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**HEALTH
 AND HYGIENE**

JULY, 1937

15 Cents

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WHICH CAMERA SHOULD YOU BUY?

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Which should you buy—the Contax or the Leica?

The first of two reports on cameras in the current issue of *Consumers Union Reports* will help you to answer such questions as these. Non-miniature cameras, including both American and foreign makes, are covered in this report. The second report, which will appear next month, will cover miniature cameras.

As in reports on other products, comparisons of the quality and value of outstanding makes (including Kodak, Agfa, Leica, Contax, Speed Graphic, and Zeiss cameras) will be given and the Best Buys of each type and in each price range indicated by name. Read these reports before deciding which camera to buy. They will give you the guidance of experts in the selection of a camera.

HOUSE DRESSES - RADIO TUBES - FLASHLIGHTS SANITARY NAPKINS

Other reports in this issue give you the results of tests made on competing brands of house dresses, radio tubes, flashlights, sanitary napkins, shoe whiteners, and canned peaches—with ratings, in terms of brand names, as "Best Buys," "Also Acceptable," and "Not Acceptable."

COMING IN NEXT MONTH'S ISSUE—Ratings of the 1937 refrigerators.

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Purely Personal

OUR OPEN LETTER to the Kings County Medical Society concerning the testimony of Dr. Benjamin Kramer in the trial of the striking employees of the Jewish Hospital of Brooklyn has brought the following answer:

"This is to acknowledge receipt of your communication of May 25th regarding Dr. Benjamin Kramer.

"This matter has been referred to the Board of Censors and will be considered at the next meeting which will held in October.

"As soon as any action is taken you will be notified.

Very truly yours,
William C. Meagher, M.D.
Chairman,
Board of Censors."

We shall await the action of the Board of Censors in October, and notify our readers of the outcome.

WE HAVE ALSO RECEIVED a letter from the Hospital Employees' Union regarding last month's editorial and the "Open Letter." The Union's letter follows:

"Permit me to thank you, in behalf of the strikers of the Jewish Hospital, and in behalf of our entire membership, for the stand you take in your editorial, 'Who Endangers the Patient?' in the June issue. Your 'Open Letter to the Kings County Medical Society' deserves special commendation.

"Your magazine is one of the very few publications that places the blame for the entire situation where it belongs—on the heads of the management of the Jewish Hospital. You point out very correctly that at no time was any patient endangered by the actions of the workers. Further, we are very pleased to note that you emphasized the fact that it was only after being continually rebuffed by the management of the hospital in the workers' attempt to confer with the administration that 'the Union had no alternative but to call the strike.'

"There is, however, one statement in your editorial which leaves an erroneous impression. You write: 'Now that the strike is over . . .' We are sorry to state that the Board of Directors of the Jewish Hospital has not yet seen fit to enter into negotiations with us with the view

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Drawings by Chas. E. Colahan, Lyn David,
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HEALTH AND HYGIENE

Magazine of the People's Health Education League

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Compare and mark the similarity of the two notices, ancient and modern. Who is "me"? Whoever he is, we have to take his word for it. "By all Physicians approved"—doesn't that phrase have a familiar ring?

We may be reasonably certain that "all Physicians" did not approve of that "excellent China Drink" for the simple reason that some of them didn't know much about it. Tea was introduced into England around the middle of the sixteen hundreds and first sold for from £6 to £10 per pound. By 1660 an English firm was offering tea at the so-called bargain prices of 15 to 50 shillings per pound. On September 25, 1660, Pepys, that man-about-town, tasted tea for the first time in his life. In 1664 the English king was presented with a gift of two pounds and two ounces of "thea."

These facts persuade us to believe that tea, in the years mentioned above, was a novelty, and a decidedly expensive one at that. Obviously it was not available to the general public, nor had it been used enough to enable medical men to determine its merits.

Such advertising, however, misrepresentative as it was, did not bring about the confusion which exists today. An individual, influenced by the notice, purchased the tea if he had the price. He tasted it, and if he didn't like the stuff that was the end of the matter. If he did like tea, he kept on buying the "excellent China Drink." Whether or not he continued drinking tea for the remainder of his life wouldn't have made much difference anyway.

To Smoke or Not to Smoke

But look what we're up against today. A rational person, scanning one of the current periodicals, runs across an illustration depicting two roughly sketched men engaged in earnest conversation. Listen to what they have to say:

Jim: "Been on a vacation, Bill?"

Bill: "No, Jim—I've stopped smoking. Gained six pounds in a week. You know how I used to smoke—a package of cigarettes and a cigar or two a day—it sure had some hold on me. I tried to stop many times but could only quit for a few days. But I'm through forever now—took a scientific home tobacco treatment—fixed me up in two weeks. Wasn't hard on me at all—noticed improvement the first day—I feel like a new man. . . ."

Imagine the amazement of the same person when, shortly afterwards, he reads this advertisement in his theatre program:

"Take up Camels yourself. Enjoy Camels' costlier tobaccos the whole day through. At meal time, Camels are an aid to digestion—speeding up the flow of digestive fluids—*increasing alkalinity* [italics mine—I.S.]—bring a sense of well being. Camels set you right. When you're tired—get a 'lift' with a Camel. Steady smokers prefer Camels."

Those Testimonials

Supporting this gratuitous advice with their sincere testimonials are leaders in various fields: Sir Hubert Wilkins, knighted for his feats in both the Arctic and the Antarctic; Tony Manero, national open golf champion and record smasher; Miss Dorothy Kilgallen, globe-circling reporter; Lou Meyers, Indianapolis auto race victor; and many other celebrities. (It is interesting to note that C. C. Pyle, the famous promoter, got \$5,000 for a cigarette testimonial by Red Grange, who never smoked.

Traveling home, our friend, having collected himself after comparing the two preceding ads, looks up from his seat in the subway train and stares in dumb incomprehension at this one:

"Now I smoke a pack a day. *Smoker's acidity* [italics mine—I.S.] goes in a jiffy with Bell-Ans."

In a forcible attempt to thrust from his mind the whole spaghetti-like mess of inconsistencies, our ad reader thumbs the pages of his magazine. Suddenly his glance alights on this bit of publicity:

"When you stay up late and smoke a lot, that's the test of your cigarette. Luckies—a light smoke—leave a clean taste, a clear throat."

A look of dull resignation has begun to settle over the poor fellow's face. Opening his newspaper apprehensively, he begins to turn the pages one after another. In the corner of the paper he sees this ad:

"SMOKERS—Coughs, excess phlegm and throat irritation caused by immoderate

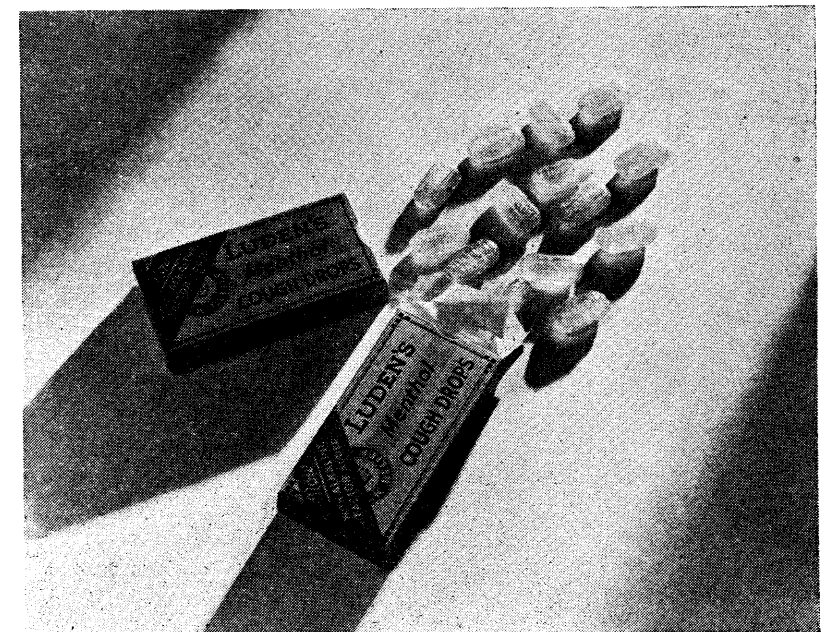
smoking quickly relieved. Allay hoarseness and soothe the membranes of the throat. Brown's Troches. . . ."

Summing up, here's what we have: Don't smoke cigarettes; smoke 'em! They increase alkalinity and cause acidity! They tear you down and build you up! They degenerate and regenerate! O consistency, thou art a virtue! We leave our fellow-sufferer somewhere along the line with a wild gleam in his eye and flecks of white froth appearing at the corners of his mouth.

Coffee publicity is nothing to brag about either. Consulting the *Encyclopaedia Britannica* we learn that "In England Charles II endeavored to suppress coffee houses on the ground that they were centers of political agitation, his royal proclamation stating that they were the resort of disaffected persons 'who devised and spread abroad divers false, malicious, and scandalous reports. . . .'"

Today advertisers are spreading abroad "divers false, malicious, and scandalous reports" about coffee. One legendary account ascribes the discovery of coffee to the observed effects upon a flock of sheep who accidentally browsed on the wild shrubs of the coffee plant. The sheep, it is said, became elated and sleepless at night. Even sheep have coffee nerves! Mohammedans used to forbid coffee on the ground that it was an intoxicating liquor. This sounds

Luden's—with the advertising factor added.



a little different from the nice things we hear about coffee today. We hear some reports that are not so good, too. It all depends upon who's grinding the axe.

The following excerpt, taken from advertising matter extolling the virtues of the "Wear-Ever Coffee Maker," tells us that

"Three important ingredients of the coffee bean are the aromatic oil (aroma), the caffeine (beneficial stimulant), and the tannic acid (harmful element)."

The *Maxwell House* people, in a somewhat similar vein, inform us that their coffee affords "Friendly Stimulation."

The *Kaffee-Hag* bunch seems to think quite the opposite. This is what they say:

"Heart trouble? Heart pound when you hurry? Can't climb stairs as you once did? Probably your doctor has told you caffeine is a heart-stimulating drug you should avoid. But you can still drink coffee—as much as you like and as delicious as ever—if you change to *Kaffee-Hag Coffee*. This blend of the world's finest coffees has lost 97 per cent of its caffeine, but none of its flavor!"

The *Instant Postum* faction adopts the same
(Continued on page 36)

Saving Lives in Spain

IN JANUARY the first group of 16 surgeons and nurses was sent to Spain by the Bureau. Directed by Dr. Edward H. Barsky, noted New York surgeon, this group established the first American Base Hospital near Madrid. Since, we have sent three other groups of surgeons, nurses and technicians led by Dr. Donald H. Pitts of Oklahoma, Dr. John Jacob Posner of New York and Dr. A. Ettleson, brain surgeon of Chicago Loyola University Medical School.

So far 61 surgeons and nurses have been sent with 55 tons of medical supplies and 11 ambulances. A cable has just come announcing the establishment of the second American Base Hospital with six hundred and fifty beds!

The immediate need for medical supplies in Spain is perhaps greater at this moment than has ever been the need in all the history of mankind.

Wounded men and women, by the thousands, look to us to help their suffering. Most desperate of all are the little children

who have become the especial target of Fascist bombs, little bodies ripped to ribbons by the invaders' shells.

If we delay, thousands will die for the lack of the simplest supplies, ether, bandages, anti-toxin, instruments. In Spain your fellow countrymen and women, doctors, nurses, technicians are working day and night risking their lives to help. You can alleviate terrible suffering. You can save a life today!

In the name of humanity, please give at once. Fill out the coupon and mail today. Whatever you can spare—don't fail your suffering fellow man.

Choose your own special way in which you want to help the Spanish people. Whatever you purchase on this list will go to the American Base Hospital, and will be administered by American surgeons and nurses. Increase the amounts if you wish.

Mark Here

1 lb. of Ether	.....\$ .60
1 Dose of Tetanus Anti-toxin	..... .65
1 Roll Adhesive Plaster (10 yards x 20 inches)	..... 1.25
1 Dose Gas Gangrene Anti-toxin	..... 1.75
1 Bolt Sterilized Gauze	..... 2.60
1 Dose (10,000 units) Diphtheria Anti-toxin	..... 3.35
1 Bed and Mattress	..... 7.50
1 Stretcher	..... 10.00
1 Doz. Hypo Syringes	..... 14.60
100 lbs. Absorbent Cotton	..... 30.00
To send one Doctor or Nurse 250.00
1 Operating Table and Accessories 500.00
1 Ambulance 1,500.00

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Make your Mark X

This advertisement paid for by private contributions. Make all checks payable to Dr. John Guttman.

Is your intelligence insulted by the health claims made for cigarettes, coffee, cough drops? An amusing article on the validity of such claims.

Health Ads — 99.44% Bunk

By IRVING STURMAN

ARE you in any kind of trouble? Calm your fears! Modern advertisers can accomplish for you today what Aladdin with his magic lamp could never have hoped to do. Is your engagement going on the rocks? Change your brand of mouth wash! Are affairs going astray at the office! Alkalize! Couldn't you make that last sale or put across a big deal? Maybe your teeth weren't white enough! The solutions to all these social, medical, and financial problems, and more, are proffered by the seers of publicity.

Webster's *Twentieth Century Dictionary* partly defines "advertise" as follows: "to exploit anything before the public." Or would it be more accurate to say, "to exploit the public before anything"? Exploitation by publicity mongers is an old story. Early advertisements were concerned largely with books, poems, and quack medicines. So, the eyesores and intelligence-insulters which plague us today haven't come a very long way. The vague and indirect testimonials displayed in subway trains and street cars, on buildings and billboards have hoary ancestors.

China Drink

Read this sales copy of the year 1658. It is about the earliest food advertisement we know of:

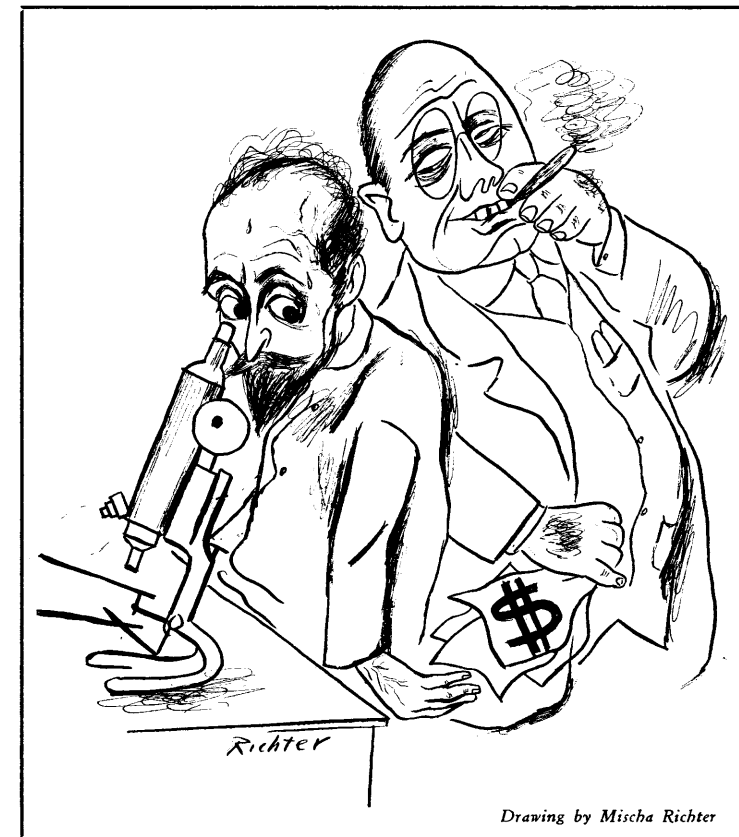
"That excellent and by

all Physicians approved China Drink, called by the Chineans Tcha, by other nations Tay, alias, Tee, is sold at the Sultaness Head, a cophee house in the Sweetings Rents, by the Royal Exchange, London."

