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THE THOMAS’ A Hair-Raising Tale

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WOODBURN, N. Y.

A LETTER THAT we have received from G. S. of Detroit is typical in that it indicates how a number of our readers feel about us. G. S. writes:

"My apologies for not sending in my renewal sooner, but with getting married and a baby and a new house and a new job—which ends in June—it has been quite a struggle to raise the necessary buck.

"I want you to know that I appreciate your magazine, having every issue on file, and feel that it is the only magazine of any value for the layman on the subject of health. As long as the cost of subscription remains as low as it is your circulation will surely increase.

"I have never heard of anyone who does not like Health and Hygiene.

"THANK YOU, G. S. Nothing pleases us so much as knowing that our efforts are appreciated. And since we know that in many cases it is difficult to raise the "necessary buck" for a renewal we are making it possible for subscribers to renew without making a cash outlay. All that is required is a little effort. For the details of this offer we refer you to our advertisement on the inside back cover.

"THE PRIZE FOR this month’s "best letter" goes to E.M. of Boston, who writes:

"Received the last issue of Health and Hygiene, and as per usual I turned to the pages of Questions and Answers. Personally I think it’s the best section of the magazine, because it embraces so many puzzling questions that you’re interested in knowing about. It is a very lively and enlightening column.

"You sort of hit the nail on the head as far as I am concerned in the reply to the question on ‘Hazards in Dry Cleaning.’ It happens that I am employed in this industry where we use Triclene. I presume it contains a large percentage of carbon tetrachloride . . . it seems to affect our workers the same as described in the article.

"The boss tried to tell us that we do not conduct ourselves in the proper manner after working hours. He says we stay out late at night and so forth. All this before the following day we feel sick to our stomachs. Some of the employees (Turn to page 76)
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.

Truth Serum

Dear Doctors:

I have read a number of times in the newspapers about a truth drug or serum that can be used to get people to confess the truth in criminal cases. Is there any truth in these reports, or do the reporters and newspaper writers need a dose of such a drug themselves?—A.K.

Answer—The drug named scopalamine is sometimes popularly referred to as a "truth serum." Actually, it is not a serum, nor will it elicit the truth when administered to a criminal.

It may be generally stated that small, non-toxic or simple goiters, that is, simple enlargements of the thyroid gland, respond to treatment with iodine under competent medical direction. Larger goiters or those which cause obstruction to the breathing apparatus usually have to be operated upon for cure. Toxic goiters, those which cause nervousness, rapid heart, and so on, whether the thyroid gland is small or large, usually require operation for cure. Some authorities treat toxic goiters with x-ray or radium, but this treatment takes a long time and the results have not yet proved satisfactory to most of the medical profession.

* * * Operation for Bow-legs

Dear Doctors:

A friend of mine, aged nineteen, is experiencing physical defect from which he suffers—bow-legs. A surgeon has told him that an operation can correct the bone curvature, but he will give no assurance that the operation will not affect his occupation, which is dancing. Can you give me some information on the subject?—J.D.

Answer—Bow-legs can be corrected by a surgical operation which involves cutting through the bone, and realigning it, and then waiting for the bone to heal, just as though a fracture had been sustained. Realigning the leg in this fashion causes a change in the stresses which are transmitted to the joints and their supporting ligaments. At the age of nineteen, the probability is that the patient would not act in the same sensible manner about hair and scalp disorders and visit a dermatologist, an M.D. well-versed in skin diseases?

Maybe you think that would be too expensive? Then you have no idea how neatly your bankroll can be clipped by charlatans who get their forty-five branches which are scattered all over the United States. This resolution was rapidly transformed into action and I soon found myself standing before the door of a Thomas midtown office. I opened the door and walked in. A man, whom I erroneously considered to be a receptionist, received me politely. Good mornings were exchanged and I was asked to be seated. I complied and was soon left alone.

The reception room, one of a large suite, was obviously decorated with the intention of presenting a professional atmosphere. Ancient back-numbers of popular magazines were strewn over a library table, just as you would find them in your doctor's or dentist's ante-chamber. The chairs were well-appointed, but not ornate, and shaded lights cast a soothing glow over a deeply tinged carpet.

Are you worried over falling hair? Before you do anything about it read this account of the methods used by the "world's leading hair and scalp experts."

"The Thomas'"—A Hair-Raising Tale

By IRVING STURMAN

You're getting bald—want to do something about it—and have a little loose change. Where should you spend it? Are you going to be roped in by one of the phony "hair-grown-on-a-billiard-ball" establishments or are you going to consult a medical specialist who really knows what it's all about and can get at the basis of your troubles?

When a part of your body pains you, you go to a doctor. When you note unusual rashes, marks, and other types of disfiguration, and become panicly about them, reliable medical attention immediately suggests itself. Why not act in the same sensible manner about hair and scalp troubles?

Are you going to buckle under the pressure of interference with joint action, but the older the patient the more difficult it is for his tissues to adjust to a new position.

(Continued on page 66)
Suppose we analyze this snappy diagnosis and the accompanying dialogue. Let's consider this business of not using water each morning when combing the hair. Men—this includes the bald ones—wash their faces every morning and sometimes during the day as well. Do they ever lose their beards because they do this? No, but they wish they did. The same goes for hair on the hands and the rest of the body. Take a good look at one of your bald friends sometime and verify these contentions. You've seen the South Sea pearl-divers in educational films. They practically live in water. Yet baldness is decidedly rare among them.

Stretching the skin of the scalp as a method of diagnosis is just wasted motion. Dermatologists say that loose or taut scalp skin bears no relation to hair loss. The search with the magnifying lens proves no more than a superficial examination with the naked eye. To arrive at a definite conclusion, a section of the scalp would have to be sliced off, stained, and looked at through a powerful microscope.

High-Pressure Methods

We can deduce, then, that the major portion of the examination was just so much hokus-pokus with the diagnostic value of a plugged nickel. Besides, no ethical physician would ever tell a prospective patient the length of time it would take to cure him of his disorder. The Thomas "expert" glibly told me that he could fix me up in two and a half months, disregarding the fact that not all people possess the same recuperative powers.

There is but one small item I have neglected to reveal: I have a head of hair that would be the envy of most men; and it's my own, too. Two days after I left The Thomas' branch, I received the following letter:

Dear Mr. Sturman:

On May 10th you called at this office for advice regarding the condition of your hair and scalp. I remember you were quite concerned about the existing condition and resultant hair loss. Please remember that scalp conditions do not correct themselves, but have a habit of becoming steadily worse.

For over twenty years the Thomas' treatment for the prevention and elimination of baldness has been successful, and our stores are now handling, by order, the monthly and twice-a-month treatments. We have been outstandingly successful in producing the most satisfactory results for thousands of men who realized that continued neglect would make them bald. I cannot help feel the keenest interest in your particular case because it represents the type of scalp that can be handled most successfully.

