# HEALTH MAND HYGIENE

JANUARY 1937



FIFTEEN

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## **DOES SEX STOP AT 50?**

DYSENTERY AT THE WORLD'S FAIR

PYRAMIDON DESTROYS BLOOD 7

IS COD LIVER OIL NECESSARY? 41

TEAR GAS-FOR PICKETS

One-hundred Doctors write for this magazine!

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A DOCTOR writes us in a letter: "A patient of mine spent so much time in my waiting room reading back copies of HEALTH AND HYGIENE that I finally persuaded her to take a subscription to the magazine. It was not hard to sell her the idea." Many doctors are learning that a few copies of HEALTH AND HYGIENE in the office make the patient's waiting-room ordeal less irksome.

THOSE WHO KEEP their back numbers of HEALTH AND HYGIENE may be interested in a suggestion made by a subscriber from Chicago. "I purchased a loose-leaf binder with as big a ring as possible at the five-and-ten-cent store," writes this subscriber. "In order to place the magazines in the binder I punch holes in the sides of them with a paper punch. An ice pick would also do the job."

THIS HAS GIVEN US an idea. While a paper punch or an ice pick will make the holes, it has occurred to us that a number of subscribers might find it convenient if we put the magazine out with the hole already punched. We would like to hear what our readers think of such a plan, and suggest that you write and let us know your reaction, either pro or con.

A NUMBER OF our readers have received free autographed copies of Arthur Kallet's 100,000,000 Guinea Pigs and Counterfeit for sending us new subscriptions—eight subscriptions gets either book. For the next sixty days we will give a free copy of The Marriage Manual by Doctors Abraham and Hannah Stone in return for ten new subscriptions. This book, which sells for \$2.50, is a thoroughly revealing and authoritative handbook on marriage, sex relationships, birth control, and similar subjects.

THIS ISSUE CONTAINS an index of HEALTH AND HYGIENE for the period from June to December, 1936. We have had several requests for a cumulative index of all the material so far published in HEALTH AND HYGIENE. The magazine will be two years old in April, and at that time such an index will be available.

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HEALTH

Editors: CARL MALMBERG and JOHN STUART

HYGIENE

Magazine of the People's Health Education League

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#### **Editorial**:

### The "Three-Cents-A-Day" Hospital Plan

Only Benefit
To Hospitals

WE have recently read
a great deal in the
newspapers about the so-

called "Three-Cents-A-Day" plan for hospital care. This plan is a scheme devised by the Associated Hospital Service of New York, an agency representing almost 200 hospitals in the vicinity of New York City, to provide limited hospital service to groups of employed persons in return for a fixed yearly payment. Bankers, lawyers, hospitals, and advertising agencies are all represented on the board of this agency and have all been extravagant in their praise of the plan. This fact alone might cause the average person to hesitate before accepting the plan.

What are the defects of the plan? In the first place, the "Three-Cents-A-Day" phrase is being used as a selling point. Actually, payment for the service is at the rate of \$10 a year for individuals, \$18 a year for husband and wife, and \$24 a year for families. Secondly, the service is offered only to those who are in good health, and people who are likely to need it most are excluded by the provision that all applicants must be under sixty-five and regularly employed. Thirdly, the service is definitely of a very limited nature. The period of hospitalization does not extend for more than twenty-one days, the fee of the attending physician or surgeon is not included, and no provision is made for special X-ray and laboratory examinations for diagnostic purposes. No care or attention is granted to mothers who have babies sooner than one year after enrollment in the plan. Subscribers who become afflicted with pulmonary tuberculosis, venereal or quarantinable diseases, or mental disorders, the very diseases which most often and most imperatively call for hospital treatment, must look elsewhere for it.

These are the most obvious shortcomings of the plan from the point of view of the individual, but there are serious defects from a social standpoint, as well. The relative insignificance of any plan for hospitalization which excludes the chronically ill, the aged, the unemployed, the subsistence income groups, and those suffering from the more dangerous communicable diseases must be immediately apparent. The hospitals today are in the illogical position of having thousands of empty private beds while there are thousands of seriously incapacitated patients who cannot afford to occupy these beds. It may help the hospitals somewhat to devise schemes by which some of these beds can be occupied by people who can afford to pay, but such plans do not aid that large part of the population who need care most.

#### A Plan With Many Defects

THE basic way to make adequate medical and hospital care available to

the majority of people is through increasing the wages and living standards of the working population. It is significant to note that a plan such as the "Three-Cents-A-Day" system tends to do the very opposite of this. One of the provisions of the plan is that applications from individuals will not be accepted; enrollment must be by groups of employed persons, and payment of the charges is carried out by means of deductions from payrolls. In some instances, the employer pays a share of the premium, and it is well known that such "benefits" are often used as an excuse for paying an inadequate wage. Furthermore, the scheme provides employers with a means of promoting company "unionism".

The plan is one almost entirely by and for the hospitals. Finding themselves with reduced incomes as a result of the depression, they have elaborated a method of getting additional cash with practically no additional outlay. The added work entailed will be borne by the unpaid internes and the grossly underpaid and overworked nurses and maintenance staffs.

In short, we can only say that the "Three-Cents-A-Day" plan will be glad to enroll you if there is not much chance that you will require its services. If you think you are going to be sick or have a baby it is likely to be a good investment. If not, the benefits you are offered are not worth the price you will pay.

## **Pyramidon Destroys Blood**

This drug is typical of a large number of dangerous "remedies" used for the relief of menstrual and other kinds of pain. This article contains reliable evidence of its harmful effects.

In the article Bromo-Seltzer Addicts in the last number of Health and Hygiene we discussed the dangers of self-medication, especially in relation to "pain-killers." We pointed out that treating symptoms, obscuring as it does the underlying condition responsible for the symptoms, often leads to delay in the application of appropriate methods of treatment. Thus, a disease which might be cured, if properly handled in its initial stages, may progress to a serious or even fatal termination because the patient derives a false sense of security by obtaining relief from a cough, a headache, or some other danger signal.

We also indicated the hazards inherent in the use of many drugs, purely aside from the camouflaging effect. In some instances the dangers arise from over-dosage. In other cases the doses ordinarily employed in treatment produce drastic effects. While it is probably true that every drug in the pharmacopoeia may produce unfortunate results in sensitive persons, it is also true that a fairly large proportion of people who are not abnormally sensitive may react badly to some drugs. Furthermore, many drugs have a "sensitizing" effect, that is, individuals not at first particularly susceptible to the drug may become so after a period of use. When the drug in question is habit-forming to such a degree that the patient becomes utterly dependent on it, the problem naturally acquires a graver aspect.

Amidopyrine possesses the unenviable distinction of being guilty on the counts enumerated above. This drug—Pyramidon is the trade name used for it by one commercial pharmaceutical company—is, however, primarily dis-

tinguished for having greatly increased the incidence of a very fatal disease. Prior to the wide use of the drug in proprietary medicines this disease was infrequently encountered in medical practice.

This disease bears the impressive title of "agranulocytosis" or "granulocytopenia," the words simply indicating a decrease or complete disappearance of a certain group of cells in the blood stream. In the article What Blood Reveals in the April, 1936, issue of HEALTH AND HYGIENE, we described the characteristics of the various cellular elements of the blood. It will be recalled that some of the white cells, containing granules, serve to protect us from infection by destroying invading germs. When, for any reason, these cells become diseased or diminished in number, our resistance to infection is seriously impaired. If, instead of the normal count of 5,000 to 10,000 white cells, the total count is a few hundred or a thousand and the specific "granular" cells are correspondingly decreased, the patient presents a dramatic and unmistakable clinical picture. The symptoms consist of fever and extremely sore throat, with loss of tissue in the throat and the formation of a dirty gray membrane.

This disease was quite rare prior to about 1920. In discussions as to whether the increase in the incidence of the disease is due to an increased use of amidopyrine, it has been pointed out that improved technical and diagnostic methods may now enable physicians to discover cases which were formerly missed. However, as Beck points out (Archives of Internal Medicine, Vol. 52, p. 239, 1933), blood counts have been performed as a matter of routine in

most large hospitals for the past fifty years, the course of the disease is dramatic, and the frequency of fatal termination affords the opportunity for a post-mortem study of the cause of death. Beck, like other writers on the subject, is therefore firmly convinced that the disease is actually much more prevalent now than formerly, and that better diagnosis is not the explanation.

THERE has been a growing belief on the part of medical men that this increase in the incidence of the disease is due to the use of amidopyrine. Let us investigate the facts on which this belief is based.

The drug was first introduced more than a generation ago, being employed for its analgesic (pain-deadening) action. Its use, however, has been very greatly extended in the past fifteen or twenty years, in which period practically all the leading drug firms and a number of smaller organizations have exploited it, either alone or in combination with other drugs, under a great variety of names.

Madison and Squier have investigated this problem. They write (Journal of the American Medical Association, Vol. 102, p. 755, 1934) as follows: "The increase in incidence of granulocytopenia has paralleled the increase in the use of drugs containing amidopyrine, and especially those containing amidopyrine with a barbiturate. In each of fourteen patients (seen by the authors) the onset of primary granulocytopenia was directly preceded by the use of amidopyrine alone or in combination with a barbiturate." Eight of these patients died from the disease.

In the same volume of the Journal, on page 2183, we find a report of the Council on Pharmacy and Chemistry. It is the function of this body to determine both the efficacy and the safety of various drugs. After reporting twenty deaths among patients taking amidopyrine and developing granulocytopenia, the report states: "There can be no question that amidopyrine is very important in the production of granulocytopenia." This report lists the trade names of a number of products containing amidopyrine: Allonal, Peralga, Hexin, Amidol, Cibalgine, Pyraminal, Neonal, and others. It is of interest to note that as early as 1912 the Journal warned against the use of Midol because it contained amidopyrine (Vol. 59, p. 461).

A discussion of this subject by Hansen and Holton appears in a leading English medical journal (Lancet, Vol. 2, p. 1342, 1935). In reviewing the relationship between amidopyrine and agranulocytosis, they write: "These observations have given rise to a long series of communications from America, Holland, and Scandinavia, and it has been shown that a large proportion of agranulocytosis patients have taken amidopyrine or medicine containing it." They stress the development of hyper-sensitivity after continued use of the drug, and report their own observations on the dangers inherent in amidopyrine.

In the same number of Lancet is another article on the problem. Hewlett reports the case of a sixty-year-old man who was accustomed to taking amidopyrine "when he felt a cold coming on". The tablets contained only one and one-third grains of amidopyrine, a relatively small dose. He became acutely ill and was admitted to the hospital where examination of the blood revealed the typical picture of granulocytopenia.

