HEALTH AND HYGIENE

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FIFTEEN CENTS

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HEALTH and HYGIENE

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EDWARD ADAMS, *Editor*

Disease Spread from Ships

THE SQUIRRELS NEAR San Francisco were found to be infected in 1908, the disease having been spread by rats from a ship that had come from an oriental plague area. Due to the carelessness of the State and Federal Governments, the infection was allowed to spread slowly among the squirrels as far south as Los Angeles. In the last one and one-half years, these animals have been dying particularly fast of the disease and it has spread rapidly throughout the rest of the state and into neighboring states.

One of the most dangerous aspects of the situation is the possibility that a special strain of the plague germ is being developed in the squirrels, which will cause a pneumonia epidemic with almost 100 per cent of those contracting the disease dying. This is the theory of Dr. W. H. Kellogg, one of the country's authorities on the disease. The last two epidemics in California have been of the pneumonia type. These were the outbreak of September, 1919, in Oakland with 14 cases and 13 deaths, and that of November, 1924 in Los Angeles with 32 cases, 30 of whom died. Over 60,000 people contracted the disease in the plague-pneumonia epidemic of 1910 in Manchuria, everyone of whom died. As cold, wet weather is necessary for such an epidemic, it probably will not be at its worst in California, but in the Eastern United States, where weather conditions similar to Manchuria prevail.

Plague Control National Problem

SINCE 1925, State Director of Sanitary Inspection Ross has been in charge of plague survey of squirrels. In preparing this article, I attempted to see Director Ross. After calling his office several times and telling his secretary the purpose of my interview, I was given an appointment. Upon arriving, however, I was told that he was out, but that I could see Dr. Wyn, head of the Bureau of Epidemiology (control of epidemics). It was very difficult to obtain information from Dr. Wyn. On many important points, such as the amount of money spent on plague control, he professed ignorance. Other important questions he pretended not to understand and started to talk about something else.

However, I finally learned that the federal government, which handled the work until 1925 and the state government since then have not attempted to kill off all squirrels in spite of the steady spread of the plague. "We only try to keep the disease under control."

"Plague will always be with us." One and sometimes two crews of two to four men each make surveys of suspected areas only during the spring and summer months. If infected animals are found, an attempt is made to kill most of the squirrels in the area. However, diseased animals are always found again in the area two to three years later, having filtered in from surrounding territory.

It is evident that very little money is spent towards rooting out this terrible disease, in relation to the importance of the problem. According to Dr. J. C. Perry, an expert on epidemic diseases in the United States Public Health Service, the squirrels could be killed off if enough funds were provided for that purpose. As it is a national problem, threatening the whole country, the federal government should be forced to do the work. Workers' organizations and individuals should write to their Senators and Congressmen demanding that sufficient funds be appropriated for this purpose, to save the country from a horrible, devastating epidemic.

How the Wealthiest State Cares for "T.B."

NEW YORK STATE has one of the best Public Health Services in the United States. It is so much better than that of many other states that it is beyond comparison with them. Particularly in the Southern States conditions are unbelievably bad. Let us see how this shining star, the wealthiest state in the union, provides for people sick with tuberculosis.

There are 35 hospitals in New York State that care for the tuberculosis patients found among the six million people outside of New York City. Of these 35 hospitals, on October 1, 1935, 18 did not have a single vacant bed for tuberculosis patients requiring bed care. Workers and unemployed persons with tuberculosis requiring sanitorium care, who happen to live in the counties served by these hospitals, are just out of luck. They must wait until someone dies or is discharged before they can enter a tubercular sanitorium. The other 12 hospitals have a total of only 21 beds vacant for men, 39 for women and 33 for children. In other words, tuberculosis is a luxury that only the rich can afford. Unfortunately, it is the workers and farmers who most often get tuberculosis.

A Baby Specialist on
FEEDING the INFANT

FEEDING THE NORMAL infant is a simple matter if one disregards high prices, low wages, and inadequate relief. Certain requirements must be met. The baby must get enough to eat. This means that it must get enough to provide for its activities, its growth, and to compensate for the food that passes through the bowels undigested (15 to 20 per cent). The most frequent cause of failure in the feeding of infants is that they do not get enough to eat.

Not only must the baby get enough to eat, but the food must contain all the elements without which life and growth are impossible. Thus a sufficient amount of proper proteins which enter into the structure of the body is essential for life and growth. A certain minimum requirement of carbohydrates which furnish the main source of fuel for the activities of the baby must be met. Fats although not absolutely essential for life, have a high fuel value, and are important for this reason. The right kinds of minerals must be furnished to insure the proper growth of the bones, for the building of other body tissues, and to keep the blood in normal condition. Vitamins are vital for life and growth. Adequate amounts of water are essential. The food must be in such form that it can be digested by the infant, and should not contain anything harmful.

This must sound like a large order to fill after it has been stated that feeding the infant is a simple matter. However, it actually is a simple matter, as you will presently see.

The proper feeding of the baby begins before he is born. It is necessary that the pregnant mother be on a good diet, both for her own protection, and to furnish the baby she is bearing, the necessary building materials for a normal healthy body. This means that she should be on a diet consisting of milk, eggs, butter fruits, and vegetables, plus enough other foods to give her sufficient calories for energy requirements.

After the birth of the baby, we are faced with the problem of continuing to furnish the proper building materials, and enough food to meet the activity requirements of the infant. Fortunately, in milk we have a food which meets most of these requirements. It contains the proper proteins, many of the minerals, some of the vitamins, the carbohydrates, the fat, and the water. In the proper form it is easily digested.

Now there is no doubt as to which milk is the best for the infant. It is a well-known fact that the breast-fed baby usually thrives the best. There are many reasons for this. It contains all the elements necessary for the infant during the first half-year of life. The proteins it contains are very much like the body proteins. The curds formed in the stomach when the milk is being digested are small, so that the stomach empties readily. The trouble of preparing a formula is done away with and there is no danger of the baby's getting a disease from such germs as may be present in cow's milk not obtained and kept under the most sanitary conditions. The breast-fed infant is less prone to develop rickets, and statistics show that the breast-fed baby has a much better chance of overcoming disease.

If there are no good reasons for not nursing the baby, the newborn infant should be put to the breast about eight hours after birth. He should be nursed every four hours regularly. The first milk, which is called *colostrum*, is very thin. Even in this form, however, the breast milk is of some value, and it is necessary to keep the breasts stimulated so that in three to four days the regular milk will come in. In the meantime, it is advisable to offer the baby a milk formula after each breast feeding so that the baby will not lose too much weight.

During the first three or four weeks the infant can be put to the breast every four hours, six times in the twenty-four hours. After that, the night feeding can be discontinued. If the baby wakes up during the night, he can be offered

some water. The earlier in life the night feeding is stopped, the easier it is to do. It is best to let the baby nurse ten to twenty minutes, one

breast being used at a feeding. At times when the milk supply is not sufficiently plentiful, it is necessary to use both breasts at each feeding.

Before and after each feeding, the infant should be placed over the shoulder and gently patted over the back until he has belched. In this way the baby brings up the air he has swallowed before and during nursing. If this is not done the baby may vomit. At times because the infant's stomach is too full, he will spit up. This is a normal phenomenon, and should cause no alarm. Frequently mothers are alarmed to see that the milk is curdled when it is spit up. Milk curdling is part of the process of digestion that takes place in the stomach.

It is important to feed the baby at regular intervals, and if he is asleep at feeding time he should be weighed at two to four-week intervals he soon wakes himself at feeding time.

No matter how the baby is fed, he should be weighed at two to four week intervals regularly. The baby's weight is the best indicator as to whether his progress is normal. This, of course, means regular visits to the doctor when it can be afforded. Where such visits cannot be afforded, and where city baby clinics are available, the infant should be taken to these clinics at regular intervals.

At times it is found that a breast-fed baby is not gaining enough. Also the mother may notice that the infant cries long before feeding time, or seems to be still hungry after nursing. In such cases it may be necessary to feed the baby at three-hour intervals, or better still a formula can be offered immediately after each breast feeding.

The baby can be kept on the breast until the age of eight to nine months. At the age of six months, it is well to offer the baby some boiled cow's milk once or twice a day, so that the baby will get used to the taste. It is best to wean the baby gradually. This means that the breast feedings are not discontinued at once, but that at intervals of several days one breast feeding at a time is discontinued. At such feedings the baby is offered a bottle of boiled milk. In this way weaning may cover a period of two to three weeks. If the infant is sick, or the weather is very warm, weaning should be postponed.

The mother should take special care that the nipples of the breasts do not become sore. The nipples should not be handled with the fingers, and should be gently wiped with cooled boiled water before and after each feeding. If the nipples get sore, a boric acid ointment can be applied, and a nipple shield can be used. Sometimes an abscess forms in the breast. In such cases, the baby should not nurse from the diseased breast until it is completely healed. In the meantime the affected breast should be pumped for the comfort of the mother, and to insure a continuation of the milk supply. The breasts should not be compressed, but hanging breasts may be lightly suspended. Between feedings, the nipples should be covered with a clean cloth.

Care of Mother

OF COURSE IT goes without saying that the mother should be on a good diet. Milk, eggs, two green vegetables, fresh fruit, preferably oranges, and butter are essential. Enough other foods should be eaten to supply the necessary calories. The nursing mother requires at least a third more food daily than she does ordinarily.

She should be careful not to take drugs unless they are prescribed by a doctor. Certain drugs may be absorbed into the breast milk, and can make the baby sick. The mother should be free from worry and strain, should have an adequate amount of exercise, and at least one hour's rest every day. Coffee and tea in small amounts have no effect on the milk. The return of menstruation is no indication that nursing must be stopped.

There are, of course, reasons for not nursing the baby: If the mother has some serious or contagious illness such as tuberculosis, if the milk supply is inadequate, or if the mother has to work. Except in the Soviet Union where special

provisions are made, it is impossible for the mother who works to continue to nurse her baby. Under such conditions the infant must be put on a formula.

The baby who is kept on a good formula, gets along very well. The question of what milk to feed the baby naturally arises. From all sides, both in the press and over the radio, the mother is told that this and that milk is the only thing for her baby. Remember that each milk distributor is interested in only one thing, profit. There are all kinds of milks: bottled, canned and powdered. Space will not permit us to discuss all of them, nor is it necessary.

Milk Mixtures

IT IS NOT necessary to buy the most expensive or the fanciest milks for the infant to thrive. The baby will get along very well on the ordinary grade of bottle milk that you get from your dairy, or on canned evaporated milk. If you get bottled milk, however, be absolutely sure that it is pasteurized. The bottle cap should carry the date of pasteurization. Pasteurization means that the milk has been subjected to a heat of 140-145 degrees for thirty minutes. If any harmful bacteria are in the raw milk, proper pasteurization destroys them.

The baby cannot as a rule digest whole cow's milk well during the early months of life. For one thing, the curds formed in the stomach are too large. For another thing, there are substances in cow's milk which neutralize the acid which is normally in the stomach to digest food. The milk must therefore be prepared in order to make it digestible for the baby. This can be done by diluting the milk with water and by boiling it. Dilution weakens the acid neutralizing property of cow's milk, while boiling makes for small curd formation.

Giving the baby milk only, especially when it is diluted, does not furnish it enough to eat. It is therefore *always necessary to add sugar in some form to the milk mixture.* This sugar must be in a digestible form for the infant. This means that it should not cause too much fermentation in the intestines, since fermentation causes diarrhea. When the question of which kind of sugar to use in the baby's milk mixture arises, the mother is again confused by all kinds of preparations, each of which is represented as the only thing for the baby. Usually these are to be purchased in the drug store, and are expensive. Suffice it to say that ordinary cane sugar, or corn syrup, such as blue label Karo Syrup, both of which can be bought in the grocery store, are satisfactory for the baby.

It is best to have enough nursing bottles on hand to make up the whole day's supply of formula at one time, in the morning. At first the milk is given usually in dilutions of one-half each of milk and water to two-thirds milk and one-third water. As a rule the writer has babies under his care started on a two-thirds milk mixture. The amounts of milk used are determined by the weight and age of the infant. Approximately one and one-half ounces per pound of body weight are necessary. The formula should contain sugar in about a 5 per cent proportion. Thus, if the baby weighs seven pounds, it requires seven times one and one-half ounces or ten and one-half ounces of milk. The writer usually begins with twelve ounces. Enough water to make this a one-half to two-thirds milk mixture

is added. A better way is to know how many feedings and how large a feeding the baby takes. Thus a new-born baby will take as a rule, three ounces of feeding at a time, every four hours. This would mean six three ounce feedings or eighteen ounces of milk mixture. In such case, to twelve ounces of milk one adds six ounces of

water. Such a formula would contain 5 per cent of sugar which in this case is approximately one ounce. Both cane sugar and Karo syrup measure two level tablespoonsful to the ounce.

This mixture should be boiled for five minutes, or cooked in a double boiler for twenty minutes. The nursing bottles and all other utensils should also be sterilized by boiling them for five minutes. After the formula has been sterilized, it is divided up into the nursing bottles, which should be stoppered with cotton or wax paper and kept in the icebox until feeding time. The bottle should then be placed in warm water until the mixture has reached body temperature before it is offered to the baby.

The strength of the milk mixture and the amounts given at a feeding are gradually increased as the baby grows older and larger. By the time the baby is six months old he should be taking a quart of milk in full strength. The number of feedings can be cut to five feedings a day by the time the baby is one month old, and by the age of six or seven months he should be taking four eight-ounce bottles. Beginning at the age of eight or nine months, the sugar in the formula is gradually discontinued.

