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By ARTHUR KALLET

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WHY PULL TEETH?
WHO GETS RICKETS?

THE CAUSE OF "T. B."
CARDIACS MAY LIVE

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Fifty-two Doctors write for this magazine!
ABORTION IN THE S.U.

New York
To the Medical Advisory Board:

—I received a letter from a friend of mine in the Soviet Union which I think would be interesting to readers of Health and Hygiene. It reads as follows:

"I just got back from the hospital and as yet I feel a little weak. I had an abortion. You know I had an abortion in the states about nine years ago, and I still remember the experience as an awful nightmare.

"Now let me tell you how it is done here. You go to a clinic where a doctor examines you and advice you not to have an abortion because it isn't good for your health, and urges you to have a child. But when you tell him that your condition doesn't permit you to have children, he gives you a slip to an 'abortorium' (a special hospital where specialists perform abortions). The name of the abortorium they sent me to is called the 'Gynecological Clinic of the Red Cross' under the name of the 8th of March."

"There you are once more examined and given a bulletin which excuses you from work for ten days—pay of course. It is called 'Decreed vacation,' in other words: a vacation for which, by the decree of the government, the organization for which you work must pay you during your absence.

"Then you enter the hospital. The personnel of doctors and nurses are of the finest, and most delicate in their attention, and treat the patient with utmost consideration. The operation is performed under the most highly sanitary conditions in the quickest possible time. Then you stay in the hospital three days under strict medical supervision. Three times daily, the temperature is measured, and twice daily the doctor examines you. Three nourishing meals are given daily.

"The surroundings are quiet and conducive to rest. There are four to six beds in a tremendous room. At every bed in the clinic hangs a pair of earphones of a radio, so you could listen to concerts. The librarian brings you [Continued on page 32]"

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Health and Hygiene

THE MAGAZINE OF THE

DAILY WORKER MEDICAL ADVISORY BOARD

Vol. 1 SEPTEMBER, 1935 No. 6

CONTENTS

Abortion in the S.U. . . . Contents Page

A Letter

An Editorial

"Skin Game" in Industry

About Industrial Dermatitis

Who Gets Rickets?

Can It Be Prevented?

Peptic Ulcer

Description, Treatment

The Cause of "J.B."

Second Article of a Series

Cardiac May Live

Danger in Your Medicine-Chest

By Arthur Kallet

Why Pull Teeth?

Sterility

Childless Marriage

Vaccines and Serums

Immunization and Prevention

Health Advice by the M.A.B.

Spastic Paralysis, etc.

Letters to the Editor

Addressing the Readers

Further Notes

Drawings by Limbach and Mackey

Note: This issue completes Volume I. The index to Volume I will be printed in the October issue and will be available separately for libraries.


FRANK LEONARD, Editor
Millions are Undernourished

An Editorial

Any plan that proposes to elevate rational standards by means of improved nutrition must give serious consideration to political and economic factors. This was the advice given recently to the American Medical Association by one of the principal spokesmen for organized medicine in this country, the retiring head of the A. M. A., Dr. James S. McLester, professor of medicine at the University of Alabama.

"Something like twenty million American people," said Dr. McLester, "are living near or below the threshold of nutritive safety." That figure is, without a doubt, extremely conservative. If the conditions under which the Negro workers and poor whites exist in his own State do not indicate clearly enough the conservatism of Dr. McLester's estimate of 20,000,000, we point to another report. Dr. Adela J. Smith, assistant director of health education in New York City, has stated that: "Reflected citywide in the elementary school population, approximately 135,000 children are serious malnutrition cases, too weak and undernourished to profit by attendance in regular classes."

Adequate nutrition, then," Dr. McLester told the medical men (The Journal of the A. M. A., Vol. 104, No. 24), "is in the last analysis a problem of education and government." We agree fully with that statement, too—if, by speaking of the necessity of education, Dr. McLester does not join that New York official who answered Dr. Smith's report by blaming the parents of the 135,000 undernourished children for "ignorance in methods of purchase and preparation of adequate and proper foods."

Education is necessary. But something more is needed—something even more fundamental and prerequisite. The American people must be given the kind of genuine and complete social insurance, including health insurance, which will make nutritional education relevant and real.

Two bills are before the United States Congress now which answer Dr. McLester's desire for a solution of the problem of malnutrition through cooperation of "the economist and the lawyer" with "the teacher, the physician and the publicist."

**These Bills are:**

**Work For These Bills**


We recommend to Dr. McLester, and to all other members of the A.M.A., that they join forces with those millions of professionals and laymen who have already expressed themselves in favor of these two bills. Enactment and enforcement of the two bills would not only help America rid itself of its dangerously large case-load of malnutrition. Enactment and enforcement of the two bills would also create the power to effect genuine socialization of medicine and, in turn, make possible the elimination of many other ills—economic as well as physical—from which both professionals and laymen in America now suffer.

(Further Editorial Notes on pages 33 and 34)

SEPTEMBER, 1935

"SKIN GAME"

In Industry

- Should Infected Employes Lose Their Jobs?

Recognition of the subject of occupational skin disorders is not new. Skin diseases in metal workers and salt miners were described in the Sixteenth Century by the medical writers Paracelsus and Agricola. Until recently, however, references to industrial skin hazards were infrequent. Today, the subject is one of major importance. The tremendous growth of industry, with its innumerable new processes, has brought with it a large train of occupational diseases.

The remarkable advances of chemistry and physics have been utilized by industry and, under the stress of competition, manufacturers have been forced to call for newer and better short cuts to efficiency. Metal polishes, furniture polishers, leather preservatives, quick drying enamels and paints, varnishes, disinfectants, insecticides, rapid paint-removers, storage batteries, artificial plant manures, dyes, oils, and flour-improvers are only a few of the host of innovations called into existence. These improvements have, in a sense, made life easier—and the owners of industry have prospered—but the price in health and life of the workers has been great.

The skin diseases encountered in industry are numerous. Broadly speaking, they vary from mild, itchy rashes to severe ulcerations—and even to cancer. Within the confines of this article, it is obviously impossible to do more than give a survey of the subject.

Dermatitis (inflammation of the skin), is seen frequently in workers in the dye industry. Wearers of dyed material such as furs, and the users of cosmetic hair dyes are, too, subject to such skin irritations. Those afflicted may show small or extensive areas of inflamed skin. The skin is usually reddened, somewhat swollen, and may show small or large blisters. In some cases, the skin is reddened and scaly. Itching is a very common and distressing symptom. So severe and disabling are some cases that the patient is forced to lie in a hospital for weeks or months.

About 15 per cent of the workers in the synthetic dye industries get dermatitis, and the greatest number of cases occur in the repair or main-
serious and frequently fatal infection. These and skins may be exposed to anthrax—a very common offender in this industry.

Serious and frequent injury occurs. These and the skins are sometimes infected with the germs that industry provides a very potent cause of cancer. Ten per cent of all the workers are benefited by the almost constant presence of dirt and grease on their skins, were found to have wart-like changes on the skin of the backs of the hands, forearms or legs. These skin changes lead to cancer more frequently than is supposed. This fact is apt to be overlooked in many instances, and on account of the long period which may pass before the cancer develops.

It is known that cresote and coal-tar and its derivatives can cause cancer. These substances are being increasingly used in road making, wood preserving, gas making, etc. Arsenic used in sheep dip, paints and smelting operations is known that creosote and coal-tar and its by-products are frequently inconstant offenders in this industry.

In the rubber industry, many cases of severe skin irritations occur in the workers handling hexamethylenetetramine ("hex")—a chemical which hastens the curing process. Since 1926, when this chemical was, in most instances, replaced by less harmful accelerators, the number of cases dropped considerably. To be serviceable, rubber is processed in many ways involving the use of various other chemicals and these, too, are known to cause serious skin disorders.

One could go on almost endlessly, it seems, enumerating the skin hazards for workers. There are the workers handling printer's type, and those making grids for storage batteries, who are exposed to antimony. This chemical may irritate the skin and cause inflammation of the lining of the nose, mouth and throat.

There are the bakelite workers, who frequently suffer skin inflammations. Those who spray lacquer are exposed to the injurious action of benzene on the skin. The skin of glass etchers, textile workers and laundry workers may develop eruptions because of contact with hydrofluoric acid. To our purpose it is enough to mention a few of the hazards, and to point out that industry provides an almost innumerable variety of ways of injuring those who are engaged in it. For us, it is more pertinent to discuss the remedies.

The Public Health Bulletin (No. 215, October, 1935), issued by the United States Public Health Service, suggests, in cases of dye dermatitis, that "when severe cases recover they should be placed in another part of the plant where they will not come in contact with the offending chemical, or, preferably they should be discharged." The same bulletin admits that "the number of cases of occupational dermatitis in the rubber industry is larger than the number of cases actually reported to the State Department of Health, because many cases are not reported either because they are trifling in character and the worker treats himself, or in other cases, he is afraid that if he reports himself to be suffering with dermatitis he may be transferred to another department where he will not earn as much money, or that he may even lose his job."

Aim at Prevention

All medical experts agree that prevention is the first aim. Prospective workers should be examined before being hired. Those whose skins are over-moist, oily or excessively dry should be excluded from skin irritant industries. Where possible, the skins of applicants should be tested with the materials to be handled. If the skin of these applicants is found to be easily irritated, the workers should not be put to work where they may come in contact with these irritants. This seems logical. But, in our society, work is not so easily obtained—and such advice is bitter. Of course, under a different economy, a worker barred medically from one industry could easily obtain work in another.

It seems obvious that employers should see to it that the handling of dangerous substances is minimized by the substitution of machinery, and that proper cleansing and protective facilities are placed at the disposal of the workers. Workers should, too, be properly educated in the dangers of their work, and in ways of avoiding them. Dust should be reduced by adequate ventilation. Injurious chemicals should be replaced, where possible, by harmless ones.