Before accepting this cause and effect relationship between the use of amidopyrine and the development of agranulocytosis, Plum attacked the problem in a different manner. In Lancet (Vol. 1, p. 14, 1935) he reports actual tests in which investigators have experimentally administered amidopyrine to patients and then counted the number of white blood cells at frequent intervals during the next few-days. He conducted his own experiments, giving three grains, and finding that there was a prompt and sharp drop in the number of white blood cells, with the appearance of symptoms of the disease. He writes: "Even a single small dose of amidopyrine may have a very strong and protracted reducing effect on the white blood cell count." Also: "In the great majority of observed cases (of agranulocytosis) it is produced by amidopyrine." He then reviews the medical literature on the subject, reporting 128 such cases occurring after ordinary doses of amidopyrine between May, 1933, and December, 1934. Seventy of these cases ended fatally. He himself observed seven cases, six of which were fatal.

A DRUG so dangerous will naturally attract people desiring to commit suicide. One such death from Allonal, which contains amidopyrine, is reported in the Journal of the Michigan State Medical Society (Vol. 31, p. 395, 1932). Four other suicides are reported in the German periodical Sammlung von Vergiftungs-

falle (Vol. 2, p. 111, 1931, and Vol. 3, p. 133, 1932).

An interesting case of agranulocytosis is described in the Journal of the Tennessee State Medical Association, (Vol. 27, p. 283, 1934). A fifty-year-old woman took both Allonal and Pyramidon for the relief of asthma. Though it was ascertained that in the four or five days preceding the acute onset of her illness she had taken only eleven capsules—certainly not an excessive amount of the drug—she developed weakness, fever, and widespread pains. One side of her body became paralyzed, her skin came off in huge sheets, and she died three days after admission to the hospital.

A variety of complications is also reported by Foster and Douglas in Lancet (Vol. 2, p. 1461, 1935. A forty-eight-year old woman had been accustomed to taking Novalgin (containing amidopyrine) for the relief of arthritic pain. The authors stress the fact that she took only ordinary doses. She became gravely ill with fever, delirium, jaundice, and many abscesses. For months she hovered between life and death, though she eventually recovered.

Another case is described by Becket in the Journal of the American Medical Association (Vol. 59, p. 1289, 1912). After taking Midol for the relief of pain, the following complications appeared: "The lower lip was enormously swollen and edematous, rendering speech difficult. There was an extensive eruption on the face, chest, and back." On stopping the use of Midol the condition promptly improved.

E could multiply these reports indefinitely, as we have by no means exhausted the medical literature on the subject. All writers agree on the hazards of amidopyrine. Yet we find dozens of different preparations on the market which contain amidopyrine in important quantities. Among the most common uses of these products is the relief of pain associated with menstruation.

Adequate legislation to protect the public against these dangerous products has been repeatedly rejected or emasculated by the legislators who have had such legislation submitted to them. The reason is not difficult to understand: threaten his profits, and the manufacturer of proprietary drugs and medicines reacts in exactly the same way as the manufacturer of any other commercial product. As long as small minority groups with money to spend for



## The 8th WOMAN

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"She is apt to be the eighth woman" says this MIDOL advertisement. She is also apt to be one of the many women who contract the deadly disease, agranulocytosis, by using Midol and similar drugs.

advertising and legislative lobbying can control the action of legislatures, the people of America will continue to be exposed to the dangers of amidopyrine and similar drugs.

Following is a list of some of the drugs which have been reported to contain or to have contained amidopyrine: Allonal, Amarbital, Amidol, Amido-Neonal, Amidophen, Amidos,

Aminol, Amipyron, Amita, Analgia, Antabs, Baramid, Barb-Amid, Bromphenamid, Cinchopyrine, Compral, Dymen, Dysco, Eu Med, Femalga Capsules, Gynalgos, Hexin, Kalmo, Kalms, Lydia Pinkham's Tablets, Menalgesia, Midol, Mylin, Neonal, Nod, Peralga, Phenamidol, Pyramidon, Pyraminol.

## Does Sex Stop at Fifty?

Is the so-called "change of life" really a period which women should regard with fear and apprehension? A specialist in women's problems gives an authoritative answer to the question.

ANY women in their early forties await with fear what they believe will be a dangerous period of life. They dread the coming of the menopause, or the so-called "change of life." They are afraid that this change marks the end of their womanhood, and that it means they have definitely become old. They fear that after it is over they will no longer be attractive, that they will become a "back number," tolerated but useless. They often think that following it they cannot or should not have sexual desires or sexual relations. They picture themselves as becoming fat and wrinkled. Some even believe that during the menopause many women lose their minds and go insane. These fears are widespread, but groundless.

The name "change of life" is a poor one. It implies that the woman's entire life undergoes a change at this time. Changes do occur, but the woman remains the same in many more respects than she changes.

The menopause is the time in every woman's life when her menstruation is stopping and she is losing her ability to bear children. When it is over she will no longer have menstrual periods or bear children. This is the most important change that takes place at the menopause.

From the period of adolescence, when the menses begin, until the menopause a woman's ovaries usually produce an ovule or egg each month. Besides producing this egg, the ovary gives off a secretion which acts upon the womb in such a way that its lining is prepared to receive the egg. If the egg is not fertilized, it dies, and the lining, which is no longer needed as a nest for the egg, is cast off at the end of the monthly cycle. This shedding of the lining

of the womb is menstruation. At the menopause a woman's ovaries are losing their power to produce eggs, her womb is losing its power to make nests for them, and the periods begin to disappear.

This disappearance is usually a gradual one. The periods become irregular and are often skipped. The first skipped period may be followed by a few regular ones until the omission occurs again. Sometimes the omissions may extend over a few months, with a subsequent return of the periods. Gradually the periods become rarer and the intervals longer, until finally the periods stop entirely. The entire process often extends over a year or two, and sometimes longer.

At times during the menopause the bleeding becomes frequent and profuse. Such excessive bleeding always requires investigation. While it is not usually an indication of anything serious, it may require medical or surgical attention. It may be due to a fibroid tumor and sometimes it may even be caused by cancer. For this reason any marked bleeding, at this or any other time, calls for medical attention.

The age at which the menopause occurs varies greatly. In about fifty per cent of women it comes between 45 and 50. In most of the others it comes between 40 and 45 or between 40 and 55. However, some women may stop menstruating in their thirties, while others may continue until an advanced age.

AMONG the more striking symptoms of the menopause are the hot flushes and the sweats. These usually come on during the menstrual irregularity, but sometimes they occur only when the menses have already stopped. Like other menopausal symptoms they differ greatly in different women. Sometimes they are very mild and may hardly be noticed. Usually they are rather annoying, but not at all serious. Occasionally they are quite distressing, occurring from twenty to thirty times a day. If this is the case women are likely to become alarmed over them, but there is really no cause for worry.

During the flushes the face and upper part of the body become quite red and the woman feels warm. During or after the flushes there may be profuse sweating. It is believed that the flushes are caused by an excessive secretion from the pituitary gland. Ordinarily the secretion from the ovaries retards the production of the secretion from the pituitary gland, but during the menopause the ovaries are losing their function, and since the pituitary gland is no longer retarded it pours out its secretion more freely.

These symptoms can be controlled in a majority of cases by giving the woman injections of estrin, the female sex hormone secretion which the ovaries are no longer making. Unfortunately, these injections are expensive, and are available, not to the women who need them most, but to those who can afford them. These injections, when given in sufficiently large quantities, usually give prompt relief from the hot flushes and sweats, but the relief is temporary, lasting only as long as the treatment continues. As soon as the injections are stopped the flushes return, until they finally disappear of themselves. Recently a product has been developed which can be taken by mouth, and which seems to give the same good results as the injections. This way of taking the product, while more convenient, requires much larger doses, and the expense for the medicine rises accordingly. These substances, intended either for injection or administration by mouth, are a recent development, and should not be confused with the pills of dried ovarian tissue which were formerly prescribed to women. It has been clearly shown that taking ovarian tissue by mouth is totally without effect.

ASIDE from the fact that the flushes vary greatly in frequency and severity, women differ a good deal in their reaction to them. Many women, realizing that the discomfort is temporary and perfectly normal, try to take them as calmly as possible. Nervous women at times become very worried over them, and

sometimes become very self-conscious out of fear that other people will notice the flushes. The sweats which accompany or follow the flushes may be just as annoying as the flushes themselves, and sometimes even more so. They have some tendency to lower the resistance to head colds, particularly if the woman is exposed to cold or draughts during the sweats. For this reason the usual precautions against exposure to cold and draughts must be followed carefully. Along with the flushes some women tend to have headaches, dizzy spells, and pains in the joints.

Certain physical changes also take place during the menopause. As the ovaries gradually diminish in size and lose their power of secretion, the sexual parts tend to become smaller. The womb shrinks, reaching half its former size or less, and the breasts become flabbier. Stout women tend to put on weight, especially around the hips and abdomen. Thin women are less likely to put on weight at this time. The reason for the gain in weight is not fully understood. At one time it was believed that the increase was due to a lessening of the activity of the thyroid gland. The thyroid gland makes the secretion which determines the rate at which food is burned in the body as fuel. If the thyroid is less active, food will be burned more slowly in the body and fat will accumulate. However, recent studies indicate that the thyroid does not become less active at this time. Many doctors think that the gain in weight is due chiefly to the fact that the woman usually engages in less activity as she grows older. In any case, sensible dieting can easily control the tendency to stoutness.

Sometimes the gain in weight during the menopause occurs particularly around the abdomen, and this fact, added to the omission of the menstrual period sometimes leads a woman to believe that she has become pregnant. On the other hand, pregnancies do sometimes occur at this time. Women who have previously used birth control devices may discard them during the menopause, thinking they can no longer become pregnant, and consequently get "caught." Only when the menopause is definitely over and the menses have finally ceased, is it safe to stop using birth control measures if pregnancy is to be avoided.

THERE is nothing about the symptoms of the menopause, troublesome as they may be, that should make women especially nervous at this time. Yet many women are very frightened at the thought that the menopause is coming, and when it arrives they are alarmed at every symptom, worry over it, and often become restless and irritable. Any illness or trouble that comes to a woman during this stage of her life is likely to be blamed on the menopause. Of course, a woman who is undergoing the menopause still has the same chance of developing illness as any other woman, but too often mere coincidence is interpreted as cause and effect. If a woman gets pneumonia at this time the menopause is blamed, and in this way it has become the scapegoat for many ills that have nothing to do with it.

The fear that women have of the menopause is closely related to their position in society. Regarded as inferior to men, with many avenues of self-expression shut off to them, women are forced to gain their position in life through their ability to get and hold a husband. Sex and child-bearing become the chief means by which they can assert themselves and achieve a status in the community. The unmarried woman is likely to be looked upon as a failure, and the married woman must hold her husband's affection or become a failure, too.

The menopause is the sign that a woman is losing her ability to have babies, and she often interprets this as the loss of her sexuality. Since she is denied other outlets in life, this threat of the loss of her sexual position is accompanied by the fear that she is becoming a useless individual. For a more detailed account of the effect of woman's position in society on her sexual problems the reader should consult the article A Sexual Problem of Women in the June, 1936, issue of HEALTH AND HYGIENE.

THE ovaries are not the seat of sexual desire. Women who are past the menopause can still have sexual desires, and can still enjoy sexual relations. In fact, when all danger of pregnancy is over, some women, who have previously responded little to sexual relations because of fear of pregnancy, become more responsive. There is no reason for the woman past the menopause to be ashamed of her sexual desires.