One cannot keep to the same method for every baby. One baby may gain and be satisfied with five four-ounce feedings, while another the same age and size, may require five six-ounce feedings. The mother can always judge from the infant's actions whether or not he is satisfied with his feedings. If the baby chews his fists ,or cries long before his regular feeding time, it's a safe bet that he wants more to eat. If possible, a doctor should be regularly consulted as to the development of the baby, and as to changes in the formula.

Sometimes the baby will not take large enough feedings. It is then necessary to give him a more concentrated milk formula. Lactic acid milk, which is ordinary sour milk, and which is commonly called Bulgarian Butter Milk, forms a fine curd in the stomach, and the neutralizing property of the milk is corrected because of the lactic acid which is present in this milk. This milk can be obtained from the dairy, or can be prepared by adding lactic acid to the milk after it has been boiled and allowed to cool. The addition of the acid curdles the milk. Sugar must be added to this form of milk also. Lactic acid milk is at times liked better than sweet milk mixtures by the infant.

Canned Milks

CANNED EVAPORATED MILK is, so far as cow's milk is concerned, the best form of milk to give to the baby. Evaporated milk is ordinary cow's milk which has been boiled down to half volume so that it is twice as rich as cow's milk. In other words, if you add a half glass of water to a half glass of evaporated milk, you have full strength cow's milk. The process of preparing this milk makes it more digestible. The curds formed in the stomach are very small. The stools of an infant fed on evaporated milk mixtures are very much like those of a breast-fed infant. This milk is absolutely sterile. This is important for those mothers living in communities where the milk supply is obtained from dairies whose standards of cleanliness are questionable. Many of the canned evaporated milks are now irradiated, which means that they contain vitamin D. Important also is the fact that this milk is cheaper than bottled milk.

Formulas from this milk are prepared just as those from bottled milk, except that half the amounts of canned milk are used since it is twice as concentrated as bottled milk. Thus, if you want to give the baby twelve ounces of milk, you use six ounces of evaporated milk. It is not necessary to boil the canned milk, but the water and sugar must be boiled before they are added to the milk. The addition of lactic acid to canned milk makes a good lactic acid milk preparation. Evaporated milk can be used as long as the baby or child takes it.

Do not under any circumstances use sweetened or condensed canned milk. An example of this is Eagle Brand Milk. Such milks are not completely sterile, but are preserved by the use of high concentrations of sugar (60 per cent). When mixtures are made up according to directions, they do not contain enough proteins and contain too much carbohydrate. Infants fed on this milk do not thrive well, and when they fall ill, their resistance is poor. Such babies also tend to develop rickets more readily. By all means avoid using condensed milk.

So far as water is concerned, it should be offered to the baby several times a day between feedings. The breast-fed baby, and the infant getting a good milk formula, usually get enough water in the milk. However, in very warm weather, the baby will require more water, and it should be offered often.

Vitamins

IT IS NECESSARY to start giving the infant certain additional food substances rather early in life. The vitamins which they contain are necessary for the proper growth and nutrition of the baby. Vitamin A, the so-called fat-soluble vitamin, is vital for growth and for the prevention of a certain disease of the eyes known as Xeropthalmia. This vitamin is present in the fat of milk, and is not destroyed by heat. Vitamin B is necessary for growth and to prevent beri-beri, and is also present in milk in sufficient amounts. Vitamin C prevents scurvy, a disease characterized by bleeding in the membranes covering the bones, and by bleeding gums.

Although Vitamin C is present in milk, it is destroyed when heated in the milk. It is therefore necessary to give the infant orange juice or tomato juice, both rich in this vitamin. This additional food should be started when the baby is about three weeks old, the best way being to start with teaspoonful amounts twice a day. This should be gradually increased until the infant is getting two ounces a day. Vitamin D has been fully discussed in the article, "Who Gets Rickets?" which appeared in the September issue of HEALTH AND HYGIENE. It prevents the bone-deforming disease rickets, and is usually given in the form of cod-liver oil, which is also rich in Vitamin A. This should be started the same time as orange juice in amounts of one-half teaspoonful twice a day. This should be gradually increased until the infant is getting a teaspoonful three times a day. An easy way to give the baby Vitamin D is to feed him Vitamin D milk, which unfortunately is too expensive for most working class families. It is a good idea to offer the baby both orange or tomato juice and the cod-liver oil from the spoon, so that he gets used to taking things from the spoon.

Cereals

AS THE INFANT grows older, he requires more food than can be obtained on a milk diet, and also becomes able to digest solid foods. There is general agreement as to which foods to offer the infant, but the time of starting the solid foods varies considerably according to the individual physician. The writer usually begins to offer cooked cereals when the infant is four months old. The various cereals such as farina, cream of wheat, Ralstons and oatmeal, are all good for the baby. Whole wheat cereals such as Ralstons are particularly good. There is a good precooked cereal known as Pablum which is sold in drug stores, and which besides being a whole wheat cereal contains other valuable ingredients such as bone. As usual, this cereal is available only to the fortunate ones who can afford it. It is always a good idea to start any new food in small amounts, until the baby becomes accustomed to the taste of the new food. Thus when cereals are begun, it is best to offer them in teaspoonful amounts twice a day, the amount being gradually increased, until, when the baby is seven months old, he is getting three to four tablespoonsful twice a day.

Vegetables and Other Foods

COOKED STRAINED vegetables can be started at about five months. Such vegetables as carrots, spinach, squash, chard, peas, etc., can be offered. These are valuable for their mineral, pigment, and vitamin content. The vegetables should be varied so that the infant will become accustomed to the taste of a variety of foods. Either fresh or canned strained vegetables are good for the infant. At six months the baby can be offered mashed-up hard-boiled egg yolk, and when the teeth appear, he can be given dry toast, whole wheat toast being particularly valuable. At seven months apple sauce, prune pulp, and coddled egg can be added, and at eight months, custard and gelatin. Later in the first year, mashed ripe bananas, baked potato, which is not a substitute for other vegetables, and beef juice are also added.

The diet outlined above is the one generally used. Common sense is of course necessary in guiding us. The schedule here presented does not have to be rigidly followed. Some infants want more to eat than others, and new foods can be started earlier. Others are small eaters, and we must remember that just as grown-ups who are small eaters do not like to be forced to eat, so do infants resent being forced to eat. Where the baby is too much overweight, it is best to begin with vegetables first, and not to give too large amounts of cereals.

Good eating habits should be started early. For example, the baby should be trained to drink milk from the cup before he is one year old. A three meal schedule should be started at the age of one year.

THE DEAF TEN MILLION

Why People Lose Their Hearing

IT MAY be an astounding revelation to the greater part of the population that there are in the U.S. about ten million people who are hard of hearing. Of this number it is reported that over three million are children of school age. These figures include the totally deaf and those with moderate deafness. With such a high percentage of hard-of-hearing individuals, it is well to give thought to the seriousness of the problem of the deaf. Such a problem is not alone a medical one but involves, to a great degree, both social and economic factors.

To comprehend intelligently the medical aspect of the deaf individual, a brief description of the mechanism of hearing will help greatly. The hearing apparatus is divided into three distinct parts: the external ear, the middle, and the internal ear. The external ear includes the ear appendage with a canal that leads to the delicate membrane known as the ear drum. The ear appendage is arranged as a trumpet to carry sounds into the canal and thus transmit them to the ear drum.

The middle ear, which begins at the ear drum membrane, has a more intricate arrangement. It is a very small rectangular cavity in which are contained three ossicles (little bones). These ossicles are attached to one another, the outer one being in direct contact with the drum and the inner one being in contact with what is known as the oval window, an opening to the inner ear. The middle ear also contains the opening of the Eustachian tube, which is directly connected to the back of the nasal cavity. The function of this opening of the middle ear to the surrounding air is to maintain the same air pressure on the inside of the ear drum as on the outside.

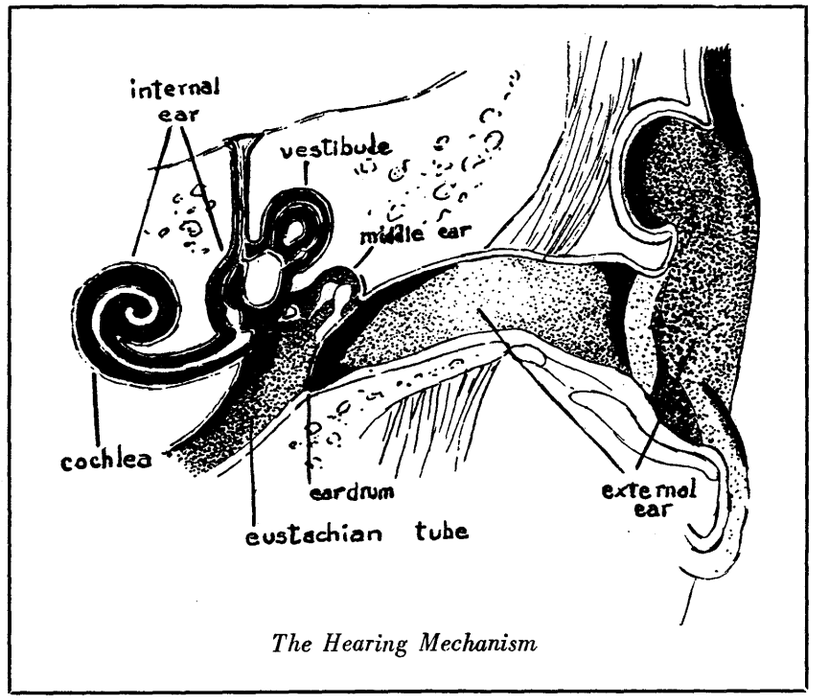
The internal ear is a very complex structure and is the true organ of hearing. It is divided into two portions, the cochlea and the vestibulae portions. Only the former, however, is related to the hearing, the latter having the function of regulating the balance of the body. The cochlea is a spiral, snail-shell like arrangement containing a fluid. In the cochlea and bathed by this fluid is the "Organ of Corti." This is a minute perceptive organ to which sound waves are directed from the outside to the ear drum by way of the aforementioned ossicles and thence through the oval window into the cavity of the cochlea. The organ of Corti is directly connected with the hearing, or auditory, nerve through which sound waves are transmitted to the brain where they are finally perceived and interpreted.

Causes of Deafness

THE CAUSES of deafness, either partial or complete, are manifold. There are, however, two main classes of deafness: the first, that of individuals who are congenitally (born) deaf. Such cases frequently show a familial tendency —that is, they inherit the deafness. They are in many cases the deaf mutes. The others fall into the class of acquired deafness and comprise by far the majority of the deaf.

The causes of acquired deafness can be best understood by reference to the anatomical description above. Impaired hearing may result from diseases in any of the three parts of the ear. Diseases of the external ear are relatively unimportant as a cause of deafness. Blockage of the external canal by foreign bodies or wax may lead to temporary impairment, however, and narrowed canals from repeated infections may result in more permanent damage.

Disease in the middle ear is responsible for a high percentage of all cases of deafness. Impairment of hearing may result from repeated attacks of abscesses which cause running ears and destruction of drum and ossicles; growths in the middle ear due to chronic inflammation; and obstructions at the orifice of the Eustachian tube in back of the nose resulting in blocking of air pressure in the middle ear. The usual cause for infection of the middle ear is the ordinary head cold, the infection spreading from nose or throat through the Eustachian tube and into the midlde ear where an abscess forms. Unless a physician drains the abscess by an opening in the ear drum, the abscess may break through the drum. Sinus conditions, nasal catarrh, obstruction in the nose, growths in nose, adenoids, all predispose to head colds and thus to the possibility of middle ear disease. The proper care of these conditions will help to prevent the occurrence of this type of ear infection. Such middle ear infections may extend to the mastoid bone, necessitating an operation. The deafness resulting from middle ear disease is usually amenable to treatment if it is instituted early enough. The proper care of running ears from the very beginning and the care of infections of nose and throat will greatly decrease the frequency of occurrence of impairment of hearing.



The Hearing Mechanism

Internal Ear Disease

DEAFNESS resulting from internal ear disease can seldom be improved by treatment. Inner ear deafness is referred to as perceptive deafness, as distinct from the middle ear type which is called conductive deafness. Conductive deafness also includes diseases of the hearing nerve. The following general diseases may cause, as a complication, such deafness: meningitis, scarlet fever, measles, typhoid, syphilis, mumps, and others.

There are many cases of persons who are subject to progressive deafness in adult life, the cause of which is unknown, but which is found to follow a hereditary tendency. This condition is called oto-sclerosis—a disease of the bony part of the internal ear.

Much occupational deafness is of internal ear origin. Many cases in this category are found among locksmiths, blacksmiths, riveters, boiler makers, stokers, workers in noisy machine shops, soldiers (artillery), miners, and train hands. Persons exposed to excessive variations in atmospheric pressure such as caisson workers, divers, and aeronauts are another group subject to occupational deafness. The third group in this class are those exposed to industrial poisons such as lead, arsenic, phosphorus, sulphur and coal gas. These occupational hazards to hearing could in many instances be eliminated by protective devices which would safeguard the worker against the serious handicap of deafness.

