

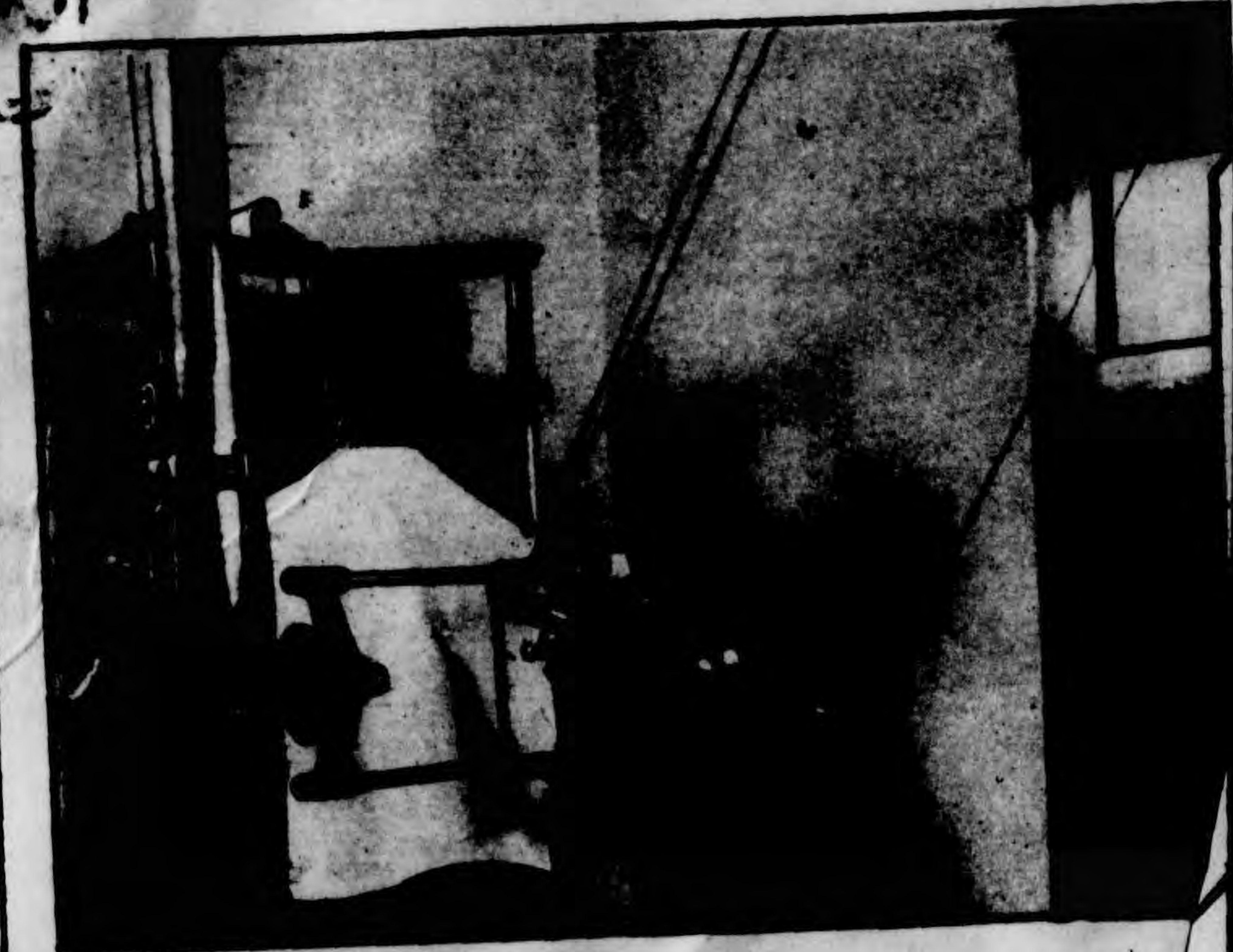
JOHN HARVEY KELLOGG (1852-1943)

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

HEALTH TRAINING

Some Items in the Health Survey -

Illus. for
J&K
article



X-Ray Machine for Chest Examination



Alveolar Carbon Dioxide Test



Taking an X-Ray of the Sinuses



Test for Acetone in Expired Air



Injecting Dye for Graham Test



Making Cystoscopic Examination with the aid of X-Ray

of the Gall-Bladder



Special Diet Kitchen



Vegetable Preparation Room



Kitchen Stock Room



Pastry Kitchen



Cafeteria Store Room

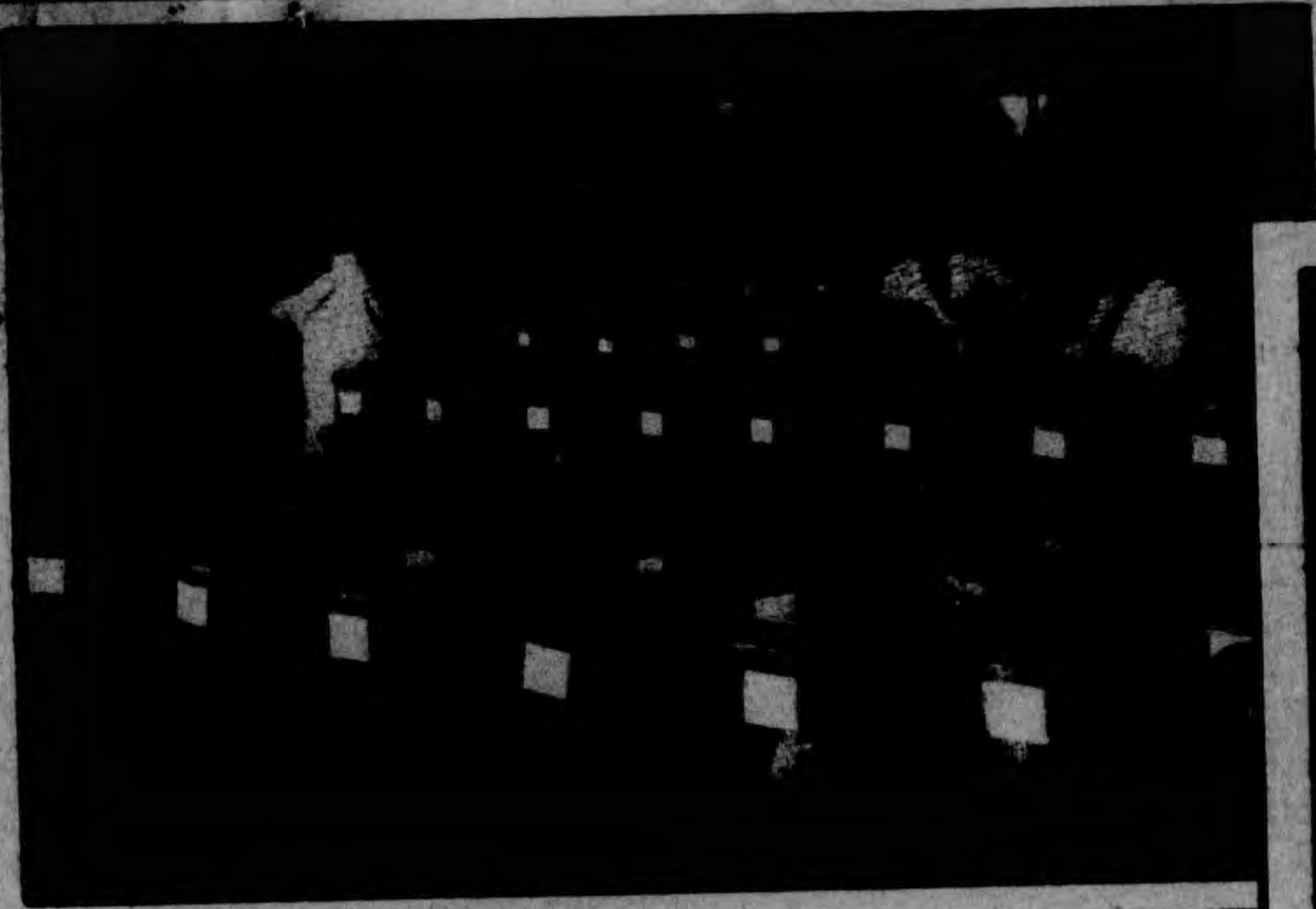


Cafeteria for Employees



Cafeteria Service Counter

Research



Nutrition Research Laboratory. White Rats are used as Experimental Animals

Pavlov Institute Laboratory



Pavlov Physiological Institute, Exterior



recognition. Results of the work find frequent publication in leading medical journals. It is often visited by scientists eager to acquaint themselves with its research and technique.

The Pavlov Institute

THE Pavlov Institute, one of the important parts of the Sanitarium's research activities, is conducting physiological investigations of great importance to medical science. It was organized at Battle Creek by Dr. W. N. Boldyreff, a famous Russian scientist ~~who was invited to take charge by the Sanitarium management.~~

The research deals primarily with gastric and intestinal secretions and their effects upon different foods. The phenomena of digestive disturbances are closely studied; also experimental studies are conducted on diabetes and anemia, etc. Various problems of considerable clinical importance are continuously being investigated in collaboration with members of the Sanitarium staff.

The Institute has gained world-wide

The Nutrition Research Laboratory

FOR the past ten years the Sanitarium has been conducting a Nutrition Research Department for the purpose of investigating certain food values and general nutrition principles. This work is done not only to develop the principles of scientific nutrition in the Sanitarium, but also as a contribution to the general knowledge of the subject.

Many interesting experiments are constantly being conducted dealing with vitamins, proteins, iron, etc., provide medical science with much valuable knowledge pertaining to anemia, rickets, malnutrition, etc. The work of this laboratory is widely known. ~~When published~~ ^{and} it is always a noteworthy contribution to science.



*Placing Blood Serum in Test Tubes
for Serological Examination*

*Estimating Nitrogen Content of Blood to Detect
Disturbances of Cardiovascular Renal System and of
Elimination*



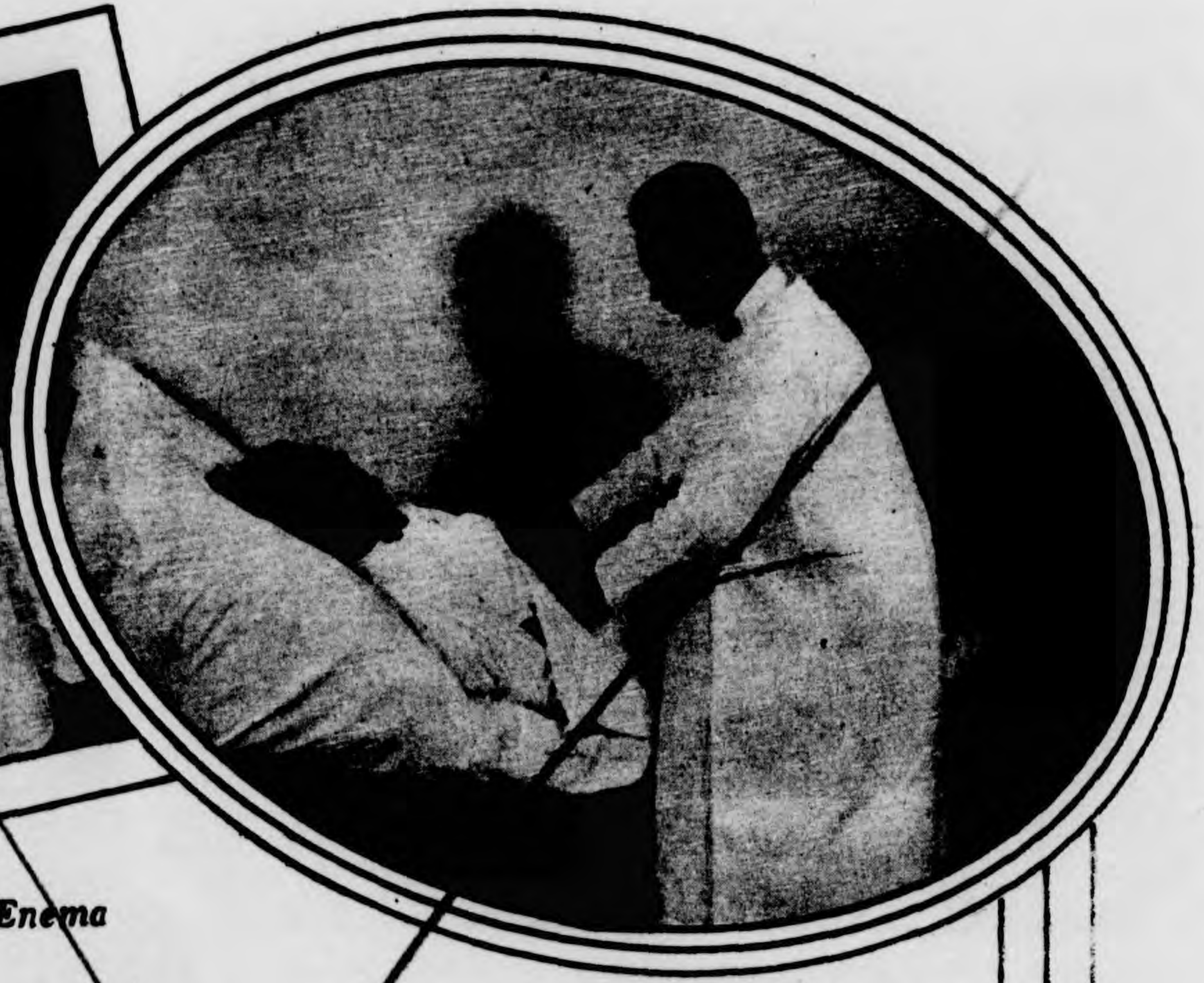
*Blood Cells Being Counted by
Means of the Microscope*

This is the diagnostic material

that was in the bulletin



Giving a High Enema



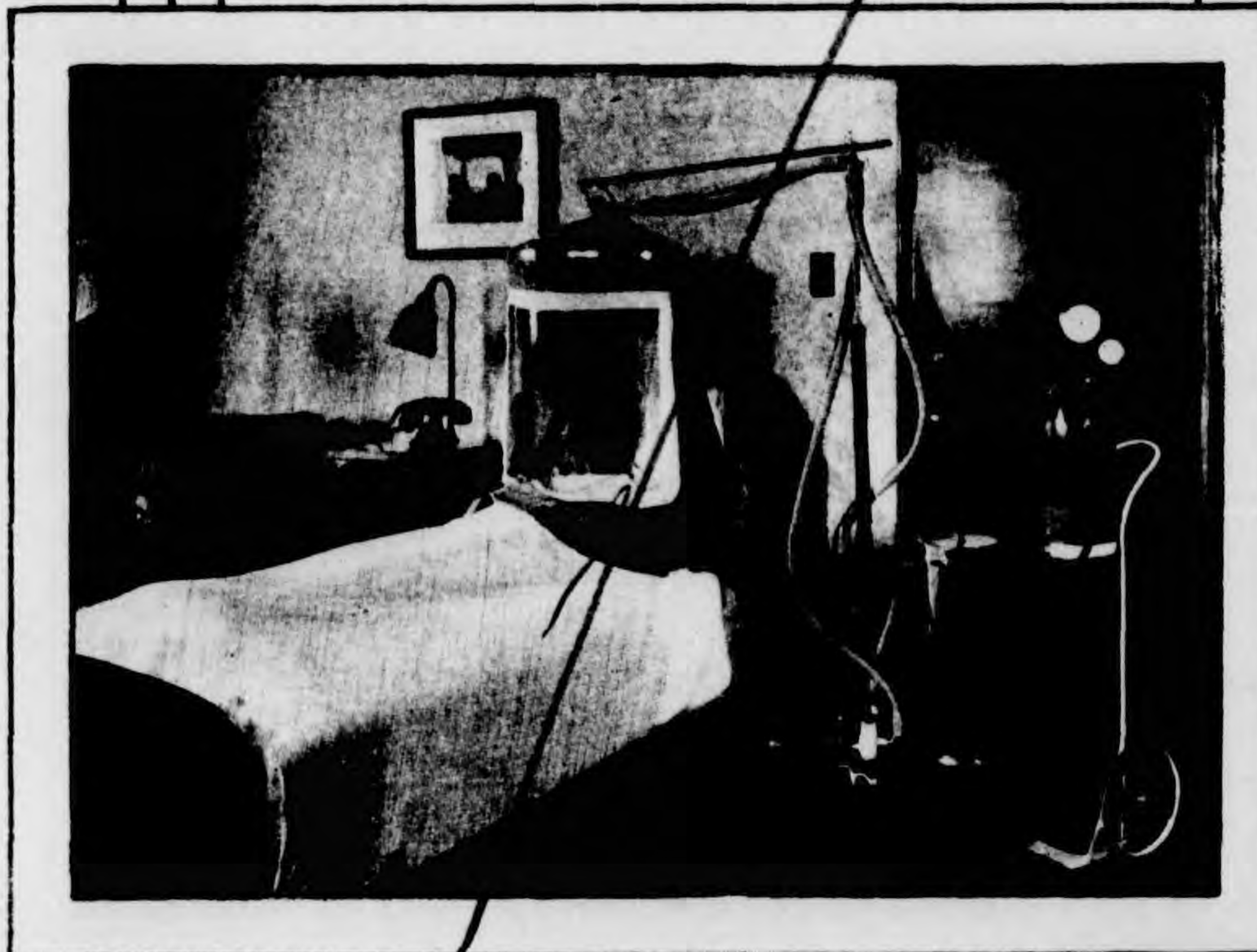
Colon Massage



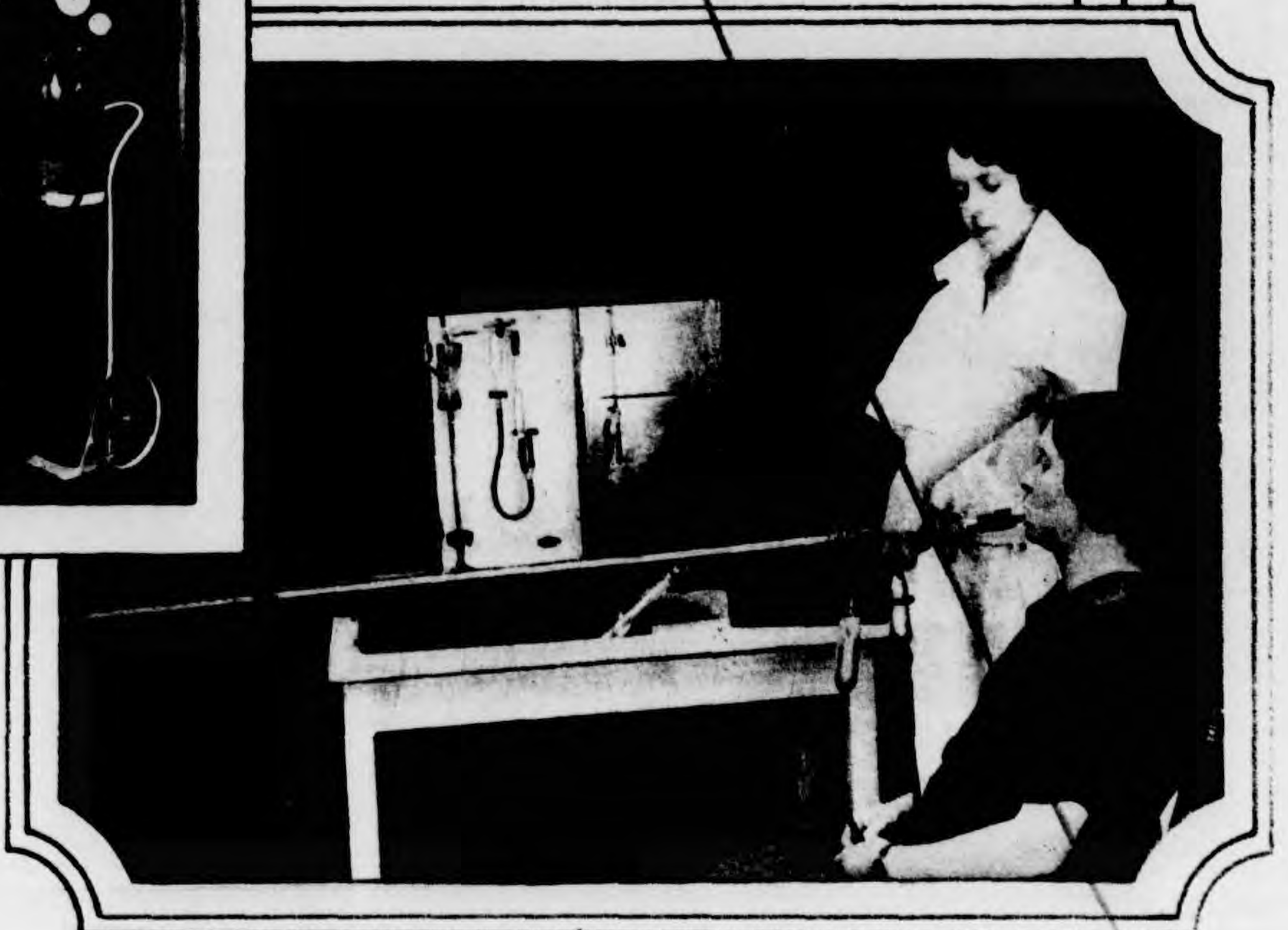
Electrocardiograph



Alveolar Carbon Dioxide Test



Oxygen Therapy Apparatus, for administering oxygen in cases of pneumonia and in various other diseases where the circulation is seriously disturbed



Test for Acetone in Expired Air



*Fluoroscopic Examination of the Stomach
In the Barium Meal Test*

Stomach Table for X-Ray Examination



The X-Ray Department

THE X-ray plays a very important part in the diagnostic and therapeutic work of the Sanitarium. This department is one of the largest, best equipped and most up-to-date X-ray laboratories in existence. The physicians and technicians in charge are men of long experience and great skill. Their work has attracted world-wide attention.

Numerous elaborate and searching examinations are made here every day, either by direct fluoroscopic examination or by X-ray photographs.