On the other hand, some women who arrive at the menopause seem to develop an exaggerated craving for sexual relations which their husbands cannot satisfy. Such exaggerated sexual urges are a reaction to the fear of loss of sexuality and the consequent feeling of unimportance, and are a means of expressing a need for reassurance and affection. In such cases kindness, special consideration, and little attentions from the husband may give the woman the reassurance she craves, and her sexual demands will then tend to become more moderate.

Artificial menopause is sometimes brought about by surgical operation in women whose ovaries have been involved by tumor formations or abscesses. In such cases it may be necessary to remove both ovaries completely, and if this is done the woman will undergo the menopause. even though she is only twenty-five or thirty years old. She will also experience the same symptoms as those which take place when the menopause occurs at the usual age. Sometimes. when the menopause is brought about artificially at an early age, the symptoms may be more troublesome than when it occurs normally at a later time. However, in such cases the woman need not consider herself "unsexed" or have any more fear of the menopause than if it occurred at a normal age. It is still a perfectly normal process, even though it was induced by abnormal means. Usually, the symptoms manifest themselves more abruptly when the menopause is artificially induced.

The menopause is also sometimes brought about artificially by treating diseases of the womb such as cancer or fibroid tumors with X-rays or radium. In such cases the X-rays or radium destroy the ovarian tissues so that the female sex hormone which the ovaries secrete can no longer be produced.

Everything we have said about the management of normal menopausal symptoms applies as well to the symptoms of artificial menopause.

Women who have interests in addition to their homes and who are treated as equals by their husbands, will be less likely to be upset by the menopause. From infancy on, we all crave affection and recognition. To the woman the menopause appears as a threat to her ability to achieve these things. Our society fosters these fears by not according her full status as a human being. In so far as she can overcome this on an individual basis she will be better able to cope with her loss. It must be emphasized that the menopause is not an abnormal condition, not a disease. It is a normal experience in the life of every woman, and is not fraught with great dangers. A proper attitude on the part of the woman may not alter the discomfort, but will rid it of imaginary terrors.

JANUARY, 1937

# Dysentery at the World's Fair

Uncovering the shocking story of what went on "behind the scenes" at Chicago's 1933 exposition. Many have died and others still harbor the germs acquired in this hushed-up epidemic.

HICAGO, 1933. The city which a few years ago could not pay its employees is now enjoying "prosperity," or, at least so its business men hasten to assure the country. The city on Lake Michigan is celebrating its hundredth birthday with a bigger and better exposition—the "Century of Progress"— in which college students give evidence of the march of progress by acting as coolies and drawing rickshaws. Further evidence of progress is brought into sharp relief when people who have visited the city fall ill after returning home, and some of them die. These illnesses and deaths focus the attention of health authorities on a problem which most physicians, until this time, have thought peculiar to tropical countries—amebic dysentery.

What is dysentery? Dysentery is a disease of the large intestine characterized by frequent passage of bloody stools, fever, and general prostration. It may be caused by bacilli (germs of a lower order) or by amebae (germs of a higher order). Bacillary dysentery is a common epidemic disease. An outbreak of it occurred in Jersey City in 1934 when the germs were probably transmitted by infected water or milk. Bacillary dysentery comes suddenly to persons who have frequently felt perfectly well. It is now successfully treated with bacteriophage, a substance which disolves specific bacteria or germs.

Amebic dysentery, sometimes complicated by amebic abscesses in the liver, lungs, or brain, appears, on the other hand, only after a period of abdominal pain, general body aches and indisposition. It is caused by the *endamoeba histolytica* (tissue-dissolving ameba), an appro-

priate name since the ameba gets into the intestinal wall by dissolving the lining membrane of the intestine. The amebae, although several times the size of a red blood cell, are so small that a thousand of them lying together in a straight line would not measure more than one inch.

Those who are suffering from amebic dysentery are continually expelling amebae in their stools. These amebae may die five to ten minutes after reaching the outside air, and are relatively harmless because they are killed by the stomach acids of persons who might later come in contact with them. Far more dangerous is the passage of encysted amebae, that is, amebae surrounded by a shell-like covering. Encysted amebae may live for much longer periods outside the body, and when they are transmitted to other people they lose their shells and begin to burrow into the intestinal walls. Persons who pass encysted amebae, although not suffering from amebic dysentery, are nevertheless infected by the amebae, and are said to have "amebiasis," or amebic infestation. Such persons are frequently constipated, underweight, often suffer with persistent headaches, and have occasional attacks of bloodless diarrhea when non-encysted amebae are passed. There are 6,000,000 to 12,000,000 cases of amebiasis in the United States, most of them undetected. Of 154 students at the University of California in 1924, more than fifty per cent had amebiasis. Several years ago at the Army Medical School 189 medical officers were examined, and although none had ever been outside the United States amebic infestation was diagnosed in one out of every eight.

THE encysted amebae which cause amebiasis are frequently carried unchanged in the intestine of the common fly for as long as two days, and the droppings of the infected fly may easily contaminate food and drink. An amebic dysentery epidemic was caused in this way among the soldiers at El Paso, Texas, in 1916.

In the tropics, as well as in the Orient and other places where human excrement is used as garden fertilizer, vegetables, eaten uncooked, are a common source of infection. In more highly industrialized countries such as our own, where food is prepared and eaten outside the home, infected food handlers in hotels, restaurants, cafeterias, lunch counters, and roadside refreshments stands may spread the disease by failure to cleanse their hands after going to the toilet. Among the great number of food handlers in this country there are,

of course, many who belong to the five or ten per cent of the population who have amebiasis.

A dysentery ameba enlarged 2,000 times.

WBC: a white blood cell surrounded by the

ameba; RBC: a red blood cell; N: nucleus

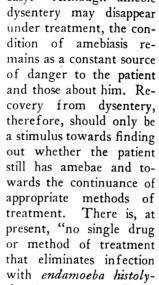
or kernel of the ameba. (After Craig)

In rural communities or wherever the water supply is improperly supervised, infection by means of contaminated water is common. In one Tennessee community thirty-eight per cent of the people had amebae in their stools. Repeated experiments have shown that encysted amebae may remain alive in water for several weeks, a fact which accounts for the prohibition of picnicking along the shores of water reservoirs. The chlorine gas which is put into the water as it leaves the reservoirs to enter the mains, though it kills other germs, has no effect on amebae in the concentration of gas used. If enough chlorine were used to kill amebae, the water would be rendered undrinkable.

How are the amebae detected? Samples of freshly passed stools are immediately examined under the microscope by physicians and technicians experienced in recognizing the endamoeba histolytica. Many of us have other amebae in our intestines which, although not harmful, look to the inexperienced eye like the dysentery amebae. Growing the germs in the suspected material on proper substances in the

laboratory further reduces the probability of overlooking amebae if they are present. A blood test similar to the Wassermann test used in syphilis is of aid if carefully done. Several stool examinations are necessary before amebae can be found.

The treatment of amebiasis is not always easy. Although amebic



mains as a constant source of danger to the patient and those about him. Recovery from dysentery, therefore, should only be a stimulus towards finding out whether the patient still has amebae and towards the continuance of appropriate methods of treatment. There is, at present, "no single drug or method of treatment that eliminates infection with endamoeba histolytica in every case," although a number of drugs

may be used in the course of treatment. Patients suffering with amebiasis need not stay in bed, but those with diarrhea or dysentery should receive bed treatment, including nursing care and special diet. Amebic liver and lung abscesses are treated by sucking out the pus with syringe and needle, although if the condition is diagnosed early enough drug treatment may prevent growth of the abscesses and make surgery unnecessary. In the case of brain abscesses the outlook is generally hopeless.

IX/ITH the disease so widespread, so dangerous, and yet so generally unknown, the Chicago epidemic of 1933 came as a shock to laymen and physicians alike. Much was at stake socially, politically, and economically, and accusations were made against the Chicago civil and medical authorities for failing to meet the situation properly. The story should now be retold, exposing the true picture of political rivalry, economic greed, and good intentions badly bungled.

Prior to August, 1933, Chicago, like New York State, reported one or two cases of amebic dysentery each month to the Board of Health. On August 15, 1933, two hospitals each reported a case. Routine investigation revealed that both patients had eaten at the same hotel, the Congress.

It is worth noting that the published reports. almost without exception, and even while cases of dysentery were being reported daily, failed to mention the hotels concerned, the Congress and its smaller annex, the Auditorium. They are referred to as hotels "X" and "Z" or "A" and "B" in the stories appearing in the Journal of the American Medical Association as well as in the recent Bulletin of the National Institute of Health (No. 166) of the United States Public Health Service, which is devoted to the Chicago outbreak.

From August 17 to 30 a temporary laboratory was set up in the Congress Hotel to examine the stools of all food handlers. Twenty-five employees, or seven per cent of the total number, were found to have amebiasis and were excluded from further work with food. By this time several more cases had been reported. It was hoped that the removal of the infected food handlers would check the outbreak, but, since all known previous outbreaks of dysentery had been caused by contaminated water and flies rather than by food handlers, many workers in public health felt that the Chicago authorities were too readily turned aside from their investigations when they discovered amebiasis among the food han-

dlers. At any rate, it would have been embarrassing to the management of the Congress Hotel, an \$8,000,000 enterprise, if the story had become known, and so the general medical profession and the lay public of the city were allowed to remain ignorant of the outbreak.

During September eleven more cases were reported, and on October 9 the outbreak was described before the laboratory section of the American Public Health Association at Indianapolis. The news was broadcast as a scientific item over an NBC forum and was included in the

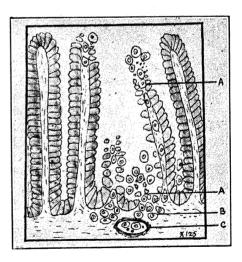
convention's press release. Only a single Indianapolis paper printed the story. The Chicago papers remained silent, for reasons best known to themselves and their advertisers, the boosters of the Century of Progress exposition. While in Indianapolis, a Chicago health official was asked to see patients of a friend, and he immediately diagnosed the cases as amebic dysentery. Every one of those afflicted had been visitors at the Chicago hotel. This was in October, and ten more severe cases had already been reported.

N October 25 a resurvey of employees of the Congress Hotel was begun, and a few days later a similar check-up was undertaken at the Auditorium. This time the study included non-food-handlers, and dangerous conditions were also disclosed among them. Of the 1,247 Congress workers examined, 471, or thirty-eight per cent, had amebae in their stools, while in the Auditorium Hotel 131 out of 276, or forty-seven and one-half per cent, were infected.

By this time it was clear that drastic action was necessary. On October 27 the authorities began to mail questionnaires to 24,000 individuals who had stayed at the hotels from June to early November, inquiring into the subsequent

state of their health and the presence of any probable dysentery symptoms. Although the answers came in slowly, the information given revealed a truly alarming situation. Telephone and telegraph communication was established with the doctors attending those who had fallen ill after visiting the hotels, and methods of combatting the disease were suggested to them.

