISIS

Recent Order Prohibiting Enforcement of Receivership Decree Protested.

HIGHER BOND DEMANDED

State Officials Argue Need of Immediate Inventory to Conserve Cult Wealth.

Lansing, Jan. 3.—(AP)—With the opening of a new term of the supreme court the state today pressed its petition for modification of a recent order prohibiting the enforcement of a receivership decree against the House of David colony. State attorneys charged affairs in the colony are approaching a crisis since the death of Benjamin Purnell.

Higher Bond Demanded

A brief was filed by Wilber Brucker, assistant attorney general, George E. Nichols, special state's attorney, and George E. Bookwalter, Berrien county prosecutor, stressing the alleged need of a higher bond and an immediate inventory to prevent dissipation of the colony's real and personal wealth.

"It needs no argument to convince this court, surely, that with internal strife rampant, the death of the leader an accepted fact and no restraint over personal property, any decree dealing with the proper-

(Continued on Page 7, Col. 2)

DETROIT MUSICIAN DEAD

Detroit, Jan. 3.—(AP)—James Henry Bell, 56, secretary-treasurer and manager of the Detroit Conservatory of Music, died in a local hospital yesterday.

CRANKED CAR; KILLED

Detroit, Jan. 3.—(AP)—Alonzo Wierzchowski, 38, was killed in a fall to the pavement here yesterday when he slipped while trying to crank his car.

THE WEATHER

Partly cloudy to cloudy weather tonight and Wednesday; slightly colder tonight in extreme north portion; not so cold Wednesday in south and central portions; moderate to fresh southwest winds.

THE TEMPERATURE

	Max.	Min.
Today	6	—2
Yesterday	13	6
A week ago	36	25
A year ago	35	29

The Enquirer and News recording barometer rising, which indicates fair weather with high winds which will diminish.

Today	29.90
Yesterday	29.[illegible]
Normal	29.27

Wednesday (eastern standard time)—Sun rises at 8:10 and sets at 5:20. Moon sets at 6:18 a. m.

Weather Influences

East Lansing, Jan. 3.—(AP)—Shippers, forecast: North and west, 10 below zero; east and south, zero.

General conditions: The weather continues very cold in nearly all sections of the United States and Canada. The temperature is below zero in Illinois, Indiana and Ohio. Temperatures are still very low in the northwest, ranging from 10 to 20 below in Minnesota and the Dakotas. The high pressure area has moved southward and is central this morning over the lower Mississippi valley. It has carried the cold weather southward and readings of from 10 to 12 degrees below the freezing point are reported in the gulf region. The pressure is falling in the northwest and the wind has shifted to the south in the upper Mississippi valley and lake region, which indicates that the temperature will moderate very slowly in this section during the next 36 hours. No decided change in temperature is indicated, but from the present outlook the temperature will return to normal Wednesday or Thursday. Light snows are reported in some portions of Michigan but the weather is fair in the central valleys and mostly fair weather is indicated here during the next 36 hours. The following reports as to the depth of snow in sections of Michigan were made today: Detroit, 2 inches; Lansing, 12; Escanaba, 14; Battle Creek, 15; Ludington, 5; [illegible] 5; Coldwater, 9; Cadillac, 4; East Tawas, 4; Bad Jordan, 6. The highest temperature reported yesterday (2nd) was 78 degrees at Los Angeles, Calif. and the lowest temperature reported this morning is 40 degrees below zero at White River, Ontario.

WHERE TO GO TONIGHT

[illegible]

The Enquirer. | Talks at the Race Betterment Conference.

SUNDAY, JANUARY 11, 1914.

THE MATTER OF FRIENDS.

H. Clay Trumbull.

IT is good to have a friend, but it is better to be a friend. The gain of being unselfishly loved and sympathized with and helped and cheered, is not to be compared with the gain of unselfishly loving and sympathizing and with helping and cheering another. No glad incoming to one's heart from without can uplift and enlarge it like the expansive force of a generous and self-forgetting love outworking from within.

TOWN BETTERMENT.

Town betterment is specifically prescribed for Battle Creek as a part of the propoganda of race betterment, for which latter doctrines Battle Creek stands sponsor before the world.

Practically every newspaper in this country, and many newspapers in foreign countries, have been carrying the name of Battle Creek in connection with most important news, during the past week. The news has been of a character which needed no apology. It was made out of no human fault; out of no violence done to the natural or social order. It was constructive news.

It is proposed that Battle Creek shall become the world center for this information. This involves a city responsibility.

To make a clean, beautiful, well-ordered city, whose municipal interests are largely engaged in conserving good bodily and mental and moral health—to have these qualities so pronounced that they shall comport well with the relation of the city to all the world as a source of race betterment information—is the privilege which comes to Battle Creek in connection with the movement so successfully inaugurated during the past week.

And like race-betterment, town betterment is to be reached through the patient and earnest application of good sense and sound judgment in the matter of hunting down small faults and replacing them with modest virtues.

FIND FEW CHILDREN WITH NORMAL TEETH

Examinations in Race Betterment Contest Show Need of Dental Inspection in Schools.

CHICAGO DENTIST SPEAKS

Tells How Epidemics in Schools Were Stopped By Oral Hygiene.

New York Author Declares Best Way to Stop Liquor Evil is By High Tax and Other Features of Swedish Plan.

VISITORS WILL OCCUPY THE PULPITS AT VARIOUS LOCAL CHURCHES.

Speakers here to attend the Race Betterment conference will occupy the pulpits of city churches today as follows:

Independent Congregational church—C. C. Greegan, president Fargo college, Fargo, N. D.

First Methodist church—Dr. Guilford H. Sumner, secretary and executive officer, Iowa state board of health.

First Presbyterian church—(Evening service.) Graham Taylor, president Chicago School of Civics and Philanthropy.

Sanitarium Gymnasium (afternoon), 3:30—Mrs. Ella Flagg Young, superintendent of Chicago schools, and Graham Taylor.

Congregational church (evening)—Meeting for men only, Dr. Clemens, with Kinemacolor.

Sanitarium Chapel (evening)—Meeting for women only, Dr. J. H. Kellogg, Dr. Caroline Geisel and others.

Sanitarium Gymnasium (evening)—Meeting for men, Dr. W. H. Worthen, University of Michigan.

Few children in the public schools have perfect teeth according to a discovery made by the dentists who examined the children of Battle Creek in the Race Betterment contest. Dentists of the city are using the results of this examination as an argument for dental inspection in the schools, so that the teeth of pupils can be examined, and the t

...s sent a notice when faulty teeth are found.

According to these statistics, of the 481 pupils examined, only 71 had normal teeth. Of this number 337 had decayed teeth, and 200 had badly irregular teeth. In refard to cleanliness, the showing was better, as 139 had clean teeth, 110 dirty, while 232 were classified as filthy.

Dentists and physicians of the city attended a banquet last evening, given at the Annex by Dr. Kellogg, and then the dentists of the city went in a body to the Sanitarium, where Dr. C. N. Johnson, editor of the Dental Review, gave a talk on the function of the dentist in relation to race betterment.

"It may seem a far cry from defective teeth to drunkenness, and yet it is a possible and a perfectly logical sequence," said Dr. C. N. Johnson.

"It has long been recognized in a general way that the condition of the teeth has much to do with the general health of the individual.

"This question concerns us most in growing children—not in the growing children of the well-to-do perhaps, so much as those of the great mass of humanity who today are everywhere—particularly in our large cities—being gradually assimilated into our future citizenship.

CRAVE STIMULANTS.

"The damage is not merely negative—it may become very positive. The child who is ill nourished intuitively develops a craving for stimulants. Observation has demonstrated the fact that these poor children who are suffering from defective teeth and cannot masticate will consume enormous quantities of coffee or tea. And it is not fanciful to go one step farther.

"It may seem a far cry from defective teeth to drunkenness, and yet it is a possible and a perfectly logical sequence. We are not giving these children a fair chance if we permit them to grow up with faulty mouth conditions.

CAUSE OF TUBERCULOSIS.

"A general infection of the system sometimes results from an abcess on a single tooth. These decayed cavities in teeth also form an ideal culture place for micro-organisms. There is no question but that there have been direct tuberculosis infections from this source.

"In the public schools of Chicago there was at one time an epidemic of scarlet fever. It was noted that immediately following the return of the quarantined children to school new cases developed among their associates. It occurred to the commissioner of health, Dr. W. A. Evans, that a child might carry the germs of scarlet fever indefinitely in the tonsils or in the cavities of decayed teeth. His first order was that no child who had suffered from scarlet fever should be a

mitted to return to school till all decayed teeth were filled and the mouth made hygienic. Immediately scarlet fever was stamped out of the Chicago schools. Precisely the same thing happened in the public schools of Valparaiso, Indiana.

WHAT CHICAGO DOES.

"These instances are only the merest hint of what might be written on the relationship of defective teeth to the community health. If then defective teeth are such a prime factor in physicial inefficiency it may be well for us to consider briefly the prevelence of this affection. Few people have any conception of the relative number of children who are growing up with bad mouth conditions. In an examination of the teeth of school children in various communities it has been found that at least ninety per cent of them have decayed teeth. In the public schools of Chicago where nearly 70,000 children have been examined the percentage runs much higher than this.

"In conducting ten free dental infirmaries in the public school buildings of Chicago where the teeth of poor children are cared for we are brought face to face with the appalling enormity of the need of this service. Needless to say the improved physical condition of these children has helped them to accomplish more in the school room."

HOW MEDICAL SCIENCE COULD BE USED BETTER.

Something of the sins, and the sufferings, and ignorance of the human race, as they are seen by the ordinary practicing physician was described by Dr. Victor H. Vaughan, dean of the medical department of the University of Michigan was told to the race betterment conference last evening.

Using a mythical Dr. Smith, he told how he cared for young men who had erred, girls who had been wronged, men sick with typhoid because selfish interests polluted the water supply, and then he told of a dream the doctor had, when he thought that the public had been sufficiently educated to use medical science for disease prevention, rather than a disease cure.

He expressed the belief that the time would come when every person would be subject to regu lar medical examination so as to ward off any organic trouble that under present conditions that become serious before they are discovered. Such examinations would also better the race by providing for pure marriages.

Newell Dwight Hillis.

URGES ADOPTION OF SWEDISH SALOON PLAN.

That the best way to solve the liquor question was by a gradual increase in the tax on the more fiery liquors, like whiskey, and a gradual raise in the license charged the saloon man, was the statement of Dr. Henry Smith Williams of New York before the Race Betterment congress last evening. He would double the present tax on whiskey, there by making the drinking of it an expensive luxury. And in addition he would make it impossible for the youth or the habitual drunkard to buy liquor.

CONSUMPTION INCREASE.

"The per capita consumption of alcohol has increased steadily year by year in spite of vigorous efforts to combat it both by educational propoganda and by legislation," said Williams. "The increase in malted liquors has not quite kept pace. It would appear that there is a general tendency to supplant mildly alcoholic beverages with those that are strongly alcoholic. There is also an enormous traffic in morphine and cocaine, and the use of these drugs increases in proportion as it becomes difficult to secure alcohol.

"The ultimate solution of the problem must be found in the education of the coming generation to a complete understanding of the desirability—from the standpoint of physical health, mind and morals—of total abstinence from alcoholic beverages. We are obliged, however, to recognize that there is an important minority of adults in the community who, either through inherited weakness or through acquired habit, have a lust for alcohol against which no argument can prevail.

TREATMENT GROTESQUE.

"At present our treatment of the dipsomaniac is grotesquetly irrational. We arrest him and send him to jail for a week; and then release him, knowing that he will immediately become again a disturbing element in the community. Segregation in a proper institution for a term of years is the only solution that at the moment can be depended on. All question of punishment should be eliminated from the judicial mind; but the absolute necessity of segregation for a long period should be fully recognized.

"Well-meant efforts to control liquor traffic by sumptuary legislation have signally failed. Prohibitory legislation, local or statewide, has nowhere been effective in reducing the amount of alcohol consumed by the individuals to whom it is most harmful. Illict stills spring up in prohibition states; liquor of the worst quality is everywhere dispensed surreptitiously; and morphine and cocaine, supplement the effects of bad liquor. Either in Maine and Kansas, or in Georgia and the other southern states that have recently come under the alleged "dry" regime, the results are the same—the evil effects of alcohol are demonstrably more in evidence in the prohibition territory.

SWEDISH SYSTEM.

"The most rational attempt that has ever been put into practice to control the liquor traffic is known as the Gothenburg system, because it was first carried out in Gothenburg, Sweden. In a slightly modified form it has been tested successfully in England. The fundamental principle of the method is that no private concern can profit by the traffic in liquor under the operation of this system. Nor should the profits of conducting the sale of liquor be used by the government as ordinary revenue. All such profits would be applied to public utilities—reading-rooms, amusement halls, and gymnasia—intended to serve as substitutes or as counter-attractions to the saloon. In my opinion there is no other proposed line of action that gives such good promise of stemming the tide of alcohol and leading to its complete control."

ONE MEETING HELD FOR FREE DISCUSSION.

One of the most interesting meetings of this session of the race conference was held yesterday afternoon at the Sanitarium gymnasium, when no regular program was prepared, but everyone was permitted five minutes in which to discuss the subjects on which papers have already been read.

"There is so much discussion concerning a single standard of morality that it is necessary to find out where the double standard started," said Dr. Luther H. Gulick of New York, organizer of the Camp Fire club for girls, at the delegates' meeting for

discussion at the Sanitarium yesterday afternoon in connection with the Race Betterment conference. "In the beginning the men found it necessary to stand together, to fight together,

Dr. Stephen Smith, 92 Year Old President of Race Betterment Conference.

and to have loyalty. The women developed love for home and children. Now that the new demand for a single standard of morality has arisen, the men are having to keep clean, and they find it hard. But there is also a new standard of morality for women. They must learn to stand together, and they find it just as hard as the men do to keep clean."

PRAISES THE WOMEN.

Dr. Guilick's talk came at the close of a discussion of eugenics and the necessity for it, in which Mrs. Maude Glasner, wife of Representative Glasner of the Michigan state legislature, took part. Mrs. Glasner declares there was never a cleaner nor brighter body of women in the world, than in North America today. The opposition to the Glasner Eugenics bill which the 1913 legislature failed to pass did not come from the women, she insists. The are demanding it for their own protection.

Prof. Robert J. Sprague of Amherst, Mass., speaking on the subject, insists that what the American race needs, for men and women both, is work in the open air, to give virility to the coming generations.

Though not a delegate, and not one of those supposed to be on the program, S. S. McClure of the McClure Publishing company, found it necessary to speak briefly in defense of magazines in general. The necessity came through the remark, made by Mrs. Amanda Decker Holcomb, to the effect that in most fiction she had read, the best heroes smoked cigarettes, and that she wondered if the publishers hadn't put those cigarettes in the mouths of those heroes, to boost the tobacco manufacturers who advertise with them.

Dr. Guilford H. Sumner, of Iowa State Board of Health, Who Speaks This Morning at the Methodist Church on Disease and Its Prevention.

DEFENDS MAGAZINES.

"I have heard of magazines being controlled by the trusts," said Mr. McClure, "but there is a great deal of loose thinking on the question, and this is a phase of it. Magazines are controlled by the necessity of meeting expenses and making a little money. Their life-blood is influence, and no magazine or newspaper can prosper if it is the organ of any trust, because it will cease to have influence. Everything depends upon pleasing people, and they cannot be the mouthpiece of a trust and please people at the same time.

"All ads are valuable to magazines in the way of money, and they all accept tobacco ads, though many do it unwillingly. Their morality is at the point where they refuse liquor and patent medicine ads, but will accept tobacco advertisements."

"Of what use is it to take care of babies, if we let them commit suicide when they reach the age of between 12 and 21?" demanded President Lancaster of Olivet college." The period is a more delicate one than the first year, and the adolescent suicide is terribly frequent. Many children destroy their physical, moral or intellectual life during that period."

Prof. Herbert A. Miller of Olivet college took up the subject of immigration regulation, in a brief talk, and declared that the basis of immigrants as ten per cent of those who have already become American citizens, as the limit for each nation, will not fulfill the need. The immigrants who come from Russia, for instance, are 52 per cent Jews, and then Poles, Finns and Russians, in that order.

One mining town where 90 per cent of the inhabitants were foreigners lowered the death rate one-third by imposing a fine of $25 on every death where no physician had been called.

WHY INSANITY INCREASES.

Supt. J. T. Searoy of Tuscallosa, Alabama, head of two state insane asylums, declares that insanity is increasing at so rapid a rate as to make it difficult to build institutions fast enough to take care of them, despite the building of homes for epileptics and feeble-minded people.

Dr. Burkhart took expection to this statement, and declares that the increase in insanity is by no means as rapid as statistics seem to show. Insanity, he says is pre-eminently a disease of old age, and people live longer than they used to. Also the patients in insane institutions have longer life than formerly. Besides this more insane people are cared for ed for than formerly. Besides this, more insane people are now cared for in institutions than formerly, and fewer in the home, which makes the figures look higher. Another reason is, that at the present time all human life is valued alike, which tends to the conservation of the weak. Civilization is burdened with defectives.

4

SAYS MEDICAL ETHICS CAUSE SERIOUS WRONG.

The present practice of physicians of keeping as a guarded secret any information they secure in the consulting room was denounced this morning by Newell Dwight Hillis, in his talk before the Race Betterment conference. He told of meeting a physician in Brooklyn, on the day of a wedding of two young people of that place. The physician knew that the young man was affected with a loathsome disease, but because of professional ethics he could say nothing. He did, however, refuse to attend the wedding, though he was invited.

"That young man might as well take his bride out in the park and choke her to death, as to marry her," declared the physician. The code of ethics that compelled the physician to protect the young man in his secret was denounced by the Brooklyn pastor.

"So help me God, I would rather cut off my right arm than to per-

Dr. J. H. Kellogg.

form the marriage ceremony where I knew that the young man was affected with a loathsome disease," declared the Brooklyn pastor. His fervent oath was cheered by the audience.

STENOGRAPHER ADDS HER VIEWS TO SPEECH.

Some interesting foot notes were added to the paper read this morning at the Race Betterment conference by Dr. D. A. Sargent, director of Stemenway gymnasium of Harvard college, who discussed the relation of physical education to race betterment. The stenographer, to whom he dictated his paper, added a few notes of her own, which the doctor read, and gave credit for.

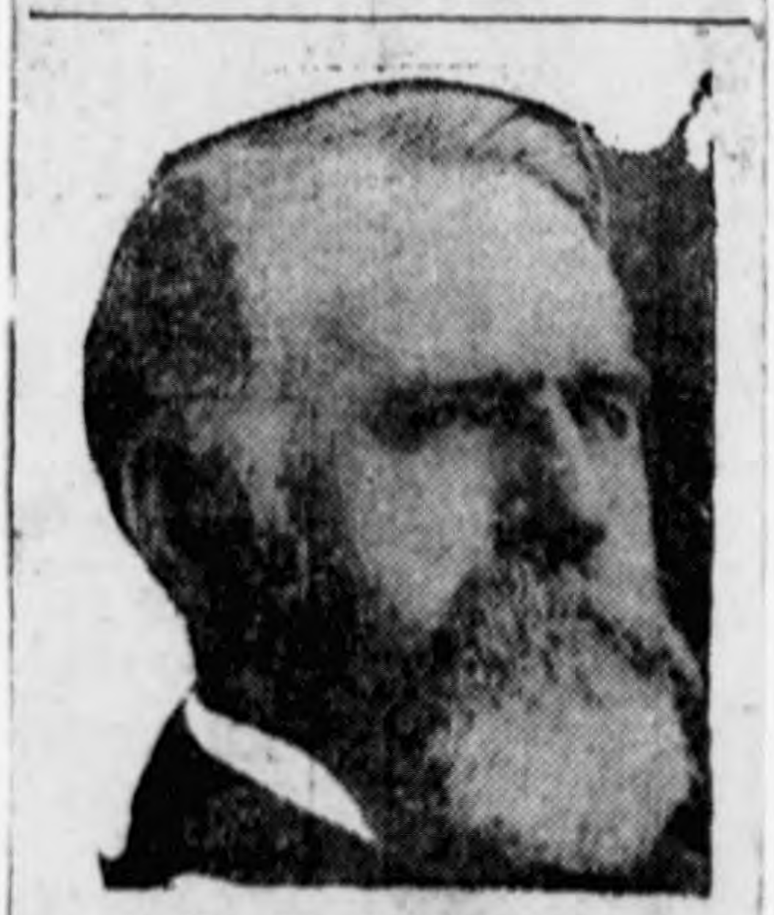
OLD RULE IS CHANGED.

Dr. Heminway declared that modern methods of living had turned topsy-turvy the old rule of the survival of the fittest. Present methods of civilization of caring for the weak and the sick, mentally and physically, had resulted in a rule of the survival of unfittest.

"Twenty percent of the married women in America are unable to bear children," declared Dr. Sargent. "Twentyfour percent of the women of the so-called higher class are unable to have children and 27 percent of the women college graduates are likewise sterile.

WANTS STRONGER WOMEN.

He spoke for a stronger, healthier race of women, because he declared that bearing children was largely a muscular process so that strong, healthy women were needed, rather than intelligent, high minded women. The ability to bear strong, healthy children depended largely on the pelvic condition of the women.



Dr. D. A. Sargent.

He was not entirely pessimistic, however, as he declared the better class of families in America are waking up to their responsibility and are raising larger families now.

HIGH COST OF LIVING IS REALLY A BENEFIT.

That the high cost of living—some kinds of living—was not such a hardship, but really a blessing in disguise, was the claim of Dr. J. N. Hurty, commissioner of health of Indiana, who spoke this morning on the question of the high cost of living and its relation to race betterment.

He argued that the people who do not have expensive foods, and meats, but who live on plain fare, and not much of it, are the healthiest, and really the happiest.

"The European peasant, who has meat only two or three times a year, is vastly better off than we are," he declared.

He also declared that people place too much faith in doctors and their power to cure. "We think the medicine can cure any of the results of wrong doing. It is a pernicious belief. Doctors cannot do as much as people think they can," he declared. "Medicine has its uses but its field is limited."

EXERCISE WILL HELP IN RACE BETTERMENT.

A plea for more outdoor exercise as a means of race betterment was made by Dean William Hastings, of the Normal School of Physical Education. He said:

"Even a fish feels the downward pull of civilization and contracts its diseases. In pure fresh water in a state of nature fish are healthy, in private fish ponds often affected with a sort of goitre.

"The general effect of the domestication of wild animals is to reduce the vital energy, to substract spirit, strength and endurance.

"The last thing a man is learning to do is to restore and conserve his primitive virility and the last and hardest thing he has to learn in method is that this process must be one of return to nature.

"Of all the habits which militate against life, the most deleterious is the muscular inactivity which is involved in city life. With the increased specialization of industries and the increase in work done by machinery, few occupations involve any hard muscular work. Street cars and autos discourage even walking to and from work. One may obtain a degree of health from the provision of the proper air, water, food, baths, clothing and rest periods, and the prevention of the spread of contagious diseases, in short by the provision of a wholesome environment, but these negative factors will not produce vigor, reserve force, the power to throw off disease and the power to live long and to perpetuate the race. These can result only through every day out of door exercise and recreation. Give us back the physical habits of

TELLS HOW TO KEEP DOWN TUBERCULOSIS.

That the actual, direct and indirect, loss caused by deaths from tuberculosis in the United States annually amounts to something like $900,000,000 was the startling assertion made today before the national conference on Race Betterment, in session here, by Dr. S. A. Knopf, professor of medicine at the New York Post-Graduate Medical School and Hospital. Dr. Knopf suggested many new remedies which should be applied in the fight against the disease, which he said was "preventable and curable." He said in part:

"In spite of all our efforts, we are still losing about 200,000 persons annually from tuberculosis in the

United States. Of these, I venture to say 60,000 are tuberculous children. Estimating the average duration of life of the 60,000 children who die annually from tuberculosis in the United States at about seven and one half years, and figuring the cost to parents and community for each child as only $200 per annum, the financial loss thus represented is $75,000,000. These children have died before they have been able to give any return to their parents and the community. What a useless sacrifice of life and money! How much needless sorrow and heartache caused to parents!

NOTED EDUCATORS CHOSEN FOR CONFERENCE COMMITTTE

GLENN FRANK

Dr. Clarence Cooke Little, president of the University of Michigan, will act as general chairman of the committee in charge of the Race Betterment Conference to be held here next January. Other noted educators on the committee will include Dr. Max Mason, president of the University of Chicago, and Glenn Frank, president of the University of Wisconsin. The conference will be the third held by the Race Betterment Foundation of which Dr. John Harvey Kellogg of the Battle Creek Sanitarium is president.

CLARENCE COOK LITTLE

WORLD FAMOUS EDUCATORS TO CONVENE HERE

Race Betterment Conference, Jan. 2 to 6 Will Bring Noted Scientists.

TO DISCUSS PROGRESS

Leading Universities to Send Delegates; Dr. Little, U. of M., is Chairman of Committee.

At least five hundred outstanding scientists and educators from the United States and abroad, and one hundred speakers, including presidents of the three leading universities of the mid-west, will attend the Race Betterment Conference to be held at the Battle Creek Sanitarium, Jan. 2 to 6.

Dr. Clarence Cook Little, president of the University of Michigan, and chairman of the committee now making arrangements for the conference; Dr. Max Mason, president of the University of Chicago, and Dr. Glenn Frank, president of the University of Wisconsin, also members of the conference committee, head the list of distinguished scientists and educators who will attend and address the conference.

Exclusive announcement of the coming conference was made over a month ago by the Moon-Journal and further details were released

WORLD FAMOUS EDUCATORS TO CONVENE HERE

(Continued from Page 1)

today through the offices of the Race Betterment League, which have been established at the Sanitarium Annex. Dr. John Harvey Kellogg, superintendent of the Sanitarium, is president and founder of the league under whose auspices the forthcoming conference is to be held.

Conference Aims.

Purposes of the conference are "to assemble the facts of race degeneracy and facts of recent scientific progress dealing with the prolongation of human life," and "to give a greater impetus to the dissemination of these facts for the benefit of humanity," it was announced.

Large delegations are expected from the Rockefeller Institute for Medical Research, the Sheffield Scientific school, the Eugenics Record Office of the Carnegie Institution, Cornell University Medical college, the Universities of Chicago, Johns Hopkins, Harvard, Yale, Northwestern, Wisconsin, Michigan, and other outstanding scientific and educational institutions.

Besides the delegates from the leading universities and research institutions, a large number of state and national educational leaders are expected at the conference from Washington, D. C., New York City, and Chicago.

Both general and special group sessions will be held during the five days of the conference, it is announced. General sessions will be open to public health officials, public school teachers, members of civic, commercial, and professional organizations, both of this city and of the state. Large delegations are expecterd from throughout the state for these sessions, and it is expected that audiences of several thousand will attend the public meetings, which, it is expected, will be held in the Sanitarium Union building.

Reports on Progress.

Reports on progress in the fields of bacteriology, medicine, nutrition, eugenics, physiology, and education will be given at the various group conferences by leaders in these various scientific and educational fields.

Motion pictures will be an important factor in presenting the scientific data at the conference, and will appeal especially to laymen who attend the group sessions. Included among the films will be one from the Rockefeller Institute portraying the immortality of animal tissues, a film showing a view of white blood corpuscles in their unremitting war an bacteria, another revealing a human heart in action, while others will be shown giving important views in the realm of bacteriology, medicine, nutrition, eugenics, and physiology.

The conference, to be held at the Sanitarium, is the third such gathering, but the first since the World War. The Race Betterment Foundation was founded in 1906, and the first conference held under its auspices occured at the Sanitarium, Jan. 1 to 6, 1914. Audiences of from 1,200 to 1,500 attended the ordinary morning and evening sessions, while on some occasions fully 3,000 attended the sessions.

A second conference was held in San Francisco in connection with the Panama-Pacific Exposition, Aug. 4 to 8, 1915. Despite the fact that sixty-five other conventions and congresses were in session in connection with the exposition the same week, large numbers attended the conference. One meeting drew a crowd of over 5,000, while it was estimated that fully 10,000 attended the various programs of the conference.

Prominent Men.

Among the prominent scientists and educators who were sponsors of the original conference were Prof. Irving Fisher, of Yale University, Dr. Newell Dwight Hillis, of Brooklyn, Sir Horace Plunkett, and Dr. Stephen Smith.

Miss Emily F. Robbins, executive secretary of the Race Betterment League, has established her office at the Sanitarium Annex and is making preliminary arrangements for the conference. Announcement of the names of the one hundred outstanding speakers who will attend the conference will be made within a few days.

Two of the three university presidents whose names already have been announced are themselves outstanding scientists as well as executives, while the third is a famous publicist.

Dr. Little, president of Michigan since 1925, is an authority on genetics and eugenics. He was secretary general and chairman of the executive committee of the second International Congress of Eugenics, held in New York in 1921, and is now a member of the Eugenics commission of the United States, and director of the American Birth Control league. During the World War he was a captain in the aviation service and is now a major in the National reserve army. He was president of the University of Maine from 1922 to 1925.

Dr. Little Youngest.

President Mason, of the University of Chicago, was professor of mathematical physics at the University of Wisconsin from 1908 to 1925, when he became president of Chicago. During the World War he was a member of the submarine commission of the National Research Council, and is the inventor of important submarine detector devices.

President Glenn Frank, of Wisconsin, the third of the leaders planning for the conference to be held here, is a prominent sociologist and publicist, serving as editor of the Century magazine from 1921 to 1925. From 1912 to 1916 he was assistant to the president of Northwestern University. He was a member of the group headed by Chief Justice William Howard Taft which drafted a covenant for the League of Nations. This covenant was considered by the peace conference at Paris, 1918-19. He became president of Wisconsin in 1925.

Dr. Little is the youngest of the three men, being 39. Dr. Frank is 40 and Dr. Mason is 50.

church which has not been cheerfully granted. No prophet of God has had freer utterances than I have had with you."

Then Dr. Barton gives good and sufficient reasons for declining the call to the First Church of Berkely, Calif., and will remain to the 25th anniversary of his ministry at Oak Park.

A Half Century of Service For Race Betterment

From The Battle Creek Sanitarium Idea, April, 1922.

Over one thousand members of the Sanitarium "family" recently celebrated the seventieth birthday anniversary of Dr. John Harvey Kellog Superintendent of the Battle Creek Sanitarium. The celebration opened with a banquet in the beautiful Annex dining hall, which was attended by several hundred members of the Sanitarium Medical Staff, Educational Directors, Department Supervisors, and others. The entire banquet was planned and served by students of the Sanitarium School of Home Economics. The large force of Sanitarium employees then assembled in the big indoor gymnasium for an enjoyable evening of music and addresses which had been arranged by the Welfare Committee.

Mr. A. L. Miller, Editor of the Battle Creek News, spoke enthusiastically on behalf of the community and its great appreciation of the many benefits brought to it through Dr. Kellogg's high ideals and far-reaching altoivities.

"Judged by his accomplishments, Dr. Kellogg ought to be older than Methuselah," said Mr. Miller, "but judged by his present youthful appearance and vigor and the promise of even greater achievements, he has but entered upon his early years of maturity."

DR. JOHN H. KELLOGG'S GOOD, WISE TALK ON HIS 70TH BIRTHDAY

In responding to the congratulations and good wishes of his colleagues and associates, Dr. Kellogg made a brief but impressive talk about the great responsibility of the American people in promoting Race Betterment.

"My friends," said the Doctor, "the only thing I need to be congratulated about is the fact that I was fortunate in coming in contact with the splendid ideals that underly this institution. I assure you that it is entirely out of place for you to congratulate me about what I have done. I am willing to be congratulated only upon what has been done for me by the principles of "biologic living" which have been developed here.

"The Sanitarium started before my time. I came at a time, it is true, when the institution was in trobule. The founders proposed to close the struggling little institute, unless I would agree to take charge of it. It was a small institution, just a plain one-story wooden building with about a dozen patients.

"I agreed to stay for one year with the hope that somebody else would be found to take my place. Nearly fifty years have passed and I am still here. The work has grown so rapidly and continuously that I have not even had the time to think of another 'job'—let alone seek one.

"Now, if there is any success here, it is not due to what I may have done. It is because of the fact that a great truth has been dawning in the world. Men and women in the last century have been awaking to the fact that something is wrong with civilization and society. They are beginning to ask what must be done to save the human race. This subject has been investigated by so many eminent scientists who have reached the same conclusion that statements about race degeneracy are no longer challenged. The facts stand out so plainly that everybody can see them.

"At a recent Eugenics Congress held in New York City, Dr. Davenport, with great sadness in his voice, said, 'Of course, we all know the human race will ultimately perish. We can, my taking pains, to some degree postpone the great catastrophe.'

"Major Darwin, son of Charles Darwin, the eminent scientist, made this prediction, 'If our present civilization is saved, it will have to be the United States that saves it."

Dr. Kellogg is Hopeful For The Human Race.

"Now, my friends, I am not nearly so pessimistic as these men. Unfortunately, they have not seen the great vision we have seen at Battle Creek."

"There was planted here a seed of truth that has been growing and developing. It did not originate here, but at the present time it is being demonstrated more clearly at the Battle Creek Sanitarium than at any other place in the whole world.

"I believe this doctrine offers the only real hope for the physical salvation of the human race, and I believe it is going to gain momentum until it will be the means of saving the human race from the degeneracy which has stared it in the face with increasing meance as the unnatural habits of society become more universal.

"I have been somewhat of a dreamer, and I think I am very fortunate to see so many of my dreams come true. I think very few people are permitted to see the triumph of so many things for which they have worked.

Wonderful Progress in 50 Years.

"Fifty years ago, the use of alcoholic drinks was universal in good society. Every farmer had a barrel of hard cider in his cellar. Temperance people were regarded as fanatics. Brandy was considered an indispensable drug. In discarding alcohol both as a beveridbe and as a remedy, this institution was subjected to ridicule. Today, prohibition is the law of the land, and the American Medical Association has pronounced alcohol an unnecessary drug. Biologic living is in good repute, and the Sanitarium System of physiologic therapeutics has the cordial support of the medical profession everywhere.

"The world's need is greater than ever and there lies before the Battle Creek Sanitarium an opportunity to become more and more a center of light and knowledge of healing and prevention of disease and activities for race betterment such as few, if any, institutions have ever enjoyed. It is my one great hope and prayer that there are those among my colleagues whose love for this work and whose faith in its ideals will inspire and move them to 'carry on' the work which Providence planted here and which the good team work of hundreds of devoted men and women has developed, so that this work may endure as a beacon light in the darkness, whose luster will never be dimmed and this 'house by the side of the road' may be forever an efficient center of human active service and race betterment."

Evolution--God's Way of Doing Thing

By Rev. Lyman Abbott in The Outlook, February 15, 1922.

Extract.

Last week I received from Kentucky a telegram saying that a bill had been introduced in the Kentucky Legislature making it a penal offense for any teacher in any school supported by the State to teach evolution, and asking my opinion concerning such legislation. In this letter I give to a larger constituency a fuller reply than could be given in a telegram.

The sponsor for that bill will probably read with astonishment, and perhaps with indignation, if he reads this letter at all, my statement that, so far as I know, Jesus Christ is the first character in history to describe with approval evolution, which he does in the following parable:

And he said, "So is the kingdom of God, as if a man should cast seed upon the earth; and should sleep and rise night and day, and the seed should spring up and grow, he knoweth not how. The earth beareth fruit of herself; first the blade, then the ear, then the full grain in the ear. But when the fruit is ripe, straightway he putteth forth the sickle, because the harvest is come."

"Evolution," says John Fiske, "is God's way of doing things." Christ makes it very clear that it is God's way of bringing about his kingdom on the earth. Evolution is definied by Professor Le Conte as "continuous progressive change according to certain laws and by means of resident forces." Christ says that the kingdom of God will grow up, as plants grow from seed, and will grow from spiritual forces in man as the plant grows up from natural forces in the earth.

Evolution, so the evolutionists have told us over and over again, is simply the history of a process—the process of a continuous, progressive growth, an account of God's way of doing things.

That this has been God's way of doing things from the earliest ages of which history gives us any account is unquestionable, and is unquestioned except by such teachers as Voliva and Jasper. That it has been his way of doing things in prehistoric times is a highly probable opinion and is confirmed by such investigations as scientists have made into the processes of life. It is certain that true religion has nothing to fear from free investigation of those processes. That evolution removes God from the universe is not true; on the contrary, it shows him now and always in the universe; it gives new significance to Christ's saying, "My Father worketh even until now;" it justifies the sacred poet's declaration, "God is never so far as even to be near;" it shows us nature and history full of the presence of God.

I am not sure what the gentleman who has introduced the Kentucky bill means by it. If it really forbids the schools to teach evolution it forbids them to teach God's way of doing things. It forbids them to teach Christ's parable of "The Seed Growing Secretly;" it forbids them to teach their pupils how the seeds they sow in spring grow to fruitful harvest in the fall; how the group of pioneers who landed on these shores four hundred years ago—Puritans in New England, Quakers in Pennsylvania, Roman Catholics in Delaware, Episcopalians in Virginia, Huguenots in the free commonwealth; how out of the pictured letters on Egyptian tombs have grown the great libraries of Rome, Paris, London and Washington; how out of the first teaching of little children at their mother's knee have grown the great universities and the great public school systems of Christendom; how the life of justice, mercy, and reverent fellowship with God which we call Christianity has grown from the manger at Bethlehem and the empty tomb at Jerusalem.—Lyman Abbott.

UNITARIAN WOMAN'S ALLIANCE MEETING

The Woman's Alliance Branch of Shelbyville, Ill., held its annual meeting in the Unitarian church Friday afternoon, April 21st. There was a large attendance and a good spirit prevailed. The officers for the coming year were elected as follows:

President—Mrs. Carrie Wilson.
Vice-President—Mrs. Emma Stewardson.
Recording Secretary—Mrs. Elfa B. Douhit.
Treasurer—Miss Vera Barker.
Corresponding Secretary—Miss Winifred Douhit.

The outgoing treasurer's report by Mrs. Effie Ward showed the Alliance had accomplished more work than any year since its organization.

After other reports from officers and committees—the new committees were appointed.

A social hour followed, during which refreshments were served by the hostess, Mrs. Eva Douhit, assisted by Miss Ella Thomas.

JUDGE ANTHONY THORNTON, ABRAHAM MIDDLESWORTH, THE WORLD FAMOUS DR. T. DeWIT TALMAGE AND MANY OTHER FRIENDLY HELPERS AT LITHIA SPRINGS CHAUTAUQUA

Many of Them Have Vanished From Earth; But it Will Do no Harm to Think That Their Spirits May Yet Smile Graciously Upon True Chautauqua Assemblies at Lithia Springs, Ill. (This picture was taken at close of August, 1897 Assembly).

SPEAK YOUR LOVE FOR MOTHER TO-DAY

From The Christian Life, England.

The new-made grave is closed and covered o'er
With tributes rare;
The fairest flowers that tender hands could bring
Are scattered there.
And underneath lies one whose life has been
So full of care;
So heavy with the burdens none had thought
To help her bear.
Whose hungry heart has oftentimes cried out
Appealingly
For love's expression, and for tender words
Of sympathy.
Ah, friends, too late you bring your costly flowers,
Too late your tears;
For her hath sweetly dawned the light of heaven's
Eternal years.

. . . . . .

Friends, speak your love for me to-day, nor let
Me vainly crave
The tribute that your hands will lay upon
My new-made grave.

LETTERS BY BISHOP VINCENT TO THE FOUNDER OF LITHIA CHAUTAUQUA, AND TO DR. E. E. HALE, CHAPLAIN OF THE UNITED STATES SENATE

From Bishop Vincent, The Founder of Chautauqua Institution to His Friend, Dr. Edward E. Hale.

Chautauqua, N. Y., Sept. 8, 1904.

Rev. J. L. Douthit,
Lithia, Ill.

My Dear Sir and Brother:—

I send you a copy of a letter which I have just written to Dr. Hale. I hope that all matters will be arranged to your satisfaction in connection with your Lithia Springs Chautauqua, and that the Shelbyville rivalry will cause you no discomfort or anxiety.

Remember we to your daughter, and believe me,

Very sincerely yours,
JOHN H. VINCENT.

Extract from letter:

Chautauqua, N. Y., Sept. 8, 1904.

Dr. Edward Everett Hale,
Boston, Mass.

My Dear Doctor:—

Can you forgive the use of a typewriter in a personal communication? I am sure you will in this particular case.

It seems pleasant to your friends to hear of your continued health, and to know that you are still able to render service to your fellow men. I thought of you in connection with my visit to Lithia Springs Chautauqua in Illinois a few days ago. Your old friend, Douthit is a most charming personality, with high ideals and genuine Chautauqua inspiration and ability to handle matters skillfully and effectively.

* * * * *

The Lithia Springs Chautauqua is modeled after our own assembly on Lake Chautauqua. The program is thoughtful, dignified, practical, and popular. The Chautauqua recently started in Shelbyville is as I am informed a mere catering to the passion for excitement and entertainment. This is rather hard on our friend Douthit; but I do not think he will lack friends to cause Lithia Springs Chautauqua to hold its own. The place itself, as you know, is very beautiful, and its loyalty to the parent Chautauqua unchallenged.

Hoping that I may be permitted to see you again on my next visit to Boston, I remain,

Faithfully yours,
JOHN H. VINCENT.

