

Life & Health



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Life & Health

HOW TO LIVE

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VOL. 34

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EVERY HOME A SANITARIUM

LAST summer we heard of the epidemic over in Europe — Spanish influenza, they called it, or the "flu." Languidly we read of its rapid passing from one country to another, stopping not for frontiers, customs officers, mountain ranges, rivers, or even for No Man's Land. Wherever man was congregated, there followed the epidemic. If we thought at all about it, we thought, "Well, it's not over on this side, so why worry?" And worry we did not; neither did we make any preparation worth while for the unwelcome visitor.

Finally we heard of cases on incoming steamers; then of an outbreak in the vicinity of Boston. Still little or nothing was done. Our motto evidently was, "Sufficient unto the day is the evil thereof."

Then things began to move rapidly. The epidemic, noted in one city one day, would be reported fifty, one hundred, or two hundred miles off the next day. If men were taking their leisure preparing for the disease, the disease was taking no leisure. It was getting in its best work while the people were doing little or nothing in the way of prevention.

Finally there was an awakening, and health authorities began to do things. In one city certain drastic regulations were put into effect; in another city entirely different regulations. The effect of these regulations was problematical. New York City made no attempt to stop public gatherings, and yet in the first wave of the epidemic it had a milder run of the disease, with a smaller proportional mortality, than a number of Eastern cities that closed schools, churches, theaters, and all public assemblies. It has not been satisfactorily proved that any of the precautions taken materially prevented the spread of the disease which had been successfully implanted throughout the community, doubtless by numberless carriers, before anything worth while had been done in the way of prevention. So we can say, as regards this disease, that preventive measures absolutely failed, and the only course left was to combat the disease itself by careful nursing and medical care.

And here again, we failed. Doubtless some have died notwithstanding the best care; but many died because they did not have and could not get adequate care. At the height of the epidemic, hospitals were filled to overflowing, physicians and nurses were overworked — what were left of them, for many had gone to the army, or to the Red Cross overseas.

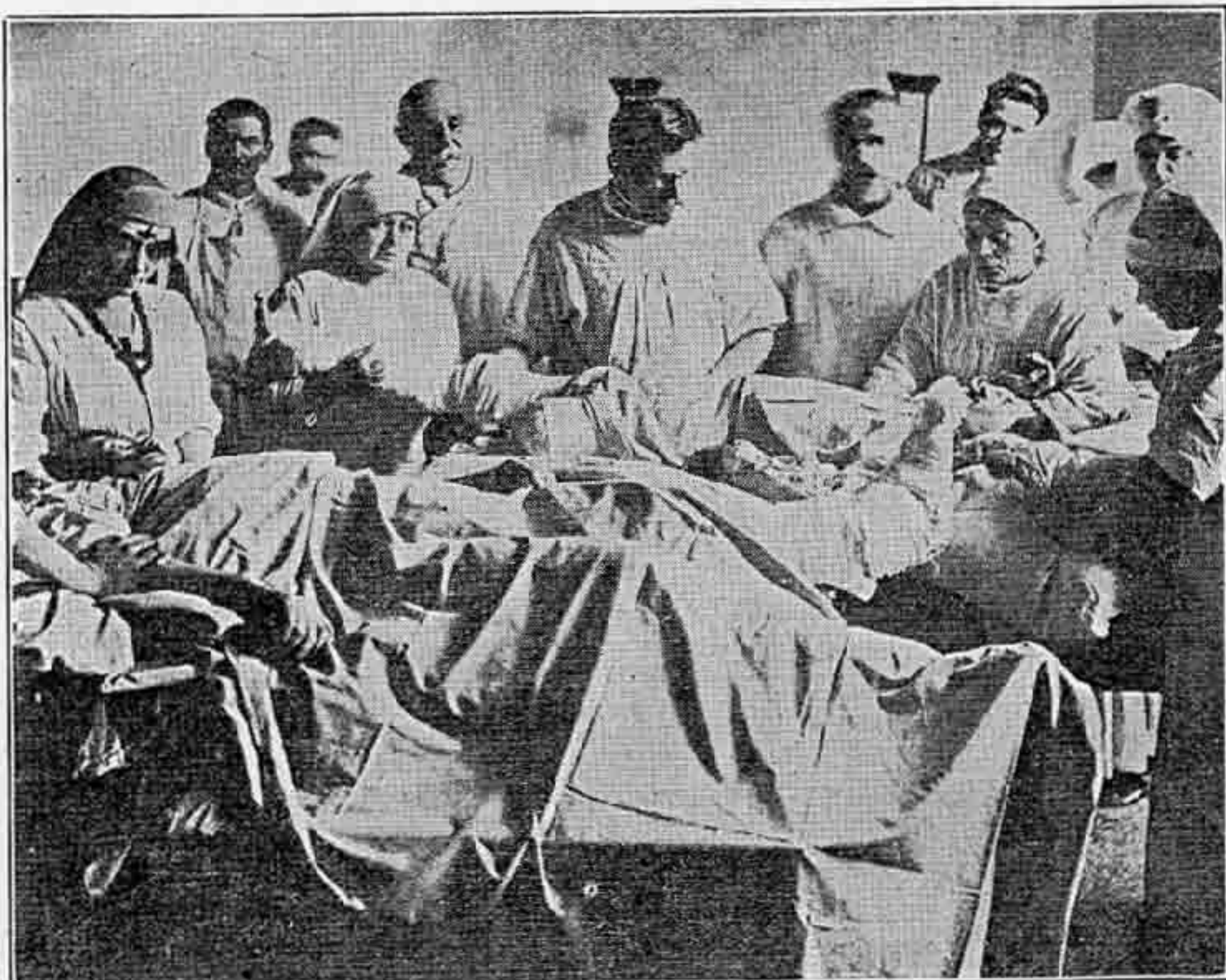
Many families, with one, two, or more down with the "flu," were unable to secure a nurse at any price; and unfortunately in most cases there was not a person in

the family who had any first-hand knowledge regarding the treatment of the sick. This, probably,—the lack of early care,—was the chief cause of the high mortality; for with adequate care from the first, patients usually recovered. Sanitarium experience has shown a mortality of practically nothing from cases received early, with similar good results from outside cases visited by sanitarium physicians and nurses. Many private nurses have had as gratifying results with early cases.

So we feel justified in attributing the very high mortality of this disease — much higher in the aggregate than our total loss in the war — very largely to our *unpreparedness*. And of all the lessons the war should have taught, the most important is the folly of unpreparedness. Lack of preparedness cost England, and France, and America a hundred times what proper preparation beforehand would have cost. And the epidemic of influenza has doubtless cost thousands of lives which might have been spared had there been a more general knowledge of some of the first principles of home nursing and the care of the sick.

It is not yet too late to acquire such preparedness. The influenza epidemic is not over by any means. A wave may strike here or there almost any time, for some months to come. Besides, a knowledge of home nursing is valuable under many other conditions, and will help to lessen the time lost in illness, and to diminish doctors' bills. If intelligent home nursing could take the place of a lot of patent-medicine drugging, the net result would be a great gain healthwise.

The purpose of this issue of *LIFE AND HEALTH* is to acquaint its readers with the general character of the influenza epidemic, the precautions necessary to prevent its spread, the methods of home treatment, the prevention of complications, etc. These articles should serve the family as a small textbook on influenza. G. H. H.



Photo, American Red Cross

American Physicians and Nurses Doing Hospital Work in France

How to Avoid Influenza

A. B. Olsen, M. D., D. P. H.
Editor (London) Good Health

TO escape influenza two things are essential: First, avoid the infection; second, keep fit in body and mind. Influenza, like measles or smallpox, is both contagious and infectious. The victim of influenza first "catches" the disease from another sufferer, and then he himself promptly becomes a source of infection, and unless quickly isolated, spreads the fever wherever he goes.

The danger from infection is greatest in the early stages of the disease, when the catarrhal symptoms, such as sneezing, redness and irritation of the mucous membrane of the eyes, nose, and throat, and discharge from the nose, together with a mild fever, are present; and this is the time to practice strict isolation and to keep at a good distance from the patient. But the difficulty is that during this early stage the disorder is often looked upon as merely a cold in the head; and it is not until there is a marked rise in the temperature, and the patient suffers from increasing headache, backache, and other aches and pains, and from more or less pronounced exhaustion and collapse, that the real nature of the attack is recognized, and a diagnosis of influenza is made. By that time many others, perhaps, have caught the infection, and thus the malady spreads rapidly through the home, office, shop, or schoolroom.

The bacillus of influenza is found in the secretions of the mucous membrane, whether from the eyes, nose, throat, or mouth, and every sneeze scatters almost innumerable particles of saliva and other secretions into the air for others to breathe, and thus get the infection. There is even danger in going into a room or railway

compartment which has been recently occupied by an infected patient. Coughing and even talking throw fine particles of infected saliva into the air, and these, when brought in contact with the mucous membrane of other people, old or young, may set up infection.

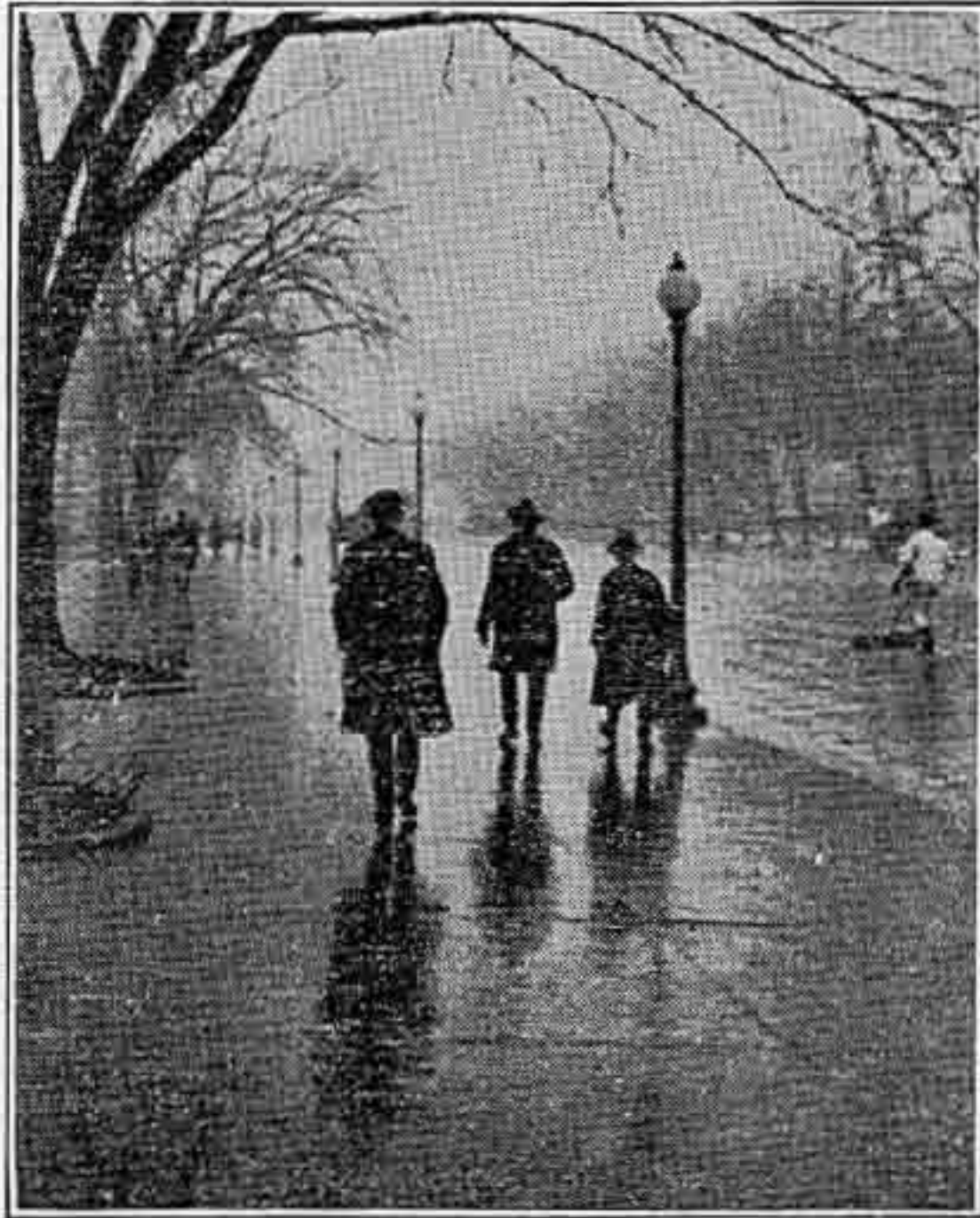
Let us bear in mind that even the ordinary cold in the head is infectious, and spreads rapidly from one person to another. Now, in a time when influenza is more prevalent than