The safeguarding of the workers' health is of major importance and requires thorough and expert study in each industry and in each factory. The solution would require adequate medical supervision together with the cooperation of expert chemists, physicists, physicians and employees—at the cost of the employer.

Some of the suggested preventive measures have been half-heartedly undertaken by many employers. Compensation insurance is expensive and compulsory in most places. The more industrial accidents occur, the higher is the cost of the insurance for the employer. Such a reason should, it seems, be sufficient to stimulate employers to go the whole way in health projects. There is, however, another factor and that is the ever-present large army of unemployed. Adequate preventive measures would be fairly costly, and employers believe labor is too cheap to waste money on it. It is cheaper to discard old and injured employees, and hire new ones, than to go to large initial expenses to institute proper health projects.

Actual treatment consists of removing the worker from the source of the skin irritation (this work) and the application of soothing lotions and salves. The warty skin changes of those in the oil industry should be treated by the electric needle, radium or x-rays.

The real treatment, as pointed out above, lies in prevention. Knowing the attitudes of the employers, it is necessary that the employers in industries and factories unite and demand adequate health supervision.
WHO GETS RICKETS?

The Sun Shines for all Children
—But Many Acquire this Disease

RICKETS is a preventable disease affecting principally the growing bones of the infant and young child. The ends of the bones do not calcify (harden) normally. This results in deformities such as bowlegs, knock knees, misshapen chests, large square heads, etc. Sitting, walking or standing may be delayed. In severe cases, fractures may occur, and certain cases are complicated by convulsions. The muscles are weak, and because of this, the rackitic child usually has a prominent abdomen, called a “pot-belly.” Such children tend to be anemic, and have a very poor resistance to infections. Recently it has been shown that the permanent teeth, in children who had rickets during infancy, have serious defects. The pelvic bones in women who have had rickets may be so badly deformed as to make child-bearing a danger for them.

This disease is most prevalent in the temperate zones, and develops usually in the late winter, and in the early spring. Particularly affected are the children of workers living in the crowded, unhealthy conditions so lavishly bestowed upon them by the present system. Negro children are very prone to develop this disease. During and following the imperialist World War of 1914-1918, many severe cases of the disease appeared in Europe. While the workers were shedding their life’s blood on the battlefields, their children were paying with their health at home.

To understand why this disease develops in certain seasons, why it affects Negro children in particular, we must know something of the elements necessary for the normal growth of bone.

When we analyze bone chemically, we find that it consists mainly of calcium, or lime as it is commonly called, and of phosphorus. It is the combination of these two elements, in the form of a salt known as tri-calcium-phosphate, that furnishes the main building materials for healthy bone. Thus, if the diet does not contain enough of either or both of these elements, the bones will not harden normally—and rickets will result. The best source for these substances is milk. It is important to remember that, although human milk has less lime in it than cow’s milk, the lime in it is much better absorbed. The breast-fed baby is therefore less liable to develop rickets. The growing baby needs a pint to a quart of milk a day, depending upon its age. The action of these rays on a certain substance in the skin, ergosterol, produces the all-important vitamin D. This vitamin enables the body to utilize the calcium and phosphorus furnished it in its food. It is used up during the winter when there is very little exposure to sunlight. It is this substance which is present in cod-liver oil. (Incidentally, cod-liver oil also contains vitamin A which prevents another disease.) Ultra-violet rays will not pass through ordinary window glass, and the smoke (from factories, etc.), over most of our cities absorbs a large part of these rays. Although this country possesses the means of providing smokeless fuels, the private interests, who operate only for profit, will not allow the substitution of smokeless fuels for the products which they are selling.

Ultra-violet rays can be produced artificially by mercury vapor lamps, and other kinds of lamps. A powerful form of vitamin D has been prepared by the irradiation of ergosterol with these rays. This product is sold as Viosterol, and is given in drop-doses. Cod-liver oil concentrate, made by the purification of cod-liver oil, can also be given in drop-doses. The addi-

Can it be Prevented?

- Rickets seldom is a worry in the families of the wealthy. Children of the poor are likely to suffer from the malady because of deficiencies which are due entirely to the economic circumstances of their parents. The child specialist who wrote this article could only indicate what those children need. Those needs can be obtained by the parents only through united effort.

- When we analyze bone chemically, we find that it consists mainly of calcium, or lime as it is commonly called, and of phosphorus. It is the combination of these two elements, in the form of a salt known as tri-calcium-phosphate, that furnishes the main building materials for healthy bone. Thus, if the diet does not contain enough of either or both of these elements, the bones will not harden normally—and rickets will result. The best source for these substances is milk. It is important to remember that, although human milk has less lime in it than cow’s milk, the lime in it is much better absorbed. The breast-fed baby is therefore less liable to develop rickets. The growing baby needs a pint to a quart of milk a day, depending upon its age.

- It is felt, therefore, that cod-liver oil contains a substance necessary for the normal growth of bone. What is this important material?

- You will recall that rickets appears most often in the late winter and early spring months, that Negro children, whose skin pigment protects them against the sun, and children living in poor surroundings where they do not get enough sun-
tion of small amounts of Viosterol to cod-liver oil furnished the product known as 10D cod-liver oil, which is somewhat stronger than ordinary cod-liver oil.

The main difficulty with most of these stronger preparations is that they are too expensive for the average worker's family to buy. The irradiation of milk, the feeding of irradiated yeast to dairy cows, or the addition of cod-liver oil concentrate to milk, has produced a complete food (“Vitamin D milk”) for the baby as far as the prevention of rickets is concerned. This milk contains not only the essential mineral elements, but also vitamin D. Here again we have a valuable scientific advance which is available only to those who can afford to pay the additional price.

One word as to vitamins before we go on with our discussion. There is a considerable amount of advertising about the universal healing values of vitamins. Vitamin D is specific for only one thing: the prevention and healing of rickets.

Prevention

To prevent rickets then it is necessary to give the child enough milk and vitamin D. Breast milk, as previously mentioned, is the best form of milk—provided the mother is on a good diet. If for some reason the mother is unable to nurse the baby, then a pint to a quart of milk—depending up on the age of the child—is necessary. The cheapest source of vitamin D is, of course, the sunlight. However, children do not get enough exposure to the sun in the wintertime. In the summertime, in large cities, some of the ultra-violet rays are filtered out by the smoke. The sun's rays in our country are not strong enough to be of much value to Negro children, because the pigment in their skin does not permit complete absorption of the ultra-violet rays.

At any rate, all children should get some form of vitamin D in their diets. The cheapest at present is cod-liver oil, especially when bought in larger quantities. It should be started at an early age (three to four weeks), so that the baby forms a taste for it early. The dosage, to begin with, is one-half teaspoonful twice a day; this is gradually increased until the baby is getting a teaspoonful three times a day. Cod-liver oil should be continued at least through the second year for white children, and much longer for Negro children.

During the summer the baby should be given sun-baths, which are begun gradually, and slowly increased until the baby, undressed completely, gets one to two hours in the sun daily. On very hot days it is not necessary to place the baby in the sun, because even in the shade the baby absorbs some ultra-violet rays from the so-called “sky shine.” Even during the summer time, cod-liver oil should be continued in reduced amounts (one teaspoonful a day), so that the baby will lose his taste for it, and also because in the city the sunlight may not give complete protection. Negro children should get the full dose throughout the year. Vitamin D milk, where it can be afforded, is the easiest way of protecting the baby against rickets. Incidentally, some of the evaporated milks are also irradiated.

We must remember that not all individuals are alike. Some children may develop rickets, when taking ordinary amounts of cod-liver oil. Especially is this true of prematurely-born infants. This means that all babies should be examined at regular intervals for early signs of rickets, and where indicated should get larger amounts of vitamin D. This may have to be given in the form of Viosterol or cod-liver oil concentrate, and should be prescribed by a physician.

PEPTIC ULCER

PEPTIC ULCER (ulcer of the stomach or duodenum) is found among all classes of society, but there is some evidence that workers are the chief sufferers. In the present article, we shall attempt a brief survey of the disease and its treatment.

A peptic ulcer is an open sore in the lining of the stomach or the duodenum. The duodenum is the first part of the small intestine, and receives food and acid juice from the stomach. A certain amount of acid is always present in the normal stomach. But, in the presence of an ulcer, the acid is almost always increased in amount. This fact, and the fact that food is always passing over the ulcer, prevents the ulcer from healing rapidly.

Ulcer is a common disease. At least 5,000,000 people in the United States are suffering from peptic ulcers; of this number, there are many more men than women. Workers in the heavy industries, such as truckmen, transportation workers, and railroad men are particularly afflicted, while those in the lighter industries do not suffer as often.

Irregular eating habits, quick lunches, etc., seem to bring on the disease. Decayed neglected teeth, pyorrhea, and excessive mental strain are other factors in producing this disease. It is not known whether smoking and alcohol bring on the condition, but it is definitely known that they irritate an ulcer which is already present.

In the very early stages, the symptoms are indefinite. Usually, the patient complains of indigestion, such as fullness after eating, pressure in the upper abdomen, heartburn and belching. Later, there commonly appears pain in the upper abdomen. Still later, the pain may occur at definite times after a meal, generally 15 minutes to two or three hours after eating, and often recurring as regularly as clockwork. At times it wakes the sufferer in the early morning hours, from 1 A.M. to 3 A.M. This ulcer pain is usually relieved by bicarbonate of soda, or by food.

The symptoms of peptic ulcer are frequently more pronounced in the spring and winter. The seasonal attacks may occur regularly for many years, which means that the ulcer has become chronic. Nausea and vomiting are rarely symptoms of peptic ulcer.