The exposition ended on November 12, and five days later the Journal of the American Medical Association published the news of the epidemic, as well as suggestions for diagnosis and treatment. In the same issue the



The intestinal wall enlarged 125 times, showing the amebae digesting the tissues of the wall (A), gaining entrance into the deep parts of the wall (B), and already in a blood vessel (C). (Drawing after Faust)

Journal also printed the paper presented at the September convention of the American Public Health Association in Indianapolis. The fact that the Journal of the American Medical Association did not publish the story until the exposition was over has given rise to the belief that the publication was deliberately postponed. However, evidence gathered from several sources gives no positive proof of this.

Another survey, undertaken on November 15, showed that the control of food handlers had not checked the spread of infection. It was now clear that food, thus far considered the source of contamination, was not responsible for the epidemic. This was especially evident since the answers to the questionnaires mailed to nearly 10,000 registered guests of the Congress and Auditorium Hotels showed that 256, or two and one-half per cent, had amebic dysentery, while only three, or one-fifth of one per cent, of the 12,400 guests of other hotels had the disease. Finally, the water supply of both suspected hotels was examined, and a shocking state of affairs was revealed behind the glittering marble and expensive furnishings in the "front of the house."

In THE basement of the Congress Hotel a sewer pipe was discovered directly over the large tank in which drinking water was cooled before being circulated through the building. When certain connections were removed years before, a hole in the sewer pipe had been plugged with a piece of wood which was now half rotted. As a result, sewage, contaminated by amebae, was dripping into the ice water beneath at the rate of a gallon every five minutes.

But drinking water was also being infected in another way. Although cross connections between drinking-water pipes and sewer pipes are forbidden by law in Chicago, as well as almost everywhere else, there was a pipe connecting the sewage and water mains of the hotel. After being used to cool the condensors of the refrigerating system of the Congress Hotel, water was circulated for drinking purposes in the rooms above the second floors of both the Congress and Auditorium. During the exposition, the condensors required more water because of the large number of guests, and, consequently, a greater volume of water than usual flowed into the water pipe and past the connection with the sewer pipe. As a result, a positive "head" was created, causing the sewage to run into the water pipe instead of

water into the sewer pipe. Moreover, since there had been several recent heavy rains, there was probably a backflow of sewage into the water lines because of the inability of the sewer pipe to take care of the added load. The problem could have been solved by avoiding the overloading of the refrigerator condensor line, but that would have meant a reduction in the supply of ice cubes, the number of air conditioning units in operation, and, in short, a loss of business for both hotels. The guests got their cooled air, their ice cubes, and—amebic dysentery.

How many people contracted amebic dysentery in this way? We will never know the real number since years may clapse before dysentery appears in those infected with amebiasis. Of the 54,000 transient guests who were registered at the Congress Hotel from June to December, 1933, 585 were reported as having amebic dysentery, and out of the 31,000 registered at the Auditorium, 162 cases were reported. A total number of 1,200 is recorded by the Bulletin of the National Institute of Health. The toll was heaviest among visitors from larger cities who could afford to pay the rates charged by the fashionable hotels, and almost twenty-five per cent of the families affected had more than one case. Seven per cent of the patients died, and in these cases cancer of the rectum was usually listed erroneously as the cause of death. Because the onslaught of the disease was often characterized by fever and severe pain in the abdomen, many cases were diagnosed as acute appendicitis. In such cases forty per cent of the patients who underwent operation died. One New York City hospital recorded eighteen cases of amebic dysentery between July, 1933, and April, 1936. One man was infected by a Puerto Rican cook in his own home. Others got the infection in such widely separated places as Mexico, Virginia, Maryland, Egypt, West Africa, and India. Seven of the eighteen patients apparently acquired the amebae in Chicago in 1933, falling ill with dysentery three weeks to one year later. One person out of the eighteen died. Most of the seven patients who acquired the disease in Chicago stayed at the Congress Hotel all the time they were in the city, while some had only one or two meals there.

POLITICS played a considerable part in the attempts to place responsibility for the epidemic. Dr. Herman N. Bundesen, President

of the Chicago Board of Health is an outstanding example of a physician turned machine politician. A Republican at first, he later became a Democrat, but in both roles he has kept the mayoralty or the governorship in view. In 1931 Tony (Ten Per Cent) Cermak kept him from getting the mayor's job and then appointed him head of the health department. In spite of his official position, Bundesen continued to write his health column for a Chicago newspaper, to endorse commercial products, and to appear on radio programs for food and drug commodities, not all of which are accepted by the medical profession.

Among the worst of Bundesen's acts was the failure to present a revision of the plumbing code to the city council. The proposed new code was prepared by a number of civic and engineering societies, and represented a great advance over the old law. Bundesen also discharged the head of the plumbing inspection bureau who, during twenty-two years of service, had become familiar with every nook and cranny of Chicago's business district. For about the same length of time all cellars where food was prepared or stored had been submitted to a routine examination after rains, and any food found to be contaminated was destroyed. Bundesen put a stop to this precautionary measure. He later admitted that he did not know that the heavy rains in June and July, 1933, had caused a backflow of sewage, although in one hotel a hole eight by ten feet was made. In February, 1934, the Chicago Medical Society adopted a report criticizing Dr. Bun-

desen and stating that it is "good public health practice but poor politics to make frequent inspections. . . ." The Medical Society also suggested that the \$30,000 spent on telephone calls to trace victims might have been better applied to publicity and control early in the outbreak.

The real blame for the 1933 epidemic of dysentery must be placed upon an inadequate public health service-inadequate because our nation permits public health to be sacrificed in order that private profits may be safeguarded. The Journal of the American Medical Association has remarked that until the plumbing in hotels is reinspected and approved there is "no warrant that similar outbreaks may not occur in any place where similar conditions crevail." One health authority recognizes that economic factors are responsible for such conditions when he says, in discussing the care of infected food handlers: "The loss of time and money by the infected individual, the loss to his employer, the cost of the numerous examinations required and of treatment . . . will always be a local question and will have to be decided upon by local facilities, both as regards trained personnel and funds." But, as we have seen, the effects of the Chicago epidemic were by no means local. A lax or corrupt health department in one locality may endanger the health of citizens elsewhere in the country. Until public health is regarded as a chief concern of our national government and not as a secondary matter, the danger of another amebic dysentery epidemic will always be with us.

#### The Medical Situation in the United States

"There are about enough doctors, nurses, and others who render or assist in rendering medical services—about a million persons all told—to take care of all sicknesses and do nearly all the preventive work for individual patients that we now know how to do. There is being spent annually by the American people enough money-about three and a half billion dollars-for doctors, nurses, medicines, and all sorts of medical services, good and bad-to purchase reasonably adequate medical care at current average prices. Yet in a year's time—even in a prosperous era—thousands upon thousands of families cannot afford to obtain any medical care; millions upon millions of cases of sickness which ought to have medical attention are unattended; less than seven per cent of the population have even a partial physical examination and less than five per cent are immunized against some disease; much preventable sickness occurs and the death rate among adults of middle age is increasing. Although medical science is still far from having solved all the mysteries of ill health, only a little of the knowledge already gained is applied to all the people using it." The late Edgar Sydenstricker, Statistician for the

United States Public Health Service.

## Food Rashes and Hives

Many people are sensitive to particular foods and drugs. An allergist explains why skin eruptions occur when sensitive individuals eat certain foods, and indicates how sensitivity may be determined.

IVES or "nettle rash," medically known as "urticaria," is a skin condition commonly seen in people of all ages and most often in the young. The so-called "strawberry rash," "tomato rash," and food rashes in general are examples of hives. The rash consists of raised, pale wheals or blotches accompanied by intense itching. These wheals closely resemble insect bites. Scratching makes them worse. They may be limited to certain parts such as the back or trunk, but are most often spread over the entire body. After persisting for different lengths of time, they disappear entirely.

With but few exceptions, hives is an allergic disease, that is, a disease due to sensitivity to certain substances which ordinarily have no effect on normal individuals. Like asthma, hay fever, and certain forms of eczema (with which hives is often associated), hives occur in persons who have an inherited tendency towards allergic diseases. (See the article *How to Relieve Asthma*, in the July, 1936, HEALTH AND HYGIENE.)

Certain foods and drugs when taken by mouth act as a trigger mechanism on those who have this inherited tendency, setting off a reaction in the skin which manifests itself as hives. This reaction is a sudden, rapid widening of the skin's smaller blood vessels, called capillaries, with the escape of serum into the skin, resulting in the pale wheals described above. Mechanical irritation of a hypersensitive skin, such as the drawing of a line on the skin with a blunt instrument, will often raise a wheal along the line of contact. One can often trace a letter, figure, or name on such a skin,

and within five or ten minutes have it boldly reproduced in wheals. This is called dermographia or skin writing.

At times the wheals spread widely, involving the tongue, the lips, the eyelids, the ears, and hands, individually or collectively. This variety of urticaria is called giant hives or angioneurotic edema.

Just as hives appear externally on the skin, they may also appear internally on the membranes and linings of the throat and larynx, and particularly on the lining of the intestinal tract. For that reason we very often find that simultaneously with the appearance of hives the patient may have additional symptoms such as nausea, with or without vomiting, and abdominal cramps which may be incorrectly attributed to gall bladder disease, ulcer of the stomach, or acute or chronic appendicitis.

WHAT are the causes of hives? Most often hives are due to foods such as eggs, milk, wheat, beef, peas, beans, and the shellfish. Strawberries and tomatoes, with which hives is commonly linked, are less frequent offenders. Any food may be the cause of hives in those who are susceptible. Drugs, too, are responsible at times; they include aspirin, quinine, phenolphathalein (found in Ex-Lax and other cathartics), amidopyrine, and dinitrophenol (recently introduced for obesity). Very rarely sudden changes in temperature to which the skin is exposed will bring on hives -taking a hot or cold shower, touching ice, or exposure to a baking lamp. This is called physical allergy, an abnormal reaction to a

physical agent. Many cases of hives are due to infected teeth, tonsils, sinuses, appendixes, and gall bladders. In some women hives appear with each menstrual period.

At times the cause may be found easily, particularly if hives occur seasonally, for then we have but to look for a seasonal addition to the diet. The cause also becomes apparent when the rash appears immediately after the ingestion of a particular drug or food. Frequently the cause is not found so easily, due to the fact that it may take hours or even days for the offending substance to cause trouble.

Since most cases of hives are due to food sensitivity, treatment hinges chiefly on finding the offending food or foods and removing them from the diet. "Skin testing" with extracts of food will frequently give a clue, but these tests are not always as helpful as they are in other allergic diseases. If skin tests are unsuccessful, "elimination diets" are used. These diets are combinations of foods which from experience are known not to be usual offenders. The doctor adds and subtracts foods from these basic diets until he finds the disturbing factor.

Another method of detecting the offending food or drug is to keep a "food diary"—an accurate record of everything ingested during the day—and by correlating, find the offender. This method is not always helpful because, as already noted, hives may break out a day or two after ingestion of a given food, which makes interpretation of the record difficult.