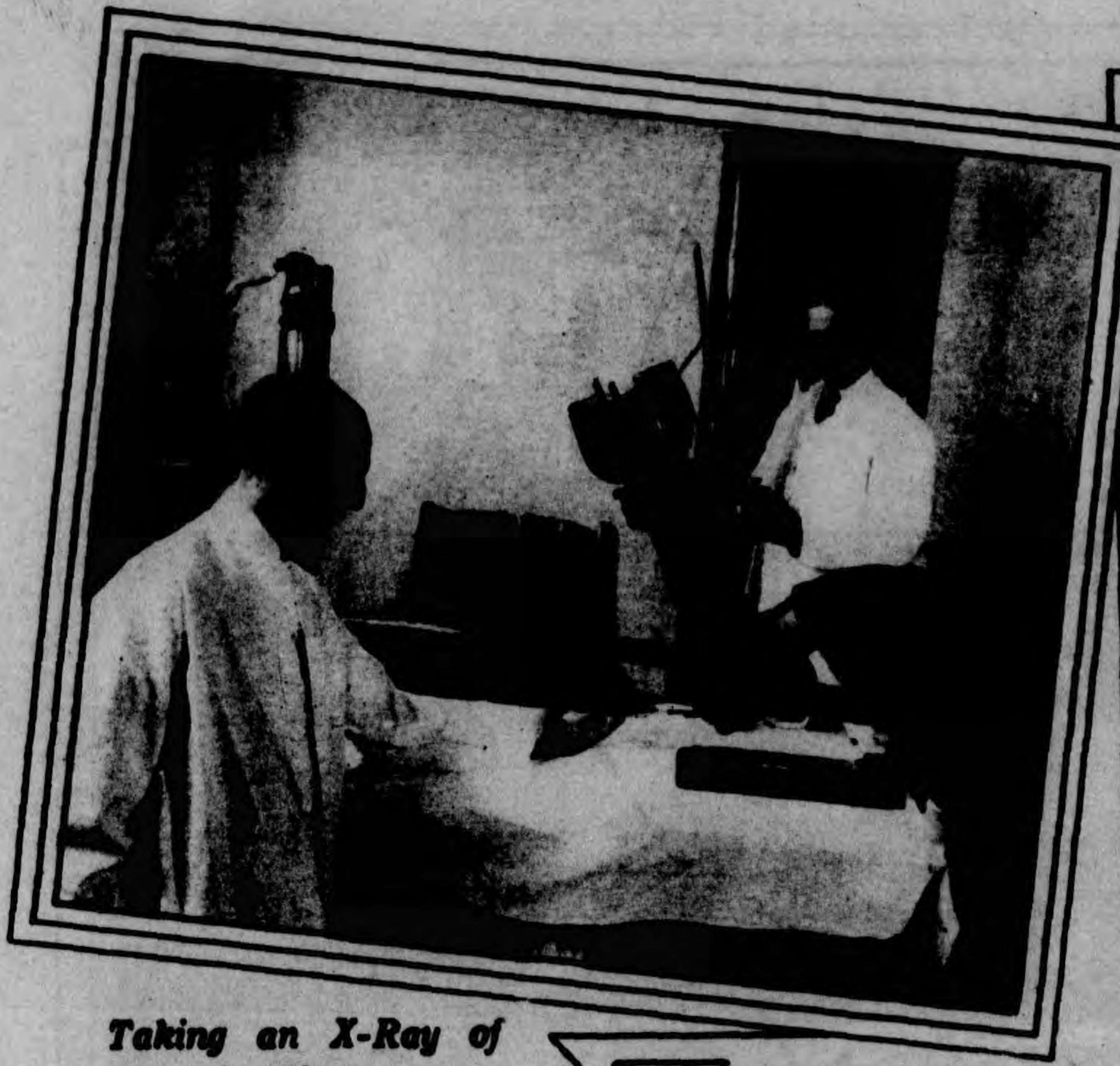
The equipment includes: special X-ray apparatus for making stereoscopic films of the chest, valuable in diagnosing diseases of the lungs, heart and blood vessels; a Bucky X-ray table for making X-ray films required in the Graham test of the gall-bladder and barium meal ex-



X-Ray Machine for Chest Examination



Injecting Dye for Graham Test



Taking an X-Ray of the Sinuses



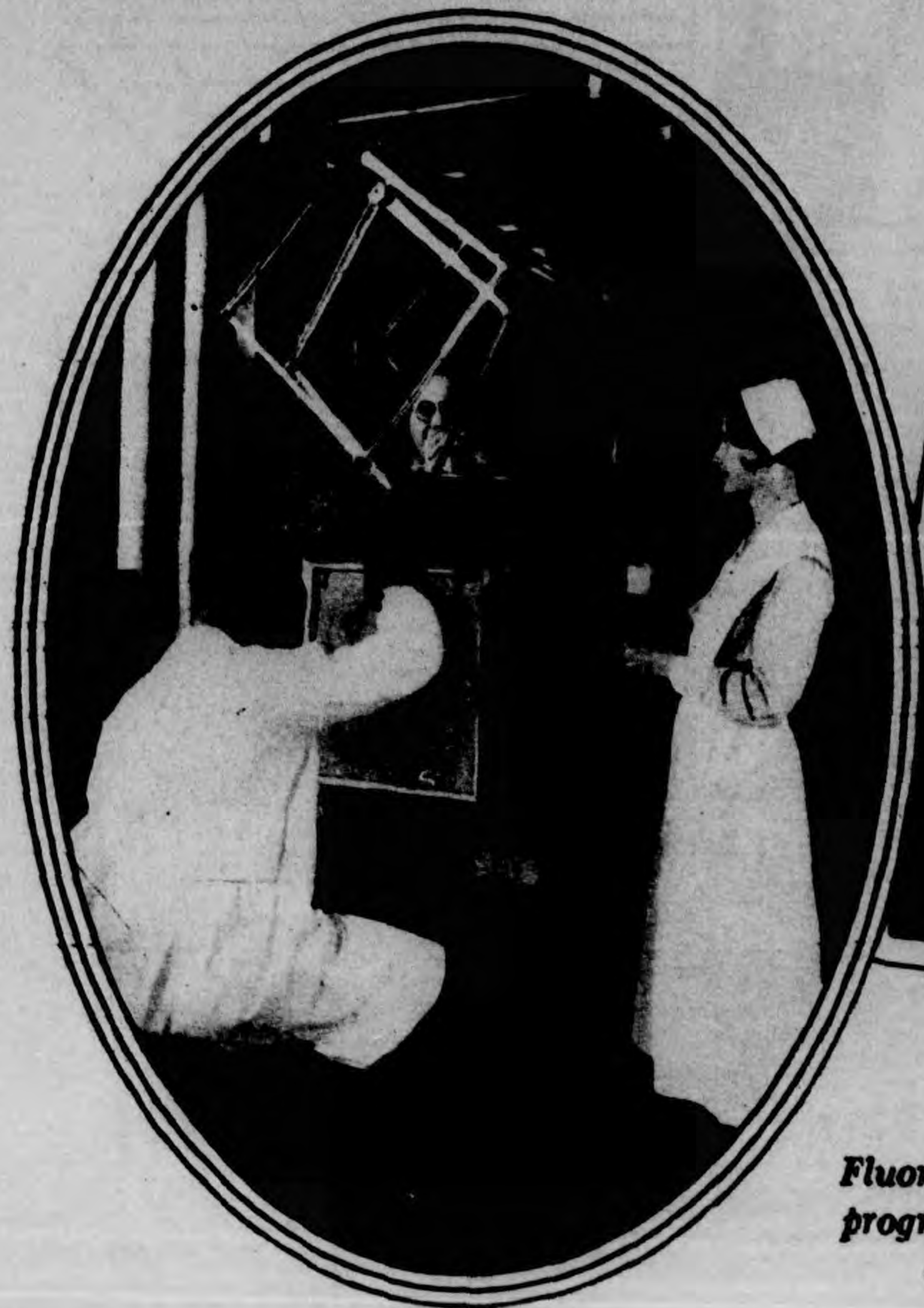
Taking an X-Ray of the Sinuses

amination of the digestive tract; a special instrument for making roentgenograms of the stomach during the barium meal test; special apparatus for work on the skull, bones and sinuses; facilities for making dental films; and a special cystoscopic room for making films of the urinary tract.

Another important piece of equipment

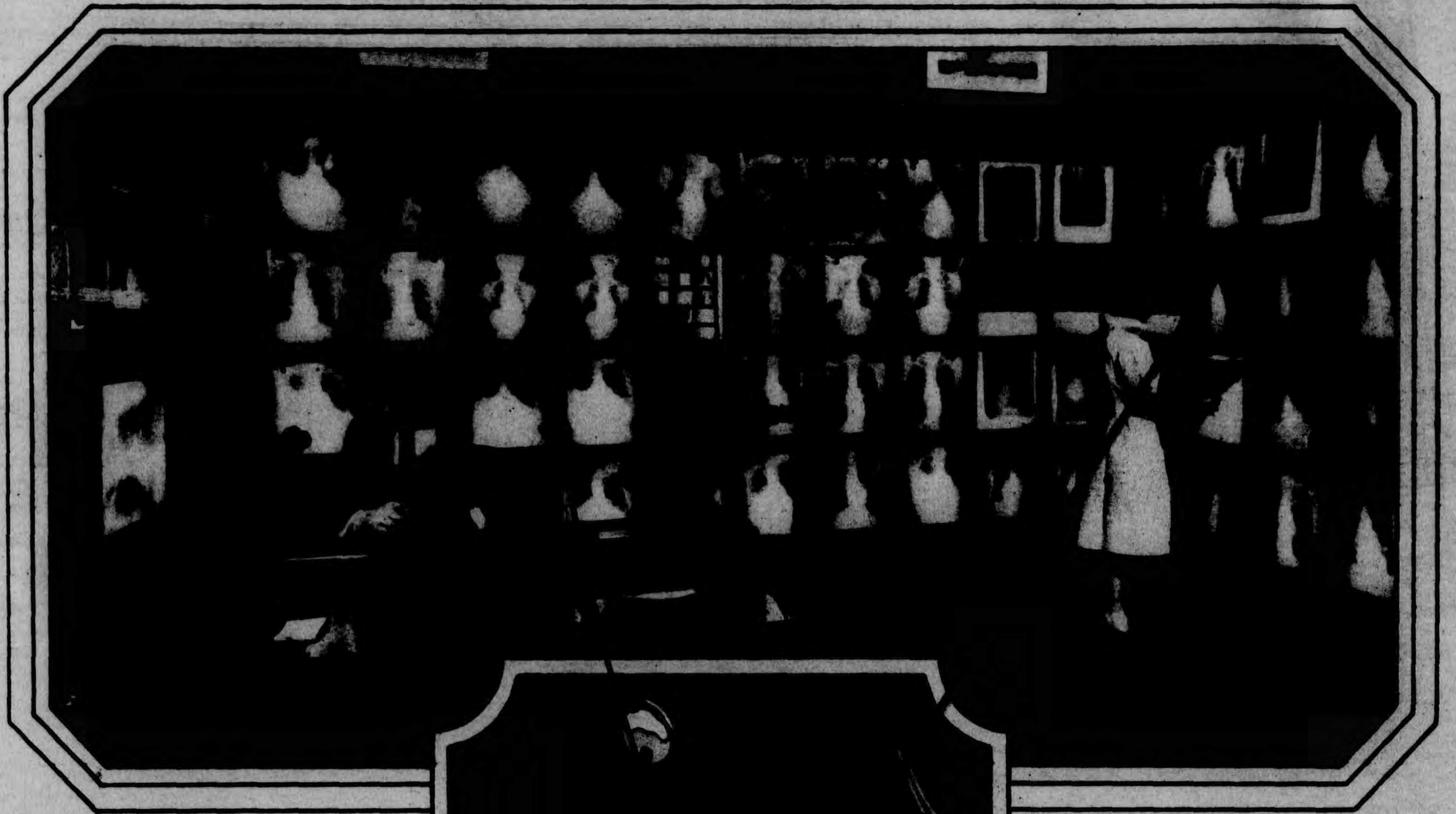
in this department is a powerful apparatus for deep X-ray therapy used in the treatment of many benign tumors and malignant growths otherwise not accessible.

There is also a photographic dark room, where on busy days, hundreds of films are developed, washed and dried in the huge mechanical drier.



Dental X-Ray

Fluoroscopic Examination of the Stomach after a Barium Meal. The progress of food through the alimentary canal and digestive processes are thus made visible, revealing much valuable information.



X-Ray films in position for critical study by the Roentgenologist. In the cabinet are many films of the chest showing diseases of the lungs, heart, blood vessels, etc.



Deep Therapy Department. X-Rays are here employed to treat deep seated diseases such as cancer which can not be reached by any other means



Making Cystoscopic Examination with the aid of X-Ray



X-Ray Observation Table



Operating Room, Ear, Nose and Throat Department

The Ear, Nose and Throat Department

THIS department, like all other medical departments of the Sanitarium, is in the charge of competent specialists. They have at their disposal the most up-to-date instruments and appliances for accurate diagnosis and effective treatment.

Every patient undergoing the routine physical examination has his tonsils examined here. A careful bacteriological study is made to determine the presence of tonsil infection and its nature. Removal of the tonsils is performed or treatment given where so indicated by the diagnosis.

Delicate instruments, like the audiometer, are used to accurately test hearing ability.

In the region of the respiratory tract the laryngoscope, bronchoscope and nasoscope facilitate the examination of the larynx, bronchi and nasal passages.

These instruments have a tiny electric light which illuminates the interior recesses of the organs and make them visible to the examining physician. The iodized oil method of X-ray examination, a recent development, is used by this department for the investigation of sinuses and closed cavities within the bony structures of the head and face which heretofore were enigmas.

The Eye Department

MANY patients who come to the Sanitarium are troubled with eye defects which unbeknown to them are the cause of headaches, nervousness, and other disorders.

During the course of the physical inventory the vision of the patient is tested; likewise the eye muscles for balance and imbalance. An external examination is also made to determine any abnormalities or diseases.



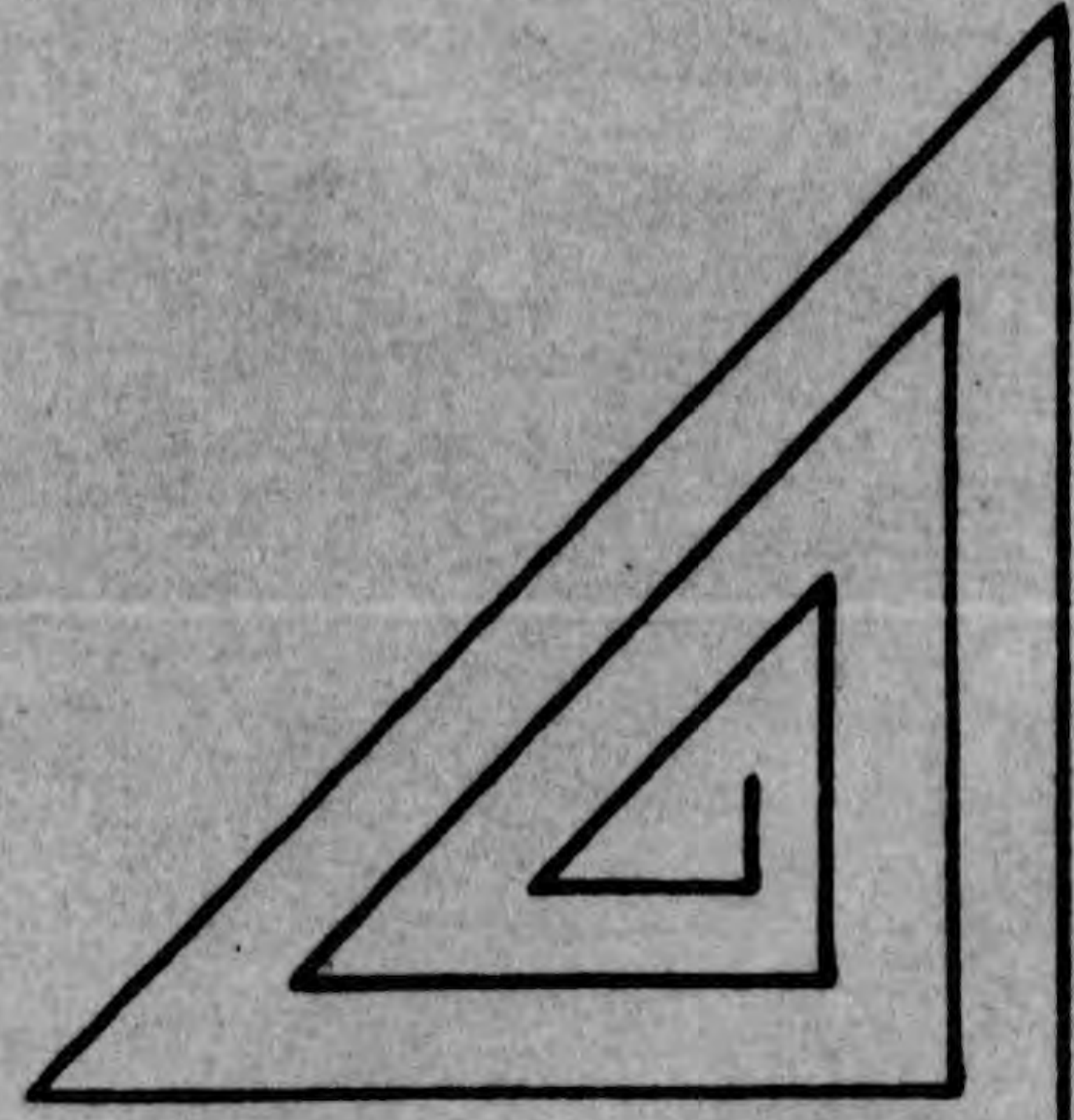
Ear Examination



Test of Hearing



Tonsil Examination



Ear, Nose, Throat, Eye

Depts featured -

Neurology
Cardiovascular
Stomach & Intestines
Genito-Urinary

} 1 inch each

What about blood?
Metabolism?

" "

Earl, No 26, Foot, Ey 9

pepp

Foot

1 with book

What

taboo



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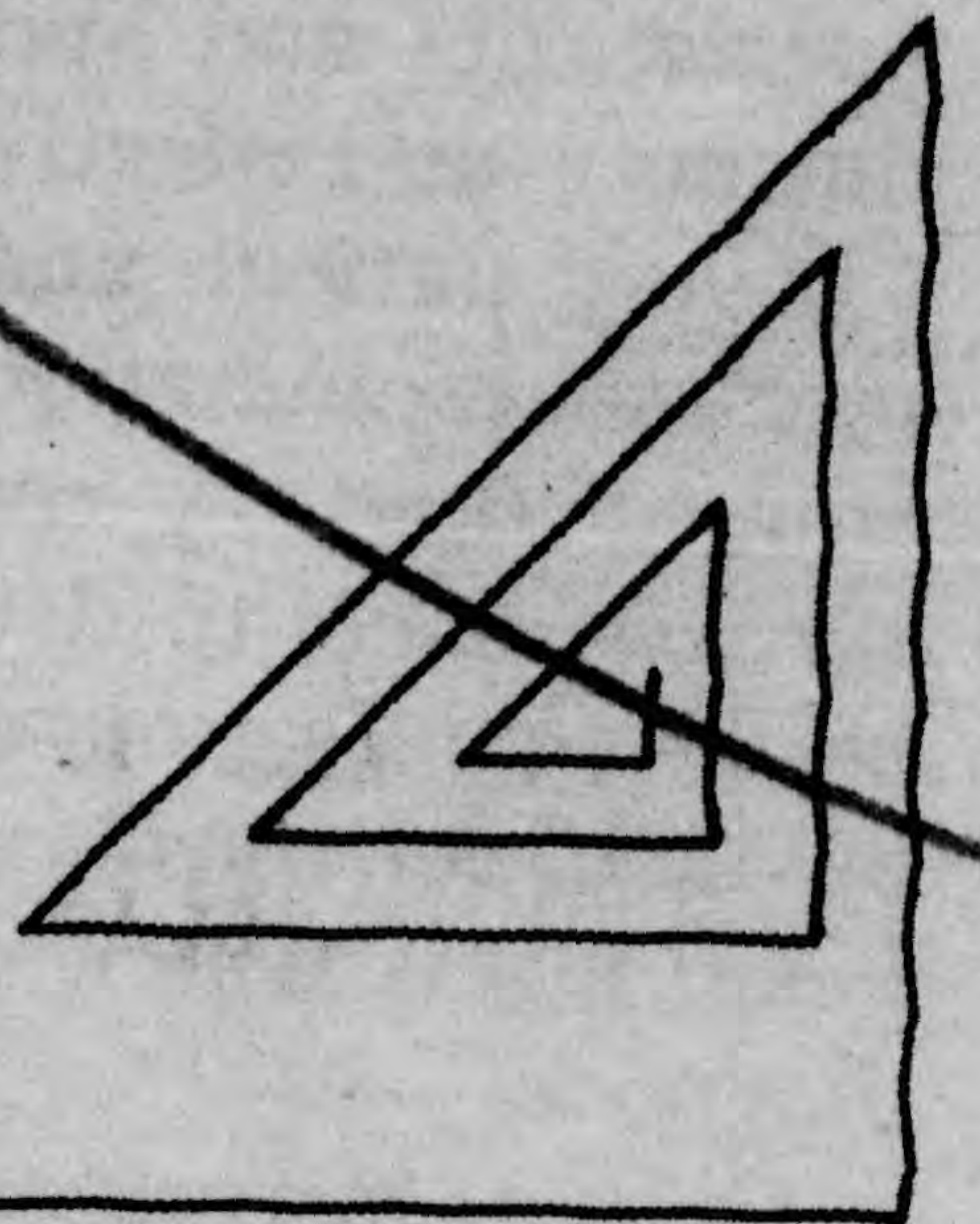
Ear Examination



Test of Hearing



Tonsil Examination





Near Muscle Test to Determine Balance or Imbalance of the Eye



External Examination of the Eye

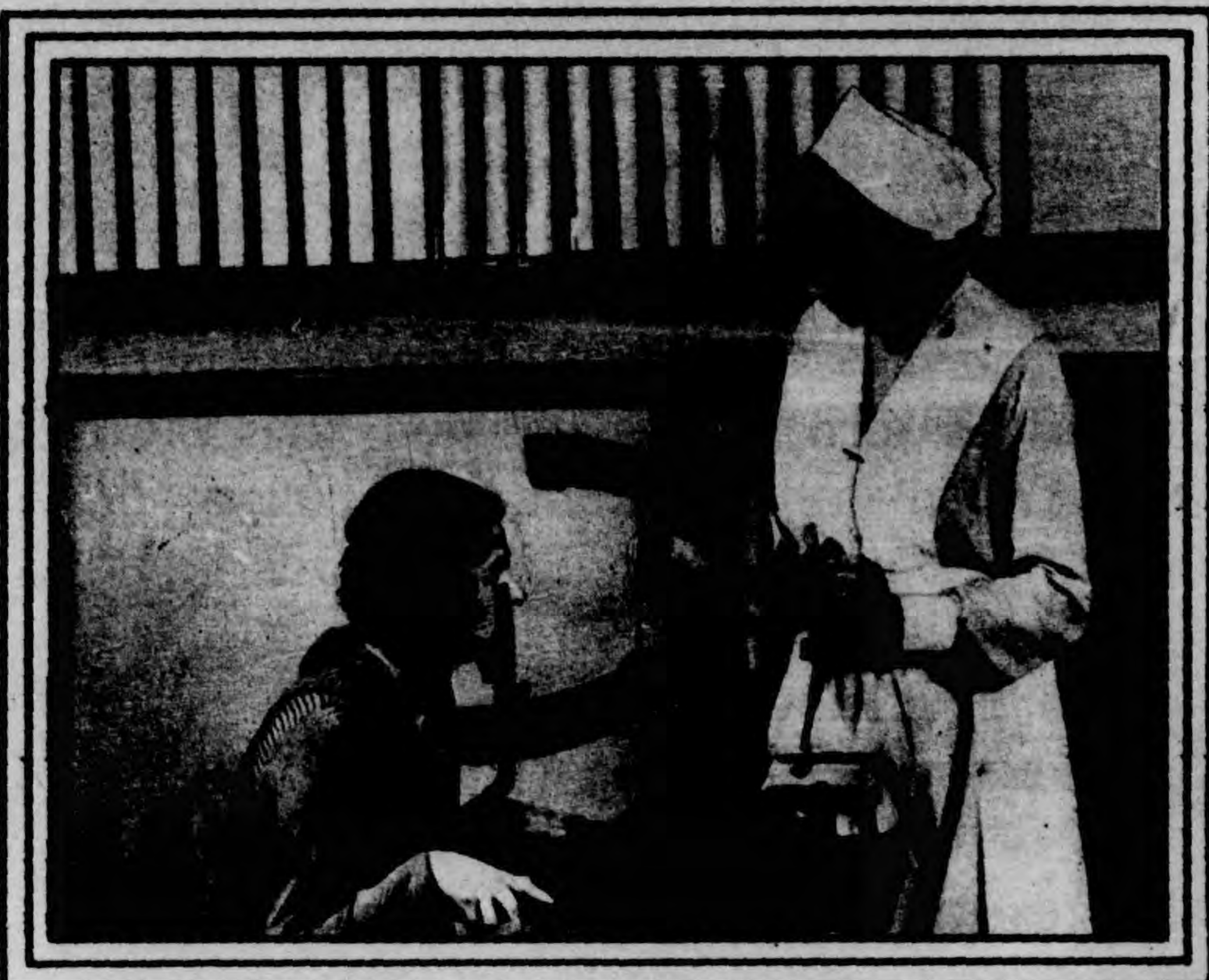
Following these examinations glasses or special treatments are prescribed when necessary.