usual, every cold should be looked upon with suspicion, and a child should not be sent to school when sneezing or giving other evidence of a cold or incipient influenza. The same is true of adults going to business or keeping public engagements. If this suggestion were carefully followed, influenza would soon be stamped out, and colds would become far less frequent than they are now.

The next step in escaping influenza is to maintain in their highest degree of efficiency the natural resistive forces of the body. The healthy body is marvelously endowed by nature with defenses against infection and disease of all kinds. But ill health means the weakening of these resistive powers and the

breaking down of the body defenses. Therefore, the vital importance of maintaining health and strength on the highest level possible. A person in a state of debility, who is suffering from loss of strength and lowered vitality, is far less able to cope with the germs of disease and to destroy them than a healthy one.

It is well to bear in mind that the usual entering path of most parasitic and germ diseases is through the lining membrane of the mouth, nose, and throat. This is known to be



"It is also necessary to dress according to the weather, using light, soft, woolen undergarments, and putting on an overcoat when going out of doors. Sensible boots and shoes with low heels and thick soles should be used, for the feet should not be neglected or allowed to get cold or wet."

true of whooping cough, measles, and scarlet fever, as well as of influenza, and in all probability of bronchitis and pneumonia. This fact teaches us the importance of keeping these membranes in a healthy and active state, free from catarrh, whether acute or chronic; and this again means an abundant supply of pure air, and a wholesome and nourishing, but none the less plain and simple diet.

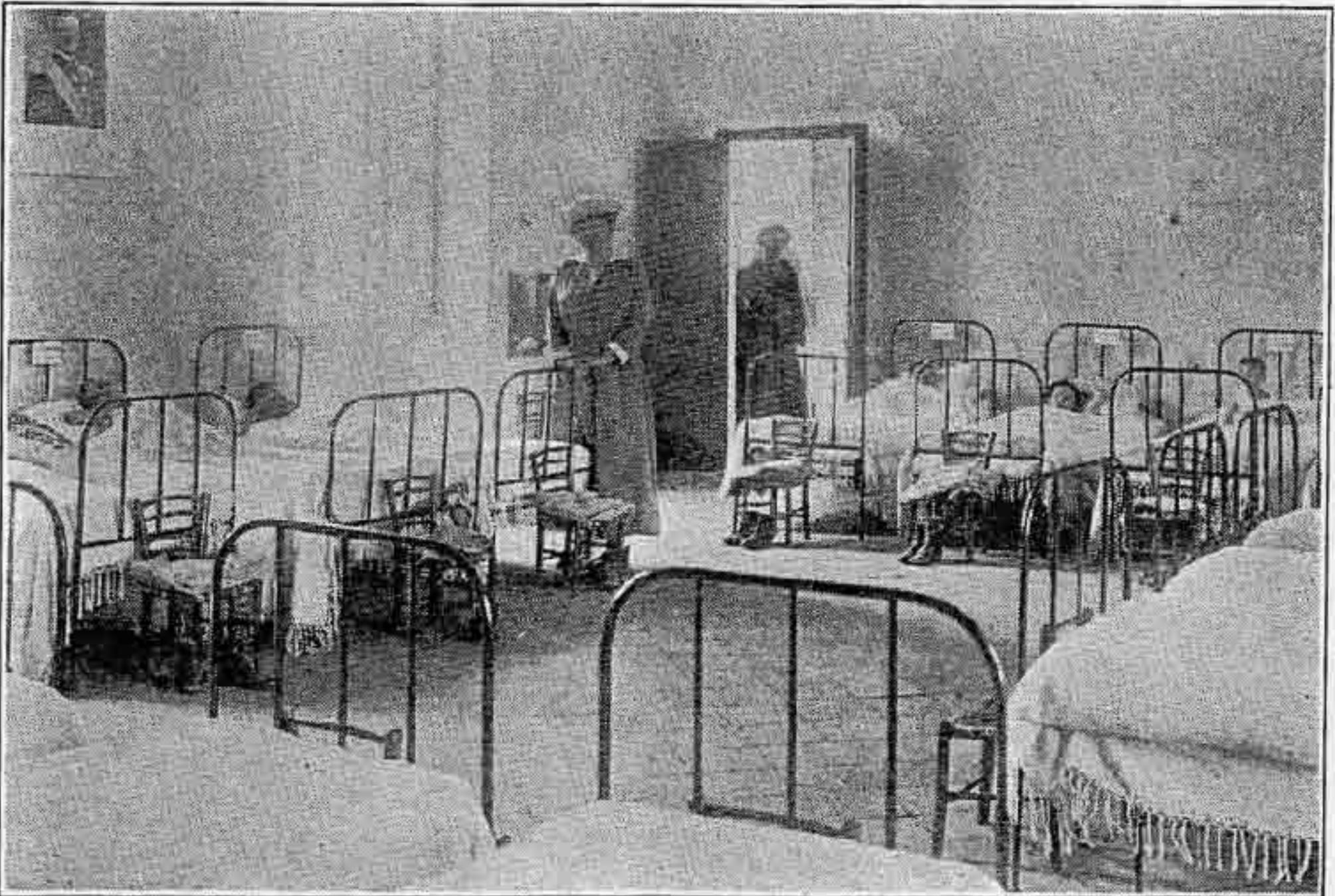
We cannot sufficiently emphasize the importance of cultivating the open-air life in the campaign against influenza and similar catarrhal complaints. Every one ought to make it a point to get out of doors daily, either for some useful garden work or a walk or cycle ride. Those who live most out of doors are least likely to catch infections, while those who coddle themselves around a fireplace in a close and stuffy room are more subject to infection. It is the foul air of a poorly ventilated room that is the real source of danger. Under such conditions the skin, as well as the mucous membranes of the air passages, loses its natural tone and resistive power, so that coming suddenly into the fresh cold air may result in a chill. Let us learn to open our windows, and keep them open both day and night, in order to insure an abundant supply of fresh air.

It is also necessary to dress according to the weather, using light, soft, woolen undergarments, and putting on an overcoat when going

out of doors. Sensible boots and shoes with low heels and thick soles should be used, for the feet should not be neglected or allowed to get cold or wet. The mere wetting of the feet when walking matters little, provided they are placed in hot water immediately on coming indoors, and dry shoes and hose are put on afterward.

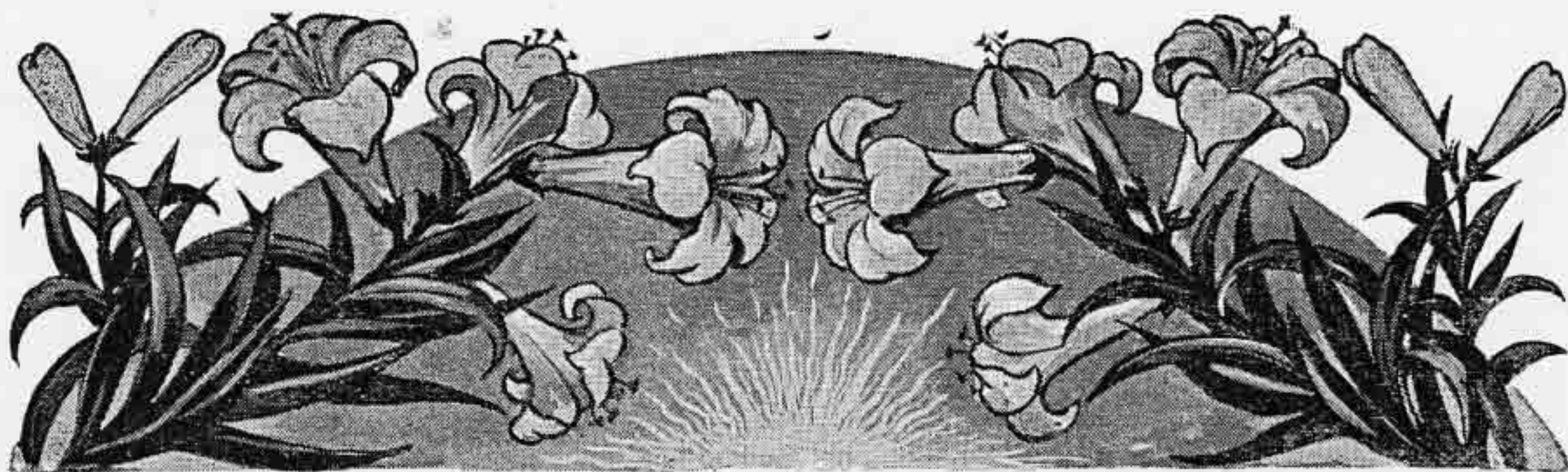
TREATMENT

As soon as the first signs of catarrhal disease appear in the air passages, the patient should be strictly isolated and put to bed. The isolation is not only for the welfare of the patient, but to protect the other members of the family from infection. Call in a doctor to assist in diagnosing the disease. Good nursing, a light diet, warm baths, tepid sponging to relieve the fever, enemas for cleansing the bowels, and a quiet rest in a well-ventilated room, are the essentials for treatment. Drugs are not necessary. Give water freely to drink, either hot or cold as desired, and see to it that the patient has a warm bath at least once a day. In the evening is a good time to give the bath, for it promotes sleep and is very refreshing to the patient. Under treatment of this kind there is very little if any danger of complications, and in the course of a week or two the patient will be convalescent. Strength will be gradually restored, and after another week or two, the patient will be ready to return to duty.



Photo, American Red Cross

Dormitory of an Orphan Asylum in Rome



The Value of Sanitarium Treatment in Respiratory Diseases

L. E. Elliott, M. D.

Superintendent Tri-City Sanitarium,
Moline, Ill.