At times it is very difficult for the physician to determine what the cause of hives may be, since any one of a number of ingested substances may be guilty. The sufferer from this disease in its chronic form must exercise a great deal of patience while his physician is trying to determine the cause.

As an example of how difficult such an investigation can be, we relate the following case. A young woman complained of hives with swelling of the face and hands over a period of several years. These attacks would come on about once in four or six weeks, and seemingly after she had eaten a salad with mayonnaise. At times eating mayonnaise on a salad or sandwich would give no trouble, but at other times the patient would be made miserable with an outcropping of hives.

After a long and tedious routine of skin testing, in which the common ingredients of mayonnaise were included, no positive information as to the cause of the hives was obtained.

Several months later the patient came to the physician's office to tell him that the hives appeared very soon after she had eaten a chocolate candy bar upon which were some white seeds.

The physician washed the seeds from the candy bar and prepared an extract from the seeds with which he tested the patient. The patient definitely reacted to the extract, and upon questioning the candy manufacturer it was found that the seeds were of the variety known as sesame seeds.

The patient was advised to return at a time when the hives were gone. During her return visit she was given some of the same chocolate bar with the seeds to eat. Soon after, the patient experienced the same symptoms that she had when she first ate the chocolate. This proved that the patient was sensitive to the sesame seed.

Upon investigation it was found that sesame seed oil was used interchangeably with both cottonseed oil and olive oil. Since both olive oil and cottonseed oil are ingredients of mayonnaise, it can easily be seen why this patient's hives resulted from the ingestion of mayonnaise.

Cases such as this can be cited without end and are good examples of the difficulty encountered by physicians trying to find the causal relationships between the patient's hives and the food ingested.

AS for treatment of the local skin condition, the itch may be relieved by application of bicarbonate of soda made into a thin paste, or by a bicarbonate bath—one pound to the bath. Calamine lotion with 1 per cent phenol may also be tried as a local application.

Chronic cases of hives are occasionally aided by taking calcium either by mouth or by injection, preferably the latter. The calcium is said to decrease the permeability of the capillaries, and therefore prevent the hives. In severe cases of giant hives, adrenalin by injection is certain to give temporary relief.

At the onset of urticaria, it is wise to cleanse the intestinal tract by taking epsom salts—one or two tablespoons in half a glass of water, for adults. This often shortens the duration of the itch. It is best, however, to make every effort to find the cause—food, drug, physical agent, or infection—eliminate it, and thus prevent the occurrence of hives. Remember, "One man's food is another man's poison."

## TEAR GAS-IOR PICKETS

Medical studies of the effects of this weapon against labor indicate that it can cause blindness, contrary to the claims of its manufacturers. Valuable advice to pickets on emergency treatment.

HE recent LaFollette Committee congressional investigation into the status of civil liberties in and around large industrial plants has shed additional light upon the already well-known attitudes of our larger industrialists towards the basic constitutional rights of their employees.

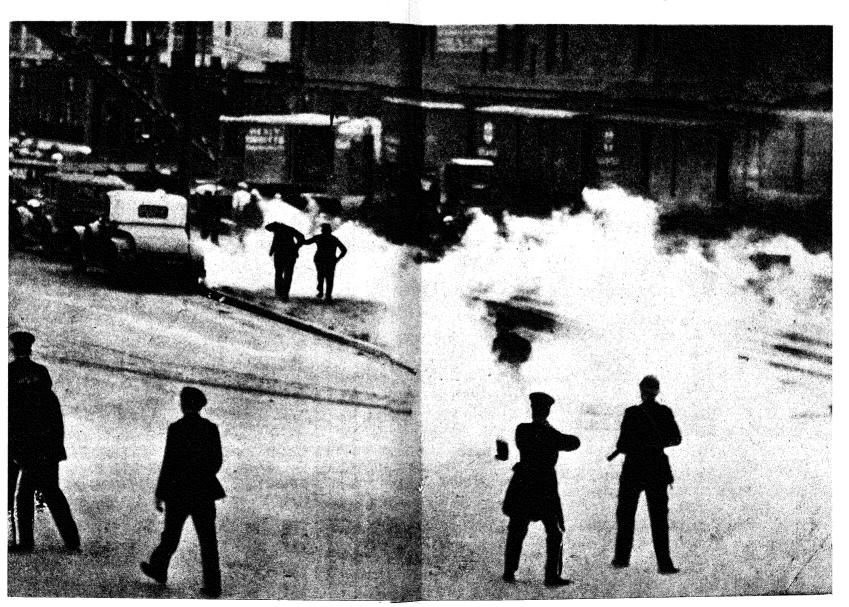
Document upon document has been presented to this committee, revealing that the steel, auto, and rubber industries are ridden with

spies; that barbed wire is considered a part of the natural scenery surrounding the plants; that thugs are transported across state lines with regularity at the first sign of protest from workers; that intimidation, coercion, and violence are the rule of the day wherever attempts are made in the direction of unionization.

Not the least important of the findings of this congressional committee is the disclosure of a boom in the business of such companies as the Federal Laboratories of Pittsburgh. These companies specialize in supplying industrialists with the tear gas, with the vomit gas, and other similar poison gases which have become, in recent years, an indispensable part of the apparatus for breaking strikes.

We will not enter into a discussion of the illegal use of these poison gases against peaceful pickets exercising their constitutional rights. What concerns us here is the truth of the statements appearing in the advertising matter of the manufacturers of tear gas, as well as of the press comments of the

Below: Police routing strikers with tear gas on the San Francisco waterfront during the general strike



industrialists who use it on their striking employees. Both stress the utter harmlessness of the gas.

Reading the descriptive folder which accompanies each tear gas shell makes one feel that this wonderful gas merely has the effect of soothing angry men, of turning them homeward, their passions dissolved in innocuous tears. It is enough to have heard the anguished cries of men and women reeling blindly under a barrage

of tear gas, to know that this substance is not as harmless as these gentlemen would have us believe.

Tear gas, chemically known as chloracetophenone. was used extensively during the World War in the early days of gas warfare. When shells loaded with this substance landed in a trench, the occupants were immediately forced to evacuate. However, since the gas did not kill, it was found necessary to perfect deadlier gases and fumes such as phosgene and mustard gas. In the development of new and deadlier gases, tear gas was lost in the shuffle.

However, it was not to be discarded for long. Its use was soon revived by those ingenious industrialists who are ever on the lookout for instruments to aid in the "peaceful" settlement of industrial disputes.

A N analysis of the effects of tear gas on the human eye and skin was recently published by Dr. William D. McNally in the Journal of the American Medical Association (Vol. 98 p. 45, 1932). Dr. McNal-

ly's cases of tear gas poisoning did not include any instance of burns acquired on the picket line. The patients whom he treated received their tear-gas ordeal in an unusual manner. During a wave of hold-ups in Chicago some years ago, it was decided to arm shopkeepers with small, specially constructed fountain pens filled with tear gas, as an aid in routing gangsters. Three curious young people, ignorant of the contents of the harmless looking fountain pens, suffered severe burns of the eyes and face when they discharged the contents of the pen into the air about them.

These patients presented themselves for treatment very soon after the accident, and it was only because of the early treatment that blindness and other serious complications were prevented. Working men on the picket line are not generally so fortunate in regard to prompt medical attention.

The patients complained of agonizing burning pain in the eyes, and on the cheeks and forehead. The skin irritation was intense, and marked by large blisters. The eyes could not be opened voluntarily and the lids were swollen and discolored. It was only with special instruments that the lids could be pried apart and the insides of the eyes examined. The eyeballs were blood-red in color, and a continuous and uncontrollable stream of tears were poured out. The delicate membranes covering the eyeballs and the insides of the lids were seared and had lost their glistening transparent quality. Of course, the patients were rendered temporarily blind. It was only with constant careful attention and treatment with special evewashes and drops that permanent blindness was prevented. Blindness lasted for a week or more, and the eye condition did not return to normal for more than one month. The burned skin of the face and forehead required its own special treatment.

Since tear gas is being used with increasing frequency in industrial disputes, Health and Hygiene feels that tear gas must be add-

ed to the list of industrial poisons, a list which is already far too long. An outline of the emergency treatment of tear-gas poisoning will perhaps serve to lessen the damage inflicted upon the eyes and skin of affected workers.

As the first step in emergency treatment, the gassed worker should get to the nearest source of tap water as soon as possible, avoiding, on the way, any rubbing of the eyes. The eyes and skin should be thoroughly bathed with the tap water, and this should be followed by instilling a solution of the following formula into the eyes with a dropper: 0.4 per cent sodium sulphite dissolved in glycerin 75 per cent and water 25 per cent. The bottle should be clearly marked: Eye solution for treatment of tear gas burns.

For the burns on the skin another solution should be applied. This consists of 4 per cent sodium sulphite dissolved in 50 per cent alcohol. This bottle should be clearly marked: Skin solution for treatment of skin burns by tear gas.

It would be advisable for picket captains to have these solutions on hand whenever tear gas has been or may be used against the pickets.

If these solutions are not on hand when needed, then repeated washings of the eyes and skin with plain water is of aid. It must be stressed, however, that this is merely emergency treatment. The care of the burns is a delicate matter, and treatment should be left to a physician, who should be consulted immediately. The solutions described above have no value in preventing tear-gas burns.

True prevention of tear-gas poisoning can come only when its barbaric use by employers and the National Guard against peaceful pickets has been outlawed. Strong, progressive unions, united in a Farmer-Labor Party, could send enough representatives to Congress to force legislation making the manufacture, distribution, or use of this poison gas a crime. Today, the worker not only needs his eyes, but needs to keep them wide open.

#### Inadequate Hospitalization

Health experts state that rural populations require a minimum of two hospital beds per 1,000 population in order to meet minimum standards of hospital treatment. In the United States, 31,000,000 people and 29,000 physicians live in areas which are seriously deficient in hospitals and health services, according to Alden B. Mills, managing editor of *The Modern Hospital*. All of these areas contain less than the minimum number of hospital beds, and in many there is less than one bed per 1,000 population.

## Is Cod Liver Oil Necessary?

Does the ordinary diet contain enough vitamins to prevent disease and insure proper growth in children? Various vitamin preparations are here discussed with regard to their effectiveness and cost.

OD liver oil is a basic food requirement of infants and children. Mothers often want to know the reason for the food value of this substance, the most economical way of purchasing cod liver oil products, and the way out of the fog of advertising propaganda for vitamin foods, vitamin skin creams, and all sorts of vitamin products.

The value of cod liver oil lies in the fact that it is rich in two important vitamins, A and D. Vitamins are substances which have been found to be indispensable to the health and growth of human beings and animals. Vitamin substances do not have food value in the sense that they supply energy or calories, but if they are absent or scarce in the diet certain characteristic diseases will develop. There are at least five different important vitamins, but we will concern ourselves only with the two found in cod liver oil, vitamin A and vitamin D.