Editor's Note:—In the foregoing letter Bishop Vincent expresses deep regret that a rival assembly to Lithia Springs had begun in the community under the honored name of Chautauqua, and having the sympathy and co-operation of saloon keepers. However, since then there has been much reform in this vicinity.

"WHY THE BLUES?"

By John Harvey Kellogg, M.D., LL.D., F.A.C.S.

This unique book by Dr. Kellogg shows the sufferer from chronic neurasthenia and autointoxication the way out of his difficulty. The daily habits of living have a vital bearing upon the health 'safety margin." A complete change of physical status is frequently accomplished by the scientific regulation of diet, and through a change of the "intestinal flora." These and many other practical methods of physical reconstruction are fully explain in "WHY THE BLUES?"

Send No Money—Pay the Postman.

Modern Medicine Publishing Company, Box Z, Battle Creek, Michigan.

Please send me, postpaid, one copy of the "WHY THE BLUES?" by Dr. Kellogg. When the book arrives, I will pay the postman $2.25 for same (plus C. O. D. charge)—with the understanding that I may return the book within five days and get my money back if dissatisfied.

Note—If you wish to remit with order, attach check or money order to this slip.

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President of the American Institute of Phrenology. Vocational Advisor and Lecturer. 5,000 Chicago references. In Chicago since 1893.
No. 7 W. Madison, Corner State Street.

A PARTIAL LIST OF SPEAKERS AND OF MEMBERS OF THE CENTRAL COMMITTEE

THE THIRD
RACE BETTERMENT CONFERENCE

JANUARY 2ND TO 6TH, INCLUSIVE, 1928

BATTLE CREEK, MICHIGAN

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Chief Children's Bureau, U. S. Department of Labor, Washington, D.C.

ANDERSON, MISS MARY
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BARRON, C. W.
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Fordham University, New York City.

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BUTTERFIELD, DR. PAUL M.
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DEAN, DR. BASHFORD
Metropolitan Museum of Art, New York City.

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Professor of Hygiene, Northwestern University; "How to Keep Well" Department, Chicago Tribune.

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President Race Betterment Foundation; Superintendent Battle Creek Sanitarium.

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State Health Commissioner, Lansing, Mich.

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ROSS, PROF. EDWARD ALSWORTH
Professor of Sociology, University of Wisconsin, Madison.

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SNOW, DR. WILLIAM F.
President National Health Council, New York City.

STAGG, PROF. A. A.
Professor and Director Department of Physical Culture and Athletics, University of Chicago, Chicago, Ill.

STEENBOCK, PROF. HENRY
Professor of Agricultural Chemistry, University of Wisconsin, Madison.

STEUART, WILLIAM M.
Director Bureau of the Census, Washington, D. C.

STEWART, DR. GEORGE DAVID
President American College of Surgeons, New York City.

STIEGLITZ, PROF. JULIUS
Chairman Chemistry Department, University of Chicago, Chicago, Ill.

SUNDWALL, DR. JOHN
Professor of Hygiene and Public Health, University of Michigan, Ann Arbor.

TARBELL, MISS IDA
Writer, New York City.

THOMPSON, JUDGE RUTH
Muskegon County Probate Court, Muskegon, Mich.

VAUGHAN, DR. HENRY F.
City Health Commissioner, Detroit, Mich.

WARTHIN, DR. ALDRED SCOTT
President National Association of American Physicians; Director Pathological Laboratory, University of Michigan, Ann Arbor.

WIGGAM, ALBERT EDWARD
Writer and Lecturer, New York City.

WILEY, DR. HARVEY W.
Washington, D. C.

WILLIAMS, DR. FRANKWOOD E.
Medical Director National Committee for Mental Hygiene, New York City.

WOODS, WILLIAM S.
Editor The Literary Digest, New York City.

YOST, PROF. FIELDING H.
Professor of the Theory and Practice of Athletics, University of Michigan, Ann Arbor.

DAILY BULLETIN

of the

THIRD RACE BETTERMENT CONFERENCE

JANUARY 2 to 6, 1928

BATTLE CREEK, MICH. TUESDAY, JANUARY 3, 1928

Officers of the Conference

President—

C. C. LITTLE, D.Sc.,
President of the University of Michigan, Ann Arbor, Mich.

Executive Secretary—

MISS EMILY F. ROBBINS,
Battle Creek, Mich.

Treasurer—

THE RACE BETTERMENT FOUNDATION
Battle Creek, Mich.

Mexico Shows Its Interest

A telegram has been received from President Calles, of Mexico, saying that he is sending two representatives to the Race Betterment Conference.

Changes in the Program

Dr. Thomas D. Wood, professor of physical education, Columbia University, New York, has telegraphed that illness in his family will prevent his coming to the Conference. Instead, he has sent a brief paper. He was on the program for Wednesday morning, his subject being, "The Contribution of Health Education to Race Betterment."

Dr. C. B. Davenport, director of the Eugenics Record office, Carnegie Institution of Washington, Cold Spring Harbor, N. Y., will be the first speaker at the session on Wednesday afternoon. He was moved forward on the program as he must catch a train.

Press Representation

Race Betterment involves two factors. Science must discover the ways in which human life may be strengthened and lengthened and then these new truths must be disseminated so that the masses of the people may learn them and put them into practice. The papers to be read at the present Conference comprise valuable contributions to the sum total of knowledge on the subjects treated. The second part of the task will also be adequately cared for. About twenty special correspondents are reporting the proceedings for the newspapers of the country. These include representatives of the big press associations. Two moving picture news reel photographers are also to be on hand, although the visual part of the program is hardly as striking as the intellectual.

A Sunlight Exhibit

Adequate attention is paid by the Conference program to the recent discoveries of the influence of sunlight, natural and artificial, on health. All the five papers of the session of Thursday morning are devoted to his subject. An exhibit at the Sanitarium Union also bears on this field of knowledge. It is a miniature sunshine playground, reproducing an actual one in Battle Creek, which is open every summer. The slides, see-saws, swings and other paraphernalia are faithfully shown, set up in real sod. Miss Lorna Barber was the architect and builder of the display. She is with the Child Nutrition department of the Battle Creek College, although at present on a leave of absence to enable her to do some special study at the University of Chicago.

At the same exhibit are some wall cards showing the result of experiments made here in Battle Creek with ultra violet rays.

Basketball Match

As a diversion in the program of speaking, the Race Betterment Conference will witness a basketball game in the Sanitarium Union on Wednesday afternoon at 4.30 o'clock. The opposing teams will be the University of Michigan's Reserves and the Western State Teachers' College of Kalamazoo. A good contest is likely. The affair is of significance as putting into practice the two-team idea in athletics, as advocated by President Little, of the University of Michigan, at the last meeting of the Western Conference Committee of Sixty. Two obvious advantages of the system are the increase in the number of students engaged in competitions, and the supplying of contests on the home grounds when the Varsity team is playing elsewhere.

The Sanitarium Union was finished last spring. Primarily it is a Race Betterment idea for the benefit of the employes of the Sanitarium and the students

of Battle Creek College. Throughout the winter it is the scene of the matches of the two leagues of indoor baseball of Sanitarium workers, with four teams in each league. Roller skating, basketball, bowling, billiards, general gymnastics, swimming and other sports all have their place here. The pool is recognized as one of the finest in the country.

The big auditorium is also at the service of the community whenever it is needed. It is used for large conventions and "Gipsy" Smith, the evangelist, held a series of meetings here last fall.

Old Fashioned Dancing

"From grave to gay" will be the motto of the Race Betterment Conference on Tuesday evening. After the program of learned papers, there will be a number of old fashioned dances which the members of the conference may enjoy as spectators or as participants, as their fancy dictates. Henry Ford is to be thanked for this treat since it was through his courtesy that Professor Benjamin Lovett, of Detroit, comes here. He has engaged the professor for several years in an effort to revive the old American dances. An orchestra of four pieces will be brought along from Detroit.

The Virginia Reel will of course be prominent on the program, and there will also be quadrilles and round dances. Although the conference is made up chiefly of men, there will be no lack of partners for such as may wish to dance, for the girl students of Battle Creek College will doubtless be on hand in sufficient numbers. In the Kellogg School of Physical Education of the College, folk and other dancing is conspicuous in the curriculum. The Sanitarium Union has an excellent floor for dancing and an abundance of room.

Friendly Messages

WILLIAM HOWARD TAFT, Chief Justice, Supreme Court of the United States, Washington, D. C.—"I thank Dr. Little and Dr. Kellogg for inviting me to take part in your Race Betterment Conference. It is entirely impossible, however, for me to attend such a meeting. I do not now make speeches. I have all I can do to attend to my judicial duties and keep in such condition that I can row my part in the boat."

JANE ADDAMS, Hull House, Chicago, Ill.—"I thank you for the kind invitation to attend the Conference but unfortunately it will be impossible for me to get away. With best wishes for the success of the Conference, I am faithfully yours."

JUDGE C. F. BORAH, New Orleans, La.—"I regret that I cannot accept this much appreciated invitation but matters over which I have no control make it impossible for me to get away at this time. I would consider it quite an honor to be present, and am sure I would enjoy every minute of it."

H. J. MULLER, M.D., Austin, Texas.—"Regret exceedingly that stress of work undertaken before your invitation prohibits my taking trip so lengthy. Am in whole-hearted agreement with your expressed aims. Believe eugenics and social evolution are in long run complementary and mutually essential for an enduring civilization and hope their advocates will unite for race betterment."

L. O. HOWARD, U. S. Department of Agriculture, Bureau of Entomology, Washington, D. C.—"I greatly regret that I have made other engagements and that it will be impossible for me to come. Your program is enormously attractive, and I feel that I am missing a wonderful opportunity."

W. W. COBLENTZ, Department of Commerce, Bureau of Standards, Washington, D. C.—"I very much appreciate your kind invitation, but the pressure of work here will require my continuous attention for some weeks, therefore, I must regretfully decline your invitation although I should have liked to have been with you and to have met the eminent scientists mentioned in your prospectus."

GEORGE T. WIGHT, Secretary, Association of Life Insurance Presidents, New York—"Won't you be good enough to express to Drs. Little and Kellogg my thanks for the invitation. The outline of the Conference certainly indicates a most interesting symposium. I wish that engagements here did not prevent my being in Battle Creek for the Conference."

LOUIS I. DUBLIN, Statistician, Metropolitan Life Insurance Company, New York—"At the last minute, reports have loomed up so that I find it impossible to get away. I am exceedingly put out because there are so many papers I want to hear, and so many distinguished men I want to meet. Please accept my best wishes for a successful meeting, and thank also my good friend, Dr. Kellogg for his kind invitation. I am looking forward to the first opportunity to see him and his great institution to which he has invited me, and where I may examine the very valuable record material he has told me about."

DR. C. G. BENEDICT, Nutrition Laboratory, Carnegie Institute, Washington, D. C.—"Will you please express to both President Little and Dr. Kellogg my great regret at not being able to accept their invitations, and my disappointment at not being again for a short time under the roof of the Sanitarium, where I have always found so many friends."

CLARK W. HETHERINGTON, School of Education, New York University, New York.—"Please extend my sincere thanks to Drs. Little and Kellogg for their cordial invitation to take part in the conference program. I have delayed replying while under the sway of the strongest urge I had in two years to break over my resolution to refuse invitations to take part in programs. This Race Betterment Conference

touches me so deeply, and I feel that it is so vital to the welfare of our nation that I should like very much to attend and come in fellowship contact with some of my friends, like Dr. Ross and Dr. Kellogg. However, I am under contract to write some books and illness has delayed production so that it is doubly urgent I should use every minute available until obligations are fulfilled.

"Again thanking you for the invitation, and with best wishes for the success of the Conference, I am."

L. J. TABER, National Master, The National Orange —"I assure you of my interest in every movement that makes for Race Betterment and am sorry that I cannot accept the kind invitation of yourself and Dr. Kellogg."

A. T. MCCORMACK, Louisville, Ky., Secretary of the State Board of Health of Kentucky—Telegram— "Have delayed replying, hoping I could arrange to get there. Opening of legislative session and important meetings at Frankfort called by Governor at last moment, however, will prevent my supporting what I consider one of the most important movements that has been started. Love and best wishes to Dr. Kellogg."

Greetings from Abroad

HON. FORBES GODFREY, M.D., Minister of the Department of Health and Labour, Ontario, Canada.— "I appreciate your kindly invitation and am sincerely sorry that official duties prevent me from attending."

MAHMOUD SAMY PASHA, Egyptian Minister, Royal Legation of Egypt, Washington, D. C.—"It is a chance that one should never miss, but unfortunately, I am tied up with previous engagements which will prevent me from attending. The subjects that will be discussed are extremely interesting and I shall be greatly obliged if you can send me copies of the Proceedings of the Conference."

SIR ANDREW BALFOUR, Director London School of Hygiene and Tropical Medicine, London, England.— "Please accept my best wishes for the success of your Conference, which I note will deal with matters of great importance to the welfare of mankind."

DEAN W. R. INGE, St. Paul's Cathedral, London, England.—"Alas, Michigan is too long a journey for me, and I have nothing new to contribute on Nature and Nurture. I hope the Conference will have a great success."

SIR ARTHUR KEITH, Royal College of Surgeons, London, England.—"It is a great feast you spread before the Third Race Betterment Conference, and I am very sorry that I cannot be present to enjoy it—owing to many engagements here, but I wish it every success."

A Fitter Families Competition

To promote Race Betterment in a practical way, a Fitter Families Competition will be held in conjunction with the Conference. The ideas of the American Eugenics Society, which has headquarters at 185 Church Street, New Haven, Conn., will be carried out in this. Dr. Florence Brown Sherbon, of the University of Kansas, Lawrence, Kan., has come to take charge. She is one of the originators of this movement and for a number of years she has conducted the most careful of these competitions at the Kansas Free Fair. Professor Luther S. West, who occupies the chair of biology in Battle Creek College, is to be the local chairman. He is himself an authority on eugenics.

Mr. Leon F. Whitney, of New Haven, secretary of the American Eugenics Society, is also here to attend the conference and will give any needed assistance.

The Fitter Families Competition is described as an educational feature designed to interest people in the laws of inheritance and health. The importance of breeding in domestic animals is freely recognized. Man, however, has paid little or no attention to the subject as it affects himself. A careful pedigree is kept of blooded stock but human genealogies are chiefly lists of names with no record of individual characteristics. There has now been evolved a human pedigree blank which is of real value, a record of family traits.

Better Babies Contests have long been familiar. But, as has been pointed out, a baby that was perfect at two years of age might be an epileptic at ten. You really know fully about a child only after inquiring about its ancestry. So a Fitter Families Competition was fixed on as far more comprehensive and conclusive than one for babies. Dr. Sherbon, as Chief of the Child Research Bureau of Kansas, aided in holding the first of this new form of eugenic measures. This was at the Kansas Free Fair in Topeka in 1920. Since then such contests have been held in various states. A standardized method has developed out of this experience and will be employed here in Battle Creek.

Each competing family must comply with the following rules:

1. *Entry must be made in advance. Blank Records of Family Traits will be sent to each applicant. This Record must be filled in as completely as possible and returned.*

2. *Every member must be in apparent normal mental and physical health.*

3. *Both parents and all the children of each family must appear for examination.*

4. *Childless couples and unmarried adults must be under forty years of age.*

The examinations are made by a staff of professional experts. No fee is charged for these examinations. The service is offered as a demonstration of the value of combining the family record of heredity with the health examination.

Each member of all families and every individual making entry is entitled to a thorough physical, mental and heredity examination. This examination includes individual and family history, tests of the intelligence, and emotions, general medical examination, structural measurements and weight, examination of eyes, ears, nose and throat, dental examination and laboratory tests of urine and blood.

The findings in these examinations are recorded on standaridized score cards furnished by the American Eugenics Society. Each person examined is scored as an individual and the family score is made by averaging the individual scores of its members. At the close of the contest the original score card becomes the property of the family or individual and a carbon copy is sent to the American Eugenics Society for statistical purposes. These copies are confidential.

The Fitter Families Competition demonstrates the value of the periodic health examination to the general public as well as to the competing families.

It discovers hidden weaknesses and thus helps to prolong life.

It educates the boys and girls in the value of health, in their responsibility in maintaining family standards and in their duty to posterity.

It impresses young adults with the necessity of proper marriage for future happiness.

The educational value of the Fitter Families Competition is not limited to the contesting families. The press is in sympathy with this movement and is willing to give it ample space.

For Your Information

Parties will be escorted through the various departments of the Sanitarium daily at 9 A.M. and 2 P. M., starting from the Palm Garden, in the rear of the main lobby. Inquire for Mr. John I. Gibson, who is chairman of the Reception Committee.

All sessions of the Conference are free and the public is invited to attend.

A permanent and convenient record of all addresses and papers will be kept in the printed Proceedings of the Conference. Even those papers which are read by title only will be given in full. Merely to cover the cost of printing and mailing, a charge of $2 per copy will be made for this publication. The order and payment may be left with the executive secretary of the Conference.

Battle Creek is known as the Food City. It leads the world in the manufacture of ready-to-eat foods. Visitors to these factories are welcome. The Kellogg Company has made special preparations for receiving members of the Conference on Thursday afternoon between 1 and 3 o'clock. The Postum Company has set aside Friday afternoon from 1 to 3 o'clock as a particular time for showing visitors from the Conference through the plant, but will have its guides ready at other hours.

The meal hours at the Sanitarium are as follows:

Breakfast—8 to 9 A.M.

Dinner—12: 45 to 2 P.M.

Supper—6 to 6: 45 P.M.

Morning worship is held in the parlor at the north end of the ground floor of the Main Building, at 7: 40 A. M.

Members of the Conference are invited to take a shower or a plunge in the pool before breakfast. They will also be welcomed to any of the gymnasium classes. The principal one of these is at 7: 15 P.M. in the gymnasium. It includes gentle exercises and a grand march with music.

There is free taxi service between the Annex and the Main Building.

A large Reception Committee has been named to serve the delegates in every possible way. The members are designated by appropriate badges. If you want information of any kind, do not hesitate to ask any person you meet who wears a Reception Committee badge. If you wish to visit any laboratory, the Dairy Farm or any other place that interests you, arrangements will be made to escort you.

It is hoped that those attending the Conference will as far as possible make this a week of helpful rest and recreation. All the facilities of the big Sanitarium Union are available, bowling, billiards, swimming. There is also a fine pool in each of the two bath departments, one for men, the other for women, adjoining the Main Building. At the south end of the sixth floor of the Main Building (the floor on which the dining room is situated) there is a large recreation hall, with billiards and other pastimes. On the second floor is a reading room with the leading daily newspapers, magazines and a considerable selection of books, especially fiction. Letter paper and envelopes may be had here or at the main desk. There are writing tables in the reading room and in the hall just outside of it. For more serious reading, the library of Battle Creek College is available. This is on the second floor of the College Building, across the street from the Main Building. There is ample call boy service, for which apply or telephone to the main desk.

The headquarters of the Conference is on the first floor of the Annex, just off the lobby. Here will be found literature of various kinds. Press representatives are invited to make themselves known here.

DAILY BULLETIN

of the

THIRD RACE BETTERMENT CONFERENCE

JANUARY 2 to 6, 1928

BATTLE CREEK, MICH., WEDNESDAY, JANUARY 4, 1928

Officers of the Conference

President—

C. C. LITTLE, D.Sc.,
President of the University of Michigan, Ann Arbor, Mich.

Executive Secretary—

MISS EMILY F. ROBBINS,
Battle Creek, Mich.

Treasurer—

THE RACE BETTERMENT FOUNDATION
Battle Creek, Mich.

Arrival of Henry Ford

An unannounced visitor to the Race Betterment Conference was Mr. Henry Ford. He came yesterday afternoon, accompanied by Mrs. Ford. They timed their arrival so as to see the old-fashioned dancing at the Sanitarium Union last night. Mr. Ford had kindly sent Professor Benjamin Lovett, of Detroit, to conduct the entertainment.

Changes in the Program

Word was received yesterday that Dr. Thomas D. Wood, professor of physical education, Columbia University, New York City, would be unable to come to the Conference. He was to read a paper this morning on "The Contribution of Health Education to Race Betterment," with films. However, he sent a copy of his address, which will be included in the printed proceedings of the Conference.

Dr. George W. Crile, the famous surgeon, of Cleveland, Ohio, also sent his regrets, the illness of his son keeping him away. Doctor Crile was on the program for this evening, his subject being, "The Role of the Surgeon in Lengthening Life."

Illness in the family of Mrs. A. H. Reeve, president of the National Congress of Parents and Teachers, compelled her to cancel her engagement to attend the Conference. She was on the program to speak Friday afternoon on "The Importance of a Connecting Link Between Home and School."

The Playground Exhibit

In the Palm Garden, situated between the main lobby and the gymnasium, there is an exhibit prepared by the Playground and Recreation Association of America. It consists of placards telling of the work which the organization is doing, of literature which is for free distribution and of books and other publications which are for sale. Mr. Eugene T. Lies is in charge of the exhibit and will describe what the association is doing, in an address before the Conference on Thursday afternoon. His talk will be illustrated with slides. His title is, "Building Citizens."

The headquarters of the society is in New York, but Mr. Lies, who is its special representative, lives in Chicago, as being more centrally located for his travels. He goes wherever a convention or meeting of any kind wishes to be told about playground and recreation activities. He hasn't kept close track but guesses that he attended about fifty such gatherings last year. In fact, he rather admits the soft impeachment when accused of being a "convention hound." His name is pronounced "Lees," but he admits that it is spelled in the worst possible way.

A Noted Woman Visitor

Dr. Lillian South, of Louisville, Ky., attended the first Race Betterment Conference here in 1914. She returns this year as Dr. Lillian South-Tye, having not long ago been married to Judge H. H. Tye, of Williamsburg, Ky. She has had a distinguished career in medicine, in recognition of which she was made a vice president of the American Medical Association a few years ago. She is now the state bacteriologist of Kentucky and director of the School of Laboratory Technicians of the School of Public Health, which is under the joint control of the University of Louisville and the State Board of Health.

Since 1906 she has been business manager of the Kentucky State Medical Association. In that time, the cash in the treasury has increased from $100 to $12,000. She disclaims responsibility for this substantial change but it is a fair guess that she had something to do with it.

Disseminating Science News

Among the newspaper correspondents attending the Conference is Mr. Watson Davis, managing editor of Science Service, of Washington, D. C. He sends a daily telegraph report to about thirty papers and mail accounts to about seventy more. This organization is doing a large work along the line of popu-

larizing scientific knowledge. It is not run for profit. Indeed its work would not be so high grade were it not that Mr. E. W. Scripps, the noted newspaper editor and publisher, had assured it financial support. The board of trustees consists of ten scientists and five journalists. The leading national organizations of all the sciences, the National Academy of Sciences, the National Research Council and the American Association for the Advancement of Science, each appoint three trustees.

Science Service occupies offices in the fine new building of the National Academy of Science and the National Research Council on Potomac Park, opposite the Lincoln Memorial. The director is the well-known writer, Mr. Edward E. Slosson, author of "Keeping up with Science," "Chats on Science" and "Sermons of a Chemist." Mr. Davis, himself, has written a book on "The Story of Copper." The office staff now consists of fifteen and there is a large corps of contributors in the chief research institutions of this country and Europe. A large variety of articles embodying scientific developments is distributed to the press of the country, including the magazines. Mr. Slosson delivers about forty lectures a year to clubs, societies and colleges. A radio talk on science is broadcast weekly in co-operation with the National Research Council.

Bits Here and There

A delegate who has attracted much attention is Swami Yogananda, formerly of Calcutta, India, but now of Los Angeles, Calif. He is an advocate of right living and as such is much interested in the proceedings of the Conference.

There has been a considerable sale for the book which is to be published containing all the proceedings of the Conference.

The points of the compass are well represented at the Conference. Dr. E. M. East, the famous professor of genetics of Harvard University, will read a paper this afternoon on "The Genetic Basis of Eugenics." Dr. Luther S. West, professor of biology of Battle Creek College, is taking part in the Fitter Families Competition. Dr. Lillian South-Tye, of Louisville, state bacteriologist of Kentucky, is still generally known as Doctor South, although she married Judge Tye not a great while ago. Judge Walter H. North was until last year Circuit Judge in Battle Creek and might well have been a guest at the banquet on Monday night had not the Governor of Michigan promoted him to a higher place on the bench last year.

Newspaper correspondents and scientists who frequently attend large meetings are gratified that the present Conference is a one-ring show. There are no simultaneous sessions of different sections, as the case at the annual meeting of the American Medical Association and other big bodies.

Professor Irving Fisher, of Yale, is one of the speakers who was also prominent in the first Race Betterment Conference, held in Battle Creek in 1914. He commented on the fact that the present gathering is much larger than the earlier one and the program is also superior.

Delegates are invited to use the big pool at the Sanitarium Union for mixed bathing during the Conference from 11 A.M. to 2:30 P.M. and 5 to 7:30 P.M. Bowling and billiards at the same place are from noon to 2:30 P.M. There will be volley ball Thursday at 5 P.M. in which visitors may take part. In the recreation room at the south end of the sixth floor of the Main Building, billiard tables are available daily from 9 A.M. to 9 P.M.

The delay in starting the morning session Tuesday, due to speakers being on trains belated by the weather, gave the members of the Conference an opportunity to visit such departments of the Sanitarium and Battle Creek College as especially interested them.

List of Arrivals

Dr. Charles B. Davenport, Carnegie Institution of Washington, Cold Spring Harbor, N. Y.

Mrs. C. B. Davenport, Cold Spring Harbor, N. Y.

Professor Irving Fisher, Eugenics Society of America, and Yale University, New Haven, Conn.

Dr. Margarita G. de Lozano, Mexico.

Dr. Catherine Cox Miles, Stanford University, California.

Dr. Walter R. Miles, Professor Experimental Psychology, Stanford University.

Dr. Florence Brown Sherlon, University of Kansas, Lawrence.

Leon F. Whitney, American Eugenics Society, New Haven, Conn.

Professor Michael F. Guyer, University of Wisconsin, Madison.

Mrs. M. F. Guyer, Madison, Wis.

E. W. Nelson, Bureau of Chemistry and Soils, United States Department of Agriculture, Washington, D. C.

G. J. Crumbine, American Child Health Association, New York City.

Watson Davis, Science Service, Washington, D. C.

Mrs. Oscar Dowling, New Orleans, La.

Dr. Oscar Dowling, president Louisiana State Board of Health, New Orleans, La.

Dr. H. D. Fair, City Board of Health, Muncie, Ind.

Herbert H. Ingram, Eastman Kodak Company, Rochester, N. Y.

Dr. Andrew Conway Ivy, Northwestern University Medical School, Chicago.

Dr. R. G. Leland, American Medical Association, Chicago.

Dr. William Alford Sawyer, Medical Director, Eastman Kodak Company, Rochester, N. Y.

Dr. Louis Faugeres Bishop, Medical Association, Greater City of New York and Fordham University.

Dr. James W. Glover, University of Michigan, Ann Arbor, Mich.

Mrs. Jas. W. Glover, Ann Arbor, Mich.

Dr. Frank W. Tracy, American Academy of Applied Science, Blue Island, Ill.

Dr. Walter H. Eddy, Columbia University, New York City.

James B. Edmonson, North Central Association of Colleges and Secondary Schools, Ann Arbor, Mich.

Mayor F. W. Culver, of Albion, Mich.

O. W. Buscheen, Presbyterian Board of Education, Hoddenfield, N. J.

Miss Allene Summer, NEA Service, Cleveland, Ohio.

Dr. Samuel Amberg, Mayo Clinic, Rochester, Minn.

Dr. J. B. Bradery, Eaton County Medical Society, Eaton Rapids, Mich.

Dr. Henry F. Vaughan, Detroit Department of Health, Detroit, Mich.

C. P. Gillette, Colorado Agricultural College, Fort Collins, Colo.

H. E. Randall, Flint, Mich.

Dr. James E. Davis, Secretary American Association Obstetrical, Gynecological and Abdominal Surgeons, Ann Arbor, Mich.

Dr. Arthur S. Loevenhart, University of Wisconsin, Madison.

Beatrice W. Johnson, Adviser of Women, University of Michigan, Ann Arbor.

Dr. F. P. Miranda, Assn. Med. Mexicana Bureau, Mexico.

George Clark Mosher, American Eugenics Association, Kansas City, Mo.

Dr. L. H. South, Kentucky State Board of Health, Louisville, Ky.

E. O. Marsh, Jackson, Mich.

Ruth A. Weaver, Kalamazoo Public Schools, Kalamazoo, Mich.

Dr. Maude Slye, University of Chicago, Chicago.

J. H. McCurdy, American Physical Education Association, Springfield, Mass.

Elizabeth F. Barrett, Kalamazoo Academy of Medicine, Kalamazoo, Mich.

Rachel M. Jenss, Bureau of Indian Affairs, Washington, D. C.

Frederick L. Hoffman, Prudential Insurance Company of America, Wellesley Hills, Mass.

Dr. A. K. Detwiller, New York City.

Mrs. Kate Jackson Hard, Saginaw General Hospital, Saginaw, Mich.

Dr. C. L. Baldwin, Kalamazoo, Mich.

Dr. O. W. Larson, National Dairy Council, Chicago, Ill.

Philip L. Riley, Board of Education, Cleveland, Ohio.

Floyd A. Rowe, Board of Education, Cleveland, Ohio.

Michael Kley, Metropolitan Life Insurance Company, Brooklyn, N. Y.

Mrs. Mary E. T. Chapin, New York City.

Dr. James A. Tobey, American Public Health Association, New York City.

Ned Soloff, D.D.C., New York City.

Walter W. Brunet, American Social Hygiene Association, New York City.

John A. Kingsbury, Milbank Memorial Fund, New York City.

Dr. Bertram Ball, American Academy Applied Dental Science, Institute of Oralogy, New York City.

Mrs. Bertram Ball, Yonkers, N. Y.

Swani Yagananda, of India.

Mr. Nerodi, Secretary to Swani Yagananda.

Mrs. J. H. Boss, Yonkers, N. Y.

Fred Charles, "The Cleveland Plain Dealer," Cleveland, Ohio.

David Dietz, "The Cleveland Press," Cleveland, Ohio.

Charles H. Herty, The Chemical Foundation, Inc., New York City.

Dr. Henry M. Ami, Laboratory of Geology, Ottawa, Canada.

Dr. John Sundwall, University of Michiagn, Ann Arbor, Mich.

Mrs. John Sundwall, Ann Arbor, Mich.

Dr. LeRoy A. Wilkes, American Child Health Association, New York City.

Dr. J. A. Stucky, Lexington, Ky.

Dr. D. W. Fenton, Hillsdale County Medical Society, Reading, Mich.

Mrs. George B. Schermerhorn, Reading, Mich.

Allen Shoenfield, "The Detroit News," Detroit, Mich.

Miss Ellen Echols, Lansing, Mich.

Dr. L. H. Newburgh, University of Michigan, Ann Arbor.

Dr. Lillian R. Smith, Michigan Dept. of Health, Lansing, Mich.

Dr. Florence H. Knowlton, Michigan Dept. of Health, Lansing, Mich.

Dr. G. F. Inch, Traverse City Medical Society, Traverse City, Mich.

Dr. Herman Ostrander, Kalamazoo State Hospital, Kalamazoo, Mich.

Lorrin L. McIntyre, The Canadian Chautauqua, Calgary, Alta.

Dr. Alberto Lozano Garza, Mexico.

John W. M. Bunker, Massachusetts Institute of Technology, Belmont, Mass.

Professor E. M. East, Harvard University, Boston, Mass.

Elmer C. Griffith, Ph.D., Kalamazoo College, Kalamazoo, Mich.

Dr. E. A. Ruddiman, Detroit, Mich.

Dr. Alexis Carrel, Rockefeller Institute of Medical Research, New York City.

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To promote Race Betterment in a practical way, a Fitter Families Competition will be held in conjunction with the Conference. The ideas of the American Eugenics Society, which has headquarters at 185 Church Street, New Haven, Conn., will be carried out in this. Dr. Florence Brown Sherbon, of the University of Kansas, Lawrence, Kan., has come to take charge. She is one of the originators of this movement and for a number of years she has conducted the most careful of these competitions at the Kansas Free Fair. Professor Luther S. West, who occupies the chair of biology in Battle Creek College, is to be the local chairman. He is himself an authority on eugenics.

Mr. Leon F. Whitney, of New Haven, secretary of the American Eugenics Society, is also here to attend the conference and will give any needed assistance.

The Fitter Families Competition is described as an educational feature designed to interest people in the laws of inheritance and health. The importance of breeding in domestic animals is freely recognized. Man, however, has paid little or no attention to the subject as it affects himself. A careful pedigree is kept of blooded stock but human genealogies are chiefly lists of names with no record of individual characteristics. There has now been evolved a human pedigree blank which is of real value, a record of family traits.

The findings in these examinations are recorded on standaridized score cards furnished by the American Eugenics Society. Each person examined is scored as an individual and the family score is made by averaging the individual scores of its members. At the close of the contest the original score card becomes the property of the family or individual and a carbon copy is sent to the American Eugenics Society for statistical purposes. These copies are confidential.

For Your Information

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Members of the Conference are invited to take a shower or a plunge in the pool before breakfast. They will also be welcomed to any of the gymnasium classes. The principal one of these is at 7:15 P.M. in the gymnasium. It includes gentle exercises and a grand march with music.

There is free taxi service between the Annex and the Main Building.

A large Reception Committee has been named to serve the delegates in every possible way. The members are designated by appropriate badges. If you want information of any kind, do not hesitate to ask any person you meet who wears a Reception Committee badge. If you wish to visit any laboratory, the Dairy Farm or any other place that interests you, arrangements will be made to escort you.

It is hoped that those attending the Conference will as far as possible make this a week of helpful rest and recreation. All the facilities of the big Sanitarium Union are available, bowling, billiards, swimming. There is also a fine pool in each of the two bath departments, one for men, the other for women, adjoining the Main Building. At the south end of the sixth floor of the Main Building (the floor on which the dining room is situated) there is a large recreation hall, with billiards and other pastimes. On the second floor is a reading room with the leading daily newspapers, magazines and a considerable selection of books, especially fiction. Letter paper and envelopes may be had here or at the main desk. There are writing tables in the reading room and in the hall just outside of it. For more serious reading, the library of Battle Creek College is available. This is on the second floor of the College Building, across the street from the Main Building. There is ample call boy service, for which apply or telephone to the main desk.

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DAILY BULLETIN

of the

THIRD RACE BETTERMENT CONFERENCE

JANUARY 2 to 6, 1928

BATTLE CREEK, MICH., THURSDAY, JANUARY 5, 1928

Officers of the Conference

President—

C. C. LITTLE, D.Sc.,
President of the University of Michigan, Ann Arbor, Mich.

Executive Secretary—

MISS EMILY F. ROBBINS,
Battle Creek, Mich.

Treasurer—

THE RACE BETTERMENT FOUNDATION
Battle Creek, Mich.

Mr. Ford at the Conference

Mr. and Mrs. Henry Ford and party returned to Detroit yesterday. Any idea that they came to Battle Creek only to see the old-fashioned party which was given Tuesday night in the Sanitarium Union is of course erroneous. He is too busy a man to travel to see an entertainment the likes of which he has often witnessed. He came to attend the sessions of the Race Betterment Conference, for he has been interested in this subject for many years. He is not only an advocate of the simple life but has practiced it for a long time. He and Mrs. Ford heard all the papers which were read at the session Tuesday evening.

The visitors from Detroit occupied a front seat at the session of the Conference and showed a close interest in the proceedings. Mr. Ford applauded heartily when Doctor Miranda, of Mexico, spoke of the visit of Colonel Lindbergh to his country and of its effect in cementing cordial relations between the sister republics. Afterwards, the auto manufacturer expressed his admiration for the papers which he had heard, and especially that of Dr. Walter R. Miles, of Leland Stanford University, on alcohol. Race betterment, he declared, was one of the best things in the world.

Mr. and Mrs. Ford showed no aloofness; many of those present were introduced to them. The couple also took part in the old-fashioned dances.

Mr. and Mrs. Ford were the first guests to sleep in the new fifteen story addition to the Sanitarium which is now nearing completion. They occupied suite 317. The third floor is nearly fitted up and will soon be ready for use.

Research Encouraged

Members of the Conference and the public generally have shown an especial interest in the presence and personality of Dr. Alexis Carrel, whose experiments in what might paradoxically be described as keeping dead tissue alive, have won him world-wide fame. He comes from the Rockefeller Institute for Medical Research in New York, which might well be described as a Race Betterment foundation. Here two hundred scientists are working diligently along many lines of research. They need have no thought about any possible financial returns from their labors. Their primary aims are purely scientific, although of course the results are often of the greatest practical value. The General Electric Company, the Westinghouse Company, the American Telephone and Telegraph Company and many others in this country spend large sums yearly on research but the underlying motive is necessarily financial.

A Demonstration by Dr. Ivy

Dr. Andrew Conway Ivy, head of the Division of Physiology and Pharmacology of the Northwestern Medical School, Chicago, on Tuesday gave a demonstration at the Pavlov Physiologic Institute of the Sanitarium, of the substance, isolated by him, which he believes is a hormone regulating the emptying of the gall bladder. He was assisted in his experiment by Ephraim B. Boldyreff. A considerable gathering of delegates to the Race Betterment Conference was present, including Dr. Alexis Carrel of the Rockefeller Institute, New York; Dr. Anton J. Carlson, of the University of Chicago; President C. C. Little, of the University of Michigan; Dr. Arthur S. Loevenhart, of the University of Wisconsin; Dr. F. P. Miranda, special representative of the Mexican Medical Association and the Mexican National University, and Dr. W. N. Boldyreff, director of the Pavlov Physiologic Institute. The Sanitarium faculty was also liberally represented.

Dr. Ross and Race Suicide

Many persons suppose that President Roosevelt coined the phrase, "race suicide." As a matter of fact, it was first used by Professor Edward Alsworth Ross, who fills the chair of sociology in the University of Wisconsin at Madison, and who is prominent in the present Conference as a speaker and presiding officer. This was in 1901 in his presidential address at the Academy of Sciences in Philadelphia. The evil of a declining birth rate which he pointed out there struck the attention of the vigorous Roosevelt and he often in his speeches and writings urged the well-to-do and educated classes to have larger families.

In these nearly twenty-seven years much water has flown under the bridge and human statistics have shown some remarkable changes. As Professor Irving Fisher pointed out in his paper on Tuesday evening, a remarkable decline has taken place in the death rate in this country. The control of certain diseases is becoming firmer and there is practical certainty that the death rate will be further reduced. So Professor Ross finds that numerically the lessening birth rate is overshadowed by the sinking death rate. He now therefore dwells with greater emphasis on the dangers of over-population. His book on the subject, "Standing Room Only," was published last November and contains the results of long years of painstaking study on this subject.

Professor Ross made clear in his paper on "The Changing Race: Factors in Racial Deterioration," Tuesday evening, that he still finds the differential birth rate, which gives small families to the rich and educated, and many children to the ignorant and poor, a serious menace to our civilization. But this tendency is a menace rather to the quality of our population than to its quantity.

Science Made Interesting

Dr. E. M. East, professor of genetics at Harvard University, who spoke yesterday on "The Genetic Basis of Eugenics," is one of the two American members of an international committee named at Geneva, Switzerland, last summer to study population problems. About two hundred scientists from all over the world met to form an international union for research in this subject. The statistics in the different countries are not always on the same basis and it is therefore impossible to draw accurate conclusions from them. A committee of fifteen was formed to organize a permanent association. On this are Doctor East and Dr. Raymond Pearl, of Johns Hopkins University, Baltimore. There is expectation that funds will be forthcoming to carry on the work of the proposed association in an effective way. The gathering was in no way connected with the League of Nations, although of course any congress which brings together in friendly conference men of many countries is an influence for international peace. Doctor East has written a book on population entitled, "Mankind at the Crossroads." Students in one of the courses of sociology in Battle Creek College were instructed to read this. Some of them later told their instructor how surprised they were that the work was so interesting. They felt that a pleasant trick had been played on them, for of course they expected a textbook to be dull.

A Visitor from Canada

Dr. Henry M. Ami, of Ottawa, Canada, has recently returned from France where he has been studying in the caves which have thrown so much light on the early history of man. They are situated in the region east of Bordeaux. The Conference is to have the benefit of listening to the results of these researches. He is the head of the Laboratory of Geology and Paleontology at Ottawa, where studies are being made in the life and culture of the human race prior to historical records, in behalf of the Canadian universities and other institutions. He is also director of the Canadian School of Prehistory in France.

Doctor Ami is a fellow of the Royal Society of Canada, of the Geological and of the Royal Geographic Societies of London and of the Geological Societies of France, Switzerland and America. For thirty years he was attached to the geological survey of Canada. He has been scientific attache of the British Embassy at Washington, spent four years in studying war metals and minerals and has been on various important missions for the Canadian Government.

Items Here and There

Since the opening of Battle Creek College on Tuesday many of the students are to be seen at the sessions of the Conference. For the week, ordinary class room work has been suspended to permit this. To see and hear the noted men who take part in the meetings is in itself an inspiration. In addition, many of the papers are a direct contribution to the courses studied, particularly in sociology, diet, eugenics, physiology and physical education. Three of the five schools which make up the college are largely concerned with Race Betterment problems. These are the schools of nursing, home economics and physical education. All of the graduates from these departments will carry on a specific work for Race Betterment. The students, therefore, took notes on such of the papers as bore on their class work. The paper of Dr. Walter R. Miles, of Leland Stanford University, on "The Influence of Alcohol on Human Efficiency" was directly pertinent to physiological study.