Among the many special instruments employed by this department are:

Amblyoscope and Wells's stereoscopes for training binocular vision and the fusion faculty. Corneal microscope and slit lamp for microscopic examination of the anterior segment of the living eye. Lancaster's Giant Magnet. The presence of foreign bodies such as iron or steel in the eye is shown by the slit lamp microscope, and may frequently be removed by the Giant Magnet.

Ophthalmoscopes. — Instruments for examining the interior of the eye. The bloodvessels and nerves and other tissues in their normal positions may be studied by the use of these instruments. (Many internal disorders produce characteristic changes in the fundus of the eye.)

Ophthalmometer.—An instrument for determining the corneal astigmatism. Perimeter, Campimeter, Lloyd's slate, Bjerrum's screen are used for measuring the whole or parts of the visual fields, and the mapping of scotomata. Red-free light apparatus for differential examination of the vessels and nerves of the eye fundus.



Eye Test



Eye Test



Dental Department

Retinoscope.—An instrument for determining the refraction of the media of the eye by the "Shadow Test." Trial lenses and frames used in refraction and the fitting of glasses.

Tropometer.—Used for measuring the strength of individual external muscles of the eye. Also innumerable special instruments for treatments and operations on the eye.

The Dental Department

A SKILLED dentist and oral surgeon carefully examine the mouth surface and teeth. An X-ray examination, when thought necessary, is suggested by the dentist to determine hidden sources of infection.

Patients may have all necessary dental work done by this department while they are in residence at the Sanitarium.

Other Departments

The Neurology and Psychiatry Department is in charge of an experienced specialist with special wards for patients belonging to this class.

The Cardiovascular and Renal Department diagnoses and treats diseases of the heart and blood vessels.

The Stomach and Intestinal Department deals with all forms of gastro-enteric disorders. In addition the colon is studied to determine the causes of existing constipation. Special treatment is then applied to assist the crippled colon in disposing of body wastes in an efficient manner.

The Genito-Urinary Department makes examinations of the bladder, kidneys and other parts of the genito-urinary system and administers necessary treatments.



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External Examination of the Eye

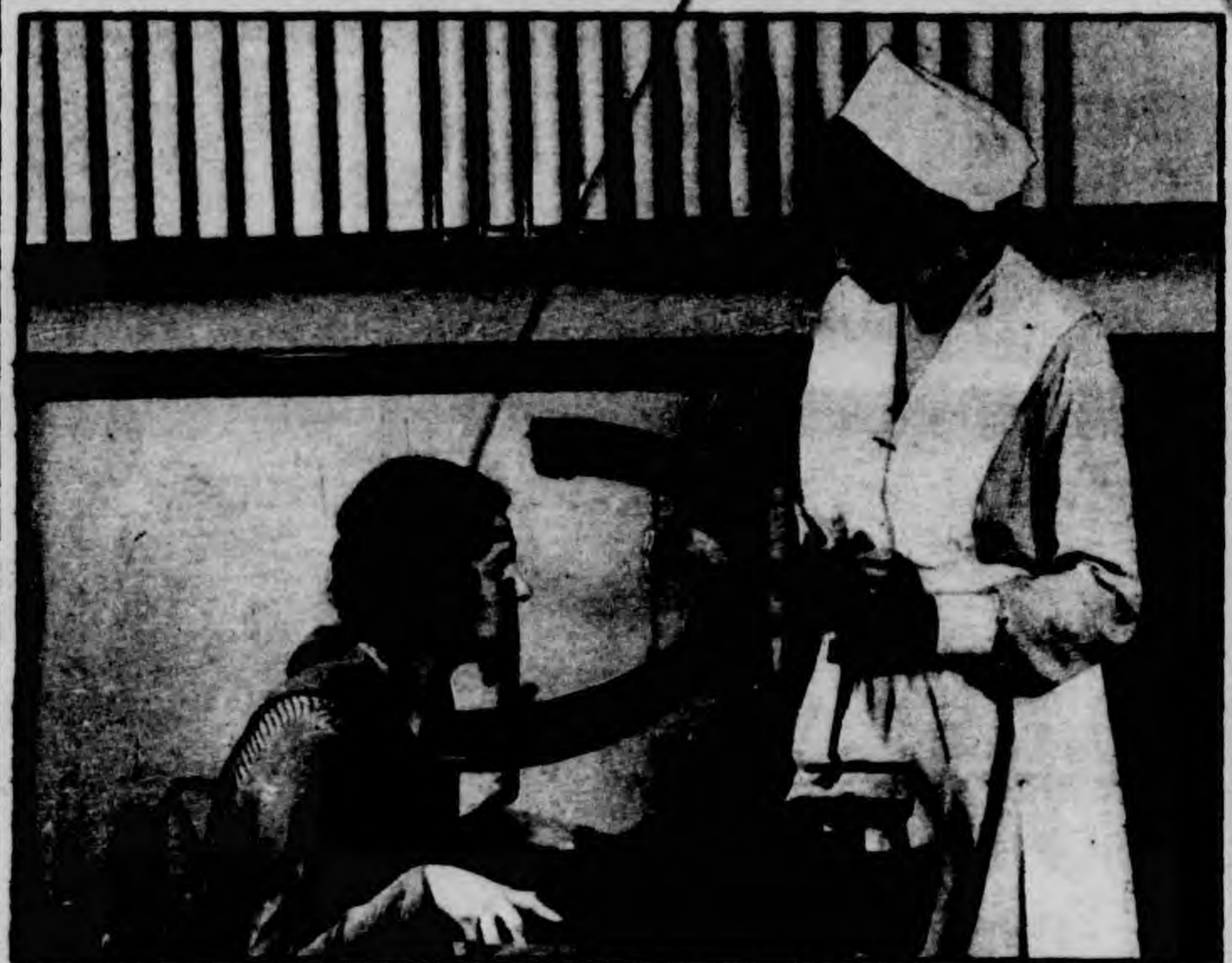
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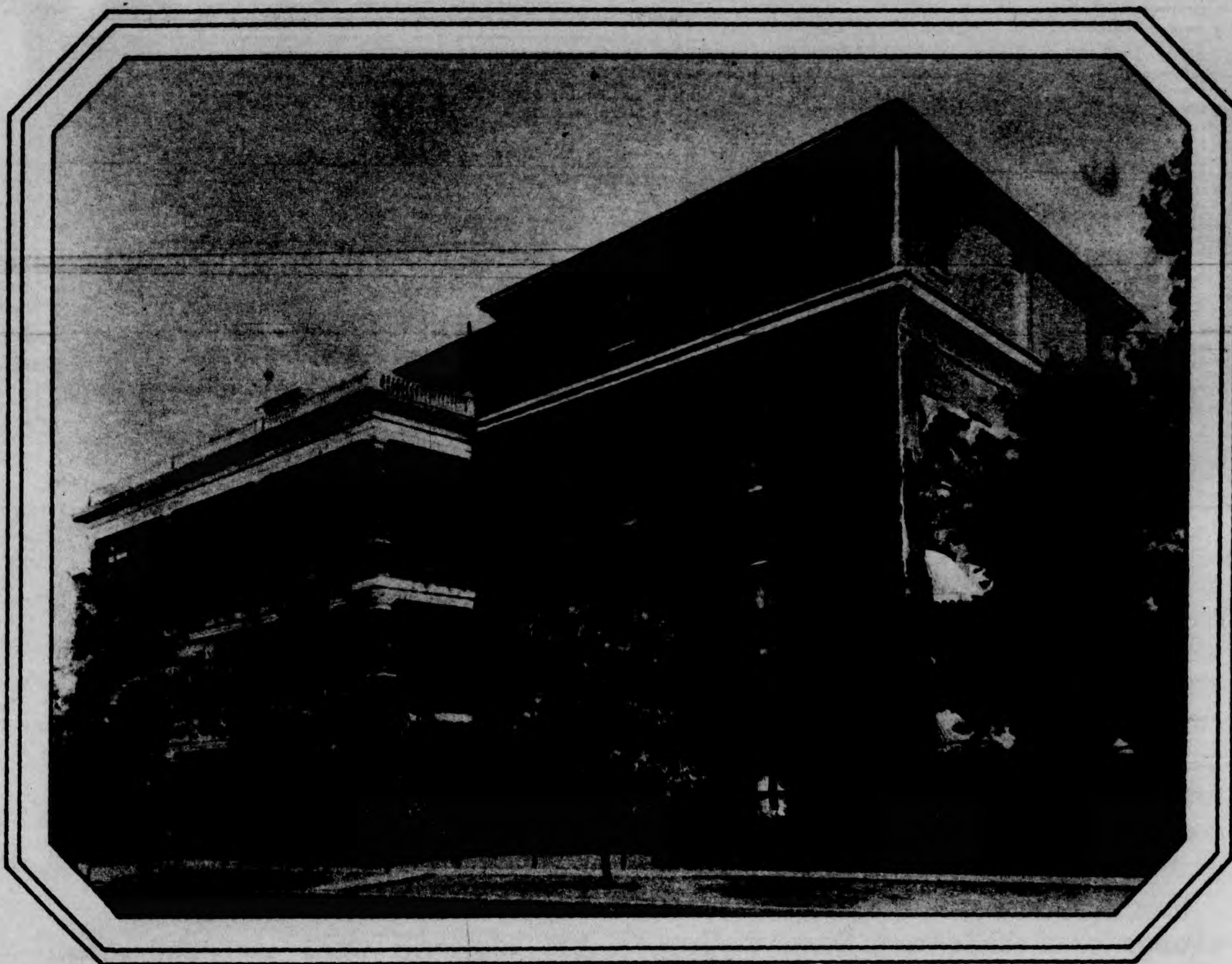
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Eye Test

Eye Test





Sanitarium Hospital

The Sanitarium Hospital and Clinic

THE Sanitarium Hospital has for many years been an important and indispensable part of the institution.

It occupies a splendidly equipped five-story building just a few steps north of the main building of the Sanitarium.

The equipment includes thoroughly up-to-date operating rooms, with every surgical appliance for all lines of surgery; also a modern surgical ward unexcelled in perfection of appointments and administration.

Operating rooms are well lighted and ventilated with washed air which is heated or refrigerated to the desired temperature. Every possible antiseptic precaution has been observed in the construction and finish. Here a group of experienced surgeons perform hundreds of critical operations every year.

There are sixty pleasant, spacious private rooms. A large corps of nurses are in constant attendance and the Sanitarium system of nursing and supervision assures the patient the utmost comfort and the most speedy convalescence possible.

The Hospital furnishes the best possible post-operative care of patients. The regime is unique and different from that of the average hospital because of the extensive use made of the physical therapy methods.

Hydrotherapy, including fomentations, friction rubs and hot packs not only helps to relieve the pain and make the patient more comfortable but assists greatly the natural immunizing and healing power of the body.

Arc light, Mercury Vapor light, diathermy, thermophore and radiant heat



Performing an Operation

applications are used extensively for the relief of pain and they too greatly stimulate the immunizing powers of the body. There are also very convenient sun-bath porches, where patients may be wheeled out in their beds and exposed to the unfiltered direct rays of the sun. This is considered a very efficient measure in the post-operative care of all surgical cases.

Spacious grounds studded with an abundance of shade trees, flower gardens and shrubbery are admired by the convalescent patient. They can be wheeled here either in chairs or on surgical beds.

As soon as patients have recovered from the acute surgical condition they



Sterilizing Room

are put through bed-side medical gymnastics which is valuable in keeping their muscles in good tone and prevents them from becoming weak and flaccid.

All of these measures tend not only to shorten the patient's stay in the Hospital but are so comforting and diverting as to make the time spent there more pleasant.

The Lying-In Department

AN obstetric ward and out-patient service are conducted by the Sanitarium under the supervision of an experienced corps of obstetricians. The lying-in woman is not only brought safely through her confinement, but may, if she



Typical Hospital Private Room



Operating Room



Performing an Operation

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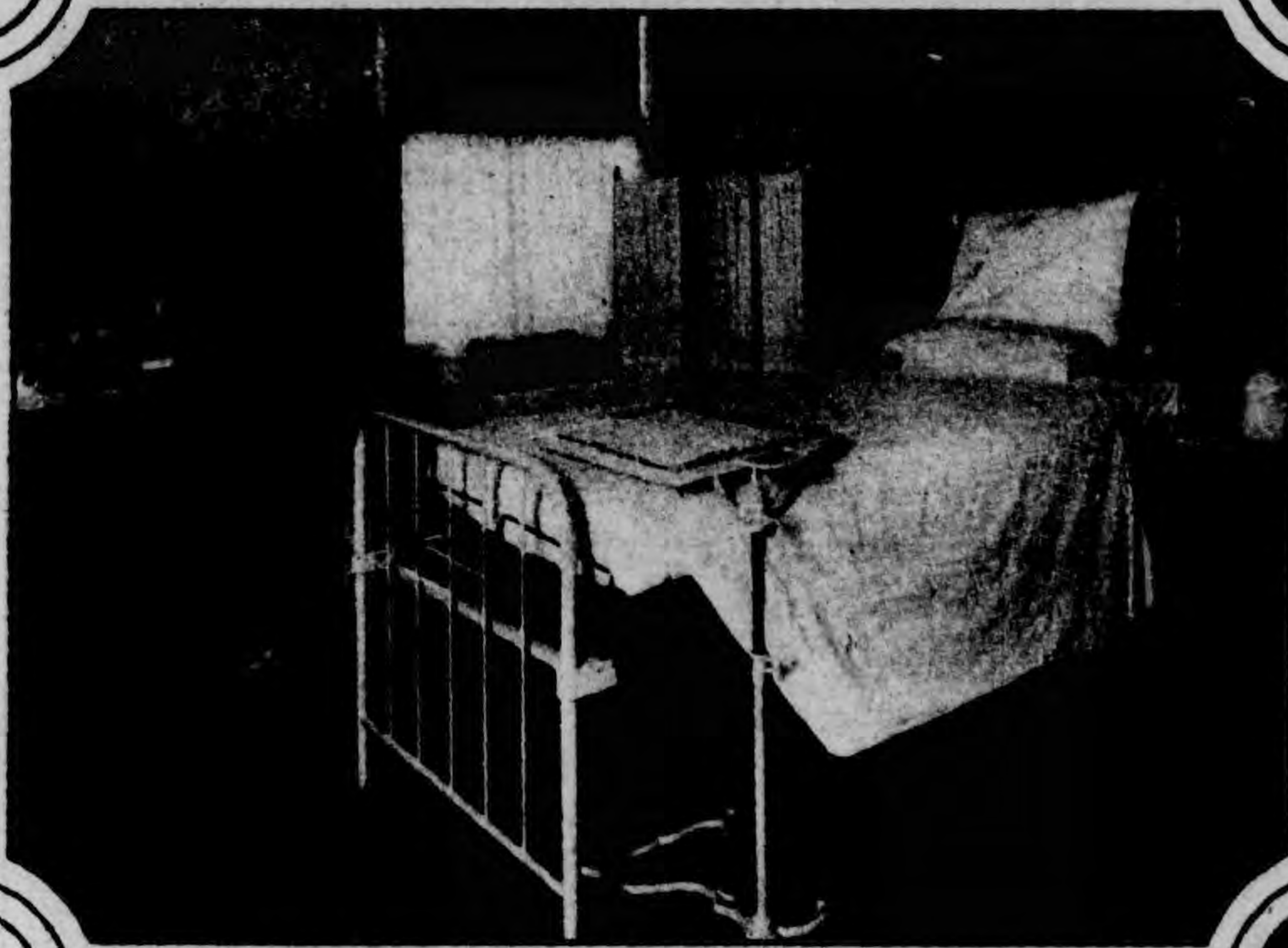
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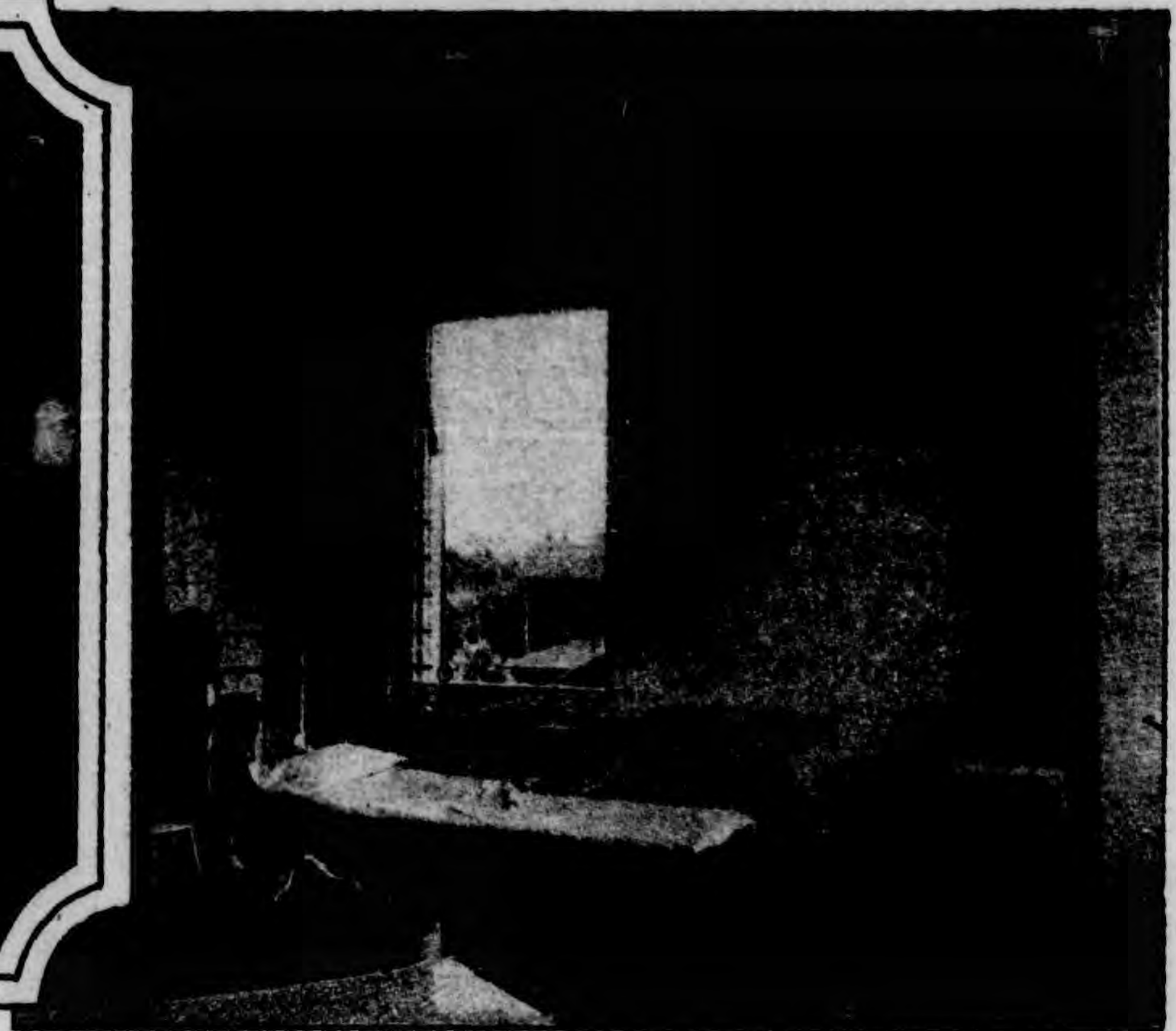
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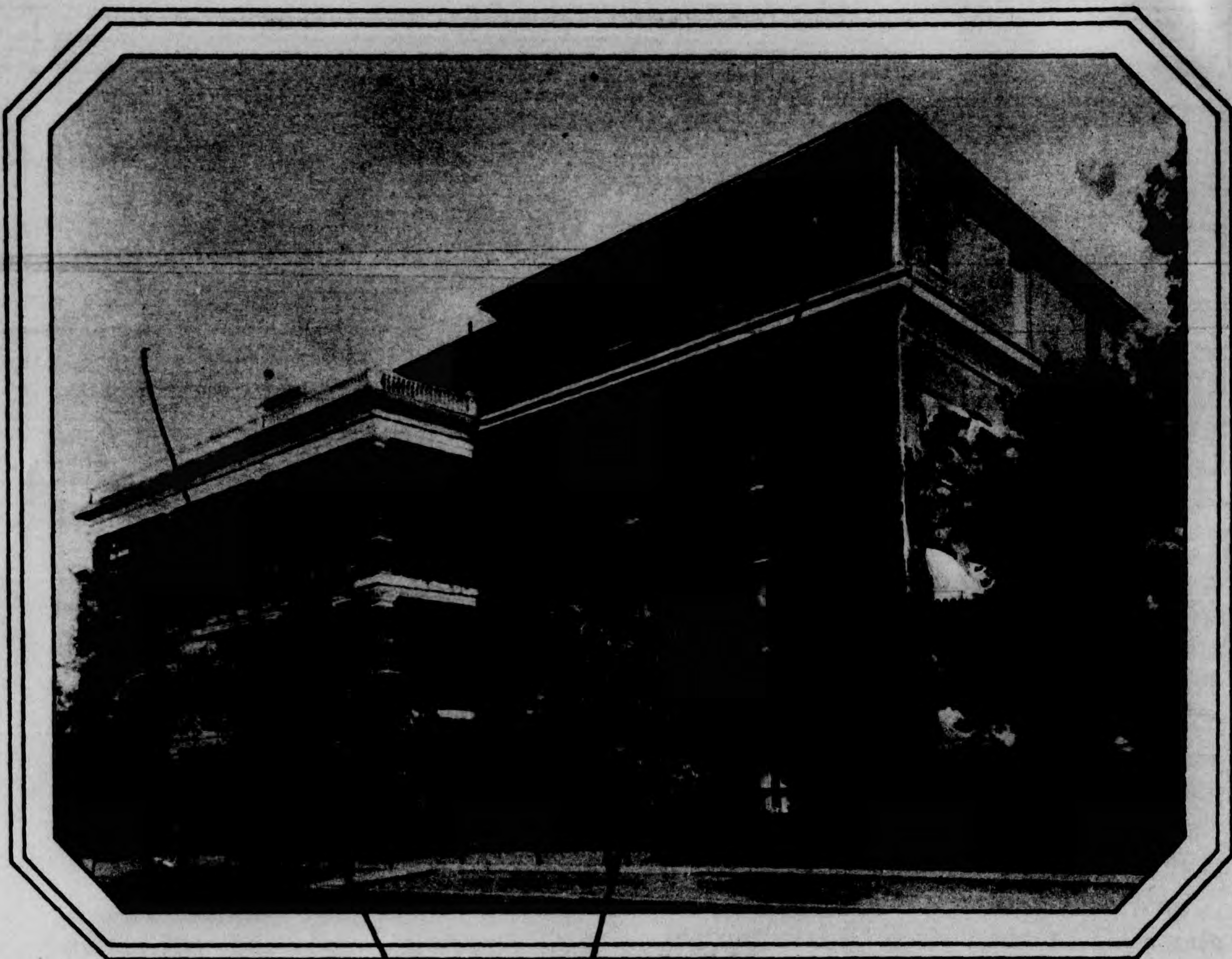
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Arc light, Mercury Vapor light, diathermy, thermophore and radiant heat



Maternity Department

the best of obstetrical care and expert medical attention but also for the unexcelled health building facilities provided by



Room, Maternity Department

chooses, have the preliminary care and training to prepare her in such a manner as to mitigate the anxiety and suffering involved.