Examine this one of the vintage 1937:

"Take it from me—it's good. White Rose Tea."

Subsidized Research



Drawing by Mischa Richter

In salvarsan we have the magic bullet that kills the germ of syphilis. The story of Paul Ehrlich, who discovered this epoch-making drug.

606 and Syphilis

AT the basis of our present-day treatment of syphilis is the drug, salvarsan or arsphenamine (also known as 606). Salvarsan was the discovery of a great physician and scientist, Paul Ehrlich. This important discovery was the culmination of a lifetime of research in the medical sciences. It was not, however, Ehrlich's only claim to greatness.

Paul Ehrlich was born on March 14, 1854, at Strehlen near Breslau in Prussia. In his family there was a tradition of scientific interest and endeavor. A number of relatives had made reputations in medicine and in other fields of science. Naturally, from an early age, Paul's chief interests were in science. But at the gymnasium (high school), in those days, there was very little opportunity for education in the sciences. Nevertheless, his interest in chemistry became strongly developed. In his final examinations he had to deliver an oration on the subject, "Life a Dream," and he said, "Life rests on normal oxidations. Dreams are an activity of the brain and activities of the brain are only oxidations. Dreams are, therefore, a sort of phosphorescence of the brain." For this he came near flunking out, but his excellent marks in other studies saved him.

Selective Staining

He entered the university to study medicine and became especially interested in the basic sciences on which medicine is founded. In concentrating his attention on these he spent much of his time on research and experiment. When he finally obtained his medical degree, it was not because of any excellence in the formal studies, but because of his achievement in original work. In accordance with the German custom Ehrlich studied at different universities, and at the University of Strassburg he devoted himself to pathology. In pathology the aim is to learn the nature of disease by examining the organs of the body in order to determine the effects of disease upon them. Most important in this study

is the examination, under the microscope, of exceedingly thin slices of portions of the body organs. These slices, known as sections, are stained with various dyes. Many of these dyes, if handled properly, will stain only certain types of tissues or certain parts of cells (selective staining). In this way, these parts can be more easily identified and their nature more easily understood. Staining, particularly selective staining, is essential in bacteriology (the study of bacteria or germs), and most bacteria are identified under the microscope by the way they stain (staining reaction). The use of dyes in pathology had already begun when Ehrlich was a boy. With the growth of the German dye industry many new dyes had become available by the time Ehrlich was studying medicine. Strassburg was near the factory centers and the dyes were easy to obtain. Ehrlich was fascinated by this new application of chemistry to medicine and spent hours after class staining sections and examining them.

After graduation from the University of Leipzig in 1878. Ehrlich was appointed assistant at the medical clinic of the Charity Hospital in Berlin. Since he was a junior member of the staff and the newest one at that, much of the routine work fell to his lot. Ehrlich felt that he could serve best by applying himself to the search for the basis of disease, but his duties as an assistant were in the way. However, he was fortunate in having a chief who was sympathetic and fellow assistants who were willing to shoulder his burdens.

Hunting the Tubercle Bacillus

This was a very fruitful period, particularly since much of his work led to results that are valuable today. He advocated and practiced giving medicine by injection as being more efficient than by mouth. He devised chemical solutions or reagents that are very useful in certain urine tests. One of these, Ehrlich's diazo reagent, is used today in a very important blood



Photo by Ralyon

Injecting salvarsan (606). This drug is the basis of our present-day treatment of syphilis.

test (van den Bergh test) for liver and gall bladder conditions and cases of jaundice. Ehrlich found that he could inject certain dyes without harm to the body and that these dyes would be absorbed in different proportions by certain organs and tissues—a sort of selective staining. This helped him to learn a great deal about how different parts of the body work. Today, this method is the foundation of a number of important medical tests.

Probably Ehrlich's greatest achievement at this time was his study of blood cells. Doctors knew that there were red blood cells and two types of white cells. But Ehrlich devised a selective staining method for blood cells by means of which he discovered under the microscope many different types of cells, both normal and abnormal. He was able to count the various cells and determine their numbers and proportions both in health and in disease. Without Ehrlich's pioneer work, our present-day knowledge of the blood and of blood diseases would be sadly deficient.

One of Paul Ehrlich's friends was Robert Koch, who discovered the germ of tuberculosis. Sometime previous to Koch's discovery, Ehrlich had seen and described tubercle bacilli in stained sections of liver, but he had not realized what

they were. To Koch goes the credit for the discovery because he first proved that these germs were the cause of tuberculosis. Soon after Koch announced his discovery Ehrlich was at work finding a selective stain that would identify tubercle bacilli. He succeeded, and tubercle bacilli have since been known as "acid fast" because when stained by Ehrlich's method they hold their color against acid. Ehrlich's method not only identifies the germ but also throws light on its nature.

The Theory of Immunity

In recognition of his work Ehrlich was honored by the University of Berlin. But then his chief died and the new chief was unsympathetic. He was very much of a disciplinarian and thought that a young assistant ought not to be allowed to neglect his assigned duties even to do important scientific work. Disgusted at not being able to continue his researches, Ehrlich resigned from the staff of the clinic in 1888. Shortly after his resignation, he discovered that he had tuberculosis, and he set out for Egypt to recuperate.

When Ehrlich returned to Berlin in 1890, Koch was at the head of the Institute for Infectious Diseases. Ehrlich joined his old friend

and became deeply interested in investigating immunity to disease. It was known that patients who recovered from certain infectious diseases practically never again contracted these diseases. Why this was so nobody understood, and the Institute was established to study the subject and perhaps find new ways to cure people.

Toxin Against Toxin

At this time the antitoxins for diphtheria and tetanus (lockjaw) were discovered. These antitoxins were produced in the body when diphtherial or tetanus infection occurred, and they neutralized the poison of the diphtheria or tetanus bacilli, as the case might be. This was apparently the way in which the rare recoveries from these diseases took place. However, it was difficult to obtain antitoxin in quantities sufficient for clinical use. Soon, however, it was found that antitoxin could be produced on a large scale by injecting horses with dead germs. The blood serum of the horse could then be drawn off, without harming the horse, and injected into a patient to cure him. This was the beginning of modern serum treatment.

Ehrlich began to experiment, and found the proper dosages for these new medicines. He learned many new facts that suggested just how antitoxins neutralized toxins and just why a particular antitoxin was effective against its own toxin and no other. This specific action of antitoxin and the fact that a definite amount of antitoxin was needed to counteract a definite amount of toxin impressed Ehrlich very much. It seemed that toxin and antitoxin behaved very much like chemical compounds, and, to a large extent, like his old stains and sections. It occurred to him that immunity to disease was nothing but a series of complex chemical reactions. Ehrlich finally organized these ideas into his great theory of immunity. While the discovery of new facts has made it necessary to modify this theory today, it was for a long time the only explanation for immunity and it gave rise to very important developments in medicine. In fact, Wassermann did not hesitate to admit that without Ehrlich's work he would never have developed the blood test which is so important in determining syphilis.

In 1896 Ehrlich was placed in charge of the new Institute for Serum Research at Steglitz, near Berlin, where he continued his studies in immunity. In 1899 the Institute for Experi-

mental Therapy was established at Frankfurt-on-the-Main and Ehrlich was appointed director. While work on immunity and serum treatment went on, Ehrlich's attention became drawn chiefly towards chemotherapy, the treatment of a specific disease with a specific chemical or chemicals in definite amounts, as in treatment with antitoxins. Influenced by his work on immunity, and particularly by his experiences with dyes and stains, he began to feel that it should be possible by some method such as selective staining to use a chemical that would attack the germs, or the diseased tissues, without harming the rest of the patient's body. If there were no chemicals of exactly the right sort available, a good chemist ought to be able to produce just what was needed. Or, he might take one already at hand and, by changing it a little here and adding something there, make it suitable. Or, if he found something that would selectively stain the germs he could add a poison such as arsenic to the dye and kill the germs without harming the patient. At this time the dreaded African sleeping sickness was attracting a good deal of public attention. It was a disease invariably fatal to animals and men. In the early 1900's scientists had learned that this disease, not to be confused with our own sleeping sickness which is related to influenza, was due to a microscopic one-celled animal called the trypanosome. The trypanosome was very easy to find in the patient's blood and so it would be a simple matter, by examining the blood, to tell whether a particular remedy was effective or not.

The Great Discovery

Ehrlich saw in this disease an opportunity to work with his dyes. He tried out some 500 of them, combining them with arsenic, antimony, and phosphorous, but with no success. In 1905 he read of a drug containing arsenic called atoxyl (meaning non-poisonous). This drug was used with success in African sleeping sickness, but the patient was in danger of going blind from the drug after being treated. Ehrlich felt that with his methods he could make atoxyl really non-poisonous, and at this time a stroke of good fortune favored him. The establishment of the heavily-endowed George Speyer House, operated in conjunction with the Institute, enabled Ehrlich to complete his investigations.

He proceeded to experiment with atoxyl, testing it on mice. Little changes here and there were made in the composition. At each step

the new product was tested and found unsatisfactory. Again a little change and again a trial. But this was no ordinary method of trial and error. Each step was carefully planned in advance. If there was a failure the work was checked back to find the reason. Ehrlich was most thorough, and well exemplified the adage, "Genius is the infinite capacity for taking pains."

Finally, in 1907 the 606th trial resulted in success, with the production of salvarsan which has since been known as 606. Then Ehrlich made a mistake which turned out to be his greatest success. It was wrongly believed that the trypanosome was closely related to the spirochete, the germ of syphilis. Ehrlich reasoned that if 606 could kill trypanosomes without harming the body, it could do the same with spirochetes. But since mice could not be infected with spirochetes, rabbits had to be used, and a series of experiments lasting two years was begun on rabbits. Satisfied with his rabbit experiments he asked for volunteers to see whether 606 would harm human beings. When it had been proven harmless, he gave the drug to physicians in whose abilities he had confidence.

There followed another two years during which Ehrlich carefully studied the reports of these physicians and, finally, when he felt certain of its curative value, Paul Ehrlich released salvarsan to the world. It was like a burst of sunlight after a storm. Here was something for which the world had been waiting for over four hundred years. People previously condemned to death or to lifelong misery now saw hope ahead. Physicians from all over the world clamored for the lifesaver.

Ehrlich had patented salvarsan not for the sake of the royalties—he never collected a single penny—but so that he could control the manufacture. He felt that he had to protect patients from adulteration and fraud.

Fame Comes to Ehrlich

At first salvarsan was made only at the George Speyer House in order to insure its purity. Requests poured in from everywhere for the medicine and Ehrlich gave it without charge to every physician whose work he thought dependable. In the first year over 60,000 free doses were distributed. The only condition was that careful case records had to be kept and forwarded to Ehrlich for study. But the demand increased to such an extent that the laboratory could no longer meet it. Salvarsan was then

turned over to private interests for manufacture.

Honors were heaped upon Ehrlich. People crowded to his laboratory, some to express their gratitude, some to beg for assistance. Ehrlich saw them all even though it tended to interfere with his work. Meanwhile, he kept on checking the reports that were coming in, suggesting ways of meeting the difficulties that developed in administering 606. Under the pressure of work, his health began to fail and in 1914, just before the war, he was definitely ill with diabetes and hardening of the arteries. The war sad-



Paul Ehrlich in his laboratory

dened him and added to his misfortunes, and he had to stop work. He died on August 20, 1915, at Wiesbaden, where he had gone for the cure. His death was mourned all over the war-torn world, and eulogies were printed even in enemy newspapers.

Paul Ehrlich's all-absorbing passion was work—thorough work. He was rather modest about his achievements, believing that they were due as much to luck and money as to anything else. When not at work, he seemed to outsiders to be absent-minded. This was because he had no regard for what he considered non-essentials. He used to say that the mind could contain so much and no more, and that his was filled with medicine, chemistry, and a little mathematics.

Among Ehrlich's non-essentials were the nice-
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When poisoning occurs you don't have time to find out what to do. Here is a clear, concise article containing instructions that may save a life.

First Aid In Poisoning

IN almost every handbook on first aid, Boy Scout Manual, or "Home Physician" there is a chapter on the treatment of poisoning. It usually consists of a long and rather detailed list of poisons, their symptoms when taken internally, and the specific remedies.

For practical purposes such books are hardly more than an interesting compilation of data, of which the accuracy is frequently open to question. When poisoning does occur, the first-aid booklet or manual cannot usually be found, and if it is found the layman is often incapable of determining the nature of the poison taken, and therefore does not know which section in the manual to refer to. If these difficulties do not arise the specific apparatus, antidotes, or remedies advised for the poisoning are usually not available.

Quick Action Essential

Considering all the disadvantages of the usual handbook account of the treatment of poisoning, it is obvious that what the layman really needs is knowledge of a few simple, easily remembered facts that can be applied without delay and that do not require for their application apparatus or antidotes which are not immediately available. In short, what is needed is a procedure which can be easily applied regardless of where the poisoning occurs—in a boarding-house room, a barn, the woods, or the cellar of a bake-shop. Individuals often poison themselves or are poisoned in strange and inaccessible places.

The importance of simple and readily applied procedures is made still more emphatic by the fact that in a great many cases of poisoning the speed with which first-aid treatment is instituted before the arrival of the physician or ambulance surgeon is of the utmost importance. In many instances a delay of as little as fifteen minutes may mean the difference between life and death, and in rare instances the crucial period of time may be even shorter. It is only

in the most exceptional instances that it is possible to get proper medical aid within fifteen minutes. Frequently, prompt and proper measures applied by the layman are of far greater value in saving a life than the more elaborate methods of the physician who arrives later.

The fundamental problem in the treatment of poisons taken by mouth is the removal of as much of the poison from the stomach and intestinal tract as possible before it is absorbed into the blood. Poisoning becomes a far more serious matter the instant the toxic (poison) material enters the blood and circulates throughout the body. Once the poison begins to circulate, damage can occur to organs remote from the stomach and intestinal tract, such as the kidneys, heart, and liver. When poisoning has reached this stage it is exceedingly difficult to treat, but unless proper emergency measures have been taken, this is often the stage at which the physician or ambulance surgeon arrive on the scene. While damage to such organs as the heart, liver, or kidneys may not always be fatal, permanent and incapacitating harm may result.

Rid Stomach of Poison

The most important procedure in the emergency treatment of poisoning therefore is the emptying of the stomach and the prevention of the absorption of the toxic material from the intestinal tract into the blood. Vomiting is the natural method by which the intestinal tract may be emptied. Usually, however, simple vomiting does not completely rid the stomach and intestines of the poison, and too frequently vomiting occurs spontaneously only after a considerable amount of the poison has been absorbed, or after considerable damage has been done to the intestinal tract.