Some of the speakers have had to hurry away as soon as they had appeared on the platform but others are spending the entire week listening to the papers of their scientific brethren. Several of them have spoken of the broadening effect of the Conference on their outlook on knowledge and on human life itself. One eminent man said that he was having an experience far more diverting and valuable than when he went to congresses pertaining to his own particular line of research. Then there was an intensive cultivation of his own patch of scientific ground. At the Race Betterment Conference, on the other hand, there was an extensive survey of many fields of learning. This was refreshing and stimulating.

A number of women are at the Conference, part of them as speakers. Last evening all of these who have professions and did not merely accompany their husbands, were guests at a banquet arranged by the women physicians of the Sanitarium. It was held in the main dining room. The speaking was informal. About thirty-five were present.

Drs. E. V. McCollum, Walter H. Eddy, E. M. Nelson, Alexis Carrel, Anton J. Carlson and other physicians and dietetic experts visited the Nutrition Laboratory which is the joint possession of the Battle Creek Sanitarium and the Battle Creek College. Various parties went through the metabolism and other clinical laboratories.

Word was received yesterday that Dr. Louise Stanley, Chief of the Bureau of Home Economics of the United States Department of Agriculture, Washington, would not be able to attend the Conference. She was on the program for Friday morning to read a paper on "Deficiencies in the Average American Diet." Her place will be taken by Doctor Hawley.

A Real Race Betterment Worker

Dr. J. A. Stucky, of Lexington, Ky., is a veteran of the first Race Betterment Conference held here in 1914. This time he will speak on "The People of the Appalachian Range," being on the program for Friday afternoon. He will show some slides to illustrate the health work in the mountain region of eastern Kentucky. Doctor Stucky does not confine himself to talking about Race Betterment but has been a very active and efficient promoter of it. Some twenty years ago he was impressed with the sad state of the mountaineers of eastern Kentucky. Like the inhabitants of the neighboring parts of Tennessee and West Virginia, they were of old British stock, but had been left behind in the march of progress. They were backward in education and in general living conditions, but what interested him most as a physician and a specialist was the prevalence of trachoma and mastoid disease.

So Doctor Stucky organized his first clinic. The party traveled forty-five miles from the railroad on muleback, carrying the hospital equipment by the same means. All kinds of ailments were cared for, although particular attention was given by the leader to the eye, ear, nose and throat. The work was repeated year after year and soon attracted wide attention. The United States Bureau of Public Health organized an ambulatory service in the mountains and since then has cared for over 20,000 cases of trachoma.

Great changes have come in that region as the outgrowth of Doctor Stucky's pioneering. There are well-equipped hospitals at Hindman, Oneida, Buckhorn, Frenchburg, Hazard and Jackson. Each has a full time nurse and a full time doctor. The gospel of good roads has been spread in those districts so that now with an automobile you can get to within ten or twelve miles of the most inaccessible places. There are excellent schools, while general living conditions in the homes have been bettered by the settlements at various places. Wrong diet has been found to be the cause of much of the ill health among these people, so that there is special need of trained experts in home economics. Some of the young women who are devoting themselves to improving the domestic life down there have been students at Battle Creek College. Doctor Stucky is now raising money to send some more of the teachers here for special instruction.

Doctor Stucky's ideas have however been broader than merely contributing his own personal services. He has induced several cities to send groups of physicians each year to hold clinics in the mountains, so that more specialized skill might be available than could be expected from a general practitioner. The usual group consists of three physicians, a dentist and four nurses. The University of Pittsburgh has a clinic each year at Pine Mountain. Cincinnati sends its band to Hindman; Springfield, Ill., to Frenchburg and Brooklyn, N. Y., to Oneida. These expeditions are made either in the spring or fall.

Doctor Stucky reports that his pastor, the Rev. Dr. A. W. Fortune, of the Central Christian Church of Lexington, one of the most noted speakers in the state, is an enthusiast on the aims of the present Race Betterment Conference. In his sermon on Christmas day to a huge congregation, he told of some of the things for which people should be grateful. Among these he mentioned this Conference. He had a program of it and enumerated President Little and other speakers, and their subjects. He pronounced this gathering one of the greatest contributions of the year to humanity, and added: "If I did not have three lecture engagements, I should go to Battle Creek to hear those papers even if I had to crawl under the benches to do so."

A Feminine Arthur Brisbane

While there have been excellent audiences at the sessions of the Conference, a vastly larger assemblage is reached by the newspaper representatives who are reporting the proceedings. Their work is chiefly sending accounts which are printed at once in the daily papers. One of the writers has a slightly different function. This is Miss Allene M. Sumner, of the Newspaper Enterprise Association Service. She writes only special articles which are sent out by mail. The NEA Service, as it is generally known, has a clientele of between 800 and 1,000 newspapers in the United States and Canada, through which it reaches some 40,000,000 people daily. These journals are supplied with what is called "feature stuff," that is, with special articles.

The NEA is the oldest and the largest newspaper syndicate in the world. It is affiliated with the Scripps-Howard newspapers.

Miss Summer's work here has been to get interviews with leading men who are attending the Conference, based on their papers. She selects the points likely to interest a very large circle of readers and then adds perhaps some personal touches or other information of a popular nature. She has been dubbed the feminine Arthur Brisbane, for like him she writes a daily column which is widely syndicated. Her department is headed, "Women's Day," and concerns itself especially with affairs relating to what was formerly known as the "weaker sex." This daily task does not prevent her from attending important news events to get material for her special articles. She was the only woman correspondent who covered the Scopes heresy trial in Dayton, Tenn. She had the same distinction at the Bishop Brown heresy trial in 1925, and an article by her on this was printed in a volume called "The Best News Stories of the Year." Miss Summer returned not long ago from a year spent abroad, wandering about and gathering stories for the syndicate. She is on the go a good part of the time but calls Cleveland her home. She is president of the Cleveland Women's Press Club and a director of the Ohio Newspaper Women's Association.

You mustn't get the idea that all of the NEA matter is sent by mail. When haste is necessary with pictures, as in floods, prize fights or the like, the aeroplane is called into requisition.

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THIRD RACE BETTERMENT CONFERENCE

JANUARY 2 to 6, 1928

BATTLE CREEK, MICH., FRIDAY, JANUARY 6, 1928

Last Day of the Conference

Well, the third Race Betterment Conference ends today. A number of excellent papers is on the program for the three final sessions. The general comment seems to have been that the gathering has been a marked success. A wide variety of subjects has been treated in a masterly way. The permanent record of the proceedings will be of value to investigators for a long time to come. The attendance of members and of the local public was encouragingly large. This is significant, because science alone cannot do everything to improve mankind. The cooperation of the masses is necessary.

The hope has been expressed by many that another such a gathering be held at a less interval of time than separated the second and third. The great scientific bodies usually meet each year. They always have an abundance of fresh material. Another twelve month will bring a volume of new discoveries relating to race betterment, so that another conference would not lack for good papers.

For Fitter Families

A number of persons have been examined each day since the Fitter Families competition was begun. It is impossible, however, to handle more than seven or eight families every day because the process is so long drawn out and so accurate. There has been an average of more than five individuals in each group that presented itself. The examination includes individual and family history, tests of the intelligence and emotions, general medical examination, structural measurements and weight, examination of the eyes, ears, nose and throat, dental examination and laboratory tests of urine and blood.

The findings in these examinations are recorded on standardized score cards furnished by the American Eugenics Society. Each person examined is scored as an individual and the family score is made by averaging the individual scores of its members. At the close of the contest the original score card becomes the property of the family and a carbon copy is sent to the American Eugenics Society for statistical purposes. These copies are confidential.

Dr. Florence Brown Sherbon, of the University of Kansas, Lawrence, is in charge. She was one of the originators of the idea and has had wide experience in conducting the contests. Dr. Luther S. West, professor of biology in Battle Creek College, is chairman of the local committee. Professor A. R. Raymond, of the sociological department of Battle Creek College, has conducted the sociological part of the inquiry, while Dr. Caroline Hilborn, of the same college, has been active in assisting Doctor Sherbon. Various specialists of the Sanitarium faculty have made the examinations and tests coming into their field.

The headquarters of the competition is in the parlor at the north end of the Sanitarium, first floor. It is planned to announce the prize winners this evening just before the close of the Conference.

Work of the Milbank Fund

Mr. John A. Kingsbury, secretary of the Milbank Memorial Fund, of New York, has been an interested listener at the sessions of the Conference. Tonight he will speak on "The Rural Health Problem and Its Solution." The Milbank Fund with its endowment of some $15,000,000 is doing some notable things for bettering health and living conditions. It attempts comparatively little in the way of research. There are many other wealthy agencies carrying on this. But it aims to put into practical operation the results of the investigations of scientists. Its activities are chiefly along three lines, country, city and metropolitan. Its experiment in one of the rural counties of New York with a population of about 75,000, will be the subject of his paper.

The next field is the city of Syracuse, N. Y., with 200,000 inhabitants. Here for more than three years there has been an intensive demonstration of public health work both through the schools and the Board of Health. It is still too early to go into detail about the results but there has been an unmistakable decline in sickness and deaths. The Milbank Fund cannot of course permanently carry on its work in one place. Part of the task is to arouse public sentiment so that the taxpayer will be willing to support the proper health agencies. In this regard, Syracuse has done everything that could be hoped for. In the beginning it was reckoned that $130,000

a year would be needed to put the city on an adequate health basis. The Fund stood ready to give as much toward this sum as should be necessary at first. But the movement made such an appeal to the citizens that the administration is now committed to practically all the required expenditure.

In New York City the district chosen for an object lesson is on the middle East Side and contains a population about equal to that of Syracuse. There was delay in getting started here because it was first necessary to draw up carefully thought out plans. The problem was not the same here as in Syracuse. In the metropolis there was already at work a large number of medical, charitable and social agencies. The first step was to coordinate these to avoid duplication of effort. Both private and public bodies have entered heartily into the co-operation proposed by the Milbank Fund. A health center, one of the finest in the world, was built in East Thirty-eighth Street by the philanthropic endowment. Here is a sort of clearing house for uplift activities, besides clinics and the like.

Items Here and There

The exhibit in the hallway just outside the gymnasium was placed by the American Eugenics Society through its secretary, Mr. Leon F. Whitney, of New Haven, Conn. The Mendelian laws of inheritance were illustrated with the pelts of white and black guinea pigs. Most striking, however, were the lights which flashed at regular intervals. The one with a period of fifteen seconds showed that in that interval, $100 had been spent in the United States for the care of criminals, defectives and insane persons. Other lamps announced that a human birth occurred every sixteen seconds, that every forty-eight seconds some child was born which would never grow up mentally beyond the stage reached by a normal boy or girl of eight years, and that every seven and a half minutes a child was born which would grow up into that superior class of intellectuals which formed four per cent of the population. These lamps bear out the principal urged by the advertising man and the psychologist that information conveyed visually is far more effective than that imparted by words. When Professor Miles of Leland Stanford University on Tuesday night showed a moving picture of the poor tipsy rat falling off its runway, he probably made a more lasting impression on the laity than he would have done by long descriptions of scientific tests.

Of the eighty-four papers on the program, nine were by women. That of Dr. Maud Slye, of the University of Chicago, on "The Role of Heredity in Cancer," was generally spoken of as one of the outstanding features of the Conference. She explained that she had to hurry back home yesterday morning to look after her numerous family of rats with which her experiments are made. The professional women attending the gathering had a jolly time at the banquet on Wednesday evening, given so that they might get acquainted with one another and with the women physicians of the Sanitarium. Each person arose and told briefly where she was born, where educated and in what sort of work she was now engaged. Several of the women visitors were guests on Wednesday at the luncheon of the Altrusa Club at the Post Tavern downtown.

Mr. George P. Brett, of New York, president of Macmillan & Co., had been invited to attend the Conference as a representative of the publishing interests of the country. He has gone to Australia, however, so that his son, Mr. George P. Brett, Jr., came in his place.

Although neither Drs. Charles or William Mayo, of the Mayo Clinic, Rochester, Minn., was able to be present at the Conference, they showed their interest in it by sending Dr. Samuel Amberg to represent them.

Messages from Abroad

Dr. A. Rollier, Leysin, Switzerland.—"I much appreciate your kind invitation and the honor conferred on me in asking me to take part in your meeting, the programme of which interests me profoundly, particularly as regards the degenerative tendencies of the race and the means of checking them.

"I sincerely wish you full success for the good result of the meeting, and with renewed thanks and regrets, believe me, etc."

Dr. Claude Ragaud, Curie Foundation, Universite de Paris, Paris, France.—"I regret greatly that it is impossible for me to come to Battle Creek in January. I am greatly interested in all measures tending toward the betterment of the human race, and approve without reservations the tentative program sent me."

Dr. E. Wollman, Institut Pasteur, Paris, France. —"Your program interests me particularly and I would have been delighted to meet Doctor Kellogg whom I unluckily missed when he came to my laboratory in 1926.

"I will send you a paper on the Modification of the Intestinal Flora as soon as possible and hope you will find it of some interest. We have some very interesting work going on along this line with aseptical animals, that is, animals without any microbes at all."

Sir Arbuthnot Lane, New Health Society, London, England.—"Best wishes for success of Conference."

H. G. Wells, 614 Stermin's, Westminster, S. W. 1, London, England.—"Thank you for your invitation, and regret that pressing engagements prevent acceptance, or contribution to Proceedings."

The Third
Race Betterment Conference

JANUARY 2-6, 1928

Under the Auspices of the

Race Betterment Foundation

Battle Creek, Michigan

Host of the Conference

The Battle Creek Sanitarium

The Third
Race Betterment Conference

PURPOSE

To bring together a group of leading scientists, educators and others for the purpose of discussing ways and means of applying science to human living in the same thoroughgoing way that it is now applied to industry—in the promotion of longer life, increased efficiency and well-being and of race improvement.

OFFICERS OF THE CONFERENCE

President—

C. C. LITTLE, D.Sc., *President of the University of Michigan, Ann Arbor, Michigan*

Executive Secretary—

MISS EMILY F. ROBBINS, *Battle Creek, Mich.*

Treasurer—

THE RACE BETTERMENT FOUNDATION, *Battle Creek, Mich.*

Program

MONDAY AFTERNOON

January 2nd, 1928

2:30

PRESIDENT C. C. LITTLE, Presiding

The Mechanisms of Normal Digestion and Their Significance

DR. ANDREW CONWAY IVY, *Head Division Physiology and Pharmacology, Northwestern University Medical School*

Where We Stand Now in Our Knowledge of Nutrition

DR. E. V. MCCOLLUM, *Professor of Physiological Chemistry, School of Hygiene and Public Health, Johns Hopkins University*

Progress in Vitamin Research

DR. WALTER H. EDDY, *Professor of Physiological Chemistry, Teachers' College, Columbia University*

The Relation of Cod Liver Oil to Human Health

DR. E. M. NELSON, *Bureau of Chemistry and Soils, U. S. Department of Agriculture*

The Ultimate Mission of Chemistry

DR. CHARLES HERTY, *Advisor to the Chemical Foundation, Inc.*

Films

MONDAY EVENING

6:30—Banquet

Address of Welcome

DR. JOHN HARVEY KELLOGG, *President Race Betterment Foundation; Medical Director Battle Creek Sanitarium*

In Behalf of Battle Creek

HON. JOHN W. BAILEY, *Mayor of Battle Creek*

8:00

HON. JOHN W. BAILEY, Presiding

The New Health Movement in England

SIR W. ARBUTHNOT LANE, *President The New Health Society, London*
(To be read by title)

Adding Life to the Years as Well as Years to Life

DR. HERMAN BUNDESEN, *President American Public Health Association*

The Role of the State in the Reduction of Degenerative Disease

DR. GUY L. KIEFER, *Commissioner of Health, State of Michigan and representing Hon. Fred W. Green, Governor of Michigan*

Shall We Live Longer and Should We?

DR. C. C. LITTLE, *President University of Michigan and President of the Conference*

The Immortality of Animal Tissues and Its Significance

DR. ALEXIS CARREL, *Rockefeller Institute for Medical Research*
(Slides)

Films

TUESDAY MORNING

January 3rd, 1928

9:30

DR. JAMES W. GLOVER, Presiding

Has Maternal Mortality Any Significance in Race Deterioration?

DR. SAMUEL J. CRUMBINE, *General Executive, American Child Health Association*

Lymph Poisons Extractions

DR. BERTRAM BALL, *Director Department of Organization, American Academy of Applied Dental Science*

A Chemotherapeutic Institute—One of the Greatest Needs of Mankind

DR. ARTHUR S. LOEVENHART, *Professor of Pharmacology and Toxicology, University of Wisconsin*

Social Hygiene Round-Tables

DR. WALTER M. BRUNET, *American Social Hygiene Association*

The Diagnosis of Urological Conditions in Children

DR. PAUL M. BUTTERFIELD, *Chief Children's Urological Clinic, New York Hospital*

What Urology Has Done and Can Do in Lengthening Life

DR. OSWALD S. LOWSLEY, *Director James Buchanan Brady Foundation for Urology, New York Hospital*
(Slides and Film)

Films

TUESDAY AFTERNOON

2:30

DR. HERMAN BUNDESEN, Presiding

The Physiologic Life

DR. ANTON J. CARLSON, *Chairman Department of Physiology, University of Chicago*

Improvement in Mortality Rates and Expectation of Life in the United States from 1890 to 1928.

DR. JAMES W. GLOVER, *Chairman Department of Mathematics, University of Michigan*

The Economic Value of Longer Life

MR. FRANCIS H. SISSON, *Vice President Guaranty Trust Co., New York City; National Community Foundation*

Fifty Years After Fifty

DR. LOUIS FAUGERES BISHOP, *Fordham University*

The Application of Physiology to Living Habits

DR. WILLIAM ALFRED SAWYER, *Medical Director Eastman Kodak Co.*

The Possible Scope of the Periodic Health Examination in the Modern Health Program

DR. EUGENE LYMAN FISK, *Medical Director Life Extension Institute, Inc.*

Films

TUESDAY EVENING

8:00

DEAN IRVING S. CUTTER, Presiding

The Development of the Demand for Yearly Health Audits—a Strong Factor in Race Betterment

DR. FRANKLIN H. MARTIN, *Director General American College of Surgeons; President Gorgas Memorial Institute*

Eugenics in Mexico

DOCTORS ALBERTO LOZANO AND MARGARITA G. DE LOZANO GARZA, *Special Representatives of the Mexican Government*

The Changing Race: Factors in Racial Deterioration

DR. EDWARD ALSWORTH ROSS, *Professor of Sociology, University of Wisconsin*

The Relation of Immigration to the Size of Families

HON. ALBERT JOHNSON, *Chairman Committee on Immigration and Naturalization, House of Representatives, Washington*
(To be read by title)

The Lengthening of Human Life, in Retrospect and in Prospect

DR. IRVING FISHER, *Professor of Political Economy, Yale University*

The Influence of Alcohol on Human Efficiency

DR. WALTER R. MILES, *Leland Stanford University*

Films

9:15

OLD-AMERICAN PARTY

Under the direction of BENJAMIN LOVETT

By Courtesy of Mr. Henry Ford

WEDNESDAY MORNING

January 4th, 1928

9:30

DR. FRANKLIN H. MARTIN, Presiding

The Foreign Born

MR. MICHAEL KLEY, *Manager Immigrant Service and Citizenship Bureau, Metropolitan Life Insurance Company*

Delinquent Parents

JUDGE RUTH THOMPSON, *Probate Court, Muskegon County, Michigan*

Sterilization in Michigan

DR. H. E. RANDALL, *President Michigan State Medical Society*

Sterilization in California

PAUL POPENOE, *Writer, Santa Barbara, Calif.*
(To be read by title)

The Alarming Increase in the Morbidity and Mortality of Tuberculosis Among Young Women

DR. S. ADOLPHUS KNOPF, *Major Medical Officers' Reserve Corps, United States Army*

What a City System Can Do for Handicapped Children

DR. CHARLES SCOTT BERRY, *Professor of Educational Psychology, University of Michigan*

The Contribution of Health Education to Race Betterment

DR. THOMAS D. WOOD, *Professor Physical Education, Columbia University*

Films

WEDNESDAY AFTERNOON

2:30

DR. HENRY F. VAUGHAN, Presiding

The Control of Heredity

DR. OSCAR RIDDLE, *Station for Experimental Evolution, Carnegie Institution of Washington*

(To be read by title)

The Relation of Intestinal Bacteria to Human Welfare

DR. ARTHUR I. KENDALL, *Professor Research Bacteriology, Northwestern University School of Medicine*

The Possibility of Modifying the Germ Plasm

DR. M. F. GUYER, *Professor of Zoology, University of Wisconsin*

(Slides)

Hereditary Factors in Health and Longevity

DR. C. B. DAVENPORT, *Director Eugenics Record Office*

The Genetic Basis of Eugenics

DR. E. M. EAST, *Professor of Genetics, Harvard University*

A Biologic Philosophy or Religion a Necessary Foundation for Race Betterment

DR. ALDRED SCOTT WARTHIN, *President National Association of American Physicians; Director Pathological Laboratory, University of Michigan*

The Cycle of the Oestrum; New Cancer Diagnosis

DR. GEORGE N. PAPANICOLAOU, *Cornell University Medical College*

(Slides)

4:30—THE UNION

MICHIGAN VARSITY RESERVE VS. WESTERN STATE TEACHERS COLLEGE

WEDNESDAY EVENING

8:00

DR. ALDRED SCOTT WARTHIN, Presiding

A Better and a Healthier Man

DR. HENRY F. VAUGHAN, *Commissioner of Health, City of Detroit*

The Role of the Surgeon in Lengthening Life

GEORGE W. CRILE, M. D., *Cleveland Clinic*

Health Progress in Mexico

DR. F. P. MIRANDA, *Special Representative Mexican Medical Association and Mexican National University*

The Work of the Women's Bureau of the U. S. Department of Labor

MISS MARY ANDERSON, *Director*

The Role of Heredity in Cancer

DR. MAUD SLYE, *University of Chicago*

(Slides)

Films

THURSDAY MORNING

January 5th, 1928

9:30

PROF. IRVING FISHER, Presiding

The Health Progress of the North American Indian

MR. FREDERICK L. HOFFMAN, *Consulting Statistician Prudential Insurance Co. of America.*

The Therapeutic Wonders of Sunlight

DR. HORACE LOGRASSO, *Department of Public Safety, City of Buffalo.*
(Slides)

The Health-Promoting Rays of Sunlight

DR. WILLIAM T. ANDERSON, JR., *Research Laboratories, Newark, N. J.*
(Slides)

Light and Medicine

DR W. T. BOVIE, *Northwestern University Medical School*

Light and Life

DR. J. W. M. BUNKER, *Associate Professor Physiology and Biochemistry, Massachusetts Institute of Technology*

Films

THURSDAY AFTERNOON

2:30

DR. W. A. EVANS, Presiding

The Evolution of the American Population

LOUIS I. DUBLIN, PH.D., *Statistician Metropolitan Life Insurance Company*

(To be read by title)

The Physical Betterment of Future Citizens through Immigration

HON. HARRY E. HULL, *Commissioner General of Immigration, U. S. Department of Labor*

What Physical Education Should Contribute to Race Betterment

DR. JOHN SUNDWALL, *Professor of Hygiene and Public Health, University of Michigan*

Man Building

PROF. FIELDING H. YOST, *Professor of the Theory and Practice of Athletics, University of Michigan*

Research in Physical Education

JAMES H. MCCURDY, M. D., *Assistant Secretary-Treasurer-Editor American Physical Education Association*

How Athletics for Women Are Being Organized Nationally Along Lines of Health Protection and Improvement

MISS MABEL LEE, *Professor of Physical Education, University of Nebraska*

Building Citizens

MR. EUGENE T. LIES, *Special Representative Playground and Recreation Association*
(Exhibit and Slides)

Films

THURSDAY EVENING

8:00

PROF. EDWARD ALSWORTH ROSS, Presiding

The School as a Race Betterment Agency

HON. WOODBRIDGE N. FERRIS, *Ex-Governor of Michigan; U. S. Senator*

The Newspaper and Public Health

DR. W. A. EVANS, *Professor of Hygiene, Northwestern University; "How to Keep Well" Department, Chicago Tribune*

The Commercial Advertisement as an Educational Influence

DR. HARVEY W. WILEY, *Director Bureau of Foods, Sanitation and Health, Good Housekeeping Magazine*

(To be read by title)

The Criminal in Everyday Life

DR. WILLIAM J. HICKSON, *Director Psychopathic Laboratory, Municipal Court, Chicago.*

(Slides)

Crime as a Medical and Biological Problem

JUDGE HARRY OLSON, *Municipal Court, Chicago*

RECEPTION

FRIDAY MORNING

January 6th, 1928

9:30

PROF. IRVING FISHER, Presiding

National Nutrition as a Factor in the Death Rate

DR. M. HINDHEDE, *Commissioner of Health for Denmark*

The Harmful Effect of Diets Rich in Protein

DR. LOUIS H. NEWBURGH, *Professor of Clinical Investigation, Department of Internal Medicine, University of Michigan*

(Slides)

How Can the Science of Nutrition Be Applied in the Home?

DR. MARY SWARTZ ROSE, *Professor of Nutrition, Teachers' College, Columbia University*

(To be read by title)

Deficiencies in the Average American Diet

DR. LOUISE STANLEY, *Chief Bureau of Home Economics, U. S. Department of Agriculture*

A Demonstration in Public Health in the City of Montreal, Canada

MISS EDITH B. HURLEY, *Professor of Public Health Nursing, Université de Montréal*

Some New Physiological Data as a Basis for Moral Hygiene

DR. W. N. BOLDYREFF, *Director Pavlov Institute*

The Relation of Habits to Longevity

DR. JOHN HARVEY KELLOGG

Films

FRIDAY AFTERNOON

2:30

DR. PAUL F. VOELKER, Presiding

Moral Education

DR. C. E. RUGH, *Professor of Education, University of California*
(To be read by title)

Anthropology and Its Bearings on the Problems of Human Life

DR. ALES HRDLICKA, *Curator Division of Physical Anthropology, U. S. National Museum, Smithsonian Institution*

The People of the Appalachian Range

I. A. STUCKY, M. D., *Lexington, Ky.*
(Slides)

Newer Values in Education

DR. M. V. O'SHEA, *Head Department of Education, University of Wisconsin*

The Place of Teacher-Training Institutions in the Race Betterment Program

DR. CHARLES MCKENNY, *President Michigan State Normal College, Ypsilanti*

The Importance of a Connecting Link Between Home and School

MRS. A. H. REEVE, *President National Congress of Parents and Teachers*

Films

FRIDAY EVENING

8:00

HON. JOHN W. BAILEY, Presiding

The Modification of the Intestinal Flora

DR. E. WOLLMAN, *Pasteur Institute, Paris*
(To be read by title)

The Application of Science to Industry and Labor

HON. J. J. DAVIS, *Secretary of Labor, Washington*

The Gorilla and Its Environment

MRS. CARL AKELEY

Some Practical Problems in Public Health Work

DR. OSCAR DOWLING, *President Louisiana State Board of Health*

The Rural Health Problem and Its Solution

MR. JOHN A. KINGSBURY, *Secretary Milbank Memorial Fund*

The Future of Medical Practice as Influenced by the Selection and Training of Medical Students

DR. HUGH CABOT, *Dean, Medical School, University of Michigan*

Making Our Visions in Public Health Effective

DR. LOUIS I. HARRIS, *Commissioner of Health, City of New York*

Announcement of Prize Winners Fitter Families Contest

HON. JOHN W. BAILEY, *Mayor*

Films

A Fitter Families Contest

DURING the period of the Conference, the City of Battle Creek has entered into a Fitter Families Contest, under the direction of the American Eugenics Society, Inc., Mr. Leon F. Whitney, Executive Secretary. Dr. Florence Brown Sherbon of the University of Kansas is in practical charge of the contest. Dr. Luther S. West of Battle Creek College is chairman of the local committee.

Announcement of prize winners will be made at the evening session of the last day of the Conference, Friday, January 6th.

MAIN BUILDING OF THE BATTLE CREEK SANITARIUM
HEADQUARTERS OF THE CONFERENCE

RACE BETTERMENT EXHIBIT

By the Race Betterment Foundation

Incorporated, 1904

HEADQUARTERS:

BATTLE CREEK, MICHIGAN

Board of Trustees of the Race Betterment Foundation

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M. W. WENTWORTH, Treasurer

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NEWELL DWIGHT HILLIS, Brooklyn, N. Y.

BISHOP JOHN W. HAMILTON, Boston, Mass.

The Race Betterment Foundation

(Incorporated and Endowed 1904)

The Race Betterment movement resulted from the recognition of the rapid increase of race degeneracy, especially in recent times. The fact of race degeneracy is evident from the alarming increase of the insane and other mental defectives, who now constitute one per cent of the whole population of the United States (Davenport); the diminishing birth rate; the increasing death rate from diseases of degeneracy,—diseases of the heart, blood vessels, kidneys, cancer, diabetes, etc.; the decreasing number of persons who attain advanced age,—diminishing life expectancy after forty years, and other equally important evidences shown by the reports of the U. S. census bureau and the records of the great life insurance companies.

One result of the publicity which has been given to these facts within the last twenty years has been a recognition by the great life insurance companies of the necessity for taking measures to protect their financial interests. This has led to the creation of very efficient health departments by several of the largest life insurance companies and the organization of the Life Extension Institute, which offers its services to all life insurance companies as well as other organizations and the general public.

Another result of the growing recognition of the fact of race deterioration was the organization and endowment of the Race Betterment Foundation which was incorporated September, 1906.

At the time of its organization the Foundation was endowed with property now worth about $350,000. Measures have been instituted which it is believed will ultimately increase its endowment to more than $1,000,000.

Various race betterment activities have been undertaken by this organization, the most important of which was the Race Betterment Conference, which, through the financial support given by the Race Betterment Foundation and with the special assistance of Prof. Irving Fisher, of Yale University, Dr. Newell Dwight Hillis, of Brooklyn, Sir Horace Plunkett, Dr. Stephen Smith and many other prominent educators, physicians, scientists and publicists who loaned their names and influence and served on the Central Committee, was organized and held its first meeting at Battle Creek, Michigan,

Jan. 1 to 6, 1914. (See pages 14 to 19 for a complete list of the officers of the Conference and the titles of papers read.)

The Conference lasted five days and the interest was such as to command audiences of 1,200 to 1,500 at the ordinary morning and evening sessions, and on special occasions twice that number. The proceedings, consisting of fifty-eight important papers besides discussions, made a volume of 625 pages, which is unquestionably the most important collection of authentic facts and statements on the subject of race deterioration and race betterment, its causes and remedies, which has yet appeared.

It is the purpose of the Race Betterment Foundation to continue these conferences yearly. The conference for 1915 will be held August 6, at the Panama-Pacific Exposition by request of the management, who have offered every needful assistance. The proceedings will be published.

Race Betterment Week at the International Exhibition, Aug. 4 to 8, Inclusive

At the suggestion of the Executive Committee of the Race Betterment Foundation, the exhibition authorities have set apart a week to be known in the general program of the exhibition as Race Betterment Week.

The exercises of the week will be conducted under the auspices of the Race Betterment Foundation, under the immediate direction of a local committee of which Dr. David Starr Jordan is Chairman and Dr. H. R. Stolz, Secretary. One day, August 6, which will be designated as Race Betterment and Eugenics Day, will be devoted to the annual meeting of the Race Betterment Conference.

The leading welfare organizations represented at the exposition will participate in the exercises.

Daily meetings will be held on the grounds of the exposition and in the city. The details of the program will be announced later in the public prints, in the announcements of the exhibition and special bulletins.

Further information concerning the work of the Race Betterment Foundation may be had by addressing—

RACE BETTERMENT FOUNDATION,

Battle Creek, Mich.

The Race Betterment Exhibit

This exhibit has been prepared by the Race Betterment Foundation. The following is a brief analysis of the exhibit:

1. **RACE DEGENERACY.**
   - (a) **Statistical and other facts which demonstrate its progressive existence.**
   - (b) **Causes.**
2. **RACE BETTERMENT.**
   - (a) **Possibilities.**
   - (b) **Methods,—Euthenics (personal hygiene) and Eugenics (race hygiene.)**
   - (c) **Agencies.**

A volume giving a complete account of the exhibit and containing a photographic reproduction of each item of the exhibit will be published at the price of $1.00. Orders for this volume will be taken at the exhibit. The following items from the exhibit will be of special interest:

Diminished Birth-Rate "Race Suicide"

In Twenty Years the birth-rate has declined in these six countries as follows:

New South Wales	*30.6%*
New Zealand	*24.5%*
United States (estimated)	*20.0%*
England and Wales	*17.7%*
France	*10.7%*
Germany	*8.4%*

There are now only three births to replace four deaths in some sections of France, and in the native population of New England.

CRIME INCREASE

MURDERS

1905 2,900 per 100,000,000

1910 5,900 per 100,000,000

Increase, 103 per cent

SUICIDE

1905 13,900 per 100,000,000

1910 16,000 per 100,000,000

Increase, 15 per cent

Evidences of Race Degeneracy

Increase of Degenerative Diseases
- Cancer
- Insanity
- Diseases of Heart and Blood Vessels
- Diseases of Kidneys
- Most Chronic Diseases
- Diabetes

Increase of Defectives
- Idiots
- Imbeciles
- Morons
- Criminals
- Inebriates
- Paupers

Diminishing Individual Longevity

Diminished Birth Rate

Disappearance, Complete or Partial, of Various Bodily Organs
- According to Wiedersheim there are more than two hundred such changes in the structures of the body

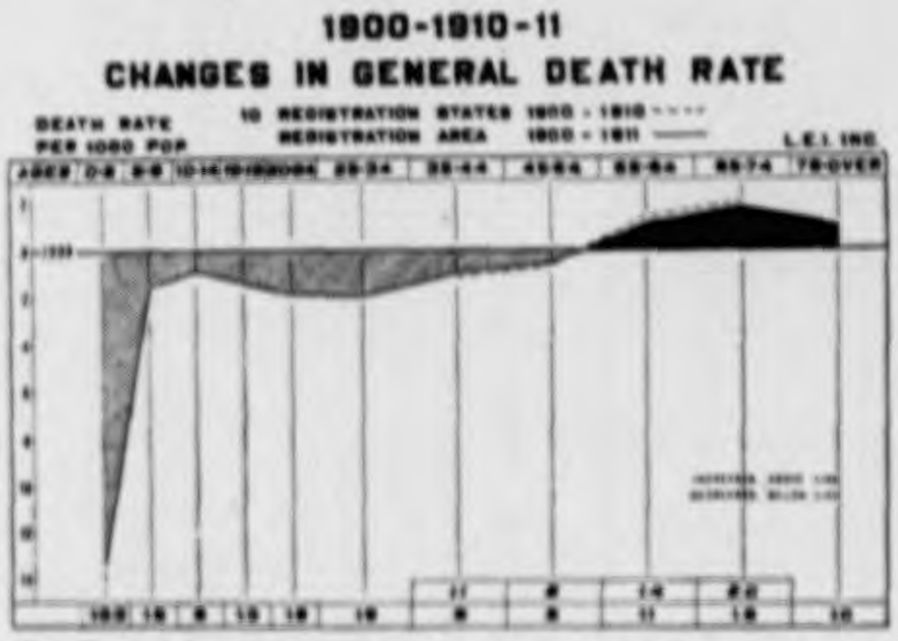


Chart Two

STILL CONTINUES.

This indicates that during the ten years, the increase in the ten Registration States referred to in Chart No. 3, continued, the curve crossing a little later between 50 and 54, and that the comparison of the entire Registration Area shows virtually the same curve. The changes for this short period, both below and above age 50, are very marked, and if continued a few decades would seriously disturb the present average length of life.

Chart Three

THE BASIC LIFE-SAVING TREND.

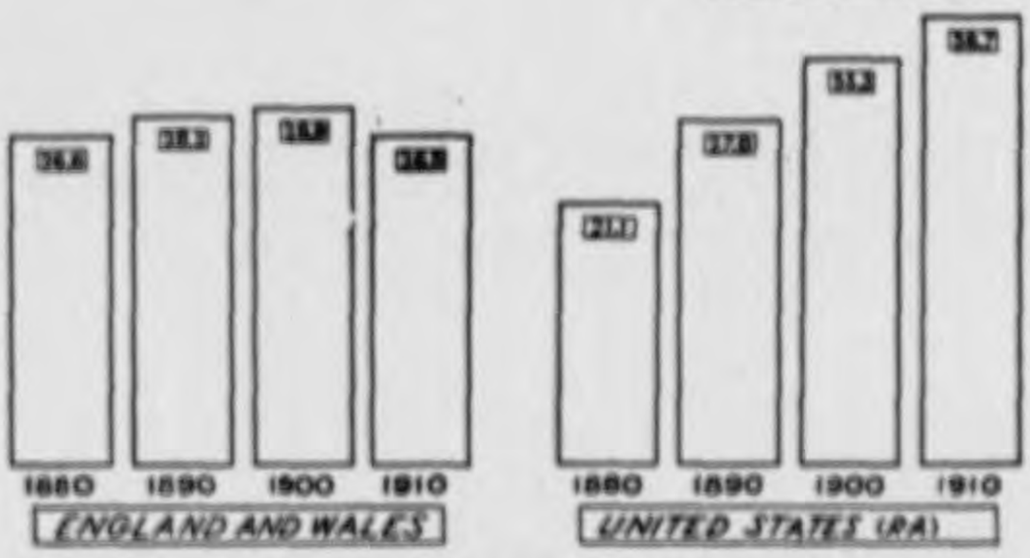
This chart indicates that the increase in these diseases continued during the last decennial period (1900-1910), and that it is found in cities and states in widely separated sections of the country. Whether the population is chiefly rural or urban, or whether the foreign element is large or small, the trend of the mortality rate even in this short period is decidedly upward in all of the areas.

Note:—Any statistics you use in these charts as they are more valuable than the later reports on which the rates are based upon estimated population.

THESE COLUMNS

Show the combined death-rate per 10,000 of the population from apoplexy, paralysis and diseases of the kidneys, heart and circulatory system.

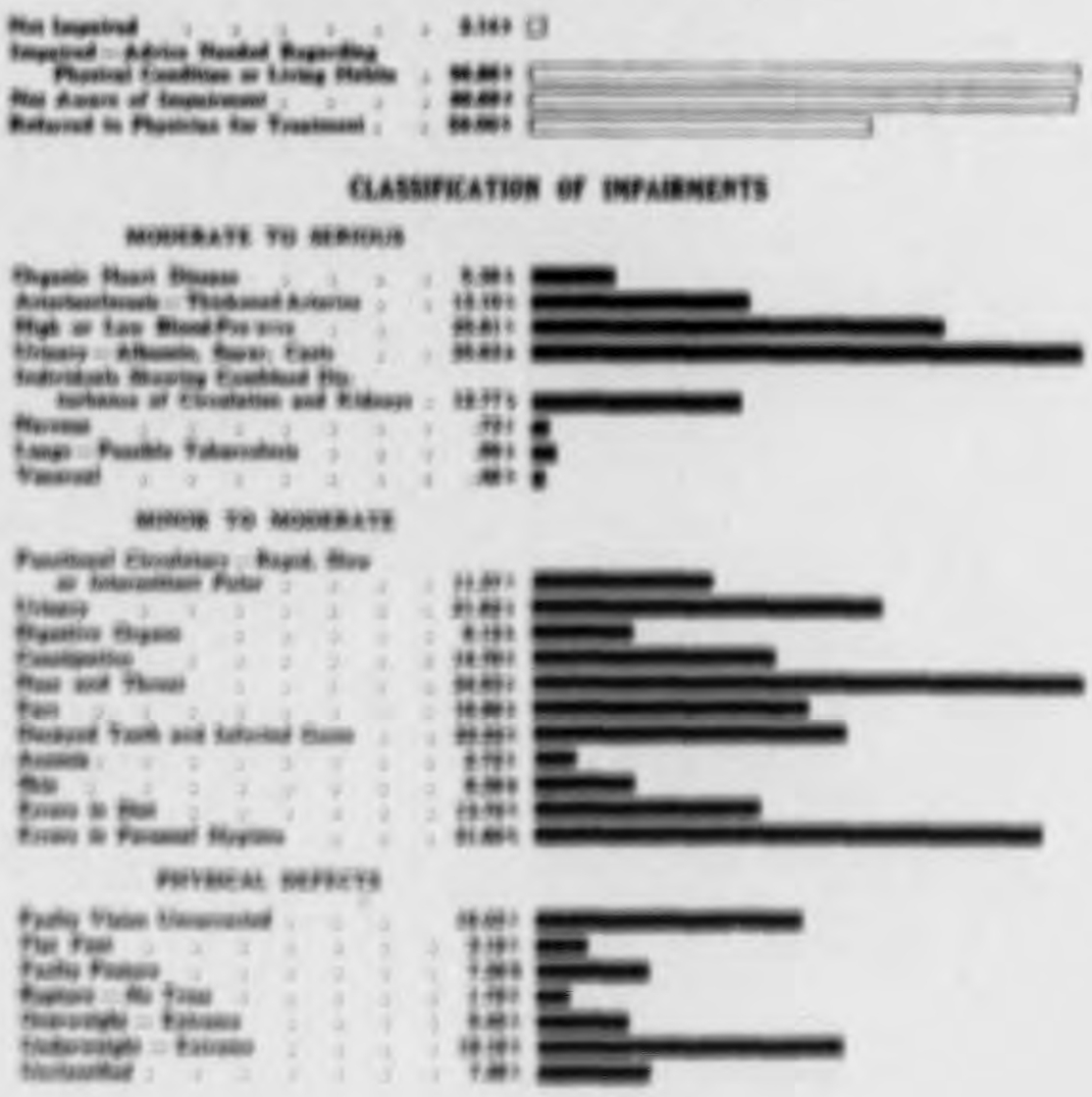
E. E. RITTENHOUSE,
President Life Extension Institute



DEGENERATIVE DISEASES

Indicate an apparent decline in the power of our *young*, as well as of older people, to resist chronic disease.