Complications

IN THEMSELVES, peptic ulcers are not dangerous to life. But the complication may be very serious. The major complications are pyloric obstruction, bleeding, perforation and cancer.

Pyloric obstruction: The pylorus is the narrow stomach, and connects up with the duodenum. It controls the flow of the food from the stomach into the duodenum. Ulcers are most frequently located near the pylorus, and when they heal, scars are formed. Scars are the natural products of healing; and scars contract. When they contract, they make the pylorus still narrower. If the pylorus becomes too narrow, food cannot get out of the stomach quickly enough. This is known as obstruction. If some food gets from the stomach into the duodenum, the obstruction is partial. If no food can get into the duodenum, the obstruction is complete. Normally the stomach is empty within six hours. When there is obstruction food may remain in the stomach for days.

Bleeding: Fifteen to twenty per cent of ulcers bleed. This bleeding may be very slight or profuse. When it is slight, and lasting over a long period of time, the patient may be totally unaware of his bleeding; but he may be anemic, weak, and look pale.

The physician can determine whether the patient is bleeding internally by examining the stool. When the hemorrhage is severe, the person usually feels very sick and vomits material


description of peptic ulcer

treatment of peptic ulcer

September, 1935

Health and Hygiene
The stools always look like tar. The blood in the stool of a patient bleeding from a peptic ulcer is not red, but is black. However, just because a person's stool is black, that is no proof that he is bleeding, for certain foods and medicines can produce black stools. A chemical examination of the stool is necessary to prove bleeding.

Perforation: This is one of the most dangerous of the complications. It may occur gradually, or suddenly, but, usually, it is gradual. The ulcer, instead of healing, becomes deeper and deeper until it bores its way completely through the stomach. When this happens, the patient has terrific pain in his belly, and cannot stand up straight. He bends over because he feels better in that position, but still the pain is terrific. The contents of the stomach go through the perforation into the belly cavity, the peritoneum, and infects the latter—causing peritonitis. This is a very serious and, unless the patient is operated upon immediately, he will die.

Cancer: This is a very rare complication. Some physicians believe it never occurs.

Diagnosis and Treatment

The diagnosis must be made by a physician on the basis of symptoms, physical examination and x-rays of the stomach and duodenum. The stomach should be tested for acid and blood, and the stool should be tested for blood. The blood should be examined for anemia. All cases should be treated medically first, unless the signs of perforation, obstruction or cancer are present. These latter require surgical treatment.

The medical treatment is for the relief of pain and the healing of the ulcer. Diet is the most important form of treatment. It consists of the use of milk, cream and bland foods like cereals, custards, eggs, pureed vegetables, etc. Smoking and alcohol and spices are prohibited. The patient is told that worry will delay or prevent healing of the ulcer, and he must have adequate rest. With this diet, alcalies (bicarbonate of soda) are usually given and help the treatment. Whenever there is a complication, the patient should be in a hospital.

In our society, a hospital is a luxury, and the

The diagram above shows the interior of the stomach. The front wall has been removed. The letter P points to the pylorus. The letter D points to the duodenum, or first part of the small intestine. The ulcer area (where ulcers are most frequently located) near the pylorus, is also shown in the diagram.

The workingman usually cannot afford to buy the diet that is prescribed. Although some of the public relief agencies add a dollar a week for a special diet, this is not enough to purchase milk which is relatively expensive. Also to prepare this special diet properly, time and care are required.

The food should be prepared at home, since one cannot buy these dishes in the average lunch room. Nor is regularity in eating easy for the average truck-driver who must grab a bite whenever and wherever he stops. To tell the average workman not to worry, is to advise the impossible. He will not worry when his daily life is not a continual struggle for a bare existence.

Doctors realize that the average working man cannot lay off work long enough to heal his ulcer and they will often advise operation because of the economic situation. They will say that, with an operation, the man will be well faster than with medical treatment, and therefore he will be able to earn a living sooner. However, the operation has a risk to life and is almost always unnecessary in uncomplicated cases of ulcer. There is a real class distinction in the treatment of peptic ulcer—and probably also a class difference in the distribution of the disease.

TUBERCULOSIS is a disease caused by a living bacterium or germ, the tubercle bacillus. This germ is so small that thousands can enter the body in a single particle of dust or a tiny droplet of sputum. The germ will die after exposure of several hours to sunlight and fresh air. In the human or animal body, however, the germs find favorable conditions for growing and multiplying.

The two most important varieties of tubercle bacillus are the human and bovine. The human type comes from man; the bovine type comes from cattle. Both the bovine and human types produce tuberculosis in man; but the human type causes far more numerous infections and more serious disease than the bovine type.

The germs cannot move about. They are either breathed into the body or swallowed. People who are in contact with the tiny droplets of sputum from a tuberculosis patient will inhale the germs. Tuberculosis sputum also mixes with dust in the room or street, and this germ-laden dust can also be inhaled. Besides inhalation, the germ may be carried into the mouth on such things as dishes and fingers which have been soiled with the discharges of a tuberculosis patient, or in food which has been so infected.

Doctors realize that the average working man cannot lay off work long enough to heal his ulcer and they will often advise operation because of the economic situation. They will say that, with an operation, the man will be well faster than with medical treatment, and therefore he will be able to earn a living sooner. However, the operation has a risk to life and is almost always unnecessary in uncomplicated cases of ulcer. There is a real class distinction in the treatment of peptic ulcer—and probably also a class difference in the distribution of the disease.

The Cause of "T. B."

In the July issue, an article entitled "T. B.—Workers’ Plague" showed that pulmonary tuberculosis is "the most class-conscious" of diseases. The worker-readers of this magazine are now given the second article of this series, explaining the cause and symptoms of tuberculosis. The third article, in an early issue, will discuss treatment of this dread disease of the working class.

Tuberculosis is not inherited. The disease is not transmitted from one generation to another by the sex cells. When T. B. occurs in several members of a family, it is not because the members of the family have a lack of resistance peculiar to them and not to other families—but rather because one member of the family has the disease and spreads the germs to other members. The repeated and prolonged exposure to the germs, especially during childhood, will overcome the natural resistance of any human being, even if his family has always been free from tuberculosis.

Infection and Symptoms

In all industrialized countries, the people are intimately exposed to dust or other material containing tuberculous germs. Small wonder, then, that about 90 per cent of the entire population of the cities and industrial communities of the world has been infected with the tubercle bacillus. But infection does not mean disease. Infection merely means that the germ has entered the body—but it has not yet caused any harm. The germs have been entrapped in their lodging

HEALTH and HYGIENE

SEPTEMBER, 1935

12

13
place by the body cells which build a shell of hard tissue, frequently even bone, about them. We often carry the evidence of this infection through our lifetime, without ever being sick with tuberculosis or knowing that we were infected. It is only when the body has lost its fighting power, its power of resistance to the germs, that actual tuberculous disease occurs. The body loses its resistance when it is overworked, when it is insufficiently nourished, or when it is attacked by another disease—such as measles. High emotional tension, worry, chronic anxiety, also play an important role in the development of tuberculous disease in adults. Workers who are exposed to silica dust, such as hard-coal miners, stone cutters, ore-miners, etc., are especially vulnerable to attack by tuberculous germs.

The most frequent avenue of entrance of the germs into the body is by way of the respiratory tract—the nose, throat, bronchial tubes and lungs. The germs are inhaled and they lodge in the lungs. For this reason, the most common type of tuberculosis is pulmonary tuberculosis. The germs can spread to every other organ in the body by way of the blood-stream and the lymph-stream, and to healthy parts of the lungs through the bronchial tubes. One can understand, therefore, why the first symptoms of tuberculous disease are frequently those connected with lung trouble such as cough or blood-spitting.

When a cough lasts more than four weeks, one should suspect tuberculosis. Spitting of blood, no matter how small the amount, is also strongly suspicious. Hoarseness lasting longer than an ordinary cold may be the first symptoms of T.B. An attack of pleurisy, especially when accompanied by fluid in the chest and occurring in a person below the age of 45, is almost certainly due to tuberculosis. Or, instead of pleurisy, there may be persistent or recurring pains in the chest.

A feeling of tiredness, for which there seems to be no particular reason, or steady unexplained loss of weight, may be due to tuberculosis. The only symptom in some people may be a poor appetite, or indigestion, or a little fever every afternoon, or night sweats. A fistula, or an abscess in or next to the rectum, should make one inquire about the presence of pulmonary T.B.

Children who are pale and underweight, or who have recently had enlargement of the glands in the neck, should be examined for tuberculosis. These symptoms do not always mean that the child has tuberculosis. Any one of them, however, should be regarded as a serious warning signal. Blood spitting, chronic cough or hoarseness, and pleurisy should be especially watched, and medical aid should be sought at once.

**Importance of X-Ray**

No worker should be content with a doctor's glib diagnosis of chronic bronchitis or laryngitis, or feel reassured when told that the blood comes from the nose or throat, or when told that it is due to delayed menstruation. The worker must insist upon an x-ray of the chest. If the doctor does not think it necessary, he or she should seek out a tuberculosis specialist or a Board of Health clinic devoted to tuberculosis.

The diagnosis of "chronic bronchitis" or "a touch of pleurisy" is too frequently made by doctors or patients who have tuberculosis. These patients waste precious weeks or months taking vaccines and sunlight cures. The most careful and painstaking physical examination is not enough. Even a fluoroscopic examination is inadequate.

The only certain way of detecting tuberculosis of the lungs is by x-ray of the chest. It is impossible to emphasize this too strongly. No worker with any of the symptoms described above should feel certain that everything possible has been done to make a diagnosis unless he has had an x-ray of the chest. If his doctor can't, or won't give it to him, we repeat, let him seek out a tuberculosis specialist or a Board of Health clinic devoted to tuberculosis.