There are a number of ways in which the stomach may be emptied. It can be accomplished by washing the stomach by means of a stomach tube, but the insertion of a stomach

tube is a technical procedure which can be performed only by one who is trained to do it. Vomiting can be induced rapidly and effectively by the injection of a drug called apomorphine, but apomorphine is a narcotic which can be obtained and used only by a physician. Vomiting can also be induced by giving the patient a nauseating mixture to drink, such as fresh mustard and warm water. Usually, however, fresh mustard is available only at grocery and drug stores, which may not be open when needed. Furthermore, the time required for any of the procedures mentioned above by one who is not expert is too valuable to waste.

A very effective and by far the simplest method of inducing vomiting is tickling or irritating the throat with a finger (preferably the index finger because it is the most agile). Such tickling kept up for a minute or so almost invariably results first in retching, and then in vomiting. This is the quickest, the most readily available, and the most reliable way for the layman to induce vomiting. It requires no special apparatus, no practice or training, and the essential tool is always at hand regardless of where the poisoning happens to occur. No time need be lost in looking for pots, pans, dishes, drugs, mustard, or water.

With one exception that will be cited later, the first thing to do in every case of poisoning is to induce vomiting. Open the victim's mouth wide, introduce the index finger as far back as it will go, and tickle the back of the throat but do not scratch it. It is not necessary to do this roughly; the tickling should be gentle but persistent. In following this procedure it is not necessary to look into the throat, nor is a light necessary. It can be done quite as well in the dark. The tickling should be continued until the patient's continued retching fails to bring up any appreciable amount of the stomach contents. If vomiting does not occur readily, make the victim drink a glass of water and try again.

This having been done, most of the poison in the stomach will have been ejected. There

is now a little time available for more complex and time-consuming procedures. A doctor or ambulance should be called, and the person who makes the call should state that it is a case of poisoning. If the name of the specific poison taken is known, this information should be transmitted as well.

After the stomach has been emptied it is well to wash it in order to remove any poison remaining on its walls. This can be done by giving the patient about a pint of water (half a milk bottle or two glasses will do—waste no time in accurate measurements) and then once again induce vomiting with the finger. This procedure should then be repeated. After the second washing another pint of water should be administered and allowed to remain in the stomach in order that whatever poison remains may be diluted.

Water is neither the only nor the best fluid that can be used in washing the stomach. It is mentioned first because it is usually the most readily available, and because time is so very important.

Milk is better than water because milk tends to form a chemical combination with some poisons and thus delays their absorption. Milk should be substituted for water only if it is immediately available. Strong tea or coffee may be used if it is at hand and if it is not hot enough to scald the patient. Tea or coffee are preferable to water because the tannin in them detoxifies some poisons. However, do not waste time making tea or coffee; use it only if it happens to be immediately available. Tea is preferable to coffee, and the stronger it is, the better. If no other fluids are available, beer, wine, or any other fluid ordinarily taken by mouth in reasonably large quantities can be used. It cannot be stressed too frequently that speed is the essential element in treatment for poisoning. At least for the first washing, the first safe fluid at hand should be used. Care should be taken, however, that haste does not lead to the use of a poisonous substance as a wash.

After the stomach has been thoroughly



Drawing by Lyn David

emptied and washed the victim should be placed in bed, allowed complete rest, and given as much fluid of any sort to drink as possible. Often the stomach will be unable to retain anything, and vomiting will continue persistently.

There are certain types of poisoning in which additional procedures are of enough value to be worth remembering. These are to be used as auxiliary measures after the more important vomiting and washing have been accomplished. For instance, in poisoning by phenol or carbolic acid, dilute solutions of alcohol are of great value. Wine, beer, or whiskey diluted with three parts of water may also prove helpful. A large lump of butter or about four

antidotes, but these are not usually found in the home medicine chest. Consequently, a knowledge of these substances is of little or no value to the layman. It is important for the layman to know exactly which substances in his household can be used, and then, in an emergency, to use these substances without delay. Delay may cause irreparable damage, damage which cannot be overcome by superior antidotes which can be obtained only in the pharmacy. The substances mentioned above are all common household articles: water, tea, milk, coffee, beer, wine, salad oil, olive oil, butter, sodium bicarbonate, and vinegar.

There is one specific condition found in some types of poisoning in which special pre-

Prevention:

Know which substances in your home are poisonous.

Know the proper antidotes for each poison, and have these antidotes on hand.

When you buy a poison learn how to treat for it and buy the proper antidote.

Label all bottles containing poisons with the names of the antidotes and simple directions for using.

Keep poisons locked up and out of reach of children. Do not lock up antidotes.

And Cure—When Necessary:

Act quickly! Don't waste time looking for things.

Induce vomiting by tickling the throat with a finger.

Call a doctor or ambulance—preferably both.

Wash the stomach by giving the patient fluids and inducing repeated vomiting.

Keep the patient at rest in bed while waiting for the physician.

Never induce vomiting if the patient has convulsions. Do not touch or move a patient with convulsions—the slightest movement may cause death. Convulsions are particularly likely to occur in poisoning by strychnine.

tablespoonsful of salad, cooking, or olive oil may also be given because oils tend to modify the harmful effects of carbolic acid on the stomach.

In poisoning by strong acid, bicarbonate of soda (ordinary baking soda) should be dumped into the water with which the stomach is to be washed. Do not lose valuable time in attempting to measure out a correct amount: jump dump a lot of "bicarb" into the water. For poisoning by strong alkalis such as lye or potash, mild acids such as vinegar added to the wash water are extremely valuable.

There are a great many specific chemical substances which can be used effectively as

cautions must be taken and in which the procedure outlined above *should never be followed*. When poisoning induces convulsions (violent, jerky, involuntary, purposeless movements of the arms and legs) *vomiting should never be induced*. The victim should be left strictly alone, exactly where he happens to be lying. Attempting to move or carry him to a bed or to a more comfortable position is a serious mistake. He should be kept as quiet as is humanly possible, and not touched, petted, comforted, moved, restrained, spoken to, agitated, argued with, or disturbed in any way. Even moderate movements such as those caused by some one walking quietly nearby, the slightest jolt of the

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The German death rate rises higher as health insurance funds are used by the government to pay the munitions makers.

Death and the Nazis

A View of Health Under Hitler

DEATH'S AGENTS—the ammunition makers, the war material manufacturers, and the professional thugs—prosper under Fascism. What about death itself; does it prosper? Recent reports of German medical agencies show that it does.

The lowest death rate Germany ever knew was under the Republic in 1932, when only 108 persons died out of every 10,000 of the population. In 1935, under Hitler and the Nazis, the figure had risen to 118. What had happened? The answer is to be found in part in the yearly report of the German health insurance organizations, as described by Joachim Haniel in the November 14, 1936, issue of *Das Neue Tagebuch*.

One-third of Nation Insured

About 18,000,000 people, or nearly a third of the German people, are members of the five great sickness fund societies or health insurance groups to which everyone with an income below a definite amount must belong. These groups, which are supported by employee and employer contributions, are responsible for treatment of the illness of their members, both at homes and in hospitals. Indirectly, they are therefore also responsible for the health of the members' families. In the absence of epidemics (there have been none in Germany for years) a rise in the death rate shows that something is wrong with the health insurance groups.

Subscribe—Or Else

The Nazis, in an attempt to pay for the building up of their war machine, have forced all insurance societies and organizations to subscribe to government "loans," which is a polite term for a "hold-up." In order to make up for this loss in their reserves and even in their work-

ing funds, the health insurance groups have had to cut down rigorously on their expenses and have been forced to conduct themselves not as organizations primarily interested in health but as businesses run for profit. This is best shown by the fact that although the general death rate has increased 10 per cent in three years, the death rate of the members of the health insurance groups and their families has increased more than three times as much, or 32 per cent! In other words, death has attacked the German worker and has relatively neglected the German employer.

Insured and Non-Insured

There is also a difference between the rate of increase in the death rate of insurance group members and that of their families. The death rate increased 28 per cent among those workers who are required to belong to the health insurance groups. The other persons in their families, who are not insured, had a death rate increase almost one-and-a-half times as great, or 40 per cent! These figures are officially regarded as being too low rather than too high.

Medicine Is Limited

The German doctor has suffered as well as the worker—another example of the fact that the welfare of the doctor is very closely linked to the economic condition of his patients. In 1932, more than 40,000 doctors were employed by the health insurance societies, each taking care of about 450 people. Today, each of 30,500 doctors has an average of 600 workers under his care. In some places, a single doctor must look after as many as 1,000 persons. The burden on the doctor is very great and it is constantly increasing.

The cost of medicines for each case of illness averaged 3.46 marks in 1932. In 1935, in

Hernia is a frequent cause of disability among men who do heavy labor. Knowledge of compensation law and procedure will save time and money.

Rupture on the Job

HERNIA is a subject of great importance to the worker. Most workers have some slight familiarity with the provisions of the workmen's compensation acts regarding the ordinary accidents and injuries which occur on the job, but few workers know that most hernias are compensable since they arise out of the stresses and strains associated with the job. Hernia is, in fact, a widespread industrial illness, and surgical operation for repair of hernia constitutes the greatest portion of major surgery done under workmen's compensation acts.

Steps to Take

Medical investigation long ago established the role of undue and unusual exertion as the cause of hernia. Today many states recognize this and include hernia as a compensable disease. In many other states, however, the compensation acts are poor and backward, and even the meagre benefits legally due the injured worker must be fought for tooth and nail. In such states, the relationship between the injury and the resulting hernia is always disputed by the employer and the insurance company. For obvious reasons the inadequate compensation laws in such states are known as the "employers' type of law.

In New York and in a few other states, the "liberal" type of compensation act is in effect. In New York the courts have held that any injury resulting in the causation of a hernia or in the *aggravation* of an already existing hernia entitled the worker to compensation benefits. This "aggravation" clause is of great aid to the worker in that it makes it more difficult for the employer or the insurance company to claim that the injury sustained by the worker and the hernia are in no way connected. The worker and his physician do not have to prove that the hernia was not present before the accident. Even though the worker has had a hernia from birth or for a considerable period before the accident, compensation benefits are legally his if

it can be shown that the injury has made the hernia worse. This is generally easy to demonstrate.

What are the practical steps to take when one acquires a hernia on the job? How does one go about getting the proper medical care and compensation benefits?

We will choose the New York State law as an example, and the reader will have to refer to the provisions of the law in his own state for differences in details.

Usually the hernia follows some act of lifting, pushing, or pulling a heavy object. Occasionally, unusual twisting or falling may be responsible. A dragging pain in the groin is felt immediately or very soon after the accident. The law stresses the matter of how soon after an accident pain is felt. When the pain appears it is best to stop work at once, since additional strain may aggravate the condition. The fact that a man continued to work while the pain was present will sometimes be seized upon by the insurance company as evidence that the hernia was not caused by the accident. Attempts to continue work are therefore foolhardy on both these counts. All hernias following accidents are compensable, and 90 per cent of all hernias are known to follow upon accidents.

Notify Boss Immediately

Of course, in most instances the worker does not know that he has acquired a hernia until he has been examined by his doctor. It must therefore be stressed that *any* accident or injury on the job must be reported to the management, no matter how trivial the injury may seem. Often slight injuries may have serious consequences at a later time, and, unless the management is informed, difficulties in collecting the just compensation claim may be encountered. A delayed report of the accident, however, does not by any means disqualify the worker from receiving the compensation benefits.

Although it is not necessary to have a witness



Drawing by Soriano

spite of the fact that the cost of all commodities rose, the average cost of medicines was only 3 marks. How was this possible? By forbidding a doctor to prescribe more than a certain amount of medicine per patient per month. If the doctor exceeds the amount allowed, the excess is taken out of *his* pay. As a result, medicines are almost certain to be prescribed grudgingly, and the patient suffers.

There are also restrictions in connection with hospital service. The doctor is not permitted to send more than a certain number of patients to the hospital each month, and the hospital is in-

structed to get rid of the patients as soon as possible. A contradiction is readily apparent. Although more are dying, the average length of time per patient spent in the hospitals is shorter. The answer: less is spent for the patient because he dies more quickly than before the Nazis seized control of Germany. Is it any wonder that under Fascism 200,000 more people died in Germany in 1935 than under the Republic in 1932? These 200,000 were workers and members of workers' families. Hitler has helped the German workman—helped him to reach the grave before his time.



Photo by John Nicholas

Candidates for hernia.

to the accident, a witness may be helpful if the compensation claim is later contested. It is a good practice to inform a co-worker of the accident. Legally the accident is presumed to have taken place unless the employer or insurance company can definitely prove that the accident did not occur. It is also wise to note carefully the details of the accident, such as time, place, and the manner of occurrence. Tell the foreman or the employer that you have had an accident. If you cannot do this immediately, inform him of it later in person, by mail, or by telephone. The law requires that the employer then fill out a report which he sends to the State Labor Department.

Upon receipt of the employer's report the Labor Department will send you a blank which must be filled out and returned promptly. This form should be filled out even if the injury has not caused loss of working time. The safest procedure demands that the form be filled out even though you may wish to defer the operation for the correction of the hernia indefinitely. Filling it out will protect you in case of any future claim.

Employer Must Pay

Let us say your private physician has diagnosed the condition as hernia. It is to your interest to entrust the rest of the procedure to him. Since, at present, the only sure way of curing hernia is by operation, your doctor will discuss this with you. The operation is usually not an emergency one and may be deferred until a time that is most convenient for you. If after a thorough discussion the operation is to be delayed, a truss will be suggested. You do not have to pay for the truss or for any medical

treatment which the hernia requires. The injection method of treatment may also be resorted to, but, as will be seen, this method, while it has certain advantages, is not so sure as the operative treatment.

The doctor will order a truss for you on his regular prescription pad and the company which sells you the truss will send the bill to the insurance company. During the period of wearing the truss, however, no compensation benefits can be received, since the law insists that you are not disabled while wearing a truss.

If you decide to have the operation, your physician will make the hospital arrangements and also choose a surgeon. If you have any preference in regard to hospital or surgeon your physician can be guided by your wishes. The surgeon will notify the employer and the insurance company in writing about the time and place of the operation, and he will then usually receive a written authorization to go ahead with the operation. Some hospitals will not accept a patient unless the surgeon has received such authorization from the employer.

When the insurance company learns that you have a hernia they will request that you appear at their office for a medical examination by *their* physician. This request should be complied with since it often removes all doubt of the presence of the hernia and may aid in the prompt receipt of the compensation benefits. You have the right, however, to have your own physician present at this examination.

At this examination the insurance company doctor may occasionally attempt to persuade you to change doctors. Such a practice is illegal in New York State. Your interests will be better served by your own physician than by one

chosen or suggested by the insurance company. The insurance company may also ask that you sign a statement regarding the details of the accident, your symptoms following the accident, your wages, and other matters. If you are in doubt about any of the questions put to you, you may omit answering it and the matter will be discussed later at your hearing.

After the operation is performed you spend two or three weeks in the hospital. Ordinarily you are allowed eight weeks disability and are compensated at the rate of two-thirds of your wage, not to exceed \$25 weekly. In addition all the hospital expenses, the surgical operation, after-care, and medicines are paid for by the insurance company. You pay for nothing.

Your surgeon now sends the insurance company his operative report to the effect that the accident caused the hernia or aggravated a pre-existing hernia. The insurance company may start paying the compensation benefits soon after receiving this report, but too often they will demand a hearing before the Labor Department, at which testimony will be taken from your surgeon regarding the operation and the

details of the injury. In such a case the benefit payments may be delayed for weeks, a very great hardship to most workers since there is no income during the period of convalescence. In such hearings, however, the weight of the evidence is almost always with your surgeon. If a hearing is held it is, of course, to your advantage to have a physician or surgeon of your own choice.