I SHALL consider only the respiratory diseases with which we have had to deal so much during the recent pandemic; namely, influenza, broncho-pneumonia, and occasionally lobar pneumonia. Rest, protection from cold, and the application of heat are the three main essentials in the treatment of an influenza patient.

The patient should be isolated from the family, and should have absolute rest in bed, and be kept in bed until after the temperature has remained normal for two or three days. He should be cautioned to hold a handkerchief over the mouth when coughing. If the attack has been a prolonged one, and especially if there have been complications, it will be necessary to keep the patient in bed until he has more fully recovered from the prostration.

The mistake that so many patients made when they were attacked with the malady was that they endeavored to "fight it off," to use a common ex-

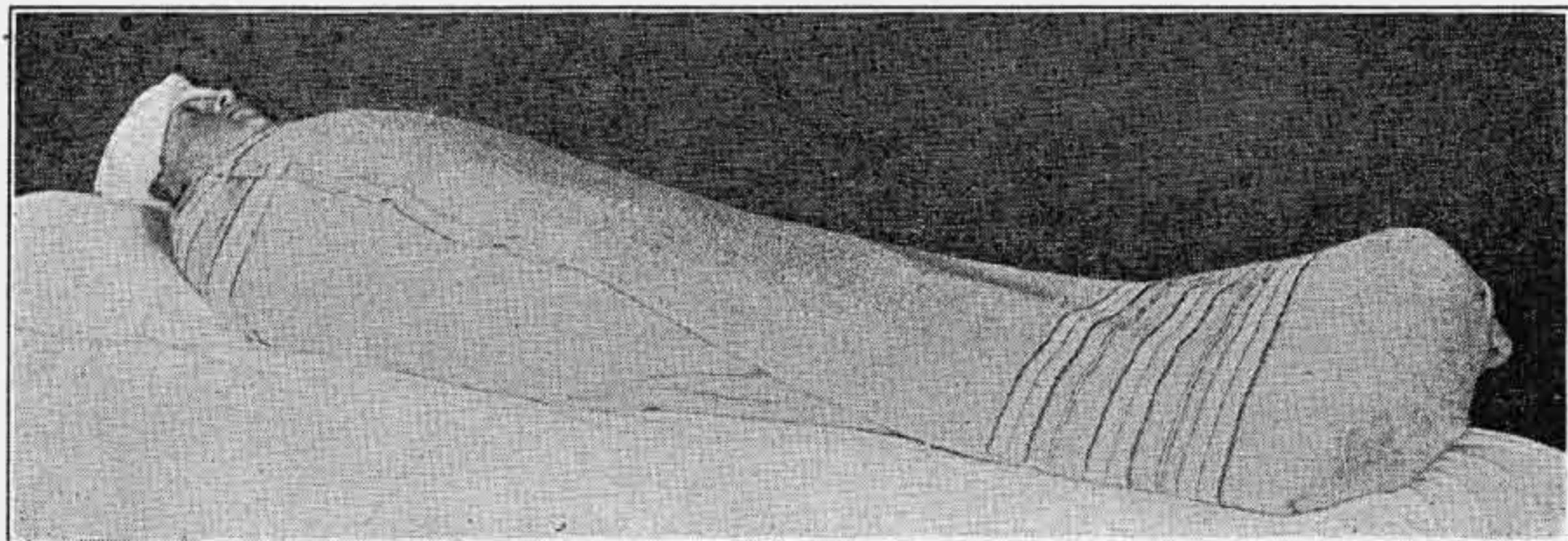
pression; and the result was that the body was kept continually chilled, and either their recovery was delayed, or they were

carried away with the complication of broncho-pneumonia.

Influenza patients chill readily, on account of the internal congestion; so, even if they are in bed, they must be well protected, especially around the arms, shoulders, and neck. Pneumonia may set in if these precautions are not faithfully taken. It has been my experience, however, that a patient who was put to bed early and given sufficient protection, along with the hot hydriatic treatments, did not develop a pneumonia, and was sufficiently recovered from the attack to return to work in a week's time.

The hydrotherapeutic measures to be used are the hot applications. These treatments should be given in the bed, special precautions being taken to protect the patient from chilling. The windows should be closed and the room warm. In our

Blanket Pack Completed



institution the patients were all treated in their rooms until after their temperature had become normal.

One of the best treatments for influenza is fomentations to the chest and the corresponding region of the back, and a hot foot bath. Three or four fomentations can be given, and if the water in the foot tub is kept as hot as can be borne, the patient will be given a good sweat. An ice bag or a towel wrung out of ice-cold water should be kept on the head. The treatment should end with a tepid or a cool sponge bath. If the cool sponging chills the patient, the tepid sponge should be given. The sponging should be given under the covers so as to avoid chilling the patient. This treatment will reduce the temperature from one to two degrees. As soon as the temperature comes up again, another treatment should be given. Two or three treatments during the twenty-four hours are generally sufficient to keep the temperature down so that the patient is quite comfortable. Instead of the treatment just outlined, a hip and leg pack or a full pack may be given. These treatments are a little more difficult to give, however, and an assistant is required to help give them. It may be necessary to use these measures when it is difficult to induce perspiration.

The patient should be given plenty of water to drink, both during and between treatments. The diet should consist of liquids,—hot soup, broths, milk, hot lemonade, and other fruit juices, which may be either hot or cold.

The bowels should be kept thoroughly cleansed by enemas or cathartics. In case of the complication of a broncho-pneumonia or of a lobar pneumonia, the treatment outlined above should be given, and following the fomentations a heating compress should be applied. This compress should be put on snugly so no evaporation can take place from the air entering around the loose places.

This heating compress should be kept on until the next treatment is given, and put on again after the treatment. It is verily a "life saver." The rate of the heart-beat and the respiration immediately begins to drop toward normal, and in favorable cases the lung trouble soon clears up.

HOME TR



L. A. Hansen

IN the home care of the sick, there are a number of treatments that may be given in the absence of the doctor and the trained nurse by any one who will exercise caution and judgment. No one should attempt to administer treatments which are complicated or which may involve danger to the patient. The average person can learn how to give what are called "simple treatments," which are quite efficacious, and may prove very valuable in affording immediate relief.

THE FOMENTATION

The fomentation, or hot compress,—the application of moist heat to local areas of the body,—is serviceable in a great many ways in home treatments. The method of giving a

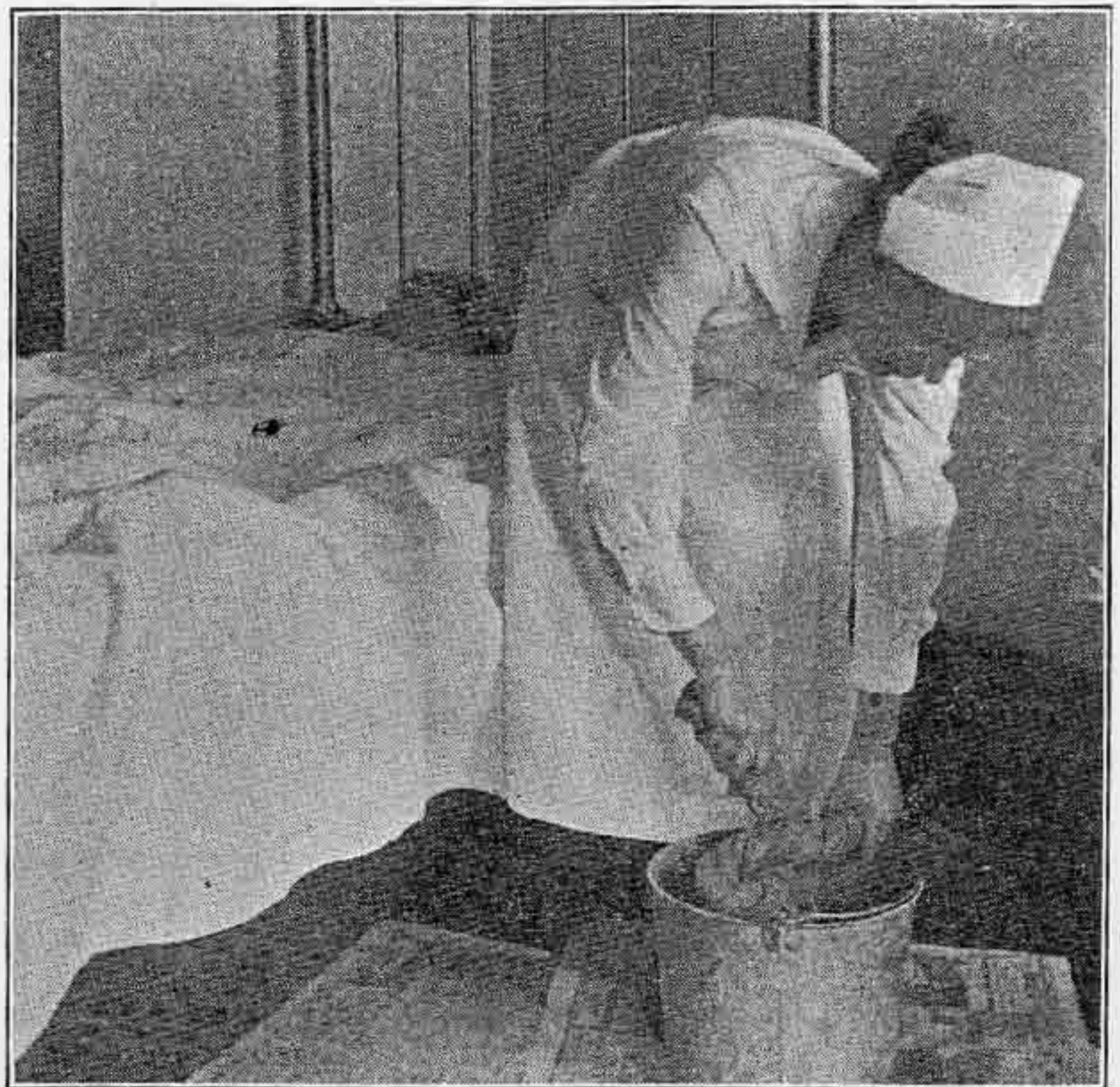


Fig. 1. Wringing the Fomentation Cloth

TREATMENTS



fomentation is quite simple, and this form of treatment can be given almost anywhere. A fomentation is most commonly prepared by wringing cloths out of boiling water, though there are other ways of obtaining the moist heat; as for example, by wrapping a hot brick, a hot stone, a bag of hot sand, or some other hot article in moist cloths, or even in wet paper. The purpose is to secure a moist heat at as high a temperature as can be borne by the body.

A set of good fomentation cloths is worth having. The best material is a half-wool-and-half-cotton blanket, not necessarily new. One blanket will make four cloths; two to be used wet, and two dry. Discarded underwear, an old shawl, or other similar material may be

used. Wool-and-cotton-mixture goods is best, the wool serving to retain the heat and the cotton preventing too much shrinking. Towels may be used if necessary.