During the World War the owners of dairy farms in Denmark found it profitable to export almost all the dairy products produced in their country, making it necessary for the Danish children to depend on vegetable fats. The result was an epidemic of blindness among Danish children. Careful study of this and other similar epidemics proved that the eye condition was caused by lack of vitamin A, which is usually supplied to children in the butter and cream that they eat. Lack of vitamin A in growing animals will also result in retarded growth. The other vitamins also affect growth, and for proper growth all the vitamins are necessary.

A great deal has been said about the role of vitamin A in avoiding infection and, in fact, this effect of the vitamin has been exploited

more than any other in the advertising claims of food and drug manufacturers. As a matter of scientific fact, however, it can only be said that there is no proof of such action. If the diet of an animal or a human being lacks vitamin A to a sufficient extent, certain changes occur in the body which predispose it to secondary infections, but this is altogether different from the claim that cod liver oil preparations will prevent colds or other infections in persons who are in good health. The claim that vitamin A in cough drops or cough medicines will cure colds is a simple fraud.

Vitamin D, the other constituent of cod liver oil, prevents rickets in growing animals. Rickets is a disease of growing bone and is characterized by the formation of soft bone, due to insufficient calcium and phosphorus, the chemical elements which give bone its normal hardness. Vitamin D is essential for the proper absorption of calcium and phosphorus by the body. It also plays an important role in the development of the teeth.

Vitamin D can be prepared by exposing certain substances to ultra-violet light. One such substance, which is known as ergosterol, is found in many foods and also in the skin of human beings. Exposure of the skin to ultra-violet light or sunlight changes this ergosterol so that vitamin D is produced. Enough vitamin D can be made in this way to meet all the requirements of a growing child. The converse however is not true: vitamin D is not a substitute for sunlight.

In view, however, of the difficulty of obtaining adequate sunlight in certain climates, as well as in most big cities, the use of some vitamin D preparation very often becomes essential.

**TOW** much vitamin A and D does a child require? Various preparations will differ in the potency of their vitamin content. Only a few years ago, there was a great deal of confusion among physicians and scientists on this matter because there were no recognized standards. This situation has since been corrected. The Health Organization of the League of Nations has established international units for the different vitamins, and these standards have been adopted officially by the United States. The unit is a biological factor determined by animal experiments. It concerns the consumer because it gives him a unit of measurement by which to gauge the value of the item he is purchasing. The measurement is usually expressed in terms of a certain number of units per gram. A gram is a measure of weight used by druggists, but for practical purposes the average teaspoon can be considered as containing four grams.

The potency of an average cod liver oil is 600 units of vitamin A per gram, and 85 units of vitamin D per gram. In a teaspoonful, or four grams, of such oil there will therefore be 2,400 units of vitamin A and 340 units of vitamin D.

The exact dosage of vitamins A and D needed by the normal growing child is still a matter not fully settled, but a safe dosage is considered to be 6,600 units of vitamin A and 1,020 units of vitamin D per day. Thus, it is apparent that a child needs three teaspoonsful of an average cod liver oil a day.

The purchaser at the drug counter finds himself confronted by a wide array of cod liver oil preparations.

The decision as to which preparations to use depends on the need of the individual child and his feeding habits. To help in this decision the advice of a physician should be sought. The cost of the various preparations must be measured not alone by the price of the bottle, but by the amount used each day. A cheap preparation of poor potency may be more expensive in the long run than a more active product. Learn to read the label of the preparation you buy. Ascertain its potency and make sure that your child is getting at least the minimum required amount of 6,600 units of vitamin A and 1,020 units of vitamin D per day.

The concentrated preparations are required to have a minimum potency of 14,000 units of vitamin A and 1,400 units of vitamin D per

gram. The daily dosage, therefore, is measured not in teaspoons, but in drops.

THERE has been much recent discussion as to whether or not the use of cod liver oil is dangerous. The scientific work on this subject has been exhaustive, and, in summary, we may say that of all medical substances in use, cod liver oil is one of the safest. To use figures, the dosage of cod liver oil necessary to produce harmful effects is from 25,000 to 50,000 times the amount necessary to cure rickets. Our poor children, therefore, would die of indigestion long before they could take enough cod liver oil to harm them because of any vitamin effect.

How, then, has the idea of the dangers of cod liver oil arisen? First, in early experiments with animals, enormous doses were used, up to 100,000 times more than the necessary curative dose. The animals lost weight rapidly and soon died. After death large deposits of calcium were found in their organs.

Furthermore, certain toxic effects were noted in early experiments with human beings and animals, but more recent studies have proven that these bad results were due, not to vitamin D, but to associated substances usually produced in the course of manufacture of the concentrated preparations.

In contrast to these experiments there are numerous studies on record where enormous doses were given to human beings without any harmful effects.

Commercial interests have not failed to make capital of the wide interest in the subject of vitamins. There are countless products on the market, varying in kind from breads and other foods to cosmetics, toilet paper, and so forth, to which either vitamins have been added or which, according to the claims of their manufacturers, have been exposed to irradiation. There is no point in discussing these products in detail. Most of the foods do no harm, but they contain so little vitamin that they are of practically no value as sources of vitamin. The other preparations—the cosmetics and so forth—are nothing but frauds.

In summary, then, cod liver oil and cod liver oil derivatives and substitutes are seen to be valuable and indispensable adjuncts in the diets of growing infants and children. Their high cost, which makes them unavailable to the average person, is a matter beyond the scope of this article.

## The Nervous Bowel

Nervous tension and emotional strain are responsible for a large percentage of bowel disorders. Those affected are apt to fall prey to the cathartic habit, which only aggravates the condition.

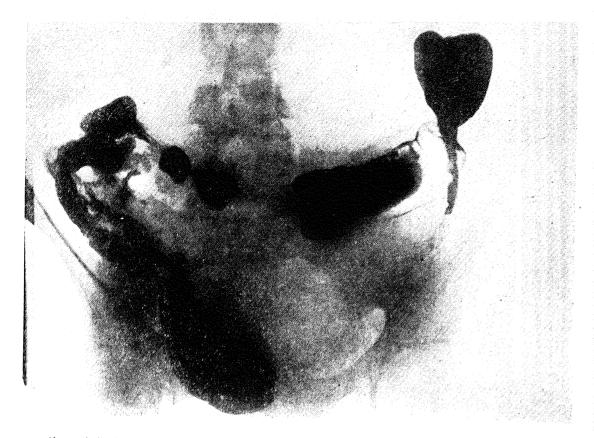
ANY people wonder what the doctor means when he tells his patient that he is merely "nervous," especially if the patient has just finished a long and sincere recital of distressing or even alarming symptoms. It is possible that in such cases it is the doctor himself who is nervous and impatient, and perhaps summing up in one word his conviction that the patient has no physical ailment but is merely the victim of a disturbance in the functions of various organs and the nerves which govern them. The emphasis placed on physical and organic illness in medical training may cause some doctors to feel that nervous symptoms are beneath their dignity. A physician who, to his own satisfaction, has ruled out the presence of any serious physical ailment may therefore feel justified in putting his patient off with time-honored clichés or goodnatured jesting, feeling that what the patient needs is a vacation, not a doctor. A more considerate physician may adopt a method of sympathy in order to keep his patient quiet and controlled. Others may even resort to such deceptive methods as giving injections of sterile water and telling the patient that he is receiving a very special "imported" treatment. However, regardless of all such reassurance, the nervous patient can present an infinite variety of symptoms, and these symptoms cannot wisely be neglected.

There is not a system in the body which cannot at some time be the center around which a nervous patient's symptoms revolve, but the system which is most noteworthy in this respect is the stomach and intestinal tract.

Americans, of all people, are especially bowel-conscious, due probably to the extensive advertising propaganda which has made them the greatest consumers of cathartics in the world. However, the medical profession has contributed its share to American bowel-consciousness by its acceptance of the theory of auto-intoxication. This theory assumes that a whole series of complaints such as biliousness, gas, physical and mental fatigue, insomnia, loss of appetite, furred tongue, foul taste in the mouth, headache, and so forth are the result of constipation and the subsequent absorption of poisons from the fecal matter retained in the body.

Chronic intestinal toxemia (poisoning) is still included in standard classifications of diseases. However, much recent investigation has been leading gastro-enterologists (stomach specialists) to the conviction that most of the symptoms attributed to constipation arise from an imbalance in the muscular activity of the intestine, and that even constipation itself is frequently a symptom of the nervous imbalance which either over-relaxes the bowel (atony of the bowel or "lazy colon") or over-contracts it (spasm of the bowel, spastic colon, or mucous colitis).

THE theory of auto-intoxication received its greatest prestige from the support given it by Metchnikoff, the great Russian physician. Metchnikoff's theory was that poisons in the intestines are caused by the activity of poison-producing bacteria, and that these bacteria should be replaced by non-poison-producing bacteria



X-ray of the large intestine filled with barium (black areas). The sausage-like appearance of the large intestine is due to unequal filling with the barium. The unfilled or constricted areas of the intestine are the spastic or diseased portions.

such as the acidophilus bacillus. This idea was soon disproven, but the belief still exists that there are poisons in the bowel which are absorbed and which "intoxicate" the whole system. Today the notion is still exploited by unscrupulous street corner medicine-men as well as by the more respectable drug manufacturers who have "eliminative" and "pleasantly laxative" specialties to sell.

Earnest research attempting to prove the truth of the toxin-absorption theory soon showed that no worthy evidence could be gathered to substantiate it, and today it still has to be proved that if toxins do develop in the colon they are not completely and adequately disposed of by the action of the liver and kidneys. On the other hand, the widespread use of the X-ray in the study of intestinal complaints has led to the belief that constipation and its attendant symptoms are caused, in many instances, by nervous disturbances affecting the

motility, or muscular activity, of the bowel.

The profound and often lasting effect of the emotions on the gastro-intestinal tract is well known. A patient who has previously shown no symptoms is suddenly brought face to face with a serious emotional crisis—such as the death of a loved one or loss of a job and security. At such a time the whole emotional make-up assumes a predominant pattern of anxiety and despair or, in exaggerated cases, of fear or melancholia. The profound mental disturbance resulting from nervous shock in sensitive people has its physical counterpart in prolonged disturbances of the bodily functions, and chiefly of the functions of digestion and elimination. There may be loss of appetite, dry mouth, bad taste, rumbling noises in the bowels, mild or severe cramps, diarrhea, or constipation. Later, chronic fatigue, palpitation of the heart, headaches and dizziness, biliousness, and gas add to the trouble and complete the picture of the so-called "completely poisoned system."

Actually, examinations reveal that disturbance of gastro-intestinal motility produce the majority of these symptoms. A common cause of "biliousness," for example, is a spasm or contraction occurring in the large intestine. This condition is known as spastic colitis, "irritable or unstable colon," or "nervous bowel." The spasm prevents proper evacuation of the bowel and causes such familiar symptoms as cramps, intestinal rumbling, occasional expulsion of gas, and heavy or sore sensation in the lower abdomen, especially on the left side. The stools are often pencil-shaped or small and spherical like pebbles. Mucus or even blood may appear in the stool.