Very sincerely yours,

THE THOMAS' (signed) G. M. Voss
Trichologist.

The second paragraph of the above letter contains information that isn't very accurate from a medical standpoint. Alopecia areata, a common scalp disease, is usually cured by that very important agent, time. Hair loss can result from acute fever; upon elimination of the fever, the hair may return to its normal state. For the benefit of the patient, hair loss of this type should be treated only by a doctor.

The letter brings up a pertinent question: How does a Thomas' "trichologist" (a sixty cent word for 'one who studies hair') reach the dizzy pinnacle of his profession? We know that a doctor of medicine goes to a medical school; a dentist to a dental school; an optometrist to a school of optometry, but in what institution of learning, and over how long a period of time, does a "trichologist" amass his store of healing technique? We'd be deeply grateful to The Thomas' if they would include, among their diverse advertising matter, a little information that might enlighten us regarding this particularly important point.

Needless to say, I didn't answer the world's leading hair and scalp experts. Five days later they sent me a little note from the Chicago office. Here's what they had to say this time:

Dear Mr. Sturman:

Mr. G. M. Voss, trichologist in charge of our 42nd Street office, has written to me concerning the talk about your hair and scalp which he had with you a few days ago. He described your scalp condition at length and said that unquestionably your case is of the type which responds most satisfactorily to Thomas treatment.

Your scalp condition, although serious, has not reached the stage where results are improbable or difficult to produce. All factors considered in the examination of your scalp indicate that you should readily respond to treatment at this time.

Without doubt, your hair and scalp will continue to worry you and your scalp condition will become more serious if you postpone treatment. By beginning your treatment now, you do four things: (1) You end all worry about your hair; (2) with the very first treatment,
you begin to feel new life returning to your hair; (1) you have the satisfaction of knowing that you have placed your case with a responsible, reliable organization that is positively able to get results for you; and (4) before long you actually begin to enjoy the pleasure of having a good head of healthy, growing hair.

I can assure you that when you begin your treatment, Mr. Voss will take a personal interest in your case. He is unusually successful in adapting Thomas treatment to meet the needs of each individual case and I am sure that when you have completed treatment with him, you will have become one of our satisfied clients.

For the sake of your hair (and its importance as a personal appearance asset) I earnestly suggest that you call at the Thomas office and arrange for immediate treatment. Terms, appointments, etc., can be arranged to suit your convenience.

Your very cordially,

THE THOMAS
(signed) P. A. THOMAS, President.

Note that now my condition is described as serious, a state of affairs not even suggested during my interview or in the first letter. Mark the psychological tone, which hardly needs an explanation. Observe one statement particularly: "...you have placed your case with a responsible, reliable organization that is positively able to get results for you. ..." This is a declaration that no physician would dare to make. The president of The Thomas' has no such scruples, however.

Exorbitant Fees

Another matter that deserves a little attention is the exorbitant fees. Ninety four dollars, or about four dollars per week, for seven weeks could be made to a competent practising physician with this sum of money? At two visits a week it would pay for twenty-three weeks of treatment at the hands of a qualified doctor of medicine. For about $100 a good obstetrician will attend a woman during her complete period of pregnancy, deliver the baby, and devote six weeks of post-natal care to mother and child—making a total of nearly nine months of expert medical attention. Yet, The Thomas' didn't hesitate to ask me for $109 on the instalment plan for less than eleven weeks of treatment under the supervision of a "trichologist."

What would a dermatologist charge? Working on a case of remediable baldness (which, by the way, only he is properly prepared to pass judgment on) four to five treatments would be recommended at a charge of from five to ten dollars cash, and you would have the satisfaction of knowing that you had placed yourself in the hands of a man who, besides attending medical school for four years, and interning for a year or two, has specialized for a couple of years in skin disorders. Can a Thomas "trichologist" show a similar record? Unquestionably not!

Suppose a person walked into a Thomas office, his scalp devoid of hair in small, round patches, and wanted to know the underlying cause of this unnatural condition. Unfortunately for him, he'd never find out. Without clinical tests, including the Wassermann test for syphilis and the use of microscopic technique, it could not be determined whether he was afflicted with "moth-eaten" alopecia, ringworm of the scalp, or alopecia areata, since these diseases all exhibit very similar characteristics.

Scientific Tests Essential

"Moth-eaten" alopecia is a patchy loss of hair sometimes prevailing in secondary stages of syphilis. The presence of syphilis, in a large percentage of cases, can be discovered only by submitting to a Wassermann, Kahn, or other roentgen test, since the disease, which has often been called the "great imitator," resembles closely those of other disturbances. A Wassermann test can be given only by a registered physician or a nurse in his employ. This excludes all Thomas "trichologists."

Ringworm of the scalp and alopecia areata are so similar in external appearance that only by microscopic methods can they be accurately differentiated. Can you conceive, then, how helpless, useless, and even harmful a "trichologist" would be in such a circumstance?

Beating around the Bush

Have The Thomas' at least one dermatologist in their employ to make things look above board? This is a question which they display a strange reluctance to answer. Most commercial organizations are more than pleased when they're able to tell the public that some medic is endorsing their skin product. It is hard to understand why The Thomas should toss aside such an opportunity if they could avail themselves of it.

To learn more about this I wrote the Chicago office, telling them that I would be greatly re-

(Continued on page 71)

THE SUN AND YOU

SUMMER is here, and once again the beaches, parks, roof tops, and countryside are crowded with people in various stages of undress, all intent on one thing—to get a deep sun tan. Exposure to the sun is a subject about which many false notions have been developed, especially in the last few years. Many people have become sun faddists, and as is usually the case with faddists, some of them have suffered serious consequences.

In considering sun bathing one thing should always be borne in mind. A burn caused by the sun is a burn in every sense of the word, fully as much a burn caused, let us say, by contact with a flame or with scalding water. If a sun burn is severe enough, that is, if the exposure has been long enough, the physiological symptoms are the same as in any other severe burn, and the consequences can be fully as tragic. If more people realized this simple fact, there would be less rashness and fewer casualties among enthusiastic suntanners.

These words of caution should not be interpreted as a condemnation of sun bathing. On the contrary, we feel that there are definite benefits to be derived from exposure to the sun's rays. However, such exposure must be carried out judiciously, with proper regard for the physiological factors involved.