Since the sputum from tuberculous patients is the most important source of spread of the disease, we could soon wipe out T.B. if we could collect and destroy, at the moment of discharge, all such sputum. This cannot be done, however. All of us, in small and large cities—and to a lesser extent in rural communities—are exposed to the germs throughout our lifetime. Exposure is unavoidable. But intimate contact with the germs can be avoided.

We should try to develop habits which would tend to prevent contact with the sputum or secretions of others. Children especially should be guarded against this danger, for during early childhood and adolescence they are more susceptible and develop a more serious form of tuberculosis than do adults. Fingers should be kept out of the mouth, and hands should be washed before each meal. Material soiled by the cough or sputum of a tuberculous patient should be burned. One need not avoid contact with a tuberculous patient, if the patient knows how to protect others from his secretions. Eating and drinking utensils used by others should be avoided unless they have been thoroughly cleaned.

**Guard the Children**

Milk is still an important source of infection with tuberculosis germs. Mothers should therefore be certain that all milk used for the feeding of infants and children has been certified or pasteurized by reputable milk companies. If you are not certain that a milk is safe, inquire of your State Department of Health and the United States Department of Agriculture. This is particularly necessary for those living in small cities and rural communities. The safest milk is that which comes from cows that have been carefully examined, tested with tuberculin, and therefore certified to be free from tuberculosis.

Children who have been exposed to an individual suffering from T.B. must be under special watch. They should have a complete examination, including a tuberculosis test. An x-ray of the chest is necessary if there are any suspicious signs. In a few of the larger cities, there are "preventoria" where children of tuberculous parents are segregated and observed for a few months and protected from further exposure to tuberculous germs.

There are hardly enough of such preventoria in the United States, however, to take care of exposed and infected children. More preventoria are needed, for they constitute an effective method of prevention of tuberculosis disease in children who have been exposed to the tuberculosis germs. Where there are no preventoria, the children should live elsewhere, and not in the same apartment with one who has tuberculosis.

Under the existing conditions of living for the majority of the working people and unemployed, there are no adequate sanitary and housing facilities (as was pointed out in the July issue of [Health and Hygiene](#)). Consequently, for the vast majority of the working people of the world, exposure to tuberculosis germs is unavoidable.

Intimate exposure can be lessened by measures already described. There is a still better weapon of defense against the germ. That is the weapon of good general health. With good health, we can build up a powerful resistance to the development of tuberculosis germs in the body. The most important item in the building up of a healthy body is the proper amount of good food. Children especially require a balanced and abundant diet of meat, fresh vegetables, milk, fruit, and eggs. Without good and adequate food, good health cannot be maintained and therefore the body's resistance against the tubercle bacillus is greatly weakened.

Resistance is also lowered by lack of sufficient rest and sleep. Living conditions at present tend to foster a state of chronic anxiety centering around economic insecurity. Chronic anxiety is frequently an important factor in reducing resistance.

Workers who are exposed to dust should have an x-ray examination of the chest every six months. If the exposure has been heavy, an x-ray should be had every three months. This holds for workers in ore mills and mines, employees of foundries or other metal industries, girders and buffers, stone and pottery workers, workers in the clay and glass industries. Where there is intimate exposure to dust, workers should insist upon adequate protection and regular x-ray examinations at least every six months at the expense of the boss and on the bosses' time. If the employer will not furnish the x-ray, the workers should report to a Board of Health clinic. These precautions are necessary, because silicosis easily predisposes the exposed work to tuberculosis.

The matter of treatment of tuberculosis is, itself, a large subject. In the next article, concluding this series, the subject of treatment for T.B. will be taken up in detail.
HEART FAILURE usually suggests to the layman sudden death or tragic invalidism. To the physician, however, it may mean any stage of the disease in which the heart fails to do adequately and consistently the work required of it by the human body.

The work of the heart is to pump blood through the blood vessels to all parts of the body in amounts adequate for its needs at work as well as at rest. Heart failure, briefly, means that the heart is no longer able to do this work.

The first indication of "heart trouble" is breathlessness, or unusual breathlessness, on ordinary effort—such as stair climbing. Shortness of breath, in itself, is not abnormal. Anyone, however healthy his heart, will become short of breath when he exerts himself strenuously. It is only when this symptom begins to appear under circumstances which formerly failed to produce it, that it should be regarded as a warning.

As heart failure progresses, shortness of breath is experienced upon less and less effort. The progress may be quite gradual, over a period of years. It is well to remember that shortness of breath is not always due to heart failure. Fat people suffer from it while possessing perfectly healthy hearts. Chronic bronchitis and asthma cause breathlessness. The symptom may appear in anemia, disease of the thyroid, in tuberculosis; or it may be due to nervous causes.

Dropisy, the accumulation of fluid in the chest, abdomen and legs, is one of the symptoms of heart failure that appears in later stages of the disease. When the heart has failed to such a degree that it can no longer do the work required of it when the body is at rest, it ceases adequately to pump out the blood. The blood backs up in the veins, and the patient begins to look swollen beneath the eyes, and painful fluid in the chest and abdomen, swelling of the ankles and legs, and congestion of the lungs.

The cause of cardiac dropy is an increased movement of fluid from the small blood vessels to the surrounding tissue spaces. Normally, the pressure of fluid in the tissue spaces is maintained at approximately the same level as the pressure in the veins. These pressures balance each other, and fluid does not accumulate in the tissue spaces. However, if the pressure in the veins is increased beyond the heart is lagging in its work, fluid passes from the veins into the tissues, and accumulates.

This same process can be observed in a normal individual. If a tourniquet is put around the arm and left there, it interferes with the return of blood through the veins to the heart. The pressure in the veins beyond the tourniquet is increased, and recognizable swelling of the arm will appear in two or three hours. Standing perfectly still, or sitting without moving the legs for several hours, will cause the legs to swell. Swollen veins, enlarged liver and feet do not become swollen. Shortness of breath, therefore, is not abnormal. Anyone, even the poorest individual, can be saved in this manner.

In the early stages of dropy, the ankles swell slightly toward the end of the day. The shoes feel small, and the instep may be swollen and ridged where the shoe fits tightly. Gradually this swelling increases, affecting the calf and thigh. However, a small degree of swelling present after standing for a long period is not abnormal. A person with normal circulation will have an increase in the size of his feet on standing. Many men will testify that the loose garters they put on in the morning feel much tighter as the day draws to a close. Individuals with varicose veins (many working class women have them) also have swelling of the ankles. The swelling must be more than slight and occasional to indicate failure of the circulation.

Temperature influences the rate at which dropy forms. The higher the temperature of the part, the faster the fluid accumulates. That is why the feet are more swollen in summer than in winter in sufferers from varicose veins. Dropy of the legs may form rapidly when one sits before a fire.

**Weak Muscle**

*The primary cause of heart failure is weakness of the heart muscle. While leaking valves and irregularities of heart rhythm embarrass the heart muscle by increasing its work, and so contribute to heart failure, they do not cause it. The essential cause is a weakened muscle which cannot pump blood in amounts enough to meet the ordinary requirements of the individual's daily life.*

Anything that damages the muscle fibers of the heart makes a 'weak heart' and paves the way for heart failure. Certain diseases injure the heart particularly. Chief among these is rheumatic fever, especially in younger people. In this disease, inflammation of the heart may develop, the heart muscle is then damaged, and if sufficient heart muscle is destroyed, failure follows. Therefore, during an attack of rheumatic fever, it is not uncommon for heart failure to develop.

Patients with acute rheumatic fever usually recover. The heart muscle which has been destroyed by the inflammation is replaced by scar tissue, leaving the muscle weaker than it originally was, but still able to maintain the circulation under ordinary conditions. A second or third attack may, however, destroy so much of the heart muscle that failure develops.

Likewise, the germ of syphilis may attack the heart muscle and destroy it in a similar manner. Whereas rheumatic fever generally attacks rapidly, syphilis does its damage more slowly. The symptoms of heart failure appear quickly or gradually, depending upon the rate at which the heart muscle is damaged.

Heart muscle, once damaged, never again becomes perfectly healthy. For a moment, let us think in terms of a comparison in order to explain this fact. If the finger is badly cut and heals, a scar forms. The skin is replaced, but the scar which replaces it is not skin—it has no hairs or sweat glands in it. It cannot act as the skin does. So it is when the heart muscle is damaged. The muscle heals, and the destroyed portion is replaced by scar tissue. But this scar tissue cannot do the muscle's work.

**Hardening of the Arteries**

A _arteriosclerotic_ heart disease is the most common cause among older people of heart muscle damage, with its subsequent weakness of the heart. In this condition, the arteries which supply blood to the heart gradually to show swollen neck veins, enlarged liver, fluid in the chest and abdomen, swelling of the ankles and legs, and congestion of the lungs. Some of them close off by becoming narrower and narrower until the walls come together. The areas of heart muscle formerly supplied by these now closed-off blood vessels are without nourishment and soon degenerate. The tissue replaces the degenerated portions and the heart muscle is weakened. If so much muscle is destroyed that the remainder is too weak to pump an adequate amount of blood for the body's needs, heart failure begins.

This is the coronary artery, a very large blood vessel which carries blood to the heart, suddenly becomes blocked by a blood clot within its walls. In this condition, there may be a sudden extensive destruction of so great an area of heart muscle that the heart never has a chance to heal. Heart failure may occur rapidly and cause death.

Early diagnosis of heart failure is important because it permits early treatment. Today, the early diagnosis is not always made. Careful, thorough, unhurried examination of the patient, legs to the tips of the toes, an x-ray of the chest and an electrocardiogram, is only for the well-to-do who can afford to pay for the physician's time and for laboratory tests.

Even if the poor patient is fortunate enough to have his disease diagnosed in its early stages, the treatment required is not possible for an individual who must continue to carry on hard work in order to earn his living. Under a socialized system, all diseases would be recognized and treated in their early stages.