In giving fomentations there is needed a vessel sufficiently deep to contain enough water entirely to cover the cloth. If heat is available near the patient, it is best to wring the fomentation cloths directly from the vessel in which the water is kept boiling. If the treatment is given some distance from the heat, a pail is needed for carrying the hot water to the patient's room. Protect the floor from the heat, and cover the pail to retain the heat. Or the fomentation cloths may be wrung from the boiling water and left tightly twisted, placed in a covered pail, and carried to the room. They should be left tightly twisted until applied to the part treated.

Spread a dry cloth on a flat surface. It is preferable always to reserve the same cloth, or cloths, for dry use. In wringing the wet one, first fold it loosely, hold by each end, and place the middle part in the boiling water. Wring over the vessel by twisting tightly. (Fig. 1.) If the left hand is placed just outside the vessel, allowing the cloth to rest on the edge, the cloth can be pulled by the right hand, as it is wrung,

and the water will run down the cloth into the vessel at the edge without burning the hands. It is best to have cloths long enough to keep the ends dry. Short cloths may be wrung by placing in a towel. A little trick in getting the cloth real hot, and quickly so, is to press the whole surface of it on the bottom of the vessel, thus bringing it in close contact with the heat. This is particularly practical when in a hurry. Do not unwring the wet cloth until ready to fold within the dry one. Work quickly when doing this.

The shape of the cloth should be according to the area to be treated. It should always be several inches larger than the part treated. If the fomentation is for the spine, make the fold about six inches wide, and long enough to cover the full length of the spine. After folding the wet cloth within the dry one (Fig. 2), double it on itself so as to retain as much of the heat as possible. Unfold the fomentation only as it is ap-



Fig. 2. Folding the Wet Cloth Within the Dry



Fig. 3. Applying the Fomentation to the Spine

plied to the patient. (Fig. 3.) Do not unwrap the wet cloth from the dry one. When placing the wet cloth within the dry, allow one thickness of dry blanket on one side and two thicknesses on the other. The patient at first may be sensitive to the heat, and will bear the double thickness of dry, when the single thickness will be too hot. In a few minutes the cloth may be turned over, using the single thickness. In the meantime, however, a towel or other covering should be kept over the entire cloth so as to retain the heat.

It should be constantly borne in mind that a fomentation cloth should be hot. Harm may be done by using cloths that are only warm, or by allowing hot cloths to get too cold. The fomentation should be changed as soon as it becomes too cool, that is, when it is comfortable to the patient. This is one time when a treatment should not be too comfortable. A good way to secure the full benefit of the heat is to leave the dry cloth on the patient, simply opening it to permit the exchanging of the wet cloth for a newly heated one. In this case, the wet cloth is not unwrung until it is directly placed within the dry cloth covering the part treated. If two cloths, folded together, are used for the wet, the heat will hold longer. The heat may be prolonged by placing a hot-water bottle over the fomentation. The changes should always be made quickly and without undue exposure of the part treated. Care should be taken to guard against chilling.

A more intense effect may be derived by alternating with hot and cold. After each ap-

plication of the fomentation, cold is applied by a towel wrung out of cold water, or by a piece of ice, after which the part is quickly dried. The cold application should be very short; if with a towel, about thirty seconds; if with ice, only a few strokes should be given. The cold may be applied by the hand dipped in cold water. The hot fomentation cloth should be ready to apply as soon as the cold has been given.

Usually about three applications are given, the treatment lasting from fifteen to thirty minutes. The duration of each application is from five to ten minutes, according to the degree of heat and the manner in which the patient bears it. Those who are accustomed to taking fomentations can take them quite hot. At the close of the treatment, apply cold to the part treated thoroughly dry, and cover.

Care should be taken against burning. If the patient insists that the fomentation is too hot, lift it at once. While desiring to have the application as hot as possible, care must be taken not to have it too hot. Bony prominences, where there is but little flesh, are most susceptible to burning. Unconscious, paralyzed, aged, or very young persons cannot protect themselves against burning, and here, again, is special care necessary to avoid such an accident.

An emergency fomentation or one for the continued application of heat, may be given as follows: Lay out from fifteen to twenty sheets of newspaper; on these place several thicknesses of cloth, and pour on boiling water until the cloths are well moistened. Fold cloths

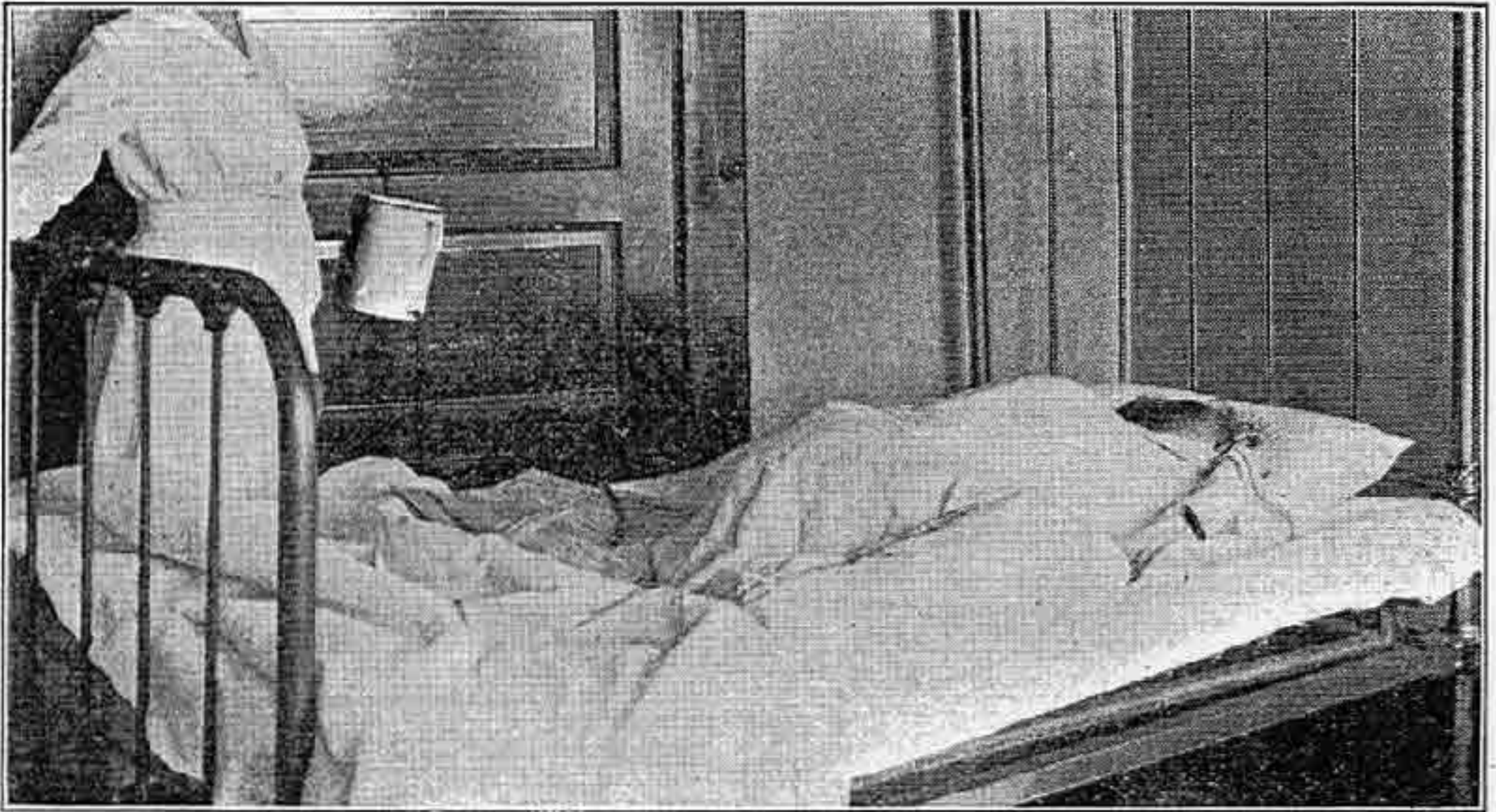


Fig. 4. On the Left Side, with Knees Flexed

within the newspapers and apply, placing a towel or another cloth between the patient and the papers. The cloths may be dipped in boiling water instead of having the water poured on them. They should be left quite wet, but not dripping. This fomentation will retain the heat a half hour or more.

THE ENEMA

Most people know something about the use of the enema, but there are a few suggestions that may prove of value in the proper administration of this common treatment. First, it is well to remember that the enema should not be relied upon habitually for moving the bowels. The enema gives quite ready relief, is fairly easy to take, and its use may become a habit, when by careful bowel training and by proper diet, it may be needed less frequently and possibly dispensed with altogether.

The hot enema is valuable for the relief of pain in the lower bowel, in diarrhea and dysentery, for irritation or pain in the rectum, and in case of much gas in the bowels. The temperature should range from 103° to 110° . It is always well to follow a hot enema with a small injection of cool water, to restore the tone of the tissues.

The temperature of the ordinary enema given for cleansing purposes ranges from 95° to 100° . A hot or a cold enema is more effective for stimulating bowel movement. The warm enema is used where it is necessary to inject a quantity of water. The addition of two and a quarter teaspoonfuls of common salt to two

pints of water will help to prevent griping, and the addition of soapsuds will make the enema more effective for cleansing purposes. Only the purest soap should be used—Castile or Ivory. Frothy soapsuds contains air, which should not be injected into the bowel. When soap is used, an enema of plain water should follow.

The knee-chest position will facilitate the flow of water to the highest point possible in the bowel. Another favorable position is lying on the left side, knees well flexed. (Fig. 4.) The enema can or fountain syringe bag should be hung from two to three feet higher than the patient; that is, the fall of water should be about that much. If it is hung too high, the flow of water will be too strong. Care should be taken not to inject air into the bowel which will cause cramping. The first tube-length of water will be cool; this should be run off before inserting the hard rubber rectal tube.

The desire to relieve the bowel because of the peristaltic pains caused by the injection of the water, may be overcome by pinching the rubber tube to stop the flow. The desire to evacuate will soon pass away, and more water can be injected. By proceeding carefully and slowly, a large quantity of water may thus be given to persons who think themselves unable to retain any considerable amount. Withdraw the tube carefully. If it is desired to retain the water for a time, the pressure of a towel against the rectum will be helpful.

Here is a point not generally observed: The warm water introduced into the bowel dissolves

the retained mass of matter, and when in solution, the poisons are readily absorbed; hence the necessity of securing a thorough cleansing of the bowel; otherwise the enema will be productive of headache or other unpleasant effects. Repeated injections may be necessary in order to secure a thorough cleansing. The warm water will relax the bowel tissues, and therefore it should be followed with a small cool enema.

The cool enema is sometimes used to reduce temperature. When given for this purpose, the water should be retained as long as possible, the temperature ranging from 70° to 80°. If given colder, it will be retained with more difficulty, because of the stimulating effect of the cold.

FOOT BATH

The hot foot bath is a very useful treatment; it is valuable in breaking up a cold, in relieving headache, in dispelling chilliness, and is sometimes effective in insomnia, by drawing the blood from the head to the extremities. The foot bath may be given in bed, in which case the bed should be properly protected with newspapers, a piece of oilcloth, or a rubber sheet. A covering should be thrown over the knees and legs during the treatment. The vessel should be deep, and large enough to hold both feet comfortably, the water extending at least to the ankles. (Fig. 5.)