A Protective Mechanism

Let us see what happens to the skin when it is exposed to sunshine. Essentially, the process of tanning is a protective mechanism which has as its purpose the protection of the body tissues against certain substances present in the sun's rays. These substances are known as ultra-violet or actinic rays, and when they are absorbed by living tissues certain chemical changes take place. Now, in order to protect the tissues against these rays, the outer layer of the skin of most persons has the ability to absorb these rays in certain degrees. When, however, the exposure to the sun is continued for too long a period and the limit of the outer skin layer's absorptive capacity has been reached, the rays penetrate through to the underlying tissues, and the chemical changes which are known as a burn take place.

However, besides this protective mechanism which is sufficient to safeguard most persons against ordinary exposure, the skin possesses another protective device which enables it to withstand considerable exposure. The underlying skin layer is able to produce a complex chemical substance or pigment known as melanin, which is capable of absorbing completely the ultra-violet rays that penetrate through the outer skin layer. The amount of this protective pigment that is produced increases gradually as the skin is exposed to sunlight. If the protection of pigment cannot keep pace with the exposure, the deeper tissues are reached by the rays and the result is a burn. If the exposure is regulated so as to allow for the formation of sufficient pigment the result, since the color of the pigment is brown, is a good "coat of tan."

Sunburn Lotions

The amount of time required to attain protection against continued exposure varies considerably among individuals. Persons with dark complexions already have some pigment in their skins and can therefore tolerate more sunshine than light-skinned individuals. There are some persons whose skins do not have the power of producing pigment and who consequently do not tan at all. Such persons have to be extremely careful to avoid exposure to the summer sun for more than very short periods of time.

In order to prevent sunburn the average person should not expose himself for more than fifteen to thirty minutes in the morning of the first day, and for an equal period of time in the afternoon. On subsequent days the time may be increased gradually, but as soon as the slightest redness of the skin exceeds that acquired on the first day exposure should cease. As the brown color caused by pigmentation increases, the duration of exposure may be increased.

AUGUST, 1937

HEALTH AND HYGIENE
The first day on the beach requires careful regulation of exposure. From fifteen to thirty minutes of the sun's rays is all most persons can stand.

There are on the market a large number of oils and creams which are supposed to afford protection against sunburn. Unfortunately, many of these fail to protect, for the simple reason that they do not absorb the ultra-violet rays of the sunlight. An ideal mixture is one that absorbs nearly all of these rays and yet leaves the underlying skin layer to form the brown protective pigment. A clear oil or cream which is readily liquified by the heat of the sun offers very little protection. Heavier, opaque or colored ointments are more effective, but they are messier and more unsightly. In testing a number of "preventive" lotions and creams, Consumers Union of the United States found that Multan®, made by the R. L. Watkins Company of New York City, was the "best buy." This product not only gave good protection but it was considerably cheaper than any of the other acceptable brands. It is well to bear in mind, however, that ointments can be dispensed with if you keep the skin covered with clothing between the carefully regulated periods of exposure during the early stages of the tanning period.

A very good protective formula that can be compounded by your druggist is 10 grams of salol dissolved in the least possible amount of liquid petrolatum or albolene, and made up into 100 grams of ointment in anhydrous lanolin. It is not practical to attempt to make up this formula at home.

Particular caution should be exercised in regard to the nose, forehead, cheeks, shoulders, instep, and all other parts that are directly exposed to the sun when the person is either standing or sitting.

When You've Overdone It

If in spite of a knowledge of the aforementioned facts you do manage to sustain a sunburn—there are always some who will get caught regardless of the best intentions—you should follow certain rules about treatment. The best method of soothing the pain is to apply either cold water or a cool solution of boric acid to the affected area with clean gauze or clothes (handkerchiefs or towels will do). Renew the dressings often enough to keep them cool and continue the application until the soreness disappears. If blisters form on the skin

(Continued on page 72)

August, 1917

The Baby in Summer

IT IS NOT without reason that summer has always been regarded with a certain amount of fear by parents who have very young children. This fear has persisted in spite of the fact that summer sunshine is loaded with ultra-violet rays which are not only healthful but which kill off harmful germs. It has persisted because most of us know that summer complaint or summer diarrhea means something very dreadful.

Tens of thousands of babies used to die annually from the condition commonly called summer complaint. The scientific term for this disease is intestinal intoxication; it has also been called cholera infantum (cholera of children) and dysentery. The reduction in the number of cases of this serious disorder within the last ten years is due to the fact that both physicians and parents have been educated in the hygiene of infant feeding. Mothers have learned the importance of sterilizing bottles and nipples, of boiling drinking water, and of keeping milk at proper refrigeration. Last but not least there has been a great improvement in the purity of our milk supply and the regulation of dairies.

All our progress to date notwithstanding, infant mortality is still greatest up to one year of age, and highest of all during the first few months of life. Disorders of the stomach and intestines are an especially frequent cause of death among babies under one year of age.

Avoiding Infection

What can be done to prevent these serious gastro-intestinal upsets in infants during the summer months?

In season or out, we should avoid exposing the child to infection. If a mother contracts the slightest cold she should wear a gauze mask over her mouth and nose while she handles the child in any way. Furthermore, any person, whether infected or not, who handles the baby should invariably wash his hands before coming in contact with the child.

Health and Hygiene
Swimmers – Beware of Ear Trouble!

Summer brings not only many pleasures but also many acute discomforts. Who has not experienced the anguish of sunburn or the exquisite torture of athlete’s foot or poison ivy? The exultant cry of the swimmer as he plunges into the surf too often turns into a moan as he comes out of the water with the ocean churning painfully in his ears. In fact, ear trouble is one of the most serious of the penalties we can pay for our summer pleasure. Swimming is a splendid sport, but even the best swimmers do not possess the protective mechanisms of a porpoise or a whale. When the whale dives into the depths, both the nostrils (or their equivalent) and the opening of the ears close so that no water can enter. But even the most adept human nose twircher and ear wriggler cannot prevent water from entering the nasal spaces and ear canals. Therefore, a word of caution is in order.

Warning to Divers

The high diver should insert a rubber plug into each ear and as an additional precaution should wear a rubber bathing cap over the ears. Otherwise, the impact of the head against the water can cause injury to the ear drum, especially if the dive is not perfectly executed.

The swimmer who merely leaps or dives into the water from lower levels should also be careful. If there is considerable wax in the ear canals, the water is absorbed by the wax which then swells, causing complete obstruction of the canals and sudden deafness in one or both ears. Consequently, those whose ears secrete much wax should have it removed by a physician before beginning their water exploits. If deafness should occur on emerging from the water, and if hopping about like a headless chicken does not relieve it, don’t insert a lolly-pop stick into the ear. Apply a hot water bottle to the ear for about half an hour and if that doesn’t give relief see a doctor.