The obstetrical ward provides rooms with every facility for proper care and comfort. Patients find this not only an ideal place for safe de-

the Sanitarium both before and after delivery, assuring them perfect rest in a pleasant and happy environment.

For the child there is an up-to-date, well equipped nursery.



Delivery Room, Maternity Department

Nursery

livery but also a haven of rest afterwards. Particular attention is given to "after" care so vital in assuring a quick recovery to normal health.

Women from out of town are coming to the Sanitarium Lying-in Hospital in increasing numbers every year because it not only offers them





Union Building

A Recreation Center for Sanitarium Employees

THE new Union Building, completed early in 1927, was especially erected as a social and recreational center for the large family of Sanitarium employees.

The Union is the outgrowth of many years of organized employee activity. For many years, lacking other facilities, they were compelled to use the Sanitarium Gymnasium. To relieve the congestion and to provide employees with a home of their own, the Sanitarium Board built the Union Building at a cost of \$350,000.

It is a fine brick structure, 135 feet by 220 feet, three stories high. It houses a huge gymnasium with every facility for exercise and indoor athletics. A large swimming pool, 30 feet by 120 feet, is located on the basement level.

A spacious stage, comparable in size and equipment to those in the largest theatres, is available for pageants, dra-

matics and concerts. A motion picture projection room is located in the balcony.

The big combined gymnasium and auditorium, together with the balconies, will seat an audience of 3,500 comfortably. It is the scene of interesting social gatherings, games and entertainments.

Locker rooms, social rooms, shower rooms, rest rooms, reading and recreation rooms, etc., are duplicated on each side of the basement floor for the use of men and women. There are also bowling alleys, a billiard room and ample facilities for basket ball, hand ball, volley ball, and other indoor games.

The Union is now practically self sustaining, each employee contributing five dollars per year towards its maintenance.

The Union and its activities contribute much to the *esprit de corps* of the Sanitarium personnel,—a spirit which is reflected in the highly efficient services rendered.



Testing Strength of Muscle of the Lateral Trunk



Testing Strength of Deltoid Muscle



Making a Posture Shadow Photograph



Testing Strength of Hand Flexor Muscle



Testing Strength of Foot Extensor Muscle



Men's Medical Gymnasium, Typical Exercises on the mat, with the medicine ball and on the horizontal bar help to strengthen weak muscles





Caption?

[32]



~~General View of Women's~~
Medical Gymnasium

[31]

SUNLIGHT IN DOORS



Artificial Sunlight Bath for Men



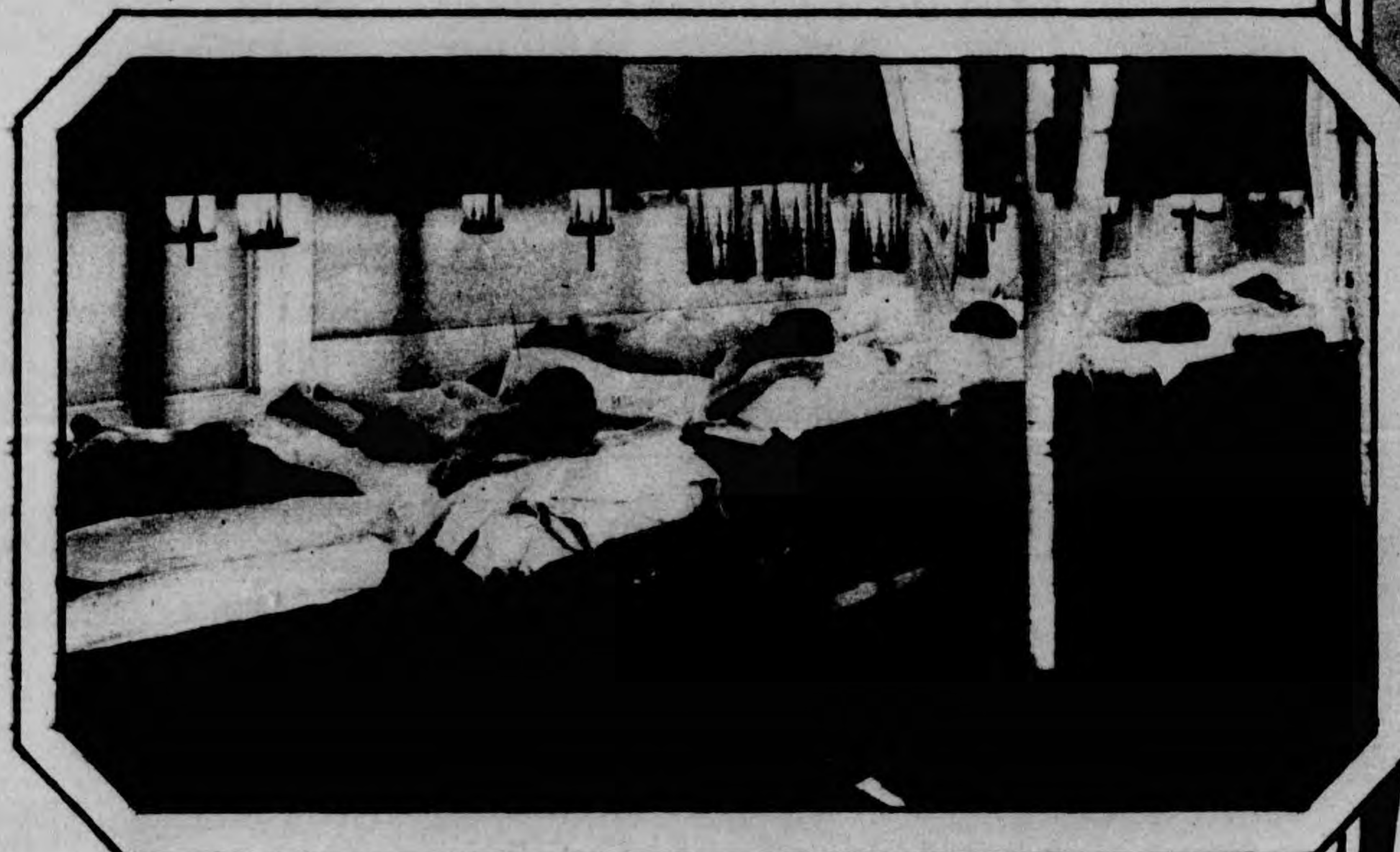
filled with rich vitalized blood. An ideal combination for health building is the cool tonic air of Michigan and daily sunlight baths as given at the Sanitarium. During the winter and on cloudy days the Sun Bath Departments are utilized for general sun bathing as well as for special treatments for specific effects.

Every chronic invalid, every tired sedentary worker, needs the vitalizing influence of sunshine, natural or artificial. At the Battle Creek Sanitarium such ample facilities are afforded that every guest may enjoy the benefits of a daily sun bath even in mid-winter.



Quartz Light Bath

San Bath Departments are provided for guests on the roof of the new addition. Windows in the guest rooms of the new buildings are also equipped with vita glass allowing the transmission of health-giving ultra-violet rays which are excluded by



Women's Artificial Sunlight Bath



Alpine Light Bath



Under The Blue Canopy



On the Roof of the new Fifteen-Story Addition
A broad promenade offering a splendid view of
the beautiful Battle Creek countryside



Women
Exercising on Roof
of New Building



Volley Ball on
Roof of New
Building



Men
Exercising on Roof of New
Building



Mechanotherapy Department for Men

ordinary window glass. Guests also enjoy sun bathing during summer months in the spacious outdoor gymnasium parks.

During winter months, thousands of sun baths are given in the Sunlight Bath Departments for men and women. A portable carbon arc light bath is available for special use in rooms. Guests may call for a sun bath at any time, day or night.

Medical Gymnastics

MOST women and a large proportion of men who visit the Sanitarium are suffering from deficient muscular development and incorrect posture. Exercise is one of the most effective means of correcting this.

The program of medical gymnastics developed here is comprehensive enough to meet all needs, from the feeblest bed-ridden patient to the "stale" athlete who is anxious to "come back," or the portly business man who must make haste to escape the consequences of unhygienic living by a moderate return to boyhood activities.

First of all, a careful diagnosis of the patient's muscular

system is essential. This is accomplished by means of a universal Dynamometer which was developed here after many years of persevering effort. It has now been in use by the institution for nearly forty years.

Through this instrument the strength of each of thirty major groups of muscles is determined as well as the total strength of the body. A graphic made from the data thus obtained shows at once the relative strength or weakness of each group of muscles, and the relative strength of the patient and of each of his principal muscle groups to that of a normal person of the same height.

The data obtained from the strength graphic together with the results of other examinations, enable the physician to determine the special needs of individual patients and prescribe a course of exercises.

Light calisthenics, Swedish movements, indoor gymnastics, swimming, outdoor gymnasium work, folk dancing, hikes, boating, automobiling, horseback riding, etc., are the exercises employed. As much exercise as possible is taken in the open



Mechanotherapy Department for Women

Recreation Au Naturel



Exercise Class on Cots, Men's Outdoor Gymnasium



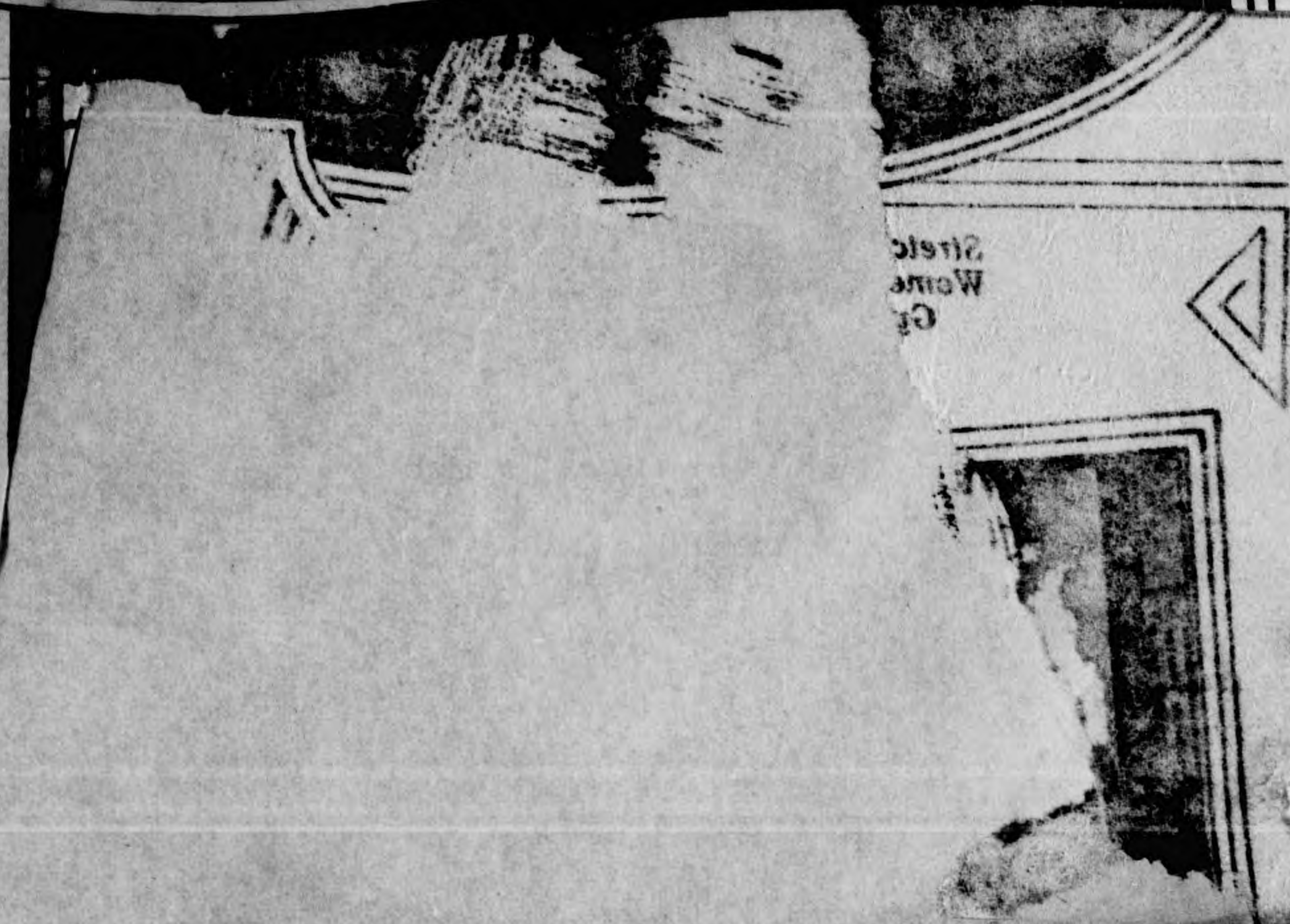
Volley Ball in Men's Outdoor Gymnasium. Here privacy permits the minimum of wearing apparel and therefore the maximum exposure to health-bringing sunlight and fresh air



Swimming Pool in the Men's Outdoor Gymnasium



Exercise Class in Women's Outdoor Gymnasium

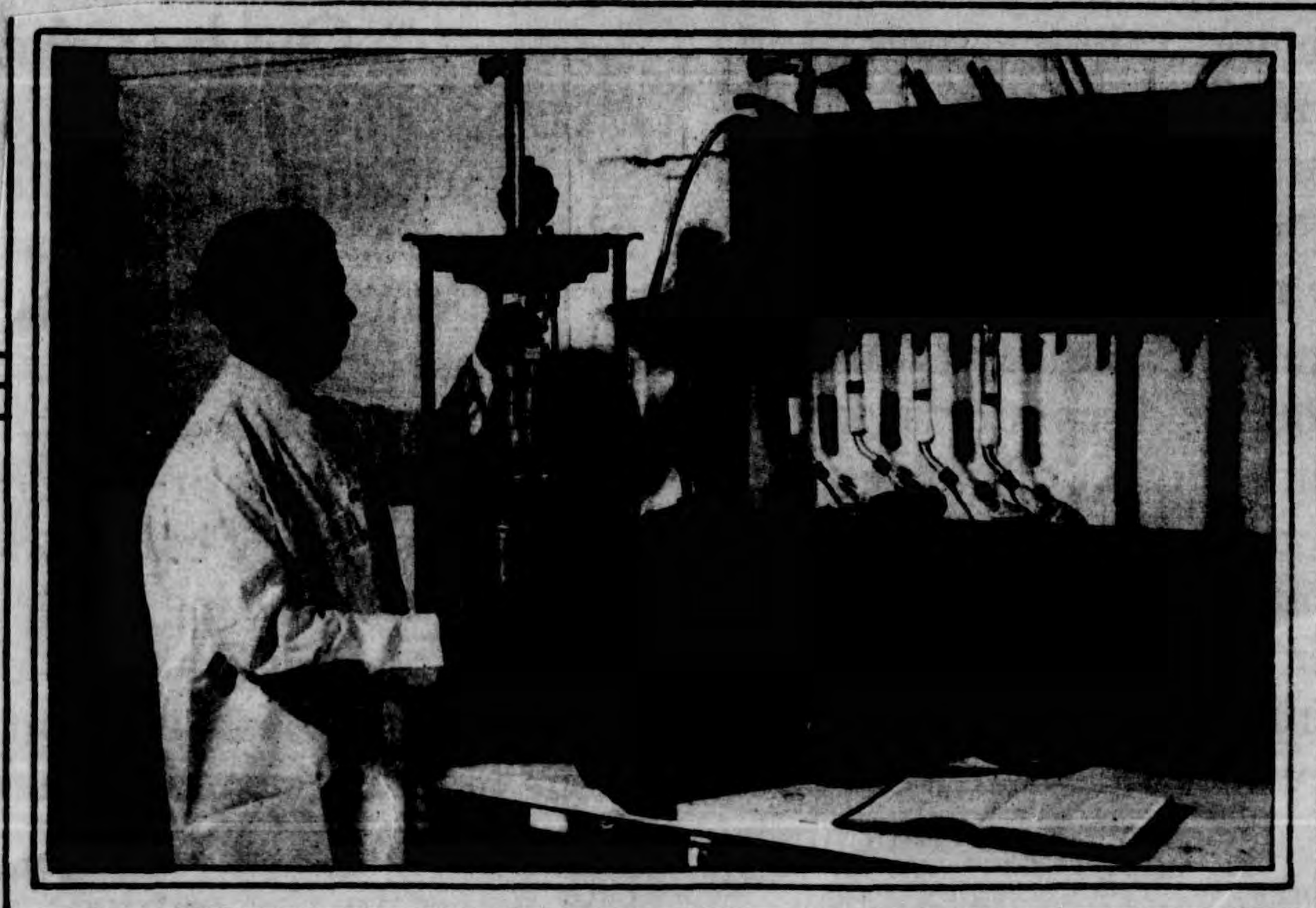


Exercise Class in Women's Outdoor Gymnasium

Cooking School for Sanitarium Patients. Here patients are taught to prepare many healthful, tasty dishes in accordance with the Battle Creek principles of diet. Many patients continue the Battle Creek diet at home and this instruction serves them well in their own Kitchens



*Main Dining-Room, Seating 1,000 Guests
Battle Creek Sanitarium*



Analyzing Food by Means of the Bomb Calorimeter



Fluoroscopic Examination of the Stomach after a Barium Meal. The progress of food through the alimentary canal and digestive processes are thus made visible, revealing much valuable information

Play time at the Sanitarium



Grand march on the roof of the main dining room, a very popular institution of many years' standing at the Sanitarium, conducted every evening between 7 and 7:30 P. M.

Enjoyment

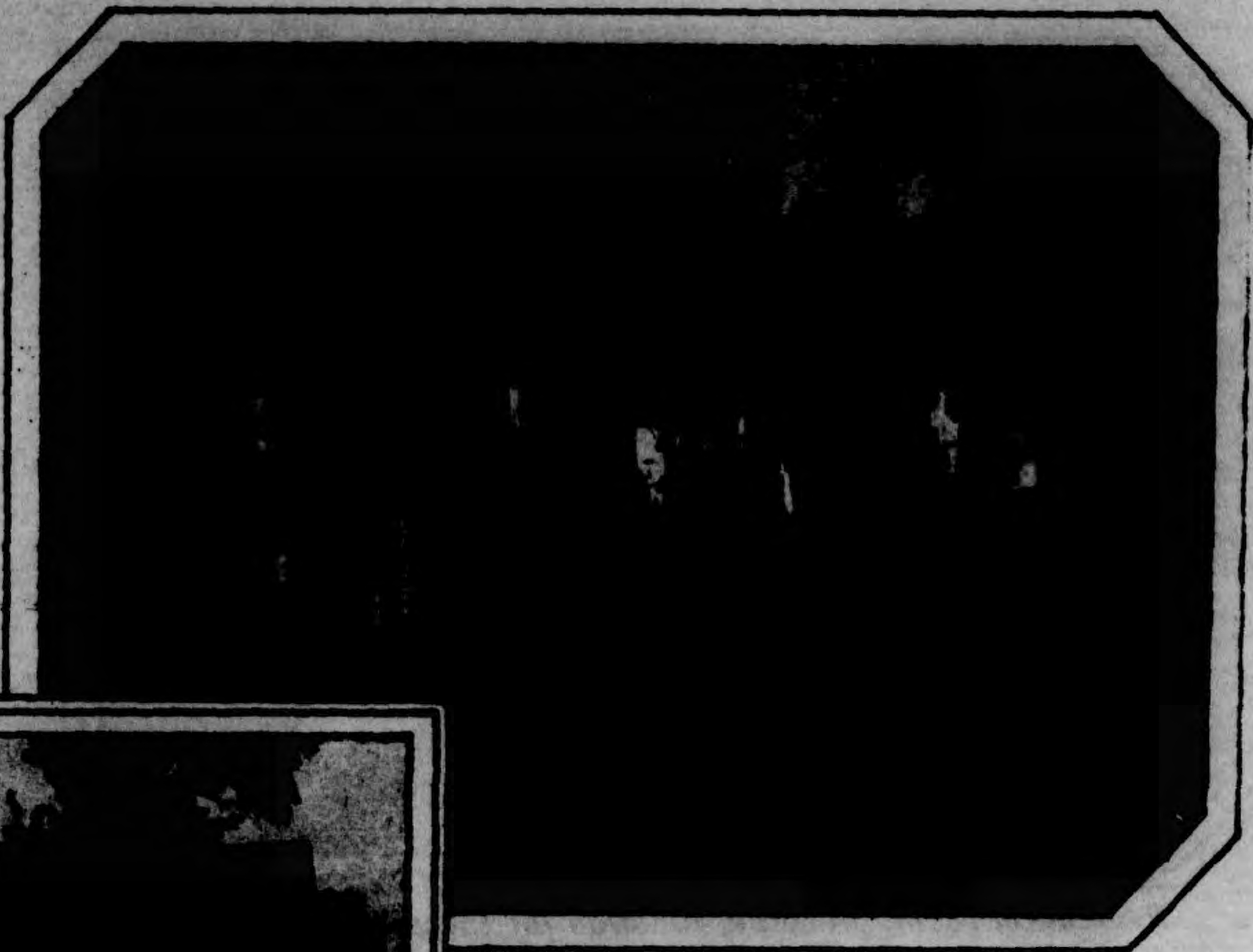
Virginia Reel on the Dining Room Roof. Another very popular Sanitarium institution very much enjoyed by guests



Enjoyment

*Miniature Golf Course on the
Sanitarium Grounds*

*Golfing at the Battle Creek Country
Club. A fine course that will test the
mettle of the most skilled player. There
are many other courses in the imme-
diate vicinity of Battle Creek available
to Sanitarium guests*



*Tennis Courts on Sanitarium Grounds
Facing Kellogg Hall of Battle Creek
College*

[A Double Spread]