If the hernia returns, as it occasionally does, re-operation under the same circumstances may be necessary.

The subject of compensation is of great importance to the worker. Trade unions should institute classes to teach workers how they should proceed in the event of injury on the job. Specialists in this branch of law should be available to union members so that benefits legally due them may be theirs. With the education of the workers in the history and operation of these laws which affect them so vitally, a strong campaign for improvement of the workmen's compensation acts could be initiated. Such a campaign is needed especially in states where the "employers' type of law is in operation.

What happens when a "rupture" occurs and what is the best method of treatment? The use of the truss, operation, and the injection method discussed.

The Treatment of Hernia

ONE of the penalties that the human race pays for the erect position is the frequent occurrence of "rupture," the medical term for which is hernia. There are no reliable statistics on the frequency of hernia, but incomplete figures based on army examinations indicate that about 3 per cent of the male population are affected. From extensive hospital statistics we find that hernia is from eight to nine times as frequent in men as in women. The reason for this is twofold: (1) the male has a weak point in the abdominal wall where the duct to the testicles makes its exit, and (2) men as a rule do a heavier type of work than women.

In discussing the causes of hernia we will consider chiefly that type of hernia which accounts for 85 to 90 per cent of all cases, namely, inguinal hernia or hernia occurring in the groin, that is, in the fold between the abdomen and the thigh. Current medical opinion on inguinal hernia is that practically all such hernias are based on a weakness present at birth and that the hernia as such appears only when too great a strain is applied. There is very little doubt that long hours of work involving standing, and lifting and pushing heavy objects are an important factor in the production of hernia. Another factor is the modern speed-up in industry which produces marked fatigue in work-

ers so that stresses and strains which might be borne under normal conditions become possible causes of hernia. It is interesting to note that in spite of the anatomical advantage of women in regard to this disease, there has been an increase in the relative and absolute frequency of hernia in women within the last twenty-five years, a period which has seen the employment of large numbers of women in industry.

Hernia in Men and Women

What do we mean by a hernia? A hernia is a protrusion of a part of the abdominal contents outside of the abdominal wall. The popular term "rupture" is not accurate because actual tearing of the abdominal wall takes place only very rarely. In the lower part of the abdomen near the thigh there is, in both men and women, a gap in the three sheets of flat muscles which protect the belly wall. This gap or longitudinal slit in the muscles is known as the inguinal canal. In men this canal provides passage for the duct or tube which leads from the testicles to the sex organs that lie inside the body. In the female, the canal contains a long fibrous band called the round ligament which helps to support the womb. It is at this weak point or gap that the great majority of hernias occur. The weakness is slighter in women than in men because the round ligament and its blood vessels are much smaller in diameter than the spermatic duct and its vessels. Another point of weakness is the place where the large blood vessels leave the inside of the belly to go down into the thigh. At this point the weakness is about twice as great in women as in men. When a hernia occurs at this weak spot it produces a lump in the upper part of the thigh, just below the crease between the thigh and the abdomen.

The Operative Method

At first the hernia is produced by a bulging of the inside lining of the belly which, finding a weak spot in the belly wall, protrudes through it. In its initial stage the hernia is empty like a finger of a rubber glove; later it protrudes farther and farther due to the increased pressure caused by muscular effort, until finally some of the contents of the belly, for instance, a part of the intestine, enter into this empty "finger." If, in this condition, the protruding part of the intestine becomes distended with gas so that it cannot be pushed back through the narrow neck of the "finger," acute blocking of the intestine

or "strangulation" takes place. This is a serious complication and requires immediate surgical care.

Many methods have been employed in the treatment of hernia. It is a medical aphorism that when any disease is treated in a great many ways, none of the treatments is likely to be adequate. The treatment of hernia may be considered to be twofold: operative and non-operative. At the present time the operative treatment is accepted by the majority of the medical profession as by far the best treatment. In good hands the operative treatment, at present, has a recurrence of three per cent, that is, given the best surgeon, there are three chances out of a hundred that a hernia which has been repaired by operation will come back. This may, on superficial examination, seem to be a high proportion of failures, but when one considers that many patients return to work, and sometimes to heavy work, within a month after the operation, it is evident that the surgeon is not always at fault. Furthermore, certain factors such as size or location of the hernia, as well as the age or physical condition of the patient, may cause a hernia to recur even after a long period of convalescence. The probability is that under ideal conditions surgery would cure about 99 out of every 100 persons operated upon, but such conditions entail an absence from work of eight to twelve weeks. This is longer than most people can afford to remain away from work.

Truss and Injection

We shall consider two types of non-operative treatment: (1) the truss, and (2) the injection treatment combined with the truss. Treatment by means of a truss is probably the oldest of all treatments for hernia. Illustrations in the medical literature of 200 years ago show many ingenious devices for maintaining a rupture in a reduced condition. A truss is usually a padded metal belt which encircles the lower abdomen and is kept tight against the body by means of a spring. The essential part of the truss consists of a leather-covered pad, usually triangular in shape, which covers the actual site of the hernia. While very occasionally hernia is cured by means of a truss, such cures are limited to young children and, in some instances, to young adults. There is, however, one type of rupture that is frequently cured by means of a truss—the umbilical hernia in young children. This is

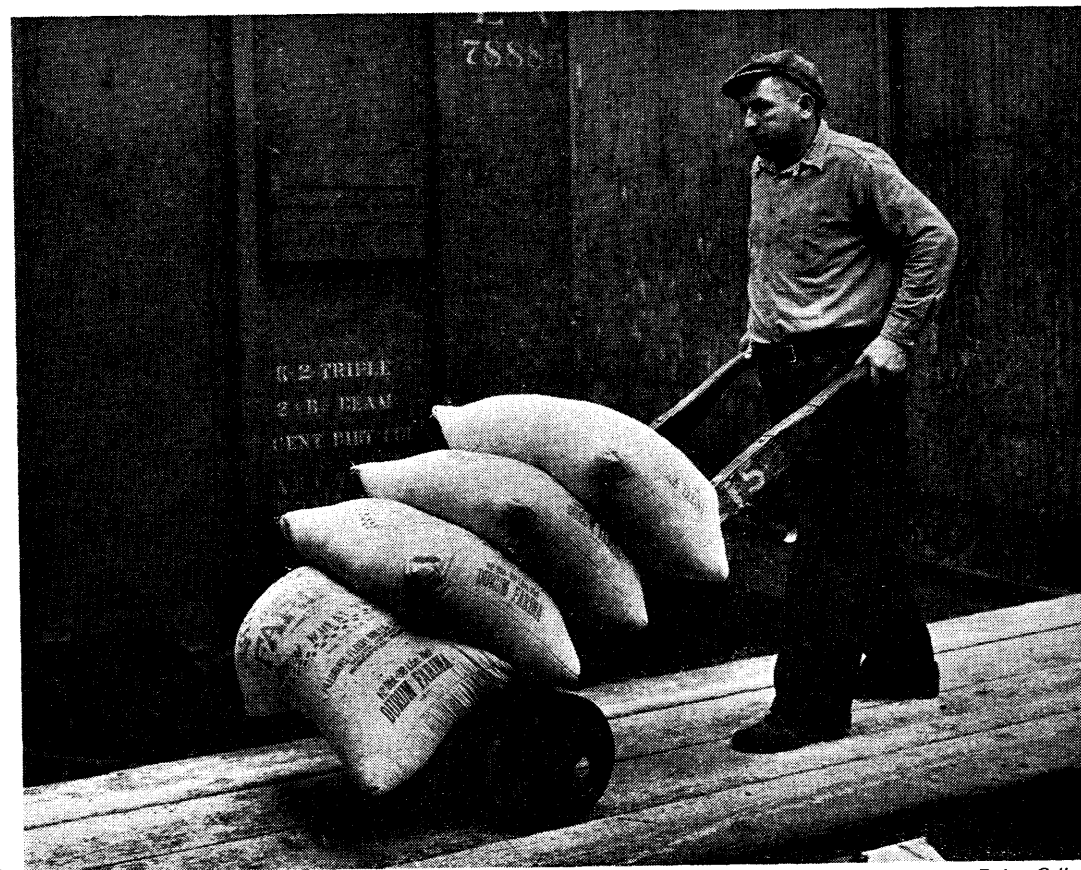


Photo by Ewing Galloway

An accident on a job like this—a loose foothold or a false step—might easily mean a hernia.

the type of protrusion which occurs through the navel or "belly-button," and a properly fitted truss or sometimes a small pad strapped over the protrusion with adhesive tape will result in a cure in from three to six months. The fact that a truss sometimes cures hernia in young children has led to much speculation as to the nature of the curing process. Research has demonstrated that the pressure of the truss pad causes the formation of a mass of fibrous tissue which acts like an internal truss. The sac of the hernia remains, but the fibrous tissue formed blocks its narrow neck so that none of the contents of the abdomen are able to enter it. Before we proceed to discussion of the injection treatment of hernia, which, as we shall see, is also a method of producing fibrous tissue, we must warn against the use of trusses that are purchased ready-made. Trusses should be individually fitted and the patient should be taught to apply the truss by a physician. Proper application of the truss may mean the difference

between proper reduction of the hernia and trapping the hernia with the truss. If the truss pad is placed over the exit of the inguinal canal instead of over its entrance, the hernia will not be completely reduced; instead it will remain in the inguinal canal and will be subjected to the pressure of the pad. Sometimes an improperly applied truss may cause strangulation of a hernia.

The second method of non-operative treatment of hernia is the method of injection and truss. This is also an ancient method. Various solutions for the purpose have been known for at least 300 years, but the results cannot be said to have been very remarkable. Until fifteen years ago the method of injection had largely been abandoned, but within the last few years increasing reports about the efficacy of this method in selected cases have been piling up. The injection treatment depends upon the fact that when a mildly irritating solution is in-

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YOUTH FIGHTS FOR HEALTH

The future is dark for millions of young Americans today. Public health studies indicate that economic depression has taken a particularly heavy toll among our youth. Undernourishment has brought disease and lack of security has been responsible for mental illness and crime. What is to be done?

WE have learned many valuable lessons from the economic depression. It is not necessary to enumerate all of them. They have been seared into the minds of millions of Americans, and their effect was seen in the November elections. We are also observing their effect now in the militant wave of union activity sweeping the country. The American Youth Congress itself is one expression of the capacity of the American people, of the American youth, to learn their lessons well and to translate what they have learned into action.

Yesterday's Pollyannas

There are many, however, who are afraid of these lessons. Possessing the power to control public opinion, they change black to white, and white to black. We remember back in 1933, in the trough of the depression, with what pathetic eagerness the depression apologists scanned the mortality and morbidity statistics. In that year the gross death rate in the United States was the lowest on record. Now any high school student taking a course in statistics would have hesitated to draw any conclusions from the published death rate. But not our apologists. Newspaper editors, journalists, columnists, and amateur public health experts began to point with pride. They crowed about the high character of public health service in the United States which was able to achieve the sublime paradox of the lowest death rate on record at the depth of the severest economic depression the country had ever experienced. Things couldn't be so bad if fewer people were dying then than in 1929. In fact, was it not apparent that if the death rate was decreasing the health of the people must be improving? Surely there was virtue in unemployment and

low wages if these conditions could make people healthier. The nonsense reached its climax when the health pontiffs solemnly proclaimed that the depression was good for us because it made us return to simpler and saner living. Economic adversity was toughening the bodies and minds of the American people, making them hard, lean, and virile. This gibberish reminds us now of Hitler and Mussolini, but three or four years ago it was taken seriously by many Americans.

The sublime paradox was no paradox at all. Intelligent public health officers and students tried to make themselves audible through the noisy clatter of editorialists and columnists (for a representative course in public health nonsense we suggest The Topics of the Times column in the *New York Times* from 1932 to 1934). Officials in the United States Public Health Service, physicians in state and county health departments, warned us that a falling death rate was no index of the health of the people. They reminded us that the major depression cycles in the past fifty years (1873-

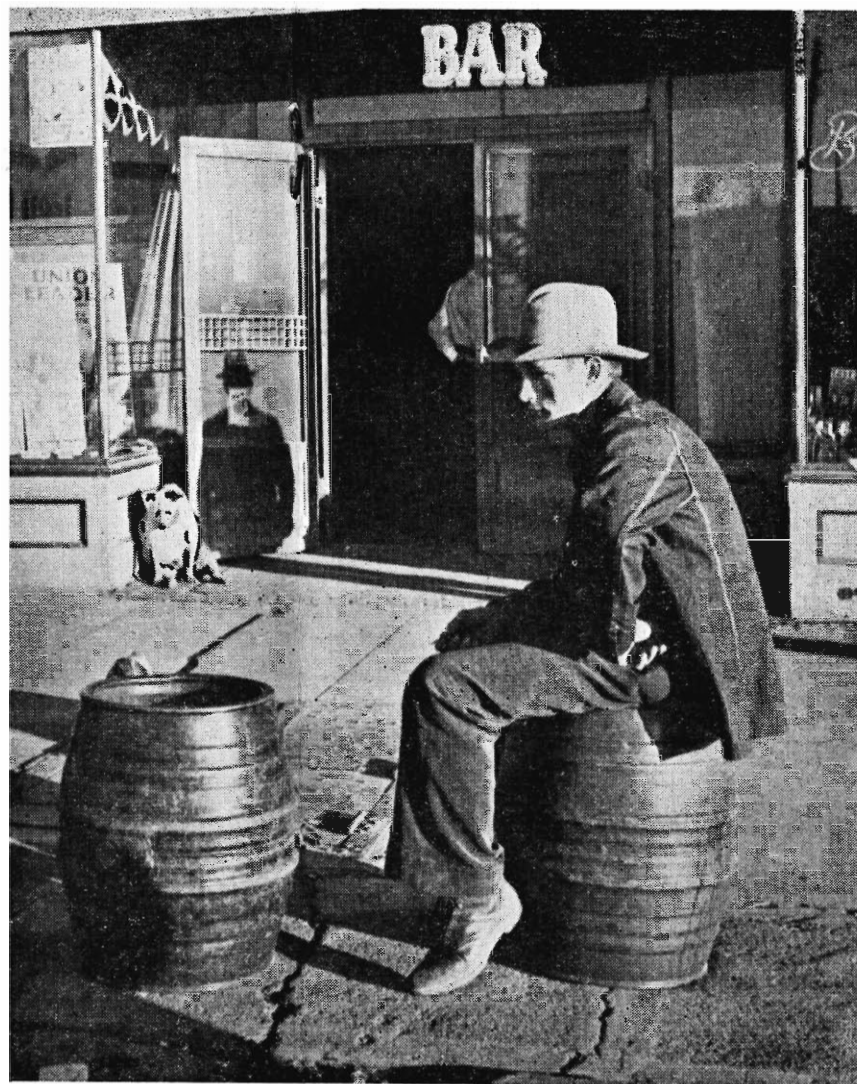


Photo by Pix

There's nothing for him to do, so he sits on an oil barrel and kills time. He's one in America's large army of transient unemployed.

79, 1884-86, 1894-98, 1914-16) showed general sub-normal mortality rates and that only towards the end of the depression did the upward turn in mortality appear.

Reports began to appear from the United States Public Health Service showing that the mortality rate for the nation as a whole or for any large group of the population did not indicate the health condition of *certain* sections

of the population. As a matter of fact, the reports which then appeared, showed that an actual increase in illness and mortality had occurred in the large section of unemployed and their families. The gross health rate told us that the mortality of the entire population was this or that, but it did not tell us the mortality of the unemployed and the low-wage group, i.e., the majority of the population.