Rest is the chief remedy in the treatment of heart failure. Rest reduces the work of the heart; it gives the heart muscle a chance to heal. The heart beats constantly day and night. Its only chance to rest is between beats. Since the heart beats more slowly when the body is at rest, the opportunity for recovery is greatest when the amount of rest is greatest.

Although heart failure is a condition which requires that the sufferer live a careful life according to the directions of his physician, with adequate rest, food to keep the patient fat, and freedom from worry, anxiety and undue excitement, it has been shown through extensive studies that individuals suffering from this disease may outlive their fellow men with normal hearts—if they are able to receive the proper care.
When the average worker, employed or unemployed, gets sick, he can't afford such "luxuries" as competent medical care. Instead, he pours some kind of drug or medicine into his body, or rubs something on his body, and feels that he has done the best he could.

Perhaps he bought the medicine or ointment after reading an advertisement in a newspaper, forgetting—as no worker should ever forget—that he has done the best he could. Perhaps he bought the medicine or ointment after reading an advertisement in a newspaper, forgetting—as no worker should ever forget—that he has done the best he could.

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Hundreds of thousands of Americans are persuaded by clever advertising to take Grove's Laxative Bromo-Quinine for their colds. This nostrum is advertised as "utterly harmless and perfectly safe to money can be made out of such sales.

By ARTHUR KALLET

When the average worker, employed or unemployed, gets sick, he can't afford such "luxuries" as competent medical care. Instead, he pours some kind of drug or medicine into his body, or rubs something on his body, and feels that he has done the best he could.

Although advertising is by no means the only cause of unwise self-medication. You have a pain in your shoulder? Your neighbor remembers that he has a medicine his doctor gave him for a pain in his back, and he urges you to try it. Or you continue to use, month after month, a medicine prescribed by your doctor for a particular illness a year ago, and you are sure your present trouble is the same thing.

It is comforting to take medicines when you are sick. It gives you a feeling that you are doing something, at least, to fight the illness. And if you are one of the millions who are overworked, or undernourished, or forced to live under unhealthful conditions, you always have some of the silver may be deposited in the skin.

If enough is deposited during the course of a year, or in five or ten years, a condition called argyria develops. Just as the silver in photographic film darkens when exposed to light, so the silver deposited in the skin darkens when it is exposed to light.

Dr. L. Edward Gaul and Dr. A. H. Staud, writing in a recent issue of the Journal of the American Medical Association, warned physicians about the dangers of silver compounds. "... Within the past year," they said, "following intranasal applications with Argyrol and Neo-Silvol in fifteen children under 10 years of age, an argyrosis developed. Ten of these fifteen children were girls. All of these children will present throughout their lives a conspicuous and permanent bluish or slate-gray discoloration that will select them as objects of whispered comments by friends and strangers. At present there is no treatment for argyria."

Just as Argyrol has become a routine treatment for colds in many families, so amidopyrine has become a routine treatment for headaches and other pains. Amidopyrine, usually sold as Pyramidon, has been increasingly used during recent years. It was considered one of the least injurious of the pain relieving drugs.

A few years ago, it was discovered that amidopyrine causes, in some persons, a strange and often fatal blood ailment characterized by a sharp decline in the number of white corpuscles in the blood. The doctors and the manufacturers are aware of the danger, but the sale of amidopyrine still goes on. Thousands of women take this dangerous drug without knowing it in Midol, which is widely advertised and sold for the relief of menstruation pains.

Probably no drug used for the relief of headaches and pains is entirely safe. Acetanilid, an ingredient of Bromo-Seltzer, Dr. Miles' Anti-Pain Pills, Antikamnia Tablets, the previously mentioned Bromo-Quinine, and numerous other drug store remedies, are to some persons deadly drugs, and they may be injurious to anyone who takes them constantly, as so many do.

Another drug in this same class is acetphenetidin, which is also present in many headache remedies, such as Anacin and Kohler's Antidote.
True, the Federal Food and Drugs Law does require a statement of the presence of these ingredients on the labels of medicine containing them, but it does not require a statement that they are poisons—which few know.

Aspirin and Laxatives

The Safest of the drugs valuable for the relief of pain is aspirin, but even this must be used with caution. Taken excessively, it can be injurious to many persons. Some are especially sensitive to aspirin and can be made seriously, even fatally, ill from small doses. Certainly no one should take aspirin constantly, for it can cause serious injury does not result immediately, there is no assurance that irreparable damage will not be done during a period of years. Many take aspirin, without knowing it is present, in such advertised remedies as B. C. Salico, and Alka-Seltzer.

Another drug used for the relief of pain in adults and these same is cinchophen, often sold under the trade name Atophan. Cinchophen can cause serious and sometimes fatal disease of the liver. Drugs such as these are often prescribed by physicians for a particular ailment, or for limited use. But because they are effective in relieving pain, people continue to use them for every new pain, often with serious consequences.

Even common laxatives cannot be used without caution, and this is true even of that safest of laxatives—mineral oil. When mineral oil is taken while there is still undigested food in the stomach, it can interfere with digestion, besides dissolving and carrying off the fat-soluble vitamin A.

One of the most widely used laxative drugs is phenolphthalein, the active ingredient of Ex-Lax, Feen-a-Mint, Cascarets, and innumerable other laxatives, many of which are advertised and sold especially for children.

Phenolphthalein is a poison which at the best of its effects is to irritate the intestines and kidneys, and at the worst can cause serious illness to those who happen to be especially sensitive.

It cannot be too strongly emphasized that it is unwise to take, habitually, any kind of medicine into the body, no matter how simple or harmless it may appear. Many persons constantly take bicarbonate of soda, or milk of magnesia, to combat what they believe is “acid stomach.” But since the stomach is normally slightly acid, and must be so to function properly, these remedies can seriously interfere with digestion instead of aiding it.

Mineral Oil

Some drugs, like amidopyrine, are for years considered safe even by doctors. Then it may be discovered that their use is hazardous. Gradually knowledge of the hazard filters into the medical profession, but still the drugs continue to be advertised and used in the home without medical advice.

Probably no medical product has been considered safer than mineral oil. Many mineral oil products, such as Mistol, are advertised and sold as cold cures to be dropped into the nose. Doctors often tell parents to use mineral oil to relieve irritation in their children’s noses when they have a cold. But some few doctors have found, during the past several years, that mineral oil dropped into the nose can do serious damage to the lungs. Oil, such as mineral oil or cod-liver oil, sometimes gets into children’s lungs when it is given them by mouth and they resist swallowing it.

According to scientific reports, a physician of Bellevue Hospital, New York, has reported that both mineral oils and animal oils, drawn into the lungs in small quantities, can cause pneumonia. He told of six fatal cases. “The report received vigorous support among the 500 pathologists and bacteriologists before whom it was read,” said the New York Times. But the mineral oil cold remedies will continue to be sold.

These few examples are not exceptional. Almost every type of drug is potentially hazardous, especially when used over extended periods. When drugs are taken on the advice of an advertised, or a neighbor, or simply because they happen to be in the medicine-chest, their usefulness approaches the zero point; and their hazards, present even when drugs are prescribed by physicians, become serious.

Tooth Pulling is perhaps one of the earliest surgical procedures practised by man. Evidence of the extraction of teeth has been found in skulls dating back to ancient, long-buried civilizations. Naturally, a vast mass of folklore and mythology has arisen about this operation, much of which persists to the present day. It is the purpose of this article to discuss in as simple terms as possible the problem of tooth extraction, its indications and its effects.

The introduction of the x-ray marked a tremendous step forward in dental diagnosis. Some of the more important conditions revealed by dental x-ray are:

The extent of decay (caries) in the crown; hidden caries (decay); the amount of bone (non-vital teeth); presence of embedded (im-pacted) teeth; presence of “dead” teeth (non-vital teeth); presence of areas of diseased bone, such as cysts; presence of fractures of the jawbone; presence of infection at the root ends of teeth; the shape and size of the roots of the teeth; and the relationship of the roots to the surrounding anatomical structures.

Because it is able to give so much valuable information, it is obvious that the x-ray is of indispensable aid in dental work.

Pyorrhea is Curable

The SECOND most common cause of extraction is pyorrhea. Pyorrhea is a disease which does not attack the body of the tooth itself, but rather destroys the supporting structures of the teeth. The roots of all teeth are embedded in the jawbone. This part of the bone is known as the alveolar process. The root is attached to the bone by a delicate membrane known as the pericementum.
Rather than enter a detailed analysis of the cause of pyorrhea, which in truth has yet to be finally determined, suffice it to say that lack of oral hygiene is one of the most common contributory factors. The early manifestations of the disease are chronic inflammation of the gums, which tend to shrink away from the necks of the teeth; and heavy deposits of tartar. As the disease progresses, the attachment of the pericementum is destroyed, permitting organisms to penetrate to the deeper structure. The crest of the alveolar process is soon attacked, and absorption of this bone follows.

As the bone is absorbed, deep pockets are formed from which pus exudes freely under slight finger pressure. By this time, the teeth have loosened markedly. The breath is usually offensive.

One of the most widespread beliefs among laymen is that pyorrhea is an incurable disease. This is not true. If treated early enough, the progress of the disease can be definitely stopped, and the symptoms can be entirely eliminated.

Here, too, treatment is tedious, painstaking work; and, in the clinics, the tendency is to order the extraction of these teeth—when all too often they might be saved. No more do we recommend that more than two-thirds of the alveolar process have been destroyed, treatment is rather hopeless; extraction, then, is often the wiser course. When, however, one-half or more of the process remains intact, extraction should absolutely not be allowed.

"Wisdom" Teeth

The problem of keeping or extracting non-vital ("dead") teeth, is one which the dental profession has argued for many years. On one side are the men who advocate the removal of all non-vital teeth regardless of whether the x-ray shows evidence of disease or not. On the other side are those men who do not advise the extraction of these teeth under any circumstances unless they give rise to pain and discomfort.