Those with a tendency to eczema of the ears must also be prudent. Bathing in salt or fresh water, whether among the banana peels in the Hudson or the lilies of Lake Sticknamud, can cause a flare-up of latent eczema. To guard against this danger, wear rubber plugs and dry the ears carefully after bathing. It is also a good idea to apply olive oil or cold cream to the outer ear before entering the water.

Ear Infections

The most serious trouble occurs in the middle ear, that part which lies within the drum membrane and contains the delicate ear ossicles. Infection may occur as a result of the entrance of water through an old perforation of the ear drum. No one who has had a chronic ear infection (otitis media) or a perforation of the drum should bathe without some means of keeping the water out of the ears. Stiffening the ear with cotton is worse than useless since it gives a false sense of security. Wear rubber plugs and a bathing cap over the ears.

People with healthy ears can also get infections of the middle ear. Water may enter through the eustachian tube—a short narrow canal extending from each middle ear to the upper part of the throat. The entrance of water is facilitated by swallowing while the head is immersed, and especially by forcibly blowing the nose while it is full. Bacteria are introduced into the middle ear with the water and an infection of the middle ear may result. Furthermore, the germs that are normally present in the nose and throat may be forced through the eustachian tube into the middle ears. There is also danger of infection when swimming in purified or chlorinated pool water; such water also contains germs.

Forcible blowing of the nose while it is full of water may also be responsible for the development of sinusitis. This is especially likely to happen if bathing is indulged in during an attack of coryza or the common cold. Bathing in salt water will not cure a common cold, but can lead to severe sinusitis or otitis media as easily as bathing in fresh water. It should be borne in mind that apparent cleanliness of the water is no safeguard at all.

Ear plugs may be purchased in any drug or sporting goods store. They should be made of soft, flexible rubber so that they will fit the contour of the ear passages. While it is true that ear plugs and a well-fitting bathing cap are effective in preventing the entrance of water into the outer-ear channel, they do not serve to prevent water and germs from reaching the middle ear by way of the nose and throat. This can be prevented only by observing the precaution against forcible blowing of the nose either in or out of the water.
**Editorial:**

**Vacations**

**Most Needed by Wage Workers**

It is not so many years ago that vacations were considered a luxury to be enjoyed only by the well-to-do. Gradually, however, vacations have also become a prerogative of a portion of the lower-income white-collar class. As yet, vacations are practically an unheard of thing among the group that constitutes the vast majority of American workers—the wage-earning class.

Such a scheme of things is entirely unreasonable from the standpoint of both health and efficiency. If there is any group whose health and physical well-being makes vacations a necessity it is precisely that group to whom vacations are now denied—the wage-earners.

There is no room for argument on this point; it is sufficient to show that the best available insurance statistics indicate that the life expectancy of industrial workers is seven years less than that of all other employed persons. Modern industrial production has created types of work that are particularly fatiguing and hazardous. Both the finished products and the by-products of many industries are poisons that exact a heavy toll of disease and death among the workers. The 150 dusty trades where silicosis is a hazard, alone contribute materially to the prevalence of tuberculosis. Heat prostration in summer—the season when the business man takes his vacation—is especially common among the workers exposed to the stifling, damp air of the textile mills and the blazing heat of the steel plants. These and other factors predispose the wage-earners as a class to the ravages of disease and make the relief of vacations especially necessary.

Furthermore, it is a physiological axiom that the human organism functions best when it has sufficient rest. A striking indication of this is the fluctuation in the industrial accident rate; a marked decrease in the number of accidents can be noted early in the morning and immediately after the lunch hour.

In short, if a physician were to prescribe for the diseases and conditions that afflict modern industrial workers, proper and adequate rest would be the treatment he would suggest in most cases. Unfortunately, however, physicians have nothing to say about the rate at which workers shall be driven or the amount of time off that they shall be granted. Therefore it is up to the workers themselves to see that they are granted working conditions compatible with their health.

**Unemployment Not a Vacation**

Some may argue that wage-earners now get vacations in the form of periods of enforced unemployment. Such an argument is wholly specious. "Vacations" of this kind, involving as they do a harrowing sense of insecurity and worry, are in themselves a potent factor in the causation of both physical and mental illness. Vacations with pay are necessary.

Numerous studies have been made and published which show that the worker's efficiency is greatly increased when fatigue is kept at a minimum. Such studies however, will not impress employers as long as there is an abundant labor market; when a worker is worn out by the strain of continuous hard work he is let go and another worker is secured to take his place. It is therefore up to the progressive trade unions to include vacations with pay among their collective bargaining demands. A few scattered unions have already won such demands; when more do it will be a step forward for workers' health.

Don't Be Taken In

In the above statement is included all the important information that the public needs as a guide in purchasing tooth pastes or powders.

Another fertile field of deception lies in the sales of "mouthwashes." Here again, exaggeration is rampant. Claims are made far beyond the bounds of possible performance, with the result that millions of dollars are wasted yearly in the purchase of so-called germicides or anti-
serve a very good purpose. A dentist is likely to injure the tooth enamel. The addition of such defects is desirable for improved mouth hygiene. The dentist with modern training has come to regard the X-ray machine as an indispensable instrument of diagnosis, and its use may make it possible to discover some unsuspected condition that has long been neglected. An X-ray examination is inexpensive and will be well worth the cost involved, and the benefits of such an examination are threefold: (1) It will check the dental work that has already been done in your mouth and bring to light any defects such as over-hanging fillings or bridge work, abscesses, decalcified or "dead teeth," and pyorrhea pockets; (2) It will indicate what needs to be done to your teeth and, above all, what needs to be done immediately; and (3) It will leave with the dentist a permanent record of your teeth for future reference. This will be of value in much of the work that is subsequently done on your teeth. Therefore, we advise you not to begrudge the small fee for a dental X-ray examination. After the examination you will have a valuable record of both your present and future needs.

It is sometimes claimed that in cleaning teeth the dentist is likely to injure the tooth enamel. No statement could be further from the truth than this. The few instruments, disclosing solutions, and polishing material which the reputable dentist uses are perfectly harmless and serve a very good purpose. Unscrupulous quacks still use Tater, a liquid which "saves time." It consists of a 3 to 5 per cent solution of hydrochloric acid. Some cheap dental journals still advertise it.

Replace Missing Teeth

Too often patients are inclined to neglect the advice of the dentist who suggests that missing teeth be replaced by a bridge or denture. It should be remembered that teeth are movable objects and that when one or several of them are removed, the teeth opposite or adjoining the vacant space from these original positions and tend to fill up the empty spaces. This throws the teeth out of balance. Nature provides a definite function for each tooth. The loss or early removal of certain teeth will consequently throw considerably more burden on those remaining, with the result that over-use may cause a strain sufficient to weaken or dislodge unsupported teeth. Thus, further extractions may be necessary and an already unenviable condition made worse. In the interest of tooth economy, replace all lost teeth; by doing so you will strengthen those teeth that remain.