What Figures Show

Surveys of the United States Public Health Service and the Milbank Memorial Fund in ten industrial localities showed that during the period of 1929-32, the death rate in families with no employed workers or with part-time wage earners had increased 20 per cent; and that families which had suffered the most severe decline in income had a disabling sickness rate over 50 per cent greater than those whose economic status was not materially reduced. From the state health departments came similar reports. The Director of Health of the State of Illinois reported in May, 1935, that counties having the highest number of persons on relief had the highest death rate from three major diseases—typhoid fever, tuberculosis, and diphtheria, as well as the highest general death rate. A report by Drs. Perrott and Holland of the United States Public Service appeared in *The Journal of the American Medical Association* for May 29, 1937. It is a survey of chronic illness in a representative northern industrial community and it shows that chronic diseases such as tuberculosis, rheumatism, heart disease, eye and ear trouble, and nervous disorders occur overwhelmingly more often and more severely among the poor than among those with higher incomes.

These and other reports that have appeared present a picture of disease and malnutrition that is not flattering to the American ego. Dr. Martha Eliot of the Children's Bureau of the United States Department of Labor reported an increase in malnutrition in various parts of the country. She estimated that the increase varied from 25 to 50 per cent, and that some six million children are undernourished. Diseases that were previously observed only among the poor peasants of China or among the German people during the war began to appear in the United States. Deficiency diseases caused by diets inadequate in vitamins and health-promoting elements were seen in the

free clinics of the large cities. Pellagra, a disease caused by subsistence on a diet lacking fresh vegetables, milk, and meats, was estimated to affect more than 200,000 Americans, particularly in the South.

More reports have appeared showing widespread devastation of other diseases such as malaria, tuberculosis, syphilis; thousands of infants dying from infectious diarrhea and other preventable ailments; thousands of young mothers dying in childbirth; 75 per cent of the total population receiving inadequate medical or dental care and 40 per cent getting no medical attention at all.

A Barren Future

The youth of the country have had more than a share in all this disease, misery, and insecurity: At a period when the creative capacity is maturing, when the best talents are emerging, four million young people between the ages of 16 and 24 are unemployed. Aubrey Williams, Executive Director of the National Youth Administration, has said: "Millions of those now out of jobs will never find jobs again. Thousands of young men and women leaving our schools each year are destined never to become self-supporting and independent in the sense that your and my generation were led to believe was our due." Again: "We know that a vast, overwhelming majority of the children born in the last twenty-five years will never rise above a hand-to-mouth existence; that all their steps from the cradle to the grave will be dogged by poverty, sickness, and insecurity."

There is no need to emphasize again how unemployment, poverty, and insecurity affect the health of our youth. A well-balanced diet, adequate housing and recreation are all essential to health and all must be purchased. Medical service is also a commodity that must be purchased. When the income is low, on a subsistence level, or contributed by relief agencies, decent medical care cannot be purchased. The clinics of our cities are crowded daily with patients who cannot buy medical services and who must rely upon the hurried and perfunctory services of overworked and unpaid physicians who themselves have difficulty earning a living.

The seriousness of the malnutrition problem must be made clear. The millions of ill-nourished children will be the youth of tomor-

row. It surely requires no great foresight to see what chronic malnutrition will do to them. A vivid example still remains in the minds of many of us. At the Conference on Child Health and Protection called in 1933 by Secretary Perkins, one child welfare authority cited English figures which showed that England had found it necessary to reduce her army standards to 5 feet 3 inches and 113 lbs. in order to recruit 30,000 men from the group that had been born during the war or were very young at the time of the war.

Malnutrition does not take its toll dramatically, in sudden disease and death. Rather it works stealthily, slowly weakening and undermining the resistance of the individual and making him a prey to acute and chronic infections and disabilities. The epidemics of influenza and pneumonia during the past winter affected chiefly the poor. These respiratory diseases take a particularly high toll among the young—in fact, they constitute one of the major disabilities of youth.

Disabled Are Cast Out

Chronic diseases are beginning to be recognized as a pressing problem in public health. The report of the United States Public Health Service mentioned above reveals a tremendous incidence of chronic disability resulting from heart disease, rheumatism and arthritis, nervous and digestive diseases, tuberculosis, and eye and ear impairment among the unemployed as compared with all other income groups. These chronic illnesses require prolonged medical care. They prevent the young worker from returning to the factory or office on a full-time basis in competition with his healthy fellow-worker. It is easy to see the establishment of a vicious cycle—unemployment and insecurity predispose to malnutrition and acute and chronic disease; chronic disability imposes limitation upon the chances for present or future employment. Our industrial scheme is not geared to take care of the partially disabled or to permit part-time work. Consequently, there are hundreds of thousands of young people who can never obtain the material and mental satisfaction of work.

One of the chronic disabling illnesses that is particularly prevalent among the youth is tuberculosis. The average death rate from tuberculosis in the total population is officially 60 deaths per 100,000 people. Even if we

assume that all deaths from tuberculosis are reported (thousands of people die from tuberculosis without any medical care whatever) this means that one out of every 1,500 will succumb to tuberculosis. However, when we examine the number of deaths in different age groups, we learn another lesson. In young men from 20 to 24, the death rate is 68 per 100,000. In men the peak of tuberculosis mortality occurs in the age group from 25 to 35, but the beginnings of the disease can be traced as a rule to the period of the late 'teens and early twenties. In young women the rate reaches the devastating level of 98 per 100,000. This is the highest level for any age group up to 75 years. The young working woman is especially vulnerable to the plague and no matter how much we may gloat over the achievements in the control of tuberculosis in the past twenty-five years, the fact remains that the disease is still a public health problem of the first magnitude as far as youth is concerned.

The high levels of tuberculosis mortality are now beginning to mount even higher. The depression is having its aftermath. Provisional 1936 death rates indicate a rise in the tuberculosis mortality. New York City with one of the best health departments in the country reports a 5 per cent increase in the death rate of 1936 over 1935. In 1935, when many health authorities were boasting about the decline in the tuberculosis death rate, HEALTH AND HYGIENE pointed out that the decline was deceptive and that we should be prepared to witness a rise in the incidence of the disease in one or two years. It is unfortunate that our predictions have come true. But malnutrition, poor housing, bad working conditions, and the anxieties bred by insecurity must exact a penalty, and the penalty is particularly heavy for the youth.

Tuberculosis is not the only disability of youth. Pneumonia and rheumatism are also among the major scourages. Heart disease

disables and kills thousands. Syphilis infects from six to ten million Americans. The highest rate again is among the youth.

The nervous diseases also take a heavy toll among the youth. According to Drs. Perrott and Holland of the United States Public Health Service, nervous diseases show a concentration of cases in the young adult period of life, with a relatively high proportion of the cases occurring under the age of 25.

The years from 16 to 25 constitute a critical period in the life of every young man and woman. It is the period when adult responsibilities are being assumed, when a career is being decided upon, when an adult sexual ad-

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Graduated from college—what now?

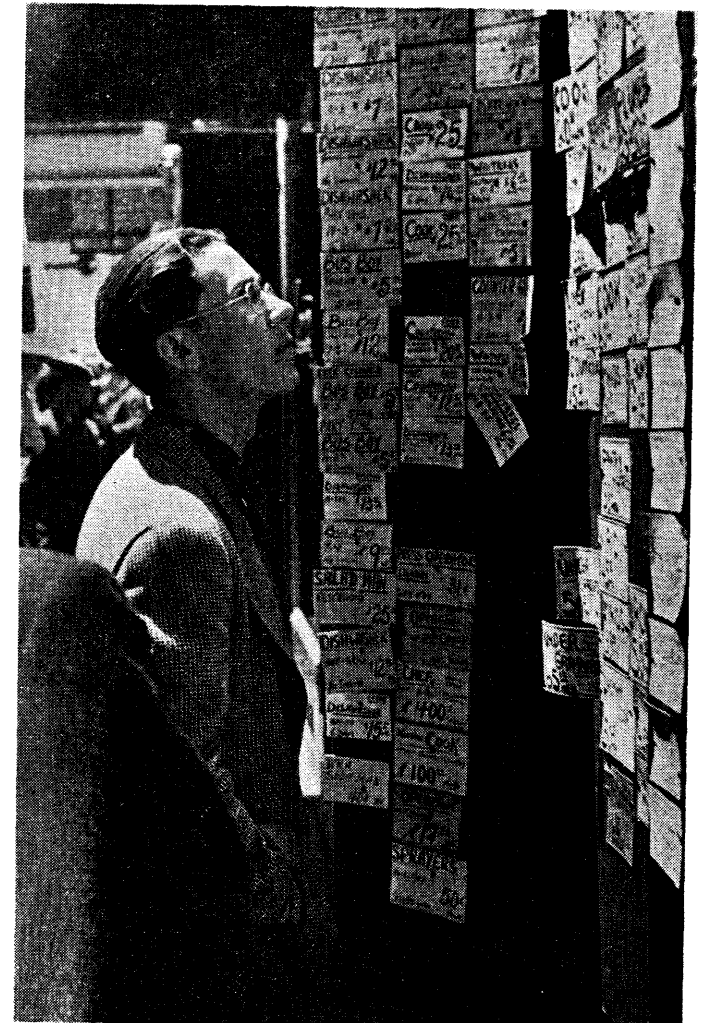


Photo by Ralyon

Many hospital beds are unused while ward patients wait and wait for admission. Revealing some striking facts about institutional care of the sick.

Surveying the Hospitals

AFTER a great deal of research work "The Hospital Survey for New York" has been issued by a committee composed of prominent physicians, hospital administrators, and laymen. The purpose of the Survey, briefly stated, is to describe and evaluate as far as possible the facilities in and around New York for the institutional care of the sick. The following types of institutions are covered by the Survey: (1) "voluntary" or private charitable institutions operated by non-profit-making associations and supported by endowments, contributions, and fees from paying patients; (2) governmental institutions supported out of taxes; and (3) privately owned institutions operated for profit.

Sixty Per Cent Do Not Pay

The authors of the Survey have spoken of the services studied as a "public utility," as indeed they are. Institutional care of the sick is something that affects all of us—a service that is essential in preserving the health of the community. It is therefore worthwhile examining this voluminous report and considering both the findings and the recommendations made.

Are the institutional facilities for the care of the sick in the New York metropolitan area sufficient for the needs of the community? In order to approach this question properly it is necessary to examine the findings in regard to two types of service, namely, that which is provided for paying patients and that which is available for patients who cannot pay or who can pay very little.

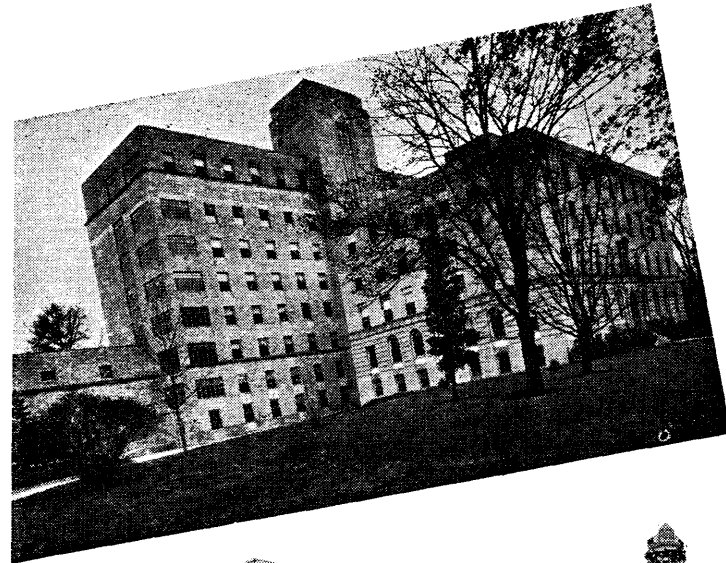
Of 508,997 bed patients in voluntary and governmental hospitals in New York City in 1934, exclusive of patients in contagious disease, mental, and tuberculosis hospitals, 332,452, or nearly 60 per cent, could not pay for care, and over 70 per cent of the days of service provided was for members of this group. As the institutional care of patients with contagious diseases, tuberculosis, and mental diseases, is

provided almost entirely at governmental expense, practically *all* patients in such hospitals are cared for free.

Who paid for the care of the 332,452 patients referred to above? Eighty-two per cent of them were either in municipal hospitals where the cost was met entirely out of tax funds, or in voluntary hospitals as so-called "public charges," which means that they were patients for whom the city government paid the voluntary hospitals at the rate of \$3 a day, a sum less than what it cost the hospitals to provide bed care. Seventeen per cent were free patients in voluntary hospitals, the cost of their care being borne by the funds held by these institutions and derived from cash contributions, interest on endowments, and fees from paying patients. The remaining one per cent were cared for by the federal government in its own hospitals. Therefore, it is clear that tax funds pay for a large part of the hospital care given.

Empty Beds

The Survey states emphatically, and with adequate factual backing, that the number of hospital beds for persons unable to pay for care in sickness is insufficient. It is common knowledge that the municipal hospitals are overcrowded, and all the Survey's figures bear this out. But this study brings out an important fact which is probably not so generally known—that the beds in voluntary hospitals for private and semi-private patients, especially the former, are *not used to anywhere near capacity*. In 1934, the daily average number of such beds standing empty was 3,147, and even in March, 1936, with the economic situation better than in 1934, 45 out of every 100 private beds in voluntary hospitals were not used. To correct this discrepancy the Survey recommends that some of these unused facilities for private patients be converted to the use of ward patients. This would relieve to some extent the overcrowding of the municipal hospitals.



New hospitals are being erected constantly, while those that are in operation are used only to a fraction of their capacity. What we need more urgently than new hospitals is a means of using present facilities to the fullest extent possible.



P.W.A. Photos

Another means recommended by the Survey for reducing the load borne by the city hospitals is the development of organized medical care of the sick in their homes as an extension of hospital out-patient service. It is proposed that such a system be supported by taxes and administered, in New York City, by the Department of Hospitals. The physician serving under such a system should be paid at rates agreed upon with the organized medical profession. Under the new City Charter such a plan could be put into operation, and many patients who are now obliged to go to a hospital because they cannot pay for the services of a private physician would receive care at home at considerably less cost to the community.

In connection with the care of sick persons in their homes, the services of the visiting nurse are invaluable. There are well-organized visiting nurse associations in New York City, but there are only half as many nurses as are needed. To fill a distinct community need and to supply a

service which yields large returns for a small investment, the Survey urges that the number of nurses giving bedside care to the sick in their homes be doubled.

Not only does the Survey recommend that physicians be paid under the proposed system of organized medical care in the home, but it recognizes the need of paying them for their service in hospital wards and out-patient departments. Doctors are the only workers in hospitals who, in general, receive no remuneration for their services. Of the attending physicians in voluntary and municipal hospitals, only 2 per cent in the former and 3.9 per cent in the latter received any pay for their care of ward and out-patients in 1935. The Survey estimates that the value of doctors' services to ward patients alone amounts to more than \$20,000,000 a year. A good argument for paying doctors is presented in the Survey, but the concluding recommendation is disappointing, for it merely states: "That hospital authorities

collaborate with their medical staffs in considering ways and means of providing remuneration to the medical profession for services to the indigent." This lacks the punch expected from the facts and arguments presented.