Both sides offer excellent arguments backed by case reports, which the scope of this article doesn't permit us to enter.

The procedure of the majority of men is to remove these teeth when the x-ray reveals definite evidence of disease at their root-ends, and to retain them if the x-ray appearance is normal. The exception to this rule is generally observed when focal infection is suspected.

Focal infection means a source of infectious material in the body which feeds organisms directly into the blood-stream. These organisms are carried by the blood on remote parts of the body, where they may settle and produce lesions. Non-vital teeth may act as such sources of infection, even if their appearance in the x-ray is quite innocent. In cases, therefore, where focal infection is suspected of causing an arthritis, iritis or other serious bodily ailment, extraction of all non-vital teeth is considered wise.

It is necessary, also, to consider briefly at this point the problem of the third molar, or "wisdom" tooth. This tooth normally erupts between the ages of 17 and 21. Since the jaw of modern man is only rarely large enough to accommodate fully 32 teeth, it is quite common to find the "wisdom" tooth either completely embedded in bone or, at best, only partially erupted. A third molar which is completely unerupted is less a potential menace to health than is the partially-erupted one.

The partially-erupted third molar always has a soft tissue pocket about its circumference. Food and bacteria readily lodge in these pockets, where ideal conditions for growth of germs exist, namely: food and darkness. Bone and the intimate anatomic relationship of these teeth to the soft tissues of the throat and neck, acute infections arising from these pockets may be very severe.

It is a fairly safe statement to assert categorically that the most dangerous infections in the mouth arise from the partially-erupted lower third molars. In view of these facts, the early removal of third molars, which due to anatomic limitations cannot possibly erupt normally, is strongly advised. It is foolishly to wait until acute infections set in.

Novocaine and "Gas"

We shall touch but lightly on the subject of anesthesia. The two most commonly used anesthetics among dentists are novocaine for local anesthesia, and nitrous-oxide and oxygen ("Gas") for general anesthesia. Both have their time and place in dental surgery.

When properly used, both are splendid anesthetic agents which should completely do away with all pain from the dental operation. In these days of great mental and physical strain among the mass of the people, resulting from the intense daily struggle for existence, general anesthesia is often the anesthetic of choice. Under general anesthesia, the cooperation of the patient is not needed, and psychic shock to an already overwrought nervous system is avoided.

For some reason which is difficult to explain, the average person grossly under-estimates the seriousness of the extraction of teeth. The removal of a tooth is a surgical procedure, and is fraught with all the dangers incident to any surgery. Post-extraction complications are not at all uncommon, and are often serious. We can divide the effects of extraction into three divisions.

First, we have the uncomplicated rapid recovery. The socket fills with a healthy blood-clot, and nature rapidly repairs the wound—filling in the socket with new bone. This is the ideal result, and the dental surgeon always seeks to secure this result.

Next, we have the minor complications which occur often. Chief among these is what is known as the "dry socket." In these cases, the blood clot breaks down; the socket is either filled with sinuses and dead tissue; or it is left quite empty, with its bare bone walls exposed to the secretions of the mouth.

A dry socket is probably the most painful condition observed in the mouth. We have seen powerfully built men, capable of withstanding severe pain, on the verge of tears because of a dry socket. It is the continuous, unremitting character of the pain which breaks down the strongest resistance. Dryness may be caused by several factors which cannot be entered into fully at this time. The treatment must be conservative, since any attempt at surgical intervention may lead to more serious complications. Soothing medicaments in the socket, along with the regular administration of drugs to still the pain during the acute painful stage, are very helpful.

Another minor complication, following extraction, is the throwing off of small pieces of the alveolar process, commonly called "shelling." Often, when removing a tooth, a small section of the process will break away from the body of the bone. If these sections are not removed at the time of the extraction, they will be thrown off by the body some two or three weeks following the extraction. During this "shelling" process, pus will be excreted from the wound. The pus will stop as soon as the shell comes away or is removed by the dentist.

Health and Hygiene

Falling, we come to the more serious complications which are happily much less frequent. Bleeding of a more or less critical character may follow the extraction of a tooth. Because of the profligacy of the spot, the interference from the saliva, and the sensitivity of the mouth tissues, controlling hemorrhages in the mouth is a difficult procedure. (In the presence of blood diseases, such as hemophilia or leukemia, the patient may bleed to death.) The patient with normal blood, however, will usually respond to proper treatment in a short time.

When bleeding is persistent and profuse, go to the dentist at once. Minor cases of bleeding in the mouth can be readily controlled by the patient himself. A large wad of gauze or cotton soaked in milk of magnesia, or in a solution of alum powder, should be placed directly over the bleeding area after the mouth has been rinsed with salt water. The jaws should then be brought firmly together, and this pressure should be maintained for from twenty to thirty minutes.

Never attempt to stop bleeding in the mouth by continually rinsing with water. This procedure is totally ineffectual, merely washing away the clot which nature is attempting to organize.

Grave infections may follow tooth extractions. These cases are characterized by severe swelling and pain following the extraction. The symptoms do not abate within a few days, but become progressively worse. Trismus, or locking of the jaws, may follow. If the infection is pointing toward the throat, great pain may be experienced upon swallowing. The temperature mounts rapidly. These cases require prompt and adequate treatment by a competent oral surgeon. If the infection enters the body of the bone, "osteomyelitis," (inflammation of the bone-marrow), a very serious disease, develops. Osteomyelitis runs a long course, and usually results in marked deformities, if the patient recovers at all.

In conclusion, let us stress some of the more salient features of this article:

1. A tooth need not be removed when decay penetrates the pulp, particularly when esthetic considerations demands that it should be saved.

2. Pyorrhea, if treated early enough, is definitely curable.

3. Partially erupted third molars should be removed if there is no hope for their normal eruption.
STERILITY—CHILDLSS MARRIAGE

Why is it that some people simply cannot have children? What percentage of childless marriages can be made productive with proper treatment? Has diet any effect on sterility? The answers to these questions and others relevant to the subject are given below.

STERILITY may be defined as the inability to conceive or become pregnant. Sterility and infertility mean the same thing; they are the opposites of fertility. Men and women differ greatly in their degree of fertility. A couple may live together five or ten years before the first pregnancy occurs, although nothing is done to avoid it. The marriage of perfectly healthy individuals may or may not result in a marriage and the production of children. From one to another of the partners may result in the birth of a healthy child.

Some people ask: "How long a time should elapse before a marriage is to be considered infertile?" While no definite answer can be given, the old rule is generally applicable that the marriage of young people between the ages of 20 and 30 cannot be regarded as sterile until at least four years have elapsed. Where one or both partners are past thirty, however, childless couples should not delay seeking help. Fertility, that is the ability to conceive or become pregnant, is diminished by overwork or lack of work, by lack of adequate food, or through some occupational disease. Such a man may present evidence of anemia, marked under-weight, or nervous tension.

Having determined that the husband is in good general physical health, he should next be examined, preferably by a doctor specializing in urology or genito-urinary conditions. Modern methods of examination of the male partner include what is known as "appraisal of the male secretion or semen." The number of spermatzoa present in the semen are counted under a microscope, in a way similar to a blood count. In fertile individuals, over seventy million spermatzoa are usually found in a cubic centimeter of semen. However, a single count is by no means a reliable index of fertility; for there are no set limits as to the number of spermatzoa. Spermatzoa must also be studied as to the length of time they remain active. Lastly, the number of abnormal or defective forms of spermatzoa are studied. Often all that is required to improve the quantity and quality of the sperm is a period of rest and improvement in the general health.

In rare instances, no male cells at all, or very few, may be found in the semen. In these cases, sperms may be produced by the male sex glands—but their exit may be blocked as the result of previous disease, such as gonorrhea. In case of blockage it is sometimes possible to effect a cure by operation.

The impotent man is not necessarily sterile. Impotence is incapacity for the act of intercourse; it must be distinguished from sterility, which is an incapacity for reproduction.

Examination of Male

A study of the husband is always necessary. It should be the absolute rule for the husband to be examined before any elaborate procedures, especially of an operative nature, are considered for the wife. It is nothing less than criminal folly to operate on a supposedly sterile woman before determining the condition of the husband, for he may be utterly incapable of the capacity for reproduction.

Serious disorders in the generative organs are not common as a cause of sterility in men. The vast majority of infertile men are sterile not because of any local trouble, but rather because of general or constitutional causes. Thus we find the sterile man is often the victim of the stress and strain of modern economic life. His mental and physical condition may have been underminded by overwork or lack of work, by lack of adequate food, or through some occupational disease. Such a man may present evidence of anemia, marked under-weight, or nervous tension.

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Wife's Examination

HERE again it should be borne in mind that severe local defects in the organs of generation are rare as a cause of sterility. Most generally, many little causes are the explanation. Examination of the female partner begins with a general physical survey to rule out conditions of chronic ill health which affect fertility. As in the male, inadequate nutrition, either marked under-weight or over-weight, anemia, nervous strain, overwork and economic stress play a role. An adequate diet, especially as regards the vitamin content, is not only essential to health and growth but also to reproduction. Lack of vitamin A causes failure of reproduction through interference with ovulation or the casting off of the egg by the ovary. Even though ovulation occurs, inadequate vitamin A hinders fertilization of the male and female cell. Should fertilization occur, implantation or the birthing of the fertilized egg in the lining of the uterus or womb is hindered.

Since cream, butter, eggs, fresh vegetables, fruit and liver cannot be bought on starvation wages, we find even the problem of human fertility directly affected by an economic system which deprives most of us of essential food which should be available to all in abundance.