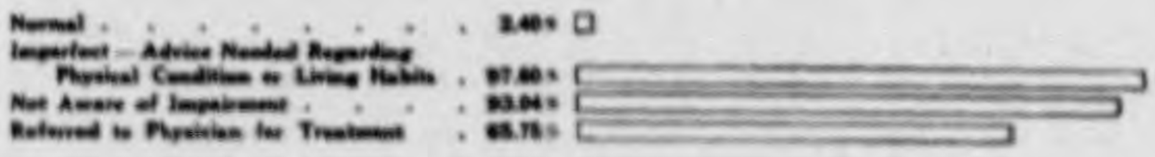
RESULTS OF THE EXAMINATION OF EMPLOYEES OF COMMERCIAL HOUSES, BANKS, ETC., BY THE LIFE EXTENSION INSTITUTE



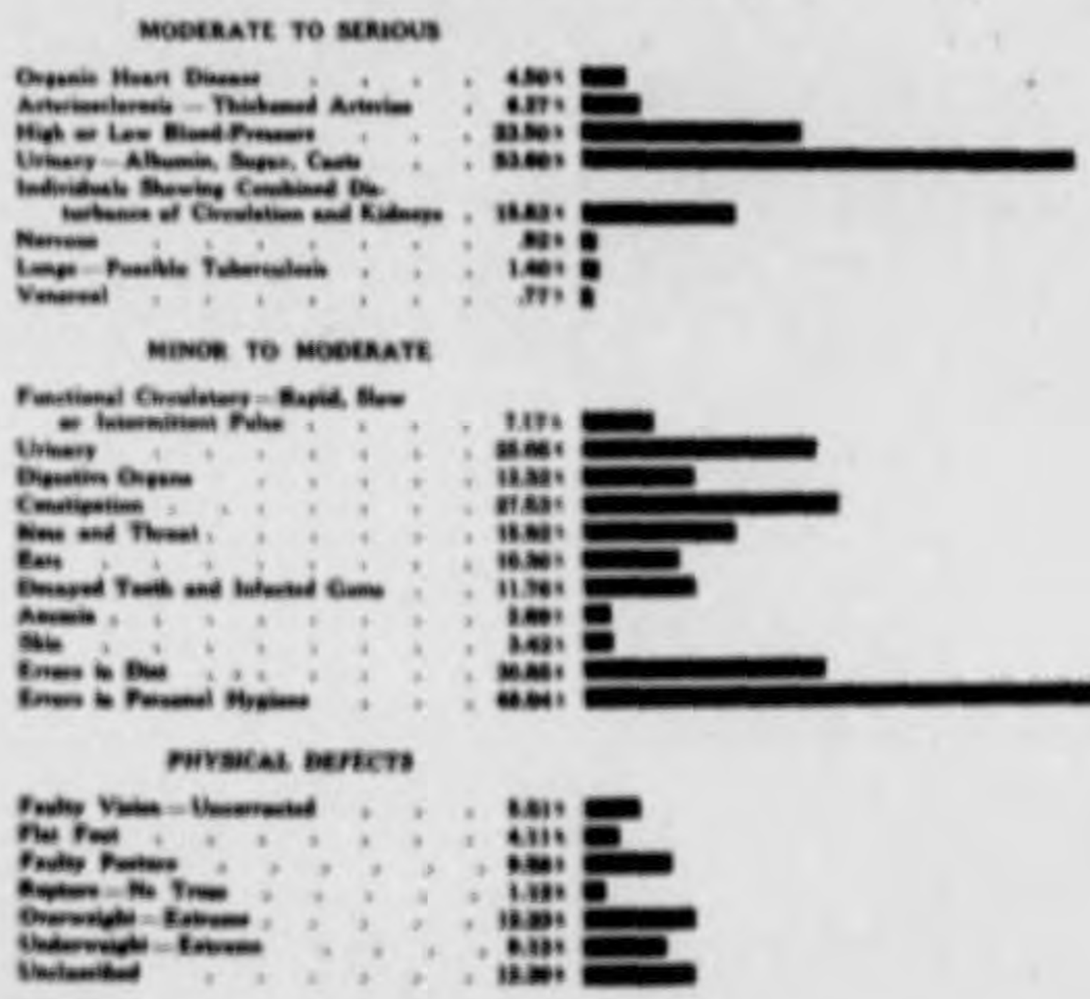
Causes of Race Degeneracy

- **Unnatural and Unwholesome Environment**
  - City Life
  - Unsanitary Conditions
  - Unventilated Homes
  - Unwholesome Industries
  - Insalubrious Climates
- **Unnatural Habits in**
  - Food and Feeding
  - Indoor Life
  - Neglect of Exercise
  - Clothing
  - Use of Poisons
    - Alcohol
    - Tobacco
    - Opium
    - Patent Medicines
    - Other Drugs
- **Poverty**
- **Ignorance**
- **Syphilis**
- **War**
- **Heredity**
  - Cancer
  - Alcoholism
  - Insanity
  - Criminality
  - Feeble-Mindedness
  - Syphilis
  - Various Morbid Conditions and Predispositions

RESULTS OF THE EXAMINATION OF LIFE INSURANCE POLICYHOLDERS BY THE LIFE EXTENSION INSTITUTE



CLASSIFICATION OF IMPAIRMENTS



OCCUPIED MALES INCREASES-DECREASES FROM CERTAIN DISEASES

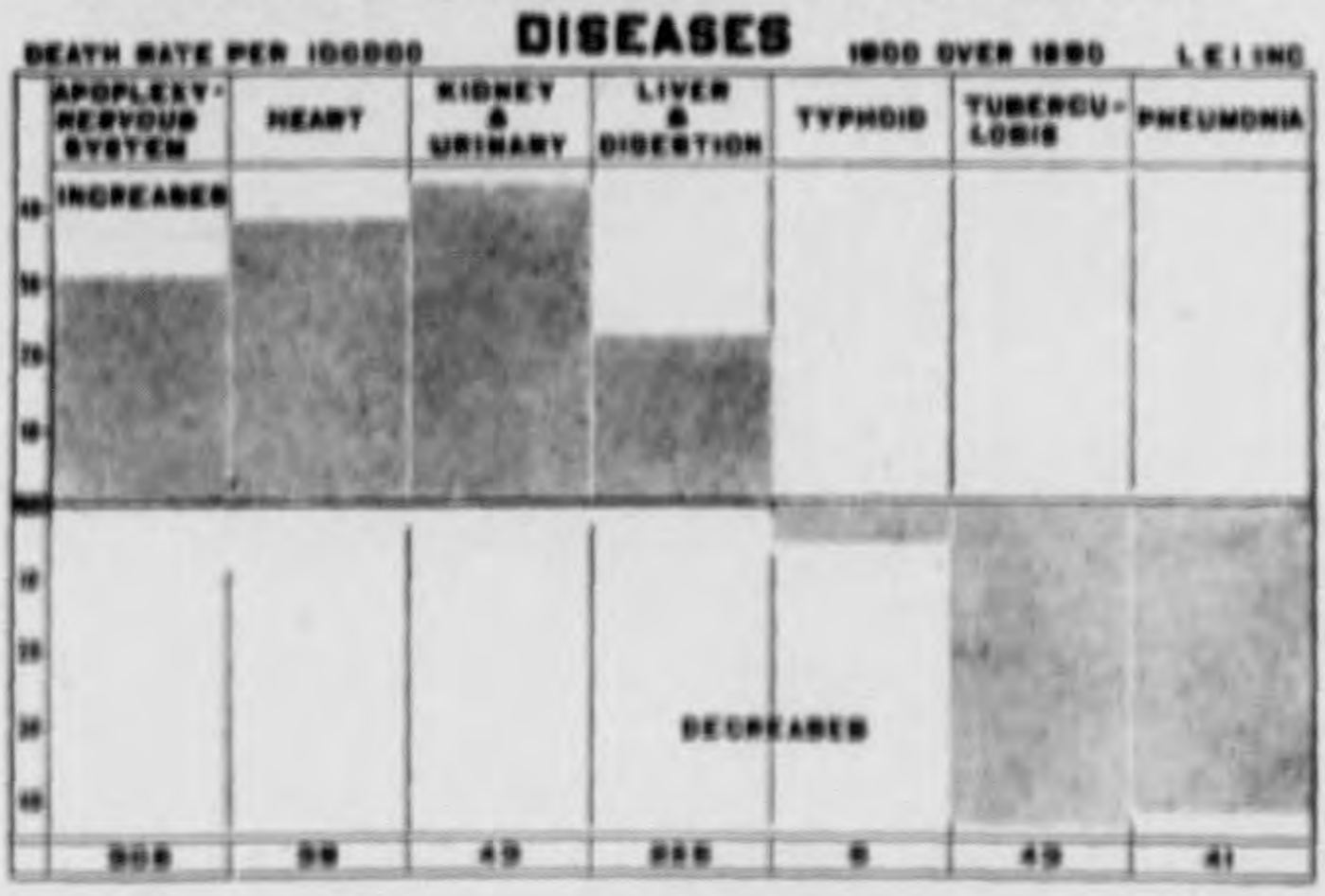


TABLE SHOWING ANNUAL CANCER MORTALITY RATE PER MILLION DEATHS FROM ALL CAUSES

	Men	*Women*	*Total*
Mouth	1358	283	1641
Stomach and liver	9348	9305	18653
Intestines	2358	3309	5667
Skin	1183	651	1834
Female genital organs		7507	7507
Female breast		4323	4323
Unspecified	4409	3821	8230
Total	18,653	29,199	47,855

Cancer mortality per 100,000 in—

		Whites	*Colored*
Birmingham	1908	112.9	47.9
Mobile	1907	74.1	31.0
Wilmington	1908	52.3	26.8
Atlanta	1908	95.6	34.4
Savannah	1908	64.2	21.7
Washington, D. C.	1907	102.0	63.4
Paducah	1908	36.5	14.2
New Orleans	1908	90.6	67.1
Charleston	1908	89.7	12.5
Jacksonville	1907	92.2	36.7

Table Showing the Cancer Mortality in Leading Cities of the United States

	1904	1908	End of Century
Mobile	55.5	75.4	678.6
Fresno (California)	38.1	130.5	1174.5
Sacramento	111.7	142.4	1281.6
Denver	72.0	110.2	991.8
New Haven	71.9	103.5	928.5
Chicago	64.2	72.5	658.5
Quincy	92.9	107.3	965.7
Lafayette (Indiana)	37.1	107.1	963.9
Portland (Maine)	104.7	128.4	1152.6
Northampton (Mass.)	86.3	120.5	1081.5
Dover (New Hampshire)	82.2	125.5	1129.5
Trenton (New Jersey)	50.	69.6	626.4
Plainfield (New Jersey)	61.6	152.8	1375.2
Albany (New York)	109.2	132.	1188.
Johnston (New York)	81.3	115.2	1036.8
New York (Bronx Borough)	61.	95.8	862.2
Utica	82.	100.0	900.
Watertown	61.1	87.5	787.5
Raleigh (North Carolina)	60.5	119.5	1075.5
Wilmington (North Caroline)	55.4	119.0	1071.
Cincinnati	80.0	98.5	886.5
Cleveland	61.1	71.8	646.2
Columbus	72.8	88.8	798.2
Harrisburg	50.1	74.7	672.3
Philadelphia	78.7	84.2	575.8
Pittsburg	50.7	59.0	531.0
Pottstown	28.9	107.0	963.0
Scranton	35.6	57.3	515.7
Newport (Rhode Island)	73.4	131.6	1184.4
Burlington	49.3	96.0	864.0
Green Bay (Wisconsin)	77.2	98.6	887.4

Deaths from Cancer Annually for Each Million Deaths of Persons of Each Sex

	Men	*Women*
Mouth	2565	633
Stomach and liver	17650	20822
Intestines	4452	7405
Skin	2233	1456
Female Genital Organs		16700
Female Breast		9674
Unspecified organs	8324	8550
Total	35,224	65,340

Showing the Cancer Mortality per Million of Population in 1908, and at the End of the Century if the Present Rate of Increase Continues

	1904		*1908—Increase*	*2000*
California	920	(1906)	1042—13.0%	15600
Indiana	504		647—29.0%	11650
Maine	863		964—11.6%	6750
Massachusetts	880		937— 6.5%	3730
Michigan	674		729— 8.1%	3640
New Hampshire	804		873—11.0%	5760
New Jersey	576		673—16.0%	6480
South Dakota	354	(1906)	462—30.0%	8310
Vermont	870		922— 6.0%	3320

POSSIBILITIES of RACE BETTERMENT

Increased Longevity.

Increased Efficiency through Avoidance of Disease.

Increased Height and Strength.

Freedom from Hereditary Defects and Taints.

Immunity from Disease.

The POSSIBLE ORIGIN of CORN

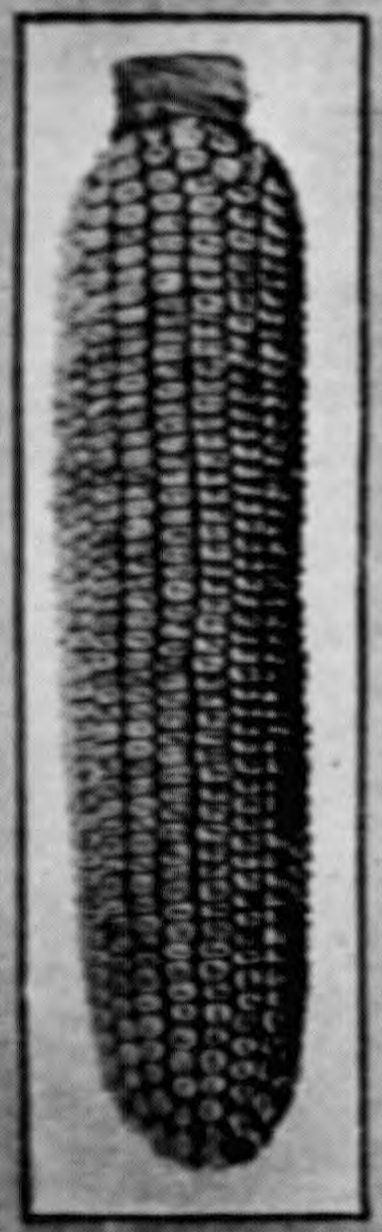
THE PLANT

THE EARS (NATURAL SIZE)

POD CORN (NATURAL SIZE)

AN EARLIER TYPE OF POD CORN

THE EARLY STAGES WERE PROBABLY SOMETHING LIKE THIS. BY SELECTION AND HYBRIDIZATION THEY HAVE BEEN IMPROVED TO MAKE THE MODERN VARIETIES



PRODUCT OF SCIENTIFIC PLANT BREEDING

TEOSINTE (EUCHLAENA MEXICANA), A GRASS FROM MEXICO. IT IS BELIEVED TO HAVE BEEN HYBRIDIZED WITH SOME GRASS (NOW EXTINCT) WHICH RESEMBLED THE POD CORN SHOWN ABOVE.

Methods of Race Betterment

Simple and Natural Habits of Life.

Out-of-Door Life Day and Night, Fresh-Air Schools, Playgrounds, Out-of-Door Gymnasiums, etc.

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of the

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BATTLE CREEK, MICHIGAN

JANUARY 2-6, 1928

THIRD RACE BETTERMENT CONFERENCE
1928

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JOHN SUNDWALL, PH.D., M.D., Professor of Hygiene and Public Health, University of Michigan

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FIELDING H. YOST, Professor of Physical Education, University of Michigan

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CENTRAL COMMITTEE

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VAUGHAN, DR. HENRY F., Commissioner of Health, City of Detroit, Mich.

Education

BARRON, MR. C. W., President The Wall Street Journal and Boston News Bureau, Boston, Mass.

BERRY, DR. CHARLES SCOTT, Professor of Educational Psychology, University of Michigan, Ann Arbor; Director of Special Education, Detroit Public Schools.

BRETT, MR. GEORGE P., President The Macmillan Company, New York City.

BUTTERFIELD, DR. KENYON L., President Michigan State College, Lansing.

CHARTERS, DR. W. W., Professor of Education, University of Chicago, Ill.

CROWELL, MR. MERLE, Editor The American Magazine, New York City.

DEAN, DR. BASHFORD, Metropolitan Museum of Art, New York City.

EDMONDSON, DR. J. B., Secretary North Central Association; Professor of Secondary Education, University of Michigan, Ann Arbor.

EVANS, DR. W. A., Professor of Hygiene, Northwestern University, Chicago Ill.; Editor and Writer "How to Keep Well" Department, Chicago Tribune

FARNAM, DR. HENRY W., Emeritus Professor of Economics, Yale University, New Haven, Conn.

FISHER, DR. IRVING, Professor of Political Economy, Yale University, New Haven, Conn.

FRANK, PRESIDENT GLENN, LITT.D., L.H.D., President University of Wisconsin, Madison.

HENDERSON, MRS. MARY F., Author of "The Aristocracy of Health," Washington, D. C.

HOLT, MR. BYRON W., Economist, New York City.

HOWARD, MR. ROY, Director Scripps-Howard Newspapers, New York City.

HUGHES, HON. J. A., House of Representatives, Washington, D. C.

JUDD, PROFESSOR CHARLES H., Director School of Education, University of Chicago, Ill.

KELLOGG, DR. VERNON, Permanent Secretary and Chairman, Division of Educational Relations, National Research Council, Washington, D. C.

MASON, MAX, PH.D., President University of Chicago, Ill.

MILLIKEN, MR. CARL E., Secretary Motion Picture Producers and Distributors of America, Inc., New York City.

O'SHEA, PROFESSOR M. V., Head of the Department of Education, University of Wisconsin, Madison.

O'SHEA, DR. WILLIAM J., Superintendent of Schools, New York City.

PATTERSON, MR. GROVE, Editor The Toledo Blade, Toledo, O.

PHILLIPS, MR. JOHN S., Editor, New York City.

SCOTT, WALTER DILL, PH.D., President Northwestern University, Chicago, Ill.

SISSON, MR. FRANCIS H., National Community Foundation; Vice-President Guaranty Trust Company, New York City.

SLOSSON, DR. EDWIN E., Director Science Service, Inc., Washington, D. C.

TARBELL, MISS IDA, Writer, New York City.

WILEY, DR. HARVEY W., Director Bureau of Foods, Sanitation and Health, Good Housekeeping Magazine, Washington, D. C.

WOODS, MR. WILLIAM SEAVER, Editor The Literary Digest, New York City.

Physical Education

IRELAND, MAJOR-GENERAL M. W., Surgeon-General United States Army, Washington, D. C.

STAGG, DR. A. A., Professor and Director Department of Physical Culture and Athletics, University of Chicago, Ill.

SUNDWALL, DR. JOHN, Professor of Hygiene and Public Health, University of Michigan, Ann Arbor.

YOST, FIELDING H., Professor of Physical Education, University of Michigan, Ann Arbor.

Nutrition

CHITTENDEN, PROFESSOR RUSSELL H., Director Emeritus Sheffield Scientific School, Yale University, New Haven, Conn.

HINDHEDE, DR. M., Director Laboratory for Nutrition Research, Copenhagen, Denmark.

MCCOLLUM, DR. E. V., Professor of Biochemistry, School of Hygiene and Public Health, Johns Hopkins University, Baltimore, Md.

NEWBURGH, DR. LOUIS H., Professor of Clinical Investigation, Department of Internal Medicine, University of Michigan, Ann Arbor.

ROSE, DR. MARY SWARTZ, Professor of Nutrition, Teachers' College, Columbia University, New York City.

STEENBOCK, DR. HENRY, Professor of Agricultural Chemistry, University of Wisconsin, Madison.

Outline of Program

of ["The releases from pain and fatigue, the accessions of strength, the control over this and that embarrassing function or ent ngling weakness, that science could afford even now."—*H. G. Wells.*] the

Third Race Betterment Conference

which will bring together the scientist with the educationist, and both with the press and with the public, in an effort to bridge the gulf that now exists between the expert and the average man, and to release in behalf of everyone some of the expert's knowledge of factors that make for health, long life and well-being.

By Emily Frances Robbins

A "GREAT variety of beautiful happinesses" awaits the application of science to everyday living, says H. G. Wells, one of the world's ablest analysts of social problems and progress. There is no inexorable necessity for any sustained human unhappiness, he believes. He observes, however, that "it is remarkable how little people heed the things that medical and physiological and psychological sciences are saying to them."

But these things come to them "only through a haze of distortion, caricatured until they have lost all practical significance, disguised as the foolish fancies of a race of oddly gifted eccentrics," he says.

To introduce the work of the scientist directly—and thus to present it without the distortion that Mr. Wells deplores—not only to the layman, but to the medical and to the educational man with whom the layman comes more directly into contact in everyday living, is the purpose of the Third Race Betterment Conference to be held January 2 to 6, 1928, at Battle Creek, Michigan, the Battle Creek Sanitarium acting as host for the delegates and Dr. C. C. Little, President of the University of Michigan, acting as President of the Conference and thus heading the central committee of scientists, medical and educational men, editors, writers, philanthropists and interested laymen, who have entered into this effort to release for wider and more general application biological, sociological, physiological, bacteriological, chemical, knowledge so vital to the optimum of health and well-being, and now so successfully concealed in the hands of the scientist.

Eugenics

President Little, formerly assistant director of the Station for Experimental Evolution of the Carnegie Institution of Washington and Chairman of the Executive Committee of the Second International Congress of Eugenics, will explain the importance of eugenics in any effort to increase the average length of life, and the sociological and biological value of such increase.

Dr. C. B. Davenport, Director of the Eugenics Record Office of the Carnegie Institution of Washington, will bring to the meeting the results of studies made in his office of heredity as a factor in health and in the determination of how long we live. M. F. Guyer, Professor of Zoology at the University of Wisconsin, will tell the story of his experiments in modifying the germ plasm.

Edward Alsworth Ross, Professor of Sociology at the University of Wisconsin, will show how the differential birthrate is influencing American racial quality, and is a factor to consider in race degeneracy. Hon. Albert Johnson, Chairman of the Committee on Immigration of the House of Representatives, will furnish interesting information on the rôle of immigration

in the national birth rate. Dr. H. H. Laughlin, Assistant Director of the Eugenics Record Office, will show the influence of immigration on American health, and Dr. Harry E. Hull, Commissioner General of Immigration, will present a special study made by his Bureau.

Mr. Albert Edward Wiggam, author of "The New Decalogue of Science," "The Fruit of the Family Tree," and "The Next Age of Man," and famed for his talents as a public speaker, will contribute to the eugenics program. Other important contributions on the subject of eugenics will be presented at the Conference, including a study by Dr. Aldred Scott Warthin, Director of the Pathological Laboratory of the University of Michigan, who will formulate a biologic philosophy of life or religion as a necessary foundation for race betterment.

Related to the eugenics program will be a special contribution by Judge Harry Olson, of the Municipal Court in Chicago—the psychiatric laboratory of which court serves as a model for such laboratories the world over—on the subject of crime as a medical and a biological problem; also by Dr. William J. Hickson, psychiatric expert of the Court and the man who has developed the famous system of mental tests now employed in the Court laboratory. Doctor Hickson, who has a rare background of study and experience in both this country and abroad—he was one of the leading experts in the famous "Leopold and Loeb" examination — will explain to the Conference members some of the characteristics of the criminal in everyday life.

The Conference is to have, in addition, an address by Judge Ruth Thompson, of the Muskegon County Probate Court, whose story of her unique experiences as a woman judge in the Juvenile Court will be fascinating and suggestive.

Special Speakers

THE GOVERNOR OF MICHIGAN, Hon. Fred W. Green, who is nationally conspicuous for his broad and intelligent interest in matters of health and public welfare, will be present and address the Conference assembly.

DR. GLENN FRANK, President of the University of Wisconsin, one of the country's most eloquent and stirring public speakers, will address the Conference on the power of man to determine his own destiny.

DR. ALEXIS CARREL, of the Rockefeller Institue for Medical Research, will bring to the Conference a report of one of the most astonishing and significant experiments ever conducted in a scientific laboratory. It is rare indeed that Doctor Carrel is able to leave the direct supervision of his many investigations and to attend a scientific meeting. The Conference will be particularly fortunate in that Doctor Carrel will not only attend, but will personally explain by what methods he has kept alive and growing outside of the body for sixteen years the tissue of a chicken's heart, besides which he will bring a motion picture actually showing the growing of this tissue, and other films on cell growth that it will be a unique privilege to see.

THE SECRETARY OF LABOR AT WASHINGTON, Hon. J. J. Davis, will be one of the Conference's especially distinguished speakers. He will tell of the results that are being, and that may be, attained by the application of science to industry and labor.

Are Americans Growing Healthier?

Mr. William M. Steuart of the Bureau of Census, who cannot personally attend the Conference on account of the necessity of being in Europe at the time, will however send a statistical expert from his bureau with a special study on the present situation in America with regard to health. The diseases in which we are gaining ground, and those against which greater effort will be needed if we are to increase the life span in its most efficient and productive years, will be differentiated in the study, and the way made clear for the placing of emphasis in future health work. Irving Fisher, Professor of Political Economy at Yale University, will show how life has lengthened, on the average, with the progress of science, and will point to the possibilities of extending the average life span to one hundred years and even longer by the application of science to the everyday habits of living. James W. Glover, Professor of Mathematics and Insurance at the University of Michigan, will present a study on mortality rates, and point the way to constructive effort in their reduction.

Physiology

The program on physiology is to be one of the most important features of the Conference. Dr. Anton J. Carlson, Chairman of the Department of Physiology at the University of Chicago, will give a summary of what is known at the present time of physiological requirements. Dr. Andrew Conway Ivy, Head of the Division of Physiology and Pharmacology of the Northwestern University Medical School, will explain some of the mechanisms of normal digestion and their significance. Dr. William Alfred Sawyer, who has charge of the remarkable health work at the great Eastman plant in Rochester, will present an outline of a practical scheme for the application of physiology to our living habits.

Bacteriology

Not less important will be that part of the scientific program dealing with bacteriology, which will be headed by Dr. Arthur I. Kendall, Dean of Biology at the Northwestern University Medical School, one of the constructive leaders in biology in this country, and credited with over

one hundred and fifty contributions to bacteriological science. Doctor Kendall will tell the story of man's battle with his internal flora, and of the rôle that bacteria play in the maintenance of health and the promotion of longevity. What infection does to shorten life will be explained by E. O. Jordan, Ph.D., Chairman of the Department of Hygiene and Bacteriology of the University of Chicago.

Nutrition and Chemistry

Several of the country's most noted scientific authorities on the subject of nutrition will be brought together by the Conference in an important program. Where we stand now in our knowledge of nutrition will be explained by Dr. E. V. McCollum, of the School of Hygiene and Public Health of Johns Hopkins University, the man who has made the world's most famous researches with respect to vitamins. Dr. Louis H. Newburgh, of the University Hospital at the University of Michigan, will report the results of his recent nutritional researches in relation to nephritis and to obesity. These important and suggestive reports will appear in their first printed form in the Proceedings of the Conference. Dr. Mary Swartz Rose, the well-known nutrition expert at Teachers' College, Columbia University, will present, for the Proceedings, suggestions for dealing with the practical home nutritional problem.

Doctor Hindhede, the famous nutrition expert of Copenhagen, Denmark, whose application, during the World War, of scientific principles of feeding actually reduced the mortality rate during one of the most intense periods of national hardship and distress, will be one of the honor guests of the Conference. Doctor Hindhede is bringing special slides to illustrate some of his scientific discoveries and his methods of practical application.

Mr. Charles Holmes Herty, Advisor to The Chemical Foundation, Inc., will point out the ultimate mission of chemistry, and suggest ways and means by which it may be employed in the service of health.

A unique and extremely popular feature of the nutrition program will be the presentation by Mrs. Carl Akeley—who accompanied her late husband on his famous Central African explorations—of suggestive data on the life and habits of the gorilla, together with a film taken in the gorilla's country and showing the animal in its native habitat.

Dr. Frederick L. Hoffman, Consulting Statistician for the Prudential Insurance Company of America, will trace the health progress of the North American Indian.

Public Hygiene

One of the valuable features of the Conference will be symposiums by State and City Health Commissioners. Dr. Guy L. Kiefer, Health Commissioner for the State of Michigan, will analyze the rôle of the state in the reduction of degenerative disease. Dr. Oscar Dowling, Secretary of the Louisiana Health Board, will show how some practical problems in public and individual health are met in his state. Dr. Herman Bundesen, City Health Commissioner of Chicago, and President of the American Public Health Association, will show the advisability of adding life to the years, as well as years to life. Dr. Louis I. Harris, Health Commissioner of New York City, will show how visions in public health service may be made effective. Dr. Henry F. Vaughan, whose work as City Health Commissioner of Detroit has set a high mark for health officers for the entire country, will address the Conference on practical problems relating to the health administration of a great city.

A highly interesting feature will be an address by Dr. A. T. McCormack, the genial secretary of the State Board of Health of Kentucky, one of the country's most inspiring speakers on public health questions. The Kentucky State Board of Health will also be represented at the Conference by Dr. Lillian South and Doctor Breckenridge.

The rural health problem and its solution will be explained by Mr. John A. Kingsbury, Secretary of the Milbank Memorial Fund, from the valuable experience of the Fund's "health demonstration" made within one of the rural counties of New York State. Dr. Haven Emerson, Professor of Public Health Administration and Director of the De Lamar Institute of Public Health, at Columbia University, will contribute to the Proceedings a valuable paper reviewing his experience and discoveries.

Physical Education

Body building is the subject of an address to be given by Major-General M. W. Ireland, Surgeon-General of the United States Army, in leading off the program of physical education. Dr. John Sundwall, Professor of Hygiene and Public Health at the University of Michigan, will tell what physical education should contribute to race betterment. Fortunately the Conference is to have Professor Fielding H. Yost and Professor A. A. Stagg, two famous coaches, to contribute also to the physical education symposium. The Naval Academy at Annapolis will have an important place in this part of the program, and special demonstrations of the Academy régime have been arranged for. Athletic events, gala demonstrations of physical attainment, will be part of the entertainment program of the Conference, as well as part of the educational.

Personal Hygiene

Perhaps the most important feature of the personal hygiene program will be the ever-fascinating subject of sunlight, with films and dem-

onstrations, and with models and organization plans for sunlight playgrounds. The most authoritative physicists and medical men are being invited to make this part of the program a unique feature of interest to every parent, as well as to every medical man, educator and progressive public-health administrator the country over.

Those of the Conference who are interested in the relation of personal habits to health and well-being will have the opportunity to attend special sectional meetings, which will be arranged on alcohol, tobacco, drugs, and other subjects that have aroused wide public discussion. The subjects will be treated in a broad, popular way, and some of the most able and interesting speakers available in the country are being invited to participate. Dr. Alexander Lambert, Ex-President of the American Medical Association, President of the Committee of Fifty to Study Tobacco and the well-known authority on drug addiction, will make a special report.

Men, Women and Children

A special feature of the child hygiene program will be an address by Dr. Paul M. Butterfield, Chief of the Children's Urological Clinic of New York Hospital, New York City, whose recognition in infants and in children of pathological conditions that had previously been discernible only when the patient became adult, with the development of diagnostic facilities for the purpose, has been one of the most conspicuous urological accomplishments of the past few years. Miss Grace Abbott, Chief of the Children's Bureau of the United States Department of Labor, will speak on the subject of child care, and Miss Mary Anderson, Director of the Women's Bureau of the same Department will explain the work of her Bureau in protecting women's health.

At the First Race Betterment Conference, so popular were the sessions for "Women Only" and for "Men Only" that similar sessions will be arranged during the forthcoming Conference, with a selected program on social hygiene.

Degenerative Diseases

Particular emphasis will be placed, at the Conference, on ways and means of reducing those so-called degenerative diseases that are now making apparently increasing inroads into the years of middle and late life. The rôle of heredity in cancer will be explained by Dr. Maud Slye, of the University of Chicago. New discoveries facilitating diagnosis of cancer will be presented by Dr. George N. Papanicalaou of the Cornell University Medical School. Preventive measures in heart disease will be explained by the well-known heart specialist, Dr. Louis Faugeres Bishop of Fordham University. New information on kidney disease will be presented by Dr. Louis H. Newburgh from his nutrition investigations. What urology has done and can do in lengthening life will be shown by Dr. Oswald L. Lowsley, Director of the James Buchanan Brady Foundation for Urology of the New York Hospital. Insanity will also be considered. Various other experts will present suggestions for preventive and curative measures in other diseases against which there is apparent need of more intensive concentration of all the forces of knowledge that science can marshal.

Medical Educational

An effort to widen the doctor's educational opportunities will be described by Dr. Franklin H. Martin, Director General of the American College of Surgeons and Director of the Gorgas Memorial Institute. Dr. Martin is now recognized as the most distinguished medical organizer of the United States, having formerly headed the medical committee of the Council of National Defense, and ably directed the correlation of medical science with the military during the World War. Dr. George David Stewart, President of the American College of Surgeons and Professor of Surgery at Bellevue Hospital, New York City, will describe the efforts made by the medical profession to better itself.

The School and the Press in the Service of Science

A recent editorial in the *New York Times* spoke of science as dumb, as lacking a mouthpiece, a spokesman, to broadcast its discoveries and thus to serve the world. The main purpose of the Third Race Betterment Conference will be to render to science a broadcasting service, and to enlist other agencies to serve in the same way.

Dr. Vernon Kellogg, Permanent Secretary and Chairman of Educational Relations of the National Research Council, will present a report of special investigations on the part of his council. Professor Charles H. Judd, Director of the School of Education in the University of Chicago, will speak on the rôle of education in lengthening life, and Professor W. W. Charters, Professor of Education at the University of Chicago, will show the value of a cross-fertilization of ideas between the scientist and the educationist. Professor M. V. O'Shea, Director of the Department of Education at the University of Wisconsin, will describe newer values that are arising in education. Dr. William J. O'Shea, Superintendent of Schools for the City of New York, will be unable to attend the Conference personally, but will send a representative with a valuable contribution from the experience of the largest city educational system of the world. Dr. W. A. Evans, Professor of Hygiene at Northwestern University and Editor of the "How to Keep Well" Department of the *Chicago Tribune*, will show the importance of the newspaper in health education. Dr. Harvey W. Wiley, whose national service in the elimination of the patent medicine traffic can hardly be over-

estimated, will call attention to the deleterious effect of certain commercial advertisements on the education of youth.

Mr. Carl E. Milliken, Secretary of the Motion Picture Producers and Distributors of America, Inc., will contribute to the symposium the story of the motion picture in the furtherance of scientific education, and will give a concrete illustration in the showing of unique scientific films. Dr. Charles Scott Berry, of the University of Michigan and the Detroit Board of Education, will explain special methods in use in the training of handicapped children.

Motion Pictures and Exhibits

Supplementing the addresses, at the Conference, and as an important element in its educational program, will be the presentation of a special and unique selection of foreign and domestic motion pictures, some of which were made by a director who is probably the world's greatest master at scientific films.

These films will be contributed by the Rockefeller Institute for Medical Research, the Rockefeller Foundation, the United States Department of Labor, the Battle Creek Sanitarium, and by individual members of the Conference as mentioned above. The films will represent the cream of a large and little known collection of extraordinary and fascinating productions.

Special popular exhibits relating to public and to individual hygiene also will be displayed.

How the Program Will Be Arranged

The first day of the Conference will be Monday, January 2, 1928, but that day will be largely devoted to sociability, to films, and to a banquet in the evening. Members are urged to arrive not later than Monday morning, in order to have the proper rest before the meetings and to avail themselves of the opportunity for acquaintanceship.

The meetings will begin in earnest Tuesday morning, January 3. An effort will be made to arrange the overlapping sectional meetings partly seriatim, so that every possible hour of the program will be accessible to every one.

Films, entertainment and athletic events will be interspersed to relieve the strain of meetings, the programs of which will consist largely, however, of carefully prepared, condensed, and popular versions of the more detailed papers to appear in the Proceedings. A special effort will be made to give each member the opportunity for maximum access to the material presented at the Conference with the minimum of strain and effort.

Friday, the last day of the Conference, will be devoted very largely to informal discussion and to recreation.

The Conference as an Opportunity for Personal Profit

The Battle Creek Sanitarium's very ample facilities, which have been put at the disposal of the Conference by the management, both for individual housing and for entertainment, enable the members to come together under the same roof not only during meeting times but during social hours, and experience with previous Conferences has shown that such social opportunity is one of the most educational and profitable features of the occasion.

Full Report of the Conference

A complete report of all addresses, and of all formal papers, whether read in full at the Conference or read by title, will be printed in Proceedings of the Conference. These Proceedings will be of inestimable value as representing a serious effort to give a new impetus to the dissemination of undistorted scientific information direct to the teacher and to the layman.

The Proceedings will be distributed at the nominal price of two dollars ($2.00), to cover the bare cost of printing and mailing, and may be obtained by sending a check or money order to—

Executive Secretary,
Third Race Betterment Conference,
Battle Creek, Michigan.

The Third Race Betterment Conference

To be held at

BATTLE CREEK, MICHIGAN

JANUARY
2 to 6, 1928

Headquarters at the

Battle Creek Sanitarium

Under the Auspices of the

RACE BETTERMENT FOUNDATION

Battle Creek, Michigan

The Third Race Betterment Conference

JANUARY 2ND TO 6TH, INCLUSIVE, 1928

BATTLE CREEK, MICHIGAN

OFFICERS

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C. C. LITTLE, D.Sc.
President of the University of Michigan,
Ann Arbor, Mich.

Executive Secretary—

MISS EMILY F. ROBBINS
Battle Creek, Michigan.

Treasurer—

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Battle Creek, Mich.

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Announcement

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*Reprinted from Good Health, December, 1927.

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Dr. E. M. East, Professor of Genetics, Harvard University, will speak on "The Genetic Basis of Eugenics." Dr. Oscar Riddle, of the Carnegie Institution of Washington, will speak on "The Control of Heredity." Dr. Aldred Scott Warthin, Director of the Pathological Laboratory of the University of Michigan, will formulate a biologic philosophy of life or religion as a necessary foundation for race betterment.

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searches with respect to vitamins. Dr. Louis H. Newburgh, of the University of Michigan, will report the results of his recent researches on the effects of diets rich in protein. Dr. Mary Swartz Rose, the well-known nutrition expert at Teachers' College, Columbia University, will present, for the Proceedings, suggestions for dealing with the practical home nutritional problem.

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Dr. S. Adolphus Knopf, one of the country's most prominent authorities on tuberculosis, will speak on the alarming increase in tuberculosis among young women, due to insufficient nutrition.

Mr. Charles Holmes Herty, Advisor to The Chemical Foundation, Inc., will point out the ultimate mission of chemistry, and suggest ways and means by which it may be employed in the service of health.

A unique and extremely popular feature of the nutrition program will be the presentation by Mrs. Carl Akeley—who accompanied her late husband on his famous Central African explorations—of suggestive data on the life and habits of the gorilla, together with a film taken in the gorilla's country and showing the animal in its native habitat.

Dr. Frederick L. Hoffman, Consulting Statistician for the Prudential Insurance Company of America, will trace the health progress of the North American Indian.

Public Hygiene

One of the valuable features of the Conference will be symposiums by State and City Health Commissioners. Dr. Guy L. Kiefer, Health Commissioner for the State of Michigan, will analyze the rôle of the state in the reduction of degenerative disease. Dr. Oscar Dowling, President State of Louisiana Department of Health, will show how some practical problems in public and individual health are met in his state. Dr. Herman Bundesen, President of the American Pub-

lic Health Association, will show the advisability of adding life to the years, as well as years to life. Dr. Louis I. Harris, Health Commissioner of New York City, will show how visions in public Health Service may be made effective. Dr. Henry F. Vaughan, whose work as City Health Commissioner of Detroit has set a high mark for health officers for the entire country, will address the Conference on practical problems relating to the health administration of a great city.

A highly interesting feature will be an address by Dr. A. T. McCormack, the genial Secretary of the State Board of Health of Kentucky, one of the country's most inspiring speakers on public health questions.

The rural health problem and its solution will be explained by Mr. John A. Kingsbury, Secretary of the Milbank Memorial Fund, from the valuable experience of the Fund's "health demonstration" made within one of the rural counties of New York State. Dr. Haven Emerson, Professor of Public Health Administration and Director of the De Lamar Institute of Public Health, at Columbia University, will contribute to the Proceedings a valuable paper on public health.