The patient may sit in a chair, in which case a covering should be thrown over and around the legs and foot tub to protect from chilling. (Fig. 6.)

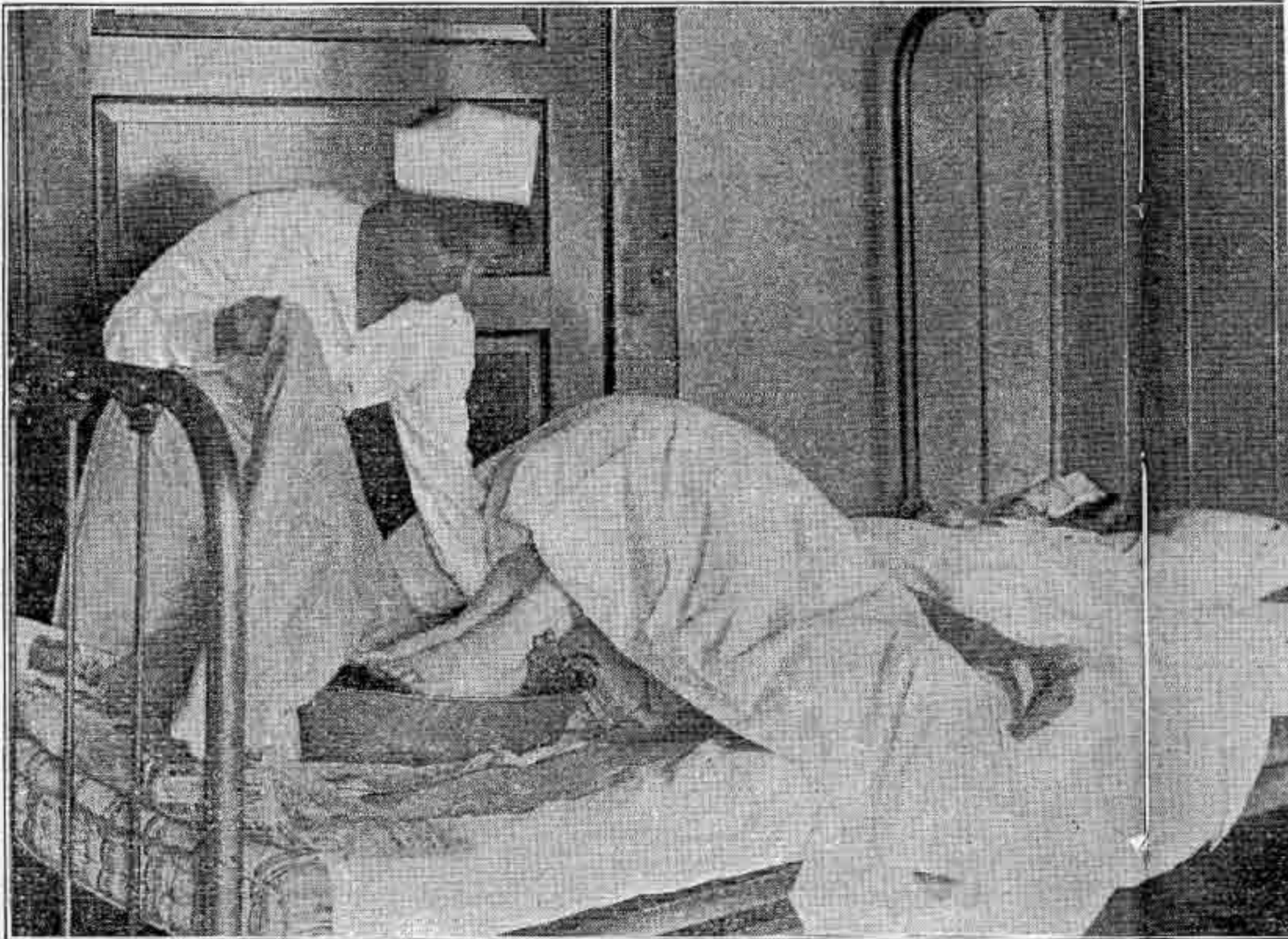


Fig. 5. Giving a Foot Bath in Bed. Using Cloth to Protect the Bed from Moisture — an Important Item

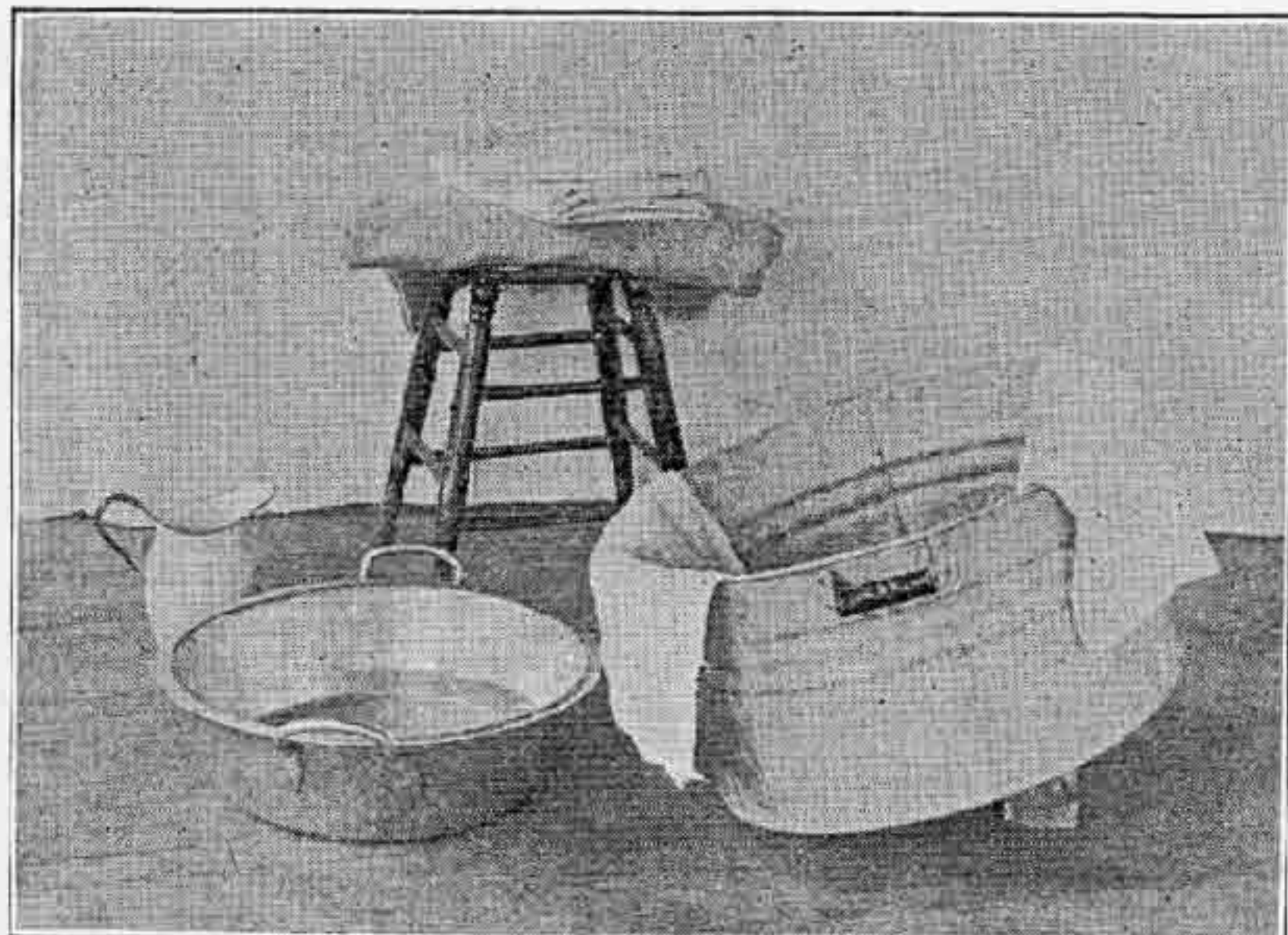


Fig. 7. A Home-made Sitz Bath



Bed

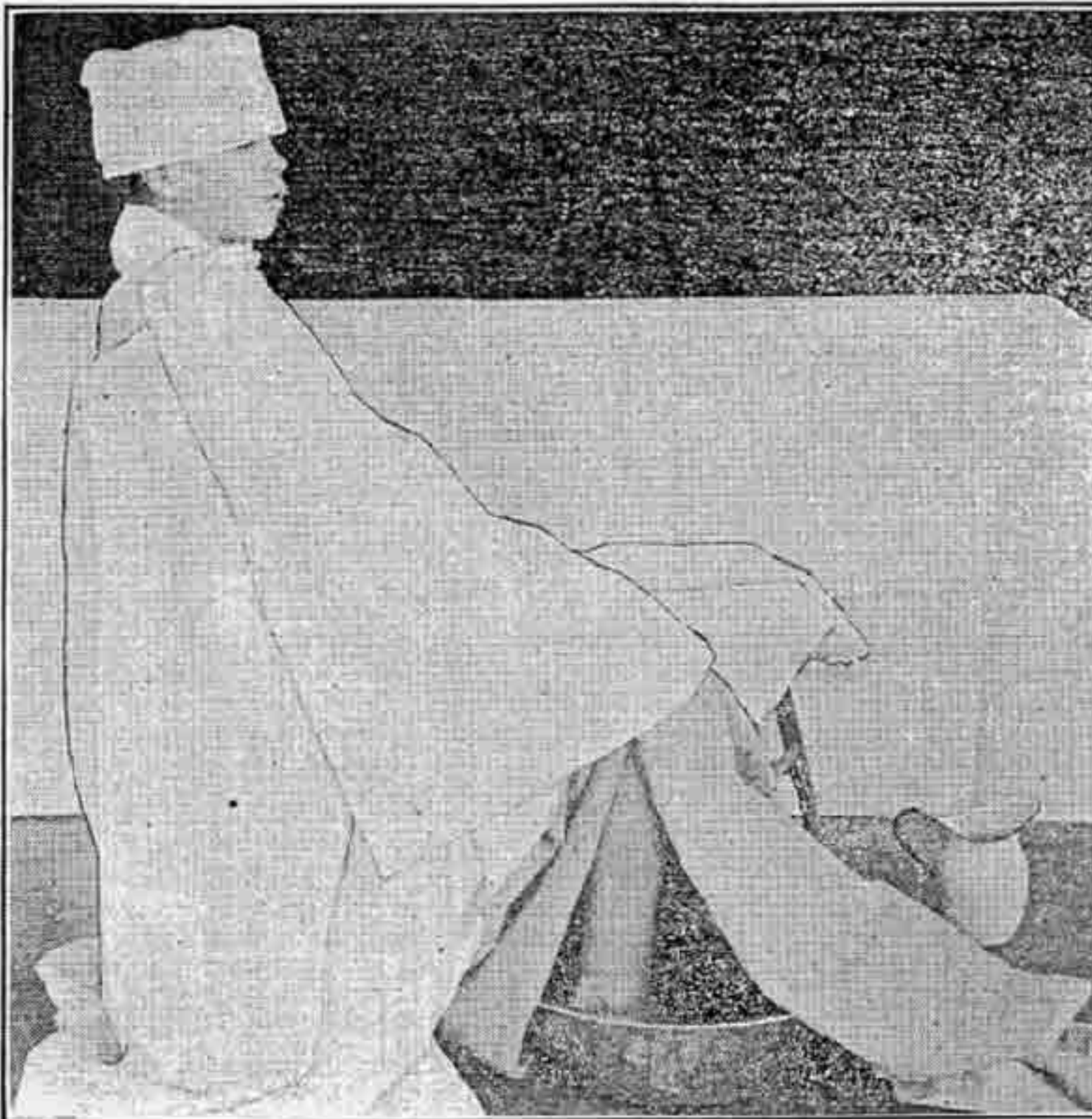


Fig. 6. Sitting Foot Bath. A Deeper Vessel for the Feet Would be Better

retention of urine. It may also be given to produce perspiration.