Certain disorders of the glands of internal secretion interfere with reproduction. The thyroid, the pituitary and the ovaries are the endocrine glands chiefly involved here. There may be over-activity, or under-activity, or the glands may not be working in balance. Menstruation may be absent for long periods; it may be irregular, scanty or delayed; or menstruation may be too profuse. Women who menstruate normally usually have a high degree of fertility.

Gland Trouble

CERTAIN types of women may be readily recognized as suffering from glandular disorders. The so-called masculine type of woman shows a lack of development of the pelvic organs at puberty. Menstruation is either absent or scanty, and the ovaries probably throw off eggs infrequently. Then there is the masculine type of woman, with heavy bones and a male distribution of hair. The pituitary gland is generally involved in this type. Many cases of women who are too fat and suffering from sterility are of glandular origin.

While much has been learned in recent years concerning the function of the endocrine glands, and some of the secretions or hormones have been isolated in pure form, medicine is still just at the beginning of an understanding of this subject. Hand in hand with this increase in knowledge has gone the commercial exploitation of glandular products. Many such products given by mouth have no action at all and are therefore worthless. Even when given by injection, their validity is questionable. It may be said that in most instances gland injections for sterility are useless. Apart from them, there is a need for without adequate study of the patient may be harmful. At the present time, endocrine disturbances...
are best treated by general hygienic measures, such as exercise and diet. Usually, in study, a basal metabolism test is done to determine the rate at which the body burns up fuel. Where the rate is low, thyroid substance which is active may be given by the doctor.

**Blocked Tubes**

The most important disorder of the pelvic organs in women causing sterility involves the tubes. The fallopian tubes, or oviducts, may be partially or totally blocked on both sides. The two chief causes of inflammation damaging the tubes are gonorrhea and abortion. Inflammation of the tubes, known as salpingitis, does not always permanently seal off the tubes; sometimes, complete recovery takes place.

There are two methods generally used to determine the condition of the tubes. One method, known as the Rubin test, consists of the use of gas injected into the uterus. If the tubes are open, the gas will pass through at a certain pressure. Another method is to inject oil opaque to x-rays into the uterus, visualizing the condition of the tubes. These tests, which are primarily used for diagnosis, sometimes have a curative effect on the tubes. If, after several tests, the tubes are found to be permanently closed—operation may be considered, but success is very dubious.

There are, of course, many other causes of sterility beside those mentioned above, but they are less common. Fibroid tumors occasionally cause sterility. Large doses of x-ray or radium will lead to sterility. So-called displacement of the uterus or womb—known as tipped womb—does not prevent pregnancy.

From 25 to 50 percent of childless marriages can be treated successfully. Good results, however, require the help of a specialist or a women's clinic with a special sterility department. Obviously, the cooperation of many departments of modern medicine are required, such as the gynecologist, the metabolism clinic, the laboratory, and the x-ray department.

As a method of last resort, artificial insemination may be considered in sterility. Semen is introduced into the uterus by a syringe. In cases where the husband is incurable, some couples may prefer having a child by the introduction of semen from a suitable source, rather than adopting a baby. While this method has been successfully used in animal breeding, the results in human beings are uncertain and would hardly seem likely to enjoy much popularity.

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**VACCINES and SERUMS**

**WHAT ARE vaccines?** What use is made of them? How do they help control communicable diseases? How do they differ from serums?

These are the questions which people often ask. Seldom do they receive adequate answers. There are, perhaps, two main reasons why this phase of immunity is so little understood. First, because persons on whose word many laymen depend for sources of information make such ambiguous remarks as: "Vaccines are poisons which are given to counteract other poisons." Such statements are as unfortunate as they are misleading. Second, the terms vaccine and serum are used interchangeably, and nothing so confuses the understanding of a subject as wrong usage of its terms.

It is not only non-medical people who use these terms loosely. One often hears practicing physicians speak of a cold "serum." Recently a state health officer was addressing a health committee and spoke of sending typhoid "serum" to victims of a flood district. Of course, both of these immunizing agents are vaccines, not serums.

The first thought to straighten out is the difference between a vaccine and a serum. A vaccine is given to prevent a disease, or to make a disease less severe once it has started. A vaccine consists of germs or their poisons (toxins), and does not contain any animal products. A serum, however, is given as a rule to help cure the disease. A serum is obtained from the blood of an animal or from the blood of a human being.

Vaccines cause the body to manufacture protective substances, called antibodies. No one knows what antibodies are except that they work against disease germs and that, if we have enough of them for specific germs, we will not "take" that disease.

Serums have the antibodies already in them when they are given to the sick person. They are given to the patient after the disease develops because he needs quick help to fight the germs. He hasn't time to manufacture enough antibodies himself, so they must be supplied from the blood of another animal.

Why is it then, it might be asked, that in injecting vaccines (germs or their toxins) into our bodies, we do not come down with the disease itself instead of becoming immunized to it? The reason is that the germs are killed or weakened, so that they cannot multiply in the body. When they cannot grow, they cannot bring about infection or disease. When the vaccine is made from a toxin instead of the germs, the toxin too is weakened so that it cannot cause symptoms of the disease.

For instance: typhoid vaccine is made from actual typhoid germs, grown in a laboratory in test tubes, then killed by heat. The physician injects them into the arm of the patient. The presence of these dead typhoid germs in some way stimulates certain tissues of that patient to begin manufacturing antibodies against living typhoid germs as well as against the dead ones. Should some living typhoid germs get into the body of the patient after the antibodies have developed, these antibodies will kill the germs and keep them from growing—thus preventing typhoid fever.

Whooping cough vaccine is made in practical­ly the same way. To date, this vaccine has not been 100 per cent preventative; where it does not prevent the disease, it lessens its severity, especially in young babies. In many cases, however, complete prevention is effected. In many cases, giving the vaccine after the whooping cough develops, helps the body in overcoming the infection and relieves the severity of the disease.

**Immunization and Prevention**

**Vaccines and serums have saved many lives. Some opposition to vaccination still remains in various communities. The author of the two articles on the subject explains clearly this phase of disease prevention. The second article will be printed in the next issue.**

**SMALL POX**

**S**mall Pox vaccine is made quite differently. The principle, however, is the same. The germ which causes this infection is called a filterable virus. This means it is so small that it passes through the finest filter (a filter is like a sieve, only it has a mesh many times finer) and cannot be seen with the most powerful microscope. In making vaccines from these viruses they, too, are weakened so that they will not produce smallpox when injected into the human body.

The process of weakening smallpox virus depends on a very interesting fact. When germs are grown in the body of one species of animal, they are made stronger for that species but weakened for others. In this case, the weakening process is brought about by growing the virus in the skin of a calf.

There is, perhaps, another reason why small­pox vaccine does not give the disease to human beings. It is thought by some medical authorities that the virus which grows in the skin of the calf is not a human pox virus, but a bovine one. In that case humans do not "catch" smallpox from the vaccine because it really is a cowpox virus. However, its presence in the human body stimulates the latter to manufacture antibodies which will protect against smallpox because the two viruses are so closely related.

Perhaps this explains why vaccination against this disease does not always produce immunity for life, while a real case of smallpox does act as a preventive for life nearly always. If a child is vaccinated before he (or she) is 1 year old, again before he starts to school, and a third time when he is about 12 years of age, life immunity can usually be expected. To be safe, even then, it is best to revaccinate every time a case of the disease appears in the community or when one travels.

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HEALTH and HYGIENE

SEPTEMBER, 1935

27
The vaccine for diphtheria does not contain a single germ dead or alive. It is made of the poison or toxin which has been secreted by the diphtheria germs (grown in a laboratory) and to which has been added a chemically produced which kills the poison portion of the toxin. Toxin which has had its poison portion destroyed is called a toxoid. The toxoid stimulates the body tissues to manufacture antibodies against the true toxin and, at the same time, it does no harm itself.

When diphtheria vaccine was first made, the poison was neutralized by adding some antibodies from the horse. These antibodies, because they work against the toxin, are called antitoxins. These are given to people, but the toxoid is rapidly taking its place. The antitoxin mixture is that only one injection of which is explained below, is that toxoid does not contain animal serum.

There are two types of vaccine for scarlet fever. One is a toxoid which has been partially changed into a toxin, and the other is the same thing with scarlet fever germs (killed) added. Scarlet fever vaccine has not been as effective as diphtheria vaccine has. In the first place, it is too toxic to be given in a single dose. Most children cannot tolerate it in three doses. Many physicians are finding that if they break the course of injections up into five, seven or even nine doses the child has no bad reaction from this toxoid and develops immunity quite rapidly.

Cold Vaccine

The term "cold vaccine" is misnamed. As far as is known, it contains neither the germs which cause a cold, nor a toxin from these germs.

The true cold—the condition which begins with a running nose and eyes, sneezing, and numerous general conditions such as aches and pains in the joints, etc.—is now known to be caused by a germ which, like that in smallpox, is a filterable virus. So far, the manufacture of an effective vaccine from this virus is still in the experimental stage.

However, it has been known for some time that colds pass through two stages. After the sneezy, nose-running stage is passed, there develop thick yellowish or whitish secretion which is hawked down from the head or up from the chest. This material is produced with germs which are normally found on the skin, in the mouth and on the mucous membranes generally. But these germs do no harm until something breaks the skin or mucous membranes, or lowers their virility.

Apparently, after the cold virus weakens the mucous membranes, the secondary invaders— as these ever-present germs are sometimes called— start growing rapidly and cause such infections as "cold in the head," "cold on the lungs," sinus infection, mastoid and sometimes meningitis.

Cold vaccine, such as is available today, are made of these secondary invading germs which, also, have been killed by heat. While they do not prevent the beginning of a true cold, they do in many cases prevent that second stage which seems to do most of the real damage.