Physical Education

Dr. John Sundwall, Professor of Hygiene and Public Health at the University of Michigan, will tell what physical education should contribute to race betterment. Professor Fielding H. Yost, the famous coach, will also contribute to the physical education symposium.

The Naval Academy at Annapolis will have an important place in this part of the program. Athletic events, gala demonstrations of physical attainment, will be part of the entertainment program of the Conference, as well as part of the educational.

Personal Hygiene

Perhaps the most important feature of the personal hygiene program will be the ever-fascinating subject of sunlight, with films and demonstrations. The most authoritative physicists and medical men are being invited to make this part of the program a unique feature of interest to every parent, as well as to every medical man, educator and progressive public-health administrator the country over.

Those of the Conference who are interested in the relation of personal habits to health and well-being will have the opportunity to attend special sectional meetings, which will be arranged on alcohol, tobacco, drugs, and other subjects that have aroused wide public discussion. The subjects will be treated in a broad, popular way, and some of the most able and interesting speakers available in the country are being invited to participate. Dr. Alexander Lambert, Ex-President of the American Medical Association, President of the Committee of Fifty to Study Tobacco and the well-known authority on drug addiction, will make a report.

Men, Women and Children

A special feature of the child hygiene program will be an address by Dr. Paul M. Butterfield, Chief of the Children's Urological Clinic of New York Hospital, New York City, whose recognition in infants and in children of pathological conditions that had previously been discernible only when the patient became adult, with the development of diagnostic facilities for the purpose, has been one of the most conspicuous urological accomplishments of the past few years. Miss Grace Abbott, Chief of the Children's Bureau of the United States Department of Labor, will speak on the subject of child care, and Miss Mary Anderson, Director of the Women's Bureau of the same department, will explain the work of her Bureau in protecting women's health. Dr. Samuel J. Crumbine, General Executive of the American Child Health Association, will present a paper on "Has Maternal Mortality any Significance in Race Deterioration?"

At the First Race Betterment Conference, so popular were the sessions for "Women Only" and for "Men Only" that similar sessions will be arranged during the forthcoming Conference, with a selected program on social hygiene.

Degenerative Diseases

Particular emphasis will be placed, at the Conference, on ways and means of reducing those so-called degenerative diseases that are now making apparently increasing inroads into the years of middle and late life. The rôle of heredity in cancer will be explained by Dr. Maud Slye, of the University of Chicago. New discoveries facilitating diagnosis of cancer will be presented by Dr. George N. Papanicalaou of the Cornell Uni-

versity Medical School. Preventive measures in heart disease will be explained by the well-known heart specialist, Dr. Louis Faugeres Bishop of Fordham University. New information on kidney disease will be presented by Dr. Louis H. Newburgh from his nutrition investigations. What urology has done and can do in lengthening life will be shown by Dr. Oswald L. Lowsley, Director of the James Buchanan Brady Foundation for Urology of the New York Hospital. Insanity will also be considered. Various other experts will present suggestions for preventive and curative measures in other diseases against which there is apparent need of more intensive concentration of all the forces of knowledge that science can marshal.

Medical Educational

An effort to widen the doctor's educational opportunities will be described by Dr. Franklin H. Martin, Director General of the American College of Surgeons and President of the Gorgas Memorial Institute. Dr. Martin is now recognized as the most distinguished medical organizer of the United States, having formerly headed the medical committee of the Council of National Defense, and ably directed the correlation of medical science with the military during the World War. Dr. George David Stewart, President of the American College of Surgeons and Professor of Surgery at Bellevue Hospital, New York City, will describe the efforts made by the medical profession to better itself. Dr. Eugene Lyman Fisk, Medical Director of the Life Extension Institute, Inc., will show the possible scope of the periodic health examination. Dr. George W. Crile of the Cleveland Clinic will offer an address on the "Rôle of the Surgeon in Lengthening Life."

The School and the Press in the Service of Science

A recent editorial in the *New York Times* spoke of science as dumb, as lacking a mouthpiece, a spokesman, to broadcast its discoveries and thus to serve the world. The main purpose of the Third Race Betterment Conference will be to render to science a broadcasting service, and to enlist other agencies to serve in the same way.

Professor M. V. O'Shea, Director of the Department of Education at the University of Wisconsin, will describe newer values that are

arising in education. Dr. William J. O'Shea, Superintendent of Schools for the City of New York, will be unable to attend the Conference personally, but will send a representative with a valuable contribution from the experience of the largest city educational system of the world. Dr. W. A. Evans, Professor of Hygiene at Northwestern University and Editor of the "How to Keep Well" Department of the *Chicago Tribune*, will show the importance of popular education in the prevention of disease. Dr. Harvey W. Wiley, whose national service in the elimination of the patent medicine traffic can hardly be overestimated, will call attention to the deleterious effect of certain commercial advertisements on the education of youth.

Mr. Carl E. Milliken, Secretary of the Motion Picture Producers and Distributors of America, Inc., will contribute to the symposium the story of the motion picture in the furtherance of scientific education, and will give a concrete illustration in the showing of unique scientific films. Dr. Charles Scott Berry, of the University of Michigan and the Detroit Board of Education, will explain special methods in use in the training of handicapped children.

Motion Pictures and Exhibits

Supplementing the addresses, at the Conference, and as an important element in its educational program, will be the presentation of a special and unique selection of foreign and domestic motion pictures, some of which were made by a director who is probably the world's greatest master at scientific films.

These films will be contributed by the Rockefeller Institute for Medical Research, the Rockefeller Foundation, the United States Department of Labor, the Battle Creek Sanitarium, and by individual members of the Conference as mentioned above. The films will represent the cream of a large and little known collection of extraordinary and fascinating productions.

Special popular exhibits relating to public and to individual hygiene also will be displayed.

How the Program Will Be Arranged

The first day of the Conference will be Monday, January 2, 1928, but that day will be largely devoted to sociability, to films, and to a banquet

in the evening. Members are urged to arrive not later than Monday morning, in order to have the proper rest before the meetings and to avail themselves of the opportunity for acquaintanceship.

The meetings will begin in earnest Tuesday morning, January 3. An effort will be made to arrange the overlapping sectional meetings partly seriatim, so that every possible hour of the program will be accessible to every one.

Films, entertainment and athletic events will be interspersed to relieve the strain of meetings, the programs of which will consist largely, however, of carefully prepared, condensed, and popular versions of the more detailed papers to appear in the Proceedings. A special effort will be made to give each member the opportunity for maximum access to the material presented at the Conference with the minimum of effort.

Friday, January 6th, the last day of the Conference, will be devoted very largely to informal discussion and to recreation.

The Conference as an Opportunity for Personal Profit

The Battle Creek Sanitarium's very ample facilities, which have been put at the disposal of the Conference by the management, enable the members to come together under the same roof not only during meeting times but during social hours, and experience with previous Conferences has shown that such social opportunity is one of the most educational and profitable features of the occasion. The Sanitarium is entertaining Official Delegates and Speakers without cost, and is making a fifty per cent reduction in its rates for all Non-Official members during the Conference.

Reduced Railroad Rates

Conference members are entitled to excursion rates on the railroad for any fares of 67 cents or more, provided a total of 250 members call for them.

Ask your Station Master for a CERTIFICATE when you buy your ticket. When you arrive at the Conference, submit your certificate to the Executive Secretary for endorsement, showing that you are a Conference member, and this endorsed certificate will entitle you to a reduction to one-half in the cost of your return fare.

If your railroad station does not carry the certificates, the Station Master will inform you at what station the certificate may be obtained. You should then buy your ticket to that station, and from there purchase your through ticket and ask for your certificate.

No reduced fare will be allowed if you fail to obtain a proper certificate when purchasing going ticket.

The Final Printed Program

Anyone interested in the program of the Conference and unable to attend will be sent a copy of the final printed program upon request.

Full Report of the Conference

A complete report of all addresses, and of all formal papers, whether read in full at the Conference or read by title, will be printed in Proceedings of the Conference. These Proceedings will be of inestimable value as representing a serious effort to give a new impetus to the dissemination of undistorted scientific information.

The Proceedings of the Conference will be volumes of unique and extraordinary interest. They will be distributed at the nominal price of two dollars ($2.00), to cover the bare cost of printing and mailing, and may be obtained by filling out the coupon provided on the last page of this Announcement.

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MISS EMILY F. ROBBINS, Exec. Sec.,
Third Race Betterment Conference,
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Noted Scientists To Lecture Here

Will Attend Fourth Conference Of Race Betterment Foundation in 1942.

Some 150 leading scientists of the United States and Canada will come to Battle Creek next summer to attend the fourth conference of the Race Betterment Foundation, an event tentatively scheduled for the fourth week in June.

The Foundation, founded by Dr. John Harvey Kellogg in 1914 for the study of eugenics, genetics and biologic living, has sponsored three international conferences, two of which were held in Battle Creek in 1914 and 1927, and the other at the San Francisco Exposition in 1915.

Such well-known scientists as Dr. Will Durant, the philosopher; Dr. H. C. Sherman, the nutritionist; Dr. A. E. Wiggam, the eugenist; Dr. E. A. Hooton, the anthropologist; Dr. Alexis Carrel, the medical scientist; Dr. Paul Poponoe, the family relations expert, and Lewis Lawes, the criminologist, will attend and give lectures which will be open to the public.

The conference will be divided into 11 round tables, with sections on human genetics, physical defects, mate selection, fertility, longevity, exercise and fatigue, nutrition, mental deviation, phychoses, crime and physical education.

The themes will be discussed in the light of the present emergency period for democratic peoples, and will be aimed at the development of a better race for the post-war days.

Alonzo L. Baker, field secretary of the Foundation, who will serve as executive secretary of the conference, returned to Battle Creek Sunday from New York City where he conferred with Dr. Charles B. Davenport, world famous biologist, who is chairman of a committee in charge of arrangements for the conference program.

The participants in the conference will be housed in the Sanitarium and conference sessions will be held in the Battle Creek college library building.

One of the reasons for holding the conference in 1942, Mr. Baker said today, will be to honor Dr. Kellogg, who will celebrate his 90th birthday anniversary February 26.

Sept. 16/41

What the People Think About It—

Letters to What the People Think About It should be brief (seldom above 300 words). Name and address of the writer must accompany all letters, but will not be published without his consent. The Enquirer and News reserves the right to condense.

Schools' Financial Plight Stirs Wonder

Editor, Enquirer and News:

Having lived in Battle Creek but two years, I have not yet gotten over my utter astonishment at the muddled mess the educational system of the city is always in financially. The indigent state of the public schools seems to be a perennial affair in our otherwise splendid city. Almost every time the board of education meets I note your paper has to record the fact that they must borrow $100,000 or so to keep them afloat for a few more weeks. Insolvency and near-bankruptcy seem to be chronic with our city school system. To the newcomer it would seem there is either gross mismanagement, or public apathy and indifference, or both, in the entire setup here.

How can any community call itself modern and progressive which goes on year after year with its school system running on two or three financially flat tires?

Why boast of army forts, busy air fields, and booming factories, when our school system has pernicious anemia?

Does Battle Creek regard its public school system as a poor relative, endured but not welcomed? Are we so niggardly and pinchpenny in our school finances that we merely tolerate education, and altogether fail in enthusiastic and adequate support?

Perhaps the difficulty lies in one, or in a combination of two or more, of the seven following factors:

(1) Poor business management of our schools. Do our school administrators fall down in administration, so that the budget is never balanced? If so, then we should resolutely and straightway clean house of all responsible for the poor business status.

(2) Poor planning and direction by board of education. If so, then the present board of education should be jettisoned and an entirely new board put in power.

(3) Tax limitation. Is the state law limiting the amount of assessable school taxes wholly to blame? If so, then Battle Creek is not the only community thus embarrassed and curtailed in educational matters. Why does not an aroused citizenry here combine with other suffering communities, and go on a rampaging political campaign which will do away with the limitation? A militant minority can always defeat a supine majority on election day.

(4) Is public apathy to blame? Then close up our schools when the money runs out this term, and let the children go schooliess for a few months. This will make lethargic parents and citizens snap out of their indifference in a hurry.

(5) Is our school system too expensive? Do we have too many frills and furbelows, too many expensive expansions of our curriculum? If so, simplify the curriculum, and find a pattern which will fit the amount of cloth in hand.

(6) Are school salaries too high? If so, reduce them. From comparison with my former state, California, however, I think the salaries here are very modest, and, in some cases, too low.

(7) Are there reactionary and overly-conservative blocs in Battle Creek who begrudge money spent on education of American youth, and who effectually hamper adequate financing? If so, smoke them out with publicity,—merciless and persistent publicity. Your paper can render a great service to the community in this regard, if the trouble, or any portion of it, can rightfully be blamed on reactionary groups.—Alonzo L. Baker.

Outline of Program

of ["The releases from pain and fatigue, the accessions of strength, the control over this and that embarrassing function or ent ngling weakness, that science could afford even now."—*H. G. Wells.*] the

Third Race Betterment Conference

which will bring together the scientist with the educationist, and both with the press and with the public, in an effort to bridge the gulf that now exists between the expert and the average man, and to release in behalf of everyone some of the expert's knowledge of factors that make for health, long life and well-being.

By Emily Frances Robbins

A "GREAT variety of beautiful happinesses" awaits the application of science to everyday living, says H. G. Wells, one of the world's ablest analysts of social problems and progress. There is no inexorable necessity for any sustained human unhappiness, he believes. He observes, however, that "it is remarkable how little people heed the things that medical and physiological and psychological sciences are saying to them."

But these things come to them "only through a haze of distortion, caricatured until they have lost all practical significance, disguised as the foolish fancies of a race of oddly gifted eccentrics," he says.

To introduce the work of the scientist directly—and thus to present it without the distortion that Mr. Wells deplores—not only to the layman, but to the medical and to the educational man with whom the layman comes more directly into contact in everyday living, is the purpose of the Third Race Betterment Conference to be held January 2 to 6, 1928, at Battle Creek, Michigan, the Battle Creek Sanitarium acting as host for the delegates and Dr. C. C. Little, President of the University of Michigan, acting as President of the Conference and thus heading the central committee of scientists, medical and educational men, editors, writers, philanthropists and interested laymen, who have entered into this effort to release for wider and more general application biological, sociological, physiological, bacteriological, chemical, knowledge so vital to the optimum of health and well-being, and now so successfully concealed in the hands of the scientist.

Eugenics

President Little, formerly assistant director of the Station for Experimental Evolution of the Carnegie Institution of Washington and Chairman of the Executive Committee of the Second International Congress of Eugenics, will explain the importance of eugenics in any effort to increase the average length of life, and the sociological and biological value of such increase.

Dr. C. B. Davenport, Director of the Eugenics Record Office of the Carnegie Institution of Washington, will bring to the meeting the results of studies made in his office of heredity as a factor in health and in the determination of how long we live. M. F. Guyer, Professor of Zoology at the University of Wisconsin, will tell the story of his experiments in modifying the germ plasm.

Edward Alsworth Ross, Professor of Sociology at the University of Wisconsin, will show how the differential birthrate is influencing American racial quality, and is a factor to consider in race degeneracy. Hon. Albert Johnson, Chairman of the Committee on Immigration of the House of Representatives, will furnish interesting information on the rôle of immigration

in the national birth rate. Dr. H. H. Laughlin, Assistant Director of the Eugenics Record Office, will show the influence of immigration on American health, and Dr. Harry E. Hull, Commissioner General of Immigration, will present a special study made by his Bureau.

Mr. Albert Edward Wiggam, author of "The New Decalogue of Science," "The Fruit of the Family Tree," and "The Next Age of Man," and famed for his talents as a public speaker, will contribute to the eugenics program. Other important contributions on the subject of eugenics will be presented at the Conference, including a study by Dr. Aldred Scott Warthin, Director of the Pathological Laboratory of the University of Michigan, who will formulate a biologic philosophy of life or religion as a necessary foundation for race betterment.

Related to the eugenics program will be a special contribution by Judge Harry Olson, of the Municipal Court in Chicago—the psychiatric laboratory of which court serves as a model for such laboratories the world over—on the subject of crime as a medical and a biological problem; also by Dr. William J. Hickson, psychiatric expert of the Court and the man who has developed the famous system of mental tests now employed in the Court laboratory. Doctor Hickson, who has a rare background of study and experience in both this country and abroad—he was one of the leading experts in the famous "Leopold and Loeb" examination — will explain to the Conference members some of the characteristics of the criminal in everyday life.

The Conference is to have, in addition, an address by Judge Ruth Thompson, of the Muskegon County Probate Court, whose story of her unique experiences as a woman judge in the Juvenile Court will be fascinating and suggestive.

Special Speakers

THE GOVERNOR OF MICHIGAN, Hon. Fred W. Green, who is nationally conspicuous for his broad and intelligent interest in matters of health and public welfare, will be present and address the Conference assembly.

DR. GLENN FRANK, President of the University of Wisconsin, one of the country's most eloquent and stirring public speakers, will address the Conference on the power of man to determine his own destiny.

DR. ALEXIS CARREL, of the Rockefeller Institue for Medical Research, will bring to the Conference a report of one of the most astonishing and significant experiments ever conducted in a scientific laboratory. It is rare indeed that Doctor Carrel is able to leave the direct supervision of his many investigations and to attend a scientific meeting. The Conference will be particularly fortunate in that Doctor Carrel will not only attend, but will personally explain by what methods he has kept alive and growing outside of the body for sixteen years the tissue of a chicken's heart, besides which he will bring a motion picture actually showing the growing of this tissue, and other films on cell growth that it will be a unique privilege to see.

THE SECRETARY OF LABOR AT WASHINGTON, Hon. J. J. Davis, will be one of the Conference's especially distinguished speakers. He will tell of the results that are being, and that may be, attained by the application of science to industry and labor.

Are Americans Growing Healthier?

Mr. William M. Steuart of the Bureau of Census, who cannot personally attend the Conference on account of the necessity of being in Europe at the time, will however send a statistical expert from his bureau with a special study on the present situation in America with regard to health. The diseases in which we are gaining ground, and those against which greater effort will be needed if we are to increase the life span in its most efficient and productive years, will be differentiated in the study, and the way made clear for the placing of emphasis in future health work. Irving Fisher, Professor of Political Economy at Yale University, will show how life has lengthened, on the average, with the progress of science, and will point to the possibilities of extending the average life span to one hundred years and even longer by the application of science to the everyday habits of living. James W. Glover, Professor of Mathematics and Insurance at the University of Michigan, will present a study on mortality rates, and point the way to constructive effort in their reduction.

Physiology

The program on physiology is to be one of the most important features of the Conference. Dr. Anton J. Carlson, Chairman of the Department of Physiology at the University of Chicago, will give a summary of what is known at the present time of physiological requirements. Dr. Andrew Conway Ivy, Head of the Division of Physiology and Pharmacology of the Northwestern University Medical School, will explain some of the mechanisms of normal digestion and their significance. Dr. William Alfred Sawyer, who has charge of the remarkable health work at the great Eastman plant in Rochester, will present an outline of a practical scheme for the application of physiology to our living habits.

Bacteriology

Not less important will be that part of the scientific program dealing with bacteriology, which will be headed by Dr. Arthur I. Kendall, Dean of Biology at the Northwestern University Medical School, one of the constructive leaders in biology in this country, and credited with over

one hundred and fifty contributions to bacteriological science. Doctor Kendall will tell the story of man's battle with his internal flora, and of the rôle that bacteria play in the maintenance of health and the promotion of longevity. What infection does to shorten life will be explained by E. O. Jordan, Ph.D., Chairman of the Department of Hygiene and Bacteriology of the University of Chicago.

Nutrition and Chemistry

Several of the country's most noted scientific authorities on the subject of nutrition will be brought together by the Conference in an important program. Where we stand now in our knowledge of nutrition will be explained by Dr. E. V. McCollum, of the School of Hygiene and Public Health of Johns Hopkins University, the man who has made the world's most famous researches with respect to vitamins. Dr. Louis H. Newburgh, of the University Hospital at the University of Michigan, will report the results of his recent nutritional researches in relation to nephritis and to obesity. These important and suggestive reports will appear in their first printed form in the Proceedings of the Conference. Dr. Mary Swartz Rose, the well-known nutrition expert at Teachers' College, Columbia University, will present, for the Proceedings, suggestions for dealing with the practical home nutritional problem.

Doctor Hindhede, the famous nutrition expert of Copenhagen, Denmark, whose application, during the World War, of scientific principles of feeding actually reduced the mortality rate during one of the most intense periods of national hardship and distress, will be one of the honor guests of the Conference. Doctor Hindhede is bringing special slides to illustrate some of his scientific discoveries and his methods of practical application.

Mr. Charles Holmes Herty, Advisor to The Chemical Foundation, Inc., will point out the ultimate mission of chemistry, and suggest ways and means by which it may be employed in the service of health.

A unique and extremely popular feature of the nutrition program will be the presentation by Mrs. Carl Akeley—who accompanied her late husband on his famous Central African explorations—of suggestive data on the life and habits of the gorilla, together with a film taken in the gorilla's country and showing the animal in its native habitat.

Dr. Frederick L. Hoffman, Consulting Statistician for the Prudential Insurance Company of America, will trace the health progress of the North American Indian.

Public Hygiene

One of the valuable features of the Conference will be symposiums by State and City Health Commissioners. Dr. Guy L. Kiefer, Health Commissioner for the State of Michigan, will analyze the rôle of the state in the reduction of degenerative disease. Dr. Oscar Dowling, Secretary of the Louisiana Health Board, will show how some practical problems in public and individual health are met in his state. Dr. Herman Bundesen, City Health Commissioner of Chicago, and President of the American Public Health Association, will show the advisability of adding life to the years, as well as years to life. Dr. Louis I. Harris, Health Commissioner of New York City, will show how visions in public health service may be made effective. Dr. Henry F. Vaughan, whose work as City Health Commissioner of Detroit has set a high mark for health officers for the entire country, will address the Conference on practical problems relating to the health administration of a great city.

A highly interesting feature will be an address by Dr. A. T. McCormack, the genial secretary of the State Board of Health of Kentucky, one of the country's most inspiring speakers on public health questions. The Kentucky State Board of Health will also be represented at the Conference by Dr. Lillian South and Doctor Breckenridge.

The rural health problem and its solution will be explained by Mr. John A. Kingsbury, Secretary of the Milbank Memorial Fund, from the valuable experience of the Fund's "health demonstration" made within one of the rural counties of New York State. Dr. Haven Emerson, Professor of Public Health Administration and Director of the De Lamar Institute of Public Health, at Columbia University, will contribute to the Proceedings a valuable paper reviewing his experience and discoveries.

Physical Education

Body building is the subject of an address to be given by Major-General M. W. Ireland, Surgeon-General of the United States Army, in leading off the program of physical education. Dr. John Sundwall, Professor of Hygiene and Public Health at the University of Michigan, will tell what physical education should contribute to race betterment. Fortunately the Conference is to have Professor Fielding H. Yost and Professor A. A. Stagg, two famous coaches, to contribute also to the physical education symposium. The Naval Academy at Annapolis will have an important place in this part of the program, and special demonstrations of the Academy *régime* have been arranged for. Athletic events, gala demonstrations of physical attainment, will be part of the entertainment program of the Conference, as well as part of the educational.

Personal Hygiene

Perhaps the most important feature of the personal hygiene program will be the ever-fascinating subject of sunlight, with films and dem-

onstrations, and with models and organization plans for sunlight playgrounds. The most authoritative physicists and medical men are being invited to make this part of the program a unique feature of interest to every parent, as well as to every medical man, educator and progressive public-health administrator the country over.

Those of the Conference who are interested in the relation of personal habits to health and well-being will have the opportunity to attend special sectional meetings, which will be arranged on alcohol, tobacco, drugs, and other subjects that have aroused wide public discussion. The subjects will be treated in a broad, popular way, and some of the most able and interesting speakers available in the country are being invited to participate. Dr. Alexander Lambert, Ex-President of the American Medical Association, President of the Committee of Fifty to Study Tobacco and the well-known authority on drug addiction, will make a special report.

Men, Women and Children

A special feature of the child hygiene program will be an address by Dr. Paul M. Butterfield, Chief of the Children's Urological Clinic of New York Hospital, New York City, whose recognition in infants and in children of pathological conditions that had previously been discernible only when the patient became adult, with the development of diagnostic facilities for the purpose, has been one of the most conspicuous urological accomplishments of the past few years. Miss Grace Abbott, Chief of the Children's Bureau of the United States Department of Labor, will speak on the subject of child care, and Miss Mary Anderson, Director of the Women's Bureau of the same Department will explain the work of her Bureau in protecting women's health.

At the First Race Betterment Conference, so popular were the sessions for "Women Only" and for "Men Only" that similar sessions will be arranged during the forthcoming Conference, with a selected program on social hygiene.

Degenerative Diseases

Particular emphasis will be placed, at the Conference, on ways and means of reducing those so-called degenerative diseases that are now making apparently increasing inroads into the years of middle and late life. The rôle of heredity in cancer will be explained by Dr. Maud Slye, of the University of Chicago. New discoveries facilitating diagnosis of cancer will be presented by Dr. George N. Papanicalaou of the Cornell University Medical School. Preventive measures in heart disease will be explained by the well-known heart specialist, Dr. Louis Faugeres Bishop of Fordham University. New information on kidney disease will be presented by Dr. Louis H. Newburgh from his nutrition investigations. What urology has done and can do in lengthening life will be shown by Dr. Oswald L. Lowsley, Director of the James Buchanan Brady Foundation for Urology of the New York Hospital. Insanity will also be considered. Various other experts will present suggestions for preventive and curative measures in other diseases against which there is apparent need of more intensive concentration of all the forces of knowledge that science can marshal.

Medical Educational

An effort to widen the doctor's educational opportunities will be described by Dr. Franklin H. Martin, Director General of the American College of Surgeons and Director of the Gorgas Memorial Institute. Dr. Martin is now recognized as the most distinguished medical organizer of the United States, having formerly headed the medical committee of the Council of National Defense, and ably directed the correlation of medical science with the military during the World War. Dr. George David Stewart, President of the American College of Surgeons and Professor of Surgery at Bellevue Hospital, New York City, will describe the efforts made by the medical profession to better itself.

The School and the Press in the Service of Science

A recent editorial in the *New York Times* spoke of science as dumb, as lacking a mouthpiece, a spokesman, to broadcast its discoveries and thus to serve the world. The main purpose of the Third Race Betterment Conference will be to render to science a broadcasting service, and to enlist other agencies to serve in the same way.

Dr. Vernon Kellogg, Permanent Secretary and Chairman of Educational Relations of the National Research Council, will present a report of special investigations on the part of his council. Professor Charles H. Judd, Director of the School of Education in the University of Chicago, will speak on the rôle of education in lengthening life, and Professor W. W. Charters, Professor of Education at the University of Chicago, will show the value of a cross-fertilization of ideas between the scientist and the educationist. Professor M. V. O'Shea, Director of the Department of Education at the University of Wisconsin, will describe newer values that are arising in education. Dr. William J. O'Shea, Superintendent of Schools for the City of New York, will be unable to attend the Conference personally, but will send a representative with a valuable contribution from the experience of the largest city educational system of the world. Dr. W. A. Evans, Professor of Hygiene at Northwestern University and Editor of the "How to Keep Well" Department of the *Chicago Tribune*, will show the importance of the newspaper in health education. Dr. Harvey W. Wiley, whose national service in the elimination of the patent medicine traffic can hardly be over-

estimated, will call attention to the deleterious effect of certain commercial advertisements on the education of youth.

Mr. Carl E. Milliken, Secretary of the Motion Picture Producers and Distributors of America, Inc., will contribute to the symposium the story of the motion picture in the furtherance of scientific education, and will give a concrete illustration in the showing of unique scientific films. Dr. Charles Scott Berry, of the University of Michigan and the Detroit Board of Education, will explain special methods in use in the training of handicapped children.

Motion Pictures and Exhibits

Supplementing the addresses, at the Conference, and as an important element in its educational program, will be the presentation of a special and unique selection of foreign and domestic motion pictures, some of which were made by a director who is probably the world's greatest master at scientific films.

These films will be contributed by the Rockefeller Institute for Medical Research, the Rockefeller Foundation, the United States Department of Labor, the Battle Creek Sanitarium, and by individual members of the Conference as mentioned above. The films will represent the cream of a large and little known collection of extraordinary and fascinating productions.

Special popular exhibits relating to public and to individual hygiene also will be displayed.

How the Program Will Be Arranged

The first day of the Conference will be Monday, January 2, 1928, but that day will be largely devoted to sociability, to films, and to a banquet in the evening. Members are urged to arrive not later than Monday morning, in order to have the proper rest before the meetings and to avail themselves of the opportunity for acquaintanceship.

The meetings will begin in earnest Tuesday morning, January 3. An effort will be made to arrange the overlapping sectional meetings partly seriatim, so that every possible hour of the program will be accessible to every one.

Films, entertainment and athletic events will be interspersed to relieve the strain of meetings, the programs of which will consist largely, however, of carefully prepared, condensed, and popular versions of the more detailed papers to appear in the Proceedings. A special effort will be made to give each member the opportunity for maximum access to the material presented at the Conference with the minimum of strain and effort.

Friday, the last day of the Conference, will be devoted very largely to informal discussion and to recreation.

The Conference as an Opportunity for Personal Profit

The Battle Creek Sanitarium's very ample facilities, which have been put at the disposal of the Conference by the management, both for individual housing and for entertainment, enable the members to come together under the same roof not only during meeting times but during social hours, and experience with previous Conferences has shown that such social opportunity is one of the most educational and profitable features of the occasion.

Full Report of the Conference

A complete report of all addresses, and of all formal papers, whether read in full at the Conference or read by title, will be printed in Proceedings of the Conference. These Proceedings will be of inestimable value as representing a serious effort to give a new impetus to the dissemination of undistorted scientific information direct to the teacher and to the layman.

The Proceedings will be distributed at the nominal price of two dollars ($2.00), to cover the bare cost of printing and mailing, and may be obtained by sending a check or money order to—

Executive Secretary,
Third Race Betterment Conference,
Battle Creek, Michigan.

WOMAN GIVES FORTUNE FOR WORK OF BODY

Mrs. Mary F. Henderson, of Washington, Makes Endowment Public Here.

CONFERENCE IS CLOSED

Interesting Addresses Mark Session; Several Resolutions Adopted By Delegates.

Announcement of the gift of two million dollars from Mrs. Mary F Henderson, Washington, D. C., to perpetuate the work of the Race Betterment Foundation was made last night by Dr. John Harvey Kellogg at the closing session of the Third Race Betterment Conference.

The gift was made in the form of an endowment, Dr. Kellogg stated, the interest from the amount to be used in carrying on the work of the Foundation.

This is the third time that Mrs. Henderson has made large gifts to a local organization within the past year, since on two previous occasions she contributed to the endowment of Battle Creek College. On August 30, last, she gave in cash and securities the sum of $200,000 to the college, following this with the gift of a large farm in Missouri valued at $400,000. The announcement of the gift last night came as a distinct surprise to most of those in attendance at the conference.

Mrs. Henderson is the widow of the late John D. Henderson, former state senator of Missouri. She is an old friend of Dr. Kellogg and an exponent of the principles of "biologic living." Among the books published by her is "The Aristocracy of Health." She is a frequent visitor at the Sanitarium and is quite active despite her more than 80 years.

Resolutions Are Passed.

Several resolutions, presented by Dr. William A. Sawyer, Rochester, N. Y., chairman of the resolutions committee, were adopted unanimously by the assembly. One resolution expressed the thanks of the delegates of the conference to the Sanitarium management for their kindness and generosity in acting as host to the conference. Another resolution also expressed the appreciation of the delegates to Dr. Clarence Cook Little, of the University of Michigan, for his work as president of the conference and to Miss Emily F. Robbins, of this city, for efforts as executive secretary of the meeting.

A third resolution was adopted last evening replying to the greetings sent by Mrs. Mary F. Henderson and thanking her for her generous gift for the promotion of Race Betterment work. Besides Mrs. Henderson's greetings to the convention, a similar sentiment was received yesterday by telegram from President Calles, of Mexico.

Decision Is Delayed.

Incompleted returns from labratory tests of some of the late entries in the "Fitter Families Competition" made it necessary to postpone announcement of winners until after the close of the Race Betterment Conference. Dr. Florence Brown Sherbon, head of the contest, announced last evening.

Names of winners in the competition, in which 24 of Battle Creek's finest families were entered, will be made public the first part of next week, Dr. Sherbon said.

"Battle Creek may well be proud of its representatives in the contest, they would put hope in the hearts of the most pessimistic," she declared. The fact all of 124 contestants are not only normal but superior physically makes the selection of winners very difficult, the doctor said.

Seven children of Mr. and Mrs. Claude Rucker, 51 Hall street, one of the contesting families, greatly pleased the afternoon audience yesterday by singing a number of popular songs. They received repeated encores and by appearing at various intervals during the session served to break up the regular round of speeches.

Davis Address Is Read.

Invention of machinery which has not only eliminated slavery but greatly lightened the work of the laborer was hailed as the crowning glory of our modern world by Secretary of Labor Davis in his paper, "Science and the Worker," which was presented at the closing session of the conference last night. The paper was read by Judge Theodore G. Risley, solicitor of the Department of Labor and assistant to Secretary Davis, the latter being unable to attend the conference.

"The great art America has developed is the art of wiping the sweat from the laborers' brow, the art of lifting from his back the burdens that have weighed him down through countless ages," the secretary declared. "Even in our own short history he used to toil from sun to sun—in the fields, in factory or shop, or under the ground in mines. He faced dangers in the mine. In the factory he had his back-breaking weights to lift. His tools were poor, his pay was little, his hours were long. When they were done, in the language of the street, he had nothing to do but rest—if he could.

Have Aided Workman.

"From that we have freed im. We have shortened his hours, lightened his labors. He used to need muscle, and we have given him endless steam and electric power instead. He used to need a hand craft that it cost him years to acquire, and we have given him machinery of wonderful cunning. With power and machinery one man produces with ease more wealth than hundreds produced with heart-breaking and back-breaking toil. And he shares in the wealth he produces in the form of higher wages than workers were ever paid before.

"For the first time in history we have not only given the worker 'time to think'; we have given him things to think of, and an education to help him in his thinking. We have given him enjoyments in life unknown to the kings of old. And we have given him ample means to buy and possess these enjoyments. All this is the work of science. This is what is meant by 'the application of science to industry.'

"The slavery which the ancients knew, has come to an end and in its stead the machine has become the slave," the speaker declared. "This is the crowning glory of our modern world, and science has been the giver. Having now freed man from much or most of his ancient labors, the next great work for science is to make of this new freeman a being made happy not by what amazing things he owns but by what amazing things he can do."

Cabot Makes Predictions.

Predictions regarding the medical science of the future were made by Dr. Hugh Cabot, dean of the medical school of the University of Michigan, in the opening address of last night's session.

"The art of preventive medicine must be mastered by the physician of the future in order to safeguard the public health," Dr. Cabot declared. "The old type of doctor, with his meager equipment and whose primary purpose was to alleviate pain, has passed from the stage and will not return. The physician of the future, in order to hold his position must be a superior person and must be more high-professional men," the doctor predicted.

American educational institutions were lauded by the dean of the Michigan school, who said that our own medical schools are unsurpassed by those of any other country, and that it is no longer necessary for students to travel to Europe to complete their education.

Importance of the medical profession was also emphasized by Dr. Cabot when he pointed out that the rise and fall of civilization in the past have been as much affected by man's struggle against disease as by wars between various races and countries. He added that failure today to continue fighting against disease may result in the fall of our own civilization.

"Until we have a President of

the United States who is 'race betterment conscious'— who is 'health conscious' — such as Theodore Roosevelt was, until then we cannot properly solve the rural health problem," declared John A. Kingbury, secretary of the Milbank Memorial Fund, in an address on the subject, "The Rura' Health Problem and Its Solution" last evening.

One of the most entertaining addresses of the whole conference was its final address at the closing session last evening, when, by means of colored slides and moving pictures, Mrs. Carl Akeley portrayed the life habits of the gorilla and its environment. The speaker scored the commonly accepted notion that the gorilla is a ferocious animal, that it terrorizes the natives and that it lives for the most part in trees. Said Mrs. Akeley: "The gorilla lives at peace with the whole animal world, lives almost all its life on the ground, feeds entirely on bamboo and wild celery, and is almost never ferocious, even when hunted by man." She presented beautiful colored slides showing the haunts of the gorilla in the Belgian Congo and many of the beauties of the African jungle. She concluded with showing moving pictures taken by her husband in 1921, which are the first motion pictures ever taken of a gorilla in its native haunts.

Tribute To Quakers.

A tribute to the Quakers as the forerunners of the race betterment movement in Battle Creek, was paid by M. G. Merritt of this city, in an address yesterday afternoon entitled, "Lest We Forget: Eugenics Among the Quakers Who Settled in Battle Creek."

"The activating spirit among the Society of Friends was the same as yours is today, a frank and p'ain spoken desire for ever improving the offspring," he said.

"I would say that nearly one hundred years ago the Society of Friends which builded here planned on these acre ssome of the same race benefits which today you are repeating. They a'so acted according to the best lights of their time. The Society of Friends was more than a conference; it was a close corporation or league which persisted for 250 years," the speaker declared. He further showed that the movement passed away only because it had outlived its usefulness and had planted its message in the world.

Tells of Mountain Folk.

Needs of people residing in the Appalachian mountain range, "who are the genuinely one hundred per cent Anglo-Saxon Americans" were discussed Friday afternoon by Dr. J. A. Stucky, of Lexington, Kentucky, in an address before the conference.

"Knowledge of biological and physiological life, with the facilities for living that kind of a life, is the greatest need of these people," Dr. Stucky declared. "Prenatal care, post-natal care, and the care from childhood to adolescence, are the phases of the work needing greatest emphasis.

"The environment of these people is not wholly bad, but in some ways very good," he declared. "Their homes are real homes, they are moral and are conscious of being men and dare to assert their right.

"However, most of the families consist of father, mother, and from seven to fifteen children who live in one or two-room cabins, with a lean-to kitchen, often no windows in the house, because these houses are built of logs. Their lamps are home-made candles, furniture home made and clothing of homespun.

"While conditions have greatly improved since my first trips into this section twenty years ago, we yet have few schools, small hospitals, no roads, consequently few physicians, nurses or social workers. The state and federal health agencies have done much in the eradication of hook-worm, typhoid fever, diphtheria and smallpox. There is an average of about one nurse for every thousand of population."

Are Peculiar People.

"They are a peculiar people in that since coming to this country they have been shut away from outside influence for these two hundred years and have retained their original customs, resourcefu'ness and independence. In a day's journey in this region, one can be taken back into the Shakespearean period.

"While these are a primitive people, they are not ignorant, though unlettered. Unlettered because they have had no schools, but it was from such ancestors as these that George Washington, Patrick Henry and Abraham Lincoln descended.

They have physical defects, because they must live on what can be raised in their section; they have little mi'k, butter, and other foods that science today is finding so necessary to the building of normal bodies. For this reason in this section we find bone disease, joint deformity, bad teeth, ear and sinus trouble, trachoma and visual defects, with premature aged conditions."

Sterilization Again Urged.

Sterilization of undesirable individuals in society as an essential factor in racial progress was again urged by a speaker of the Race Betterment Conference—this time by Dr. Oscar Dowling, president of the Louisiana State Board of Health, in an address in the afternoon entitled, "Some Practical Problems in Public Health Work."

"We who are leaders in society must come to the conclusion that sterilization is not an inhumane procedure" the speaker declared. "There is always that class in society which cannot be assimilated by the better environment and it is this class which fills our prisons, insane asylums, poorhouses and other similar public institutions. For this element in society, sterilization should be put in force," the speaker declared.

Stricter immigration laws and control of reproduction of the lower classes were also urged by Dr. Dowling in order to solve some of the problems of public health.

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EK MOON-JOURNAL

BETTER RACE MEET TO DRAW MANY OF NOTE

Prominent Scientists, Educators Are on Committee for Arrangements.

DR. KELLOGG IS FOUNDER

Of Organization Designed to Record Facts and Progress of Humanity Toward Longer Life.

Names of more than 30 nationally prominent scientists, publicists, and educators, comprising the general committee of the Third Race Betterment Conference, to be held at the Battle Creek Sanitarium, January 2 to 6, were announced today by the local representative of Dr. Clarence Cook Little, head of the University of Michigan, and president of the conference.

The list of distinguished authorities, who as members of the general committee will be among the one hundred famous speakers on the five-day conference program, includes Miss Ida M. Tarbell, noted writer and biographer of Lincoln; Roy W. Howard, president of the United Press association, and head of the Scripps-Howard newspapers; William M. Steuart, director of the Bureau of the Census, Washington, D. C; Dr. Ernest E. Irons, dean of Rush Medical School, the University of Chicago; William S. Woods, editor of The Literary Digest; Dr. Irving S. Cutter, dean of the medical school, Northwestern University; and Merle Crowell, editor of the American Magazine.

The general committee has been working for some time in preparation for the conference which is expected to bring to Battle Creek at least five hundred outstanding scientists, educators, and writers. Purpose of the conference, as pre-

(Continued on Page 17)

George P. Brett, of New York City, associated with the Macmillan company since 1879, and now president of that publishing concern.