In the home where a regular sitz tub is not available, an ordinary washtub can be used, one side being raised three or four inches by a block of wood. A pail of hot water for the feet should be provided, and a towel should be placed over the edge of the tub to protect the knees from contact with the tub. Another towel should be placed over the edge of the tub at the back of the patient, so he can lean back without coming in contact with the metal of the tub. A basin of cold water should be provided for giving cold applications to the head, if the sitz bath is prolonged. (Fig. 7.)

When the sitz bath is given to produce perspiration, water at a temperature of about 100° is put in the tub, and after the patient is seated in it a few minutes, hotter water is added until the bath is also gradually



Fig. 8. Giving the Sitz Bath

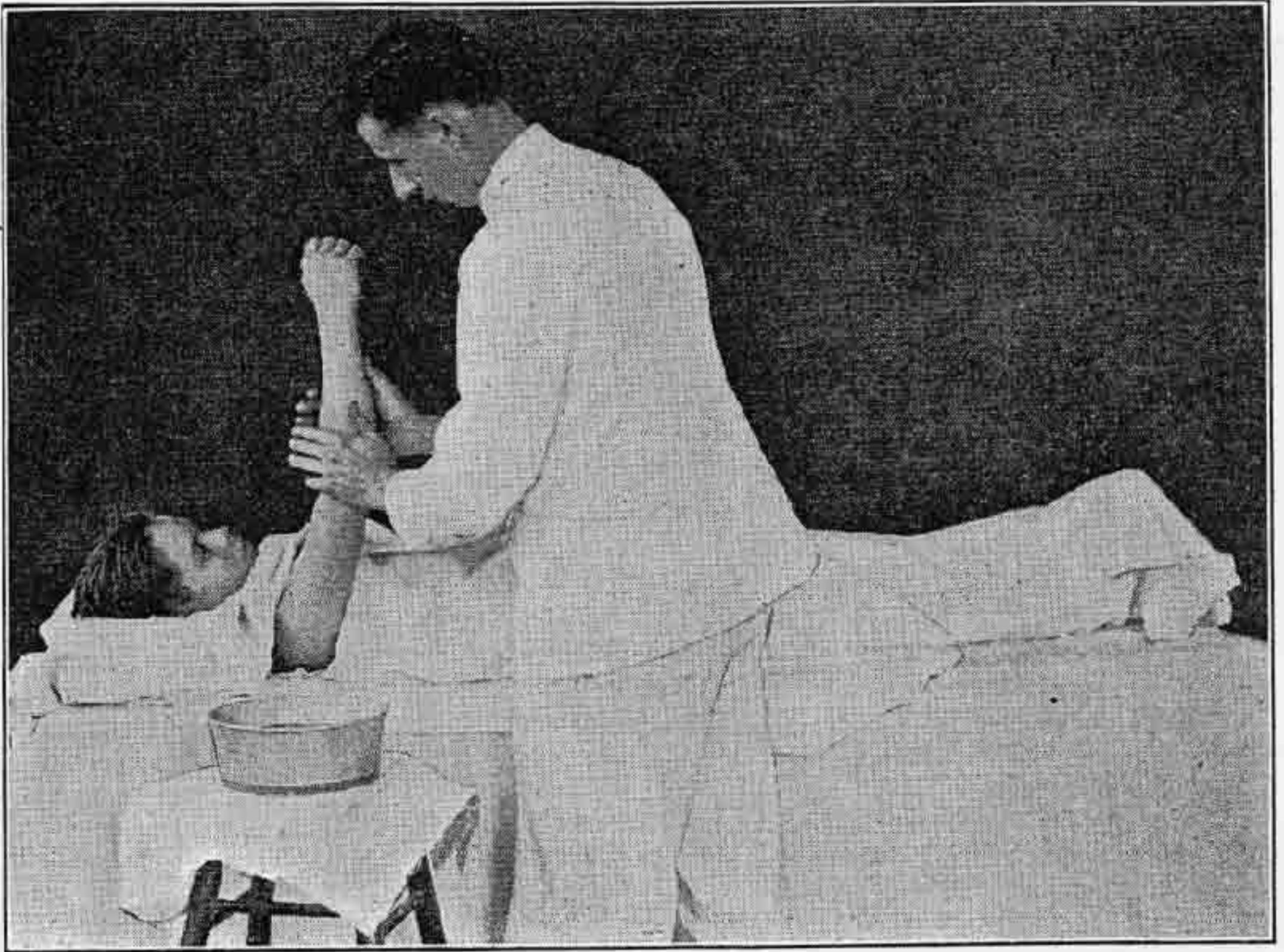


Fig. 9. Beginning the Sponge Bath

raised in temperature, and should be a few degrees hotter than the water in the tub. A blanket or comfort, or a sheet if the room temperature is warm enough, should be drawn about the patient, including tub and pail. (Fig. 8.) A cold wet towel should be kept on the head. Hot-water drinking will facilitate sweating. The bath may be given from ten to thirty minutes, but should be stopped at any time the patient complains of faintness. Conclude the bath by adding cold water. In order to do this, it may be necessary to remove some of the hot water from the tub.

The patient should be properly cooled and carefully dried.

THE SPONGE BATH

The cool sponge bath is a valuable means of reducing the temperature. A sponge is not necessary, and in fact, is not very frequently used. The water may be applied with the bare hand, or with a cloth. When given to reduce body temperature, the water should be about 60° or lower. The sponge bath nearly always follows any general bed treatment that causes the body to perspire.

To give a sponge bath, provide a basin of water and several towels. The patient is wholly

undressed, but covered with the bed clothing. Only a part of the body is treated at a time. Towels are placed to protect the bed. An arm is exposed and the cold water applied its full length, and then dried. (Fig. 9.) Bathe the other arm, then the chest and abdomen; next the legs, one at a time; and then the back. The whole procedure can be done without dampening the bed in the least, and the patient is left quite comfortable. If a sponge bath is given for the reduction of fever, the bath is prolonged twenty or thirty minutes, and may be repeated several times during the day.

HOT-WATER BOTTLES AND THEIR CARE

The hot-water bottle is an article much used in giving home treatment, and its use is quite familiar to most persons. Nevertheless some caution is in place in regard to it, as severe burns are sometimes caused by its improper use.

The bottle should be only partly filled, and never with water hot enough to scald, should the bottle burst. A simple way of filling the bottle is to place it flat on the table, neck raised, and pour in water until it is about half or three quarters full, allowing the air to escape and the water to come to the neck of the bottle



Fig. 10. Filling the Water Bottle

before screwing in the stopper. (Fig. 10.) This will leave the bottle pliable, so that it will fit readily the part of the body to which it is applied. It is well to test the temperature of the bottle by holding it against the cheek.

The water bottle should always be covered with either a covering made especially for it, or a towel or other cloth. Flannel makes a good covering. Special care should be exercised in using a water bottle on a person who is liable to become unconscious, or who is unable to protect himself against burning. When used for general warmth of the body, it is best to place the bottle at the bottom of the feet, between the legs, or at the spine.

The use of a hot-water bottle over a fomentation cloth intensifies and prolongs the heat of the fomentation. The caution against burning the patient with the water bottle is especially applicable when using moist cloths with it, even though the bottle does not seem hot enough to burn. Moisture makes the water bottle more liable to burn.

When not in use, the bottle should be hung with the stopper out and the opening down, so that it may drain. It should not be doubled sharply upon itself, as it is likely to crack at the fold.

Remember that oily substances are destructive to rubber; so keep the water bottle free of oil.

The Aftermath of Influenza

Mary W. Paulson, M. D.

Hinsdale (Ill.) Sanitarium

THOSE who have been fortunate enough to get through the influenza without serious results should stop to think what they should do in order to prevent consequent poor health. Among the several complications which are likely to follow influenza, we may mention bronchitis, tuberculosis, intestinal disorders, constipation or colitis, and particularly a low nerve tone. One who has had influenza needs particularly to prevent the development of a chronic cough and chronic bronchitis.

In order to guard against these conditions, the patient must be careful not to get out too soon. A safe rule to follow is to keep in your room and do no work for four days after the temperature is normal. Then, when you go out, be very careful about your clothing, particularly in cold climates. The arms, limbs, and chest should be well clothed.

Have plenty of fresh air in your sleeping-room, but avoid drafts, and do not sit in a cool

room. To keep up a good circulation, which is very important, one should give himself, each morning, a quick cool friction to the skin, using a rough mohair mitten or one of similar material, dipping it into cool water and applying it quickly to the skin, rubbing vigorously, and quickly drying the skin. This should be done in a warm room the first thing in the morning. If done properly, it will take only five minutes, and will give better results than ten dollars spent for tonic medicines. If you are so situated that you can take a very short alternate hot and cold spray once a day, that would be better still.

A GOOD DIETARY

It is a great mistake to limit your food too closely after influenza. A person loses from eight to ten or twelve pounds during the four or five days' attack of fever, and if the stomach activities have not been too greatly interfered with, most cases are able to take care of good

nourishing food as soon as the fever has gone.

A good dietary consists of green vegetables, fruits, good breads, properly cooked cereals, butter, cream, eggs (sparingly), buttermilk, and particularly laxative foods, which include fresh fruits, prunes, figs, and the use of bran daily in the food.

Patients who have weak digestion after influenza, should use a more limited dietary, taking care not to use pastries, candies, spiced foods, fried foods, and too coarse vegetables, such as cabbage and onions. Such patients should also have a hot fomentation applied to the stomach and liver daily for a time.