IT is from persons affected with symptoms such as these that the manufacturers of cathartics reap their huge profits. High-pressure advertising assures the patient of relief and a feeling of well-being if he will only take, bite, chew, drink, suck, or inject a particular brand of bowel dynamite. It is true that persons suffering from spastic constipation often get a distinct sense of relief and well-being after a "good" bowel movement. But when this is accomplished by means of such irritants as

phenolphthalein and cascara, the spastic condition is only aggravated. Unfortunately, true relief from constipation can come only from relief of the spasm and not from a mechanical emptying of the bowel load. On the contrary, the "cathartic habit" increases the spasm until even large doses of the particular cathartic used are no longer effective. Any chronic user of a cathartic will testify that after a time even his favorite standby becomes ineffective.

It is impossible to lay too much stress on the importance of avoiding the habitual use of cathartics in all types of constipation. Cathartics are very

likely to cause constipation where none exists, and certain to aggravate it when it does exist. Any doctor will tell you that the hardest constipation to cure is the kind resulting from the "cathartic habit". Millions of sufferers from constipation who do not know this are the victims and dupes of blatant advertising propaganda. So firmly entrenched in politics is business greed that every effort on the part of organized medicine and social-minded agencies to curb the criminal power of the drug industry has failed.

In summary, it is now known that the function of the intestinal tract is controlled by a complex mechanism which is under the influence of the nervous system. The requirements for normal bowel activity are a stable nervous system, normal appetite, proper food, efficient digestion, and normal bowel motility. When there is a disturbance of the mechanism it is important first to make a careful study of the patient's life history, including his emotional, social, and economic relationships. A laboratory examination should be conducted to make sure that there is no organic disease such as gall bladder inflammation or gall stones, ulcers of the stomach or duodenum, cancer, appendicitis, heart, lung, liver, or genito-urinary diseases. After all serious conditions have been ruled out, the doctor may conclude that the ailment is functional, and he must then undertake to help his patient overcome the nervous tension or shock that is responsible for it. This

is of prime importance. He may also adjust the patient's habits of living, eating, smoking, drinking, and so forth, and in some cases he may even use medicines to help the adjustment along. Thus, a bland low residue diet may have to be prescribed for a time to help reestablish the normal tone of the bowel. Such a diet would include boiled or broiled fowl, fish, and tender cuts of beef; mashed or puréed vegetables including peas, carrots, string beans, and potatoes; cereals such as white bread, and farina of avoiding the habitual use of and oatmeal gruel; and fruits such as apple sauce, stewed prunes, ripe or baked bananas.

However, regardless of what steps are taken, the ultimate aim must be correction of any nervous tension, so that a nervous, dyspeptic, bilious patient may be returned to normal health.



# Cosmetic Problems

# Laxative Skin Creams and Irradiated Soaps

For the many readers who have been asking questions regarding the care of the skin and hair, HEALTH and HYGIENE'S skin specialist will discuss such problems every month. All questions must be signed and accompanied by a self-addressed, stamped envelope.

E have repeatedly stated that any ordinary cold cream will do for softening a dry skin. We have also pointed out that the only reason for using soap is to cleanse the skin of accumulated dirt. If you look for more miraculous properties in face creams and soaps you are bound to be disappointed, because they really do not exist. Advertising copy-writers for cosmetics firms are paid for using their imaginations, and they pass the nonsense they concoct on to you in high-sounding phrases.

The radio is one of the means used to reach you with their pretentious and pseudo-scientific patter. While trying to get a good musical program on the radio, perhaps you too have been forced to listen to something like this: "You won't know what charm and allure your skin can have until you learn the magic of milk of magnesia for loveliness." This is supposed to put you into a hopeful and receptive state of mind—at least hopeful enough so that you will buy some of Phillips' canned magic. Milk of magnesia is used as a laxative, and as such it is well known. The Phillips' Milk of Magnesia people, however, undoubtedly felt that it would be profitable to extend the field of their operations, and consequently they have incorporated their product into a face cream. They conclude that since you believe milk of magnesia to be an effective laxative, you will probably also believe that it makes a good face cream, too.

Then, in order to lend plausibility to their claims, a few pseudo-scientific phrases are devised. Any phrase that happens to be currently familiar to the public will do. For instance, the Phillips people state that their cleansing cream

will "neutralize the acid accumulation of your skin." This is an absolutely meaningless statement, but it is designed to impress you with its scientific implications. What this "acid accumulation" is, is left to you to figure out.

THE people who manufacture Woodbury's Facial Soap apparently fear that if they merely claimed that their soap would cleanse the skin effectively, they would not impress you sufficiently with the importance of buying their soap. Consequently, they, too, must dress their product up with ludicrous claims. Over the radio you may have heard them say: "Today Woodbury's Facial Soap contains a rich amount of sunshine vitamin D. Your skin needs this important vitamin and your skin absorbs it from Woodbury's lather. . . . It overcomes blemishes, coarse texture, and sallow color."

Everybody is vitamin-conscious these days, and the soap manufacturers do not hesitate to make the most of it. But even if Woodbury's soap is irradiated and does contain vitamin D, you should not forget that all you really want is a soap to cleanse your skin. If you need vitamin D, there are better ways to get it than in soap. A sufficient and well-balanced diet, cod liver oil, and proper exposure to sunshine are all effective means of getting this vitamin. Advertising such as the Woodbury company employs is dangerous because it tends to make people diagnose themselves. Only a physician can tell whether you are suffering from a lack of vitamin D. Soap makers should limit themselves to making soap, and should not give out medical prescriptions indiscriminately over the radio.

# Consumer Zriefs

As a regular feature, this department will give information on foods, drugs, and cosmetics which make false advertising claims, or are dangerous, defective or adulterated, or which sell for a price entirely disproportionate to the actual cost of the product. NJ (notice of judgment) plus the file number indicates that the information is derived from the Federal Food and Drug Administration; FTC, from the Federal Trade Commission; PR plus date, from a release of a federal agency.

#### Austin, Nichols & Company

CANNED cherries distributed by this large firm "consisted in part of filthy vegetable and animal substances due to heavy infestation with maggots." (NJ 25263)

#### Butter

WE are rather tired of continually mentioning Armour & Company, but duty compels us to continue the seemingly endless list of judgments against it. NJ 25267 reports a fine of \$150 against Armour & Co. because, in the first place, the "1-pound packages" contained less than a pound, and, in the second place, the butter itself contained less than the legally required amount of fat. The company pleaded guilty to the charge.

NJ 25363 reports that butter distributed by Armour Creameries "consisted in whole or in part of a filthy and decomposed animal substance." Other samples of Armour Creameries' butter contained mold, insects, rat hairs, and other refuse. (NJ 25152)

#### **Reducing Preparations**

WE have previously warned against the use of any preparation containing dinitrophenol. Such products have been responsible for many cases of blindness, and several deaths. The following is a list of reducing preparations containing dinitrophenol: Nitromet, Dinitrolac, Nitraphen, Dinitroso, Formula 281, Dinitrose, Nox-ben-ol, Re-Du, Aldinol, Dinitrenal, Prescription No. 17, Slim, Dinitol, Tabolin, Redusols, and Dekrysil.

#### Reducing Belt

The Weil Co., of New Haven, Conn., sells a so-called "rubber reducing belt" for which a number of false virtues are claimed. Under pressure and threat of action, the company admitted the falsity of these claims. (FTC, 01434.)

#### Bread

In the August issue we reported that the Continental Baking Company had been fined on three different occasions for short-weighing its Wonder-Cut Bread. You can chalk up another fine for the same offense: "Each of a large number of the loaves examined contained less than the weight declared," to quote from the government report. It would really be a wonder if purchasers got their money's worth when they bought Wonder-Cut Bread. (NJ 25305)

#### Honey

THE Silver Label Products Co., of Brooklyn, N. Y., was recently fined \$2,374 because its honey was adulterated.

#### Kelpamalt

KELPAMALT is a widely used nostrum, unfortunately. The government recently seized and recommended the destruction of 1,332 packages. The label and advertising matter advise its use in more than forty conditions! The company admitted the falsity of the claims. (NJ 25120)

## What's New in Medicine

From time to time we will publish brief accounts of some of the newer findings in medicine as reported in the medical journals. It is to be understood that these findings are not yet fully proven or widely accepted by the medical profession. They are to be read as news accounts and not as accepted or recommended methods of treatment.

#### **Blood Clotting**

THERE are many blood diseases such as hemophilia (common in the former royal family of Spain) in which the blood does not clot easily, sometimes causing sufferers from the disease to die of hemorrhage after a small cut. Recently, different kinds of snake poison have been used in some of these blood diseases. Doctors Rosenfeld and Lenke of Brooklyn, find that very small amounts of the poison of the Australian Tiger Snake, if applied to such wounds, very quickly cause clotting of the blood. They find that one part of the snake poison will clot 12,800,000 parts of blood that has been citrated, that is, treated with chemicals which prevent clot formation. Similar results were previously obtained by Dr. Barnett of London with viper venom.

#### Asthmatic Attacks

R. A. L. BARACH of Presbyterian Hospital, New York, uses a mixture of 20 per cent oxygen and 80 per cent helium to relieve severe asthmatic attacks not relieved by other means, and where breathing is made difficult because of an obstruction in the windpipe. Ordinary air contains roughly 20 per cent oxygen and 80 per cent nitrogen. Helium weighs only one-seventh as much as nitrogen, and the mixture weighs one-third as much as ordinary air. This mixture enters the lungs more easily, and with less effort on the part of the patient. Helium is also used in balloons and zeppelins.

#### High-Speed Germ Separator

DOCTORS Bauer and Pickels of the Rocke-feller Foundation have been working with a new high-speed centrifuge with which they hope to isolate some of the invisible filterable viruses, germs so small that they will pass through any filter yet devised. It is these germs which are thought to be responsible for such diseases as the common cold, influenza, infantile paralysis, and yellow fever. The centrifuge, which is built on the same principle as a cream separator, whirls in a vacuum at the tremendously high speed of 30,000 revolutions per minute, causing the viruses suspended in the original fluid to be deposited out as a sediment.

The viruses thus obtained have proved to be much more potent than the original fluids, which were taken from diseased human beings and animals. Obtaining the viruses in a more potent form should be an aid in the further study of the smallest known sub-visible disease-producing agents, and may lead to important discoveries concerning some of our little understood diseases.

#### No Patent on "Iron Lungs"

WE often read of the numbers of people kept in a "Drinker Respirator" or "Iron Lung." In the past such respirators brought money to Shaw and Drinker of Harvard. The District Court of Massachusetts has recently revoked the patents on the grounds that the respirators were well described in medical literature as far back as 1876.

# Our Doctors Advise:

The doctors of the People's Health Education League, including specialists in almost every field of medicine, will answer readers' questions on health and personal hygiene. No letter will receive attention unless it is signed and accompanied by an addressed, stamped envelope.

#### **Paresis**

Binghamton, N. Y.