A large proportion of the population in New York City is dependent on out-patient services for medical care. What is the situation in regard to these services? All clinics are greatly overcrowded. Patients must wait a long time before being seen, and when they are seen they receive a hurried examination. In many out-patient departments there are not enough doctors, medical social workers, nurses, and other personnel to give good service. In one venereal disease clinic there were only two physicians to care for 300 patients, whereas, as the Survey points out, at least ten or twelve doctors were necessary to maintain even a moderate standard of service. At least 35 per cent of the hospitals that accept patients in their out-patient departments assume no responsibility for giving bed care in case it is needed. This means that the patient may have to enter a hospital in another part of the city.

What can be done to eliminate the overcrowding and unsatisfactory service? The Survey recommends more general clinics as branches of voluntary and governmental general hospitals, such clinics to be appropriately located in relation to transportation facilities and to population. Clinics should not admit more patients than can be adequately served. At present many clinics will accept patients from a certain district only. The Survey does not favor this practice, and states that it would not be necessary if clinic facilities were appropriately distributed. Some alleviation of the overcrowding in municipal hospitals would result if the city paid voluntary hospitals for care of indigent out-patients, as they now do for care of in-patients. Such a procedure is recommended by the Survey.

Deaths in Childbirth

It is a shocking thing to realize that with all the advances in medicine in the last twenty-five years, the number of deaths in childbirth has remained practically the same during the past twenty years in New York City. Clinics where expectant mothers may receive advice and treatment are often so crowded and under-staffed that patients have to wait long hours to be examined. As a result they become discouraged and may not return for further examination.

They cannot afford to pay for calls at a physician's office and frequently they receive no further medical attention until they are in labor and the ambulance is called. Needless to say, the results of such neglect are often serious. But even if the expectant mother continues faithfully in her attendance at a clinic for prenatal care, such a clinic may have no connection with a hospital, as is the case with the dispensaries operated by the Department of Health in New York City. Therefore, when it is time for the mother to be delivered she is sent to a hospital that has no record of her prenatal condition or the care she has received before confinement. The physician who delivers her knows nothing about the course of her pregnancy.

Recommendations

How can this situation be remedied? The Survey recommends that voluntary and municipal hospitals with maternity services should extend their prenatal clinic services both in number and geographical location so that expectant mothers in each borough of New York City may be served. These prenatal services should always be staffed by obstetricians of a hospital having a maternity service. Since many of the voluntary hospitals will not admit to their wards a maternity patient who cannot pay, the Survey recommends that the city pay the voluntary hospitals for such patients as are eligible for free care.

Many other inadequacies are brought out in the Survey. It is shown that New York City needs several thousand more hospital beds for the mentally ill, at least 2,500 more beds for tuberculosis patients, about 600 more for sufferers from venereal diseases, more provision for the treatment of cancer patients in clinics approved by the American College of Surgeons, more sanatoria and convalescent homes for heart patients, more dental clinics, and more properly staffed and equipped out-patient services for diagnosis, treatment, and follow-up of patients with diabetes. At present a disproportionately large number of diabetics are cared for in municipal clinics. Why? Because most of them cannot afford to pay for the expensive but necessary drug insulin, and few voluntary hospital clinics will supply it free. To relieve the municipal clinics of some of the load, the Survey recommends that the City of New

(Continued on page 39)

You can add years to your life and life to your years by eating the proper amount and kind of food. A world-famous authority gives the results of recent studies.

Diet and Long Life

By PROF. HENRY C. SHERMAN

Columbia University

I TAKE IT that this meeting* is an eminently appropriate occasion on which to plead for a wider recognition of the fact that the hitherto accepted norms of health and of length of life can be advanced, enhanced, improved by a more scientific distribution of emphasis in the choice and use of food.

Previously only heredity had been positively correlated with length of life; *now* food and nutrition have also been.

Heredity and Nutrition

Granted that heredity may be the largest factor in longevity, the food factor should no longer be overlooked. The statement or implication so often met (even in supposedly authoritative writings) that while there are so many ways to shorten a normal life cycle, the only way to lengthen it is by the selection of a longer-lived ancestry, should now be definitely recognized as out of date. In fact, it is *doubly* out of date, in that it is not true to present day evidence, *and* that it is too fatalistic to be really scientific. Heredity and nutrition are both positive factors; and it is possible (and possible by means of what is within our own control) both to add life to our years, and to add years to our lives.

Recognition of the health importance of nutrition had to wait until after two other grand divisions of natural knowledge had become assimilated.

In the days of Darwin, science awoke to the importance of heredity; and the great wave of interest therein aroused has been in full flood

* Meeting of the New York Academy of Medicine, April 2, 1937. This article is an abstract of the 12th Hermann Michael Biggs lecture delivered by Dr. Sherman at that meeting.

for two generations. Through the work of Pasteur and his contemporaries, the great importance to human life of the bacteriology and sanitation of the body's surroundings was made clear. A generation of students and administrators of public health problems have naturally and properly concentrated their attention upon the triumphant use of bacteriology and sanitation in the control of infectious diseases and the reduction of the death rates of early ages.

Now, beginning in our own generation, the chemistry of nutrition is adding its contribution: *correctively*, in the prevention of deficiency diseases; and also *constructively* in the improvement of already-normal health and the extension of the life expectation of grown people as well as of children.

The Protective Foods

With the discovery of vitamins and the importance of mineral elements in nutrition and food values, science is just now arriving at a serviceably complete qualitative knowledge as to what chemical factors the food must furnish to protect the body from nutritional deficiencies. Hence the term "protective foods" which McCollum introduced some years ago, and which subsequent research has justified in an even broader sense than first conceived. For the liberal use of these foods has been found not only to forestall what are otherwise the most frequent deficiency conditions but also to diminish somewhat the incidence, or severity, or duration of some diseases other than those which are primarily nutritional.

Dr. Wilder in his Chairman's Address to the Section on Therapeutics of the American Medical Association at its Philadelphia meeting, emphasized that the nutritional background may greatly advance the probability of a satisfactory

outcome of whatever medical measure is to be undertaken; and also that in disease the rate of destruction of a vitamin may be increased or for some other reason the amount needed for best results may be larger than the normal nutritional requirement.

The concepts of a possibly rather wide zone between the merely adequate and the optimal in some aspects of nutrition receives strong support from laboratory investigation. On the basis of his feeding experiments McCollum early began to point out that there may be a difference between the passably adequate and the optimal in nutrition.

Present day science in general, and perhaps particularly laboratory experimentation is constantly striving to make itself more and more quantitatively exact; and so, one aspect of nutrition research is pressing on from the qualitative recognition of the chemical factors needed in nutrition to the quantitative questions: How much of these do different foods contain? How much does normal nutrition require? and finally to the more ambitious and far-reaching question, How much yields the *best* result as judged by well-being throughout the life cycle and through successive generations?

Rats and Men

When the study of human nutrition brings us to problems so comprehensive as this, we obviously need a deputy subject in the form of an experimental animal whose natural life cycle is short enough to permit of full-life-cycle experiments; and whose food habits and nutritional processes are much like our own. These qualifications are fulfilled by the long domesticated laboratory rat; and for our nutrition research at Columbia we have built a laboratory-bred experimental colony in which the hereditary and nutritional background of each individual is known for so many generations as correspond with a human colony whose food supply has been known, whose blood has been unmixed and whose family trees could be traced in all their branches, since times somewhere between Caesar and Charlemagne.

With experimental animals of small size and short life, it becomes possible to study the influence of food upon health and upon length of life under conditions of fully adequate scientific control, and with large enough numbers to escape or smooth-out the pitfalls of individual variation and to permit of convincing statistical

analysis of the findings.

In such experiments it has been found that a dietary or food supply which is already adequate to support normal growth and reproduction and maintain normal health and length of life generation after generation, may still be capable of such improvement as to very significantly enhance the average of nutritional well-being with resulting higher norms of health at all stages of the life cycle.

Adding Seven Years to Life

Growth and development were expedited, a higher level of adult vitality was maintained and the life expectation not only of the young but also of the adults was improved. The increase in the average length of adult life was such as would correspond to an increase in the human adult life expectation from the long-standing 70 years to 77 years.

This positive effect of nutritional improvement in extending an already normal average length of adult life, though still, of course, within the range of the normal zone, was a more constructive finding than had been anticipated; and so this finding has naturally been submitted to cross-examination. The three questions most often asked in this connection are:

1. How certain is the finding?
2. As the experiments were with rats, how do we know the result is true for man?
3. Is longer life desirable anyway?

As to the first, statistical analysis shows the finding to be established with 100 times the degree of convincingness that is regularly accepted as "undoubted."

As to the second, the chemistry of human and of rat nutrition is strikingly similar in most respects, and on the chief point of known difference we are more responsive to dietary improvement than are rats. Hence the possibilities of improvement revealed by experiments with rats are almost certainly *within* the scientific probabilities for us human beings. And this (it may be emphasized) is not an assumption, and not merely a hope, it is the only view consistent with the scientific evidence.

On the third point, much more might be said than we have time for here. But a glance at the significance of an extension of the prime of life seems certainly in order; for note that

the newer chemistry of nutrition here offers an extension of the prime of life of still greater extent than the increase in the life cycle, development being moderately expedited and senility decidedly deferred in the same individuals by the same dietary improvement (namely, a larger proportion of the protective foods).

Our knowledge in this field of nutrition is at present in a stage of development which calls for the clearest possible emphasis on two facts which may not always at first thought seem consistent. These are: that on the one hand there is enough of this new knowledge, sufficiently established, to justify acting upon it now; and, on the other hand, that more research is needed to develop its full potentialities for service to human welfare and to our better understanding of our own life processes and of the world in which we live.

Undoubtedly the great majority of people will be benefited, the general level of the public health will be raised, and the averages of our vital statistics improved at many points by the simple taking of a larger proportion of the needed nutritional calories in the form of the protective foods.

Dr. Minot, Nobel Laureate in Medicine, tells us that man's future will depend very largely upon what he decides to eat.

His word "decides" is well chosen, for conscious choice of daily food is the chief means through which scientific knowledge in this field becomes effective.

Our Internal Environment

Whatever the attitude of any governmental authority on the question of fostering the production and consumption of a larger proportion of the "protective" food crops, such a shift of emphasis has already begun and will doubtless continue through the steady working of an increasingly informed and intelligent consumer demand.

Statistics of food supply show that this is already happening, in fact, that it has been going on gradually for two decades. It is probably largely because of this gradual improvement in our use of food during the past twenty years that the public health has kept up as well as it has under the stress of the economic depression; and that both boys and girls now enter college better developed at a slightly earlier age than their fathers and mothers.

With the steady spread of the newer knowl-

edge, it will doubtless be used more fully as time goes on, for, as editorially remarked by *The Journal* of the American Medical Association, "the difference between buoyant health and merely passable health is coming to be more appreciated."

So far as can be judged from present scientific evidence nutrition is not an alternative way of reaching a predetermined limit, but rather its benefits are added to all the benefits which one may enjoy through heredity, training, and the sanitation of the external environment. Besides these latter there is the factor of the body's *internal* environment, and this we are learning to understand, to control, and constructively to improve through the new chemistry of nutrition.

Public Health Aspects

One of Dr. Biggs' * most quoted sayings was that public health is purchasable. To fit nutrition into the concept of public health as a purchasable commodity requires an amplification of the educational function of the physician and the health officer.

The community as a body does directly purchase out of tax funds, and for all the people equally, as complete a system of sanitation and as good a water supply as the available purchasing power permits. But food is purchased by each consumer individually. A good health officer, by his own administrative action may extend the benefits of a discovery in sanitation to all the people of his community often without their needing to know or to do much if anything about it individually. But in the main the people can benefit by a discovery in nutrition only as they learn about it and decide to be guided by it.

Simple redistribution of the present expenditures for food, and this without omitting any article of food to which any consumer is accustomed but merely by easy shifting of relative proportions, can undoubtedly contribute greatly to the advancement of the standard or norm of health and vitality in the coming years.

Naturally we also hope that a larger proportion of people will soon have ampler purchasing power; and we realize that right relations between purchasing power and the general level

(Continued on page 37)

* Dr. Hermann M. Biggs, Health Commissioner of the State of New York, 1914-23.

Editorial:

The A. M. A. Stirs But Does Not Move

Getting on the Bandwagon

AFTER years of determined resistance to any and every suggested change in the medical set-up in this country, the American Medical Association has at last declared itself in favor of an expanded public health program "directed toward all groups of the population." Coming from an organization which has so far refused to recognize that all people have not received the best of medical care in the best of all possible medical worlds, this seems, at first glance, a surprising and sudden change of face.

However, there are forces at work which have at last caused even the A.M.A. to stir from its lethargy. Sensing the socially progressive movement of the large masses of the American people, the leaders of the A.M.A. have been stricken with fear at the possibility that the growing demand for a more adequate and equitable distribution of medical care would result in the distribution of such care being taken out of their hands. Consequently, they have decided to crawl on the bandwagon while there is still time, in order to have as large a share as possible in managing the medical reorganization that must inevitably take place. Furthermore, there is considerable unrest and dissatisfaction among the rank and file of doctors themselves. Able and eager to make use of their special skill in helping people to better health many doctors have found themselves thwarted by the inability of people to pay for their services. These doctors now realize that in order to enable people to make use of their services as well as to provide a decent livelihood for themselves, some change is necessary.

But while the Association went on record as being interested in all plans for

increasing the availability of medical services, as well as willing to cooperate with governmental agencies *on request*, it turned down the proposal that it organize a committee to formulate a national health program. Thus, once more it has refused to come forward with a program and has left the way open for the government to step in and provide those services which the majority of doctors recognize as necessary, but which the Association does not want to propose.

Shunning Any Real Change

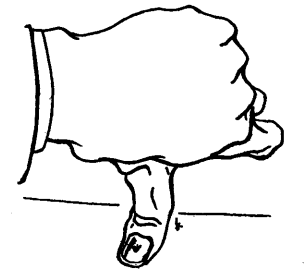
IT IS widely recognized that one of the first steps towards a national public health program would be an inclusive system of health insurance, and yet, the Association reiterates its old opposition to health insurance. In line with this action was the refusal to adopt the proposals that federal, state, and local health services be expanded; that immediate provisions be made for adequate medical care of the needy, the costs to be met from public funds; and that public funds be made available for medical education and research.

It is clear that the intent of the Atlantic City resolution was to allay to some extent the dissatisfaction with the Association's traditional status quo policy, without, at the same time, making any definite proposals for a change. However, the resolution may in some respects be considered a step forward. In abstract terms the A.M.A. now recognizes that the health of the nation is a direct concern of the government and that the public health should be administered by a separate governmental department.

However, the action of the A.M.A. leaves it up to the people themselves—the rank-and-file doctors included—to see that the nation's health really becomes a primary concern of the government.

Thumbs Down!

Each month this department will inform readers concerning inferior and falsely advertised foods and drugs.



ULTRASOL—ANOTHER HAIR FAKE

ONE of our readers writes from Hartford, Connecticut, to say that one of the leading department stores in that city is selling a "new hair-grower" called *Ultrasol*, a product made by the Post Institute of New York City. Our correspondent says: "The enclosed advertisement from the *Hartford Daily Times*, April 29, 1937, was called to my attention by my barber who is one of the leading members of his profession and has been in business over forty years. He stated that he has made a thorough investigation of this product and that it is the first one of its kind that he could honestly recommend. . . . It has occurred to me that you might investigate the product to determine whether it accomplishes what it claims."