SPECIAL BUILDING UP

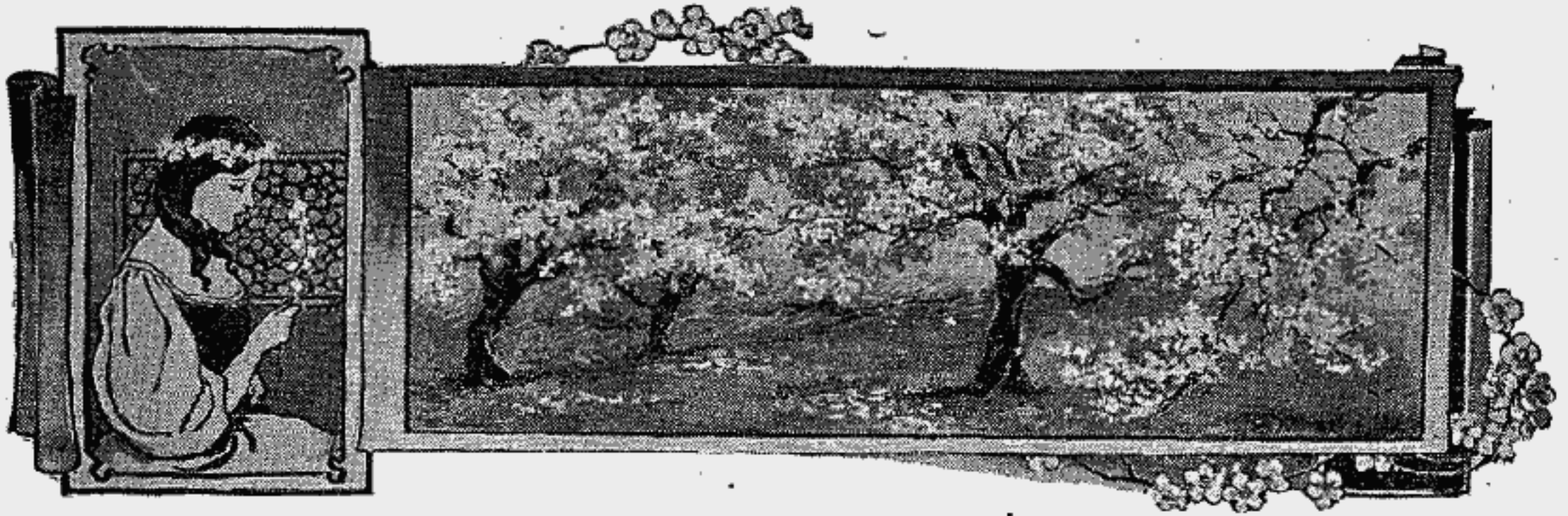
Those who suffer from low nerve tone and have "that tired feeling," need special building up in order to prevent the development of chronic conditions. Such patients need good nourishment, provided the elimination at the same time is efficient. Next, they should get plenty of sleep, retiring early. They will not

be able for several days or weeks to take up their normal activities. Too much should not be demanded of the nervous system until reserve force has been accumulated. Such people should get out into the fresh air as much as possible. The cold fresh air of the Northern climates is invigorating and a good tonic.

Besides the cold friction rub each morning, fomentations to the spine should be given at bedtime, followed by an oil rub. If one is a student in school, he must particularly observe these regulations, as the student's life draws heavily on the nerve force.

Once or twice a week a salt glow should be taken. This one can give to himself in an ordinary bath tub by using a bowl of coarse salt slightly moistened with water. Rub the salt vigorously all over the body while standing in the tub, and afterward immerse the body in warm water, not too hot.

Lastly, keep in a cheerful state of mind, do not worry about the future, trust in Providence, and go ahead.



FOOD CONSERVATION

A Variety of Recipes

George E. Cornforth

SOY BEAN MILK

THE soy bean seems to be proving itself a very valuable source of food. It has a remarkably high percentage of protein and fat which causes it to resemble nuts in food value. It seems to occupy a place between nuts and the other legumes. It is sometimes said of common beans that they contain more beefsteak than beefsteak contains. This is pre-eminently true of soy beans. And it is especially interesting to learn that soy beans are said to contain all the different vitamins that are necessary for health, even the fat-soluble, growth-promoting vitamin which is so impor-

tant; so soy beans alone would seem to be capable of sustaining life for a considerable period of time. And another interesting thing to learn about soy beans is that, by a very simple process, milk can be made from them that closely resembles dairy milk. To make the milk, thoroughly wash a large three-fourths cup of soy beans and soak them overnight in one quart of cold water. In the morning grind the beans through a food chopper, using the nut-butter disk. Mix the bean pulp with the water in which the beans soaked, and let stand in a cold place several hours. Then strain through a double-thickness cheesecloth bag and squeeze out all the liquid. The resulting liquid looks

like milk or cream, being a little more yellow in color than milk. It has a slight beany flavor which might not be enjoyed by every one. If the milk is boiled, its flavor is changed slightly. The addition of a little salt and sugar adds much to its flavor. This milk is said to contain about the same percentage of protein and a higher percentage of fat than dairy milk, and it costs much less. It is lacking in carbohydrate, but this can be supplied by the addition of a little sugar or honey. It is said that babies take it readily. The milk is said to be capable of lactic-acid fermentation and of being curdled by rennet.

SPECIALLY LAXATIVE BRAN GEMS

Some persons who are troubled with constipation have tried eating Graham bread and other whole-grain preparations, and vegetables and fruit, without finding much relief. The reason that so little relief was found, was probably that not a sufficiently large amount of cellulose was taken in this way. A sufficient amount is needed to distend the bowel and tickle it into activity. Bran has been compared to a brush which sweeps out the alimentary canal. If three bran gems, made by the following recipe, are taken at each meal along with other more or less laxative food, a sufficient amount of bulk will be taken to insure good bowel activity in many cases where relief has not yet been obtained by dietary measures. And these bran gems are so palatable that little difficulty is experienced in taking sufficient bran in this way.

- 2 tablespoons molasses.
- 2 tablespoons cooking oil.
- 3-4 cup milk.
- 1 egg.
- 1-2 teaspoon salt.
- 1 1-2 cups bran.
- 1-2 cup sifted bread flour.
- 1-4 cup raisins, if desired.

Beat together the molasses, oil, milk, egg, and salt. Stir in the bran flour and raisins, and beat one minute. With a spoon, put the batter into hot, oiled gem pans, and bake in a hot oven.

BRAN GRIDDLE CAKES

- 1-2 cup thoroughly dried bread crumbs.
- 3-4 cup bran.
- 1-4 cup flour.
- About 1 cup of hot, but not boiling, milk.
- 1-2 teaspoon salt.
- 1 egg.

Mix the crumbs, bran, flour, and salt, and pour over them the hot milk, using sufficient milk to make a rather thick pour batter. Separate the white from the yolk of the egg, mix the yolk with the batter, beat the white stiff and fold it into the batter. Cook in spoonfuls on a hot, oiled griddle.

If a breakfast consists of these griddle cakes with molasses or sirup and two or three nuts, or peanut butter, and a little fruit, one will be surprised at the result.

Here is a very meaty-tasting

NUT LOAF

- 3-4 cup nut meats, chopped.
- 2 large potatoes, boiled with skins, then peeled and mashed.
- 1 hard-boiled egg, chopped.
- 1 medium-sized onion, chopped.
- 1-2 piece celery, chopped.
- 1 tablespoon oil.
- 3-4 cup cracker crumbs.
- 1-2 teaspoon sage.
- Salt to taste.
- 1 egg, beaten, or the white alone.

Mix all together. Form into a loaf, put into pan, pour one cup water and two tablespoons oil into the pan. Roast one-half hour. Or the mixture can be packed into an oiled bread tin and baked.

Serve with

• BROWN SAUCE

- 1 small onion, chopped.
- 3 tablespoons cooking oil.
- 1-4 cup flour.
- 1 pint boiling water.
- 1 teaspoon salt.

Cook the flour in the oil till it is a medium dark-brown color. Add the chopped onion and cook till the onion is browned. Then stir in the boiling water. Boil one minute. Strain, and add salt. The flour must be stirred almost constantly while browning to prevent scorching.



Mixing Gem Batter

AS WE SEE IT

INFLUENZA AND ITS DEADLY WORK

THE infecting agent of influenza, whether germ or virus, has not yet been identified, and there is no laboratory method by which it can be differentiated from a common cold, or bronchitis, or other inflammation of the respiratory tract. It seems, however, that the infecting agent, whatever it may be, is given off through the respiratory organs, and is received through them.

The following are the principal methods of prevention: First, isolation of those who have symptoms of the disease from those who are well. Second, vaccine inoculation seems to have good effect in some cases, but its value is questionable. Third, each person should keep as well as possible, by proper habits of eating, drinking, sleeping, exercising, and breathing.

An important matter in treating the disease is to protect the patient from exposure, especially immediately following the cessation of abnormal temperature. Every subject of the disease should remain in bed as many days after the temperature becomes normal as he had a temperature, in order to be sure to avoid a recurrence and a possible pneumonia.

The *Boston Medical Journal*, Jan. 9, 1919, gives the following note editorially upon the results of influenza in the late epidemic:

"There seem to be reasonable grounds to believe that 6,000,000 persons have died of influenza and of pneumonia in the past twelve weeks. This plague, therefore, is five times more deadly than the war, which it is estimated killed 20,000,000 persons in four and a half years.

"Influenza has cost London 10,000 lives to date. Never since the Black Death has such a plague swept the world. In India alone, it is estimated there were 3,000,000 deaths. In Bombay there were 15,000 and in Delhi 800 daily. The Punjab lost a quarter of a million. In Cape Town 2,000 children were made destitute.

"Eighty per cent of the natives of Samoa were infected. In Spain the visitation was terrible, Barcelona having 12,000 daily.

"No medical authority is certain of any conclusion yet reached, but possibly a still undiscovered organism is involved. Possibly the increased virulence of the influenza bacillus is responsible. It was mild when it first started in Spain. It visited England in a mild form, then America, then turned to England in a severer type. Usually it first appeared at seaports. The figures indicate the infection was by contact and not carried through the air."

W. A. RUBLE, M. D.

SANITARIUM TREATMENT OF INFLUENZA

THE present epidemic of influenza has furnished excellent opportunity to test out the efficacy of rational treatment in dealing with respiratory disorders, especially in conditions accompanying and following attacks of influenza. Statistics are at hand from various sources, showing great tendency to pneumonia and a high mortality in connection with this disease. An official report of the disease in army camps states that one in every five of the men therein had influenza; that of these one in six developed pneumonia, and of those who had pneumonia two out of five died. We recognize our army hospitals and the medical skill employed therein as the best that can be found anywhere. By per cents this record would be 20 per cent of all camp inmates had the disease; of these 16 2-3 per cent contracted pneumonia, or approximately 3 1-3 per cent of the

campers. Of those who had pneumonia 40 per cent died, or 1 1-3 per cent of the camp inhabitants were taken by death through influenza and pneumonia.

Considering the number of cases of influenza only, there were 16 2-3 per cent that had pneumonia. Two fifths of these, or 6 2-3 per cent of all influenza cases, died of pneumonia.

It may be of interest to our readers to know the result of treatment of influenza in sanitariums. During the first wave of this epidemic this journal sent out question blanks asking for reports of the treatment of these cases in hydrotherapeutic sanitariums, and by these sanitarium methods in adjacent communities. Ten sanitariums have reported 1,123 cases of influenza treated, 446 of which were among the nurses, employees, and regular patients of the institutions, and 677 in adjacent communities.

Of the 677 cases treated outside, 55, or about 9 per cent, had pneumonia, many of them having the disease well established when received under sanitarium care. These 55 persons outside compose about 6 per cent of all the cases treated. Of these 55 cases of pneumonia treated as out-patients 26 died. That is, approximately 4 per cent of influenza cases treated outside died, and these constituted 2.37 per cent of the entire number treated.