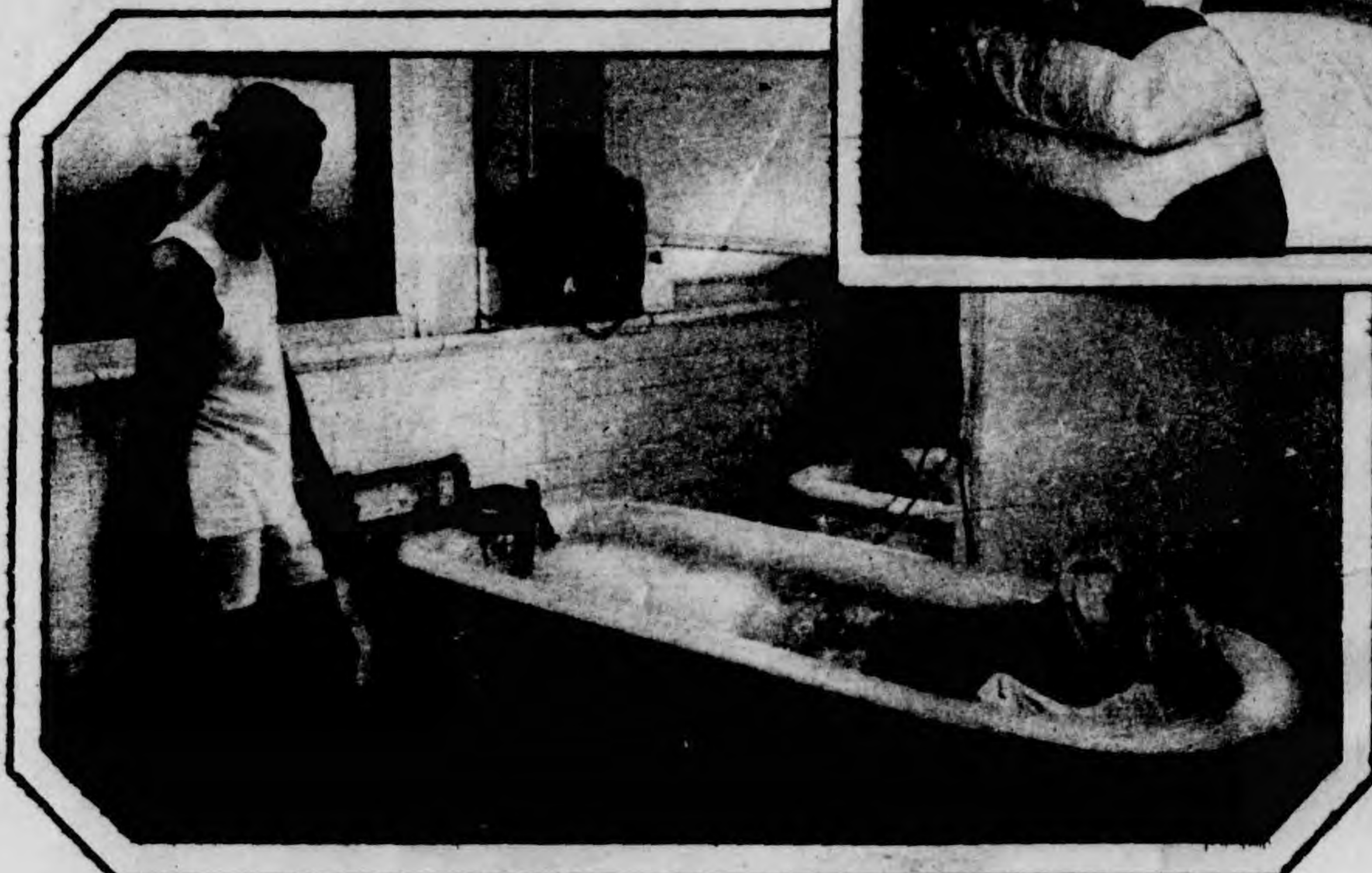
Spray Bath



Electric Light Bath



Radiant Heat Bath



Bubble Bath



Salt Glow

~~III~~
In The Men's Treatment Rooms



Electric Light Cabinet Room



Reclining Electric Light Bath



Salt Glow

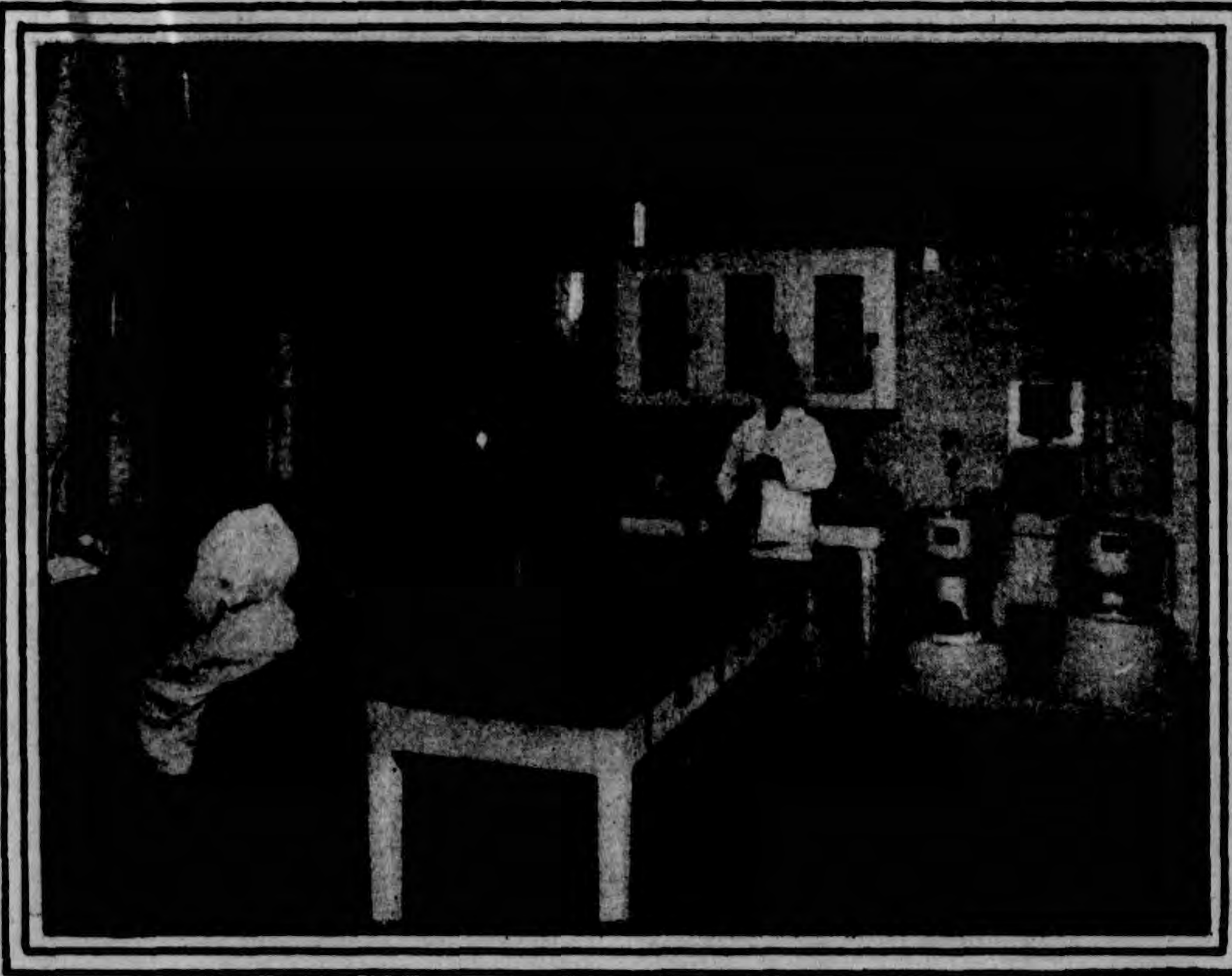


Sinusoidal Tub Bath



Hot Blanket Pack

In The ~~125~~ Women's Treatment Rooms



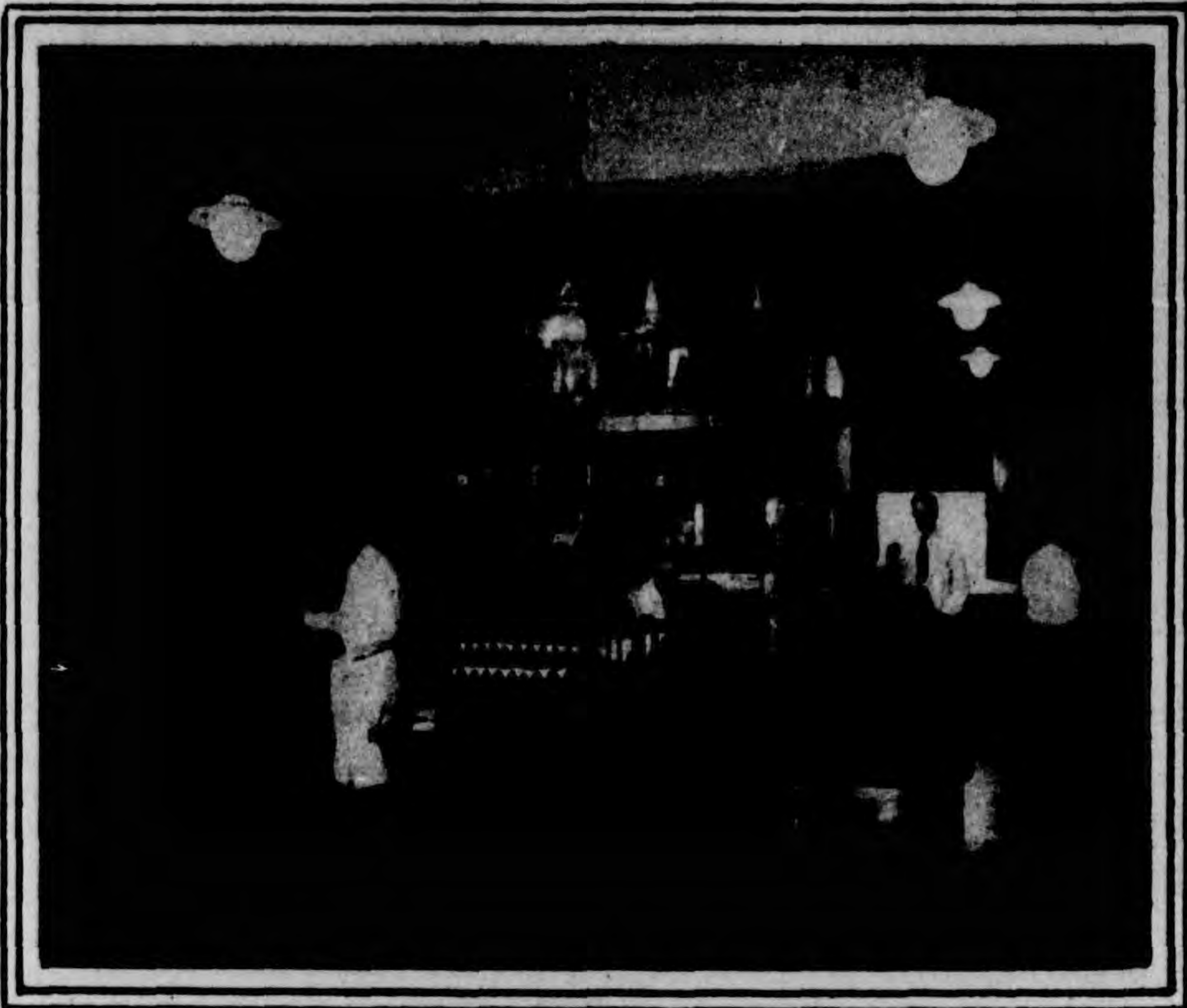
Serological Laboratory



Serological Laboratory



Bacteriological Laboratory



Urinary Laboratory



Fecal Laboratory



Bergell Test of Urine. An Early Indicator of Carbohydrate Intolerance or Predisposition to Diabetes



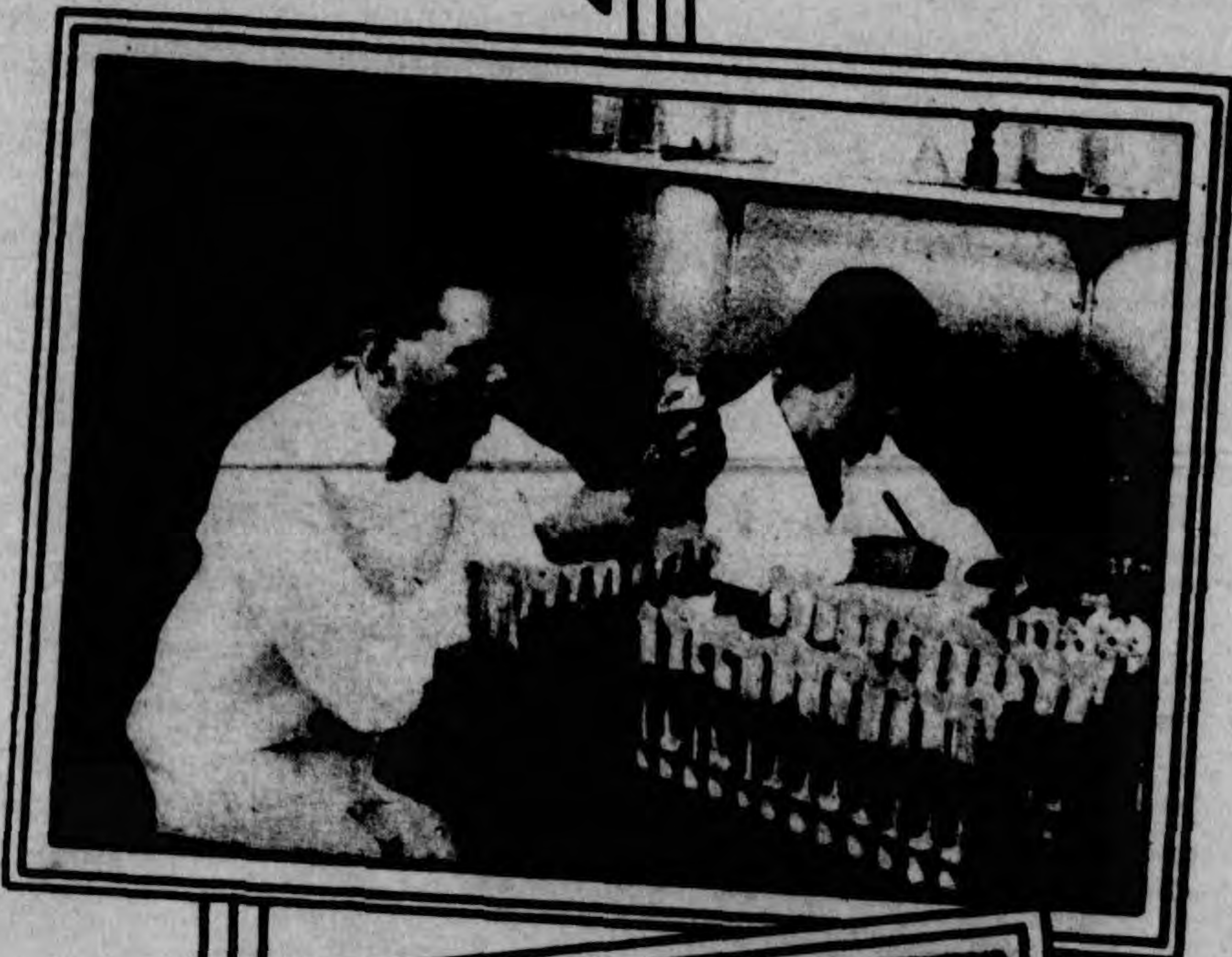
Determining the Amount of Ammonia in Urine



Placing Blood Serum in Test Tubes for Serological Examination

Fermentation Test for Determining Presence of Gas-Producing Bacteria in Feces

Estimating Nitrogen Content of Blood to Detect Disturbances of Cardiovascular Renal System and of Elimination



Examining "Plate" Cultures for Acid-Producing Bacteria in Feces



Blood Cells Being Counted by Means of the Microscope

~~110~~
Science in Service

every procedure. Without them, accurate diagnosis would be impossible; complete results obtained by treatment, unknown.

Here every important structure and function of the body are examined and tested. While each is a complete unit in itself, all these laboratories co-operate to one common end: accurate scientific knowledge of the patient's physical condition at all times.

Only through such collaboration in diagnosis and treatment is it possible to give the sick the full benefit of expert medical advice and care. Working in perfect co-ordination are the following laboratories.

Chemical Laboratory: Makes intricate tests and analyses of various kinds. Sugar and nitrogen content of the blood are also determined.

Bacteriological and Serological Laboratories: Make routine and special bacteriological examinations of urine, blood, gastric fluids, stools, etc., and prepare such vaccines and serums as may be required.

Blood Laboratory: Here the blood is examined microscopically and the number of leucocytes (white cells) and red corpuscles, as well as the amount of haemoglobin (red coloring matter) determined.

Urinary Laboratory: Applies every known scientific test to the urine and determines the patient's kidney efficiency as well.

Fecal Laboratory: Makes a thorough examination of the stools or fecal discharges, determining the kind of intestinal bacteria and parasites, etc.

Anthropometric Laboratory: Makes a complete record of the patient's physical measurements, strength, lung capacity, etc.

X-ray Laboratory: Here, by means of the fluoroscope and X-ray film, much valuable information as to the condition and functioning of internal organs is revealed.

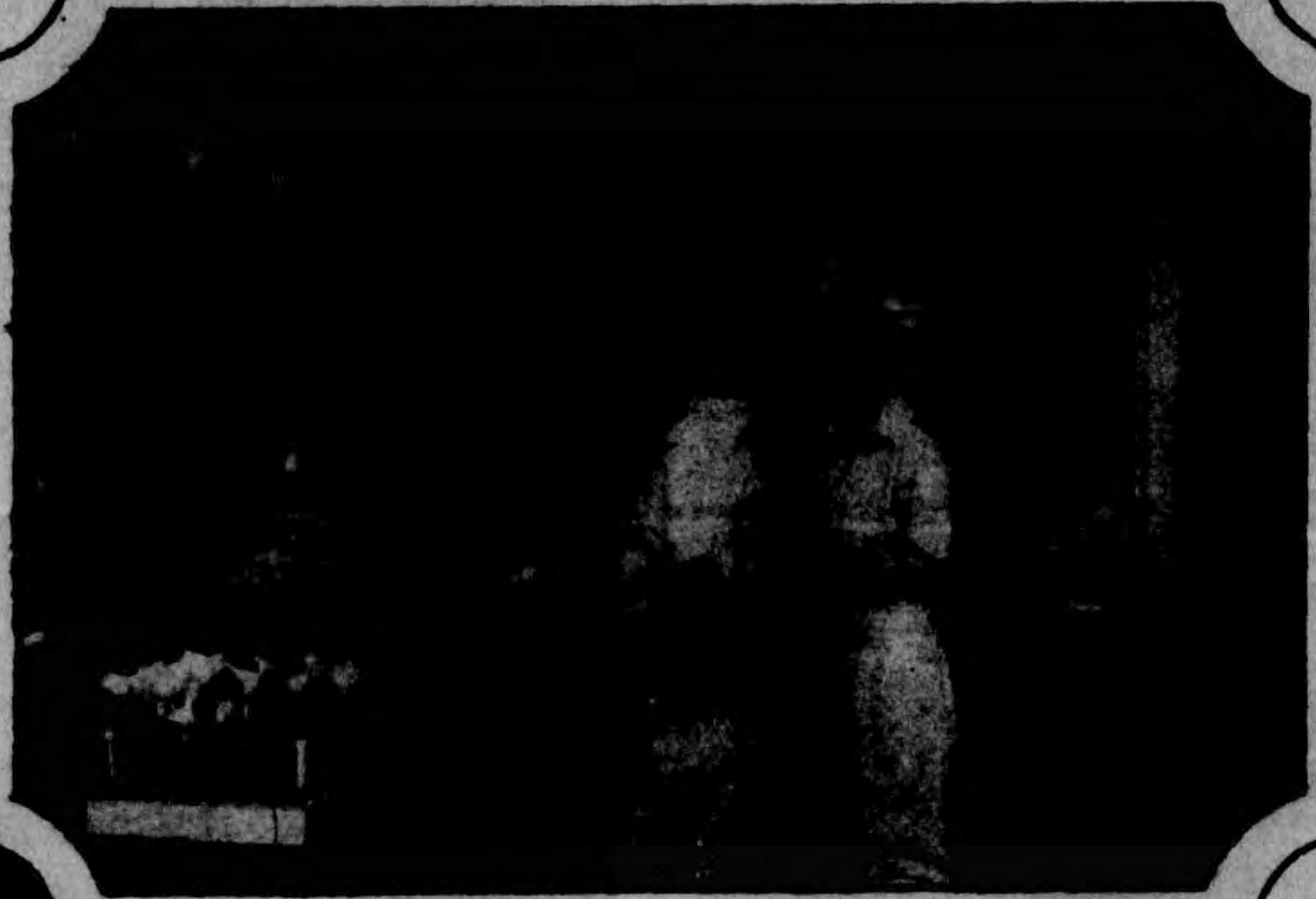
Nutrition Laboratory: Analyzes foods; makes various nutritional studies.

Research Laboratories: Conduct investigations and experiments in an effort to solve various physiological problems of interest to medical science.

Metabolism Laboratory: Measures the functional activity of the body especially in cases where it is suspected that the thyroid gland and other parts of the governing mechanism of the living process are out of order.



Chemical Laboratory. Here hundreds of intricate tests and analyse are made every week



Bacteriological Laboratory

Advanced Therapeutic Methods

CURATIVE forces are within the body rather than outside of it. This fundamental principle is never lost sight of by the Sanitarium.

The chronically ill are in a state of lowered resistance to disease. Unbiologic habits of living have so burdened and handicapped the natural forces of the body that little vitality remains to combat the invasion of germs and other causes of disease.

The first step, therefore, is to correct faulty habits of living and get the patient established in a biologic mode of life.

This is done by careful instruction, special treatments and wholesome environment, resulting in a gradual substitution of good habits for bad habits of living. After a few days' experience the patient begins to realize the benefits of the new program. Results convince him that he is on the right road.

The average chronic invalid who comes to the Sanitarium is suffering from auto-intoxication; that is, from chronic poisoning due to the absorption of toxins

produced by putrefactive bacteria thriving in his colon.

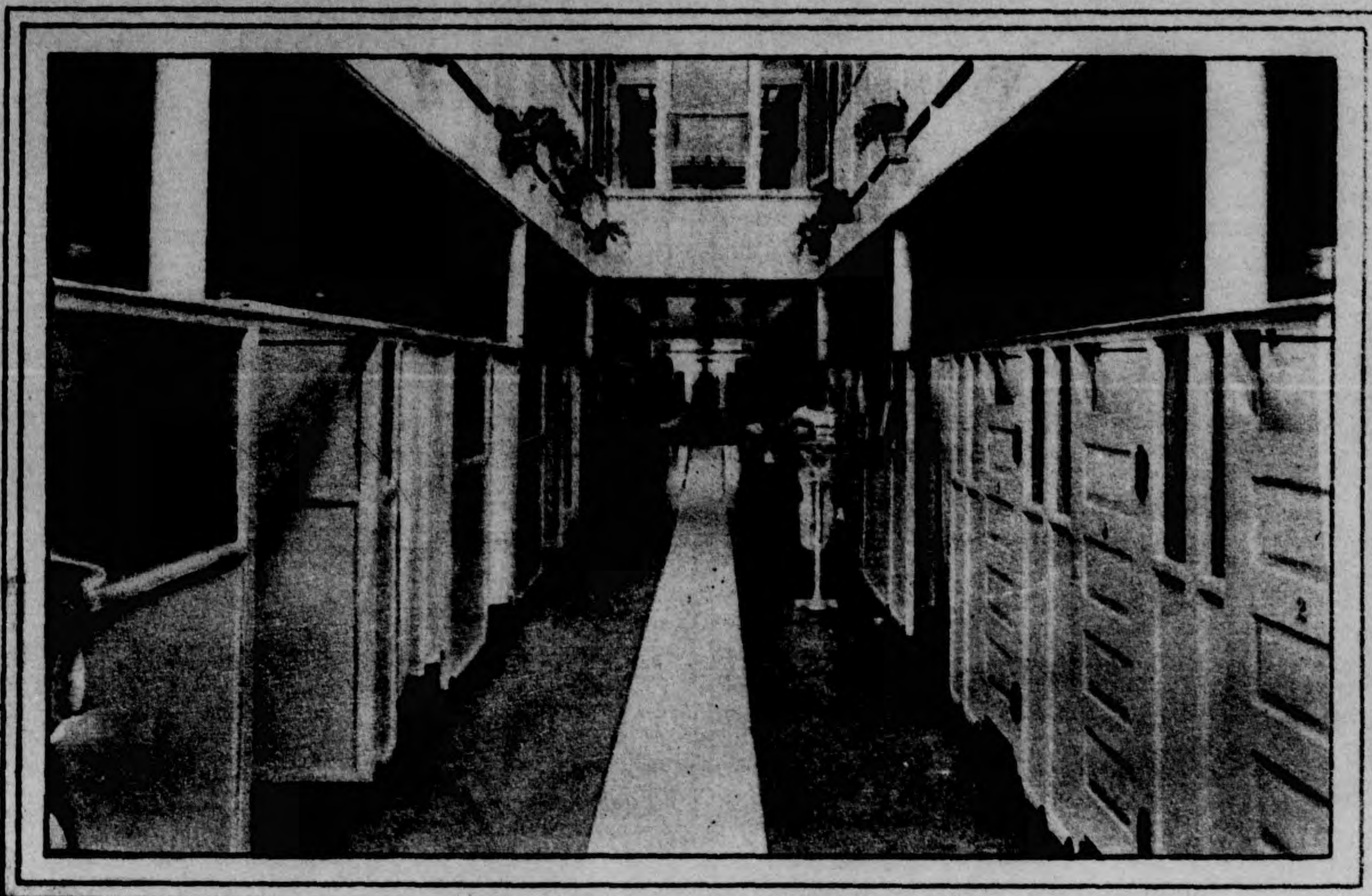
If not the direct cause of his malady, they at least predispose to disease, greatly handicapping nature in her efforts to effect a cure.