The problems of readjustment confronting the adult who has become deaf during his adult life are particularly difficult. When a child is the

victim of acquired or congenital deafness, the adjustments are accomplished with less mental distress. But when a person in middle life is confronted with progressive deafness, the problems of adjustment are difficult and distressing. A person entering the realm of silence finds himself isolated. Efforts at rehabilitation must take this into consideration and undertake to create a new environment to replace the one that is slipping away. The economic problems may be difficult. The handicap of progressive loss of hearing in middle life often demands complete economic readjustment. The fact that 35 per cent of adults with impaired hearing are obliged to seek new occupations because of this deafness tells a tale of financial loss and human misery.

Care of the Deaf

THE LEAGUE for the Hard of Hearing maintains social and educational centers where those with defective hearing may meet and cultivate lip reading, and participate in entertainments suitable for their condition. They also maintain employment bureaus. An important service given by the League is advice in the selection of hearing aids, thus providing some protection against commercial exploitation. A great many faddists and charlatans prey on the deaf, who are often easy victims because scientific medicine is in many cases helpless to restore hearing.

Care of the child born deaf or of those afflicted with total deafness in childhood is properly carried out by schools for the deaf. The moderately deafened are given special instruction in lip reading at many regular public schools. Many cases of early deafness in children are detected by means of the routine audiometer tests which can be done in schools. (The audiometer is a machine that records as accurately as possible the degree of loss of hearing.) Such tests bring to light the numerous cases of middle ear deafness so that they can be treated.

Those whose hearing begins to fail in adult life should, if possible, go to a reputable specialist or to a clinic, where the degree of hearing loss will be measured. The specialist will advise whether or not a hearing aid or lip reading is necessary.

PREGNANCY

Symptoms and Tests

THIS IS A question that almost every married woman has asked herself, at some time or other. What are the very first signs? How can you know?

The first suspicion will dawn on you when you have missed your menstrual period, where previously your period may have seemed quite regularly and perhaps rarely varied beyond a few days. The breasts may become unusually sensitive and painful. You will complain of a feeling of great weight, low in the pelvic region as though you were about to menstruate. A frequent need to empty the bladder is another common early symptom; also a mild nausea with occasional vomiting and a feeling of fatigue or languor not usual nor so persistent at other times. If these symptoms singly or in combination persist for several weeks and the period does not occur it is highly probable that you are pregnant.

Many young women experience some of these symptoms periodically several days before menstruation comes on; therefore it is well to guard against a premature conclusion that you are pregnant. In fact, it is unwise for you to assume that you are pregnant until at least five or six weeks after the menstruation was due. The fact is that the pelvic condition of pre-menstruation is almost identical with very early pregnancy. You should not trust to your own judgment or the diagnostic ability of your friends but go to a well-trained doctor for his opinion. The doctor may tell you that he is fairly certain but wishes to re-examine you in about three or four weeks to corroborate his opinion. You may then ask what are the positive signs of pregnancy. They are the

actual moving around and kicking of the baby, and the ability of the physician to count the baby's heart beats through the abdominal wall.

Special Tests

THERE ARE cases in which it is almost impossible for a physician to be certain by the ordinary means of examination. This may be so in the unusually stout woman or in cases where complications are present such as large tumors of the womb or watery cysts of the ovary.

Have we any special aids in making a positive diagnosis? One of the most helpful ones is a biological test called the Aschiem Zondek or mouse test—the urine pregnancy test. This test was developed through patient research on the secretions of the ductless or endocrine glands. It is particularly valuable in the early stages when ordinary diagnosis may be uncertain. If expertly interpreted this test is about 98 per cent correct.

Another valuable aid is the X-ray of the woman's abdomen from about three and a half to four months after conception is believed to have occurred. The X-ray picture will definitely show the fetal skeleton. In an occasional case both tests may show negative results despite actual pregnancy and the baby continue to develop in the woman's womb. This only proves that the doctor cannot rely absolutely on laboratory tests alone, but must use these methods only to supplement his clinical impressions. It is essential in these doubtful cases to give your doctor the opportunity to study the situation carefully.

If you think you are pregnant, if pos to your doctor or to a clinic for medic

LISTERINE, VICKS, ASPIRIN WON'T CURE COLDS—"What Will?" Asks R. B.

To the Medical Advisory Board:

The Article on "The Common Cold" which appears in the November issue of HEALTH AND HYGIENE is indeed timely, but is incomplete and confusing. Several of my friends, after reading it, asked, "What should we do to cure a cold?" While it is important to expose the uselessness of the widely advertised medicines, it is just as important to give a concrete method of treatment which should be based on what little is known of the disease.

The author of this article failed to do that. The article is incomplete because it does not give any definite method of treatment for the child or adult of an average worker's family —which has to take care of itself, in many cases, with a minimum of funds and facilities. It is confusing and disarming because many of the commonly used medications and treatments have been discredited and no other definite treatment given. Only in the summary does the author state a very short course of treatment for the first evening. It is followed by the advice to take an opiate to insure a good night's rest.

What does one do tomorrow? The author recommends staying in bed if there is a sore throat or fever present until the condition clears up.

We wish you to know that this magazine is not discarded after it has been read. Each issue is kept for reference. Many of us feel that here is one health magazine on which we can depend. What do you think our opinion will be after getting a few such half-hearted articles without any constructive advice on such a common ailment? What assistance will we get from this article? None. It does not say how to take care of a sluggish digestive system while in bed with the cold, does not give a diet for the time we are in bed. It tells us nothing about the treatment after the first evening.—R. B.

R. B.—You complain that the article gives no constructive advice on the treatment of colds. That is true. But that is not the fault of the author. It is impossible to give constructive advice simply because the cause of the common cold is not definitely known and therefore no genuinely effective plan of treatment can be given. We believe, however, that the article is of assistance when it points out the worthlessness and possible harm of all the currently advertised nose drops, gargles, drinks and patent medicines. If we can save our readers many dollars spent on useless remedies we are indeed doing something constructive. The injudicious use of nose d as-pirin and rhinitis tablets do a great deal of harm, can e cause death, as will be shown in our next issue. Such warnings are required. It is unfortunate that we cannot give positive, cold-curing substitute suggestions. That, however, is due to the lack of scientific knowledge about colds and not to any omission on our part.

At the beginning of the article it was stated that the "cold can cause a temporary lowering of resistance which may lead to serious and protracted illness." The application of ordinary rules of hygiene during a cold should prevent complications. The most important of these rules are abundant rest, avoidance of crowds and a simple menu. When fever or sore throat is present, the patient should remain in bed until the fever or sore throat subsides. These measures may prevent complications but they will *not* cure the cold. The cold will go merrily on through its various stages of congestion, thin discharge and thick discharge. Neither fresh air, good bowel elimination, adequate hygiene of the mouth, nor diet, singly or combined, will in any way influence the progress of the cold at any of these stages in the vast majority of cases.

We shall keep our readers informed of any future developments in discovering the cause and treatment of colds.

The CRIME behind SLEEPING SICKNESS

EPIDEMIC encephalitis is usually known to the layman as "sleeping sickness." This is because excess sleeping was the most prominent and striking symptom noticed when the disease was first discovered about 20 years ago. Further study, however, has shown that many of the victims never exhibit this symptoms, and in fact may have exactly the opposite difficulty, inability to sleep.

While it is possible that epidemics had occurred previously, it was during the World War that this disease, like others, developed and spread to such an extent that it is now a very serious medical and social problem. Some competent authorities believe that the poorer food, the greater overcrowding, and the unsanitary living conditions of wartime gave the germ of this disease opportunity to develop its virulence, while the same factors weakened the resistance of the people. It is not known definitely what germ causes the disease, but there is no doubt that it is due to a germ of some kind.

Whatever the cause, the fact is that from 1916 to 1919 the disease gradually spread over the entire world, often seeming to follow the terrible epidemics of influenza occurring at that time. There is some reason to think that many people who had attacks of what was apparently only influenza may actually have suffered from the acute stage of encephalitis. Since 1919 new cases have continually appeared, although not by the thousands as was true fifteen to twenty years ago.

Effects of the Disease

IN THE FIRST, or acute, stage of the disease, the patient suffers from pains and aches, high fever, delirium, various complications affecting the eyes, and a great number of other complaints. About a quarter of all patients die during this stage. Many cases, however, are quite mild. About one out of ten of the survivors develops complications, weeks, months, or even years after apparent recovery.

These complications of the later stage of the disease generally spare the mind, but cripple the patient. Gradually there develops weakness, stiffness and tremor (shaking) of the limbs. The muscles of the face become rigid, and there is a loss of the normal play of facial expression, so that the patient looks as though he were wearing a mask. The eyes move slowly and mechanically, the mouth remains half-open, there is excessive production of saliva with consequent drooling, and the skin becomes greasy.

As the disease progresses the body and the arms become bent. The patient loses what are known medically as "associated movements." One of these is the normal swing of the arms in walking, the right arm moving forward simultaneously with the left leg. Another associated movement is the wrinkling of the brow when we look upward. With the loss of these movements an individual looks awkward and has various minor difficulties of adjustment. Many of these patients become bedridden and completely helpless, but the majority move slowly and clumsily about, unable to engage in any form of occupation, a burden to their families, and unfortunately perfectly normal mentally, so that they realize keenly their tragic condition.

Need for Hospitals

THE FATE of these people has been discussed by Dr. Josephine B. Neal in the "Journal of the American Medical Association" for September 8, 1934. Dr. Neal, Professor of Neurology at Columbia University, is recognized everywhere as one of the leading authorities on this disease. She writes: "What provision can be made for the hospitalization of patients in the chronic stage of encephalitis? There are tens of thousands of these patients in the United States, most of them without the means to provide themselves with adequate care. Some of them are in state hospitals, some are at home. Very few are enjoying the benefit they might derive from physical therapy, occupational therapy and symptomatic treatment. Hospitals especially designed for these patients are urgently needed. They are needed not only for the sake of the patients and their families, but also because studies carried out in such hospitals would, in time, add greatly to the knowledge of this baffling disease."

The actual state of affairs, while mentioned, is scarcely described adequately. The fate of these patients is indeed a miserable one. Every "home for the aged" has cases of people in their twenties and thirties, sitting in a chair and praying for death. Where there survives that blot on society, the poor house, one finds more cases. Every large state hospital for the insane has dozens or even hundreds of such patients, although in the great majority of cases they may be perfectly normal mentally. It is well that "more advanced" communities consign such victims to the state hospital instead of to the horrors of the poor house. Those sufferers who are fortunate enough to have sufficient funds—and the readers of HEALTH & HYGIENE may make their own estimate of the size of this group—receive treatment which gives them definite and at times very striking relief from their disabilities.

Treatment

WHAT IS the treatment? In the first place, the environment should be one of peace and quiet. (Did someone ask if this can be obtained in poorhouses, in crowded tenements, in state hospitals for the mentally ill?)

The patient needs what is known as "re-education" or retraining of his stiff and almost paralyzed limbs. This requires considerable time on the part of physicians, nurses, and physiotherapists (In state hospitals a single doctor may be required to attend to 500 or even more patients. Draw your own conclusions regarding the degree of "individualization" of treatment, the amount of time he can devote to re-education. Homes for the aged and poorhouses, of course, rarely if ever have *any* doctor living on the grounds.)

There are various drugs which can definitely relax the stiff muscles, decrease or even stop the distressing drooling of saliva, relieve other symptoms, and permit the patient to resume normal activity. (These drugs cost money, must be administered carefully, and their effect studied closely in order to obtain the best results.) Finally, a great deal of attention must be paid to the patient's psychological, or mental, attitude. He needs encouragement, reassurance; he needs to be shown that he is a human being with a definite place in society, not simply a creature which eats, sleeps, and exercises. These mental and emotional factors are extremely important in treatment.

Results of Treatment

THE VALUE of such an ideal routine is well illustrated by the case of a thirty-year-old man who suffered from such severe shaking of his hands and stiffness of his left leg that he could not even feed or dress himself. He was fortunate enough to have sufficient funds so that he could obtain adequate treatment in a good private hospital. In six weeks he was able to dress himself, and three weeks later took a girl to the movies with no embarrassment to either of them. In another case, that of a twenty-three-year-old girl, there had been great danger of suicide because of her feeling that life could hold nothing for her. She was able to walk only with the greatest difficulty, her face was extremely greasy, she suffered from painful spasms of the eye muscles. It was impossible to persuade her to leave her home because of her extreme sensitiveness. She was treated at home for about four months, at the end of which time she could feed and dress herself with ease, had learned to weave rugs as a cultural form of expression as well as a means of earning money, and her psychological attitude towards her problems had been so changed that she was not only willing but eager to help in the training and re-education of other victims of this disease.

Such cases are not uncommon, and similar results can be obtained where the proper social, psychological, physio-therapeutic (baking, massage, exercise) and medical treatment is given. We in the United States have the necessary knowledge, the equipment and medical personnel. While doctors with necessary training sit idly in their office, wondering how the rent will be paid and trying to recall how long ago the last patient came in, tens of thousands of the victims of this disease drag out a miserable existence without adequate medical care. While expensive baking and massage apparatus are available to a few, 95 per cent of the sufferers have never even heard of such machines.

How
Hardening of the Arteries
Affects the Human System

ARTERIOSCLEROSIS means hardening of the arteries. Like so many medical terms, its origin is Greek—arterio meaning artery and sclerosis, hardening. Hardening of the arteries is part of growing older, just as is graying of the hair. Indeed, just as most young persons have an occasional gray hair, so some degree of hardening is found in almost everyone past the age of thirty. Today there is more arteriosclerosis than there was twenty-five or fifty years ago because people live longer in 1935 than they did in 1910 or 1885. There are more middle-aged and old people.