A Mythical Doctor

We are glad to comply with our reader's request for information about *Ultrasol*, and to inform him that he had better not take his barber's advice on this matter. In spite of the fact that the advertisement referred to above states that *Ultrasol* is a "new discovery" based on twelve years of research, the stuff was being sold in 1929, at which time the Division of Legal Medicine of the Department of Health of New York City stated that "the Post Institute is operating a quack game," and that the Doctor Post by whom the Institute is supposed to have been founded was apparently a myth. Various inquiries as to the "Doctor's" identity and whereabouts brought forth evasive replies, including the statement that he was an Englishman with a foreign degree and that he had conducted a sanitarium on Cape Cod until his death in 1918. There is, however, no record of a Dr. Post having conducted a sanitarium on Cape Cod at this time.

The New York City Department of Health, the Federal Trade Commission, and the National Better Business Bureau have all investigated the Post Institute. None of these agencies has been able to find that the claims made by the company are in any degree warranted, and yet, so lax is our regulation of cosmetics advertising that it can continue to unload its worthless goods upon unwary buyers.

It Doesn't Make Sense

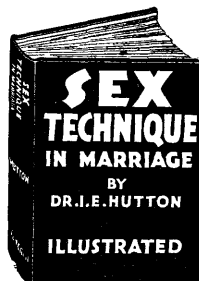
The effectiveness of *Ultrasol* is supposed to be due to the presence of pituitary gland extract (the pituitary gland is one of the ductless glands and is situated at the base of the brain). There is no reason to presume that anointing the head with a substance containing pituitary extract would have any effect whatever upon the growth of hair, and in attempting to explain the process Mr. Louis J. Stern of the Institute delivers himself of a statement that he apparently hopes will be taken for wisdom. Says Mr. Stern:

"The value of the pituitary extract does not depend upon its being absorbed *through* the scalp, but rather in penetrating along the hair shafts to the hair glands." Also "in view of the fact that some extracts of the pituitary are capable of causing powerful uterine contractions in a dilution of one in a hundred billion, it is quite reasonable to suppose that when a powerful chemical such as this is applied locally, it would also have some value."

Is it reasonable? We leave it to our readers to decide.

And one final word of advice to our Hartford correspondent: As a leading member of his profession your barber ought to stick to his last. His job is cutting hair, not growing it.

The SEX TECHNIQUE IN MARRIAGE • By I. E. Hutton, M. D.



"Dr. Ire Wile describes the book as a clear, succinct, non-emotional, authoritative and conservative exposition of the practical factors involved in making marriage successful on the sexual level. That describes the book exactly. . . . It is primarily concerned with the conduct of the honeymoon and with the technique of the sexual performance."

—Dr Morris Fishbein,
Editor, Journal American Medical Assn. in Hygeia.

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No. 9. **\$1**
BOTH FOR . . .

Rovon Cosmetics are delightful and enhancing
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Enclosed find \$1.00 plus 10c for postage.
Please send me your special offer.

My shade face powder is _____

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Address _____

City _____ State _____

PURELY PERSONAL

(Continued from page 3)

of settling the strike. Over a hundred workers are on strike at the Jewish Hospital—have been since March 15th—and expect to continue their fight until they win an improvement in their \$40-a-month wage and 70-hour week.

"We would appreciate your making this correction in your next issue, if our strike is still in progress when you go to press. Thanking you very much, I remain,

Very truly yours,

Morris Berlin,
Vice-President."

MRS. B. E. OF BROOKLYN wins this month's prize for the best letter telling us which of our articles was most appreciated. Her letter:

"The wife of a W.P.A. worker, two months married and, through want of adequate information, two months pregnant, I consider your April article 'Birth Control—The Modern Trend,' the most important document that has yet come my way. How heartily I wish it had been printed in February!

"Although our child will have a happy home and intelligently solicitous parents, I do not consider this heritage sufficient without economic security. My husband lives in constant fear of a pruning of the Adult Education Project. But while he still is working, we contribute all we can to the support of his parents and their colony of children. The last two children—she hopes they are the last—were entirely unwanted. My mother-in-law tried everything except abortion, for which she did not have the money. I do not intend to follow in her footsteps. And with this article to point the way, my husband and I shall be wiser in the future."

EACH MONTH WE will give a free, autographed copy of either Arthur Kallet's 100,000,000 *Guinea Pigs* or Carl Malmberg's *Diet and Die* to the reader who send us the best letter telling us which article was most liked, and why.

WE UNDERSTAND THAT *Photo-History*, the new quarterly pictorial publication that in its current issue did such a thoroughly fine job of depicting the background and course of the war in Spain, is going to turn its attention in a forthcoming issue to the subject of public health in the United States. This is good news, for if the skillful selection and arrangement of material that characterized the Spain number is repeated in the public health number it will be a document of unique and absorbing interest.

The next issue of *Photo-History*, we are told, will deal with the development of the labor movement in this country. *Photo-History* is to be congratulated for choosing subjects that are so vital and important.

Questions and Answers

If you wish to have any health problem discussed write to HEALTH and HYGIENE. Your letter will be referred to one of our doctors for reply. However, diagnosis of individual cases and prescription for their treatment will not be undertaken. No letter will receive attention unless it is signed and accompanied by a self-addressed, stamped envelope.

Dementia Praecox

Batavia, New York

DEAR DOCTORS:

As a regular reader of your magazine, I should appreciate answers to the following questions: (1) Is a "mild form of dementia praecox" completely curable? (2) What are the chances of relapse? (3) What justification, if any, is there for treating an adult suffering from a mild case as though he were a child indulging in temper tantrum?—P. N.

Answer—Dementia praecox is one of the most common of the mental illnesses, and at the same time there is no disease which has so puzzled psychiatrists and baffled their efforts at treatment. At one time it was thought to be incurable, but nowadays it is felt that recovery is possible in certain cases. Some cases show periods of temporary improvement from time to time. It is usually impossible to say at the beginning of the illness just what course it will take and what the outcome will be. Although the outlook is generally not hopeless it is also not likely to be very encouraging.

It is better for relatives of a patient to understand how serious the disease is and to try to make some adjustment to the actual facts, rather than to be deluded by unfounded hopes which might leave them prey to quacks.

Patients with dementia praecox should be sent to an institution for treatment. In an institution there is at least a chance for improvement, whereas, at home the possibilities for improvement are negligible. Public institutions, such as the State Hospitals in New York, give these patients competent care and treatment.

The causes and nature of this disease have not yet been discovered. It does not appear to be a disease of the brain, but nobody knows just what it is. It is also impossible to evaluate the importance of a single experience in its relation to the illness as a whole.

Needless to say, no patient suffering from any degree of any mental illness should be treated "like a child indulging in a temper tantrum." Authoritative or condescending attitudes are out of place in

handling mental cases. On the whole, the layman cannot be expected to know what attitudes are necessary, and more likely than not he is apt to do almost everything he should not do. For this reason, the care of mental illness should be confided to those who are professionally trained in the field, that is, to the psychiatrists. This is still another reason why institutional care is advisable in dementia praecox.

* * *

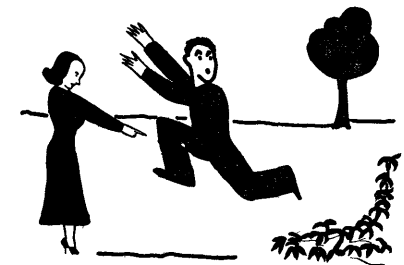
Poison Ivy

Ticonderoga, New York

DEAR DOCTORS:

Last summer I got a very severe case of ivy poisoning. Recently I saw some advertising for a product called *Poisonivi*, which, when taken by mouth, is supposed to give protection against poison ivy. Can you tell me if this product is really effective?—B. S.

Answer—Attempts to secure immunization against poison ivy by taking drugs by mouth are not new. The method has long ago been abandoned as worthless by doctors who are specialists in the treatment of skin diseases. A more recent method of immunization by the injection of some of the plant extract has also proved a failure, thus far.



It is not at all unusual for medicine makers to make use of and advertise some form of treatment that has long ago been abandoned as useless in qualified medical circles. Neither *Poisonivi* nor its allied product *Poisonok* should be relied upon for protection.

As far as is known today, the only sure way to

avoid ivy poisoning is to learn to recognize the poison ivy plant and stay away from it. After exposure a thorough scrubbing of the skin with yellow kitchen soap or washing powder will help to prevent infection.

As a form of treatment, after infection has taken place, application of a two per cent potassium permanganate solution has been found to be effective.

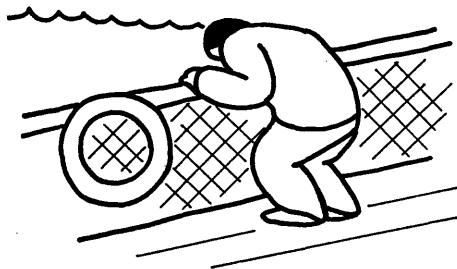
Seasickness

Raleigh, Virginia

DEAR DOCTORS:

I should be grateful if you would tell me whether there is any remedy for seasickness.—F.S.

Answer—Seasickness is one of a group of disturbances which result from unusual movements continued over a period of time. Similar disturbances may result from the swaying of a railroad train (car-sickness), the sudden rise and fall of an elevator, the circular movement of a merry-go-round, or the flight of an airplane. All these subject the individual to abnormal and sudden changes of position, and the mechanisms in the



body for the maintenance of equilibrium (upright posture) are not normally prepared for such sudden and continued changes. Just as it is normal for one to become quite dizzy after being spun rapidly around a few times, seasickness or carsickness are normal reactions to sudden changes in motion and position. Seasickness is not limited to human beings. It has been observed in dogs and cattle aboard ship. Dizziness and vomiting are closely related, and so dizziness, nausea, and vomiting form the characteristic picture of seasickness and related illnesses.

Inasmuch as seasickness is a normal reaction, there is relatively little that can be done to prevent it except to avoid the types of motion which cause it. It does seem, however, that those who board ship in poor health are most likely to suffer. This is especially true of those whose digestive systems are easily upset. It is wise for such persons to avoid dietary indiscretions and farewell drinking bouts before sailing. Contrary to the popular impression, the symptoms of seasickness are aggravated and not alleviated by walking on deck.

Some relief may be obtained by remaining prone in bed, and by refraining from looking at any moving object which may indicate the pitching motion of the ship.

As far as specific drugs are concerned, there is no single drug which will prevent the sickness. However, any drug which dulls sensation in general may make the symptoms less intense. A sedative, taken regularly, may prevent the onset of severe symptoms or alleviate them after they appear.

After a period of time the body appears to adjust itself, and many who are intensely ill the first few days out are quite well some days later, although the ship may still be pitching violently. This adjustment may not be permanent, however, and seasickness on subsequent trips may be just as severe or even more severe than on the first trip.

The degree of sickness varies with the susceptibility of different individuals, and there is no way of predicting whether or not an individual will develop seasickness. However, those who become ill from riding on railroad trains and from other types of unusual motion are likely to develop intense seasickness.

Sore on the Penis

Belfast, Maine

DEAR DOCTORS:

Is a sore on the penis necessarily a sign of syphilis?—J. S.

Answer—The scientific way to treat sores on the penis is to determine the exact nature of the disease. Since such sores are most frequently chancres (the primary sore of a syphilitic infection) the correct and accepted procedure is to examine fluid from the sore under a special kind of microscope (a dark field examination) for the presence of the germ causing syphilis—the treponema pallidum. This is a very slender germ coiled up like a corkscrew. During the first few weeks of the chancre stage the germs can be so found, while blood tests (Wassermann test) are invariably negative. It takes some time for the blood to become positive. The most favorable time for beginning treatment is during this stage of negative blood tests when the germ can be found under the microscope.

This is why it is imperative to examine all sores on the penis by dark field examination. If the sore proves to be syphilitic no time need be wasted in starting early treatment.

If, however, several dark field examinations are negative, that is, if the characteristic germs of syphilis are not found, one is not justified in commencing anti-syphilitic treatment. It is necessary to look for other causes since other diseases can cause sores on the penis. Such diseases are chancroid or soft chancre, granuloma venereum, and others. There are laboratory tests to determine which of these other diseases is present. Sometimes a part of

the sore must be cut out and examined under the microscope.

Sores which do not improve under treatment with anti-syphilitic drugs are usually not syphilitic.

Welding and Linotyping

Chambersburg, Pa.

DEAR DOCTORS:

What are the occupational health hazards connected with electric welding and linotype operation?—P. G.

Answer—The hazards connected with electric welding depend upon the welding apparatus itself and the material which is being welded. Thus, lead-painted beams, when welded, give off fumes of lead which may cause classical symptoms of lead poisoning. Similarly, welding of galvanized surfaces may vaporize the zinc and cause zinc "shakes" in the welder. If the eyes are not suitably protected by goggles, they may be badly injured in the process. Recently, an increased occurrence of certain severe lung conditions, such as pulmonary edema (drowned lung) and obscure types of pneumonia, have been reported among welders. Further investigation is now being carried on to determine exactly the relationship between welding and these diseases.

As for linotyping, lead poisoning, which used to occur much more frequently than it does today, is one of the hazards encountered. The poisoning is furthered by heating the molten lead to too high a temperature and inadequate ventilation to carry off the lead fumes. Carbon monoxide poisoning also occurs as a hazard when the flame is used in a badly ventilated enclosure.

Definitions

Lorain, Ohio

DEAR DOCTORS:

Will you please define and distinguish between the following terms: oculist, ophthalmologist, optometrist, and optician?—H. W.

Answer—Oculist and ophthalmologist are similar terms, denoting a physician specially trained in diseases and refractive errors of the eye. An optometrist is a person without medical training but with special training in a college of optometry and licensed to fit eyeglasses. An optician is a person who makes and adjusts eyeglasses according to the prescription of an oculist or optometrist.

Lady Nicotine and Germs

Calhoun, Arkansas

DEAR DOCTORS:

Is there any truth in the claim that chewing or smoking tobacco affords protection against disease germs?—E. R.

Answer—There is no foundation for the belief that the use of tobacco offers protection against germs. The notion is probably based on the belief that the strong and often objectionable odor of tobacco will keep the germs away. In the same way people used to dose and anoint themselves with disgusting substances which, by their very repulsiveness, were believed to keep germs at a distance.

Barber's Itch

Washington, New Jersey

DEAR DOCTORS:

What is "barber's itch" and how may it be avoided? Is there an effective treatment for it?—L. O.

Answer—Barber's itch (sycosis vulgaris) is an infection of the hairs of the beard, contracted in unsanitary barber-shops. Prevention demands cleanliness and sanitation, and individual towels and devices for lathering the face. Good barber-shops take these precautions.



Drawings by Chas. E. Colahan

The disease is caused by an infection of the hair roots by common pus-forming germs which are normally found on everybody's skin. When the resistance of the skin becomes lowered, or the germs become more virulent (stronger) the disease begins. The hairs appear to grow out of a small pus pimple.

A simple home treatment is to pluck out the infected hairs, wash the pus away with rubbing alcohol on cotton and then rub in thoroughly *Squibb's Unguentum Quinolior*. This must be continued even after the pus pimples are no longer present, to prevent return.

Often, shaving habits may have to be changed. The skin should not be shaved too close or against the grain as this irritates the skin and breaks down its resistance. Ingrowing hairs which continue to get infected should be removed by electrolysis.