Don't Neglect Baby Teeth

Very often the dentist hears the statement: "I won't bother with those 'baby teeth,' they are going to fall out anyway." In making such a remark, parents are inclined to forget the vital part that these temporary teeth play in the growth and development of the mouth. Nature has wisely provided that the first set of teeth shall remain in place until the time that the permanent teeth are completely formed and ready to erupt. If retained undisturbed, the deciduous teeth will perform their necessary work and will, in turn, be gradually displaced by the second or permanent set. But if through neglect and decay the "baby teeth" are rendered useless and painful, their early extraction may disturb and pervert normal growth of the jaws and eruption of the permanent teeth. Crooked, malposed teeth, and varying degrees of jaw deformities result. The disfigurement is often so great that unless orthodontic or straightening procedures are resorted to, the child may go through life with a serious social and economic handicap. Don't mar your child's beauty or health through neglect that can be avoided.

The old saying that "an ounce of prevention is worth a pound of cure" is especially true in dentistry. This modern dentist is equipped with instruments and devices to make dental work as easy as possible. Small defects are repaired in their early stages not only without pain but with less sacrifice of tooth structure and at less cost than if left until later.

A recent survey made by a dentist indicated that those of his patients who, over a ten-year period, visited his office once a year or oftener had an average of only two cavities yearly, while those who postponed their visits for more than a year averaged six and a half cavities per person.

What's New in Medicine

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

Prontosil (Sulfanilamide)

In last month's issue the life and work of Paul Ehrlich was described. Ehrlich was important not only because he discovered a remedy for syphilis but also because he was concerned with the isolation, selection, and synthesis of chemical substances for the treatment of disease. These chemical substances are intended to destroy the germs invading the body without harming the cells of the body itself. Salvarsan or 606 was the first, and so far the greatest, triumph in the science of chemotherapy. Other compounds that have been synthesized are plasmochin for the treatment of malaria and trypsamin for African sleeping sickness.

We now witness new advances in chemotherapy—advances which are directly derived from Ehrlich's work. A compound known as Prontosil was synthesized in Germany in 1932 by Mietzsch and Klarer. In February, 1935, Dorragh was the first to show that this drug could protect mice against an infection by virulent germs known as hemolytic streptococci. From this first observation have arisen hundreds of other experiments and observations in all countries, demonstrating that the drug not only protects mice but also protects humans against the same infection. Infection by hemolytic streptococci produces many diseases in man. Some of these more serious of these diseases are septic sore-throat, erysipelas, purpura (childbirth) fever, kidney infections, and meningitis. Administration of Prontosil cured many hopeless cases and diminished the severity and duration of other cases. Following these initial successes it was used in the treatment of other infectious diseases. The most recent and spectacular innovation has been the treatment of gonorrhea by the drug. Early reports seem to indicate that the drug may be used as successfully in this disease as in the treatment of streptococcus infections. Since the drug—now known as sulfanilamide—can cause drastic reactions, it must be taken only under the direction of a physician who is acquainted with its properties. It is too early to pass final judgment but it is possible that sulfanilamide will have a place with salvarsan as one of the great achievements of modern medicine.

Prothamine-Inulin

Since the discovery of insulin in 1923, physicians have been trying to produce a substance that will do all that insulin does for the diabetic patient without giving any of the inconveniences of insulin treatment. Some diabetics can keep well by simple regulation of diet, but many, if not the majority, require from two to four injections of insulin daily. Dr. Hagedorn of Denmark has finally produced a form of insulin which is effective over a much longer period of time than ordinary insulin and which thus permits the diabetic patient to limit the number of injections to one a day.

Dr. Hagedorn was able to unite insulin with a substance known as prothamine, derived from the spermatozoa of fish. The addition of zinc still further enhanced the value of the new compound. Now an insulin compound is available which not only reduces the number of injections required daily but also reduces the liability of shock from over-dosage, produces a closer approximation to the normal physiological blood sugar levels, permits a smaller dose to be used, and, finally, causes a greater improvement in the general physical and mental health of the patient than ordinary insulin does. The new discovery will prove a boon to thousands of people throughout the world. However, prothamine-insulin should not be substituted for ordinary insulin except on the advice of a physician.
THE HORRORS OF GAS WARFARE

By VICTOR BRINTON

Statements by military authorities tend to minimize the fear of poison gas as a weapon against both soldiers and civilians. Are these statements reliable or are they intended to reassure a war-sick public? A chemist gives the facts.

To hear the way in which "responsible" military authorities sing (for public consumption only) the praises of chemical warfare, one might think that they had all adopted as their slogan the words "Breathe 'em and weep." Cough a little, maybe even choke a little—but in any case no one is going to be really badly hurt. Tear-gas, sneeze-gas, nothing-at-allness. Tears-screen behind which the real chemical stuff on you, it's simply a verbal complexity of the material already published on the subject of chemical warfare may be obtained from the fact that in a recent 700 page treatise devoted exclusively to it there is a partial bibliography listing more than 600 separate and distinct references in several languages. Clearly, therefore, in an article as brief as this only a very few highlights can be touched. And, because of the public confusion regarding the alleged "humaneness" of chemical agents under actual battle conditions, I shall extract—from officially published statistics—a handful of rather damaging facts. My source is the above-mentioned volume, Chemicals in War, written by Lieutenant-Colonel Augustin M. Prentiss, of the Chemical Warfare Service, United States Army, and published this year. More than 68,000,000 men were mobilized during the first World War (1914-1918) by all the combatant powers (sixteen in number). Of this huge total more than half (54.7 per cent) became "casualties" from all battle causes, including an estimated 7,000,000 deaths. What part did chemicals play in this holocaust? The "official" view is that gas casualties during the war were only 4.6 per cent of all battle injuries, and only 1.32 per cent of all battle deaths. It looks like a good case for the chemical enthusiasts. But wait a minute! The real effectiveness of a combat arm depends not simply on the absolute number of casualties it produces but on a complex of technical and military factors, of which the most important are: the degree of development in the arm itself (efficiency of the weapons and agents employed, tactical experience and background, economic and production problems involved); and the ratio to total combat personnel of those forces trained for the special service under consideration.