Fewer people die today in early life from diseases such as tuberculosis, typhoid and diphtheria, since medical science has brought these causes of early death under partial control. A higher proportion of the population lives to middle age and therefore many develop chronic conditions common to older people. As arteriosclerosis develops in the middle-aged person, it may or may not take on the aspects of a serious disease. It may not affect his well-being any more than his less acute eyesight or hearing, or the slight stiffening of his joints that have lost the suppleness of youth. On the other hand, it may be the forerunner of chronic or acute disease.

The arteries are tubes, spreading out like branches of a tree, which carry blood from the heart to all parts of the body. The heart pumps blood, the arteries carry blood. Arteries go to the brain, the eyes, the ears, even to the lungs, the kidneys, the stomach, the arms, the legs, muscles of the heart itself, in brief, everywhere. Normally, in youth, the arteries are thin-walled tubes, soft and elastic, with a perfectly smooth inner lining. As a result of the changes which develop with age, the arteries become less elastic, the internal diameter decreases, and the external diameter increases due to thickening of the walls. The inner lining begins to roughen, the vessels become hard and run a twisting course.

It has been said that a man is as old as his arteries. Conversely, it might be said that the arteries are not always of the same age as the man. They may be older or younger. Several factors influence the degree of arteriosclerosis. Heredity is one. The man who comes from a line of long-lived ancestors, is likely to have less hardening of the arteries than others of his age. The famous physician, Sir William Osler, once suggested that the quality of tubing with which one is born influences the severity of the disease. Infections such as typhoid fever, influenza, diphtheria, rheumatic fever, and scarlet fever appear to cause changes in the arteries. It is possible that chronic infections such as abscessed teeth, sinusitis, tonsilitis, and gall-bladder disease also cause changes. People who suffer from diabetes, gout, Bright's disease, and high blood pressure seem particularly disposed to arteriosclerosis. Those who do hard muscular work show hardening of the arteries in their arms or legs; and lead workers, and others who are exposed to lead, are especially prone to develop arteriosclerosis. It is not true, however, despite persistent belief to the contrary, that alcohol, coffee, tea, or tobacco causes hardening of the arteries.

How Complications Develop

HARDENING of the arteries in itself does no harm. After all, blood can flow through a hard tube as well as through a soft one. However, as the sclerosis progresses, two complications may develop. The first results from the thickening of the wall of the blood vessel and the consequent narrowing of the inside diameter. This, in turn, interferes with the flow of blood through the artery. If sufficient narrowing occurs, the nourishment of the organ dependent on the affected arteries may be seriously diminished. If this happens the involved organs are damaged.

The second possible complication is sudden obstruction in an artery. Normally, the lining of all the arteries is perfectly smooth, but as little hard patches appear in the walls of the arteries, the smooth lining develops rough, raised spots where blood clots may form. The formation of a clot is known as thrombosis. Such a clot or thrombus is often big enough to close off the artery and stop all blood flow beyond the closure. Herein lies the danger of arteriosclerosis, for if an artery becomes closed off, that part of the body which normally receives its blood supply from the artery will suddenly be deprived of nourishment. If a vital area is affected, serious trouble develops. Thus, if an artery to the heart is shut off, or thrombosed, a heart attack may occur; thrombosis of an artery to the brain may cause a mild stroke; while gangrene may result when an important artery supplying blood to the toes or legs is blocked.

We shall outline in greater detail the symptoms of arteriosclerosis of some of the more important organs, considering first gradual closure and then sudden closure of the arteries supplying these organs.

The Brain

Brain, gradual closure. The patient notices loss of the ability to concentrate, mental tasks become more difficult, the memory fails, especially for recent events, sleep may be poor. The patient may be irritable or despondent and may weep easily. His judgment is not good. A well-known Senator began to cry whenever he lost a hand at bridge and often blew up while addressing his colleagues when he forgot a word which he wanted especially to remember.

Brain, sudden closure. If a large artery becomes closed off, the patient loses consciousness. The coma may last a day or two. Closure of smaller blood vessels does not as a rule cause loss of consciousness. The symptoms are less severe in thrombosis than in brain hemorrhage. The patient may develop a temporary paralysis of an arm or a leg, or lose his speech for a few days, or lose sight in one eye for a short time. The prospects for recovery are, as a rule, good. Pasteur did some of his best work after his first cerebral thrombosis.

The Heart

Heart, gradual closure. The heart muscle becomes weakened. Areas of heart muscle degenerate and small scars are left. Gradually, failure of the heart develops, causing at first, shortness of breath on exertion, later on mild exertion, and eventually, at rest. Dropsy often occurs. (See "Cardiacs May Live," HEALTH AND HYGIENE, September, 1935.) Angina pectoris may develop. In this condition, a squeezing pain in the chest may occur as the result of excitement after heavy meals, or while walking, especially uphill, in cold weather, or against the wind. Angina pectoris is sometimes called the great American disease, although research has not yet disclosed the reason why this condition occurs so much more frequently among Americans than in natives of other lands.

Heart, sudden closure. Sudden thrombosis of an artery to the heart causes severe pain in the chest which lasts for several hours or even a day or two, shortness of breath, weakness, sweating, collapse, nausea, and vomiting. The patient may die very suddenly, but more commonly he recovers from the acute attack and lives a more or less restricted life thereafter. After the acute attack the patient may feel perfectly comfortable; nevertheless several weeks of complete rest in bed is essential to allow proper healing of the heart. Thrombosis of the heart arteries is also particularly common in America. The first satisfactory account of this condition, in which the correct diagnosis was made before death, was written by two Russia physicians, Obratzow and Straschesko, in 1910. But American physicians have added most of the knowledge of this characteristically American disease. These attacks used to be called acute indigestion until new diagnostic instruments and research studies of the body after death gave physicians a proper understanding of the condition.

The Kidneys

Kidney, gradual closure. Kidneys that are markedly arteriosclerotic rarely cause the patient to suffer from Bright's disease. A small amount of functioning kidney remains and is able to serve for many years. Apparently, the normal slowing down of activity in aged people permits them to get along with but a small amount of functioning kidney. However, if a sufficiently large proportion of kidney is rendered useless, Bright's disease may develop. Red blood cells and albumin appear in the urine, the patient often has to get up at night to urinate because the kidneys work overtime at night to rid the body of accumulated wastes. The most important sign to the physician of damaged kidney func-

tion is low specific gravity (weight in relation to weight of water) of the urine. In the latter stages of Bright's disease, dropsy and puffy eyes develop.

Kidney, sudden closure. For a day or two the patient may notice blood in urine. There may be some pain in the side, but beyond that little discomfort is caused. Whenever blood appears in the urine, whether or not there are any other symptoms, it is important to have immediate medical attention. Even when it is not due to thrombosis, the appearance of blood may indicate serious ailment.

The Legs

Legs, gradual closure. The patient develops pain in the calves on walking because the muscles cannot get a sufficient amount of blood during exercise. The pain is relieved when the patient stops walking. Often, too, the patient will develop cramps in the muscles of the legs during the night. Or he may experience burning pain during the night together with numbness and tingling.

Legs, sudden closure. The patient develops very severe pain in the leg, which, as a rule, lasts several hours. The leg becomes cold and numb. Gradually, that part of the leg which has been deprived of its blood supply becomes blue and begins to die off, in other words, gangrene begins to develop. If germs do not infect the gangrenous part, it is known as dry gangrene. A line forms separating the dark blue or purplish dead tissue from the living. The level at which this line appears depends upon the size and location of the thrombosed artery. It may be at the middle of a toe, for example, or across the foot, or in the lower or upper part of the leg. It need scarcely be said that these conditions demand the promptest medical attention.

New Vessels Form

Thrombosis in older people is generally less serious than in the young. Nature has very generously provided in advance for the emergency. As arteries become gradually narrow with advancing age, new blood vessels begin to grow in to supply the same area. Thus, where there may have been three arteries, for instance, there now are four. Therefore, if one blood vessel is suddenly shut off, there are others to take up the burden. But in younger people, usually there has been no slow and gradual narrowing of the arteries with consequent increase in the number of vessels. For this reason men in their thirties frequently succumb to a first heart attack, while men in their fifties usually recover.

In any case, a certain amount of permanent damage is done after an acute thrombosis. That part of the body which suddenly loses its blood supply, dies off. The dead area is replaced by a scar and can never again do the work of the original tissue. Sometimes, in the brain, a hole is left where the brain tissue has died off and at post mortem examination there is found what is known as a "Swiss cheese" brain. In the heart, more scar tissue than muscle may be present.

In the light of what has been said it is obvious that little can be done to prevent the onset of arteriosclerosis. It is also obvious that there is no treatment that can restore the damaged vessels to their normal state. Nevertheless, a great deal can be done to relieve the symptoms due to arteriosclerosis. In certain instances it is even possible to arrest the disease or at least to retard its progress.

Treatment

TREATMENT is most likely to be successful in the early stages, before marked symptoms make their appearance. Foci of infection should be removed. The diet should be carefully adjusted to the needs of the patient. Anemic, undernourished patients should, if possible, have a full nourishing diet. For the obese, the aim should be to secure reduction in weight. The proper treatment of lead-poisoning, diabetes, gout, Bright's disease, and high blood pressure, especially diabetes and lead-poisoning, where these diseases are present, offers the greatest opportunity to prevent the progress of arteriosclerosis.

The patient with high blood pressure must be warned against hurry, sudden effort, and the lifting of heavy weights. Constipation should be corrected with mineral oil or laxatives. Overeating and exercising directly after a meal should be avoided. If the blood vessels of the lower extremities are narrowed, it is important that infections and injuries of the feet should be prevented. Footwear should be loose and comfortable. Corns should not be cut. A doctor should immediately be consulted for any redness, pain, or swelling of the feet. Such care and treatment can frequently enable the arteriosclerotic person to live a long and useful life.

Medical science is finding new paths of investigation for the study of the problem of arteriosclerosis. Chemical studies are offering fruitful results. For example, there is some evidence to indicate that certain fats may cause arteriosclerosis. In the days before insulin was introduced into the treatment of diabetes, diabetic patients used to eat large amounts of fatty foods and comparatively small amounts of starches and sugars. Arteriosclerosis was very common in these patients. In diabetic children, the condition was clearly related to the diabetes, since youngsters of the same age without diabetes did not have recognizable arteriosclerosis. Examination of the blood of diabetics who ate large amounts of fats revealed abnormal quantities of a fatty substance known as cholesterol. Since insulin has been discovered, diabetics are given small amounts of fat and liberal amounts of starches and sugars, for the insulin enables them to utilize these latter foods. Arteriosclerosis is becoming less common in diabetic adults, and in properly treated diabetic children, hardening of the arteries is unknown. Coupled with this information is the fact that hardening of the arteries can be produced in rabbits by feeding them with cholesterol. The Russian physician Anitschow demonstrated this as far back as 1913, but the work was not accepted by other scientists until recently when the results of his experiments were amply confirmed. Although heredity is apparently more important than any other factor in determining what the degree and severity of arteriosclerosis will be in any individual, yet the future is bright with the promise that medical science will conquer this disease as it has so many others.

When Your Child Sucks His Thumb

BABIES GET A GOOD deal more than milk when they nurse at the breast. They get warmth, comfort and pleasure. During the first year of life much of a child's pleasure comes to it by way of its mouth. For this reason most babies at some time or other, usually shortly after birth, discover finger or thumb-sucking. While we can sympathize with the child's desire to get pleasure in this way, we must prevent it from becoming a habit for it may harm the child.

Although usually it does no harm, thumb-sucking may in some cases interfere with the proper formation of the shape of the jaw or the roof of the mouth. It may, by means of such disfigurement, prevent the proper alignment and development of some of the teeth. Fortunately it rarely has these very bad effects and then only after prolonged, persistent thumb-sucking. Thumb-sucking is a universal problem and need not cause alarm. Although we should try to prevent the habit from becoming persistent, most children will stop sucking their thumbs as they get older and acquire new interests, even if we do nothing about it.

Habits are easiest to change or direct before they become deeply fixed, and thumb-sucking is no exception. The foundation of thumb-sucking is often laid by improper feeding habits. Babies are allowed to go to sleep while at the breast or bottle or they are allowed to doze during their feeding. This is a wrong thing to do. The baby must be awakened before he begins feeding and should be awake while feeding. The nursing should not last indefinitely and usually should take from 10 to 20 minutes. The baby should not be allowed to sleep during the feeding.

Often babies are given a nipple or pacifier to suck before falling asleep. This is also a bad practice and often encourages the formation of the sucking habit, especially during sleep. Babies should not be given rubber nipples or pacifiers to suck at.

Breaking the Habit

WHEN THE BABY is seen sucking his thumb, his mother should remove it from his mouth and give him something else to take up his attention. He should not be punished or scolded.

The whole thing must be handled very casually. If a fuss is made over it, the baby's attention is directed to the habit and this may make it harder to overcome. If a baby doesn't acquire the habit during the first few months he usually doesn't get it at all. Sometimes the habit will arise at the beginning of teething and sometimes when the baby is weaned too rapidly. Occasionally it starts because a bad example is set by another child or adult who sucks his thumb, or bites his nails before the baby.