Individuals vary a great deal in regard to being helped by cold vaccines. Those who are helped, vary as to the number of times they find it necessary to take this preventive during the winter in order that a cold should not develop. Some people can take a few injections of the vaccine in the fall, and not have a cold all winter. Others have to take them every month in order to get help. The latter condition seems to exist particularly with persons who suffer from sinusitis.

Vaccines for Boils

There are two kinds of vaccines for boils. These are called stock and autogenous. Like the second stage of colds, boils are also caused by germs that normally remain on the skin and cause no harm until something happens to lower the resistance of the skin.

In making stock vaccine for boils, the germs are grown in the laboratory and killed by heat. When the stock vaccine does not clear up the infection, the physician, sometimes, has an autogenous vaccine made. This requires opening one of the boils and taking out some of the pus in which there are live germs. The pus is taken to the laboratory, and from it a pure culture of germs is grown, killed by heat, and then injected back into the patient from which the pus came.

One might ask why the vaccine in these cases cause the patient to manufacture antibodies while the living germs in the boil do not. The explanations given by those who have studied immunity is that the germs in the boil remain in one local area, and do not come in contact with those tissues which manufacture the antibodies. The dead ones, injected artificially, have a chance to be absorbed, and reach those tissues which produce the protective substances.

Above, the statement was made that vaccines are given to prevent a disease while serums are given after the disease develops in order to help cure it. Giving vaccines for boils after they start forming may seem to be inconsistent with this former statement, but it is reality it is not. Boils usually come in a series. One or two will develop at a time, reach a crisis then subside—and others arise. The vaccine is thought not to cure the ones already developed, but prevents the forming of new ones. In this sense, this type of vaccine is a preventive.

For Rabies

Rabies or hydrophobia is another type of disease for which the vaccine is given after the infection has begun. However, it, too, is a preventive—not a cure.

When a person is bitten by a rabid animal, the virus is deposited from the saliva of the animal into the open wound. The germs (these, too, are filterable viruses) attach themselves to the small nerves, and make their way slowly toward the brain or spinal cord. Once they reach these centers of the nervous system, the patient dies. The prevention lies in starting the vaccine as soon as the bite occurs, in order that the body can begin immediately to manufacture antibodies. In other words, it is a race: between the virus reaching the brain or spinal cord by way of the nerves, and the formation of sufficient amount of antibodies to stop the virus by killing it. This vaccine is called the Pasteur treatment, because Louis Pasteur was the first person to immunize a human being successfully against rabies.

Rabies vaccine is made by giving the injection to rabbits, then killing the latter, removing their spinal cords, and drying them varying lengths of time in order to kill or weaken the rabbit germs. Giving the vaccine requires from fourteen to twenty-five injections. The first injections contain cords which have been dried long enough to kill all the viruses. As the injections progress, less and less weak germs are given. This procedure stimulates the body to produce stronger and stronger protective substances.

Except in instances where the bite has been on the face near the eyes, or, in instances when the immunizations are not begun immediately following the bite, the vaccine is a successful preventive. It should always be given where there is any doubt as to whether the biting animal was mad.

There are other vaccines which are given to prevent other infectious diseases, but the ones mentioned above are the most commonly used in this country. There are also the vaccines for sensitization to certain plant and animal proteins not in the form of germs. Included in this group of ailments are hay fever, asthma, food idiosyncrasies, animal hair and dandruff sensitization. But their story is one by itself and cannot be told here. (An article on these allergic ailments and their prevention and cure was printed in the July issue of Health and Hygiene.)
Health Advice by the M. A. B.

Spastic Paralysis

I. Chicago

To THE MEDICAL ADVISORY BOARD:

I had read your letter and was quite glad to hear from you. I say this despite the fact that your letter an

other, I should like to mention that I don’t give you more
take this opportunity to

You quite correctly surmised that my case of spastic paralysis was

Dr. — treatments. Perhaps you may change your suggestion after you have had

to the treatment. I am 24 and have two degrees from

T. F.

II. Chicago

To THE MEDICAL ADVISORY BOARD:

I have been to the — Hospital in

this city many times, but they have

said above, I would be glad if you

mental balance. Therefore, as I have

symptom of various diseases of the
tic, and am losing my health and

condition has been present from

treat just this type of condition.

Such a clinic is conducted by Dr.

T. F.

IV. Chicago

To THE MEDICAL ADVISORY BOARD:

If, however, your condition has not been present since early infancy, the

problem is a different one. Please send us details of your illness in

that case. So far as we know, foreign clinics do not offer any

treatment which cannot obtained here.

By all means, try to interest your

in some form of occupation. Per-

haps you have heard of those very

numerous cases of disability much

worse than your own, where the pa-

tient has been able to get some

sort of occupation and has made an ex-

cellent adjustment. Do you read revolu-

tionary literature? Have you tried

your hand at writing anything?

Wood-carving, rug-weaving, and vari-

ous other crafts might be suitable for you.

SEPTEMBER, 1935

HEALTH AND HYGIENE

30
To THE EDITOR: I do not like the new design on HEALTH AND HYGIENE. I don’t see why you wanted to improve on the old one. The design you had, before this new one, is more modern and attractive. However, if you expect to change your design, I recommend that your cover be modern above all things. The New Masses is a good example.

Your contents are fine—keep it up.

B. H.

Another Likes It

New York City

To the Editor: The cover on your magazine is excellent. I really think it is rather different, and more outstanding, than any magazine on the stands.

You mentioned in your magazine that any suggestions would be welcome. I wonder whether the idea of showing a diagram of the human body would help the reader. Many parts of the anatomy are unfamiliar by name to the readers; an arrow pointing to the parts mentioned would help us a better understanding.

I am enjoying the magazine immensely and hope it has a long life.

C. S.

C. S.—We have some in this issue. Do they help?—E. O.

To the Editor: Greetings! Please send me as many copies of HEALTH AND HYGIENE as this dollar will pay for.

Novinger, Mo.

To the Editor: Is it possible to run an article in a forthcoming issue of HEALTH AND HYGIENE on food combinations? It seems to me to be of importance, since foods are chemicals ultimately and certain chemicals have no affinity for each other. I should like to know about such combinations as orange with milk, carbohydrates with acid foods, etc. Isn’t it possible that wrong combinations can cause irritations in the lining of the stomach and this, extended over a long period, may cause ulcers or cancers?

E. O.

To the Editor: Is not the one we have always known—“Drink Gold Brand Mate”? They are respectively ordered.

The Bronx

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E. O.
Further Editorial Notes

HEALTH AND HYGIENE is publishing the sixth issue of its magazine, completing Volume One with the present number. The magazine has now reached a circulation of 15,000, including 3,000 yearly subscribers.

The magazine is a labor of love for the Medical Advisory Board. For its continuance, a firm financial foundation must be built. The Medical Advisory Board, therefore, has decided to lay its case before the readers.

Five thousand more subscribers would give Health and Hygiene the financial base that it needs. A special subscription price of $1 per year has been fixed for the next four months, until January 1, 1936, in the belief that 5,000 new subscribers would be obtained by that date. We urge our readers to help us reach that goal by January 1. Other special offers to subscribers will be announced soon in the working-class newspapers.

We count on each subscriber to secure at least one additional sub.

While quoting Dr. M. Lester in our editorial this month, we mentioned undernourishment and starvation in this country alone. Conditions for workers are similar in other countries. We print the letter below as an illustration of what conditions are in one other country. Incidentally, please note how far our fame has spread. We are selling the magazine now in every State in the United States, every Province in Canada, and in eighteen other countries, reaching readers as far as New Zealand. The letter, from a New Yorker, follows:

To the Editor—I am enclosing a clipping from the Banffshire (Scotland) Journal, dated July 2, 1935. If you ever have occasion to publish articles about children of the poor in "civilized" countries, the clipping may be useful.

The article, you will note, tells about the death of a girl, aged 2 years and 10 months, after discharge from the Chalmers Hospital, Raeburn, in northeast Scotland. The child died in April, during the King's jubilee celebration. The jury which made an inquiry found that "there was a lack of proper treatment of the deceased child during the time she was in Chalmers Hospital."

The child was the daughter of a crofter, the youngest of sixteen children. In the part of the country where her parents live, there are large estates owned by the Duke of Fife and Gordon, the Earl of Seafield, and a host of lesser lights. The "nobility" has model farms, where pure-bred cattle are kept in tidy stalls equipped with running water. But the crofter families, to one of which this child belonged, live in the most squalid misery and receive "lack of proper treatment" when they are taken down with disease. But then, these are the families that are bred not for immediate profits, as is the case with the cattle—but rather for the purpose of supplying cannon-fodder dressed in elaborate uniforms and called Highland Regiments when the dukes and earls set out to extend their Empire.

I like your magazine. The clipping of which I write was sent me by a friend in Banff who reads Health and Hygiene regularly.

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We fill mail orders for medicines recommended by Health and Hygiene at reasonable prices.
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“Corns to Concussions”
There are plenty of magazines now that will give you set formulas on how to cure everything—from corns on your feet to concussion of the brain—in ten easy lessons.

HEALTH and HYGIENE does no such thing. It STANDS ON THE RECORD. This issue is a fair sample of the kind of authentic, real, helpful health information in Health and Hygiene. Buy it every month. Subscribe to it. The OCTOBER ISSUE will be better than ever.

“THE RIDDLE OF SEX”

Some of the Subjects Included

- Puberty
- Pregnancy
- Sterility
- Mental Dietetics
- Sex Hygiene
- Other Phases of the Sexual Question

by Dr. Joseph Tenenbaum

The facts of sex have been kept hidden under the disapproval of society for so long it is no wonder why so many people blush at this frankly detailed discussion. There is scarcely anyone, married or unmarried, adult or adolescent, who is not faced with some sex difficulties. Formermost sociologists and critics hail this book as one of the best on the subject.

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- Should there be sexual diet in marriage?

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