Significance of Figures

At once the figures take on a new and far more deadly character. The five most important combat arms used in the last war contributed the following percentage of the total arms force mobilized:

1. Infantry (including machine-gun and tank units) ..... 50%
2. Artillery (including heavy trench-mortar units) ....... 25%
3. Combat engineers (including chemical units) ......... 8%
4. Air corps (including observation balloon units) .. 6%
5. Cavalry (including mechanized units) ............. 1%
6. Miscellaneous services and administration ............ 10%

Note first of all the extremely slight contribution of groups 3, 4, and 5, which were precisely those arms which were the least fully developed in the last war, and which have been the most intensively developed since. Then observe that under 3, the chemical arm played only a minor role in the engineering services.
Now the cat has been let out of the bag, and what it looks like may be best described by Lieutenant-Colonel Prentis’ own words:

The 23,765 engineers employed as gas (chemical) troops during the war [by all combatants—V.B.] consisted, we may say, of 9.6 per cent of the total combat engineers, so we may say that 2 per cent of the combat effort was devoted to chemical warfare, and that gas warfare by engineer (chemical) troops constituted 2 per cent of 8 per cent, or 0.16 per cent of the total combat effort of the armies. Adding the artillery effort (1.13 per cent) and engineer (1.16 per cent) together, we find that 1.29 per cent of the total combat effort of the armies was expended in gas warfare operations from which we produced 0.8 per cent of the total battle injuries and 5.7 per cent of all the non-fatal battle injuries. We may, therefore, say that, on the basis of the ratio of casualties to military effort, gas was from four to five times more effective than the average of the military agents used in the war. (Last italics in original; others mine.—V.B.)

This conclusion, vouched for by official figures (which are usually conservative), and put into the record by an officer of the American Chemical Warfare Service, should knock into a permanently cocked hat the absurd idea that the next war is going to be a sort of chemical picture, a mad bombardment, mangled bodies—a mad hell of men pushing themselves forward to destruction. It may be a little shocking to state bluntly that this picture presents a relatively minor portion of war’s horrors. This is but the immediate aspect of war, the aspect which has permitted us so foolishly to associate heroism and courage with such insane behavior.

Realize that the battlefield where these men fought was once a countryside where farmers and workmen reared their families. What has happened to the women, the children, and the aged? They have, of course, fled before the oncoming armies; they have fled to God knows where. During the first World War about one-fourth of the population of Poland, or five million people, fled before the armies to live in caves and hovels, to sleep in the streets of the cities—and to die by the thousands. The war zones of Europe spewed out more than ten million of refugees who lived from hand to mouth during the long years of the war, and when the end finally came the surviving ones returned to their “homes,” which were now cut through by desert trenches and marked with shell holes. The usefulness of the soil was impaired or destroyed by gas, and in case of an attack by certain recognized—recognized—gases, such as chlorine, phosgene, tear gases, and smoke. The trouble is that the gases most likely to be used in severely contested civilian areas, as well as in defensive positions at the front, are of the skin blistering or vesicant type, such as mustard gas and the still untested but extremely potent American invention, Lewisite. And against these types the man alone is utterly helpless; it must be supplemented by special rubberized clothing thoroughly insulated against outer air, and such clothing, of course, means extreme and progressive discomfort.

Furthermore, each mask must be supplied with its canister of proper filtering material, with as many refills as may be needed during a raid. To see that these canisters are not only reasonably fresh but that they contain the right kind of filter for attacks that are bound to be full of surprises, it will be one tough job for the authorities.

Bombs That Melt through Steel

And what of those appalling quantities of hermit and other incendiary bombs, the effects of which the recent Fascist bombing of Guernica has given us such a vivid idea? The substances in these bombs can melt right through steel, and water simply makes them worse. Furthermore—as in fact is true of virtually all the important military chemical agents—they can be manufactured in mass quantities from readily available raw materials at a moderate cost. The English have developed a six and one-half ounce “baby incendiary” bomb of which as many as 16,000 can be carried in an airplane at one time—a veritable sheet of pure, intense flame hurled from the sky upon, let us say, tenement districts crowded with workers and their families.

I conclude this very sketchy article on a medical note: From St. Dunstan’s Home for Blinded Soldiers in London comes the ominous news that during the past three or four years some twenty-five or more cases of permanent blindness have been admitted. But not ordinary blindness; in each case it was determined that the loss of vision was a “delayed-action” consequence of exposure to mustard-gas twenty years ago. Fourteen of these victims of War the Poisoner entered St. Dunstan’s last year alone, and it seems that they are still coming in from all points of the compass.
the middle ages need only recall the devastating pandemic of influenza which swept the world in 1918, killing 20,000,000 people. The casualty lists of the armies of the world reported only 13,000,000 dead. The war’s one major disease made paltry all the improved guns, bombs, and planes. But the thousands who died of influenza in Montreal, in San Francisco, and in Calcutta, as well as of the war as we saw the gassed and shattered men on the Western Front. In the American army cantonments in this country 30,000 soldiers died as a result of influenza. A few short months before their deaths these men had been chosen for the army on the standard of physical perfection, and the fact that their mortality rate was far greater than that of the American civilian population calls attention to another aspect of the last war—the deplorable conditions in the army cantonments. These conditions can be laid to the greed of American war profiteers who displayed no trace of concern for the welfare of our soldiers, and who were aided and abetted by their compatriots, the Washington “dollar-a-year” men.

The American army lost as many men by influenza as it did by the German guns, but disease deaths were limited neither to influenza nor to the American army. In June, 1916, long before influenza ravished Europe, a survey of 2,400,000 German soldiers in hospitals disclosed that 250,000 were suffering from pulmonary tuberculosis, 600,000 from heart and nerve diseases, and 500,000 from intestinal diseases, especially dysentery. During the first year of the war 76,000 French soldiers were invalided home because of tuberculosis. Again we must remember that these men had been chosen on standards of physical perfection. We want only perfect specimens for destruction in our modern wars.

Shell Shock and Insanity

Other diseases that left significant death records in the armies, the epidemic characters of which were directly or indirectly traceable to war conditions, were trench fever, cerebro-spinal fever, “shell shock.” The term shell shock was employed early in the World War to describe various physical disturbances due to concussion on the ear drums during exposure to unusually heavy bombardment. It was later enlarged to include forms of mental disturbance associated with hysteria or psychasthenia, brought on by severe fright, or by the abject horror of the situation. The term stood the war makers in good stead for it was finally stretched to include everything from mild hysteria to dementia praecox and manic depressive insanity. It was customary and desirable to devise an innocent sounding name to conceal alarming conditions. It would have been exceedingly unwise of the powers behind the scene to admit that their war was driving thousands of soldiers to raving insanity. Thousands of American soldiers are still locked up in pens; they have “shell shock.”