If the habit is well established it may not be easy to overcome. The mother should continue her efforts but she should do it calmly and patiently. After taking the child's hand from his mouth she should give him a toy so that he will forget to suck his fingers. If the child sucks his fingers mostly at night, he should be given a toy when he goes to bed. If possible, the same toy should not be given every night so that the child will not get used to any one toy that he must have to fall asleep. Later the toy should not be given to the child at bed time since it is better for him to go to sleep without any toy. Some authorities advise putting a little adhesive over the thumb, or putting on mittens. This seldom helps.

There is a difference of opinion about the use of stiff cuffs to be worn at night to prevent thumb-sucking. In any case they should be rarely used during the daytime.

As the baby gets older, and develops new interests the habit generally disappears. For the toddler the company of other children will tend to take away some of the child's interest in his own body. Proper diet and sunlight and care of teeth will make deformation by thumb-sucking less likely. When teeth are out of alignment for any reason the child should be taken to a dentist.

The Latest HEALTH INSURANCE FRAUD

HEALTH INSURANCE is no longer a speculative topic confined to conversation among leaders of social welfare agencies. A changing attitude toward health insurance is not the least of the effects dragging in the trail of the depression. Millions of our people are being denied the possibility of maintaining their health; and thousands of medical practitioners are being denied the opportunity to serve these people. A population which cannot buy adequate food, clothing, and shelter obviously cannot buy and has not bought vitally necessary medical care. Such are the conditions which have forced the issue of health insurance out of its academic cloister. Moreover, the urgent need for a workable solution has compelled consideration of health insurance in medical and dental societies, as well as on the floor of fraternal organizations and trade unions.

Besides the element of urgent need, another factor has contributed to bringing the issue of health insurance before the American people. In the last days of the New Deal, government spokesmen played fast and loose with humanitarian talk about "social security." Concerning health they said, "The preservation and conservation of the health of our people is a primary function of our government." This statement and many like it effected no cures. But it did, and effectively, accelerate the growth of a concept which was already beginning to take root in the minds of many Americans; it planted the realization that responsibility for the well being of the population was not individual but social, and as such, had to be assumed by the government.

The New Deal spread far and wide the word that the old policy of "every man for himself and the devil take the hindmost" was gone forever. When President Roosevelt came face to face with the consequences of this talk, however; when he saw that the people had forced over forty

congressmen to vote against the government's unemployment insurance bill and for the Workers' Unemployment Insurance Bill, he promptly silenced all talk of insurance. Health insurance went overboard with the rest.

Today we listen in vain for such lyrics as issued from the White House in the New Deal days. Instead we hear a new tune. We learn from the government's unofficial spokesmen within the medical profession that the health of the American people is improving. When General Johnson singing out of tune, indiscreetly mentions that one-sixth of the people on relief in New York City are no longer employable because of ill health, he is promptly rapped to order and forced to retract. Dr. George Crile assures the American College of Surgeons that "public health is almost twice as good in North America today as it was ten years ago." Health Commissioner Rice of New York City declares that his department "has hung up some new low records" in illness.

"Interpreting" Statistics

UNFORTUNATELY, the most elaborate reports prepared to substantiate the good news bear witness only to the ingenuity with which their sponsors interpret available statistics. The haze of optimism through which these officials see figures perverts their conclusions. They examine the records of physicians and learn that large numbers of people have given up the services of private practitioners. Their brilliant conclusion is that illness is waning. Further, they look into the records of the private hospitals and learn that these are close to bankruptcy. This fact signifies to the zealous officials that people no longer need hospitals.

One wonders whether it is only a naive will-to-believe on the part of these officials, or whether it is out-and-out mischief, which causes them to ignore what should be obvious to the most obtuse observer. Columns standing shoulder to shoulder on the same printed page declare on the one hand that "Public health gains 100 per cent", and on the other hand, that "from 1929 to 1934, the percentage of patients cared for in private hospitals without charge rose from fifteen to sixty per cent." Moreover, a study of the hospital service in greater New York revealed that the tremendous increase in occupancy of municipally financed hospitals, was not the result of a diminishing of free hospital service in the private hospitals. This indicates clearly that the increased load on the municipal hospitals are newly-sick, and that unmistakably, these are the swelling army of victims of the depression. Health is getting worse, not better. Every one is more or less aware of this trend, and available figures, when honestly interpreted, point to the same conclusion. Such "health-is-improving" talk supplies neither the basis for health — food, clothing and shelter—or the means of restoring health—hospitals and medical care.

What then? Dr. Goldwater, Commissioner of Hospitals for New York City, suggests a scheme which merits analysis because it typifies the solutions offered by most health officials and by some leading industrialists. The city administration, for which Dr. Goldwater works, has a banker's agreement by which a huge yearly sum must be paid over to the bankers as interest. At the same time there is a crisis in the voluntary hospitals of New York. Loyal employee that he is, Dr. Goldwater holds the agreement with the bankers more sacred than city payments for support of the hospitals. He therefore proposes that every Union member be taxed five dollars yearly for the support of these institutions, for which, in return, the worker will receive some restricted hospital care when necessary.

The fact that working people, who are least able to afford this burden, are asked to carry it is bad enough. But of greater significance is the basic principle which is being initiated with this scheme. For the successful introduction of such so-called "voluntary periodic payments," if not resisted, must unswervingly and relentlessly lead to "compulsory periodic payments." Should the people of New York City permit themselves to be led into the halter by such seductive plans as Dr. Goldwater's, they would soon find themselves harnessed, by nationalization of the scheme, onto a health insurance plan which has for its basis the idea that "Health or sickness insurance . . . is essentially a method of distributing the burden of sickness among the lower-paid classes of the population."

The poor would find that a burden, which they now bear only in part, would become fixed by some national health insurance act irrevocably and more firmly upon their shoulders. How firmly this burden can be fastened to those whom it is supposed to "benefit" is illustrated vividly by the English "panel" system—that very system which Dr. Goldwater admits to be the source of his inspiration.

THE "Panel" System

A VOTE-CATCHING maneuver, the English "panel" system was ushered in by the Liberal Party in 1911 as the National Health Insurance Act. It derives its name from the fact that doctors wishing to serve the insured are listed in their local post offices on a "panel."

This act compels the insurance of all workers who earn less than $1,215 per year. Such a worker, if he is employed, if he is over 16 and under 65 years old, if he has paid nine cents per week for not less than 104 weeks, and if he has the patience to prove his disability despite a maze of red tape through which he must pass, is then entitled to the munificent sum of $3.36 per week for a period not exceeding 26 weeks. Medical care is provided solely for the purpose of cutting down the period during which the payment must be paid. *No provisions are made for prevention of illness.*

All licensed general practitioners are privileged to enter their names on the panel. Of necessity, the system operates so that a doctor's popularity among the names on the panel is directly proportional, not to his medical genius, but to his adeptness in riding his patient through the maze of red tape blocking the payment of benefits. The "panel" doctor's income averages about $2,000 per year, out of which more than half must be spent on the upkeep of such a practice.

It is obvious that neither the doctor nor the insured derives any real benefit from this system. Who does? The answer is to be read in the billions of dollars gleaned from this "health insurance" scheme by the English insurance companies. Since this system was designed to operate through "approved" societies, it was an easy matter for the insurance companies, smelling a new source of profit, to organize such societies. Constituting themselves "parent" companies to the "approved" societies, which were to be operated without profit and on a democratic basis, they managed to "collect" by means of "overhead." In short, the English insurance companies have outdone themselves in "distributing the burden of sickness among the lower-paid classes of the English population. . . ." More, they have profited bountifully while doing it.

Most of the health insurance schemes proposed in America today have as their basis voluntary or compulsory periodic payments. In essence they are all "share-the-misery" plans in that payments come out of the classes least able to pay. Innocent plans such as Dr. Goldwater's may be utilized as the entering wedge through which a compulsory, so-called "health insurance" scheme may be put over. Health officials, industrialists, and directors of insurance companies look to the "panel" system for guidance. Here they learn how best to plant the burden and how to make a profit at the same time.

The American people, including the doctors, must also learn from the panel system. They must learn that what is often called "health insurance" does not necessarily insure health. In many countries today, the name health insurance serves only to insure the profits of insurance companies.

BREAK-NECK SPEEDS for BREAK-NECK SALES

A "SAFE DRIVING" campaign is upon us. Posters, radio talks, and slogans abound, and we are confronted with horror stories of automobile accidents. All this properly emphasizes the need for care on the motorists' part, but the campaign neglects some of the major causes of accidents. The emphasis is all on the motorist himself, and not on the manufacturer, and his willingness to sacrifice human life for the sake of profits.

Cars must be sold, in large numbers, for greater profits. Alvin Macauley of the Packard Company states that "Preliminary estimates place the industry's output at 3,675,000 cars and trucks which is an increase of 8 per cent over the number produced last year, but it is roughly, more than two and one-half times the 1932 output," and W. S. Knudsen of General Motors adds, "Next year sales should show the highest totals since 1928-1929." Harry Tucker, Professor of Highway Engineering at North Carolina State College, makes the point that "Accidents continue to mount with the increased use of cars." But there must be this increased use for the sake of profits.

But how are sales to be promoted? The different makes of cars at each price level are pretty much alike in appearance and comfort. Therefore the manufacturers emphasize their power and speed in order to sell their cars. Manufacturers claim that the public demands rapid transportation by automobile. But the demand for extreme speed was created by the motor industry's advertisements and sales appeals. Such advertising has been flagrant, although it has been somewhat toned down of late.

The present advertising campaigns still emphasize speed, sales-making speed. Engines ranging from 75 to 175 horsepower are advertised with the same old appeal: "So thrilling. You will be thrilled when you step on the accelerator." "It fairly flashes ahead." "It can deliver speeds you will rarely if ever demand." And there are trade names such as "Silver Streak," with all that it implies in speed.

Motor Vehicles Commissioner Charles A. Harnett of New York State considers excessive speed responsible for more accidents than any other cause, and it should not be overlooked that even emphasis on safety features is an incentive to reckless driving when coupled with sales emphasis on speed and power.

Restrictive legislation might partially cope with the situation, so far as the motorist is concerned, though here the measures available are quite inadequate. In 16 states no operator's license is required. The qualifications, judging from what one sees on streets and highways, for obtaining and keeping a license, when it is compulsory, are by no means sufficiently restrictive. The physical examination of applicants for license in New York, for example, is not even rudimentary. But limitation of the number of drivers limits sales, a forbidden thing under the profit system. It seems needless to say that manufacturers and their financial backers have blocked and will continue to block, too strict supervision of licenses. Charles Collins of the A.A.A. notes that "motorists, in the main, were successful in bring about the defeat of scores of legislative suggestions that would have placed too harsh a regulatory burden on car-owners." Mr. Collins, in referring to motorists, means, of course, the automobile associations. He might truthfully have referred to lobbies of the automobile industry.

WORKERS and HAND INFECTIONS

HAND infections constitute one of the most dreaded hazards of the worker. Because the injury may at the time of its origin seem trivial workers and employers often overlook the probability of infection and its consequences. Poorly treated and neglected hand infections often mean the loss of a finger or the loss of use of an entire hand. If the infection spreads beyond the hand an arm may have to be amputated, and even death may follow. This subject is of the gravest importance, and deserves careful consideration on the part of the workers, the plant owners, and physicians.

The original injury is but one of many factors. Neglect, infection and unskilled surgical attention all contribute to the serious complications that may follow.

Prevention and control of possible infection are of greatest importance, and this means that the first aid treatment must be skilled and efficient. Such treatment is usually rendered by some well-intentioned fellow-worker who supposes he has a flair for things medical. We often see such a man attempting to remove a splinter with a dirty needle or knife, or applying some peculiar remedy to a cut or bruised finger. Tobacco juice is a favorite lotion. Apparently clean but actually unhygienic rags are often used to protect these wounds. Of course immediate treatment of all injuries, no

matter how slight they may seem, is absolutely necessary, but such cases should best be referred at once to the doctor and not left to the ill-informed and untrained volunteer.

The most certain method of preventing the greatest number of infections is prompt action by a physician. If there is a company physician, his services should be immediately sought. In the absence of the doctor, a trained nurse is the next best alternative. If neither is directly available, there should be in every plant a *trained* first aid man. This worker should be instructed in the proper treatment of injuries, and have at his disposal a well supplied and carefully maintained first aid kit. The Conference of Physicians in Industry has drawn up instructions covering all types of injuries, and has also designed a first aid kit. These instructions should be memorized by any person selected to give first aid. But this should be recognized merely as first aid. The injured employee should be sent to a physician immediately after the first aid treatment is given.

Use Iodine

WHILE STILL on the subject of control of infections, there is one exceedingly important point that should be emphasized. That is the value of iodine in the initial treatment of accident wounds. This germicide, when promptly and properly applied, definitely reduces the probability of infection. Every wound, no matter how slight, should be treated with iodine at once—even before the worker reports to the doctor. In one industry, where the immediate use of iodine was conscientiously carried out, there was a reduction of about 38 per cent in the frequency of infection. The use of bichloride solutions, peroxide and other preparations, can in no way compare with the efficacy of iodine. Among the victims of 3,000 accidents in one plant, there were 618 men who did not report at once and who did not use iodine. Of these, 440 developed infection which resulted in 1,912 days of disability. The importance of early medical attention and of immediate use of iodine is well indicated by the fact that the major injuries which force the employee to the doctor at once rarely become infected.