Dr. Kenyon L. Butterfield, of East Lansing, president of Michigan State College since 1924, and president of Massachusetts Agricultural College from 1906-24.

Merle Crowell, New York City, editor-in-chief of The American Magazine since 1923; associate editor and staff writer, American Magazine, 1915-23.

Dr. Irving S. Cutter, Chicago, dean of the Northwestern University medical school since 1925; dean of the College of Medicine, University of Nebraska, 1915-25—and author of "Laboratory Manual of High School Botany."

Dr. Bashford Dean, New York City, zoologist and armor expert; professor of vertebrate zoology, Columbia University, since 1904; curator of herpetology and ichthyology, American Museum Natural History, and curator arms and armor, Metropolitan Museum of Art, since 1913.

Dr. Charles A. Elliott, Chicago, ex-president of the American medical association, and professor internal medicine, Northwestern University.

Dr. Haven Emerson, New York City, professor of public health administration, Columbia University, since 1922; president of board of health and commissioner of health, New York City, 1915-17, associate editor The Survey, and The Nation's Health, since 1922.

Dr. Henry Pratt Fairchild, New York City, professor of social economy and director of bureau of community service, New York University, 1919-24; professor sociology, New York University, and secretary and treasurer of the American Eugenics Society.

Prof. Henry W. Farnam, New Haven, Conn., professor of economics, Yale University, 1880-1913; now professor emeritus of economics, Yale University.

Dr. Robert H. Halsey, New York City.

Mrs. John B. Henderson, Washington, D. C., widow of United States Senator John B. Henderson, Missouri; author of "The Aristocracy of Health"; frequent visitor at the Sanitarium, and donor, during the past year, of gifts amounting to $600,000, to Battle Creek College.

Byron W. Holt, New York City, editor Moody's Financial Magazine, 1907-08; with Goodbody & Co., since 1913, and a prominent financial writer.

Roy W. Howard, New York City, newspaperman; president and general manager of United Press association since 1912; chairman of the board of the association since 1921; chairman of the board and business director of Newspaper Enterprise association and all Scripps-Howard newspapers since 1921.

Hon. James A. Hughes, Huntington, W. Va., member of 57th Congress, 1901-03, from the fourth West Virginia district; member of 58th and 63rd Congresses, 1903-15, from the fifth West Virginia district, Republican.

Dr. Ernest E. Irons, of Chicago, of Rush Medical College, University of Chicago.

Dr. Franklin C. McLean, of Chicago, professor of medicine, University of Chicago.

Dr. Frederick B. Moorehead, of Chicago, dean and professor of oral surgery and pathology, College of Dentistry, University of Illinois, since 1912; associate professor of surgery, Rush Medical College, University of Chicago.

Edward W. Nelson, of Washington, D. C., chief of the Bureau of Biological Survey, Department of Agriculture, 1916-1927; associated with that department as a naturalist since 1890.

Dr. Hideyo Noguchi, of New York City; a native of Fukushima, Japan; member of Rockefeller Institute for Medical Research since 1914; authority on pathology and infectious diseases; awarded Order of Merit by Emperor of Japan, 1915.

Grove H. Patterson, of Toledo, executive editor, Toledo Blade, since 1920. News editor of Toledo Blade, 1910-17, managing editor, 1917-19; lecturer and author of syndicated articles under the pen name of "John Carlyle."

John S. Phillips, of New York City, director, Crowell Publishing company since 1910; manager and treasurer, McClure's magazine, 1893-1906 president Phillips Publishing company, 1906-10; editor American Magazine, 1906-15, and editor of the Red Cross magazine, 1917-20.

Dr. Leo F. Rettger, of New Haven, Conn., professor bacteriology, Yale University, since 1919; connected with bacteriological department of Yale University since 1902.

Dr .Oscar Riddle, of Cold Springs Harbor, N. Y., member of research staff, Carnegie Station for Experimental Evolution, since 1914.

Dr. Oscar H. Rogers, of New York City, chief medical director since 1912, New York Life Insurance company.

Dr. Edwin E. Slosson, of Washington, D. C., director of Science Service, Inc., author and editor.

Professor Henry Steenbock, of Madison, Wis., professor of agricultural chemistry, University of Wisconsin.

William M. Steuart, of Washington, D. C., director of Bureau of the Census since 1921; connected with census bureau since 1880.

Prof. Julius Stieglitz, of Chicago, professor of chemistry, University of Chicago since 1905; chairman of chemistry department since 1915; connected with the University of Chicago since 1892.

Miss Ida M. Tarbell, of New York City, author of "Life of Abraham Lincoln," in two volumes, 1900; "History of the Standard Oil company," in two volumes, 1904; "Life of Judge Gary"; also author of many shorter works on life of Lincoln.

William S. Woods, of New York City, since 1905, editor of The Literary Digest; on staff of Literary Digest since 1897.

In addition to the members of the committee, over sixty equally prominent authorities from the fields of science, education, and politics are scheduled to appear as speakers at the conference. Names of the remaining speakers will be announced early next week.

Besides the prominent speakers, large delegations of scientists and research workers in the field of biology, eugenics, medicine, nutrition and physiology, as well as teachers, social workers, and economists are expected for the meeting.

Among the institutions to be represented by such delegations are Columbia, Yale, Cornell, Northwestern, Harvard, and Johns Hopkins Universities; the Rockefeller Institute, the Carnegie Institute, the Universities of Michigan, Wisconsin, Illinois, and Chicago, and the Sheffield Scientific school.

Both general and group sessions will be held, and will be open to teachers, business and professional men, public health officers, and other interested local groups. Attendance of several thousand is expected at the general sessions, it is announced.

BETTER RACE MEET TO DRAW MANY OF NOTE

(Continued from Page 1)

viously announced, is that of "recording the facts of race degeneracy, and also of the progress made by science toward the prolongation of human life."

Kellogg Founder.

The conference will be held under the auspices of the Race Betterment Foundation, of which Dr. John Harvey Kellogg, superintendent of the Sanitarium, is founder and president. The Sanitarium will act as host to the conference, the third of its kind ever to be held. The first was held in this city in 1914, and the second in connection with the Panama Pacific Exposition, in San Francisco, in 1915.

Three university presidents are among the members of the general conference committee, as was announced last week. These are President Little of Michigan, chairman of the committee, and president of the conference; Dr. Max Mason, president of the University of Chicago, and former professor of mathematical physics at the University of Wisconsin; and Dr. Glenn Frank, president of the University of Wisconsin, and former editor of the Century magazine.

Remaining names of the members of the committee, all of whom will attend and address the conference, were announced today as follows:

Of Prominence.

Clarence W. Barron, of Boston, president of The Wall Street Journal, editor of Barron's Financial Weekly, founder and president of the Boston News Bureau, and a frequent visitor at the Sanitarium.

Dr. Carl Beck, of Chicago, a native of Milin, Austria; since 1890 a practising physician in Chicago, professor of surgery of the University of Illinois medical school, founder of St. Anthony hospital, Chicago, and attending surgeon at Cook county, St. Joseph, and North Chicago hospitals, and author of "Principles of Surgery."

Mrs. Aida DeAcosta Breckenridge, of New York City, director of the division of publicity and promotion, American Child Hygiene association.

George P. Brett, of New York City, associated with the Macmillan company since 1879, and now president of that publishing concern.

Dr. Kenyon L. Butterfield, of East Lansing, president of Michigan State College since 1924, and president of Massachusetts Agricultural College from 1906-24.

Merle Crowell, New York City, editor-in-chief of The American Magazine since 1923; associate editor and staff writer, American Magazine, 1915-23.

Dr. Irving S. Cutter, Chicago, dean of the Northwestern University medical school since 1925; dean of the College of Medicine, University of Nebraska, 1915-25—and author of "Laboratory Manual of High School Botany."

Dr. Bashford Dean, New York City, zoologist and armor expert; professor of vertebrate zoology, Columbia University, since 1904; curator of herpetology and ichthyology, American Museum Natural History, and curator arms and armor, Metropolitan Museum of Art, since 1903.

Dr. Charles A. Elliott, Chicago, vice-president of the American Medical association, and professor of internal medicine, Northwestern University.

Dr. Haven Emerson, New York City, professor of public health administration, Columbia University, since 1922; president of board of health and commissioner of health, New York City, 1915-17, associate editor The Survey, and The Nation's Health, since 1922.

Dr. Henry Pratt Fairchild, New York City, professor of social economy and director of bureau of community service, New York University, 1919-24; professor sociology, New York University, and secretary and treasurer of the American Eugenics Society.

Prof. Henry W. Farnam, New Haven, Conn., professor of economics, Yale University, 1880-1918; now professor emeritus of economics, Yale University.

Dr. Robert H. Halsey, New York City.

Mrs. John B. Henderson, Washington, D. C., widow of United States Senator John B. Henderson, of Missouri; author of "The Aristocracy of Health"; frequent visitor at the Sanitarium, and donor, during the past year, of gifts amounting to $600,000, to Battle Creek College.

Byron W. Holt, New York City, editor Moody's Financial Magazine, 1905-08; with Goodbody & Co., since 1917, and a prominent financial writer.

Roy W. Howard, New York City, newspaperman; president and general manager of United Press association since 1912; chairman of the board of the association since 1921; chairman of the board and business director of Newspaper Enterprise association and all Scripps-Howard newspapers since 1921.

Hon. James A. Hughes, Huntington, W. Va., member of 57th Congress, 1901-03, from the fourth West Virginia district; member of 58th to 63rd Congresses, 1903-15, from the fifth West Virginia district, Republican.

Dr. Ernest E. Irons, of Chicago, dean Rush Medical College, University of Chicago.

Dr. Franklin C. McLean, of Chicago, professor of medicine, University of Chicago.

Dr. Frederick B. Moorehead, of Chicago, dean and professor of oral surgery and pathology, College of Dentistry, University of Illinois, since 1912; associate professor of surgery, Rush Medical College, University of Chicago.

Edward W. Nelson, of Washington, D. C., chief of the Bureau of Biological Survey, Department of Agriculture, 1916-1927; associated with that department as a naturalist since 1890.

Dr. Hideyo Noguchi, of New York City; a native of Fukushima, Japan; member of Rockefeller Institute for Medical Research since 1914; authority on pathology and infectious diseases; awarded Order of Merit by Emperor of Japan, 1915.

Grove H. Patterson, of Toledo, executive editor, Toledo Blade, since 1920. News editor of Toledo Blade, 1910-17, managing editor, 1917-19; lecturer and author of syndicated articles under the pen name of "John Carlyle."

John S. Phillips, of New York City, director, Crowell Publishing company since 1910; manager and treasurer, McClure's magazine, 1893-1906 president Phillips Publishing company, 1906-10; editor American Magazine, 1906-15, and editor of the Red Cross magazine, 1917-20.

Dr. Leo F. Rettger, of New Haven, Conn., professor bacteriology, Yale University, since 1919; connected with bacteriological department of Yale University since 1902.

Dr .Oscar Riddle, of Cold Springs Harbor, N. Y., member of research staff, Carnegie Station for Experimental Evolution, since 1914.

Dr. Oscar H. Rogers, of New York City, chief medical director since 1912, New York Life Insurance company.

Dr. Edwin E. Slosson, of Washington, D. C., director of Science Service, Inc., author and editor.

Professor Henry Steenbock, of Madison, Wis., professor of agricultural chemistry, University of Wisconsin.

William M. Steuart, of Washington, D. C., director of Bureau of the Census since 1921; connected with census bureau since 1880.

Prof. Julius Stieglitz, of Chicago, professor of chemistry, University of Chicago since 1905; chairman of chemistry department since 1915; connected with the University of Chicago since 1892.

Miss Ida M. Tarbell, of New York City, author of "Life of Abraham Lincoln," in two volumes, 1900; "History of the Standard Oil company," in two volumes, 1904; "Life of Judge Gary"; also author of many shorter works on life of Lincoln.

William S. Woods, of New York City, since 1905, editor of The Literary Digest; on staff of Literary Digest since 1897.

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The Third Race Betterment Conference In Summary

Heredity and Eugenics

Factors in Living Long

Environment

Man and the Microbe

Light and Life

The Biologic and Physiologic Life

The Physician and the Individual

Education and Research

Physical Education and Play

Reprinted from Good Health Magazine, March, 1928

The Third
Race Betterment Conference

JANUARY 2-6, 1928

Under the Auspices of the

Race Betterment Foundation

Battle Creek, Michigan

PURPOSE

To bring together a group of leading scientists, educators and others for the purpose of discussing ways and means of applying science to human living in the same thoroughgoing way that it is now applied to industry—in the promotion of longer life, increased efficiency and well-being and of race improvement.

OFFICERS OF THE CONFERENCE

President—
C. C. LITTLE, D.Sc., *President of the University of Michigan, Ann Arbor, Michigan.*

Executive Secretary—
MISS EMILY F. ROBBINS, *Battle Creek, Mich.*

Treasurer—
THE RACE BETTERMENT FOUNDATION, *Battle Creek, Mich.*

Host of the Conference

The Battle Creek Sanitarium

Main Building of the Battle Creek Sanitarium—Headquarters of the Third Race Betterment Conference

HEREDITY—

Its Influence on Health, Longevity and Race Progress

Shall We Live Longer and Should We?

"INTEREST in future generations is needed to prevent a cataclysm," said Dr. C. C. Little, President of the University of Michigan and President of the Conference. "What seems to have been the cause of failure of every civilization that has come and gone was the selfish interest of the adult in his own problems, instead of the unselfish pledging of himself to the generations as yet unborn."

"Race Betterment by direct treatment of individuals always will and should be encouraged," he said. It would be wise, however, to consider at all times the eventual results of individual treatment on the genetic constitution and survival value of the race as a whole. As in most cases, the wise course to follow will lie somewhere between visionary programs for improvement and super-sentimental consideration of the individual's rights and privileges.

While the average age at death has been increased, we have not yet attained a new maximum age, Doctor Little pointed out. If we are to prolong individual human life to new upper age limits, it is necessary to avoid rushing here or there, in an ever-increasing arc of the pendulum, to patch up this or that system of organs to bring it back to normalcy. With the adding of more years to life, there is danger of this becoming simply a madder and madder race.

The most promising approach to the extension of the upper limits of life Doctor Little believes to be the increase of those individuals, or families, or strains, in which a tendency for a longer existence of the balanced condition, the natural balance between organ systems, is to be found. If we can add to those individuals naturally endowed every good environmental assistance that we can give them, we are likely, possibly, to raise that upper limit somewhat.

"The life-prolongation of varieties degenerate in function involves the danger of creating a sort of Augean stable," Doctor Little stated. "If we preserve those individuals with abnormal or peculiar physiologies by improved methods of hygiene, then the descendants of those individuals, through the force of heredity, are likely to reproduce the same or worse defects. These individuals, that is, this second generation, will thus require a repetition of the same treatment as, or even more extensive corrective treatment than, did their parents. Man has already gone well along the road toward preserving a vast number of minor defects, both structural and physiological, as was brought out by the statistics of the draft during the war."

Shall we be able to carry the economic burdens of greater dependency? Doctor Little pointed out that as the number of these individuals who are not able to take entire care of themselves—who must go to the doctor for care, to the dentist for frequent treatments, to the oculist to be patched up, to the mental hygienist for social adjustment, as many will have to go and as many now go in order to keep up with the procession of normal civilization—as the number of these increases, we shall begin to feel more and more the economic pinch that partial dependency causes. If we feel that, we shall feel a hundred times over the obvious economic pressure of the out-and-out public charge, the out-and-out defective, the anti-social individual, who has to be confined and kept at public expense. When the economic pressure from this source becomes great enough, there will be pressure from various sources to develop means of preventing the production of the unfit and of spreading information to all intelligent people as to how this can be done. When this pressure for the decrease in the number of defectives becomes really great and general, those institutions or groups that insist upon the greatest possible production of human individuals will be forced by public opinion or by votes to assume the total expense, which Dr. Little foresees will very soon take care of the decrease in production.

Longevity

The age at death is largely a family matter, according to Dr. C. B. Davenport, Director of the Eugenics Record Office of the Carnegie Institution of Washington. Doctor Davenport stated that the records of the Eugenics Record Office "comprise not a few cases where both parents and all children have died at under fifty years, and other cases in which both parents and all the children who reached maturity lived to be seventy-five years old." Doctor Davenport stated that "these results clearly support the conclusion of Dr. Stephen Smith of New York expressed at the First Race Betterment Conference held at Battle Creek in 1914 and of which he was President. He was over ninety years old at that time. When asked how he accounted for his long life, he said it was first of all due to his having selected parents both of whom lived to the age of ninety years. That is to say, Doctor Smith showed the same resistance to life-shortening factors that his parents did."

In general, longevity depends upon hereditary factors quite as truly as, and perhaps in no less degree than, on hygienic factors, Doctor Davenport pointed out. "Both kinds of factors are important. The best results follow when a hygienic mode of life is added to an excellent hereditary constitution."

The Possibility of Modifying the Germ Plasm

Eye defects established in animals became hereditary, in experiments reported by Dr. M. F. Guyer, Professor of Zoology at the University of Wisconsin.

Was it an example of the inheritance of acquired characters? Doctor Guyer said, "It is not yet clear whether the eye of the fetus is first changed and the condition is then conveyed from it to the germ-cells of this individual, or whether the eye and the germ of the fetus are influenced separately by the antibodies that have entered from the mother's blood by way of the placenta."

While Doctor Guyer is able to offer no explanation of "how casual potentialities of the genes that permit of the somatic acquirement of characters become ingrained in the mechanism that underlies the more independently recurrent characters called heredity," he states that "obviously both types of potentiality must reside in germinal protoplasm. It may be that when we learn more about the protoplasmic basis of ordinary habit-formation, we may also see our way toward an understanding of the origin of inherited adaptations, but until we do so, we shall probably remain in our present ignorance of this most elusive attribute of all living things."

The Control of Heredity

"The greatest force for Race Betterment lies in the control of heredity," said Dr. Oscar Riddle, a scientist of the Carnegie Institution, at its Station for Experimental Evolution. He pointed out that the theoretical possibility of such control is already demonstrated, though the fact is very little recognized, and that there neither is nor has been—but should be—an organized research in this field.

His statement was founded on the conviction that "knowledge rightly and sufficiently applied will better the condition of the race. Adequate leadership here requires that we consider not only present knowledge, but also the question of acquiring the type of knowledge that will—when available—serve us precisely and best."

Attention was directed by Doctor Riddle to a new definition of heredity, under which the hereditary factors or genes are merely co-equal with conditions in heredity—*i. e.*, in the formation of the adult characteristics. The problem of control can be approached from either side—the factors, or the conditions, he said, and he believes that the most practical, effective and far-reaching control is and will be attainable through a control of conditions.

Organized research—even a recognition of the need for it—remains to be created, he finds. "Since such a new and special foundation would so largely hasten the attainment of the major projects for racial betterment, it merits the liveliest interest and approval of all those who are directing thought and effort to this end.

"A supreme result of the wide application of developmental control among men will bring also a transformation in the mental outlook of man — myth, superstition, and verbal dalliance will not survive ever-present demonstrations of the power of knowledge to control and transform human capacities. When on man himself is practised the power that has already been exerted on experimental animals, the mind of man, even of the bystander, will not only grow, it will find freedom."

A Biologic Philosophy

To be constructive, efforts toward Race Betterment must begin by teaching those now living, and in particular young people, that life upon this earth is the most important thing, that our biologic function is reproduction, and reproduction of individuals of a high character. This is the belief of Dr. Aldred Scott Warthin, President of the National Association of American Physicians and Director of the Pathological Laboratory, University of Michigan, who said that the germ plasm is the important thing. "Evolution was an absolute necessity, and we cannot deny now the facts of evolution. . . . What is important is for the young individual, who is now brought into this world, to follow that knowledge of evolution and to realize that with changing environment the germ plasm can and does change."

In his contact with young men, and in particular with young medical students, Doctor Warthin has found that old religions are changing; that the great majority of these students have thrown off old beliefs, and are looking for something to supplant them, something that is logical, reasonable, rational, material upon which they can found their beliefs in life. And he has found that simple biology, the simple facts of life, can become an adequate philosophy, an adequate religion, whereby they alter their habits, and plan their lives and develop their ideals.

"In looking forward to marriages, these young men want the best partner they can get," Doctor Warthin said, "from a family line free from insanity and from all of the incurable diseases, and then they want children whom they can make better than themselves."

The Inheritability of Cancer

Experiments in the nature and behavior of cancer have been carried on by Maude Slye, Associate Professor of Pathology, in the cancer laboratory at the University of Chicago during the past eighteen years. All studies have been with spontaneous cancers arising in the natural life of the animals exactly as man's spontaneous cancers arise. The autopsies have now numbered over sixty-five thousand, including between five and six thousand primary spontaneous cancers. These tumors have included practically every type and location of tumor known in human pathology.

These studies have demonstrated that hereditary predisposition bears a definite relation both to the tendency to be exempt from cancer and also the tendency to be susceptible to it. In thousands of mice bred in the laboratory, the tendency to be exempt from cancer was transmitted as a simple dominant trait along Mendelian lines.

Results of cross breeding showed that when a cancer-free mouse was mated with a cancerous mouse, none of the first generation offspring had cancer. The tendency to be exempt from cancer thus behaved like a simple Mendelian dominant. If, however, two of these first generation hybrids were mated, one-fourth of their offspring were susceptible to cancer, while three-fourths were exempt from it. Thus the tendency to be susceptible to cancer behaved like a simple Mendelian recessive.

If instead of mating two first generation hybrids, each first generation hybrid was mated with a cancer-free mouse, no cancer appeared in the second generation. In this manner—that is by mating all first generation hybrids with cancer-free mice—all cancer susceptibility has been ruled out of the entire family for many generations.

Thus the tendency to exemption from cancer is unquestionably inheritable. Many hundreds of strains and branch strains have been carried in the laboratory that have never shown a tumor growth of any kind, either malignant or benign. This means that in many families carried for fifty or more generations and comprising thousands of members, there has been complete exemption from cancer. These cancer-free mice, when bred into other families, carry with them exemption from cancer as a dominant character.

"Compare this with the record of man who pays no attention to heredity in his matings," Professor Slye said, "and where one in eight over a certain age is dying of cancer, and note how tremendously hopeful is this fact of the inheritability of the tendency to be exempt from cancer."

Susceptibility to cancer is local and not systemic, Professor Slye has found. This means that if an individual susceptible to cancer will protect himself against irritation of locally susceptible tissues, he may avoid cancer even though he is susceptible. If every individual knew his heredity, as the heredity of these mice is known, and knew to what type and location of tumor he was susceptible, he might avoid the type of irritation fitted to induce the disease, and thus avoid it even though he were a member of a one hundred per cent cancer family.

The Menace of a Brightened Survival Prospect for the Stupids

"One unanticipated result of socializing the blessings of medical and surgical advance has been the brightening of the survival prospects of the ignorant, the stupid, the careless and the very poor in comparison with those of the intelligent, the bright, the responsible and the thrifty," said one of the world's leading sociologists, Dr. Edward Alsworth Ross, Professor of Sociology at the University of Wisconsin. "All elements have benefited by the policy of making health promotion a public utility, of course, but the socially less valuable elements have benefited the most. Fifty years ago the difference in prospect of growing up between the children of the wise and those of the foolish, between the offspring of the able and those of the incompetent, between the progeny of the prosperous and those of casual laborers, must have been much greater than it is today. Suppose we range the chief elements in the community in the order of their value to society. At the extreme left put the talented, at the extreme right place the pauper, defective and criminal stocks. Two generations ago the line defining the death rates of these elements would have tilted very steeply from right to left. Nowadays the mortality line has been brought down greatly, but most of all toward the right hand end of the scale, the result being that it approaches the horizontal."

Doctor Ross believes that the "man-made obstacles" to the circulation of contraceptive information should be cleared away, "so that couples

who find themselves bringing into the world weaklings and defectives should be enabled to cease committing a crime against society."

A Danger to the American People from Assimilation of the Colored Population

A great sore spot in American anthropology was pointed out by Dr. Ales Hrdlicka, Curator, Division of Physical Anthropology, United States National Museum, Smithsonian Institution. "A probable, if not inevitable, assimilation of the colored population into the white is the one real cause of anxiety to those who contemplate the future of the American people," he said. "Races, especially the further distant ones like the white and the negro, if the accumulated observations of anthropology count for anything, are not equipotential, or equally effective, or able, or resistant, and the results of their union will be the strengthening of the weaker, as seen in many of our mulattoes, but they will also be the weakening of the stronger constituent."

"As long as the colored tenth is held apart, there is no danger," Doctor Hrdlicka stated; "the limited influx of white into the colored blood is a gain to the latter; the danger lies in the colored stream flowing eventually wholly into the body of the larger white group. If this should happen, some change in the white body would be inevitable, and it would be a bold scientist who could argue that such an event might be beneficial.

"This, as anthropology sees, is the one cloud on the otherwise clear and blue sky of the American people of the future. In the past fifteen years we have heard many alarms of threatening deterioration of the American stock through the influx of the so-called 'inferior races' of white derivation. These threats have received no scientific foundation. They were and are being bolstered up by pseudo-science only. Their true background is economic, supplemented by the universal trait of national or group egoism."

Immigration and the Average Man

We Must Take a Firm Stand on Immigration

"We may accept the laws of genetics as being applicable to man without reservation," Dr. E. M. East, Professor of Genetics at Harvard University, declared. "But is it practicable to utilize this knowledge in racial improvement? On this point I am neither an optimist nor a pessimist. I am sympathetically hopeful. We must, of course, continue to investigate the inheritance of human traits. Our generalized knowledge that various characteristics are inherited, and that their distribution follows the distribution of the chromosomes, is not enough. We must know more about the behavior of the genes in specific cases. We have to ask in each definite instance whether an abnormal trait is dominant or recessive to the normal, whether it is sex-linked, or whether it is due to more than one gene. We must know whether different genetic mutations can bring about the same visible result. In complex traits, we must find out how the germs interact. Moreover, if we are to deal with mental differences, we must ascertain how to determine them precisely. But granting the desirability of increased enlightenment along these lines, is there any practical method of applying the present knowledge?

"I believe there is. The eugenist may take a firm stand on immigration. A considerable number of physical and mental abnormalities are known to be hereditary. It seems reasonable to demand the exclusion of families in which such traits exist even if the exact mode of inheritance has not been discovered. Thus something can be done to prevent American manhood and womanhood from deteriorating and without any particularly harsh or unwise laws."

Foreign Inspection of Immigrants Should Be Increased

Scientifically conducted inspections and examinations at foreign ports of embarkation are needed, without delay, for the improvement of the citizenry of both the foreign-born and the native races, both at home and among those who are to come to us from abroad. This is the belief of Honorable Harry E. Hull, Commissioner General of Immigration, United States Department of Labor.

"Let us establish," he said, "a corps of physicians and technical advisers in health and in ethical culture, who will use the ounce of prevention over there and thus reduce the pound of cure that we are now using over here, and who will examine every prospective immigrant physically and mentally before he leaves his native country. Be sure that all who are in the future to become American citizens are so endowed physically and mentally as to make good American citizens. In order to accomplish this, the foreign inspection by technical advisers and doctors of the Public Health Service must be increased.

"Place all countries on a quota basis, thereby extending the numerical limitation as to the number of immigrants that can come from any country. This would reduce the number of immigrants coming into this country each year from 300,000 to less than 200,000, which number is approximately the number that was in the mind of Congress when it passed the 1924 Act. In my opinion it is all that we can safely assimilate un-

der the present conditions in this country. We must remember that there are approximately 7,000,000 unnaturalized aliens in the United States at the present time."

The Menace of the Melting Pot Myth

It needed a world cataclysm to bring to the consciousness of our people the menace that lay in the myth of the melting pot, Congressman Albert Johnson, Chairman of the Committee on Immigration and Naturalization of the United States House of Representatives, told the Conference. "We may have been unscientific in 1921, but I venture to say that had we not imposed a drastic inhibition upon a world migration to our shores, what we know as the American people and its institutions would have been submerged in chaos.

"We have not finished with this problem," he said. "The sentimentalists and the internationalists, who see in miscegenation a beautiful prospect for humanity, have joined with alien organizations to bring pressure upon Congress to break down the barriers we have so laboriously erected.

"The Immigration Act of 1924 represents a distinct step in advance over its predecessors. We need your help not only in defense of its fundamental principles, but in the elaboration of further legislation for the betterment of the American Race."

The Great Possibilities Inherent in the Common Man

There is a great opportunity in America to demonstrate to the older civilizations of the world the great possibilities inherent in the common man, according to Dr. Louis I. Dublin, Statistician of the Metropolitan Life Insurance Company. "It is clearly the lesson of our past that under a favorable environment, operating through democratic forms, a happy and creative people can be evolved. There is no need to breed a race of supermen."

Analyzing the problems of maladjustment that have arisen among immigrants, Doctor Dublin sees the need of greater effort toward translating America to the immigrant and in turn of absorbing the best qualities and traditions that the foreigner has brought with him from abroad.

The divorce evil is now a major problem, Doctor Dublin finds from his studies. "The break-up of families through divorce, has become increasingly more frequent with the passing years. In 1925, there occurred more than one hundred and seventy-five thousand divorces in the United States. This is at a rate of 1.5 per thousand total population, or one divorce for each seven marriages in that year. The rate for 1925 was three times as high as in 1887 when divorce registration for the whole country began. The frequency of divorce is now a major problem in our social economy and the evil is rapidly getting out of hand."

From our history Doctor Dublin forecasts a bright future for our country. "The wise development of our splendid natural resources and our increasing industrial efficiency should insure a generally high standard of living. In a land like ours, there should be no poverty with its attendant evils. The further extension of the public health program will bring better health and longer life with increased population and efficiency. Wider educational opportunities with increasing leisure will give deeper meaning to our lives."

The Betterment of the "Average Man"

As an example of what can be done by a campaign of health education, through trained agents, popular literature, nursing service and health demonstrations, Mr. Michael Kley, Manager of the Immigrant Service and Citizenship Bureau of the Metropolitan Life Insurance Company, described the work of the Company for eighteen years among its 21,000,000 industrial policyholders, essentially of the working population and more than half of them belonging to foreign-born stock.

The saving in mortality effected was reported by Mr. Kley as follows:

"In 1911 the general mortality of the industrial policyholder of the Metropolitan was twenty-four and three-tenths per cent higher than the mortality of the Registration Area of the United States as a whole. This was to have been expected, dealing as we were with the working people, with their hazards and lower living conditions. By 1925, the mortality rate of the Metropolitan policyholders had so improved as to bring it one and three-tenths per cent under the rate for the Registration Area.

"From 1911 to 1925 the average duration of life for the country as a whole increased by five and one-tenth years. For Metropolitan industrial policyholders this increase was eight and eight-tenths years. In other words the general mortality rate among this Metropolitan industrial group improved so much more rapidly than that of the general population as to result in a cumulative net saving in mortality, in excess of the general population improvement, of approximately 275,000 lives."

Crime and Sterilization

Crime an Hereditary Problem

"In the Municipal Court of Chicago, where the courts are divided into specialized branches like the Domestic Relations Court, the Boys' Court, the Morals Court, it is whole families that supply the customers—the daughter in the Morals Court, the son in the Boys' Court, and the father in the Domestic Relations Court, and he is not there only once, he is there continually"—so stated Dr. William J. Hickson, Director of the Psychopathic Laboratory of the Municipal Court at Chicago. "Our courts are run by repeaters," he said. And he pointed out that the costs for taking care of one juvenile delinquent is twice the cost for one average Harvard student.

The criminal is a "primitive," Doctor Hickson explained. Referring to some pictures shown with a paleontological address, he said that the primitive people there shown were not greatly different from the criminal of today; he is a primitive man, underdeveloped in a part of his brain structure.

This whole problem is an hereditary problem, Doctor Hickson explained. These poor defectives get that way because of heredity. "We shall have to do something to shut off this poisonous stream that is inundating the mental health of the population," he said. "Mental diseases can very easily be classified in but a few groups: Firstly, into intellectual defect, and, secondly, emotional defect. Among the intellectual defectives, we have, of course, the feeble-minded group. Then we have the paretic group, and the senile dementia group. In these groups, the cortex of the brain is primarily involved, the seat of the intellect. Consequently, we get defectives of judgment, of erudition, and other defects. But the technical insanities are on the emotional side; they are the dementia præcox group, the manic-depressive group, and the epileptics. And all these three groups are due to defects of the basal ganglia; ninety per cent of the inmates of insane asylums are there because of this latter trouble. Perhaps ten or twelve per cent are there because of intellectual defect. The feeble-minded are taken care of in special institutions.

"Our proposition is to get rid of these defectives, to isolate them in farm colonies, to clean up this chain of human sewerage. If we can do that, we will save you from repetitions of the Hickman case, the Leopold-Loeb case, and all that long line of cases."

Crime Due Not to Intellectual but to Emotional Defect

He had seen the defective type coming into court *en masse* year after year. He has had ten years' experience as a prosecutor, and finally he began to realize that there was something wrong that the alienists were not guessing, Judge Harry Olson of the Chicago Municipal Court told the Conference members. Shortly after coming to the Municipal Court, Doctor Hickson called his attention to the condition known as dementia præcox. Judge Olson asked, "What is that?" He had been dealing with alienists and experts for ten years, and had never heard of it. Doctor Hickson explained that it was a defect of the basal ganglia of the brain, resulting in socially defective emotion, a not uncommon condition.

Judge Olson said he had been trained to think that insanity meant only that an individual could not judge intellectually between right and wrong, and had not the power to choose; that is to say, that insanity could be judged by an intellectual test. He explained that some of the criminals were high in the scale when tested intellectually, but disclosed marked hereditary inferiorities when submitted to the emotional tests that the Municipal Court has now devised.

As an example of the inadequacy of the intellectual test for the insanity of a criminal, Judge Olson cited the case in Cincinnati where three alienists told the court that Remus was sane, but in a supplemental note they said that he was a psychopathic personality, immoral, with low-grade emotions and dangerous. "Now that is a medical definition of insanity," Judge Olson said. "That ought to be the legal definition. The judge did the wise and commonsense thing by putting Remus away. We knew what he was when he ran around in Chicago. I predicted to my office staff five or six years ago that he would kill. The morning he did, I walked into my office from the train and the stenographers said, 'He killed.' I said, 'Who killed?' They said, 'Remus killed'."

The law of insanity that was laid down in 1848, making the test an intellectual one, is still the test today, in every state in the Union, Judge Olson pointed out. "McDougall, formerly of Harvard, now of Duke University, says that lawyers and the law are usually one to two and three generations behind the scientific facts. He said that the reason for that is that scientific facts must become generally known and generally believed before they are put into the law. Therefore the law of 1848 must have been the medical opinion of 1812—the time that Mayor Thompson would remind you the British burned the capitol at Washington. A Race Betterment Conference is a good place to examine this law of the country today."

The Delinquency of Parents

In her work as Judge of Probate at Muskegon, Michigan, Judge Ruth Thompson finds the thought often occurring to her that "we need not a Juvenile Court so much as we need a Court for Delinquent Parents."

In the case of a habitual boy thief, not until the father was forced to pay for the boy's maintenance in the Detention Home did he put sufficient pressure on his boy to stop his thieving, Judge Thompson said. "It was the purse strings and not the heart strings that needed to be touched."

A girl who was brought into court repeatedly for stealing was found to have a mother who was keeping house for a man who paid her no wages, but from whose pockets she took money when he came home under the influence of liquor. The girl, age fourteen, admitted using cigarets, but examination of the mother showed her fingers to be discolored from the same cause.

Dependent and neglected children are the product of broken homes, Judge Thompson said. "The parents have separated and sometimes remarried, in either event with no idea of taking on the obligation of caring for their children. They come from homes where the mother has lost interest in home duties and family ties."

Sterilization Improves Morals of the Feebleminded

"One of the arguments used against sterilization was that with the fear of pregnancy removed it would promote loose moral conduct and spread venereal diseases," said Dr. H. E. Randall, President of the Michigan State Medical Society. "The reports of patients operated do not bear out this assumption. In fact the reports show, of Michigan and of California, that it leads to an improved moral conduct. One-fourth of the states now have a sterilization act and the courts have declared it constitutional. The problem is not with the idiot, for he is the last of his line. The operation removes no organs, and while we have seen no improvement as Steinach reports in rejuvenating old men, our own impression is that none has been made worse, all have recovered promptly and that the operation has led to a cleaner moral life of the paroled."

Factors in
LIVING LONG

The Lengthening of Human Life—in Retrospect and in Prospect

TWENTY-ONE years was the average duration of life in the sixteenth century, as near as can be reckoned from the statistics available. Twenty-six years was the average in the seventeenth century; thirty-four in the eighteenth. In Massachusetts in 1789, the average duration was thirty-five years; in 1890, forty-three years; in 1897, forty-five years. In the United States registration area in 1900, we had forty-nine years; in 1910, fifty-one years; in 1920, fifty-five years; and in 1924, the last figures we have, fifty-eight years. These figures were given by Dr. Irving Fisher, Professor of Political Economy at Yale University.

There are three known ways of further lengthening human life, Professor Fisher pointed out. Eugenics is the most important. "We must depend on eugenics rather than on hygiene," he said, "because hygiene without eugenics will be disgenic, will give us a weakened race in the long run through the differential birth rate. Increased public hygiene is the second method by which life may be lengthened—public hygiene that insures pure air, a pure water supply, and that protects us from germs. But the most important method of lengthening life in the higher ages is by means of personal hygiene, that is, the adoption of the most hygienic habits of living.

"Individual hygiene can be imposed upon the baby because the baby is helpless, but when we try to impose individual hygiene on an adult, he resents it," Professor Fisher said. "If we try to legislate in regard to alcohol, which we know to be injurious, we find a tremendous resentment against prohibition. I remember that when I had tuberculosis, in the West, I asked my physician why he did not tell what I had learned about the importance of ventilating rooms to all his patients, and he said, 'I can't do that, I would lose my job. I would be regarded as interfering with what was none of my business.' That is the attitude of the average man, when you talk about drinking and smoking and eating and all those things that constitute individual hygiene. And yet, if we are going to reduce the death rate beyond seventy, as we have in the earlier ages, we have got to have a revolution in the habits of living.

"How can it be brought about? It can be brought about on a large scale to some extent through periodic medical examinations, such as have been initiated by the Life Extension Institute, Inc. It can be done likewise through the preachment of physicians to their patients, if they will take up this form of preventive medicine."

What Stands in the Way of Advance in the Average Life Span?

Writers and lecturers, and through them reports in the press and magazines, have fixed attention too closely upon the steady increase in the expectation of life at birth, was stated by Dr. James W. Glover, Chairman of the Department of Mathematics of the University of Michigan. "They have predicted an average span of one hundred years, yes, one hundred and fifty years, for man at one time, not far away. The oft-repeated statement that we have increased this expectation twelve years during the last three decades, followed by the prediction that we may expect to double this gain in the near future, is absurd, if we take all the implications of our life tables at their face value."

What stands in the way of this advance? Doctor Glover explained it as follows: "We are all accustomed to the idea that general death rates cannot be employed to compare the standard of health and mortality in two communities unless the age distribution of the population is the same in those communities. A little consideration will also show that the expectation of life at birth, taken alone, is not a good measure of longevity. The age distribution of this gain must be determined. If it is all or nearly all under age fifty, it cannot be inferred that those who are living at ages over fifty are any better off than before. They may, as an aggregate, be even lower in vitality, owing to the mass of weaker men who have been nursed up to and beyond fifty through the aid of hygiene, medicine and surgery. If these rates of mortality remain the same, they will kill off ten million people at the age of fifty and over in exactly the same time and incidence as ten thousand."

"What constructive measures, then, can we formulate to meet this outstanding problem? They must be far-reaching and involve much beyond what we are doing now," Doctor Glover

said. "We must appeal to every effective agency to make a renewed effort at this point. The biologist through his investigations may discover methods for prolonging life more potent than those of the physician. When we reach a limiting point in the elimination of disease, the only one that remains is what we may call 'Old Age.' Some students believe that longevity is inherited and this may give us a promising lead."

Eternal Youth—A Significant Potentiality of Body Cells

A little piece of tissue, taken by Dr. Alexis Carrel from the heart of a chicken, has for sixteen years continued to grow, and is today just as "young" as it ever was. Washing the tissue of its poisons and furnishing it with the proper nutriment are the secrets of its immortality.

From his experiments with this tissue in the laboratories of the Rockefeller Institute for Medical Research, Doctor Carrel states that two important facts were brought to light:

1. The fibroblasts derived from the original heart fragment manufacture large quantities of new tissue from the substances contained in the culture medium. In forty-eight hours, each cell of a colony seems to divide twice, and the colony doubles in volume. Had it been possible to keep all the cells that could have been produced during these sixteen years, their mass would be immense. A colony originally one cubic millimeter in volume would produce approximately one cubic centimeter of tissue in about twenty days. After sixty days, the volume of the tissues would be a little more than one cubic meter, and in less than one hundred days, one million cubic meters. It is obvious that tissues growing at this rate for sixteen years would reach a volume greater than that of the solar system.

2. Cell proliferation is unlimited in time. Today, the rate of growth of the strain of fibroblasts is as great as it was fifteen years ago. The curve representing the variations of the growth velocity during this long period is parallel to the time axis. Time has no action whatever on these tissues. They are immortal.