DEAR DOCTORS:

My mother is 52 years old. Her parents both had syphilis, my grandmother becoming infected in the first year of her marriage. My father's parents also were syphilitic. About twelve years after my mother's marriage, both she and my father had syphilis. They were treated by a private doctor, and my father, I think, was cured. My mother, because of financial and marital troubles, was unable to finish the treatments. Because of the syphilis and because of her marital and financial difficulties, she became, in the early part of 1935, more than usually sensitive and irritable. She developed a mixture of persecution mania, religious mania, and delusions. She insisted she heard threats over the radio, in people's conversations, in the movies, and in her dreams.

She doesn't sleep at night. She goes out, and we don't know where she goes; she is very absentminded, irritable and sensitive. She no longer confides in me because she doesn't trust me. I know she is becoming seriously ill again. More so than last time, because her syphilis evidently needs more serious treatments, and because emotionally she has a stronger need to escape from her problems. Her condition is affecting my health and morale. I can't afford to send my mother either to a psychiatrist or a sanatorium. I can't take her to a mental clinic because she objects to our thinking she is mentally ill. I have been told that she should have radio-thermy treatments. How can I give her these? I hope you can give me some advice as to what course I should follow.-M. L.

Answer—On the basis of what you write, we are sure you are correct in your estimate of the gravity of your mother's condition. It is likely that she suffers from one form of syphilis of the brain known as general paresis. The fact that you have been advised to give her radio-thermy (heat treatment) confirms this. But general paresis is one

form of mental illness in which, with appropriate treatment, the outlook is far from hopeless. About a third of such cases are able to return to an essentially normal life after treatment.

Under the circumstances, there is only one place where she can receive this treatment: a state hospital. Let us assure you that the popular dread of state hospitals is quite unwarranted in New York State, where such institutions have relatively high standards. After a few months there, she might very well be ready to come home.

If she does not receive this treatment, the outlook is a very tragic one. She will, in all probability, deteriorate quite rapidly, both mentally and physically. She will become a burden to herself and to those about her. Consider also that you can do nothing for her at home. While it may seem hard for you to send her away, it would be far more cruel to condemn her to the deteriorated existence which awaits her if she fails to receive treatment. Furthermore, such patients are not infrequently dangerous, because they act in accordance with their delusions of persecution, and may attack any innocent person who is suspected of wanting to injure them.

We feel that you are perhaps being too emotional in your attitude toward her. If she had a diseased appendix, would you hesitate to arrange for an operation which might be painful and unpleasant but which would save her life?

#### Stretched Lung

Meriden, Conn.

Dear Doctors:

My sixty-five year old mother has been suffering from either chronic bronchitis or asthma. She contracted this condition many years ago. At any rate, it has developed to the stage where breathing is difficult, with the feeling of suffocation and difficulty in catching her breath. She hasn't slept for four or five nights due to difficulty in breathing. She is an inveterate smoker, having smoked

for about forty-five years. Is there any remedy for her relief, either permanent or temporary? The condition is growing worse regardless of weather conditions, since neither dampness nor dry weather, cold, rainy, or sunny days have any effect.

Answer—It is no simple matter to suggest any form of treatment for your mother. By this time, her condition may be complicated by emphysema. Emphysema is an abnormal state of the lungs in which the tissues become stretched and lose much, if not all, of their elasticity, the lung itself in this state being termed emphysematous. This is usually brought about by some lung disease of long standing.

An emphysematous lung does not function as well as a normal lung. Being stretched and slack, it cannot take in as much air with each breath as a normal lung. Consequently, the person so affected must breathe faster, and may have to breathe so fast that he is in considerable distress. It will be necessary to cut down on activity since the need of the body for air depends upon activity. Thus the situation due to the original lung disease is aggravated by emphysema.

Emphysema tends to reduce the oxygen supply to the body. When this occurs, the heart automatically beats faster and harder, attempting to force more blood through the lungs, but an emphysematous lung offers increased resistance to blood flow. Thus, in emphysema, there is a double burden on the heart. All this, of course, makes it harder on the patient.

Your mother should certainly be put to bed. With the reduction of her activity, there will be less demand upon her heart and lungs, and she should feel easier. She will probably feel better if she stays in bed in a semi-sitting position rather than flat on her back. She should stop smoking. Any measures beyond these can be decided upon only after your mother's exact condition has been made clear through a complete medical examination. It would be best if your mother were taken to a hospital where she could be kept under observation and her case thoroughly studied.

#### Advertising in the A.M.A. Journal

Chadron, Nebraska.

DEAR DOCTORS:

In your article Good Housekeeping's Phoney Seal (September) you mention the fact that the Food and Drug Administration recently condemned 15,000 packages of Kraft Velveeta Cheese. In the same article the American Medical Association is mentioned as an agency which is active in condemning frauds.

I happened to glance through a copy of the American Medical Journal for August 29, 1936, and was surprised to find an advertisement for Kraft Velveeta. I was even more surprised to see

that the product bore the American Medical Association seal of approval.

Isn't the American Medical Association reliable, or are your facts wrong?—H. S.

Answer—We are glad you called our attention to this matter. You raise a question which has confused physicians as well as laymen, namely, why do products of questionable merit find their way into the advertising section of the Journal?

Several committees in the American Medical Assocation examine foods, drugs, and medical appliances. Such investigations are, to the best of our knowledge and belief, carried on competently and honestly. The results are available to all without charge.

The Journal, however, is in some respects comparable to ordinary commercial magazines. Like them, it depends on its advertising for a large part of its income. For this reason, advertisements for products of questionable value are sometimes accepted—at a handsome price. For example, it is a fact that few, if any, physicians depend upon mercurochrome as an antiseptic for treating wounds, but the Journal has carried full-page cover advertisements for this product for several years.

The answer is simply this: In the investigations conducted by the A.M.A.'s chemists, physicians, and other technical experts, profit is not a factor, and, therefore, honesty may be expected; however, since the *Journal* is run on a profit-making basis, less rigid standards might well be expected to prevail in regard to its advertising policies.

In the article Good Housekeeping's Phoney Seal our reference was to the findings of the A.M.A.'s Bureau of Investigation, which, since it is not motivated by profits, can usually be trusted to give scientific and unbiased information.

#### Nose Bleed

Albany, N. Y.

To the Medical Advisory Board:

I am writing to you concerning my husband's health.

My husband has a job sitting down all day. His place of work is quite dusty. For almost a year he has had a bloody nose almost every day. Now he only gets them once or twice a month. One side of his nose, the right side, is always plugged up and he cannot breath through the right side at all. In the morning and at night when he blows his nose, big pieces of yellow waste come out and often times give him a headache from blowing. He catches a cold very easily.

He cannot eat very heavy meats as it makes him belch and he gets sick to his stomach,

Could you advise me what to do about his bloody nose?—E. L.

E. L.—Your husband most likely has a deviated septum, that is, the bone which separates one side

of the nose from the other is bent excessively to one side, thus causing the clogging of his nose. This interferes with proper breathing as well as with the drainage of mucus from the nose. The mucus becomes dried, forming the yellow crusts which get attached to the lining of the nose. When he blows his nose, the crusts become detached from the lining membrane and cause the bleeding. He will probably have to undergo a nose operation, but before doing this let him try the following nose drops: Ephedrine Inhalent, five drops in each nostril every four hours. Let him keep this up for a period of two weeks, and if by then there is no appreciable improvement in his condition, it would be advisable for him to go to the nose and throat clinic of one of the hospitals in your city and have his nose examined.

#### Chilblains

Albert Lea, Minn.

DEAR DOCTORS:

I am thirty-nine years old, and drive a milk wagon. During the cold weather I get dark red spots on my feet, and later when I get indoors my feet itch badly. I have been told that I have chilblains. Is there anything I can do to prevent them?—S. C.

Answer—The symptoms you describe are indicative of chilblains. In those who have poor circulation of blood, dark red patches sometimes appear on the heels, borders of the feet, toes, fingers, ears, or nose. These spots become cold to the touch, tender, and when exposed to warmth they are apt to burn and itch intensely. In extreme cases the parts are a purplish red color, and blisters and ulcers may form if they are rubbed. The condition is brought on by exposure to cold, and usually improves in the warmer months—though not always in severe cases. Persons working in butcher shops or refrigerating plants, where the temperatures are low the year round, do not get seasonal relief.

Warm woolen socks should be worn, and the feet should be washed daily in hot water, rubbed briskly and dried quickly, and dusted with talcum powder. Wearing warm shoes, such as fleece-lined ones, is very helpful. For the relief of the intense itching and burning calamine lotion should be applied. For internal treatment we would suggest that you take fifteen grains of calcium lactate three times daily.

#### Should Cardiacs Marry?

Butte, Mont.

DEAR DOCTORS:

I am an accountant, 32 years old, and I have a heart murmur, or enlarged heart. I am planning on getting married, but in a recent talk with my doctor he advised against it. He said that sexual intercourse placed too great a strain on the heart,

and would be bad for me. He also advised me not to do any heavy physical work or exercise.

I would like to have your opinion as to whether I should marry,—R. B.

Answer—You state that you have a "heart murmur, or enlarged heart." The two are not the same. Murmur may be present without heart disease. Assuming, however, that you have the more serious condition, enlarged heart, your doctor was right in telling you to avoid all strenuous forms of exercise, such as sports, games, running, rowing, heavy work, and so forth. This is sound advice for anyone with a heart defect, even though the defect is a mild one.

There is no objection to the less strenuous activities. Regular sexual intercouse is not too much of a strain unless the individual is seriously ill with heart disease. The question of whether or not a man with a heart defect should marry has to be considered from other angles than the sexual. Definite advice should be given only after a careful examination by a physician experienced in this work. It would be advisable for you to consult either a heart specialist or the cardiac clinic of one of the reputable large city hospitals.

#### Bust Developer

Waycross, Ga.

DEAR DOCTORS:

A friend of mine has been using Rose Miller Venus Cream to develop her bust and figure, as she is very thin. Will you please inform me if this cream is any good, or if it will do what the Rose Miller Company claims it will?—R. B.

Answer—It is impossible to cause any increase in the size of the breasts by rubbing them with a cream. All such "bust developers" are fakes, and their only purpose is to make money by exploiting the yearnings and mental anguish which sometimes afflict sexually normal women who have flat breasts.

Some women have small breasts, and nothing that is done helps to enlarge them. This is an inherited trait like stature and color of the eyes and hair. However, in many cases small breasts are due to a general underweight condition. A highly nutritious diet containing much milk, butter, eggs, meat, bread, rich desserts, and so forth, will help to put on weight. Such a diet, of course, is not always obtainable.

Following pregnancy, the breasts usually enlarge somewhat. If the woman you write about is married and desires a child and can afford it, she should have one.

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Constipation

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On the basis of tests for heat distribution, temperature control, shock hazard, etc., 14 models of automatic electric irons are rated in this issue. Some of the brands reported on are Magic Maid, Universal, Westinghouse and G. E. Hotpoint.

TOMATO JUICE, BLANKETS Other reports in this issue give money-saving information on leading brands of blankets, tomato juice, and other products with ratings as "Best Buys," "Also Acceptable," and "Not Acceptable." Coming issues will rate and report on cold remedies, cosmetics, foods, and many other products.

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