We now come to the matter of the active surgical treatment and the role of the doctor. Frankly, there are too few surgeons trained in the treatment of hand infections. This branch of surgery is highly specialized and too few physicians have the experience necessary to handle such conditions adequately. Often greater skill, judgment and knowledge are required to treat a hand infection well than to handle the ordinary surgical case. A diseased gall-bladder or appendix poorly removed adds surprisingly little to the hazard of the operation. But an ill-treated hand infection often means a maimed and deformed hand, and sometimes loss of life. The medical colleges do not give this subject the prominence that it deserves and most hospitals do not see enough of these cases to develop specialists in this type of surgery. Doctors, as a rule, do not realize the great responsibility that treatment of these cases entails. Too often are such cases considered minor surgery, and entrusted to the novice and the inexperienced.

Once an infection has developed, the best treatment may at first glance appear as the most expensive, but it is, in reality, the least so. The doctor, under pressure from the management, and often hoping to save the patient loss of time from work, hesitates about sending him either home or to a hospital. Such temporizing measures are dangerous. Hand infections deserve active and radical treatment. This means that the injured person should not be allowed to keep on working, but should be kept at rest either at home or in a hospital.

Even those cases that need only dressing are better off in a hospital. The dressings can be applied more cleanly and efficiently and the proper attention can be given to the general condition of the patient. Whereas hospital treatment may clear up an infection that only requires dressing, heat, and rest within a few days, the same case treated in the doctor's office, with the patient up and about, may drag on for weeks, and then require hospitalization and perhaps operation. If you are fortunate enough to have hospital facilities available do not hesitate to enter a hospital if you have a hand infection.

Loccal Anaesthesia Unwise

SOME DOCTORS operate upon hand infections in the office under local anaesthesia. This is a dangerous and pernicious procedure. All hand infections that require operation are serious, no matter how slight the condition may appear, or how brave the patient may wish to be. Local anaesthesia should never be used in these cases. The anaesthesia is not very effective and because of pain the incisions are unusually inadequate. In many cases, these operations have to be repeated, with an extension of the infection and greater possibility of a poor result. A general anaesthesia should always be used. The work of the surgeon will then be more thorough, the incisions more carefully planned and better results will follow. Ninety-five per cent of the infected hands requiring two, three, or more operations are those that have been operated upon in a doctor's office under local anaethesia. Insist upon going to a hospital, especially if an operation is necessary.

Medical Aid for the Injured

SUCH treatment as outlined, in these days and under our present system of society, represents a rather expensive procedure for a worker. These injuries, however, in most states, come under the Workmen's Compensation Act. This act is a slight concession to the worker within our capitalistic state. This law provides that all persons injured during the course of their employment are entitled to medical and hospital services without direct charge. There are also provisions for settlements in cases of partial or complete permanent disability. Employers must guarantee this service, either through an insurance company or establishment of a self-assurers fund. All states have such laws except two, Mississippi and Arkansas. Except in these two states, the injured is entitled to medical and hospital services, and the worker should see to it that the services are the best obtainable and conform to the principles stressed in this discussion. Some states have what is known as a "free choice" clause; that is, a provision whereby the injured may choose any physician he desires to treat him. This is true in New York. Where this clause exists, the worker should, if he can, pick a doctor who has the necessary skill and experience. Where there is no free choice clause, the problem is somewhat more difficult. A doctor doing a large amount of work for an insurance company may be as much interested in keeping down expense as in treating the patient. In case of hand infections, he may hesitate to send the patient home or to a hospital because of the extra cost to the insurance company which provides a goodly part of his income. In this event, a strong protest on the part of the worker, either directly to the insurance company or through the employer, may bring about the desired results.

Adequate care in insuring safe working conditions would be a considerable factor in diminishing the number of hand injuries. There are many efficient safeguards and workers should insist upon the installatiton of these safeguards. Frequently employers either for reasons of economy or through indifference, neglect these installations and the result is the increase in the number of accidents.

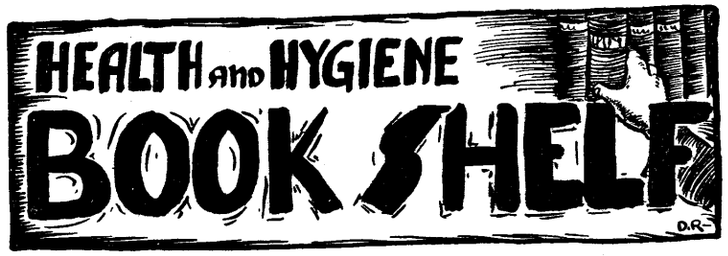
Employees should insist upon removal of hazards which exist in packing rooms, that is loose nails and splinters and poorly made boxes and crates. Badly lined bins, broken baskets, exposed ends of wire, nails and pins, cause many injuries. A certain amount of care would eliminate such sources of danger. In plants where special attention has been directed to these factors, there has been a surprising reduction in the number of injuries. Employees, especially new ones, need careful instruction concerning these hazards and the means of eliminating them.

Speed-Up Causes Accidents

WORKING under pressure is dangerous. A man under a continuous nervous and physical strain finds it difficult to be careful. The speed-up accounts for a large percentage of preventable accidents. How can a worker, continually rushed, guard against pin-pricks, splinters, bits of glass and tin and other such causes of injury? A chain store opens a meat department, selling at slightly lower prices and with special sales each day. Butchers are engaged and find themselves confronted with a rush of business. Meats are cut, and often fingers too. Accodents and infections are common, and loss of fingers and parts of a hand often results. As the company is faced with an increased insurance premium it may start an investigation. First aid kits may be supplied, new orders about reporting accidents may be issued, instructions as to the immediate use of iodine may be supplied, but the essential cause of the mounting number of injuries is usually disregarded. The employer will never see that increasing the number of employees would certainly reduce the frequency of such injuries.

Poor working conditions and low wages create unhealthy and undernourished workers. Such people are more liable to infection following

injury and less able to resist infection. Anemia and other ailments which are, in a measure, the result of malnutrition, improper ventilation while at work, and lack of sufficient rest and exercise make people more susceptible to infection. More attention to the physical welfare of the workers should be given. Periodical physical examinations should be required by law. Workers found ill-suited for one type of work should be assigned to some other type of work and some method should be found to prevent workers from being overtaxed and therefore overexposed to injury.



A USEFUL HANDBOOK for TUBERCULOSIS PATIENTS

"1000 QUESTIONS AND ANSWERS ON T.B.," *by* DR. FRED H. HEISE. Journal of Outdoor Life. $.75.

IN NO OTHER disease does education of the patient play so important a part in cure as in pulmonary tuberculosis. The patient equipped with sound information about the symptoms, diagnosis, and treatment of T.B. has an important weapon in his struggle towards recovery. Tuberculosis specialists have found such an education a valuable ally in their routine sanatorium and private practice. The informed patient has a lively interest in the proceedings about him and gives that cooperation so necessary in the treatment of a chronic disease. He will also be able to distinguish the genuine from the spurious, the authoritative from the quack.

Where a naive and unquestioning attitude may be necessary in the treatment of certain disorders of the mind and body, in pulmonary tuberculosis such an attitude is a handicap. The tuberculous patient already has numerous handicaps to overcome in the way of inadequate medical and sanatorium care, insufficient or improper nourishment, and poor living conditions. He should grasp eagerly every line that will help him overcome these difficulties and aid him to recovery. Education in the various aspects of pulmonary tuberculosis is a valuable aid that transcends the serious limitations of our social and health systems.

Two sources naturally suggest themselves for such education—the physician and literature. The resident or attending physician of the sanatorium, especially the public sanatorium, rarely has the time, patience, or will to give the necessary information to the patient, and he must look for it in various publications. Those published by government health departments are fairly good, but generally too sketchy. The questions that intelligent patients ask are not satisfactorily answered by these pamphlets. The needs of such patients will be met by such a book as Dr. Fred H. Heise, Medical Director of Trudeau Sanatorium has prepared: "1000 Questions and Answers on T.B." In this book is condensed his twenty years' experience in answering patients' questions.

Dr. Heise has done an excellent job despite a few omissions and questionable conclusions. Each of the sixteen chapters deals with an important aspect of tuberculosis. Chapter VI, for example, deals with symptoms. Questions about the significance of the color and quantity of sputum are fully answered. The meaning of positive and negative sputum is also discussed. The

reviewer wishes, however, that Dr. Heise had stressed that a positive sputum means that a cavity has occurred in the lung; but that a negative sputum does not necessarily mean that a cavity has closed, and that a dozen or more sputum examinations may be required before reasonable certainty can be felt that it has closed.

We are glad that he emphasizes the importance of frequent X-ray examinations to determine the disease's progress. No treatment is likely to be satisfactory unless an X-ray of the chest is taken approximately every two months. This is particularly necessary for those receiving artificial pneumothorax. The consensus of expert opinion is opposed to his statement that "sun baths, if properly taken under the guidance of a physician, will result in indirect benefit to the patient with pulmonary T.B." The consensus of opinion is that sun baths have no value whatsoever in the pulmonary form of T.B. and can frequently cause serious trouble.

Surgery has become a major weapon in the treatment of pulmonary T.B. Bed rest alone has proven to be entirely inadequate and even wasteful of precious time. No T.B. sanatorium is worthy of the name unless it has a surgical pavilion with complete equipment and facilities for performing the various chest operations that are indicated.

The chapters on surgery in T.B. reflect this increasing emphasis on collapse treatment. Artificial pneumothorax, phrenicectomy, apicolysis, thoroplasty and other operations are discussed. Phrenicectomy is given more space than it deserves. We disagree with Dr. Heise when he says that this operation "has proven beneficial in a large percentage of those who have had the operation." There is a growing realization that the most effective surgical procedures available are artificial pneumothorax and thoroplasty. The two constitute the foundations of surgical treatment of pulmonary T.B.

Dr. Heise has done a valuable service in putting the questions and answers into a book. He has contributed the best practical volume on the subject. We heartily recommend it.

BOOKS ON EATING

STREAMLINE FOR HEALTH, by PHILIP B. HAWK. Harper and Bros. 1935.

DIET AND DIE, by CARL MALMBERG. Hillman-Curl, Inc. $1.50.

THESE ARE two books which deal with the subject of reducing diet and fad dieting in general. One of them is written by the author of a well-known text-book used in many medical schools. We are, therefore, led to expect a thorough and reliable treatise, but the book is full of unpleasant surprises.

Certainly no one who has read the ordinary, dry pages of Hawk's Textbook of Biochemistry ever got the slightest impression that the writer was an incorrigible slap stick wiseacre. Yet "Streamline for Health" overabundantly reveals this new aspect of Hawk in his role as popular writer. Far be it from this reviewer to deny an author his joke even in a text-book; indeed, text-books might be read more if they were lightened as well as enlightened. But when almost every sentence in what should be a serious work is crammed full of slap stick, that is carrying a good thing too far. The first chapter, for example, jokes along to the very profound conclusion that beer is not a good drink for the fat man who wants to reduce. Indeed, the style is so jocular and wise-cracking that it is difficult to tell just when the writer means what he says.

Worst of all, Hawk is not only on a literary holiday, he is also on a scientific lark as well, and he almost seems to have forgotten that he ever was a scientist. He seems to feel that just because his dog, Oscar, who is accustomed to eating only one meal a day anyway, can stand a fast fairly well, that his human friends, Tom, Dick and Harry, also can manage similarly. Hawk has forgotten that human beings get diseases that dogs are not subject to and vice versa, and that before the results of animal experimentation can be applied to humans, it must be shown that the behavior of man and the particular laboratory animal is comparable in the matter under investigation. The fact is that most human beings cannot fast with impunity. It endangers their health and their lives. It is well known that the deaths of some Hollywood sylphs were directly or indirectly due to semi-starvation reducing diets.

It seems a shame that Hawk should so successfully (even if overfacetiously) expose the various reducing and health-diet fads, only to fall victim to a fad that is probably even more unwise than most of the others.

"Diet and Die," on the other hand, is at once sober and witty. The author, Carl Malmberg, has a clear style and is humorous without being an obnoxious wise-cracker. He clearly exposes all dietary fads including Hawk's favorite. He shows them up whether they come from doctors or laymen. Furthermore, he correctly ascribes the perversion of science into pseudo-scientific fads by men like Hay and Kellogg, to the vicious influence of the profit motive. One after another he criticizes fasting, vegetarianism, low protein diets, the Hollywood diet, the Hay Diet, patent reducing medicines, reducing medicines, and other dietary fads. The expose is thorough, scientific, and entertaining. The reviewer is conscious of the fact that this sounds like excessive

praise; but he protests that he has never before read a scientific work of this kind for laymen that has been done so well. It is a book that anyone who intends to go on a diet to reduce or to restore health or beauty should first read. The section on the popular Hay Diet brings out the fundamental fact that the stomach is normally acid no matter what food is eaten. With this in mind, it is immediately clear that the Hay Diet is on an absolutely false foundation, and the whole fad actually worse than useless.

In a final chapter Malmberg gives the essentials of a safe reducing diet. Despite the fact that Malmberg writes for those who eat too much, he makes it clear that he is aware that the real problem today is that too many cannot eat enough even if they want to, and that the same economic system that causes starvation is responsible for dangerous reducing fads and drugs.

The only serious criticism of "Diet and Die" we have to make is that at two points the author threatens the victims of fad-diets with retributions which in themselves constitute medical fads, *i.e.*, "fallen stomach" and "intestinal poisoning." However, he does not stress these, and they are insignificant compared to the general excellence of the volume.