To remedy this condition, one of the first things done is to change the intestinal "flora"; that is, the substitution of beneficial bacteria for harmful poison-producing bacteria. This is usually accomplished within a few days by special diet and other simple methods.

Scientific Hydrotherapy

WATER, hot and cold, is by far the most versatile and universal of all therapeutic agents. It may be employed in scores of ways to meet various types of organic and functional disorders.

At the Battle Creek Sanitarium no "courses" or "routines" are prescribed. Such methods are a relic of the old "water cure" days, which unfortunately are still dominant at many "bathing places."



Corridor, Men's Hydrotherapy Department



Swedish Massage for Men

months.



Swedish Massage for Women



Bergell Test of Urine. An Early Indicator of Carbohydrate Intolerance or Predisposition to Diabetes



Determining the Amount of Ammonia in Urine



Placing Blood Serum in Test Tubes for Serological Examination

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Blood Cells Being Counted by Means of the Microscope



Chap. 4 Flora Advanced Therapeutic Methods

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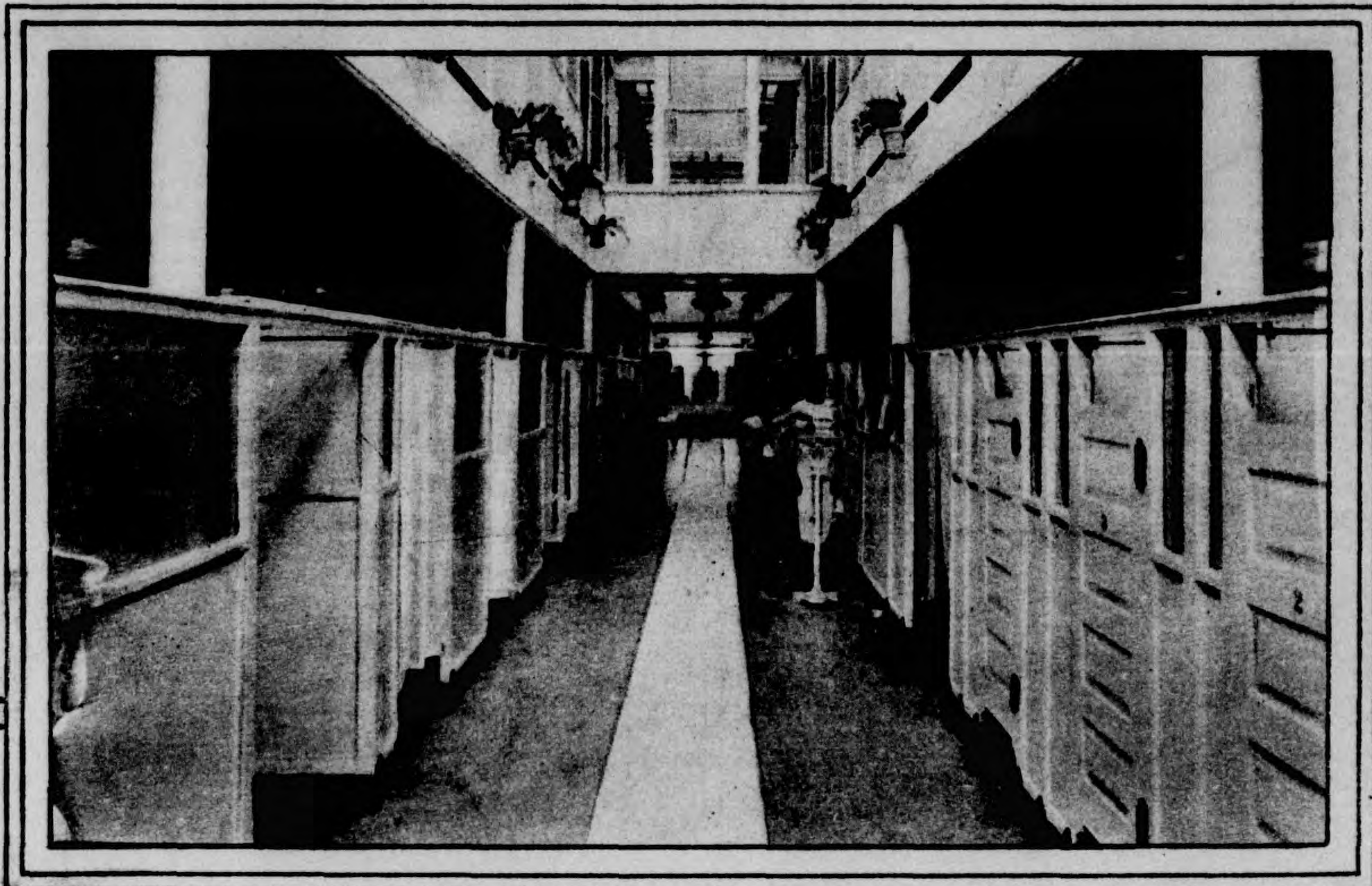
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Corridor, Men's Hydrotherapy Department

“resorts,” and “springs here” and abroad.

Hydrotherapy at the Sanitarium is employed only under the physician's prescription. Temperature, pressure and duration are carefully noted and controlled. The old crude methods have been refined and supplemented by carefully graduated procedures.

By cold applications, suitably applied, every bodily function may be stimulated. By hot applications properly applied, excessive action may be controlled, pains relieved and blood diverted from congested parts. By various other applications most powerful sedative, alternative and restorative effects may be produced.

Scientific hydrotherapy, applied with intelligence and skill, affords the most direct, the most rapid means of influencing the great functions of life, including circulation, respiration, the action of the brain and nerves, and functions of the liver, kidneys, stomach and bowels.

Cold applications, suitably managed, are essential to the production of strong and lasting tonic effects, so that, almost

without exception, the physicians aim to accustom the patient as rapidly as possible to the use of cold water by carefully graduated and progressive measures. This constitutes what might be termed a hydriatic ladder up which the patient climbs.

Packs, fomentations, applications to the spine, foot baths, sitz baths, sinusoidal baths, and various other measures are used in connection with general cold applications to produce desired local effects; but the general cold application must be progressively increased in intensity as a means of increasing vital resistance and raising the general tone of the system. The exhilaration and sense of well-being and buoyancy following the cold rub or douche will be ample compensation for the efforts made to accustom one's self to this most powerful of all known tonic remedies.

The Sanitarium provides two completely equipped hydrotherapy departments—one for men and one for women. Treatment rooms are scientifically



Corridor, Women's Hydrotherapy Department



Spray Bath With Percussion



*Cold Mitten Friction,
Foot Bath and Powder Rub*



Sitz Bath



Foot and Leg Bath



Local Electric Light Bath



Electric Light Cabinet Room



Reclining Electric Light Bath



Salt Glow



Sinusoidal Tub Bath



Hot Blanket Pack



Indoor Swimming Pool for Men

planned and are models of cleanliness and efficiency. There is a large number of dressing and rest rooms, private bath and massage compartments and other special hydrotherapy rooms. All are finished in white enamel, frosted glass and marble. In each department there is a spacious swimming pool in which the water is kept at a uniform temperature.

Light Therapy —

A Modern Method

OF ALL the forces of Nature, Sunlight is the most potent, the most beneficent. The more sunlight the body is able to store up, the greater the vital energy and resistance to disease.

This almost magical power is due to certain invisible emanations known as ultra-violet rays. During the winter months these rays are almost wholly lacking in this region. Fortunately science has found a means of converting electricity into sunlight—not imitation sunlight or something “just as good,” but the *real thing*. Artificial sunlight has an added advantage in that it is much richer in ultra-violet rays than even the strongest natural sunshine. More can be accomplished by a fifteen-minute application of



Indoor Swimming Pool for Women



the artificial sun bath than by one of two hours' exposure to natural sunlight. The first electric light sun bath was devised and constructed at the Battle Creek Sanitarium in 1890.

Artificial light has another advantage in that it is not dependent on season or weather, but can be used at any time, day or night. It is no longer necessary during our six fall and winter months to take long journeys to arid climes in order to enjoy the full benefits of sunshine.

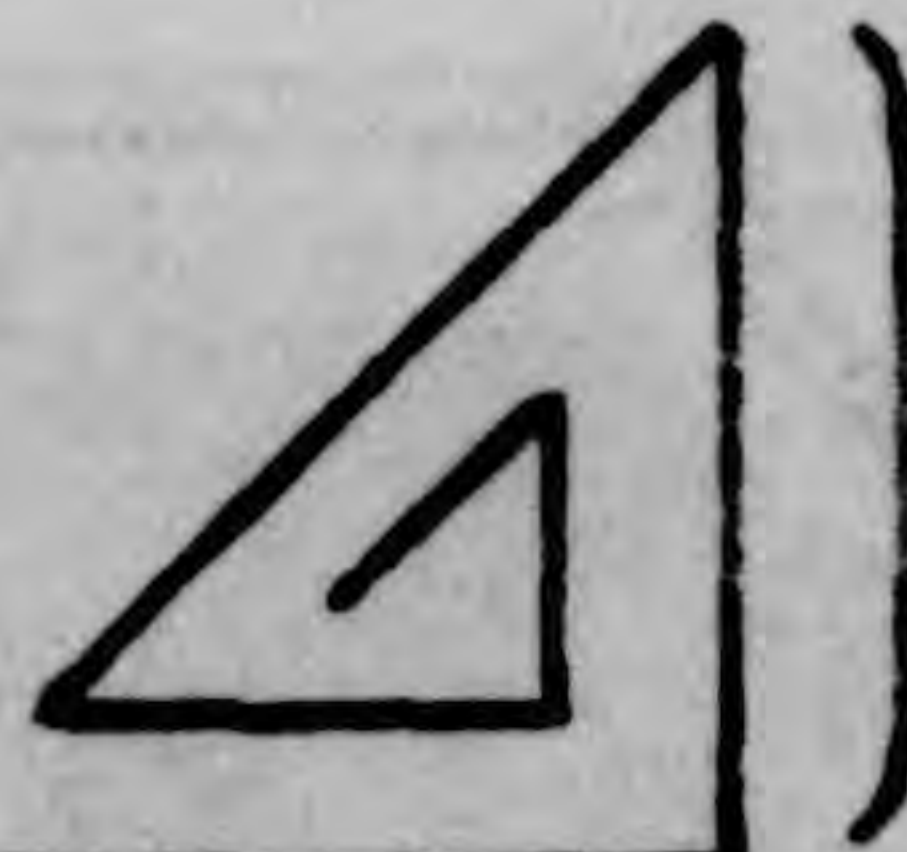
Sunlight is the best of all rejuvenators. It is vital food. Indoor life and clothing starve the skin and rob the body of the vitalizing influence of the powerful ultra-violet rays.

Sun baths are, however, most often employed in conjunction with other agents and should never be undertaken except upon the advice of a physician.

Getting the skin tanned is a real reconstructive experience. Every bodily organ participates in the regenerative change. Day by day as the tan gets deeper, the skin becomes thinner, finer, more elastic, more resistant to cold and to disease because its blood vessels are



Artificial Sunlight Bath for Men



filled with rich vitalized blood.

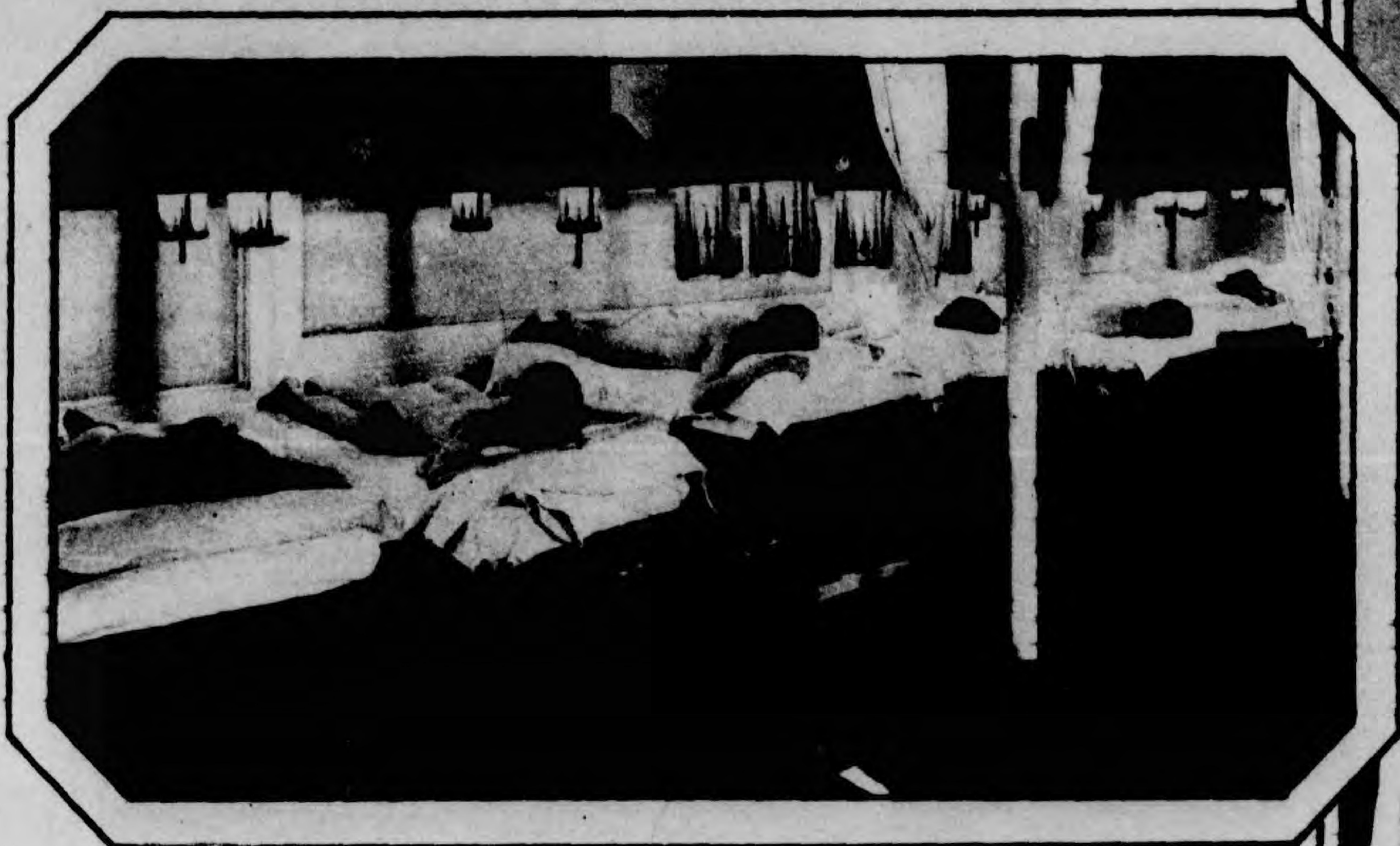
An ideal combination for health building is the cool tonic air of Michigan and daily sunlight baths as given at the Sanitarium. During the winter and on cloudy days the Sun Bath Departments are utilized for general sun bathing as well as for special treatments for specific effects.



Quartz Light Bath

Every chronic invalid, every tired sedentary worker, needs the vitalizing influence of sunshine, natural or artificial. At the Battle Creek Sanitarium such ample facilities are afforded that every guest may enjoy the benefits of a daily sun bath even in mid-winter.

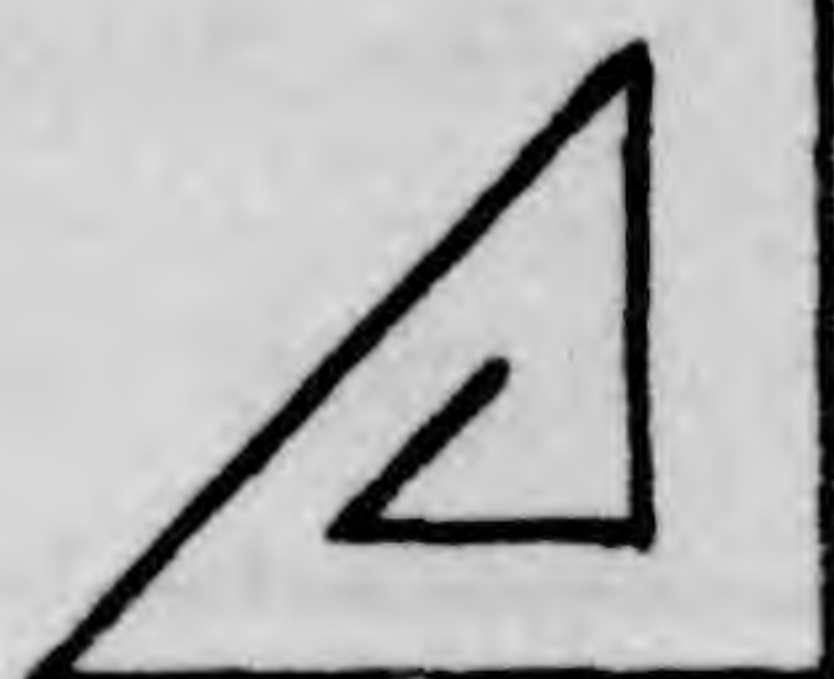
Sun Bath Departments are provided for guests on the roof of the new addition. Windows in the guest rooms of the new buildings are also equipped with vita glass allowing the transmission of health-giving ultra-violet rays which are excluded by

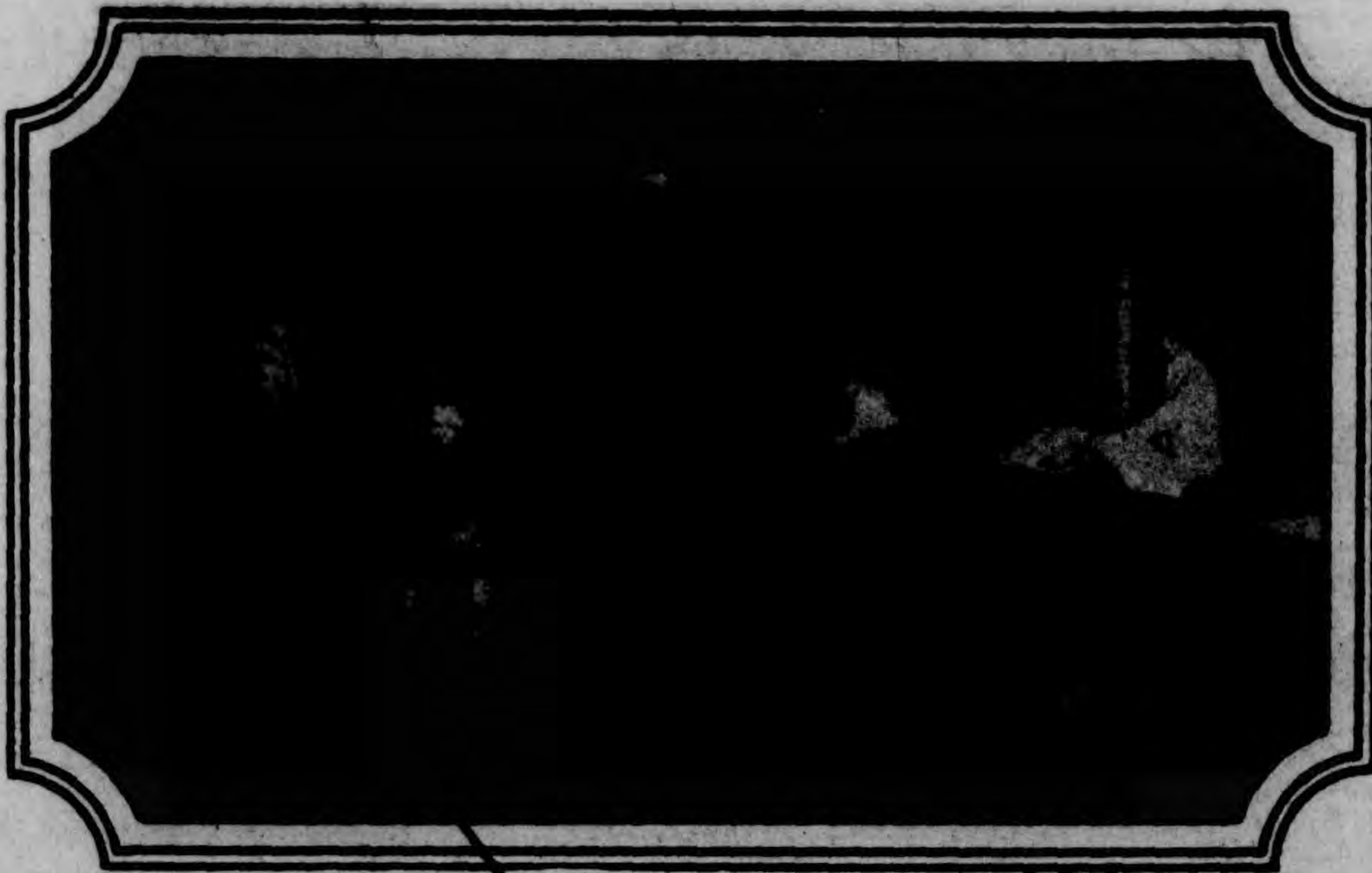


Women's Artificial Sunlight Bath



Alpine Light Bath





Mechanotherapy Department for Men

ordinary window glass. Guests also enjoy sun bathing during summer months in the spacious outdoor gymnasium parks.

During winter months, thousands of sun baths are given in the Sunlight Bath Departments for men and women. A portable carbon arc light bath is available for special use in rooms. Guests may call for a sun bath at any time, day or night.

Medical Gymnastics

MOST women and a large proportion of men who visit the Sanitarium are suffering from deficient muscular development and incorrect posture. Exercise is one of the most effective means of correcting this.

The program of medical gymnastics developed here is comprehensive enough to meet all needs, from the feeblest bed-ridden patient to the "stale" athlete who is anxious to "come back," or the portly business man who must make haste to escape the consequences of unhygienic living by a moderate return to boyhood activities.