Of the entire 1,123 influenza patients treated, 11, or 1 per cent, of those who had been under sanitarium care from the beginning of the disease, had pneumonia, and 6 cases, or 1-2 per cent, died of pneumonia and other complications. All out-patients received the same treatment as in-patients, as far as possible. This speaks well for the sanitarium system of treatment and care.

The principal merit, as far as treatment was concerned, was placed in careful nursing and hydrotherapeutic remedies.

W. A. RUBLE, M. D.

UNDERNUTRITION OR OVERNUTRITION, WHICH?

OF late years much has been written regarding the undernutrition of the school child, and probably with good foundation. Not that there are very many who fail to eat a sufficient quantity (reference is now made to America, not to the war-stricken zones of Europe), but there are many who are undernourished on iron (and hence are anemic), or on lime (and hence are rachitic), or on some other one or more ingredients of the food, owing to the fact that the foods are bought by bulk rather than by food value. Cereals are valuable foods. They are cheap. They furnish an abundance of energy to the body, and a fair amount of protein, but they are seriously lacking in some of the minerals; and those who live too largely on cereals, or on cereals and meat, will fail to get a sufficiency of certain of the minerals.

But while we recognize the danger of undernutrition, we should not forget a more serious danger, that of overnutrition, for adults. We give herewith some tables computed by life-insurance men which show in a striking way that if a man desires long life he had better be a little underweight than a little overweight. And when we come down to the last analysis, every man (barring serious illness) determines what he shall weigh by the quantity of food he eats and by the amount of physical exercise he takes. This means, then, that if a man is wise, he will so restrain his eating that he will keep his weight well under what is known as the "average." But in doing this, he should be certain that in cutting down his car-

QUESTIONS AND ANSWERS

Conducted by J. W. Hopkins, M. D., Washington (D. C.) Sanitarium

This is a service for subscribers to LIFE AND HEALTH.

If a personal reply is desired, inclose a three-cent stamp.

If you are not already a subscriber, send also the subscription price with your question.

Replies not considered of general interest are not published; so if your query is not accompanied by return postage for a personal answer, it may receive no attention whatever.

Remember that it is not the purpose of this service to attempt to treat serious diseases by mail. Those who are sick need the personal examination and attention of a physician.

State your questions as briefly as possible, consistent with clearness, and on a sheet separate from all business matters. Otherwise they may be overlooked.

For prompt attention, questions should be addressed to J. W. Hopkins, M. D., Takoma Park, D. C.

Pierce's Remedies—Albuminized Iron—General Tonic

"1. Are Dr. R. V. Pierce's medicines recognized as reliable? His institution is at Buffalo, N. Y. 2. Is 'Albuminized Iron' good for an anemic condition of the blood? 3. What is a good general tonic for nervousness and anemic conditions?"

1. We do not consider this institution and work to be reliable.

2. Albuminized Iron is advertised as being good for anemia, but fully as good results may be obtained from medicinal iron by the use of Bland's Pills, in two- to five-grain doses, after meals daily. The treatment is of little avail, however, unless the diet is enriched with foods which contain an abundance of iron. Medicinal iron acts as an iron sparer in the intestines, preventing the combination of and destruction of organic iron. The condition of the intestines should also be attended to, and putrefaction and fermentation controlled as much as possible.

3. The best tonics for nervousness and anemia are systematized rest; proper feeding; fresh air, especially during sleeping hours; good food, particularly avoiding the use of flesh foods, coffee, tea, and condiments. A vegetarian diet is the best. We do not encourage the use of drugs, as better results can be obtained from the above-mentioned hygienic measures, with carefully regulated and graduated therapeutic treatments, as shower and spray baths, massage, etc. The cause of the nervousness and anemia should be ascertained before adopting any of these methods. A person who is anemic because of a weak heart should endeavor to have the heart's action strengthened. The same is true of other conditions, the cause should be removed.

After-effects of Influenza

"I am underweight following influenza. For five years have had acid stomach and gas which interferes with my heart. This and constipation, alternating with diarrhea, are worse since the influenza."

Your immediate trouble is the after-effects of the influenza. It will be several months before you are completely well and cured, as this is a serious disease. You are also suffering from constipation; although you have diarrhea at times, it is brought on by the irritation due to the constipation.

You should secure at least two movements of the bowels daily. To do this, you should edu-

cate yourself to a regular habit for the movements, then adopt a laxative dietary, using bulky foods, bran, and agar. Take a tablespoonful or two of mineral oil night and morning. Massage the abdomen thoroughly at night, and if you do not secure the movement otherwise, take a tepid enema, followed by a small cool enema, each night. You will find instruction for avoiding flatulence on pages 157 and 378 of the 1918 volume of LIFE AND HEALTH. If you will take care of the constipation and flatulence, the diarrhea will cease; acute attacks may be relieved by a hot enema.

The treatment for the constipation will probably cure the acid stomach. Persons with acid stomach will receive benefit from the use of fats, as these lessen the secretion of acid. Take butter, cream, milk, ice cream, hard-boiled yolk of eggs, ripe olives, olive oil, Brazil nuts, filberts, pecans, pine nuts, peanuts. Toasted flake foods and zwieback are valuable, as they may be moistened and eaten without much mastication. The more the food is masticated, the more acid is produced; consequently, a person with hyperpepsia should not chew the food so thoroughly as the person with normal or low acidity.

Protein foods are indicated, as they combine with the acid of the stomach, but should not be used too freely, as they stimulate the secretion of more acid. Such are cottage cheese, gluten mush, white of egg, buttermilk, milk, peas, beans, lentils, nuts, eggnog. Frozen foods, as frozen malted milk or ice cream, are especially indicated in ulcer of the stomach or bowel with hyperacidity. The same is true with liquid foods as rice and gluten gruels, potato soup, lentil soup, eggnog, etc.

To increase your weight, you should take plenty of rest daily. Retire early and secure sufficient rest after each meal. Give yourself a vacation every week, and use the Sabbath day for rest and worship. See if you cannot eliminate some unnecessary travel and running around. In other words, endeavor to lay up a reserve of strength and energy.

The following foods used freely with other articles of diet will be of greatest service in making a rapid gain in weight: Cereals, flakes, rice, malted milk, malted nuts, hard-boiled egg yolks, potatoes, yogurt, or artificial buttermilk made from whole milk, fresh vegetables and fresh fruits, honey in moderation.

The following foods build up the blood, and help to bring the condition of the stomach to

normal: Soups and purées of beans, peas, and lentils; sterilized cream and butter; spinach, egg yolks, eggs (jellied or curdled); malted nuts and malted milk, celery, lettuce, gluten gruel or mush, potatoes, tomatoes, protose, nuttolene, yogurt, buttermilk. All foods rich in fat, as butter, olives, nuts, corn, oats, cream, ice cream, are fattening foods, but in using them the condition of the stomach must be considered. The digestion must not be deranged, otherwise the desired results will not be obtained. Foods rich in starch, as cereals; foods rich in sugar, as sweet fruits, malt, etc.; iron-containing foods, as oranges and tomatoes, are also fattening.

Mushrooms — Brain Food

"1. Of what is the mushroom composed? Is it good to eat? 2. What constitutes a brain food,—a food that will build brain cells? or what food is best for a mental worker?"

1. Mushrooms are discussed on page 250 of "Diet and Dietetics," by Gautier. They are said to contain from 90 per cent to 92 per cent of water, excepting one variety—truffles—which contain about 72 per cent water. The food principles are nitrogenous materials which are hard to digest, and are not properly assimilated. There are also some fatty materials present in mushrooms, with some carbohydrates, in the way of gums, starches, sugars, dextrin, and mannite. Lorand, in his "Health Through Rational Diet," pages 241 and 242, says that mushrooms are valuable to give bulk to the diet, as "when eaten alone, they are, as a general thing, very indigestible, this being due to the fact that most of them contain a large amount of cellulose." Of the protein material, only a part can be assimilated. He cautions us that even the edible varieties may be poisonous, as they rapidly decompose when kept any length of time. Mushrooms are, therefore, most valuable for flavoring, and to increase the bulk of the food, as in diabetes and constipation.

2. Brain food is best found in a vegetarian diet. Flesh foods clog the system, and the poisons produced by the decomposition of flesh retard the brain processes, making the mental action very sluggish. A brain worker should take only about three fifths of the amount of food required by a man doing ordinary physical work, and his diet should contain many green vegetables, ripe cereals well cooked, legumes, ripe or well-cooked fruits, nuts in moderate amounts as part of the bill of fare but not as dessert, and ripe vegetables, as potatoes, carrots, parsnips, etc.

Rheumatism

"My neighbor had malaria from the time she was eleven years old until she was forty, and now at fifty she has chronic articular rheumatism. What treatment do you advise? Will the juice of half a lemon in water in the morning be beneficial? Do you recommend baking soda and cream of tartar in her case?"

Fomentations to the painful parts, once or twice daily or several times a week, will give

good results. She should abstain wholly from flesh foods of all kinds, and from tea and coffee. A condition of that sort requires the careful supervision of a conscientious physician, and is not benefited by much medicine. Lemon juice taken in the morning is beneficial and helpful, but the use of baking soda and cream of tartar is apt to be harmful if long continued, as they generally are in these cases.

In most cases of chronic articular rheumatism with deformity, the best that can be done is to quiet the pain and make the patient comfortable, but occasionally there are cases that recover, and are able to walk and get around. These obtain the best results by careful attention to the condition of the bowels, and by keeping the body warm and yet being in the fresh air as much as possible. Massage, avoiding the joints, is beneficial. Baking the joints, or hot packs to them, followed by dry cotton or flannel packs, will ease the pain, reduce swelling, and help to prevent deformity.

Soreness of Chest

"I have been raising from my lungs for over seven months. Expectoration and cough have ceased for three months, but my lungs feel very sore, seem to smart and ache. Bad weather makes this worse. I run no temperature, but my cheeks are very much flushed."

The probabilities are that you have some bronchial trouble. You will get good results from the following treatments, if you combine with them a carefully regulated dietary. This diet should be wholly vegetarian; including however, eggs and milk. Eat as much food as you can take without distress or disturbance of your stomach and bowels. Take fomentations to your abdomen with a foot bath every evening. Take a warm, full bath three or four times a week. Live as much as possible in the open air, and keep plenty of fresh air in your sleeping quarters. Each morning on rising, bathe your chest and abdomen with cool water and dry them with thorough friction and rubbing. Take gentle breathing exercises for five or six minutes three or four times a day. Other exercises should be moderate. Avoid drugs.

Boils

"My husband, a hard-working, healthy man of 37, suffers with boils. Our diet is mainly vegetables and milk, no flesh foods or animal fat. Please give cause and remedy."

Cause: Lowered general resistance. Treatment: Boils may be aborted by lancing lightly and swabbing the interior carefully with pure carbolic acid. If the surrounding skin is thoroughly scrubbed with soap, rubbed with alcohol, and the pimples or spots painted with tincture of iodine, the boils may be prevented. An alcohol compress for an hour or two is also very effective. The boil may be cured by cauterizing with a red-hot knitting needle. Your physician will obtain good results by the use of Sherman's vaccine No. 22. This should be given hypodermically in doses of from 10 to 15 drops every second or third day for four doses. In many persons, boils are associated with lowered vital-