"This property also belongs to other tissues," Doctor Carrel said, "as was shown by Fischer for iris epithelium, and by Eboling for thyroid epithelium; cultures of such tissues have been kept in full activity for several years in his laboratory. Normal and malignant cells of rats, mice, guinea pigs and human beings were also discovered to be potentially immortal. Although the constituent cells of certain organs, such as brains, lived in vitro only for a short period of time, animal tissues in general must be considered as capable of unlimited proliferation, in time as well as in space.

"These facts are of profound significance," Doctor Carrel stated. "They demonstrate not only that tissue cells are endowed with potentialities far greater than they display within the body, but also that those potentialities become actual under definite conditions—elimination of certain metabolic products, and the presence of proper nitrogenous food."

Although the body is composed of elements that are potentially immortal, it is, and always will be, subject to senility and death, Doctor Carrel explained. Cells living as part of an organized community do not find in such an environment the conditions required for immortality. The only living forms enjoying eternal youth are the colonies of unicellular organisms that eliminate their metabolic products directly into the outside world. When an animal is composed of a mass of cells organized as a closed system, the process of aging necessarily takes place. Immortality is incompatible with organization. But organization is necessary for the development of a highly differentiated nervous system and for the appearance of mental processes. Death is the price we pay for the possession of our brains.

ENVIRONMENT

Science in the Service of Health and Well-Being

Science, the Worker's Slave

"The worker has enjoyments unknown to the kings of old," Hon. James J. Davis, Secretary of Labor, stated. As an example of the gifts of science to industry, he described the great surgical advances of modern time, and in particular the discoveries of Doctor Albee, now applied in industrial establishments, that have "almost stricken the word despair from the dictionary." These surgical benefits now available to the working man are contrasted with the days when ants with a peculiar mechanism in the form of a locking claw were the only available measure for holding together the sides of a cut.

"The same progress as that in surgery runs through industry in general," Secretary Davis said. "You see it in sanitation, in devices to protect the worker from dangerous machines, from health-destroying chemicals. In my estimation, that is one of the finest sciences of all. It is not enough to help a man to produce, as men have never produced before; the great job of science is to make life itself better than ever, and to see that every man has his full share of it."

The working man no longer faces so serious a problem as formerly when he arrives at forty years. Secretary Davis said that when he was a youngster and working in the iron and steel mills, the man who reached the age of forty was given a gold-headed cane—and his discharge. Too many employers have still the notion that a worker, no matter what his record or what his present skill, is through at forty, he observes, but he believes that science will drive this foolish notion out of their heads.

"There are no longer human slaves because science has freed them," Secretary Davis said. He emphasized that the benefits of science have not been merely material. "It has been said of ancient civilizations that only because the millions were forced to do the work could the few find 'time to think.' Today nearly every laboring man in the United States has 'time to think.' And he owes this mostly to science."

Women Workers—Fundamental Standards Necessary to Insure Their Health and Efficiency

The standards for women in industry that constitute the program and creed of the Women's Bureau of the United States Department of Labor were listed by Miss Mary F. Anderson, Director of the Bureau. The standards have been established after careful surveys of working conditions in all the states, she explained, and are, briefly:

1. Equal pay for equal work.
2. An eight-hour day; a half holiday on Saturday; one day's rest in seven.
3. At least thirty minutes for meals.
4. Ten minutes rest in the middle of each half day without lengthening the day.
5. No employment between midnight and 6 A.M.
6. Clean work places, with special attention to floors to prevent slipping.
7. Enough light but no glare.
8. Adequate ventilation. Provision against heat humidity, dust, fumes.
9. Guarded machinery. Protection against fire and other hazards.
10. A chair for each woman, built on posture lines, adjusted to both worker and job. Neither constant sitting nor constant standing.
11. Sanitary and accessible drinking water; individual cups or sanitary fountains.
12. Sanitary and accessible washing facilities; hot and cold water, soap, individual towels.
13. Sanitary toilets, one to every fifteen women.
14. Dressing rooms for change of clothing. Rest rooms for rest periods.
15. Separate lunch rooms, with hot food where possible.
16. No prohibition of women's employment in any industry except those proved to be more injurious to women than to men.
17. No home work.
18. A competent woman personnel officer in charge of all matters affecting women employes is recommended.

"Women have especial significance in society because they are directly responsible for the life of the home," Miss Anderson stated. "To the extent that our homes are safeguarded, to that extent only are we safeguarded as a nation."

The Rural Health Problem and Its Solution

Health conditions in the cities are far better than those to be found in the rural sections of the country, Mr. John A. Kingsbury, Secretary of the Milbank Memorial Fund, reported. According to Doctor L. L. Lumsden, Surgeon of the United States Public Health Service, eighty-three per cent of the seventy million people of rural communities are without reasonably adequate local health service.

"Perhaps the most important step in the solution of the health problem everywhere is to get the well-trained physician to take an active part in public health work," Mr. Kingsbury said. The results obtained by sanitary organization in the Panama Canal Zone, under the leadership of General Gorgas, are suggestive of the results that might be obtained in rural communities by effective sanitary organization.

Mr. Kingsbury sums up the factors prominent in the solution of the rural health problem as follows: A population unit economically self-sufficient (the county is generally found to be the most practical unit for rural health science); an educated public opinion conscious of the problem; a trained, tactful, efficient, full-time, county officer; and the assured cooperation of local physicians.

How They Reduced the Baby Death Rate in a Section of Montreal

Setting out to prove to mothers that deaths of babies are not always unavoidable was a delicate task, Miss Edith B. Hurley, R. N., Professor of Public Health Nursing at the Université de Montréal, reported.

Slightly less than three years ago, the inauguration took place of a French Health Centre, in the poorest section of Montreal where the need of health work was greatest, to serve as a health demonstration unit. The salient point of attack, in order to prove in the shortest possible time that lives can be saved, was infant mortality.

It was found that forty-five per cent of the babies were bottle-fed. The mothers maintained that their own milk was "not so good." It was necessary, in some cases, to express some of the milk and to send it to a laboratory for analysis, in order to convince the mothers that their milk was normal.

Breast-feeding was, therefore, one of the most important measures stressed in the demonstration. It was found that as the percentage of breast-fed babies increased, the percentage of baby deaths decreased. In the less than three years of demonstration, the infant mortality has been reduced from two hundred and twenty to ninety-six and seven-tenths per thousand. The demonstration is to last five years, by the end of which time, it is expected, at the present rate of reduction, to bring down the infant mortality of this very poor section of Montreal to a figure equal to or better than that of most American cities.

Where New-Borns Are Premunized against Tuberculosis

In an effort to reduce the future incidence of tuberculosis, new-born babies of the French Health Centre demonstration area in Montreal, are premunized, Miss Hurley also reported. Calmette vaccine, commonly called "B.C.G." (Bacillus Calmette Guerin), is prepared and administered with a technique that was demonstrated by Dr. A. Petit, an associate of Doctor Calmette who was brought over from the Pasteur Institute.

The subsequent history of three hundred and sixty babies premunized showed only four, of those traceable, to have died, but not from tuberculosis. Five were reported sick, but from some other trouble than this disease.

The expectation of lives to be saved by this additional measure in preventive medicine are based upon the studies already made in France, of the comparative mortality from tuberculosis of vaccinated and non-vaccinated babies, that seem to more than justify the use of "B.C.G."

Apply Child Life-Saving Methods to Adults

With the child death rate reduced by the efforts of public and private health agencies, why not apply to adults—whose death rates meanwhile from heart, kidney and circulatory disease have increased—some of the measures that have proved so effective in the case of children, asked Dr. Guy L. Kiefer, Commissioner of Health for the State of Michigan. The child is inspected in his workshop, the school. When disease is detected or physical defect revealed, advice is given to the parents as to the correctibility of the condition. Doctor Kiefer urged that the adult should have, similarly, the benefit of health or medical inspection in his workshop, and should similarly receive advice and assistance in correcting disease and in keeping well.

While Doctor Kiefer does not advocate that the state should go into industries and commercial establishments and make physical examinations of all employes for the purpose of keeping them well, he does believe that each State Health Department should have a Bureau of Industrial Hygiene (one is being organized in the Michigan Health Department) to work with the industries, to the end that there shall be established in each a well-equipped Health or Medical Department, the object of which will be "not to dispense pills

and to wrap fingers," but "to make frequent examinations, to give advice as to the correction of any existing physical defects and to give instruction in how to keep well."

Ideals of Environment May Be Molded

"As a man thinks, so is he," Dr. Oscar Dowling quoted. As President of the Louisiana State Board of Health at New Orleans, and Professor of Public Health Administration at Tulane University of Louisiana, School of Medicine, his experience has shown that a man will develop himself and his surroundings in accordance with his ideals. "If he is esthetic, he will not be content with squalid conditions; if he has a tendency to thrift, the status of his home and immediate environment will give evidence of this quality; if he is of a lazy, inert, essentially indigent type, the result of these characteristics will be clearly evident."

Proper education can do much in molding a man's ideals, Doctor Dowling has found. He notes that proper training of the child leads to an enhancement of his native abilities, and to the development of those inhibitions that culture and social organization demand, and he observes that the same educational force may be utilized to lead the adult away from blind selection in mating on certain external qualities, and to the making of such a choice, because of established ideals, as will lead to race progress. Every nation does or should have popular ideals, influencing all citizens, that make for Race Betterment.

Better Citizens Obtainable by Bettered Environment

"The world is not crying out for more inhabitants," Dr. Henry F. Vaughan, Commissioner of Health for the City of Detroit, stated. "I know of no part of it, at least no considerable part, that is offering inducements to newcomers. What the world needs, and practically every part of it, is not more citizens but better ones.

"While man is the product of both heredity and environment, great improvements in health and happiness have been attained by altering environment alone.

"These improvements have come to whole communities. For instance, the substitution of a pure water supply of a city for a polluted one protects or aids in the protection of all its citizens. A like result is secured when milk is subjected to inspection, both at the stables in which it is drawn and during the period of its transportation to the doorstep of the consumer. When all of this is done by city ordinance or otherwise, all citizens reap the benefit. The same thing or like thing is true when the health department prescribes certain rules for the gathering, handling, transportation and storage of foods."

From such environmental improvement, Commissioner Vaughan notes that uncontrovertible statistics prove that the man of today is healthier than his forefathers, and he sees in further work in behalf of improved environment a very definite and practical opportunity for further disease prevention and the development of a better and healthier man.

Race Betterment in Mexico

As special representatives of the Mexican Government, Dr. Alberto Lozano and Margarita G. de Lozano Garza, reported to the Conference measures undertaken in Mexico "in promotion of maximum human well-being."

An especially effective measure has been a School Hygiene Service established by the Secretary of Public Education independently from the Department of Health. This service has made periodic examination of pupils, inspected schools and has promoted the betterment of buildings and of school materials.

Another important branch of the Race Betterment work in Mexico has been the establishment of special schools, such as Home Schools, Out-of-Door Schools, Schools for Native Indians, etc. Also, the addition of school courses in Puericulture and in Pediatrics for both physicians and midwives to the curriculum of the School of Medicine of the University of Mexico have yielded good results.

New institutions, called "Centers of Hygiene," were described as having increased the number of children born alive, the number born on time and the number born with all the signs of being healthy. These institutions were established by the Department of Public Health. They comprise two sections, Prenatal Hygiene and Infant Hygiene. At these Centers pregnant women are examined, are treated when ill or sent to clinics for treatment, and are instructed in the care of themselves and of their infants.

LIVING HABITS

Their Relation to Long and Efficient Living

Nutrition

How America Can Save 200,000 Lives a Year

DR. M. HINDHEDE, Commissioner of Health for Denmark, who not only rescued that country from its food predicament during the war but, in the greatest period of war stress, reduced the national death rate at the same time, reported in full detail his experiments with various extremely simple diets. He has found the potato an invaluable article of food, and not only a food but a remedy. The strength of the Irish policeman is evidence, Doctor Hindhede believes, of how well one may flourish on a diet made up mainly of potatoes.

Experimenting with wheat, he has found that whole wheat is markedly superior to white flour, and that bran is one of the very best of foods.

Particular note should be made of the fact that Doctor Hindhede recommends, in the light of his experience and experiments, that America reduce her meat consumption, and thereby, he believes, reduce her incidence of degenerative disease, with a resultant saving of 200,000 lives a year as his estimate.

Diets Rich in Protein Are Harmful

Dr. Louis H. Newburgh, Professor of Clinical Investigation, Department of Internal Medicine at the University of Michigan, reported experiments with high protein diets, and showed pictures of the results.

He said that for a long time there has recurred in the minds of doctors the suspicion that certain chronic ailments were caused by too much protein in the diet. Twenty-five years ago Chittenden showed that the one hundred and twenty to one hundred and fifty grams daily, advocated by Voit, was three-fold greater than the amount that will maintain robust health. But the other side of the question, that is, whether or not large amounts of protein are positively harmful, Doctor Newburgh said had never been subjected to rigid investigation until 1916, when he and his coworkers began feeding to rabbits and later to rats diets whose protein content was carefully controlled. It soon became evident that disease of the arteries, kidneys and liver was caused by diets containing two or three times the minimal requirement of protein, he reported. Such amounts are habitually eaten by great groups of human beings, and such was the quantity considered optimal by the great Carl Voit.

"Protein is split by the digestive juices into the amino acids and absorbed in that form," Doctor Newburgh explained. "We are accordingly studying the action of these amino acids on the various organs. Thus far we have found that some of the simple members of the group are quite innocuous, but that others are very definitely poisonous."

Why Some Persons Are Obese

Obesity lays the background for a great many serious and often fatal conditions, Doctor Newburgh also stated; it is connected with diabetes, with heart disease, with kidney disease, with apoplexy.

"The most aggravated example of obesity can be controlled rigidly on the basis of calories," Doctor Newburgh said. Persons who were considered examples of what is commonly called "endocrine" obesity—that is, cases of obesity supposed to be due to other fault than the diet—were found to respond to food restriction in exactly the same way as any normal person.

Why weight may even increase for a time, under the first food restrictions, was explained by Doctor Newburgh. "All through this period there is a sort of interreaction to this rapid loss; also a period of what we call hydration, a period of accumulating water and holding it. By means of carefully balanced water studies, it can be shown that all of this departure from the predicted failure to lose weight is due to water. Then at a certain point, all of that water is again given out and thereafter the weight is again lost rapidly, so that the whole period is as predicted. And this same thing happens if one takes the trouble to make the study in normal persons to the same extent as it happens in the obese."

Nations that are poor are not obese, Doctor Newburgh pointed out. "Obesity is invariably due to the abuse of food in the sense of energy-supplying material. If we are too fat, it is because we eat too much."

Normal Growth Hindered by a White Bread and Meat Diet

No young animal will grow normally on a diet of white bread and meat, was reported by Dr. Mary Swartz Rose, Professor of Nutrition at Teachers' College, Columbia University, from laboratory demonstrations. The contrast between feeding white bread and meat and white bread and milk is so striking that she has found it can be used in teaching even very young children.

Meat is a very one-sided food and the diets of most Americans would be improved if their meat and sugar consumption were each cut in two, Doctor Rose pointed out. Because of its deficiency in the calcium and vitamins necessary for the maintenance of health, meat needs to be supplemented by milk, fruit and vegetables.

"No animal can grow on white bread alone," Doctor Rose warned. "Everyone should understand that the substitution of whole wheat bread for white, and of other whole-grain products for highly refined cereal foods, is a safeguard of nutrition that costs practically nothing."

The Miseries Resulting from a Bread and Coffee Diet

Today we can go into a schoolroom with two pairs of newly-weaned white rats, from one mother, and show boys and girls what they ought to eat by means of an "experiment," whose purpose is to find out whether food makes any difference in their health, Doctor Rose further explained. "To one pair we may give a diet of whole wheat bread and milk, and to the other pair white bread and coffee. In the course of six weeks the pair on bread and coffee will be much smaller in size, and they will have fur that is rough and often patches where it has fallen out entirely, tails that show a poor condition of the skin, and cold, blue feet, which the children quickly note as signs of poor health. This of itself is impressive, but when the 'bread and coffee' rats are changed to the whole wheat bread and milk diet, and quickly begin to lose their miserable looks and to gain weight at an astonishing rate, there is no need of discussion of the question, 'Does food make a difference in health?' "

The Dangers of Sugar Eating

Systematic food education is imperative if we are to adjust ourselves successfully to changing food conditions, is the opinion of Doctor Rose. Owing to the development of modern transportation, it is now possible to get, for instance, almost unlimited amounts of pure cane sugar at a price so low that anyone can buy. This, coupled with its extreme popularity, has resulted in the consumption of ten times as much sugar per capita per year in this country as was customary a century ago.

"Sugar tends to satisfy people's appetites without making any contribution to the upkeep of their bodies," she points out. "There is a type of malnutrition, most plainly seen in infants, in which there is good body weight so that the casual observer says, 'What a fine child!' but in which the expert in nutrition takes note of the composition of the blood and finds it lacking in hemoglobin; of the bones and discovers that they are weak and distorted from lack of proper storage of calcium; of the ears and nose which perhaps are found the seat of infection. All these make the child an easy prey to fatigue and disease. They come from the lack of suitable amounts of body-building material in the diet, and also of those substances, chiefly mineral elements and vitamins, that serve to keep the body functioning at its best."

Dietary Safeguards

Milk is the best food investment, Doctor Rose believes. "There is abundant scientific evidence that for all ages milk reinforces the diet at more points than any other common article," she stated. "To convince people of this, and to persuade them to act upon their knowledge, would probably do more to raise the general level of health and vigor of young and old than any other single measure."

Vegetables and fruits are dietary safeguards, she pointed out. "While the deficiencies of meat, white bread and sugar, which are now constituting too large a proportion of our total food consumption, can be remedied by the use of milk to a far greater extent than most people suppose, we also need, as an additional safeguard, more vegetables and fruits.

"The richness of green leaves in vitamins and mineral salts gives them a place almost as distinctive as that of milk. We must depend on fruits and vegetables for the vitamin that prevents scurvy and that is easily destroyed by heat. For this reason our food education should include instruction in the value of citrus fruits and tomatoes (the latter whether raw or cooked) and of raw vegetables, such as cabbages, carrots and turnips, as well as of lettuce and other so-called salad greens."

The Relation of Diet to Dental Disease

Dr. E. V. McCollum, Professor of Biochemistry, School of Hygiene and Public Health, Johns Hopkins University, recognized as one of the greatest nutrition experts of the country, showed where we stand now in our knowledge of nutrition. Of especial interest was the elaborate experiments he mentioned that have shown beyond question "that inadequate dietary regimens, yet sufficiently good to induce nearly or quite normal growth, may yet induce profound injury to the structure of the teeth," and they "suggest the importance of a most careful inquiry into the relation between diet and dental diseases in man."

We Eat Too Much Cereal and "Muscle Meat"

The invention of the steel-faced plow and the consequent increase in the production of cereals, together with the modern improvements in transportation, have caused Americans to rely largely upon such foods as refined flour, refined cornmeal, polished rice and muscle meat, Doctor McCollum also pointed out—a diet that is defective in both mineral and vitamin requirements, with resulting injuries to growth and to the maintenance of well-being.

There Is Too Much Meddling with Expectant Mothers' Diet

He also pointed out that there is too much meddling "with the diet of the expectant mother with the objective of producing a child of small size and of promoting easy delivery." All evidence available from animal experimentation indicates the danger of such procedure. "I believe that any dietary regimen that is sufficiently out of balance or defective to produce an observable effect on the size of the child will also injure it and predispose it to weakness in post-natal life," he said. "Such a procedure is, if we may judge from the results of observations on animals, more likely to interfere with delivery than to facilitate it."

Progress in Vitamin Research

Walter H. Eddy, Ph.D., Professor Physiological Chemistry in Teachers' College, Columbia University, gave special attention in his paper to the progress during 1927 in the chemical study of vitamins.

Vitamin A.—The biostearin reported in 1925 by Japanese workers as isolated vitamin A has now been shown by Drummond and by the original workers themselves to be a complex, and information is still lacking as to which of the separated components is the true vitamin.

Vitamin B.—The confirmation by chemical fractionation of vitamin B into specific fractions by Peters in England, Jansen and Donath in Java, and Williams in the author's laboratory in New York that this vitamin is composed of at least two factors and that one factor is antipellagric was discussed. Jansen and Donath's feat in isolating a crystalline antineuritic vitamin was critically reviewed in the light of data obtained by repetition of the work and the postulation of a third vitamin B factor made.

Vitamin C.—Zilva's work tended to show that as vitamin C isolation progresses toward purity two factors emerge, one the true vitamin and the other a substance readily oxidized but apparently necessary to the stability of the true vitamin.

Vitamin D.—Rosenheim's and Webster's and Windaus' work tending to show that the rickets-curing vitamin is activated ergosterol was reviewed.

In addition to this critical review and presentation of recently contributed data, the speaker entered a plea for more active cooperation between vitamin workers, chemists and pathologists in America toward the problem of vitamin isolation, standardization of tests and reagents. Examples were cited to show that many of our present conceptions of how vitamins act rest on conflicting and unsatisfactory observations. The need of raising vitamin therapy from empiricism to science was stressed and gaps in present knowledge exposed.

The American Nation Needs More Fruit and Vegetables

More meat and cereals were produced, according to production figures for 1911 to 1917, than we as a nation needed, but not enough vegetables and fruit were produced to supply the necessary minerals and vitamins. This situation was reported by Miss Edith Hawley, Food Economist of the Bureau of Home Economics of the United States Department of Agriculture. Studies made seem to indicate that the workingman's family is consuming food yielding only eighty-five per cent of the energy that it needs. The minerals are also low. The diet furnishes only ninety-five per cent of the calcium and phosphorus that is needed, and eighty-five per cent of the iron. The protein, on the other hand, is slightly above the estimated need. "If the amount of milk, vegetables and fruit in the diet may be regarded as an indication of its vitamin content," Miss Hawley said, "it is safe to conclude that many of these essential factors are also low, for milk, cream, fruit and vegetables furnished only twenty-two per cent of the total calories instead of thirty-one per cent as recommended by Hunt."

The diet of farm families as a whole is considerably more than they need, but in individual cases is inadequate in minerals and in vitamins, Miss Hawley also reported. The situation in these families is, however, somewhat better than that among the workingman's families.

The situation could be somewhat remedied, Miss Hawley believes, simply by better knowledge on the part of the consumer. The trouble is not so much that of underproduction as of ignorance. When the housewife better understands the facts pertaining to nutrition, she will prepare the family food by methods favoring the retention of all the nutrients and will not select those foods that by "refining" have suffered nutritional and economic losses.

The consumer should also demand more efficient marketing service, Miss Hawley pointed out. "When the consumer has learned the essential points pertaining to food and then creates the demand for suitable food, the necessary production will naturally follow."

The Therapeutic Potency of Cod Liver Oils

Medicinal cod liver oils, adjudged by chemical and physical tests to be pure, in general do not vary greatly in their antirachitic values. This has already been proved by an investigation that is still in progress by the Protein and Nutrition Division of the Bureau of Chemistry and Soils, in cooperation with the Drug Control Laboratory of the Food, Drug and Insecticide Administration of the United States Department of Agriculture. Mr. E. W. Nelson of the Bureau reported the investigation. He said that the tests have revealed oils that have only one-half or one-third the quantity of vitamin D usually found, but that in every such case chemical analysis has indicated adulteration with other fish oils. Some oils unquestionably adulterated have been found to be equal in vitamin content to the best genuine cod liver oils. Variation in the vitamin A content of oils examined to date has been considerably greater than variation in the vitamin D content.

With respect to preparations alleged to contain concentrates of the active principles of cod liver oil, not one whose examination has been completed to date has been found that contains significant quantities of A, and only one has been found that meets its claims for D. Fully one-half of those examined are valueless from a therapeutic standpoint.

It is possible to obtain from cod liver oil a fraction, representing about one per cent of the original oil, that contains practically all the vitamins. The failure of manufacturers of proprietary preparations to put out a satisfactory product can probably be attributed to failure to appreciate the instability of the vitamins under certain conditions, failure to control technical operations by the necessary tests, or possibly a lack of sincere effort to produce a genuine product.

Mr. Nelson reported that the vitamin investigations are being continued, and will probably be extended to other fields with the hope that this work will result in the production and distribution of improved products, and that the consuming public will be benefited accordingly.

Studies of the Gorilla Suggestive to Scientists and Physicians in Their Work for Health

Mrs. Carl E. Akeley, who accompanied her late husband on his trip to the gorilla country, gave some interesting data on the food and habits of the gorilla. This "nearest relative of man" when he ranges feeds on the succulent sprouts of the young bamboo, she says. "The young shoots, which are pinkish gray with a covering of powdery brown, have a sweetish bitter taste. The gorilla eats these tender shoots in entirety, while the less tender shoots he tears open and eats of the inner portion."

Many of the gorilla nests were quite clean, Mrs. Akeley reported; others contained "many coarse heavy black droppings, while similar droppings were scattered outside the nest nearby. There was no disagreeable odor to nest or to droppings. This is in great contrast to the beds and droppings of the meat-eating cat family.

The gorilla enjoys perfect health, Mrs. Akeley said. "In the preparation of the skin or skeletons of the gorillas, we found not a single external or internal parasite. Dissection showed them as perfectly healthy, more so than any other animals we had ever dissected."

Prehistoric Living

Not only looking forward to future generations, but looking backward for the lessons that may be learned from prehistoric times, was advocated by Dr. Henry M. Ami, Director of the Canadian School of Prehistory in France, Laboratory of Geology and Paleontology at Ottawa, Canada. "Every person has at some time in his existence gone through the stages of his predecessors, from early pre-Cambrian times, all through the geological ages of this world's history, to the present time," he said. We inherit from our ancestors many traits and characteristics. A backward look is essential, therefore, in understanding these characteristics in order to make fitter citizens of the community, and of the world.

Doctor Ami pointed out that man in the earliest periods was vegetarian, fruit trees abounded at that time, and man fed on practically nothing but vegetables.

Man and the Microbe

Modern Diets Free Undesirable Microbes from Competition with Protective Lactic Acid Bacteria

It is a fact long known to physicians that normal breast-fed babies are singularly free from typhoid, dysentery and cholera. The reason for this was explained by Dr. Arthur I. Kendall, Professor of Research Bacteriology, Northwestern University School of Medicine and author of "Civilization and the Microbe," besides numerous other contributions on bacteriology and hygiene.

"The first germs that appear in the alimentary tract of the infant are those that come from the environment. In an unclean environment these germs are more numerous than in a clean environment. A day or two after birth, there ap-

pear abruptly new bacteria, called the Bacillus bifidus, which are strong lactic acid producers. These particular germs are greatly increased in numbers by the ingestion of mother's milk with its sugar lactose. The lactic acid thus produced somehow acts as a protection to the infant against the predatory microbes that may, and undoubtedly do, gain access to the alimentary tract."

The modern disturbance of the man-microbe balance, through sanitary measures such as Pasteurization and through modern diets, must be counteracted, Doctor Kendall pointed out. "Man for countless generations has developed in the closest relationship with his inevitable microbic messmates. Now, suddenly, the bacteria of lesser resistance to disinfecting agents—heat, chemicals, ultra-violet light—are abruptly eliminated from his food. The bacteria thus eliminated include the majority, if indeed not practically all, of the normal lactic-acid producing kinds. The more resistant organisms, however, many of them spore formers and therefore difficult to kill, are still poured into the intestinal tract, as before. The important fact to visualize is that these hardy microbes are freed to no slight degree from the competition of the normal lactic acid bacteria, which were formerly more numerous within the alimentary canal and which restrained their development therein. Among these more resistant types are the gas bacilli, putrefactive organisms, and many of unknown potentialities. As a result of this disturbance in the alimentary canal of the man-microbe balance, new adjustments will undoubtedly take place, with ultimate effects that cannot be foreseen."

The Relation of Intestinal Flora to Longevity

Metchnikoff, in his studies of the conditions that represented weakening with age of the differentiated cellular tissues, finally localized the toxic process in the large intestine, a "hotbed of fermentation and putrefaction." Dr. E. Wollman, Chief of Laboratories of the Pasteur Institure, of Paris, stated in his paper contributed to the Conference that from the beginning of his researches Metchnikoff had recognized the importance of diet in relation to the question of intestinal putrefaction. "During the course of these experiments," he said, "Metchnikoff and I have studied a large number of different régimes with reference to their influence on the production of the aromatic bodies (indoxyl and phenol sulphate) found in the urine. These experiments were made on white rats, animals essentially suited for this type of study. Placed in cages permitting the gathering of urine, the animals were put on diets consisting of one or several ingredients of either animal or vegetable origin.

"In general, the rats fed with one lone article of food of animal origin gave urine containing a much greater quantity of aromatic substance than the vegetarian rats. However, certain vegetable products give, in the rat, high quantities of those aromatic substances, sometimes greater than those obtained by the use of nourishment of animal origin, cottage cheese being an example of this. It is evidently a mixed diet, given an omnivorous animal such as the rat, that obtains the best results."

The digestive function is also a factor in determining the intensity of the intestinal putrefaction, Doctor Wollman explained. It is on the residue from the digestive function that the activity of the intestinal bacteria is directed. Following the more or less complete use of the various food elements, the residue furnished the intestinal flora can vary more or less markedly. This indicates the possibility that the intensity of intestinal putrefaction can easily vary from one individual to another, and even vary from moment to moment in the same individual. This explains the experimental fact that, in the great majority of cases, intestinal putrefaction, measured by the aromatic contents of the urine, is always intensified during the early portion of the régime. Afterward, there is a certain adaptation, permitting better utilization of the food elements furnished, and reducing, at the same time, the amount of putrefaction. Beyond the shadow of a doubt, this explains the greater efficiency of the glycobacter treatment in its earlier stages. The more complete digestion of potatoes later provides a smaller quantity of starch for the large intestine to be transformed into sugar.

Light and Life

The Therapeutic Wonders of Sunlight

Sunlight, while not a cure-all, has been found by Dr. Horace LoGrasso of the Department of Public Safety, City of Buffalo, to be a tremendously valuable adjunct to other methods of therapy and to other methods of prophylaxis aiming toward race improvement. He says, "The results of many years of sunlight treatment of tuberculosis and similar infections seem to show quite definitely that the mode of cure of a tuberculous patient is in the improvement of the general condition of that patient by the mild stimulation of processes that sunlight produces, the individual, in his improved condition, then combating the disease himself by his own defensive mechanism. His gain in local and general physical condition is accompanied not only by a gain in resistance to further infection, but also by a distinct improvement in his mental attitude. Since this is

true, apparently, irrespective of the type of disease or infection with which the patient may be afflicted, it must follow that it is also true for the normal or nearly normal individual exposed to the same therapeutic measures. Sunlight thus constitutes a very important prophylactic measure, and one that can be used in a very direct fashion for race improvement."

As to the relative value of natural and of artificial sunlight, in the treatment of tuberculosis, Doctor LoGrasso says, "The conclusions arrived at, after fourteen years' observation of heliotherapy and various other forms of light treatment, can be summed up by saying that Nature is hard to beat at her own game. None of the artificial lights so far produced commercially have seriously rivaled the sun itself in the treatment of tuberculosis. A good tan may be obtained, but the skin lacks the velvety smoothness and suppleness that one notes in skins tanned by the sun. There is not the muscle development with the artificial light that there is with sunlight. In seasons when heliotherapy is impracticable, owing to clouded skies or to lowered air temperature, artificial lights supply, however, a real need and their use at these seasons is to be recommended."

The Potency of Sunlight in Rickets, Hemorrhage and Anemia

The therapeutic potency of ultra-violet rays in rickets was discussed by William T. Anderson, Jr., Ph.D., of the Research Laboratory of the Hanovia Chemical and Manufacturing Company. "It has been observed for a number of years that certain of the ultra-violet rays can alleviate the condition of rickets and promote normal bone growth," he said. "Furthermore, it has been shown within recent years by Hess of Columbia and Steenbock at Wisconsin that it is not necessary to irradiate the patients themselves with ultra-violet, but that irradiation of foodstuffs, skin or cholesterol, and subsequent feeding of these to the subjects, will produce the desired result. The substances mentioned above, or ultra-violet rays themselves directly, have the property of establishing a normal calcium and inorganic phosphorus content of the blood. These chemical effects bring about the great therapeutic potency in rickets, since the calcium and phosphorus in the blood are responsible for the integrity of bone formation."

Ultra-violet radiations are also an aid in the control of hemorrhage, Doctor Anderson reported. "Hemorrhage is an effect associated with slow coagulation of the blood, and retarded coagulation is in many instances associated with a deficiency of blood calcium. Since ultra-violet radiations can correct this deficiency very rapidly, it is not surprising that such treatment can serve as an aid to the control of hemorrhage."

Important use of ultra-violet radiation has been found in the treatment of anemias, Doctor Anderson also reported. "The further effect of ultra-violet on blood has been studied by Doctor Amcht of Baltimore and a number of collaborators on anemias, and especially pernicious anemia. He found that the blood serum of pernicious anemia patients is distinctly toxic to plants, whereas that of ordinary anemia is not. Incidentally, he irradiated some of the pernicious anemia serum with ultra-violet rays, and found that with such treatment it was possible completely to destroy the toxicity. The rate at which this can be accomplished can be greatly increased by employing sensitizers such as eosin or hematoporphyrin, the latter being a blood pigment. With the aid of a number of collaborators in sanitariums and hospitals, he was able to examine blood serum of a large number of pernicious anemia patients before, during and after irradiation with ultra-violet radiations, and in every instance the toxicity of the blood disappeared after continuous treatment. In addition, the patients showed marked improvement.

"Previously it had been noted that secondary anemias following hemorrhage were benefited by ultra-violet rays. In view of the new discoveries, it became apparent that the ultra-violet exerted marked influence on anemias in general. An investigation as to the effective ultra-violet wave lengths in pernicious anemia is now in progress."

The Relation of Sunlight to Vitamins

The vitamin has a relation, either direct or indirect, to sunlight, and it must be reasonable to suppose that the energy of the vitamin comes from sunlight. This statement was made by John W. Bunker, Ph.D., Associate Professor of Physiology and Biochemistry at the Massachusetts Institute of Technology.

Vitamin A seems to be associated with rapidly growing young green plants in general, and as young green plants ordinarily require sunlight for their growth, there is very likely some relation between light and the production of vitamin A in green leaves. Even the vitamin A in cod liver oil probably comes from the sun, Doctor Bunker pointed out, from hosts of minute surface plants that furnish food for the smallest fishes and other marine animals, which become food for larger forms that are in turn eaten by the cannibalistic codfish. The vitamin that has been developed in the growing plant becomes transferred to the fatty tissue of the cod and is especially concentrated in the liver.

"The relation of vitamin B to light is not clear at present," Doctor Bunker said, "inasmuch as yeast cells, for instance, that are grown in the dark, still contain this vitamin."

Vitamin C is found in fruit juices, and since fruits grow upon plants in the open air subject to the rays of the sun, Doctor Bunker stated that there appears to be some relation between light and the production of this vitamin.

"Exposing an animal to sunlight, or to rays of light of proper wave lengths from any other source, will not supply or remedy a lack of vitamins A, B or C," he said.

"Vitamin D is of especial interest to the student of the effect of light on health because it has been shown beyond any doubt that vitamin D can be built up in the animal's body as the result of exposing it to light of certain wave lengths," Doctor Bunker said. "The wave lengths of light that bring about this photo-chemical effect are situated in the band of ultra-violet. Within this band of ultra-violet are certain waves of comparatively long length and other waves much shorter. The longer wave length portion of the ultra-violet has been termed by some the vital rays. These are the wave lengths that are particularly efficient in producing vitamin D."

The Biologic and Physiologic Life

The Influence of Habits on Longevity

The number of persons who live long enough to die of old age is diminishing, and this fact is only one item in the great mass of scientific evidence which indicates that the human race is degenerating and is menaced with ultimate extinction, said Dr. John Harvey Kellogg, Medical Director of the Battle Creek Sanitarium which acted as Host for the Conference, and President of the Race Betterment Foundation. He believes the agencies which are working the destruction of the human race are identical with those that are lessening the maximum span of human life, and that race improvement can be secured only by the improvement of the individuals of whom it is composed.

The causes of shortened life were divided by Doctor Kellogg into two classes: (1) External agencies, such as accidents and hardships, through which man is damaged by violence, starvation or other deprivation of life essentials; and (2) acute and chronic poisoning, which operate by slow or rapid destruction of the body mechanism. Confining himself, for the purposes of his paper, to the latter, he pointed out that the delicate mechanism of the kidney, for instance, by which the poisons of the blood are recognized and removed, can perform a certain amount of work, according to its hereditary endowment and other factors, and that the amount of work is definitely limited, as is the life of a watch or a threshing machine. The liver, the thyroid gland, suprarenal capsules and various other structures, even the blood itself—all are delicately-formed and highly-sensitive mechanisms, he said, each with its natural limitations as to the amount of work that it can perform, but each, fortunately, naturally endowed with a large reserve of working power. From numerous observations made, Doctor Kellogg is convinced that this vital reserve, with which Nature endows every bodily organ, if properly and economically used, is sufficient to sustain the human mechanism two centuries or more. It is very rare indeed, he pointed out, that the human machine has even half a chance to exhibit its full capacity, and probably never an opportunity to do its very best.

For instance, he quoted Sansum and others, who hold that the excessive accumulation of acid products in the blood, a condition known as acidosis, causes irritation of the vessel walls, gives rise to high blood pressure and encourages hardening of the arteries and degeneration of the kidneys or Bright's disease. In his clinical experience Doctor Kellogg has frequently encountered cases in which the urine is twenty to one hundred times as acid as it should be. Kidney cells constantly bathed in such highly acid urine rapidly become old through over-work. It is such extra work required of the liver and other vital organs, also, that brings the body to the junk heap at the time when it ought to be at its maximum of efficiency and usefulness.

Our living habits have a very profound influence upon the production and elimination of these tissue poisons, he stated. While muscular exercise produces an increase of lactic acid, at the same time it so greatly increases the activity of the heart and lungs that, within an hour or two afterward, the tissues are found freer from acid-forming poisons than before the exercise was taken; that is, it increases the alkalinity of the blood and tissue fluids.

A relaxed or slouched posture, he further stated, is believed by expert clinicians to be a contributing cause of renal disease, because of the excessive accumulation of deficiently aerated blood in the kidney structures.

Of all faulty habits, that of over-eating was named as the commonest life-shortener. An habitually excessive intake of food floods the blood and tissue fluids with the toxic products of incomplete combustion analogous to the smoke from a choked chimney. While a portion of the surplus food may be deposited as fat, other of the excess portion, especially the protein, must be carried off through the kidneys. Also, recent experimental studies, in particular those of Professor Newburgh at the University of Michigan, show that even twenty per cent protein is so much too high that invariably it leads to the premature development of arterial changes and to degeneration of the kidneys in the animals experi-

mented upon. Muscle protein, that is, ordinary lean meat, was found in these studies to be far more toxic in its effects than plant or milk protein.

Denatured foods was listed as another source of wholesale mischief, by which life is being shortened. A large proportion of the foods in common use are woefully deficient in some of the elements essential to good nutrition.

The more extensive use of "natural" foods was advocated, those furnished by "Mother Earth," or those that may be made more acceptable by the simplest of cooking processes; also the more extensive use of greenstuffs in the diet and other foods rich in iron, and also in copper, which has recently been shown to be as essential as iron for maintaining the normal per cent of hemoglobin.

Another radical defect, in our American bill of fare, named as active in shortening life, is the deficiency of "roughage" and the resultant intestinal stagnation. The gorilla and other of the great apes in their native forests subsist upon a dietary so rich in cellulose and other indigestible elements that their evacuations are frequent and bulky. The importance of frequent evacuations is particularly marked when meat is used in the dietary, for the reason that fresh meat is always already in a state of more or less advanced putrefaction, and supplies enormous quantities of poisonous substances that are absorbed into the blood, causing headaches, nervous exhaustion, skin disorders of various sorts, so-called "biliousness," premature senility, hardening of the arteries, high blood pressure, even Bright's disease, and hardening or cirrhosis of the liver, possibly also cancer of the intestines, among the many dire effects of chronic poisoning.

Doctor Kellogg cited the fact that has been clearly shown by the experience of life insurance companies that the habitual use of alcohol shortens life. He called attention to the fact, also, that tobacco is a muscle poison and that it lessens the power of the heart to work while at the same time it increases the work required of it through the contraction of the blood vessels. Another habit listed as hostile to longevity was coffee-drinking, since the caffein in coffee is an alkaloid that manifests its toxic effects upon the heart and blood vessels.

Heredity was also named as a factor in determining the length of life, and the importance of the dissemination of eugenic information was emphasized.

The Deleterious Effect of Worry on the Digestive Processes

Laboratory experiments carried on by Dr. A. C. Ivy, Head of the Division of Physiology and Pharmacology at Northwestern University Medical School, have shown what are the normal mechanisms of digestion. For instance, in the gastric secretion of digestion juices, there are three phases:

1. The cephalic phase, a secretion that is caused by the sight, taste and smell of food.

2. The gastric phase, due to the mechanical distension of the stomach by food, and the action of chemical substances.

3. The intestinal phase, caused by the action of chemical substances produced during digestion.

"Normal sleep promotes the flow of gastric juice, because mental activity inhibits the gastric glands," Doctor Ivy said. "Worry, nerve strain, unpleasant sensations, markedly inhibit the secretion of the stomach, and cause disturbances of the motility of the entire gastro-intestinal tract."