HOW SOVIET CITIZENS KEEP WELL

HEALTH PROTECTION IN THE U.S.S.R., by N. A. Semashko. G. P. Putnam's Sons. $1.75.

FOR THE past decade publishers have been feeding the reading public on an unrelieved diet of books on the Soviet Union of the "personal impression" brand. These books, generally based on a few weeks' to a few months' observation in the Soviet Union, are so full of impressions and so lacking in precise information that they may properly be classed as autobiography, revealing as they do, more of the author than of the subject involved.

In answer to the growing desire of a constantly enlarging body of readers for accurate and detailed information on the various aspects of life in the U.S.S.R., numerous prominent Soviet specialists have been invited to give authoritative descriptive accounts of the various branches of economic, social, political and artistic life. This type of book is a definite departure from previous publishing attempts, a departure which will be widely hailed.

"Health Protection in the U.S.S.R." is the second in this series of books, which promises to run well over a dozen volumes when completed. The author, as the first People's Commissar of Health as well as professor of Social Hygiene at the Moscow University, has written numerous works on health welfare and social hygiene. At present he is the editor-in-chief of the Soviet Medical Encyclopedia, a tremendous work comprising thirty-five volumes.

PUBLIC HEALTH authorities throughout the world always regarded Tsarist Russia as having the worst possible public health service. Pre-Soviet Russia was notorious for the poverty and disease that flourished among its peoples. The frequency of typhoid fever, tuberculosis, trachoma, typhus fever and many other social diseases was decidedly greater than in any of the countries of Western Europe and America. The book gives a clear exposition of the unceasing efforts and of the remarkable manner in which the unified energies of a people have succeeded in wiping out this heritage of disease and erecting in its stead a sound and planned system of socialized medicine. After enunciating the basic principles of Soviet health protection, which place the stress on prevention of disease and on the eradication of those social evils which lead to illness, *e.g.*, poor food supply, poor housing conditions, unemployment, etc., the author devotes the body of the book to a description of the set-up of the various branches of health service. The breadth of the health service can be gleaned in chapters on food, hygiene, housing, physical culture and sports, health resorts, labor protection and social insurance. Other chapters deal with maternity and child welfare, venereal disease, tuberculosis, prostitution, alcoholism, abortions, medical research and medical schools, medical practice and a host of other subjects relating to health, all given in most detailed fashion.

The style is simple and clear, the statistics are plentiful and of recent date, and are presented in easily understandable form. No special technical training is necessary to understand the book, and it will be of great benefit to both lay and medical reader.

U.S.A. and U.S.S.R.

COMPARISONS between the type of health service in t heU.S.A. and the U.S.S.R. and the direction which each is taking cannot be avoided. On the one hand, we have a system which is unplanned, chaotic, which by admission of the U. S. Public Health authorities themselves, is breaking down rapidly for lack of funds and retrenchment, a system which stifles scientific research which could bring new happiness to the people; a system under which the greatest body of people must go without medical care during a period when they need it most while great numbers of physicians are idle and are becoming pauperized because the impoverished population cannot pay for the medical service they so urgently need. On the other hand, we have a system of socialized medicine in which disease, prostitution, bad housing and all the other social evils and health hazards are being wiped out, in which health protection is a basic duty of the state and its people, in which medical care is free and non-charitable, in which yearly vacations with pay are compulsory, in which maternity leave is insisted upon without loss of pay, in which doctors are having their salaries doubled and trebled, in which the level of sanitary culture is being raised to new heights every year.

This book should achieve wide circulation. A much wider circulation would be assured if this series were issued in an inexpensive paper format.

Every worker should try to get hold of a copy of this book, at a public library or elsewhere. It shows clearly what a workers' government can do for the masses, even when it starts with the handicap of a backward, ruined country. In this country, with its tremendous productive forces, these achievements could be far exceeded, and every person could have as his due the maintenance of health and proper care when sickness comes.

HEART DISEASE

WHAT YOU SHOULD KNOW ABOUT HEART DISEASE, by Harold E. B. Pardee, M.D. Lea & Febiger, Philadelphia. $1.50.

DR. PARDEE'S book is high priced for the amount and kind of information which it gives. There are only 117 small pages of reading matter, set in large type. There are many errors, and much of the material is not up to date. It is frequently dogmatic to the extent of creating wrong impressions.

For example, patients with heart-block, after reading the paragraph describing this condition, may be frightened into believing that heart-block is invariably serious. Actually, it may or may not be serious. Patients may even be born with heart-block and live long normal lives despite the condition. Similarly, the cause of rheumatic heart disease is not known, yet the author ascribes this disease to abscessed teeth, pyorrhea, chronic appendicitis, and similar focal infections.

Repeatedly, Dr. Pardee accuses alcohol of causing hardening of the arteries. There is no evidence to support this statement. As a matter of fact, alcoholics often have less arteriosclerosis than others of the same age.

The chapter on exercise, however, is excellent. The discussion of digitalis, especially that part which deals with vomiting caused by digitalis, is likewise accurate and well done.

The author states that nitroglycerine, a drug used to relieve the pain of angina pectoris does not tend to lose its effectiveness with repeated use. This is contrary to the experience of many patients and physicians. Patients with heart disease are advised not to take more than one glass of water with each meal. The explanation, "this amount will help digestion but more will hinder it," is without scientific basis. The author recommends the use of salt substitutes for patients with dropsy. Salt substitutes are a waste of money. They do not prevent the accumulation of fluid in the body. Their use is predicated upon wrong theoretical as well as practical knowledge.

An author writing for lay people might reasonably be expected to consider the social and economic aspects of the disease he discusses. Dr. Pardee fails to take into account these factors. The nearest approach to such a consideration is contained in a brief paragraph entitled, "Pregnancy is a Sociological Problem." The discussion of changing jobs, or giving up housework, or limiting activity in various ways ignores the frequent impossibility of making these changes.

There is still need for a really good handbook on heart disease addressed to laymen.

PSYCHOLOGICAL RACKETEERS, by Dorothy Hazeltine Yates. Bruce Humphries. $2.

THIS BOOK is an exposé of those fakers who, as "applied psychologists," or "Masters of Psychology," defraud the public. For only a few dollars they teach you how to attain "success, health and happiness" by "mind training," "freeing the unconscious powers," "memory strengthening" and similar wonders. They promise to teach you how to be popular, to have personal magnetism, to turn back the clock of time and be "young at seventy, not old at thirty-five." Many use "Yogi exercises," "vibrations," "telepathy," "character reading," and "forecasting the future."

Professor Yates exposes them elaborately but timidly. In most instances, she is afraid to give the names of the fakers, though she has the goods on them. Nowhere does she give any evidence of understanding the social background of these frauds.

These people exploit the public by selling a worthless product by fraudulent claims. Because they are unorganized, they are regarded as more disreputable than patent medicine manufacturers, although they represent a lesser danger to health. They confuse and distort the minds of their customers, but less so than newspaper owners and movie magnates. It is only because they are cheap racketeers of small proportions, that even a cautious person can attack them. They are only a minor symptom of that major disease of a system whose very foundation is exploitatiton.

GYMNASTIC PYRAMIDS, by Thomas H. Hawtin, Oxford University Press. $1.

THE AUTHOR of this work, true to form of all advocates of heavy gymnastics and pyramid building, contends that "the building of pyramids develops strength, agility, resourcefulness, courage, nerves, and other manly qualities."

It is perhaps regrettable that the author's modest hope that this be a contribution to the literature of physical education must remain fruitless, for his work is neither physical education, nor a contribution to its literature.

LIFE BEGINS, Childbirth in Lore and in Literature, by Morris Braude. Argus. $2.

THIS BOOK has some curiosity value. It is a collection of superstitions and early beliefs on the subject of childbirth, drawn from many sources. It contains many strange, unassorted facts, or, as the author believes, it is a "panorama of popular ideas incident to childbirth from the dim past to the present."

Generally speaking, it is of little value, but harmless. However, it contains one grossly misleading statement. Quoting some statements about various ineffective and harmful forms of birth control, the author makes the amazing generalization that ". . . today competent authorities condemn contraceptives," and clearly implies that *most* competent authorities condemn *all* contraceptives. In fact, in the context, it is made to seem that the use of birth control methods is another of the strange customs of the past.

One wonders whether the author is familiar with modern methods of birth control. Birth control clinics have long records proving that proper methods are harmless and effective.

More Colds

To the Medical Advisory Board:

I am a regular subscriber to your health magazine and have found it very interesting. I now have a personal matter in which I desire your aid.

I am very susceptible to colds. At the slightest wind or bit of cold, I suffer with nose, throat, and also cough. I dread the winters for this reason. My family doctor has told me that it is not serious, and has advised me to take injections as a precaution against catching further colds this winter. However, others have told me that this would be a waste of money, and would not help me one bit.

Will you be good enough to inform me whether these injections will prove of any value to me, or whether I should desist from taking them. Also, would regular attendance at a swimming pool prove detrimental during the winter months, or might it strengthen me against catching colds.

I am twenty-four, and in good health. I am not run down, and therefore cannot understand this terrible susceptibility. Is there any cure for this?

At present I have a cold due to the sudden change in weather.—D. G.

D. G.—Cold vaccines have not been proven to be of definite value in the prevention of colds. Most people are not helped. Others get some protection and only a few are completely relieved. It may be worth while going through the expense of vaccination with the hope that you may be one of these few.

It is possible that your frequent colds are due to disease of the nose and throat, particularly sinusitis. Recurrent attacks of sinusitis may masquerade as frequent colds.

It is also possible that your attacks are due to sensitivity to low temperature just as hay fever sufferers are sensitive to pollen. You may be able to get rid of this sensitivity by taking a shower or bath twice daily. The bath should begin with warm water and be gradually changed to cold water, ending with the coldest water. This should be followed by a vigorous rub-down with a turkish towel.

Your susceptibility to colds is not unusual. Since the exact cause of "colds" is not known, there is no sure cure.

Light Spots on Skin

Chicago.

To the Medical Advisory Board:

Last year there appeared some spots on my hands. These spots are lighter in color than the natural color. They stayed all year. Only last spring they grew a little larger. Some people said they were liver spots. Will you please tell me what they are, if they are harmful, and if so, what can I do about them?

—F. K.

F. K.—Spots on the skin which are lighter in color than normal constitute a skin disorder called Vitiligo. The disturbance is due to a loss of the ability of the pigment cells in the living part of the skin to produce certain chemical substances which give the color to the skin. Darkness or lightness of complexion is due to this manufacture of pigments, brunettes having more and blondes less. The underlying cause for this trouble is as yet unknown so that we cannot treat it logically and successfully. The only thing to do is to stain the light spots to the normal skin color with extract of walnuts. This can be obtained from your druggist by asking for extract of Juglans.

In the summer as the normal skin becomes tanned, the white spots appear lighted by comparison. Unfortunately, since we do not know the cause we are unable to prevent the spread of the disturbance.

Incidentally, vitiligo is often called "liver spots." It has nothing to do with the liver so far as is scientifically known today.

Vitimin "F"

New York

To the Medical Advisory Board:

The enclosed menu was picked up by the writer for your comments and criticisms, as I have eaten at the restaurant named on several occasions. Instinctively I am inclined to boycott any restaurant founded by Bernarr Macfadden, as I am fully familiar with his anti-labor record. This place seems to have no special connection with him and I do not believe he has any interest, financial or otherwise, in the restaurant. There are so few good eating places in this vicinity where I am employed, and the vegetables and special dishes seem to be prepared in a nutritious and healthy manner.

Will you please cover the advisabiilty of one such meal per day, and also the food value of special vegetable preparations such as protose, nutex.

You may send the writer a personal reply, or, if you will cover the subject in an article in HEALTH AND HYGIENE, I shall look for it.—B. O.

B. O.—The restaurant which you describe presents an astounding hodge-podge of a half dozen fad systems.

The general tendency of the diet is vegetarian but they also present as Health Diets No. 1 and 2 the well known Hay diets which are based on complete ignorance of physiology and a quite conscious attempt to mislead in order to gather in the dollars of the innocent. When rich people are fleeced to the tune of $100 a week at Hay's Sanatorium, we don't care, but we hate to see any worker lose a penny that way.

Then you say Bernarr Macfadden, the fascist, is mentioned as founder. Even if Macfadden has no financial connection with this restaurant now, we cannot advise anyone to support a restaurant which prominently displays his name and at the same time provides him with obvious hokum and charlatanry.

There is no reason why they should charge so much for a plate of brown cereal just because they call it kasha. And "Vitamin F Salad" may be just harmless lettuce and tomatoes, but unless you like to be fooled it is best to eat elsewhere, for there is no Vitamin F.

Hernia

New York

To the Medical Advisory Board:

I HAVE BEEN afflicted for the past ten years with a right *indirect, inquinal hernia.* I am now 31 years. Lifting heavy boxes on the job caused it, and I was at that time refused compensation because I was unable to prove that I acquired this hernia "in the course of my employment."

I never had an operation, being discouraged by a well-meaning family doctor. That was a mistake, and since I have worn a truss constantly, and had very little trouble. It never was a large hernia.

Frequently, I have applied for jobs where physical examinations were necessary, and I was rejected, although I was in no way disabled. I am in good health, and as active as anyone else, spending much time evenings distributing pamphlets and attending meetings.