First of all, a careful diagnosis of the patient's muscular

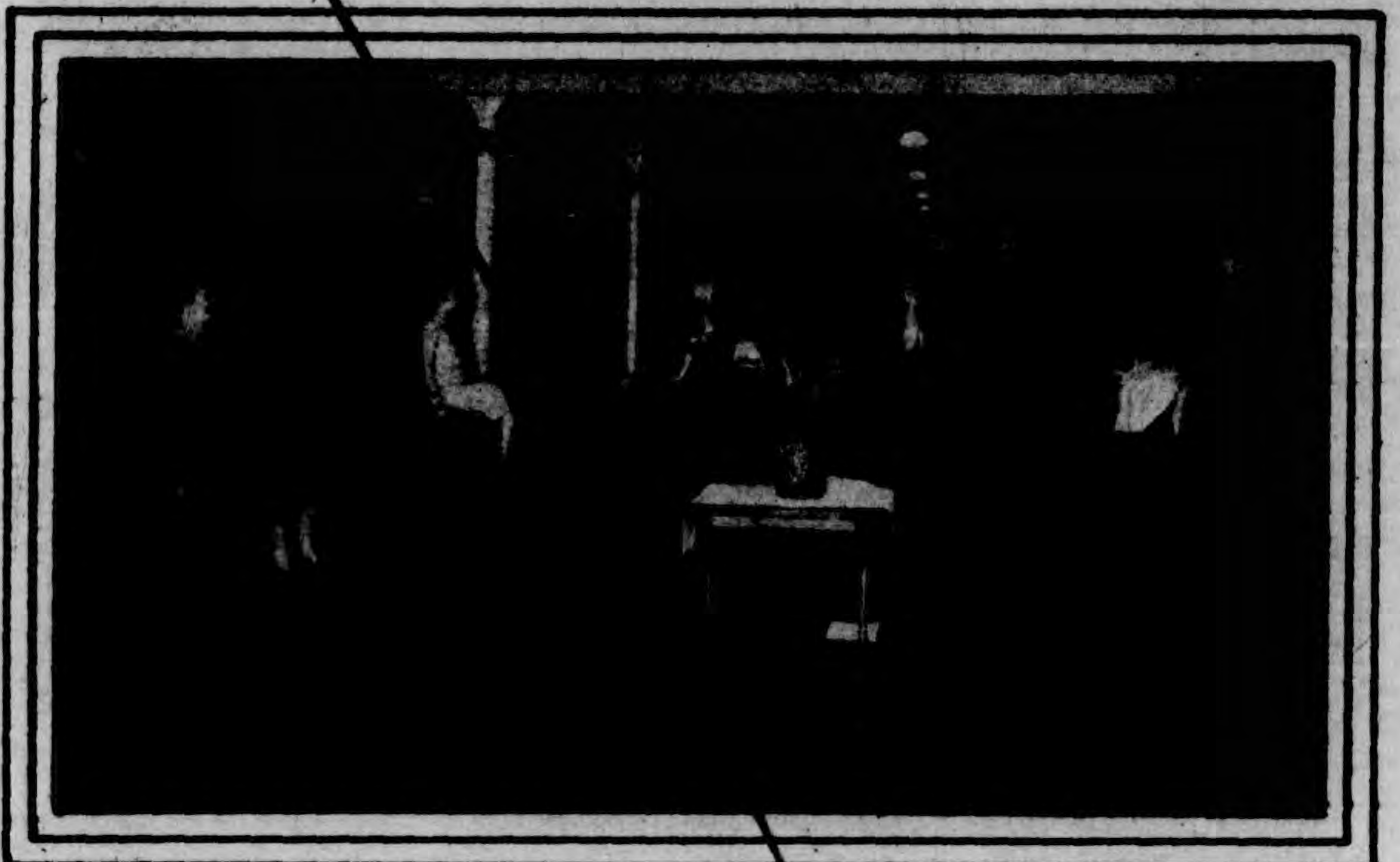
system is essential. This is accomplished by means of a universal Dynamometer which was developed here after many years of persevering effort. It has now been in use by the institution for nearly forty years.

Through this instrument the strength of each of thirty major groups of muscles is determined as well as the total strength of the body. A graphic made from the data thus obtained shows

at once the relative strength or weakness of each group of muscles, and the relative strength of the patient and of each of his principal muscle groups to that of a normal person of the same height.

The data obtained from the strength graphic together with the results of other examinations, enable the physician to determine the special needs of individual patients and prescribe a course of exercises.

Light calisthenics, Swedish movements, indoor gymnastics, swimming, outdoor gymnasium work, folk dancing, hikes, boating, automobiling, horseback riding, etc., are the exercises employed. As much exercise as possible is taken in the open



Mechanotherapy Department for Women



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Mechanotherapy Department for Women

cut from p 35



Artificial Sunlight Bath for Men



Quartz Light Bath

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Women's Artificial Sunlight Bath



Alpine Light Bath



Swedish Massage for Men

air, especially in the warmer months. In the winter, outdoor walks, sleigh riding, tobogganing, skating, skiing and other winter sports are popular. All exercises are given under medical direction.

Re-examinations by the dynamometer show the progress being made. A patient who finds, as is often the case, that he has gained 500 pounds in strength has reason for encouragement and, if overfat, rejoices to find that he has also dropped considerably in weight.

Not only is every effort made to build up the patient's muscular system by carefully planned and directed exercises but he is also provided with a thorough grounding in physical training which he may successfully carry on after leaving the institution.

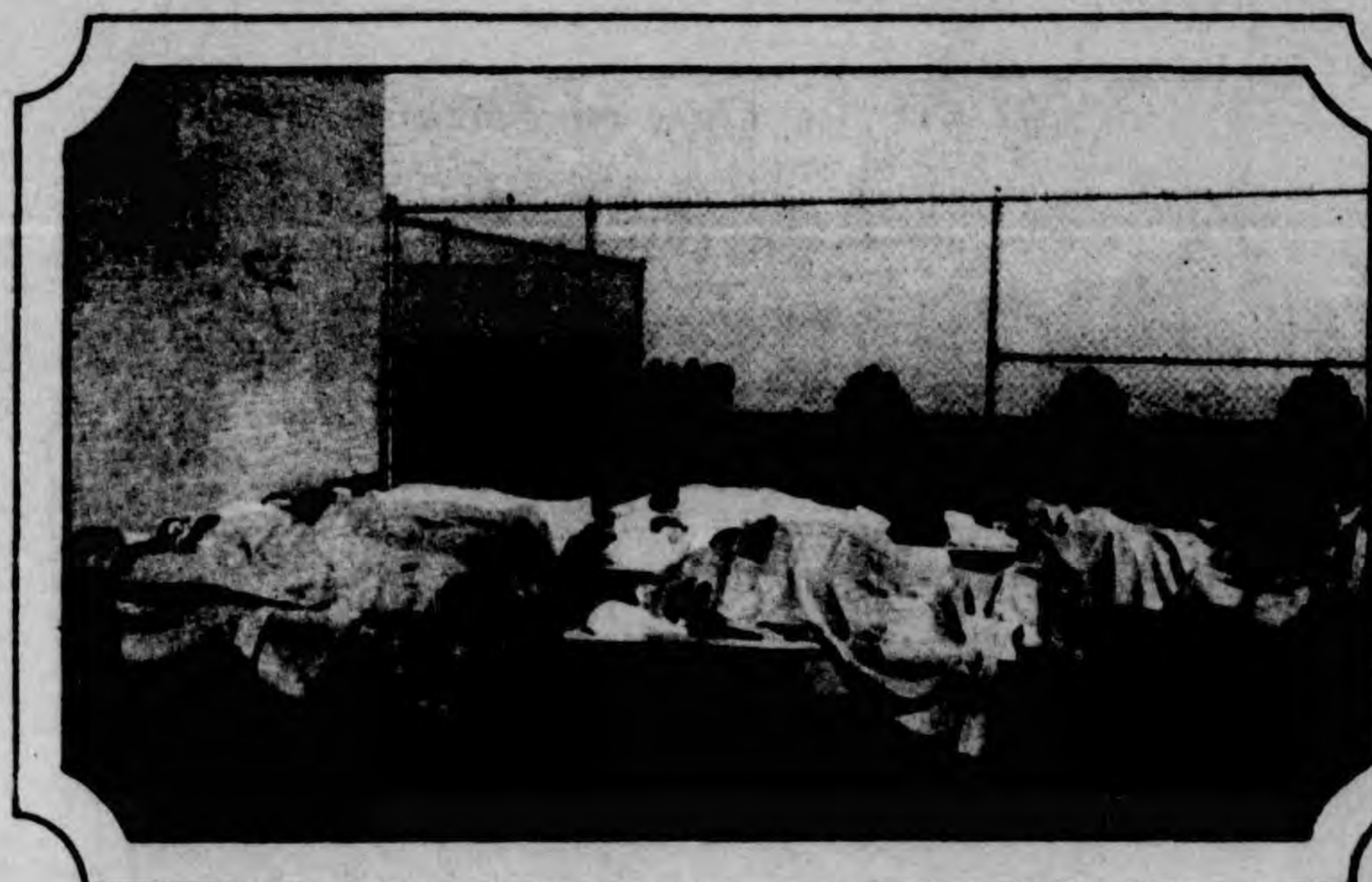


Swedish Massage for Women

Cold Air Therapy

IT IS a popular notion that many of the diseases current during the winter season are caused by cold air. Nothing is farther from the truth. Cold air is a friend, not an enemy; a powerful healing agent, not a cause of disease. Winter air—the cold, fresh, sparkling air of the great outdoors—is clean air, free from dust and disease producing bacteria.

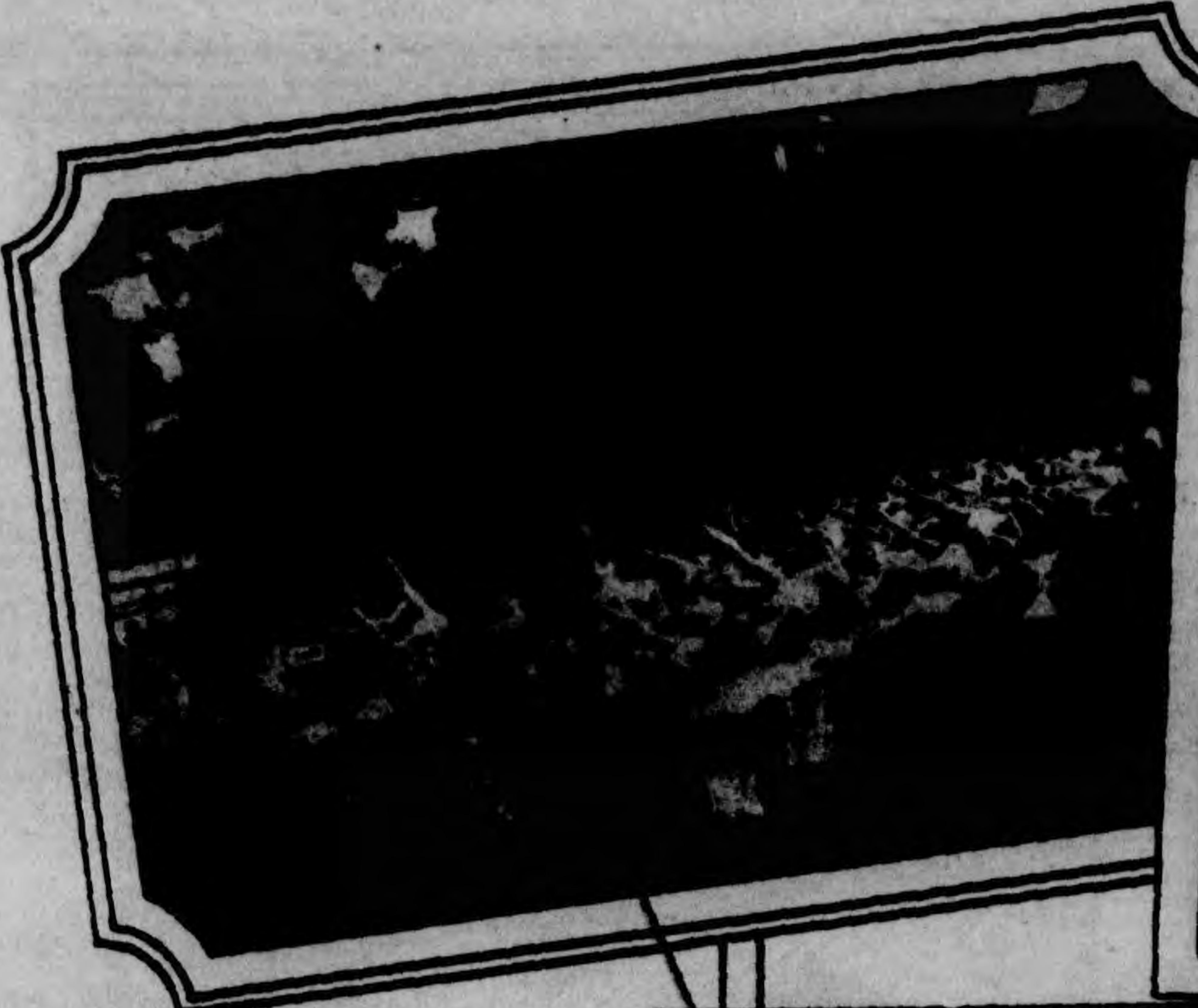
Disease bacteria can thrive only in stuffy, overheated living, working and sleeping rooms where windows are tightly shut. *Avoidance* of cold air, not exposure



Cold Air Treatment on Roof of Sanitarium



Indoor Cold Air Treatment



*Exercise Class on
Cots, Men's Out-
door Gymnasium*



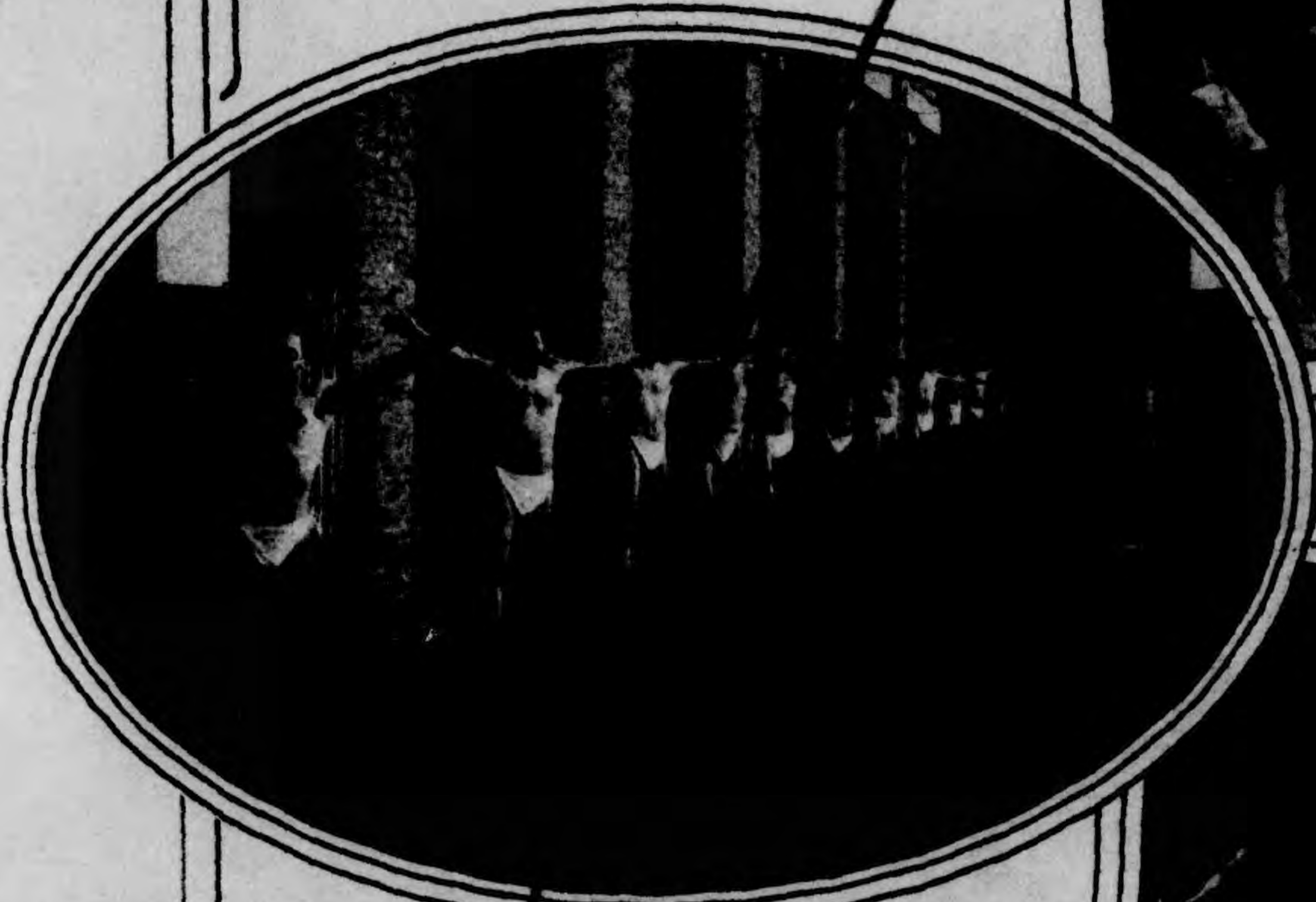
*Exercise on Roof
of New Building*



*Volley Ball on
Roof of New
Building*



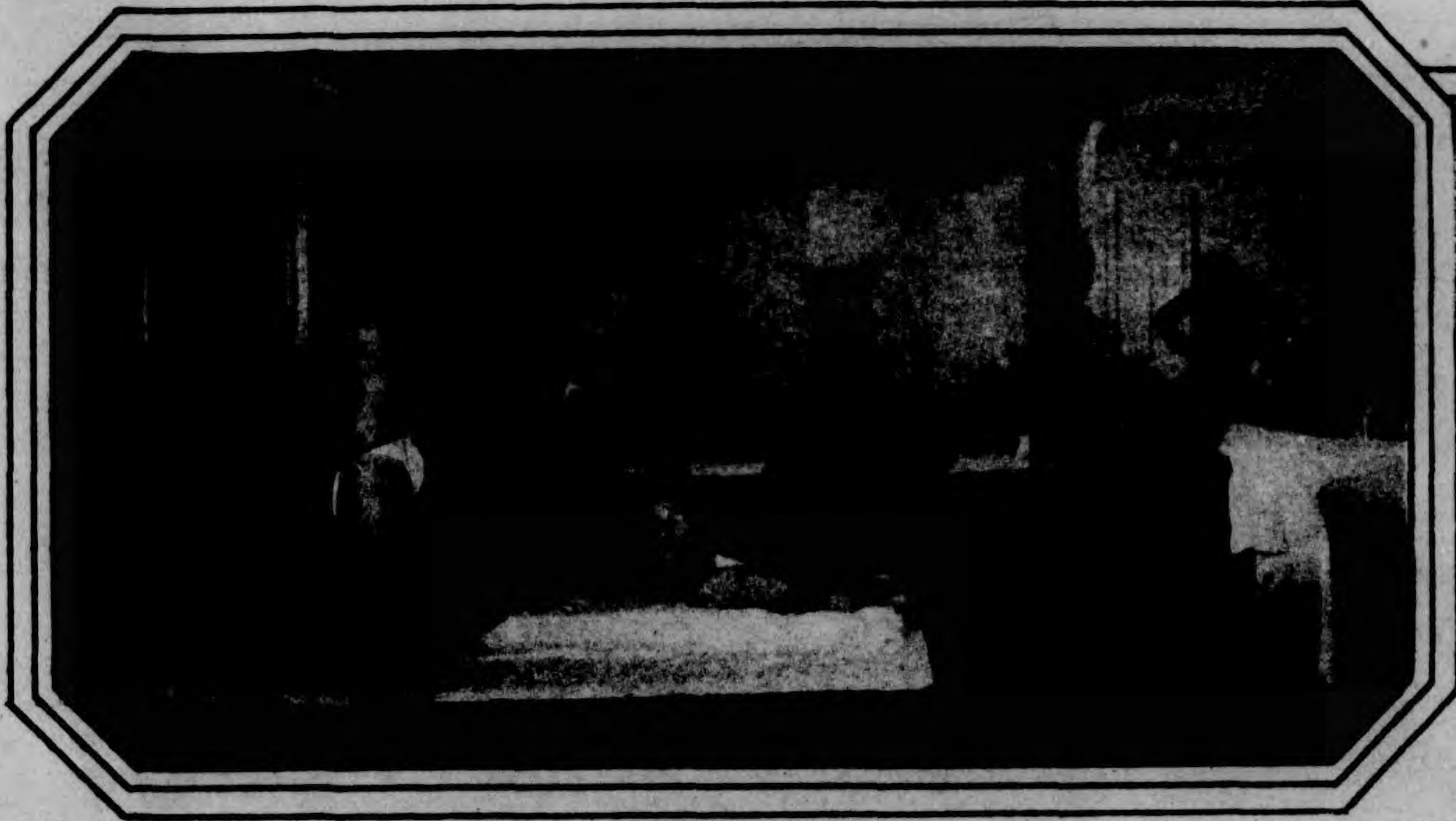
Exercise Class on Porch



*Exercise on Roof of New
Building*



Exercise Class in Women's Outdoor Gymnasium



General View of Men's Medical Gymnasium

to it, causes the common diseases of winter.

Cold air baths, under doctor's orders, are employed at the Sanitarium during the winter as a stimulating tonic. They are especially beneficial to those of low resistance. Cold air baths are started carefully. At first only a small part of the body is exposed. As resistance increases more is exposed, until finally the entire body is included. When this stage is reached the cold air bather exercises vigorously, taking care, however, not to work up a sweat.

Cold air baths fortify the body against lung tuberculosis, pneumonia, influenza and colds. They bring more pure oxygen,—the breath of life,—into contact with the exterior and interior portions of the body than any other type of treatment. All vital processes are stimulated thereby into health-giving activity.