The Deadly Cootie

A similar innocent term was the “cootie,” celebrated in song and story, and generally viewed as a relatively harmless little insect that provided a good deal of humor at a time when humor was at a premium. But there was nothing humorous about being continuously and hopelessly afflicted with body lice, nor was there humor in the fact that these lice were the carriers of many deadly diseases, particularly typhus. This disease, sometimes more vividly called patrid fever, is almost wholly a war disease. A typhus epidemic sweeping Serbia in late 1914 and early 1915 killed approximately 150,000 people and included in its grisly toll one third of the physicians of the country. Again at the end of the war, when the thousands of prisoners were returning home, a far greater epidemic of the disease swept over Poland, Rumania, and Serbia. Although entire districts were stricken the actual effects of this later epidemic are completely unknown because of the chaotic conditions then existing in central Europe and the Balkans. The chaotic disorganization prevailing throughout the continent resulted in an almost complete lack of vital statistics, and therefore the extent of the horrors of pestilence can only be indicated. The influenza epidemic was the war’s greatest single scourge but its origins and full toll are unknown. Other diseases in epidemic and pandemic proportions, aided by famine and starvation, affected not only the ten million refugees and the forty-two million peoples in occupied territories but the entire civilian population of Europe and parts of Asia, Africa, and the two Americas. Typhoid was extensive in Italy, the Balkans, Russia, and

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PREVENTING THE SPOILING OF FOOD

Good food is necessary to maintain health and well being. It is expensive, many kinds are highly perishable, and it requires careful handling in the home to preserve it in an attractive, appetizing state and prevent waste and spoilage.

Food usually shows the presence of spoilage by its unpleasant appearance, taste, or smell. The cause may be bacteria, yeasts, molds, changes produced by heat, cold, or light, loss or absorption of moisture, insects and other household pests, or parasites of food animals. Careless handling of food increases its chances of spoiling. Correct care prevents or checks much waste and insures that the food will reach the table in a palatable and healthful condition.

Keep Air Circulating

Under ordinary household conditions the refrigerator is the best place for storing milk, fresh meat, poultry, fish, and most fresh fruits and vegetables. The low temperature of the refrigerator is unfavorable for the growth of bacteria which cause souring and decay in these foods. To be an efficient storage compartment the refrigerator must have a continuous and rapid circulation of cooled air within it. Keep open all space intended for the passage of air from the ice chamber to the storage compartments. Do not wrap the ice in cloth or newspaper. This retards the circulation of the air. The temperature should be maintained at 50 degrees Fahrenheit or less. Keep the ice chamber—should be kept cool. In the old-fashioned ice box it is necessary to rinse out the drain with hot water and washing soda regularly.

Danger in Left-Over Food

Milk and cream should be kept in the bottle until used. Wash the bottle, especially the lip, as soon as the milk is delivered, and place it in the refrigerator. Milk is an ideal medium for the growth of bacteria. It should be kept at a temperature of 50 degrees Fahrenheit or less, for even a temporary rise in temperature aids the development of bacteria. Butter is best kept in a light-proof container.

Wrap cheese in wax paper and place in a tightly closed container to prevent the strong odor from being absorbed by other foods in the ice box.

Unwrap meat and fish as soon as they are delivered, wipe off visible dirt, and place them in the refrigerator in a tightly covered dish. Do not wash meat or fish, as this draws out the juices and hastens spoilage. Poultry may be washed before storing in the ice box. Keep eggs in a covered container in a dry, clean place, with the temperature not over 60 degrees Fahrenheit.

Left-overs should be transferred to clean covered dishes, and stored in the refrigerator. They should be used as quickly as possible, especially in warm weather. Heat them thor-
Does sexual abstinence have a harmful effect on the physical organism? A physician reviews the various opinions on the subject and arrives at a general conclusion.

The Sexless Life

Is DIRECT sexual gratification necessary for health and happiness? This is a question which moralists and theologians have been answering, usually in the negative, for years, though their conclusions have been based more on preconceived ideas than on scientific facts. However, when we turn for enlightenment to physicians, instead of finding that calm and dispassionate discussion of clinical and experimental observations which we expect, we often find that the same preconceived ideas have influenced their judgment as well. The writer recalls the lecture of a finished physician, a professor in one of our best universities. The good doctor stated positively that there was not a particle of evidence that sexual abstinence had any effect on health. He also believed that even in marriage sexual intercourse should be performed only for the sake of procreation. The fact that the professor was a New Englander of rather austere character, is probably the reason he gave this opinion. His background made him blind not only to the facts of life that cannot escape the observation of the unprejudiced physician in his daily practice, but also to the growing body of clinical observations on the subject.

Conflicting Beliefs

From the above the reader will jump to the conclusion that we are going to answer the question with a definite, "Yes, direct sexual gratification is necessary for health and happiness." The question, however, is not so simple, and, while we believe that for a large majority of individuals it is the correct answer, there are important qualifications which need to be explained. Perhaps the best way to introduce the subject is to give some idea of the opinions expressed by physicians.

Hippocrates, known as the father of medicine and the author of the Hippocratic Oath, which, though written in the 3rd century before the Christian era, still offers the best expression of the highest medical ethics, wrote that women who had regular and normal sexual lives were healthier than those who did not. Hippocrates had no prejudices to blind his judgment, for the moral condemnation of the "body" and the "flesh" developed many hundreds of years later in the middle centuries of the Christian era. During the Renaissance, when considerable hostility prevailed between medicine and the church, physicians were outspoken in their belief that sexual abstinence was definitely harmful and led to serious consequences, including insanity, epilepsy, impotence, and even death, and that in many disorders moderate sexual indulgence was of curative value. In modern times the tendency has been to attribute many minor ailments and disabilities to sexual abstinence, but to admit that in the more serious disturbances in which sex might play some part, sex is often not the most important factor. Krafft-Ebing, the great German physician, showed that abstinence would produce a state of general nervous excitement. Nystrom, of Stockholm, believes in abstinence during youth, but states that complete abstinence during a long period of years cannot be borne without producing serious results both on the body and the mind." He states that among the results of sexual abstinence are orchitis (inflammation of the testicles), impotence, neurasthenia, depression, and many other vague nervous disturbances. Most physicians who agree with this point of view at the same time feel that these bad results are seldom permanent and usually disappear quickly when the abstinence ceases.

Psychic Factor Important

Many disturbances of menstruation are thought to be related to the sexual life, and there have been a number of reports that painless menstruation and other menstrual disorders are often relieved by marriage.

It should be emphasized that in women the sexual life must be looked at in a broad sense, so as to include not only sexual intercourse but also the whole reproductive function. For instance, it is well known that benign fibroid tumors of the uterus (womb) occur chiefly in women who have never had children.