TO ALL SUBSCRIBERS

If you are planning to move, please notify us of your new address as early as possible in order that you will not miss a single issue. The post-office does not forward magazines, and duplicate copies will not be sent out.

606 AND SYPHILIS

(Continued from page 9)

ties of etiquette. People who met him for the first time often thought him cold and unsympathetic. As a matter of fact, he was just the reverse, as people learned on better acquaintance. Those who worked and lived with him became devoted to him. He always encouraged those who worked with him and gave them every chance to succeed, often going out of his way to create opportunities for them.

His tastes were very simple and he had but two real indulgences. He was an inveterate smoker and an inveterate reader. His big black cigars, specially made for him, were famous. When his cigar went out, people knew there was something terribly important on his mind. Ehrlich must have read everything ever published in his field; and he kept everything he read piled high in his office, on chairs, on tables and against the wall, until there was just room enough for his desk and chair. But so well ordered was his mind that he could instantly pick out anything he wanted from the accumulated mass of books and papers.

And Then Came Hitler

But Paul Ehrlich was a Jew. When the Nazis came into power they ignored his greatness and his achievements, and condemned him because of his "race." It was too late to put him into a concentration camp or to send him into exile, but not too late to desecrate his memory. It had long been planned to celebrate Ehrlich's eightieth birthday in 1934, but by that time Hitler was at the helm and the observances were forbidden. Ehrlich became the subject of much written and spoken abuse. Streicher, the Hearst of Germany, attacked him and accused him of being the Jew who had condemned millions of German to death and contaminated the "pure" blood of "Aryans" with his Jewish drugs. However, regardless of the hysterical ravings of Streicher and his kind, the Germans are not fools. They continue to use salvarsan in Germany, and official regulations compel its use in the German army. Likewise, the German dye trust continues to make large profits from its manufacture. Among civilized nations, the name of Paul Ehrlich will continue to be honored because of what the world has gained by his work.

HEALTH ADS—99.44% BUNK

(Continued from page 5)

line. However, none of the anti-caffeine group even lightly suggests that tannic acid is one of coffee's harmful ingredients.

Curiously enough, the most flagrant examples of false and fraudulent advertising are concerned with products which we put inside our bodies, such as medicines, foods, beverages, and cigarettes. Misrepresentative advertising of shirts, suits, and other such items can hurt only your pocketbook, whereas falsely advertised foods and drugs can seriously affect your health.

The Thomas' System

To gain their ends, advertisers boldly flaunt recognized authority, exploiting the ignorance of the public with a cold-bloodedness that is amazing. For example, although as Dr. August Thomen says in his book, *Don't Believe It*, "there are only two known remedies for most baldness: (1) choosing the proper ancestors; (2) enduring it..." the newspapers are full of inaccurate information and recommendations concerning the regrowth of hair. *The Thomas'*, self-styled "world's leading hair and scalp experts," offer the following sales talk:

"Fourteen local scalp disorders (which come within the scope of Thomas treatment) account for almost 90 per cent of all cases of baldness."

And this:

"Today, the reliable Thomas method is helping more than 1,600 persons each day to avoid baldness, get rid of dandruff, stop falling hair, and promote normal hair growth."

This is what you might call promoting *abnormal* hair growth, because healthy, normal hair is supposed to fall out. A strand of hair is not a permanent fixture. It grows for a period of about 1,600 days, falls out, and is replaced by another. On the basis of the number of hairs in the average person's head it is estimated that a man can normally expect to lose about sixty-five hairs a day. Yet, many individuals get scared stiff at the sight of three or four hairs entwined among the teeth of their combs.

After pondering over the perplexing hodge-podge that most advertising offers, what is the most sensible attitude to assume? The following course is suggested. When a discerning person reads a newspaper is every item accepted as the gospel truth? Of course not. At certain points the reader rubs his chin, puts his tongue in his cheek, knits his brows, and says to himself, "I wonder . . .?" After running through a couple of articles on the subject about which he has some doubts, he arrives at an estimate of what he may reasonably believe to be the truth or something close to it. Use this procedure in judging all advertisements; only be twice as skeptical. In English law every man is innocent until proven guilty. Reverse this principle while judging modern high-pressure advertising and you'll be on the safe side.

Maybe in the next world we'll see a liquor ad that will go like this:

"Drink *Bango!* Don't worry about the morning hangover! Have a good time the night before! Life is short. A little won't harm and a lot will. But we think you're old enough to take care of yourself. Drink *Bango*—manufactured and distilled by Stagger and Fall."

Did you ever see an ad like this?

"Smoke *Chokies!* We don't care whether they're good for you or not. You can find that out better than we can. One man's meat is another man's poison. If you like to smoke and you're willing to suffer the consequences—smoke *Chokies*—a good cigarette and a good smoke!"

Well, you never did and you never will—but that would be honest advertising.

DIET AND LONG LIFE

(Continued from page 29)

of prices is essential to the ability of any community to get the full benefit of the new knowledge of nutrition.

But it should be realized with equal cogency that in the light of this new knowledge, food economics henceforth should concern itself less exclusively with prices and should be more guided by considerations of nutritive values of foods.

For it is now clear to anyone who will study

the evidence, that nutrition has greater constructive potentiality than science has foreseen, and that even in the everyday choice of food we are dealing with values which are above price, for the health and efficiency, duration and dignity, of human life.

ANTI-SOVIET TROTSKYITE CENTRE TRIAL

Re: Radek, Piatakoff, Sokolnikoff and others
580 pages bound. Published by the
People's Commissariat of Justice, Moscow, U.S.S.R. **\$1.00**

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255 Fifth Avenue New York City

TRAVEL WITH OUR CONDUCTED AND INDEPENDENT TOURS TO THE SOVIET UNION

CULTURAL TOUR—led by Dr. James C. Coleman—writer, radio speaker, and authority on International Social and Cultural Relations, leaving New York July 3rd, visiting eight countries.

MR. MARTIN E. CORDULACK—elementary school principal of long standing will conduct a tour through U.S.S.R. and other European countries, sailing July 3rd from New York.

DR. EDW. KALLMAN—economy tour of Western Europe and the Soviet Union. A carefully planned trip for your comfort with plenty of leisure time for free lancing. Says Heywood Brown: "I know of few men with whom it would be more fun to go on a tour."

MISS THYRA J. EDWARDS—educator, lecturer and Soviet worker—will conduct a National Minorities Tour—1937 European Seminar on International Relations, sailing July 7th from New York.

SOVIET RUSSIA TODAY—A tour sponsored by the popular American magazine under the leadership of Fred W. Ingvaldstad, leaving New York on July 7th.

Make your reservations now; for further information write to

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CHICAGO: 110 S. Dearborn St.
Tel.: Franklin 9766
SAN FRANCISCO: 681 Market St.
Tel.: Garfield 6367

Build a Home HEALTH ENCYCLOPEDIA

We have a limited supply of back numbers of **HEALTH and HYGIENE**, and while they last we are offering them at the low price of 10 cents each or three for 25 cents. The issues available are those from April, 1936, to the present, except August, 1937. The entire 14 issues will be sent upon receipt of \$1.*
* \$1.50 to Canada and foreign countries.

YOUTH FIGHTS FOR HEALTH

(Continued from page 23)

justment is finally made. The shift from the irresponsibility of childhood in all its aspects to the responsibilities of adult life is not always easy under the best of circumstances, but how much more difficult it is when all the conditions of life are insecure and threatening! Self-confidence, an essential part of the character of the stable person, is hard to acquire without something tangible in the way of economic and social success. An adult sexual adjustment, when the possibility of marriage must be indefinitely postponed, is extremely difficult.

While an adult sexual adjustment may be made outside of marriage, the fact that the youth cannot look forward to marriage with any degree of confidence, encourages a cynical and casual attitude that robs the sexual relation of much of its significance, and consequently of the fullest degree of satisfaction. This leads to varying degrees of maladjustment, and without a satisfactory sexual life nervousness of some kind often develops.

The seed of the more serious mental diseases, particularly dementia praecox, is probably sown in early childhood, but whether individuals predisposed by the events of early childhood actually break down or not depends largely on the conditions and problems that they encounter during the critical period from 16 to 25. The economic and social difficulties of the last few years have caused many who would have made a successful adjustment under normal circumstances to become seriously ill.

The Youth Act

The outlook for the youth of America is a dark one, as we have seen. However, the picture is not one of unrelieved gloom. In 1934 a group of young people who decided that they were not going to give up their rights without a fight organized the first American Youth Congress. As a result, the American Youth Act was formulated—by youth themselves. Today the act, calling for an appropriation of \$500,000,000 for the first year of its operation, is one of the most important pieces of legislation before Congress.

Today youth is fighting for health and a chance for a decent life. In this fight youth deserves the fullest measure of help that we can give.

FIRST AID IN POISONING

(Continued from page 12)

bed, or the movement caused by smoothing the covers of the bed, may induce a violent and even fatal convulsive seizure. In such cases, all the layman can do is to see that the patient is relieved as much as possible from all agitation, a precaution that may in itself be a life-saving measure. The physician should be informed in advance of the presence of convulsions so that he may come prepared to give proper treatment.

Convulsions due to poisoning occur most frequently in poisoning by strychnine. It is safe to induce vomiting only *immediately* after the strychnine has been taken, but not after the slightest suggestion of involuntary convulsive movements has appeared. Strychnine poisoning, however, is one of the few types of poisoning in which effective antidotal treatment and complete recovery, without permanent damage, is possible after a considerable amount of the poison has been absorbed from the intestinal tract. All the layman can do is to try to prevent the setting up of convulsive seizures by guarding the victim from all agitation.

Know Your Poisons

The discussion thus far makes no mention of the diagnosis of poisoning. Such a diagnosis cannot be made by the untrained person on the basis of symptoms alone; as a matter of fact it is often very difficult for the physician to make the diagnosis readily on this basis. However, there are usually circumstances surrounding the poisoning which tell the tale. Would-be suicides who change their minds usually state that they have taken a poison, and accidental poisonings are usually indicated by the empty bottle or container. The presence of the container will also give a clue to the nature of the poison. It is only when the circumstances are clearly indicated in a tangible way that the untrained person can diagnose poisoning. Although vomiting and severe pain in the abdomen are symptoms of poisoning, they are also symptoms of many other conditions and cannot be taken as proof that poisoning has occurred. It is a wise precaution to know exactly what poisonous substances there are in one's home. Drugs, cosmetics, furniture polishes, silver polishes, rat and insect poisons are some of the more common household articles in which there

is danger. Make it a point to find out exactly the specific poisons contained in these and other toxic substances, and then find out the best antidotes for these poisons. Do it *now* when you have the time and not when the poisoning occurs. Use your first-aid manual or read one in the public library. Have the antidotes in your home, keep them where they are readily available, never lock them up, and label them with their uses. Place a label on every container of a poisonous substance and write on it the name of the antidote and the best emergency procedures. Poisons should always be locked in a cabinet, for there is never a need to get a poison in a hurry. Keep all poisons out of reach of children. They cannot read labels and they may not know the significance of the skull and crossbones which is used as a danger signal.

SURVEYING THE HOSPITALS

(Continued from page 26)

York pay for the insulin dispensed in voluntary hospitals to patients unable to purchase it.

Early in this review the question was asked: "Are the institutional facilities for the care of the sick in the New York metropolitan area sufficient for the needs of this community?" The Hospital Survey for New York was searched for the answer. No indication was found that the person who can pay for medical care suffers any lack, but on page after page there is abundant evidence that the man who has nothing, or the one with just enough for food, lodging, and clothing, but no margin with which to meet hospital and doctors' bills, is not adequately provided for.

Needless to say, this takes in the great majority of the population. With hospital care organized as it is today the people who can pay for adequate care are indeed few. The thousands of hospital beds standing empty while people are dying for lack of proper hospital care is evidence enough of this fact.

The Survey recognizes that not only the good of the individual but the health of the whole community demands a marked extension of the institutional facilities for the care of the sick. So far there has been no coordination or plan in the development of these services; each institution and agency has followed its own bent, often without serious consideration of the ultimate welfare of the people whom it is sup-

posed to serve. The community has invested millions of dollars in these institutions, and they ought to be operated so that they will yield high returns in the form of service. The first of the Survey's principal recommendations is that there be a "permanent, representative and planning group," in New York City, representing all appropriate functional and regional interests, to review and pass upon all proposals for major capital expenditures in the interest of organized care of the sick. It is a good idea, but how will such a group get its authority, unless it is a governmental body? The difficulties of achieving the coordination and joint planning of activities in the field of organized care of the sick for the common good, as in many other fields, are very great under our existing system of private enterprise. In the final analysis, it is only a public agency that can successfully regulate a public utility.

We welcome the Survey as a factual document throwing much light on an important aspect of our society. The American Labor Party, now preparing for the municipal election campaign, should consider the Survey carefully. There is much in it that serves to indicate what sort of reforms are needed in the hospital situation, and when the people, behind a political party of their own, decide that such reforms are necessary, really tangible results may be expected.

(*The Hospital Survey for New York*, Vol. II, New York, The United Hospital Fund, 1246 pp., \$2.50.)

Goose-step for Scientists

IN THE FUTURE, German scientists will deal only with those problems decided upon by the Nazi government, according to a statement made by Dr. Bernhard Rust, Reich Minister of Education.

"The German scholar," said Dr. Rust, "will know how to devote his powers to the great task set him by the State, just as the artist requires the demands laid upon him by life for the full development of his capacities."

This is just another manifestation of the Nazi policy of forcing everyone, artists, writers, musicians, and scientists into line with the principles of the "totalitarian" state. Judging from the use to which the Nazis have put their science thus far, there are hard days ahead for the German scientists.

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TREATMENT OF HERNIA

(Continued from page 19)

jected into normal tissues, a fibrous tissue is produced. The great advance in recent years in this field has been the production of solutions which are sufficiently irritating to cause the reaction, but, at the same time, not irritating enough to kill the body tissues. The technique, as used at present, involves two factors: (1) the wearing of a well-fitting truss to keep the hernia completely reduced during the treatment and for about six weeks thereafter, and (2) the injection of the solution at the entrance of the inguinal canal and progressively down along the canal to its exit, until a plug of fibrous tissue is formed which acts as an internal truss to keep the hernia reduced. It should be emphasized that the truss must be worn day and night during the entire course of treatment, for if the hernia should come out before the fibrous tissue is strong enough to keep it in, the whole treatment will have been in vain and will have to be begun over again.

This type of treatment, as can be seen from the facts just mentioned, is applicable only to hernias which can be completely reduced and maintained in complete reduction by means of a truss. Any other hernia will be aggravated instead of improved by the use of this form of treatment. Nor should the injection treatment be used in the case of children under ten years of age, for they do not stand the repeated injections with the same equanimity as an adult.

The advantage of the injection method is that the patient is not confined to a hospital and can continue working. It is essential, however, that the doctor be thoroughly familiar with the nature and treatment of hernia, for it is possible to do much damage by the use of the method if the case is not selected properly and the injections are not carried out as they should be.

The type of treatment selected in each case will depend not only upon the physician's findings but also upon the economic status of the patient and his ability to refrain from work for a period of from two to three months. In the majority of cases operation is still the safest and most certain method of curing hernia, but where operation is contra-indicated for medical or economic reasons, the injection treatment should be considered. Finally, treatment of a hernia with a truss is only palliative, and will not bring about a cure.

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