A doctor has now suggested that I submit to treatment by injection; that this is done by injecting tannic acid compound into the inquinal canal; tissue is formed that blocks the canal, and an examination will not disclose the presence of the hernia. He says the method is quite safe and effectual in every case; that it has been employed by Pina Mestro, a Spanish surgeon, very satisfactorily. He suggested that the reason the medical profession has not taken to this method for the cure of hernia is because of conservatism, and because the expensive surgeons who dominate the profession fear a loss of a lucrative source of profit if hernia was cured in this fashion rather than by surgery.

I want and need a job. What do you think?

J. H.

J. H.—Many of the larger firms insist upon a pre-employment examination in order to rule out certain conditions that may later be charged against them upon a compensation basis. That is the reason why you have been rejected, even though the hernia does not bother or incapacitate you at the present time. Should you have some trouble after starting work, especially after some heavy lifting, the company may be considered responsible on the theory of aggravation of a pre-existing condition.

The injection treatment of hernia is becoming more and more prominent. As yet it is a little too early to state the ultimate results and status of this type of treatment. In certain types of cases, and in certain patients, we believe this treatment has its place. The advantages of this treatment are that it is less expensive, allows the patient to continue about his usual work, and does not subject the patient to an operation which would require hospitalization. The treatment, however, takes time. Usually there are about ten or twelve injections extending over a period of about six or eight weeks. And also, during the course of treatment, the patient must wear a truss. The method is quite safe, but not effectual in every case. However, if there is some recurrence, further treatments (injections) can be done. Operation still is the most certain method of treatment.

Garlic Pills

New York.

To the Medical Advisory Board:

I note that the use of garlic pills is highly advertised as being good for almost "anything which ails you," among which is high blood pressure, which I am troubled with.

Would appreciate your advice as to the above, and also whether a moderate use of plain garlic has a tendency to reduce high blood pressure, and if it affects the heart in any way.—C. S.

C. S.—"Garlic pills" and fresh garlic have absolutely no value in reducing high blood pressure. You do not state just how high your blood pressure is.

There is no specific treatment for high blood pressure. Following a few simple hygienic rules, such as correct bowel habits, sufficient sleep, wholesome food in moderate amounts, no alcohol and mild out-of-door exercise, is of value. Patent medicines of all sorts should be avoided. They are expensive and useless.

W. J.—We have stated that coitus interruptus (withdrawal) is harmful to both man and woman. In the man, because of the concentration on the need for withdrawing in time, a severe strain is placed upon the nervous system. While this strain is not realized at each specific time, yet when repeated over a period of years, it tends to disturb the nervous system in such a way as to make him easily annoyed and upset—so much so that, for example, he will pick a quarrel for no apparent reason. In addition to this effect upon the personality there is a direct local effect upon the genital organs, which may in time lead to relative impotence.

The same effects may be seen in the woman. Because of her fear that withdrawal may not occur in time, she tends to take a progressively less active part in coitus — before long she manifests no desire at all and becomes relatively frigid.

C. I.—The fact that you sometimes urinate as often as seven times a day is no reason to be worried or alarmed. People vary in their frequency of urination and some urinate more often than others. The amount of water we drink is an important factor in determining the frequency of urination. However, we do not recommend that you drink less because there is no harm in urinating as often as you do.

Your worry about your urination is probably associated with your worry about your wet dreams. Wet dreams are a perfectly normal way the body uses to get rid of the semen that is constantly being produced. From a purely physical point of view it does not make much difference whether the semen leaves by masturbation, wet dreams or intercourse. The ideal way is to have sexual relations with a person one likes, but this is not always possible and these other ways are perfectly normal and natural.

S. S.—You say you have the habit of biting your nails and that since you are unemployed you are at it continuously.

Your nailbiting is a symptom of restlessness or nervousness. Anything that increases your nervousness would naturally tend to make the condition worse. It is not surprising therefore that being unemployed has aggravated the condition.

Keep the nails cut short, and apply bitter substances to the finger tips. A good substance for this purpose

is Fluid Extract of Gentian, which is applied to the finger tips and allowed to dry. If you can't afford to buy an ounce of this, a cheap substitute is a strong solution of epsom salts. Chewing gum is sometimes of aid since it affords a similar reelase of tension to that furnished by the nailbiting. Finally, throwing yourself into an activity that will absorb your energies and afford a better mode of release often helps one overcome the habit.

F. E.—A distinction is usually drawn between two types of speech defect—stuttering and stammering. Stuttering is an uneven, explosive, uncertain type of speech. It is a sign of nervousness and is accompanied by other nervous symptoms. It varies greatly from time to time, is absent on those occasions when the person feels at his ease, and is much worse on important occasions when the person is especially eager to talk well. Stuttering does not ordinarily involve any special letters or sounds. Anything that increases a person's self confidence tends to help his stuttering and vice versa.

Stammering is an inability to pronounce certain letters or sounds. It is not much affected by the general nervous state of the person. It is often found in people who are speaking a language they did not learn in childhood. It is much easier to cure than stuttering.

The difficulty you complain of, pronouncing R like W, is a frequent one. With careful practise many people can cure themselfes of it. The letter W is made chiefly by the lips. The letter R is made by putting the tongue above the upper teeth. Making these sounds should be practised before a mirror. Pressing a spoon on the lower lip while practising R makes the production of this sound easier. Various words beginning with R should be practised such as ran, rain, red, rid, row, run.

Two speech clinics in New York are National Hospital for Speech Disorders, 126 E. 30th St., AShland 4-1355; National Hospital for Speech Defects, 1 E. 104th St., ATwater 9-4780. Fees are according to ability to pay.

A. B.—The condition you complain of is a very frequent one. It can be helped and often cured but not by medicines, massage, electric treatment or similar treatment, so spend no money on these things. The treatment for it takes rather a long time but is worth it. It requires seeing a psychiatrist (nerve speciaiist) and discussing your troubles with him in certain special ways.

This trouble originates in the fact that our entire system of morality is directly or indirectly dominated by the church and its dogma that sex is sinful, shameful or dirty. This is hammered into us throughout our childhood so that we automatically associate the two and feel guilty during or after any form of sexual expression. Even when in later life we think we have gotten over these ideas they linger on as unconscious feelings that sex is dirty and something to be ashamed of. In men who ejaculate too soon or who are impotent, these unconscious feelings are so strong that when about to have sexual relations, the natural excitement that has been aroused is drowned out by these unconscious feelings of guilt and anxiety and the erection disappears or fails to come at all. After this has happened a few times the man expects to fail, feels anvious about it, and this new anxiety strengthens the old unconscious anxiety.

In spite of the fact that you say that you do not get nervous in trying to perform the sex act, the very fact that you are not potent proves that this mechanism is at work. Just as we must fightt o overthrow capitalism, so we must fight against the wrong attitudes toward sex that it has ingrained in us.

There are several clinics in New York where conditions like yours are helped. The best of them are the following: Mt. Sinai, 100th St. and Madison Ave.; Payne Whitney, 525 E. 68th St.; Vanderbilt, 168th St. and Broadway; Psychiatric, 168th St. and Broadway.

R. R.—The twitching you complain of is probably of mixed origin. In people who are weak, especially if such weakness is due to a chronic disease such as you have, muscular twitchings are very frequent. They are more frequent in people who are "nervous" or anxious. Your twitchings are probably due to a combination of both factors. Further recovery from the tuberculosis with accompanying gain in weight and strength should lead to a marked lessening or disappearance of the twitching. Sedatives, particularly bromides, help to control them. Sodium bromide in 5 or 10 grain tablets can be bought cheaply. The dose is 10 grains three times a day, six days a week. Bromides, when taken continuously, tend to produce a rash that usually looks like acne. If taken only six days a week a rash is much less likely to occur. If a bromide rash does appear, discontinuing the drug plus the liberal use of common salt and drinking of large amounts of water make it disappear.

Your symptom of being unable to hold up or move your head when in company is a sign of nervousness or self-consciousness. This does not mean that it is imaginary. Nervous troubles are very real. They certainly are real to the person who has them. However, they can be overcome. To do so often requires the aid of a psychiatrist or specialist in nervous disorders. Nevertheless, you can probably do a good deal toward overcoming your difficulty by your own efforts. All those measures that will increase your self-confidence will lessen your symptoms. The most important of these is to make friends and join with them in activities. We cannot give you more detailed advice without knowing more about the details of your difficulties. We believe your tuberculosis has had a good deal to do with your nervousness and that a complete cure of it will find you free of much of it.

Toward Health Education

Four more lectures, and the series, given by medical specialists invited by HEALTH AND HYGIENE, will close. These lectures are on the current industrial, sex, and nervous disorders particularly native to our present social order.

Everybody is invited to attend the remaining lectures at the Workers School, 35 East 12th Street. Admission is 25 cents. The dates (Fridays, 8:30 to 10:10 P.M.) are as follows:

NOVEMBER 22—"Diet and Health," by Dr. R. Regers

NOVEMBER 29—"Medical Science and Health Under Fascism by Dr. John Green

DECEMBER 6—"Medical Science and Health in the Soviet Union," by Dr. A. S. Anderman

DECEMBER 13—"Socializing Medicine," by Dr. L. L. Schwartz

AN APOLOGY

"YOU SHOULD go to another climate." Thousands of sick workers, too poor to buy enough food for their families, have heard these words from their doctors with bitterness not difficult to imagine. Yet what was the doctors' choice, when they knew that only change of climate could prevent permanent ill health or premature death? Should he tell the patient that his case was hopeless; should he tell him to go out and rob a bank to get enough money to travel?

A similar problem frequently confronts the doctors who write for HEALTH AND HYGIENE. When certain physical symptoms appear, it is dangerous for a person not to get competent medical attention. But the doctors know that millions of Americans simply haven't the money to pay private practitioners, and may live in small towns far away from free clinics. They can only advise medical examination and skilled treatment; but the advice is given hesitatingly, with the feeling that apology is due those readers to whom any kind of medical attention is an unattainable luxury.

To many of the mothers who read the article on infant feeding in this issue of HEALTH AND HYGIENE, a special word of apology is due. It is a splendid article, telling parents simply and clearly how to feed the baby in its first year. But mothers on relief, and those living on typical New Deal wages, will find no pleasure in reading "It goes without saying that the mother should be on a good diet. Milk, eggs, two green vegetables, fresh fruit, preferably oranges, and butter are essential," and, "The mother should be free from worry and strain."

To strike this advice out of the article because so many cannot follow it would do no good. On the contrary, parents should use it in their organized fight for higher relief allowances and for higher wages. Let any relief director deny that nursing mothers must be on a good diet!

But the fight must go further. It is intolerable that millions of children should start life physically handicapped through malnourishment while the government destroys "surplus" food. Our main struggle must be for a society in which such actions will be impossible, a society which will devote itself to providing the means for happy and healthful life to the masses of the people, instead of profits for the few.

PLAGUE IS BACK

by FRANKLIN BISSELL, M.D.

California Poor Imperilled by Black Death

IN the hills and mountains of sunny California, there resides a constant menace to the lives of workers, the Black Death! From the southernmost tip of the state to the northernmost county and on up into Oregon and Montana, the ground-squirrels are heavily infected with this terrible and dangerous disease, and it may spread at any time to our great cities, killing hundreds of thousands.

The Black Plague, more scientifically called the bubonic plague, is a disease which assumes two forms: the bubonic type and the pneumonia type. The bubonic type results in swelling of the external lymph-glands of the body and a general poisoning of the system with the plague germ and its products. About 50 per cent of all those coming down with this form of the disease die. In the other type, the patient contracts pneumonia and nearly always dies.

This fearful disease is the same that visited the entire known world many times during ancient times and the middle ages, each time killing huge sections of the population and disrupting all civilized life over long periods. The Great Plague of the fourteenth century killed 25,000,000 people at a time when the European continent was thinly populated. About half of the entire population of England died.

At the present time, there are several places throughout the world where certain wild animals are constantly infected with the plague germ. One of these places is California, where the ground-squirrels are infected. From time to time, the disease spreads from such wild animals to the city rats, the germs being carried by fleas from animal to animal, usually in the outskirts of a city, where the two types of animals often live in the same burrow. Then there is an epidemic among the rats. In human dwellings that contain sick rats the residents are almost certain to be bitten by fleas from these animals. This is the way in which an epidemic among humans gets started. Particularly dangerous is the pneumonia type of the disease, not only because nearly all those infected die, but also because this type can spread directly from human to human, exactly as does the "flu."

Black Death in Colonial Countries

WITH THE EXCEPTION of California, all the places in which the plague is "endemic" that is, resides permanently among wild animals, are in colonial countries: Manchuria, Tibet, Arabia, and the Uganda in Africa. It has been rooted out of all other "civilized" countries.

The "owners" of these colonial countries live in Europe or Japan. Therefore, their public health officials have very thoroughly rooted out all sources of the plague in the imperialist countries and successfully prevent its being carried there from the colonies. However, destroying sources of infection in the countries exploited by the imperialists, where hundreds of thousands are killed yearly by the disease, would be too "expensive."

The situation is quite different in America than in Europe where even the rich often live in old houses out of which it is impossible to keep the rats. In America, rats inhabit only the more poorly-constructed dwellings, whereas the homes of the wealthy are modern and more or less rat-proof. Therefore, a modern plague epidemic in America, in contrast to Europe, would tend to limit its victims to members of the working class. It is for this reason that "our" public health officials have been so cheerfully careless about cleaning the plague out of California. No attempt has been made to kill off all ground-squirrels in the state, which would end the problem once and for all. As I shall show, funds are made available only to prevent an extremely widespread epidemic, which would attack the rich as well as the poor.