Automatic Exercises

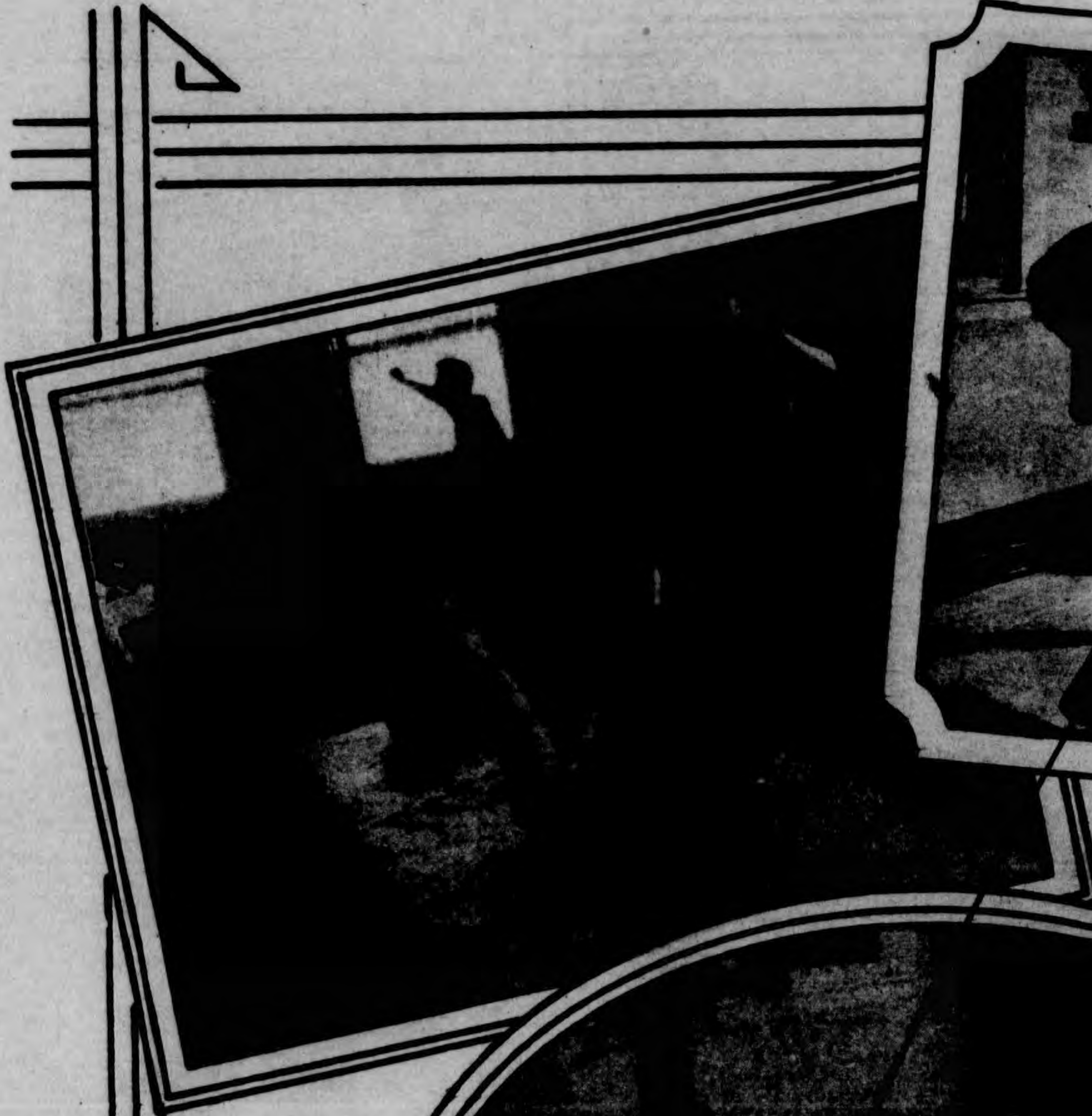
BY a special application of sinusoidal electrical current, any amount of muscular exercise desired may be administered to a patient automatically and painlessly. This method prevents the

mental and nervous fatigue which often follows exercise, for which reason neurasthenic patients especially, dread and avoid physical activity as much as possible, and greatly to their injury. Indeed, a feeling of refreshment and even of exhilaration, instead of fatigue, is often felt after this kind of exercise.

The patient takes his place in an easy reclining chair. The electrodes are adjusted to arms, legs, abdomen and other fleshy parts. Muscular contractions begin, first one arm and then the other, then one leg, the other leg, the abdomen, the back; then a repetition of the same series of contractions, about once every two



General View of Women's Medical Gymnasium



Men's Medical Gymnasium. Typical Exercises on the mat, with the medicine ball and on the horizontal bar help to strengthen weak muscles





Volley Ball in Men's Outdoor Gymnasium. Here privacy permits the minimum of wearing apparel and therefore the maximum exposure to health-bringing sunlight and fresh air



Swimming Pool in the Men's Outdoor Gymnasium

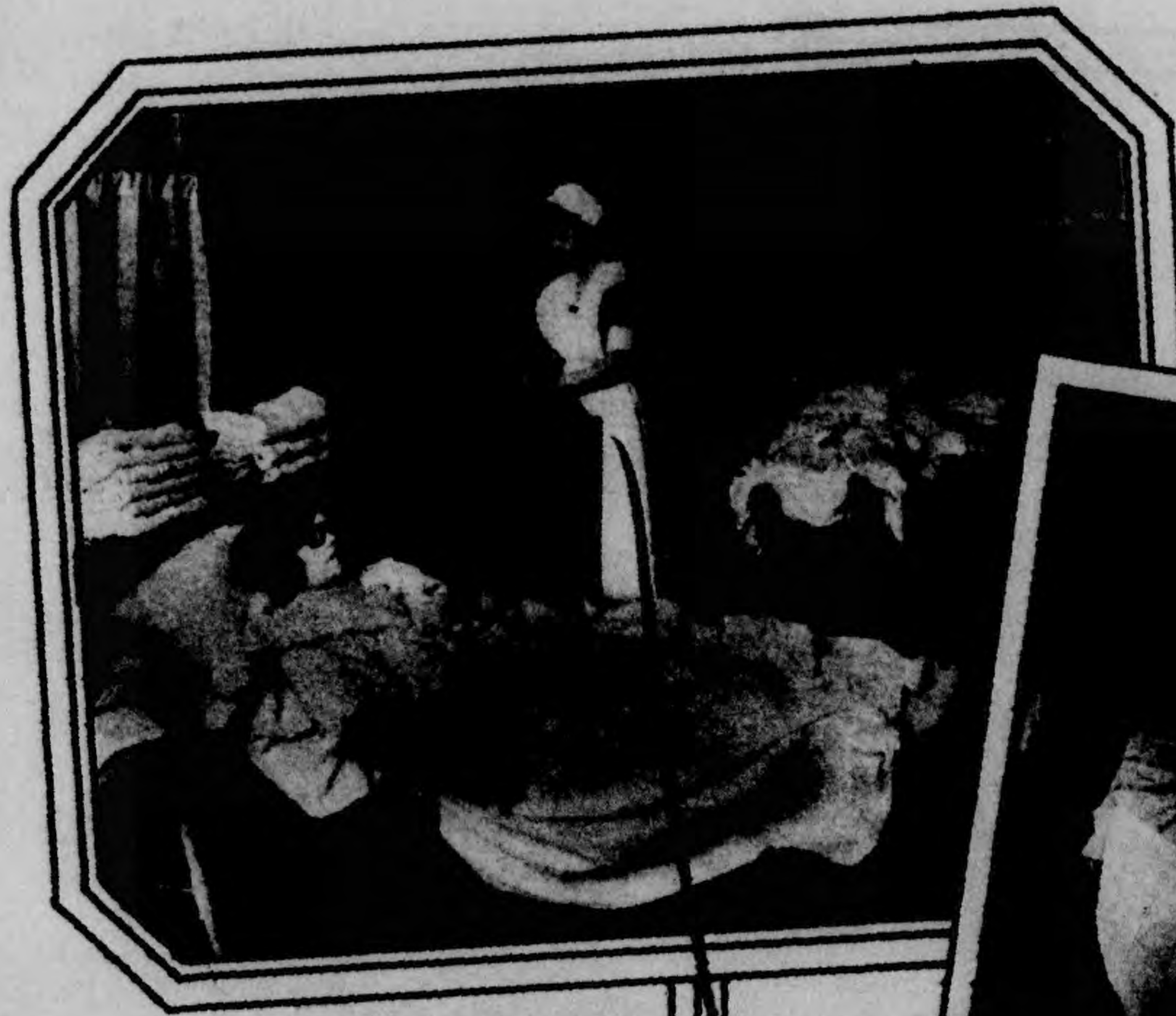


Class for Women in the Indoor Gymnasium

seconds, until the desired amount of work has been done.

No prickling, tingling, or other unpleasant sensation is felt; only the consciousness of motion created by muscular contraction. The strength and duration of all automatic exercise treatments are regulated according to the individual requirements of the case. The patient, though reclining at ease, will be fairly drenched in perspiration after a few minutes and may lose as much as two pounds in weight in thirty minutes.

Automatic exercise is to a certain extent the "lazy man's gymnasium," for by this means he may receive many of the benefits of natural exercise without the least physical exertion.



Automatic Exercise



Men's Diathermy Department



Stretching Table, Women's Medical Gymnasium



Women's Diathermy Department



Metabolism Laboratory, Where "The Breath of Life" is Analyzed

Swedish Massage

ALL the classical methods are applied by well trained attendants. While massage does not take the place of exercise because of its small influence upon metabolism, it is nevertheless of real service in regulating the circulation, in restoring mobility to stiffened and contracted parts, and in promoting the absorption of exudates.

Special attention is given to the correction of such very common deformities as round shoulders, flat chest, and other defects due to bad posture.

Special trainers take these cases in hand and by "setting up" drills and other exercises, usually succeed in making a great improvement in the habitual physical bearing of the patient and a commensurate improvement in health.

The training of these cases consists of drills and exercises with and without the aid of inclined tables and other special appliances adapted to the education of weakened muscular groups which require special attention.

Mechanotherapy

HERE mechanical Swedish movements are given. There are kneading machines for the abdomen, to stimulate sluggish bowels to normal action. There are vibrating chairs, tables, stools, and bars, which warm the extremities, dissipate weariness and the "numb," "cold," "creeping" and other queer sensations which worry the neurasthenic.

It is really remarkable how quickly heaviness and other discomforts which follow eating in many cases of indigestion, disappear under the influence of vigorous vibration. Rubbing and percussing machines, and other apparatus, all do something helpful. Improved new apparatus of the Zander type—the trotting horse, the camel, and various other machines are also employed.

Electricity
Diathermy, or Thermo-penetration. This is a new method of applying

electricity in which the electrical current is converted into heat within the body. The patient feels none of the ordinary effects of electrical sensation, nor muscular contraction; the only sensation is that of warmth. The heat may be concentrated in any part of the body, making it possible to reach internal parts heretofore inaccessible.

This method has been found of very great advantage as a means of stimulating the activity of the liver, kidneys, and other internal glands when inactive. It is also of service in cases of high blood pressure.

Diathermy is highly useful in the treatment of pneumonia, neuralgia, migraine and other forms of headache; also sciatica, neuritis and muscular rheumatism. It is altogether one of the most useful additions which have been made to physical-therapy in recent years.

Vacuum and Vacuum Light Treatment. By the combination of light therapy which is known as the light vacuum method, the good effects of these two powerful means of influencing the bodily functions are not only combined but intensified. This method is of special service in the treatment of sciatica, rheumatic joints, stiff joints and muscular rheumatism, deep-seated pains, old sinuses, furunculosis, scleroderma, etc.

Outdoor Air Recreation

OUTDOOR life is one of the fundamental principles of the Battle Creek plan of health building. It is made inviting by the beautiful scenery surrounding the Sanitarium and unusual facilities for recreation.

In summer there are outdoor swimming, golf, tennis, volley ball, horseback riding, motoring and boating, while the large outdoor gymnasium is always popular. Here, clad in simple garments that the seclusion of the place makes possible, you may bask in the sunshine or lounge in a cool place. The water in the outdoor as well as the indoor swimming pool is always kept at an agreeable temperature.

The Battle Creek Diet System

AT the Battle Creek Sanitarium, man not only eats to live, but to live healthfully. Eat and be well, is the keynote. No single feature of the Battle Creek Idea has wrought more beneficial results to patients, has done more to aid the cause of race betterment and has aroused more interest and discussion than the Sanitarium's diet system.

This institution was the first to provide patients with a scientific bill of fare, so arranged as to make possible exact regulation of diet in quantity and quality.

Food is served by calories, not weight. This makes possible a quick and accurate estimate of the energy value of a "serving" and of a meal. The menu not only shows the total calories but the number of calories of protein, fat and carbohydrates. The "reaction balance," that is, whether the particular foodstuff will make the fluids of the body normal in reaction and to what extent, is also indicated.

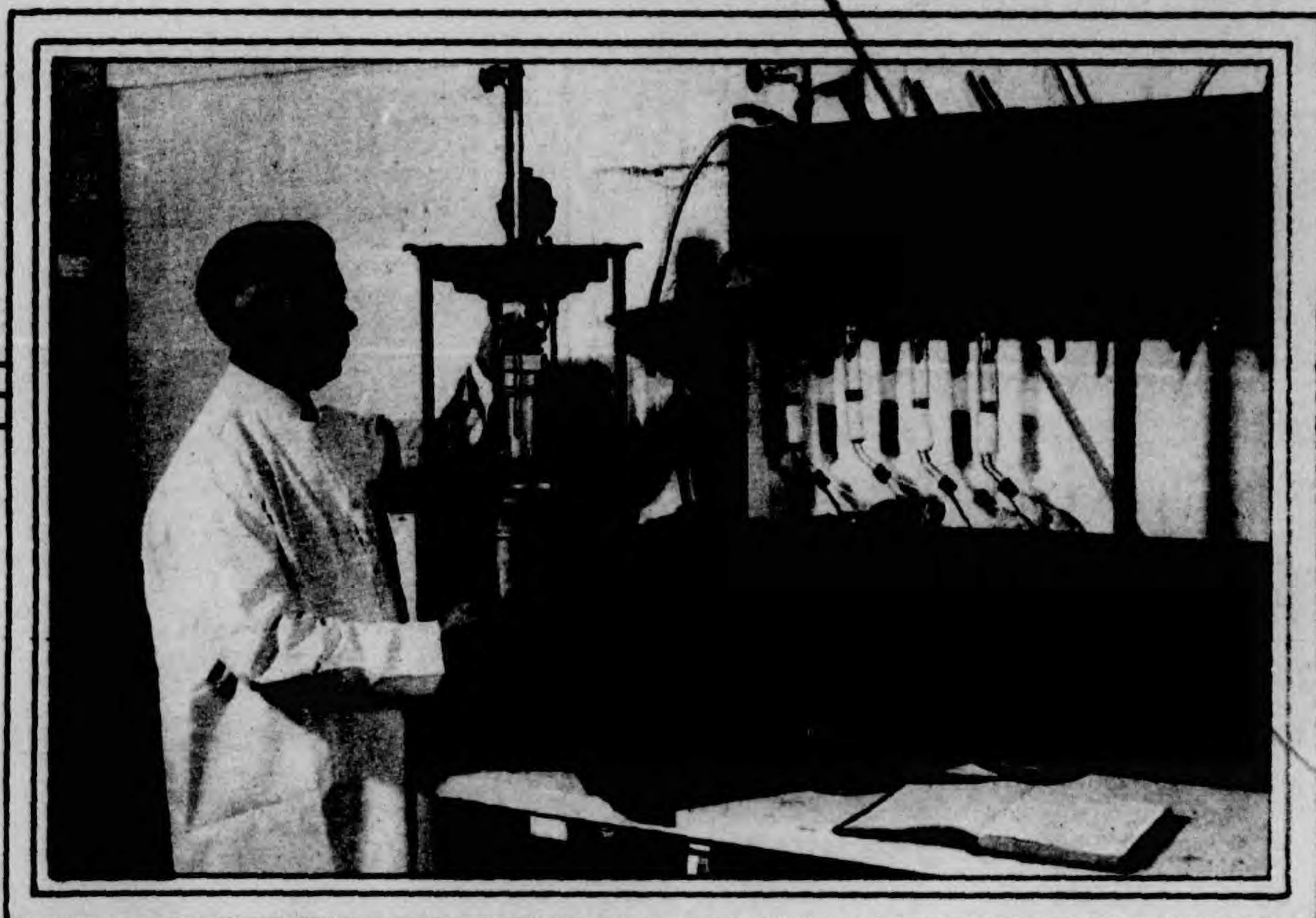
This arrangement enables the physician, the dietitian, or the instructed patient, to balance his bill of fare so as to provide nutrient material of the right sort in such proportions as the physician may deem best to prescribe.

Recent progress in food chemistry has made possible a further advance in accurate dosage of food by which the diet is also balanced for food lime, iron and other organic salts, as well as for essential vitamins.

Of course, such a system as this, to be of value, must be accurate in every detail. The kitchen becomes a scientific laboratory. Specially trained cooks are required. The presiding genius of the kitchen must have the same sort of training as the head of a chemical laboratory. Twenty-five dietitians always in attendance in the dining-room during meal time, balance the bills of fare for the patients.

Dietitians are required to undergo an elaborate course of training, including two years of practical study and training in the institution before being trusted with the responsibility of acting as dietetic aids in carrying out instructions for the physicians.

The guest may place the entire responsibility for the selection of his food upon his attending dietitian. She will mark his menu with the proper selection, for



Analyzing Food by Means of the Bomb Calorimeter

Eat and Be Well =

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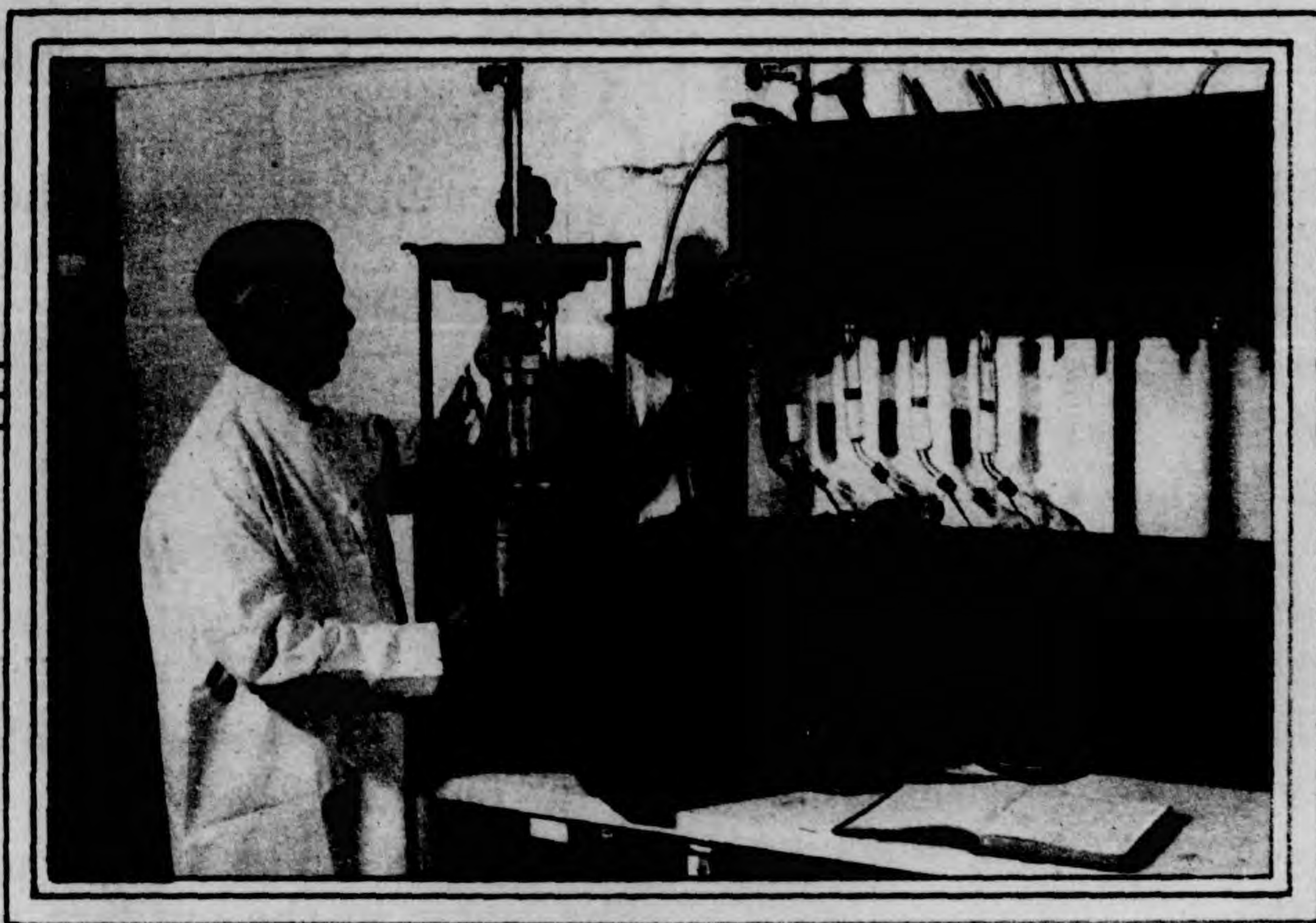
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Swedish Massage

ALL the classical methods are applied by well trained attendants. While massage does not take the place of exercise because of its small influence upon metabolism, it is nevertheless of real service in regulating the circulation, in restoring mobility to stiffened and contracted parts, and in promoting the absorption of exudates.

Special attention is given to the correction of such very common deformities as round shoulders, flat chest, and other defects due to bad posture.

Special trainers take these cases in hand and by "setting up" drills and other exercises, usually succeed in making a great improvement in the habitual physical bearing of the patient and a commensurate improvement in health.

The training of these cases consists of drills and exercises with and without the aid of inclined tables and other special appliances adapted to the education of weakened muscular groups which require special attention.

Mechanotherapy

HERE mechanical Swedish movements are given. There are kneading machines for the abdomen, to stimulate sluggish bowels to normal action. There are vibrating chairs, tables, stools, and bars, which warm the extremities, dissipate weariness and the "numb," "cold," "creeping" and other queer sensations which worry the neurasthenic.

It is really remarkable how quickly heaviness and other discomforts which follow eating in many cases of indigestion, disappear under the influence of vigorous vibration. Rubbing and percussing machines, and other apparatus, all do something helpful. Improved new apparatus of the Zander type—the trotting horse, the camel, and various other machines are also employed.

Diathermy, or Thermo-penetration. This is a new method of applying

electricity in which the electrical current is converted into heat within the body. The patient feels none of the ordinary effects of electrical sensation, nor muscular contraction; the only sensation is that of warmth. The heat may be concentrated in any part of the body, making it possible to reach internal parts heretofore inaccessible.

This method has been found of very great advantage as a means of stimulating the activity of the liver, kidneys, and other internal glands when inactive. It is also of service in cases of high blood pressure.

Diathermy is highly useful in the treatment of pneumonia, neuralgia, migraine and other forms of headache; also sciatica, neuritis and muscular rheumatism. It is altogether one of the most useful additions which have been made to physical-therapy in recent years.

Vacuum and Vacuum Light Treatment. By the combination of light therapy which is known as the light vacuum method, the good effects of these two powerful means of influencing the bodily functions are not only combined but intensified. This method is of special service in the treatment of sciatica, rheumatic joints, stiff joints and muscular rheumatism, deep-seated pains, old sinuses, furunculosis, scleroderma, etc.

Outdoor Air

OUTDOOR life is one of the fundamental principles of the Battle Creek plan of health building. It is made inviting by the beautiful scenery surrounding the Sanitarium and unusual facilities for recreation.

In summer there are outdoor swimming, golf, tennis, volley ball, horseback riding, motoring and boating, while the large outdoor gymnasium is always popular. Here, clad in simple garments that the seclusion of the place makes possible, you may bask in the sunshine or lounge in a cool place. The water in the outdoor as well as the indoor swimming pool is always kept at an agreeable temperature.



Main Dining-Room, Seating 1,000 Guests

each meal. Menus are retained on file in the dietician's office for future reference.

The well-established diet system of the Sanitarium is the result of half a century of thorough, scientific research. It is not based upon fads, guesswork or unproved theories.

The bill of fare is simple and wholesome, yet surprisingly varied and appetizing. Tempting and nutritious preparations take the place of heavy, indigestible foods. A choice variety of fresh fruits and vegetables, hygienically prepared,

and a thousand and one delectable dishes, appetizingly served, add zest to the meal.

Special foods, including cereals, breads, nut foods, and dozens of other health dainties, are manufactured especially for the Sanitarium, in the great food laboratories which for many years have catered to the guests of the institution.

Here even the epicure can discover a new thrill in food. Most people who visit the Sanitarium are so pleased with the diet that they continue it with pleasure and profit after leaving.



Private Dining Room for Small Gatherings



Banquet Hall for Large Gatherings

The Sanitarium Kitchens represent the last word in modern culinary science. Facilities unequalled by the finest hotels of the world. Everything is of polished monel metal. Spotless cleanliness, ample ventilation and a flood of sunshine make this a perfect place for the preparation of hundreds of tasty Battle Creek dishes



Main Kitchen



Everything is so arranged as to make possible rapid, efficient service to guests. An endless belt system conveys dishes from all dining-rooms back to the kitchen for cleaning. An average of 51,000 pieces of silver, glassware and china are washed daily.



View of the Serving Room



Interior of Refrigerating Room