"The pancreas produces the most important digestive secretion because of the completeness and diversity of its action," Doctor Ivy said. "Our present knowledge shows that its secretory response to a meal can be divided into two phases: (1) The cephalic phase, and (2) the intestinal phase.

"Fortunately for our health, the pancreas is apparently less subject to inhibitory nerve action than the gastric glands. Physical and mental distress do, however, cause a decrease in the response of the pancreas to stimulating agents. If the pancreas does not secrete its digestive juice, grave digestive disturbances result, more grave than those that result from a failure of the gastric glands to secrete."

As to the gall bladder, Doctor Ivy said that their experiments strongly suggest, if they do not prove, that the gall bladder is caused to contract and empty at least in part by a hormone, which is secreted into the blood stream when certain substances such as acids, fats, egg yolk, etc., come into contact with the upper intestinal mucosa.

Needed a Department of Physiologic Living in Our Medical Schools

As Medical Director of the Eastman Kodak Company, Dr. William Alfred Sawyer has had an opportunity to observe the beneficial effects on large groups of people of the campaign for accident prevention, and the creation of a "Safety First" consciousness. Losses to employer and to employed from illness are, however, eight times the losses from accidents, he stated. Although bacterial diseases are decreasing under the efforts of federal, state and city health departments, the degenerative diseases are increasing, he pointed out. "Health is not a negative state, an absence from disease; it is a positive asset, a vivid thing of happiness and efficiency, but seldom found after middle life except as the result of physiology applied." For the reduction of these

degenerative diseases, Doctor Sawyer pointed to the need, paralleling the awakening to the preventability of accidents, of a good-health consciousness, and showed the great opportunity that industry affords for creating such a consciousness.

What is needed, however, according to Doctor Sawyer, is a Department of Physiologic Living in our medical schools. "At the present time there is no properly organized propaganda to influence the business world in regard to preventing illness. Industry of itself cannot undertake to do such a task as it should be done. If, however, a Department of Physiologic Living were established in one of our medical schools and aligned with a suitable industrial establishment for the purpose of putting into practice reliable and authentic facts pertaining to personal hygiene, instead of the present all too prevalent opinions, conclusions could be drawn, facts assembled and their value proved, and an opportunity could be given to work from a sound basis."

Some New Physiological Data as a Basis for Moral Hygiene

"It has been established by works of German, Russian, English and American biologists that many physiological phenomena, especially reflexes, are wholly reflected in the psychical sphere of men and animals," said Dr. W. N. Boldyreff, Director of the Pavlov Physiologic Institute. "Thus, the physiological laws of the cerebral activity may be in a certain degree applied to the study of purely psychical phenomena."

The speaker applied to the psychic realm laws, discovered by him, regulating, through the brain, the activity of various organs of the body; and explained the working of these laws in the everyday phenomena of human life.

The Relation of Disease to Living Habits among the Indians

For over thirty years Dr. Frederick L. Hoffman, Consulting Statistician for the Prudential Life Insurance Company, has studied health conditions among the Indians. He says that, for reasons of racial pathology, the Indians are peculiarly subject to pulmonary tuberculosis, and show little disease resistance once they are affected. Also, lobar and other forms of pneumonia are nearly twice as common among Indians as among the public at large, and the mortality from influenza is more than twice as great as for the general population (in the Registration Area). Measles have fortunately not prevailed among them of late years to an alarming extent, nor are the Indians susceptible to scarlet fever and only slightly to diphtheria. Diabetes and appendicitis are of relatively rare occurrence. The appendicitis rate of Indians is only about half the "normal." Pellagra is a rare disease among them, typhoid fever is not common, and anemia is relatively rare, as is also malaria. Unhappily, the Indians are peculiarly subject to trachoma. Venereal diseases are apparently diminishing and are comparatively rare among Indians not in close contact with the white race. Alcoholism is also diminishing. The beneficial effects of Prohibition, which has prevailed on all Indian Reservations for many years, is apparent in the extreme rareness of gross intemperance.

Cancer is rare among the Indians, and exceedingly so among tribes not in close contact with white civilization. While the average age of the Indian population is lower, and therefore the proportion of aged persons is less, Doctor Hoffman finds that this does not wholly account for the remarkably low incidence of cancer, and he believes that the difference must be accounted for largely on the ground of the habits of life of the Indian population. He says, "The Indians, broadly speaking, are mostly a rural population. They avoid contact with the irritating effects of our civilized life, and to a marked degree they still live on non-irritating or non-modified foods."

What Is the Physiologic Life?

We still mill our grain and feed the bran to hogs and cattle. This may help develop super hogs and super cattle, but it is no aid to the physiologic life of man, in the opinion of Dr. Anton J. Carlson, head of the Physiology Department of the University of Chicago.

"There is no doubt that man can injure himself temporarily and possibly permanently by the overeating of meat, as by excessive proteins of any source," he said. "Our very remote ancestors were strictly herbivorous; the earliest animals must, perforce, until they turned cannibals, have been herbivorous. But man, as we know him today, can use food of animal origin with impunity and physiological profit. I would say that the more nearly omnivorous the human individual is, the more certain he is to avoid disease due to faulty diets.

"The probable dangers in certain elements of city life, such as lack of sunshine, the inhalation of polluted air, crowding, noise and exhaustion, seem only partly appreciated by society," he said, "but their ultimate influence on the race is a large problem, without answer as yet."

The deleterious effect on the individual of stimulants and narcotics is not difficult to prove, Doctor Carlson stated, and the physiologists must vote against alcohol on the basis of probable injury even to the race.

The Physician and the Individual

Yearly Health Audits a Valuable Service in the Prevention of Disease

THE Gorgas Memorial Institute, through its President, Dr. Franklin H. Martin, estimates that in 1927 five million individuals asked for periodic health examinations who had never before sought such service. Educated and thinking people are increasingly demanding periodic health examination, Doctor Martin stated, and he estimated that within five years at least fifty per cent of the one hundred and twenty-five million inhabitants of the United States and Canada would demand this valuable service, with a resultant prolongation of useful lives and a profound bearing on Race Betterment.

Have a Physical Examination on Your Birthday

Don't wait for your health examination until symptoms "indicate" the need, Dr. Eugene Lyman Fisk, Medical Director of the Life Extension Institute, Inc., advised. "If we wait until such measures are 'indicated,' we usually wait too long," he said.

Illustrating the importance of periodic health examination as an aid in the early diagnosis of disease, Doctor Fisk reported nine hundred and sixty-one routine tests for latent syphilis that gave a total of twenty-seven positives. Nearly half of these cases were without definite signs or history.

The periodic health examination is the first step in combating tuberculosis, cancer, heart disease, kidney trouble, insanity, diabetes and other conditions such as influenza. In five thousand routine physical examinations three hundred and fifty instances of organic heart disease were uncovered, Doctor Fisk reported. In forty-seven instances there were findings from which the physician seriously suspected tuberculosis, and one hundred and four instances of pre-tubercular conditions. In examinations of the abdomen, two hundred and thirty-five instances of tenderness over the appendix were noted. In forty-one instances, the history or findings were definitely suggestive of ulcer. In a total of four hundred and twenty enlarged thyroids, three hundred and forty-seven were found apparently simple goiters, but in seventy-three instances toxicity was apparent or suspected. There were reported one hundred and seventy-nine instances of apparently benign growths of the uterus, and four with strong suspicion of malignancy. Nine instances of breast tumors were found. New growths in the stomach or intestines were suspected from many histories of indigestion and loss of weight, but they were not all investigated by X-ray. With this aid in only a few cases, there were diagnoses of new growths in twelve instances, and four of advanced carcinoma. Apparently benign growths in other parts of the body were reported in one hundred and forty-nine cases, and malignancy was suspected in three cases of skin change.

The apparently well individual can reap marked benefit from the periodic health examination, Doctor Fisk pointed out. Even minor defects uncovered lead the individual to regulate his living habits or to obtain medical assistance in time to prevent disease.

Have a physical examination on every birthday, is Doctor Fisk's advice.

On the Public Depends the Grade of Medical Service

The "general practitioner" is passing, Dr. Hugh Cabot, Professor of Surgery and Dean of the Medical School, University of Michigan, stated. "He was a great man and occupied an outstanding position in the community, though we may now admit without slighting him that his knowledge of the diagnosis and treatment of disease was pretty meager as compared with modern methods."

Since a large number of the infectious diseases are known to be entirely preventable, the physician must now have a better training and make more use of the knowledge of preventive medicine than was possible for the family physician of an earlier day. Also, with the falling death rate from infectious diseases has come an increase in the importance of so-called degeneration diseases not only in their early diagnosis but in their prevention and alleviation, so that the physician of the immediate future must be entirely the superior of his colleague of the recent past.

The selection of persons to practise medicine, upon whom the State is to set the stamp of its approval, must be made with great caution and great care. Doctor Cabot believes that today the standards of medical practice are largely set by an intelligent public, which is continually becom-

ing better informed, and which insists, and has a right to insist, that it have at its disposal as high grade service in the field of medicine as can be obtained with the assistance of modern science.

Since it is the public that sets the medical standards, Doctor Cabot observed, it is the public that must protect the medical profession from being overwhelmed by an army of ill-trained and irresponsible interlopers, who can be held to no standards, and who have, in fact, no morals.

What Urology Has Done and Can Do in Lengthening Life

Spectacular results have been obtained with patients suffering from tuberculosis of the urinary tract, Dr. Oswald Swinney Lowsley, F. A. C. S., Director of the Department of Urology (James Buchanan Brady Foundation) of the New York Hospital, reported. "Our former practices in inoperable and postoperative cases of tuberculosis have been replaced by a carefully regulated clinic, which has adopted methods of hygienic regulation, application of healing therapy consisting of injection of tuberculin, the Alpine and Kromayer lights, and other up-to-date methods. The results have been gratifying in the extreme."

Accurate diagnoses are now possible in diseases of the genito-urinary tract owing to the perfection of the cystoscope, with all of its modifications, and of other instruments of precision. Children were formerly excluded from this otherwise general rule, but the recently perfected baby cystoscope of Butterfield now permits of the proper investigation of any child of either sex and of any age.

"Urologists have demonstrated beyond a shadow of doubt that the terrible devastating diseases, gonorrhea and syphilis, are absolutely preventable," he said. He recommended extensive public education in prophylactic measures. Surgical measures have been successful in rendering men, crippled by the effects of gonorrheal epididymitis, fertile.

Cancer seems to be on the increase, he has found. He says that this dire enemy of the human race should be totally excised as soon as discovered, if conditions permit. Certain carcinomata respond to radiation in his experience, others to operation, and some do not respond at all. "Our procedure should be to treat this disease by every means at our disposal," he said, "and to encourage all types of researches in the field. One cannot help but be impressed by the similarity between plant and animal cancer, as pointed out by the late Professor Smith of Washington, D. C. Perhaps the cure for cancer may be discovered by a biologist."

The prevention of stone formation has been possible in some cases by merely changing the chemical reaction of the urine, in Doctor Lowsley's experience.

Congenital and acquired incontinence of urine is fortunately rare, in his experience, but complete success has been obtained by surgery in some cases.

The most important measure by which urologists have added to the span of life in recent years, Doctor Lowsley said, has been the adoption of regional anesthesia for operations upon patients suffering from diseases of the genito-urinary organs. It is particularly appropriate for operations upon the prostate gland, he has found, and in his opinion its use should be general. Not only is the mortality record much improved and the complications fewer, but the patients leave the hospital earlier and in better condition than was formerly the case when general anesthesia was used.

New Cancer Diagnosis

A new method for diagnosing certain malignant tumors was described by Dr. George N. Papanicolaou of the Cornell University Medical College. The technique of the method is simple. An application has been made so far in gynecological cases. The importance of this work is that it reveals certain phases of the action of the organism against the invading cancerous growth. The so-called phagocytes, i. e., the defensive cells of our organism, in their effort to stem the tide of the invasion, are affected in a characteristic way, obviously by the toxins of the cancerous tissues. This reaction is utilized as a diagnostic sign, and promises to contribute further to the better understanding of the true nature of malignancy.

An Effort to Preserve and Strengthen the Family

What is social hygiene? Dr. Walter M. Brunet, representing the American Social Hygiene Association at the Conference, defined it as an effort to preserve and to strengthen the family as a basic social unit.

An important part of the social hygiene work is the prevention and control of syphilis and gonococcal infection. Syphilis destroys or blights the racial stock, Doctor Brunet pointed out, and when it is transmitted to the offspring, it is not mere "constitutional inferiority" but syphilis. The hopeful side of the situation is that it is preventable.

The problem of gonococcal infection, which may destroy the reproductive function, or cause blindness, is not as yet a simple one, Doctor Brunet said. Treatment in competent hands promises, in the main, good results, but the subject needs much more scientific investigation.

The Prevention of the "Disease of Diseases"

The rôle of intestinal autointoxication in progressive degeneracy was described by Sir Arbuthnot Lane, the prominent English surgeon and President of the New Health Society, London, England. When the child is taught by the

mother to control the normal impulse to evacuate the bowels after each meal, and to retain the fecal matter in the intestines for twenty-four hours, she insists that the end of the large bowel, which has been evolved through the ages to contain an amount of fecal matter corresponding to the input, shall accommodate the result of twenty-four hours' digestion, Doctor Lane stated. When she is successful in this, the terminal segment of the colon has to become sufficiently dilated and elongated to hold all this material. To oppose the development of this abnormal mechanical relationship, Nature crystallizes bands or membranes along the lines of tension. These secure and shorten up the mesentery, and later obtain a hold upon the bowel itself.

Doctor Lane called attention to the "filth diseases" that ensue because of this development of progressive interference with the function of the segment of the large bowel, resulting in infection of the contents of the small intestine by organisms that ascend from the colon. "The native living in his normal surroundings enjoys health and vigor to an extent unknown to us, and is quite free from these diseases of civilization," Doctor Lane pointed out. "Intestinal autointoxication is now regarded as the cause not only of all the diseases of civilization but of the progressive degeneracy of peoples who live in what is called a state of civilization."

The young especially should be instructed in the importance of evacuating the bowel after every meal, Doctor Lane said, because of the fact that changes taking place in early life are infinitely more extensive and rapid in their development than those of later life; the earlier the development of the stagnation of the contents in the colon because of the enforced control, the more extensive are the bands that form to meet this unnatural relationship.

Education of Mothers and Instructions in "Fathercraft" Would Reduce the Maternal Mortality Rate

There is a progressive increase in the number of states in which maternal deaths constitute the leading cause of death of young adult women, as we pass from the first to the later five-year periods between the ages of fifteen and forty-four, Dr. Samuel J. Crumbine told the Conference members. As General Executive of the American Child Health Association, he has made a study of maternal mortality, and finds that twenty-five years have seen practically no reduction in the total death rate from the preventable causes associated with childbirth.

The maternal mortality of certain foreign countries points to the goal that it is possible for the United States to obtain. Japan, Norway, Denmark, The Netherlands, Italy—these countries lose at the rate of only about one-half as many women from maternal causes as does the United States. England and Wales and also Germany also have lower maternal mortality rates than does the Birth Registration Area of the United States.

Puerperal septicemia and pueperal albuminuria and convulsions together cause more than half of the deaths at childbirth, Doctor Crumbine pointed out, and each one of these conditions is largely preventable, as already concretely demonstrated in special clinics. If an attempt were made to apply existing knowledge of the means of preventing these two causes of death alone, maternal deaths could probably be reduced in this country to two-thirds of their present number.

A program of prevention demands examination of the expectant mother monthly by a physician, with assistance in observation by a trained public health nurse. Such a program requires well-trained obstetricians, and individual teaching not only of prospective mothers but of prospective fathers as well. Dr. James Fenton, Medical Officer of Health, Kensington, England, has begun to solve this problem, Doctor Crumbine reported, by giving instructions in "fathercraft," addressing groups of fathers on the importance of skilled antenatal advice.

How Tuberculosis May Be Decreased among Young Girls

The death rates from tuberculosis for the male and for the female between fifteen and twenty-five years of age were much the same up to the year 1918, Dr. S. Adolphus Knopf, formerly Professor of Phthisiotherapy at New York Post-Graduate Medical School and Hospital, reported. His investigations indicate that since that time the male death rate has decreased much more rapidly than the female. One investigation showed the male death rate for this age group to have decreased, between 1910-1914 and 1922-1926, fifty-two per cent, while the female had decreased only fourteen per cent.

Among the causes for this greater frequency of tuberculous disease among our female population between the ages of fifteen and thirty were given the flimsy modern dress, the sleeveless waist and short skirt, and the low shoes and thin silk stockings worn in the coldest weather.

An equally important cause is thought by Doctor Knopf to be the desire for a boyish appearance, causing the intentional undernourishment—the fear that in spite of a good appetite a good meal will produce overweight, ignoring the fact that ten to fifteen pounds overweight between the ages of fifteen to twenty-five are far less dangerous than the same number of pounds underweight. To enhance the boyish appearance, not a few compress their mammary glands by brassieres and rubber bands, Doctor Knopf pointed out, this not only endangering the physiological function of those organs, but also restricting the respiratory movement, in addition to which many girls assume the college slouch and a stooped attitude.

And to the undermining influence of insufficient clothing and undernourishment is often added a good deal of night life resulting in insufficient sleep, Doctor Knopf observed. In not a few cases the habit of excessive cigaret-smoking and sometimes even of imbibing bad liquor is included in the night life.

The periodic health examination is recommended by Doctor Knopf for detecting tuberculosis in its earliest beginnings, so that the disease may be treated in time.

The need of infantoria and of additional sanatoria was stressed.

How the Modern Heart Specialist Proceeds to Lengthen Life

The change that has taken place during the last twenty years in the treatment of heart disease, due to the great advance in knowledge of cardiac disorders, was described by Dr. Louis Faugeres Bishop, M.A., M.D., Sc.D., F.A.C.P., formerly Professor of Diseases of the Heart, Fordham University and Consultant in Diseases of the Heart, Lincoln Hospital, New York. He outlined the practice of cardiology by modern methods, describing the fundamental functions of the heart muscle, the rôle of blood pressure in diagnosis, the use of the fluoroscope, the interpretation of variations in positions of the heart, the importance of shadow size, the use of the electrocardiograph for obtaining a knowledge of heart function, and also describing in detail the varieties of irregular heart.

The drugs that Doctor Bishop has finally selected as of particular importance, after a long experience in the treatment of heart disease, are digitalis (he has succeeded in having it made into half-grain units, believing the grain-and-a-half unit of the average proprietary digitalis too large), quinidine, theobromine and sodium salicylate, nitroglycerin and one more remedy (without which he stated that he would not care to practise cardiology)—castor oil.

Psychotherapy has been found by Doctor Bishop to be of particular benefit in heart disease. Physiotherapy is a matter of the greatest importance. His favorite prescription for heart sufferers is to walk out-of-doors before twelve o'clock in the day, up to a point of fairly definite fatigue. He finds that the business man who attempts to take exercise after his day's work does not get much benefit from it and usually gives it up.

Education and Research

New Values are Arising in What We Know and Should Know

Education for Efficiency in Everyday Life

STATIC education was contrasted with dynamic, in the paper presented by Professor M. V. O'Shea, Head of the Department of Education of the University of Wisconsin. "We are today exalting competency, capability, efficiency in everyday life. We overlook, if we do not censure, those who cannot pull their own oar or who do not contribute to the well-being of the community in which they live. Formerly we thought highly of those who were said to be widely read, but now unless their reading issues in dynamic activity, we rather condemn than praise them. We are emphasizing the importance of *action*, as contrasted with mere static accomplishment."

The "new" education aims to have pupils learn how to live together cooperatively, Professor O'Shea pointed out, by actually working and playing together in the classroom and on the playground. "A pupil recites to and with his classmates, and not simply to the teacher. He learns to play fair outside of the classroom by having experience in restraining selfishness, and in cooperating, in the classroom. The group reacts upon the individual approvingly when his conduct is of a social type but condemningly when he tries to take advantage, or is underhanded, or is unwilling to pull his own oar."

Needed Health Education during Childhood and Adolescence

Some conscious provision should be made for health education each day in the life of the infant, child and youth, Dr. Thomas D. Wood, Professor of Health Education at Teachers' College, Columbia University, stated. Health service should include daily health inspection in school and home as to communicable diseases; frequent tests by weighing and measuring; the correction by the school, home and other agencies of all remedial defects; the maintenance of sanitary environment; immunization against infections; maintenance of a healthful school; provisions for first aid and safety; health supervision of janitors, teachers and others brought into contact with pupils.

The classroom teachers must undertake the fundamental task of health education, Doctor Wood has found, and they need better preparation for this than they now have. They should have instruction in nutrition, bacteriology, human anatomy, physiology, hygiene, public health, mental hygiene and the practical procedures of health service in the schools. Study should be made of the child's reaction, the doctrine of interest, the stimulation of self-activity and the types of motivation to be employed.

The swing of emphasis from the former teaching of physiology and hygiene to the present attempt to encourage health habits was in the right direction, Doctor Wood stated, but there is now too much artificial motivation of health habits as compared with the use of rational sanctions and sound motives. There should be favorable opportunity for health conduct. Children should not merely be told to wash their hands before a school lunch. There should be provision of soap, hot water and sanitary towels.

The cooperation of the home is little appreciated, is the observation of Doctor Wood. The greater part of the child's opportunity for practising what he learns in school occurs outside the school. Great emphasis must be laid on the more intelligent and effective coordination of effort between the home and school and between these agencies and the official and non-official agencies in the community that are or should be vitally interested in the health education of the child.

The Newspaper—The Most Effective Agent for Adult Health Education

"The educational ability of a newspaper depends upon the character of the paper," said Dr. William A. Evans, Professor of Hygiene, Northwestern University, and Editor and Writer of the "How to Keep Well" Department, *Chicago Tribune*. Some papers are of such type that the kind of readers they draw would not be interested in a health column. The paper itself must respect its health column, give it a good position in the paper, and occasionally "water" it by notice from other columns—the news force, the editorial staff and the management all cooperating to make it effective.

Since the reader is bent on gain, the material in the health column should cover practically all of the phases of personal hygiene; it should touch on nearly every phase of habits, on mental hygiene as well as physical, even on anatomy and some physiology. It should deal considerably with symptoms, and somewhat with treatment, and not only with disease, but preferably with physical welfare. "It is the even run of these repetitions every day that counts," Doctor Evans said; "the dependable presentation that combines interest, dignity and information, and that inspires confidence."

The purpose of a health column is Race Betterment, Doctor Evans stated, but narrowing the meaning of Race Betterment to genetics, he finds that the public interest is not yet sufficient to support a newspaper column on this subject alone, but that there is ample interest in various parts of the genetic theme, as evidenced by the several hundred letters that he receives daily. People are interested in such subjects as marriage of relatives; marriage of defectives; size of family; birthmarks; inheritable diseases and peculiarities; inheritance explanations of qualities and attributes of individuals; longevity; and many other genetic questions.

How Handicapped Children Are Being Equipped for Normal Happiness and Service

The work being done in Detroit public schools to develop in handicapped children their greatest possibilities, and to equip them for normal happiness and service, was described by Dr. Charles Scott Berry, Professor of Educational Psychology, University of Michigan, and Director of Special Education for the Detroit Public Schools. The blind are taught Braille, the touch method of reading, and their attention is directed away from their handicap to the development of their greatest possibilities in order that they may be able to mingle on more or less equal terms with their seeing fellows.

For the partially-sighted there are special "sight-saving classes," and the children are provided with textbooks printed in twenty-four point type, suitable writing materials and typewriters. These blind and partially-sighted total three hundred.

Over three hundred deaf and hard-of-hearing are taught lip reading, and those who are congenitally deaf, or who lost their hearing before or during the first three years of life, are taught speech as well.

Four thousand children of defective speech are enrolled in the speech-improvement classes, where they are taught by thirty specially trained teachers who devote all of their time to the correction of speech.

Of the seventeen hundred children enrolled in open-window classes and in the open-air schools of Detroit, twenty-seven per cent are cases exposed to tuberculosis, forty per cent are cases of underweight and malnutrition and fourteen per cent are cardiac cases. These children receive all their instruction from specially trained teachers who work with the nurses and physicians of the board of health. These pupils are not only taught in open-window rooms, but furnished an abundance of nourishing food, and given the opportunity for adequate rest. Each child is weighed periodically by the school nurse, and examined as often as necessary by the school physician.

More than five hundred cripples, sixty per cent of whom are victims of infantile paralysis and tuberculosis of the bones, are under the supervision of an orthopedic surgeon while they are in school. Transported by the Board of Education to and from school, taught by specially trained teachers, given plenty of nourishing food, opportunity for rest, and physiotherapy treatment under expert medical supervision, much is being done for them to minimize their handicaps and to enable them to make the most of their possibilities.

In the education of the mentally retarded, of whom three thousand are enrolled in special courses, the chief emphasis is placed on the formation of the right habits, the development of health, strength and skill, and the acquisition of the knowledge that they will need in daily life.

In the special classes for delinquents are enrolled more than three hundred boys, varying in age from twelve to sixteen, who were serious behavior problems while in the regular grades. For these boys, the emphasis is placed on assignment of work within their capacity, with special reference to physical training, normal activities and health education.

Doctor Berry believes that the ignorance and disease that lead to the crippling of little children could be greatly reduced by establishing nursery schools and clinics, in connection with the public elementary schools, where every girl during the period of compulsory school attendance could receive proper training and instruction in the care of young children, and where young mothers could come for advice and counsel. And he believes that the blighting effects of poverty could be lessened if every girl were taught the household arts in relation to minimum income.

Moral Education

Academic education may be immoral, warned C. E. Rugh, Professor of Education of the University of California. "It is coming to be one of the scandals of education that men and women achieve what is termed scholarship without achieving good moral character."

"Education may be moral," Professor Rugh said, "by helping the learner to achieve habits and sentiments of succeeding, by developing knowledge and insight that insure efficiency, and by developing right attitudes and high ideals."

The term "punishment" should be dropped from the vocabulary of education, Professor Rugh believes, and "recovery from wrongdoing," substituted. Punishment seldom reforms, he pointed out; for in most punishment we treat symptoms instead of causes. The will plays a major part in "recovery." The wrongdoer must "will with, instead of against," the processes that produce right conduct. "Repentance, confession, restitution and consecration," are the four stages diagrammed by Professor Rugh in "recovery." Morality pays, he said.

A Neglected National Asset—The People of the Appalachian Range

The people pocketed in the Appalachian Range of mountains in Kentucky, Tennessee and the Carolinas are the nation's greatest and most neglected asset. More than two million people are mountain-locked in the picturesque Blue Ridge, Cumberland and Alleghanies, and a vast amount of man power is going to waste. They are the only remnant in this country of the aristocracy of the Anglo-Saxons who pioneered in America. Stalwart, fearless, hospitable, and with wonderfully able minds, they have not progressed because of their isolation. The possibilities in their education and the fostering of their latent talents is tremendous.

This is the opinion of Dr. J. A. Stucky of Lexington, Kentucky, who has been in a position to observe the development of these people in the last twenty years. "While these are a primitive people, they are not ignorant, although they are unlettered because they have had no schools," he said. "But it was from such ancestors as these that George Washington, Patrick Henry and Abraham Lincoln descended. They have physical defects, because they must live on what can be raised in their section. They have little milk, butter and other foods that science today is finding so necessary to the building of normal bodies. For this reason in this section we find bone disease, joint deformity, bad teeth, ear and sinus trouble, trachoma and visual defects with premature aged conditions."

In the past twenty years the State Board of Health and the United States Public Health Service have done a far-reaching constructive work in this territory, in the eradication of hookworm, typhoid fever, diphtheria, smallpox, etc., Doctor Stucky reported. There are hospitals scattered through the section, with an average of about one nurse for every thousand of population. Trachoma has been arrested but not eradicated. A splendid work is being done now by the Kentucky Mothers and Babies Committee with headquarters in Leslie County.

"Knowledge of biological and physiological life, with facilities for living it, are the greatest need," Doctor Stucky said. He advocates an extension of work for prenatal care, postnatal care (from birth to weaning time), and further health work from early childhood to adolescence.

We Need Knowledge of Better Methods for Treating the Sick

One of the greatest needs of mankind is a chemotherapeutic institute for therapeutic research, Dr. Arthur S. Loevenhart, Professor of Pharmacology and Toxicology, at the University of Wisconsin, said. While diagnosis is exceedingly important, it is only a means to the end that effective treatment may be instituted. "We can make an accurate diagnosis of many conditions for which we have no effective treatment."

There is no laboratory with proper equipment and personnel in this country devoted to the discovery of new methods of treating the sick, Doctor Loevenhart pointed out, and few of the great medical schools have even a chair of therapeutics. For the proper attack of the innumerable problems that face the doctor every day at the bedside, it is necessary that chemists, pharmacologists and clinicians work as a team in a cooperative effort. Great benefits would accrue to mankind from such an effort, Doctor Loevenhart believes.

Chemistry Should Serve the Interests of Health

"Many problems of sickness are primarily problems of chemistry," said Dr. Charles H. Herty, Advisor to The Chemical Foundation, Inc. "More and more must the chemist be drawn into this field, not as an auxiliary factor, but as the leading spirit, cooperating with the pharmacologist, biologist, physicist and physician," he said. "Large numbers of men and women are being trained in graduate work in our universities with those qualifications that will enable them to take up this important work. The problem is merely that of finding adequate facilities and means of living for these workers, who can remove, eventually, so much of the sorrow and suffering and economic loss to which we as a nation are now subjected.

"With wealth, conservation is of equal importance with creation. American industries are today making constantly increasing use of research, and with consistent financial gains. However, in the case of sickness and premature death, from both preventable and, at the present, unpreventable disease, because of a lack of adequate research and of proper conservation, our known losses annually approximate fifteen billion dollars. This loss is gradually being diminished by scientific research in universities and in endowed institutions, but the number of workers and the available facilities are utterly inadequate for the many complicated problems to be solved.

"The great science of chemistry has well served wealth," Doctor Herty said. Now its great resources should be applied to the reduction of disease and to the attainment and maintenance of health, the highest and ultimate mission of the sciences.

Fraud and Deception in Advertising

In spite of the present legal restrictions on advertising, efforts are constantly being made to magnify the virtues of certain foods and drugs offered for sale, according to Dr. Harvey W. Wiley, Director of the Bureau of Foods, Sanitation and Health, *Good Housekeeping* Magazine. He said that he had had more than twenty years of experience in scrutinizing advertisements in his relations with publishers who desired to print only truthful advertising. How to test the truthfulness of an advertisement he illustrated by his experience in testing the statements made of the so-called virtues of infants' foods. "I had, fortunately, one guide on which I could form judgment," he said; "namely, that the food intended for an infant by Nature was the best food that could possibly be obtained. This cardinal principle having been established, it was easy to judge of the merits of the advertised foods by ascertaining in just how far they differed from Nature's product. The conclusion was that no synthetic infants' food that differed radically in its character from mother's milk was suitable for an infant deprived of its mother's breast."

"In the old days the man who made the product also composed the advertisement," Doctor Wiley stated. "He knew exactly what he had, the ingredients that his product contained, and more or less the real value thereof. It required a man of low-down morality to misrepresent the article that he offered for sale. Little by little advertising has become a distinct branch of industry. The advertisements that we read today, at least the greater part of them, are composed by experts. I mean, by experts, those who have studied the art of expression with a view to conveying the message in the most attractive and seductive form."

"The problem that is most important in this meeting," Doctor Wiley said, "is whether or not, upon the whole, advertising does more harm than good. If this body of workers for human welfare would take a definite stand in regard to the character of advertising, they would contribute something worth while to the advancement of humanity. There should be a concerted movement, which I am sure will be joined by ethical newspapers and magazines, to repress that form of advertising that harms and even threatens the health and life of people who read it. If we could eliminate all advertising of medicinal remedies, implying as it does a diagnosis made by the patient himself and a treatment without the control of a competent physician, it would be a service to humanity that it is well worth trying to give."

Body Building

PHYSICAL EDUCATION AND PLAY

Physical Education Should Be Correlated with a Comprehensive Health Program

Race Betterment is dependent on intelligent attention both to euthenics and eugenics, said John Sundwall, Ph.D., M.D., Professor of Hygiene and Public Health at the University of Michigan. "Physical education," with its special concern for physical *exercise*—an early euthenic measure—is now supplemented by, should cooperate with, and seek the cooperation of, other agencies concerned with *many* important health factors. At present there is comparatively little scientific information regarding the influence of exercise on health or longevity or regarding what "physical education," if taken to mean the range of interests and activities commonly called "physical education," should contribute to human betterment or Race Betterment.

Doctor Sundwall emphasizes the fact that a working knowledge of normal vital processes is essential for *all* health workers; that in order to appreciate the possibilities and the limitations of any special interest or group of interests in health promotion and disease prevention, there must be an intelligent appreciation of the problem as a whole and of the relation the special group of interests has to the general problem; that supervisors and teachers of "physical education" need, therefore, adequate scientific background through thorough general courses, at least in chemistry, physics, biology, anatomy, physiology, hygiene, etc.; and that graduate study along certain lines will open up interesting subjects for study in connection with their work.

"We still have much to learn," Doctor Sundwall says, "about both euthenics and eugenics, but there is great need for widespread appreciation of and *intelligent* application of sound, well-established findings."

Play—A Necessary Ingredient in a Balanced Ration of Living

"Thoughtful leaders have been aroused by the conditions adversely affecting the welfare of the child," Mr. Eugene T. Lies, Special Representative of the Playground and Recreation Association of America, said. Such conditions were listed by him as physical defects and inefficiencies in school children revealed by the medical inspection movement; similar revelations in respect to the young men who went through the draft examinations in the Great War, one-third having been found below par; the keener realization that our prevailing educational processes are not producing citizens adequately fitted for living and functioning

in a new world, high-geared and highly organized; also, the phenomenon of the ever-growing leisure put at the disposal not of the few but of all the people, with the recognition of its potentiality as either a great asset or a great liability, and, on the other hand, the universal spread of commercial amusements in America.

"Play is the child's natural, proper business," Mr. Lies stated. "In his races and competitions, the playing youth struggles against obstacles within and without. He learns self-mastery. In his group games he plays a part in a whole. He becomes a cooperating factor in his society, an important factor. His strength and skill are coupled with the strength and skill of team-mates against a rival group. He is living under constitution and by-laws to which he himself has subscribed. Nobody forced him into the game; he entered of his own volition, knowing that a government would control him.

"The government says he must play fair, keep his temper, abide by decisions of arbiters. Here certainly is training *for* life, as well as being life itself. Here certainly is education for a later career of accomplishment in the workaday world, as well as keen satisfaction in the present.

"Courage, loyalty, perseverance, ambition, imagination, judgment, resourcefulness, enthusiasm—all these mental and spiritual qualities does the all-around playing child and youth have inculcated in him."

Play is a necessary ingredient in a balanced ration of living for all people, Mr. Lies pointed out. Whereas twenty-one years ago his organization considered its immediate duty to be the getting of playgrounds for small children in the poorest tenement sections of great cities, today it is saying emphatically to the world that play is a necessity for all people, young and old, rich and poor, wherever they may live.

Man Building

As Director of Athletics and Professor of Physical Education at the University of Michigan, Professor Fielding H. Yost deals with plastic, elastic youth. He says he finds that his job has many man-building phases, and from his observations he has evolved a simple philosophy that he has found all-embracing, fundamentally sound, and true for mankind in general.

"In building men we have a three-sided goal of progressive development, the Trinity of Health, Usefulness and Happiness," he said. "The fullest life can be lived only after we teach men to realize and experience that degree of health that comes from overflowing vitality; to be so alive that their usefulness does not stop with their families but spreads in an ever-widening circle to include the whole community and its problems; and to experience that deeper, fuller, truer happiness that comes not merely from doing their own personal jobs well, but also from aiding fellowmen."

The job of making a man can best be achieved by developing simultaneously the "four dimensions" of a man's being, Professor Yost stated. He analyzed these as "intelligence, character, physical soundness, and volitional power," and explained that the last named is "the general to command the activity and to determine the uses" to which the other three are put.

Ability is the first attribute, Professor Yost has found. Reliability he places as the second great trait. The third characteristic in building an ideal man is a sound body, for with it, normally, the man has a better chance. A well-balanced diet, exercise, sufficient water, fresh air, sunshine, exercise of the sort that not only strengthens the body but relaxes the mind, and untroubled sleep, are listed as subjects of especial importance in a proper hygienic régime and as being a good basis of assurance that a man will "think right."

"Live, love and learn," Professor Yost has found an effective maxim for building an ideal of manhood. "Love on the football field? To be sure! Love for team-mate, so that there may be cooperation and mutual understanding. Love for the game itself, so it may remain unsullied. Service also. The desire is developed in each player to do more than his own part, to bear some of his comrade's brunt of the burden. Responsibility is equally well taught. When a signal is called, each player knows that he has a definite, personal assignment, that the success of the play depends upon the fulfillment of his part of the task. Faith in his fellows is the foundation of team play. Courage to fling himself into the fray.

"My whole thesis is that competitive athletics can play as important a rôle in Race Betterment as eugenics, sociology and the other many-sided sciences that must contribute to this greatest work of all. If, as is the case with properly conducted competitive athletics in high schools and colleges, we can *combine character building with exercise and recreation*, we have made a double-sided contribution to humanity's health and happiness and capacity for service. We have helped make a Better Race."

Ideals in Athletics for Women

When you read the Sunday supplements and see the pictures of the girls taking hurdles, breaking the tape at the finish of a race, jumping and pole vaulting, all of the girls invariaby clothed in immodest attire and hailed as America's own women champions—when you see all this, aren't you a little bit ashamed of America's own? This was asked by Miss Mabel Lee, Professor of Physical Education, University of Nebraska.

She says further, "Have you ever stopped to think of the price those girls must pay for their moment of glory? A price to be paid in wrong

social values most probably, and a price to be paid in broken health most certainly. Hard fought-for championships always mean physical straining."

Ideals and health interests versus world records are the aim of such women's athletic organizations as the Field Hockey Clubs, the Athletic Conference of American College Women, State Leagues for High School Girls, the Women's National Athletic Committee and the National Amateur Athletic Federation, Miss Lee explained.

An ingenious scheme for protecting athletic ideals for women has been devised by the Women's Division of the National Amateur Athletic Federation, the mother organization of all groups of girls and women in the United States who are interested in promoting athletics, Miss Lee reported. Its platform embodies such interesting and intensely practical suggestions as the following:

1. To promote athletics for the majority and not for the limited numbers chosen for their physical prowess.
2. To protect girl and women athletes from exploitation for the enjoyment of spectators.
3. To minimize the emphasis placed on the winning of championships.
4. To stress the sport and the group and not the individual.
5. To place the control of women's athletics in the hands of women.
6. To countenance never the sacrifice of an individual's health for the sake of her participation in athletic competition.
7. To promote the adoption of appropriate costumes for all sports.
8. To eliminate gate receipts for women's matches.

"Through these splendid national regulations," Miss Lee said, "we women who are interested in athletics feel that we are contributing materially to the Betterment of the Race."

Physical Education That Fits Today

Muscles have given way to machines. The new civilization has brought increased nerve strain. Dr. J. H. McCurdy, Director of Physical Education of the International Y. M. C. A. College, pointed out that these changed conditions must be compensated for by physical education.

Reviewing researches already made for the advancement of physical education, he pointed out that we need to know whether or not school life is interfering with the development of the children. In estimating over- and under-weight, we must consider the types, he said. Clinical experience has shown that there are at least three types, the tall slender type, the average type, and the short stocky type. Present tables of weight do not adequately differentiate between these types.

Describing studies made on heart rate and blood pressure in standing and in horizontal positions, Doctor McCurdy asks, "Have we found a new method of measuring maturity?" He gave the following illustrations: One study of the systolic blood pressure of children pointed out that the horizontal pressure is six to fourteen millimeters of Hg. higher in the horizontal than in the standing position. Another study of two thousand aviators pointed out that in general the standing blood pressure of young aviators is four to ten millimeters Hg. higher than the horizontal position, just the opposite of the children. Doctor McCurdy's own study of adolescent boys at Clark University showed that some of the boys are like the children and some of them are like the young adults. These observations raise the question of what types and grades of athletic and physical activity should be allowed to the young child.

He advocated that skill in running, jumping, catching and batting, be taught to *all* the boys of a school. "It might be better," he said, "if no varsity competition were allowed until the average boy had learned the minimum of skill."

To fit boys and girls for a life of usefulness and joy, Doctor McCurdy believes that the next step in physical education is "more thorough development of the content of the curriculum. We must arrange a program so that the children come out of the public school system in better physical condition than they enter it. . . . The essential contributions are a better knowledge and application of the matter of structural growth," he said. "This is related to nutrition, environment and exercise.

"Modern physical education administratively promotes medical service for the removal of defects interfering with health, and periodic examinations for the detection and treatment of disease. Physical education in addition emphasizes in its program the importance of maintaining and of improving health; (a) through functional examinations, determining nutritional ability, neural stability, cardiovascular power, respiratory capacity, postural efficiency and normal muscular strength and skill; (b) through environmental examination, and promotion of healthy homes, schools, business and public conditions of living; (c) through health instruction; (d) through activities designed to secure health, recreational joy and all-round functional ability."