While a majority of medical writers on this subject have favored the view that prolonged sexual abstinence is harmful, a number have insisted that it is entirely harmless. This point of view has been championed especially by English and American physicians, but in going over their statements one cannot help feeling that they sound more like moral exhortations than objective scientific discussions. For instance, Sir William Gowers, a leading English neurologist of the last century, says:"With all the force that any knowledge I possess, and any authority I have, I can give no assurance that no man ever yet was in the slightest degree or way the worse for continence or better for incontinence. From the latter all are worse morally; a clear majority are worse physically; and in no small number the result is, and ever will be, utter physical shipwreck on one of the many rocks, sharp and jagged-edged, which beset the way, or on one of the many beds of festerling slime which no care can possibly avoid."

Celibate Lives

In 1906 the American Medical Association passed a resolution stating that "continence is not incompatible with health." As Havelock Ellis points out, such a statement is meaningless as well as misleading. No one could deny it, even though he believed that in the majority of cases prolonged abstinence was seriously injurious.

While we can readily see that moral prejudices have interfered with strictly objective scientific treatment on this question, it is not sufficient to explain the disagreement entirely on the grounds of prejudice. It is certainly true that in the ordinary sense of the word there have been many individuals who have led celibate lives without becoming sick. How then can we explain the divergence of opinion?

In the article entitled The Psychology of Work in the April, 1937, issue of HEALTH and HYGIENE there was a brief description of the process of sublimation. It was stated that the driving forces behind human activity are the instincts and that the instincts must be at least partially satisfied by activity if the individual is to remain healthy. Since it is impossible in civilized existence for every instinctive impulse to be directly expressed, it is necessary that a considerable part of the instinctive drives be repressed, but this necessitates some other outlet for the instinctual energy. This outlet is, in the sublimation of the instinct. Sublimation is the process by which instinctual energy is diverted from the path of direct expression into the path of socially constructive activity. Other outlets of instinct besides direct expression and sublimation are found in the neuroses and in certain types of crime. We may say that in these different ways the sum total of instinctual energy finds an outlet. However, the ability to use the path of sublimation varies greatly in individuals. Some individuals, perhaps because of an unusual constitutional endowment, perhaps because of their training are good at sublimation, so to speak, and succeed in living abstenient or celibate lives without becoming sick. In most persons, however, this ability is not so highly developed, and the individual needs some direct sexual outlet or he will become ill. This does not mean that abstinence even for considerable periods of time is necessarily harmful. In fact, almost all authorities agree that until the age of twenty or twenty-five, depending on the individual, abstinence does not harm, and that in later years periods of abstinence, when for one reason or another direct expression of the instinct is impossible, are harmless as long as there is an adequate outlet in sublimation.

Repressing Sexual Instinct

The disagreement among physicians as to the harmlessness of abstinence has been due to the failure of many of them to recognize the mechanism of sublimation, and the varying abilities of different individuals to employ it. A physician sees a few individuals living abstemious lives and remaining healthy; he does not realize that the sexual instinct is being expressed, although indirectly, so he concludes that the instinct does not require expression and announces that it is harmless for anyone to live that way. If he realized that his abstinent individual was actually giving expression to his sexual instincts indirectly in sublimated activity, that the ability to sublimate varies greatly in individuals, and that the ability to sublimate almost completely was rare, he would abandon the view that complete abstinence is possible for most individuals.

The importance of repression and sublimation of the sexual instinct is very great. Freud traces most of the progress of civilization to...
The development of the psychological mechanisms by which man carries abstinence is often so great that little energy is left for other pursuits. Freud expresses this unduly prolonged, Freud believes that the value of abstinence in itself, when we transform it into the altruistic virtue of self-sacrifice. When we have done so we see that the element of abstinence in its cease to be essential.

While from the point of view of society, as from that of Nature, the end and object of the sexual impulse is procreation, and nothing beyond procreation, that is by no means true for the individual, whose main object must be to fulfill himself harmoniously with that due regard for others which the art of living demands. Even if the sexual relationships had no connection with procreation whatever—e.g., some Central Australian tribes believe—they would still be justifiable, and are, indeed, an indispensable aid to the best moral development of the individual, for it is only in so intimate a relationship as that of sex that the finest graces and aptitudes of life have full scope.

The element of positive virtue thus only enters when the control of the sexual impulse has passed beyond the stage of rigid and sterile abstinence and has become merely a deliberate refusal of what is evil in sex, but a deliberate acceptance of what is good. It is only at that moment that such control becomes a real part of the great art of living, for the art of living, like any other art, is not compatible with rigidity, but lies in the weaving of a perpetual harmony between refusing and accepting, between giving and taking.

We feel that there is no essential difference in the views expressed by Freud and Havelock Ellis; it is rather that Freud uses a scientific terminology, whereas Havelock Ellis speaks in conventional language which has more of an emotional appeal. It is impossible to do justice to this subject in a single article. The reader who is eager to pursue the subject further will find an exhaustive discussion in the volume of Havelock Ellis already referred to.

Not original thinkers, bold pioneers and reformers; far more often it produces “good” weaklings who later become lost in the crowd that tends to follow painfully the initiative of strong characters.

Havelock Ellis expresses himself somewhat differently on the subject in his Psychology of Sex, Volume IV:

The conception of “sexual abstinence” is, as we see, an entirely false and artificial conception. It is not only ill-adjusted to the hygienic facts of the case but it fails even to invoke any genuinely moral motive, for it is exclusively self-regarding and self-centered. It only becomes genuinely moral, and truly inspiring, when we transform it into the altruistic virtue of self-sacrifice. When we have done so we see that the element of abstinence in its cease to be essential.

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Cosmetic Problems

Many readers write to us asking for information concerning the care of the skin and hair. Each month one of our skin specialists will discuss a particular problem in this field. For a personal reply, send a stamped and addressed envelope.

SHAVING SOAPS AND LOTIONS

This department has generally concerned itself with those preparations which are intended to enhance the appearance of women. However, since we have received many requests from men in regard to the peculiarly masculine problem of shaving, we feel that we may profitably devote some attention to this subject.

Most of the interest in the subject seems to revolve around the question of which shaving soap or cream is best suited to perform the required task. The answer is that most of the products in use fulfill all the necessary requirements and that none possesses any unusual virtues that are not common to all. The essential ingredient of all shaving creams, powders, sticks, and liquids is soap, and consequently the product that contains the highest proportion of dry soap for the money can be called the best, merely from the standpoint of economy.

Cake Soaps Are Cheapest

All claims for unusual whisker-softening ability, antiseptic value, healing or soothing power, are merely so much advertising hokum calculated to persuade you to buy a particular product. Likewise, no significant advantage has ever been discovered for one type of soap over another. The three types in widest use are: the cake soaps, the lathering creams, and the brushless creams. Which should be used is largely a matter of personal preference, since it has not been shown that any particular type has a higher standard of performance than the others. It may be said that the cake soaps are by far the cheapest (except those put up in fancy wooden containers—these are almost prohibitively expensive).

The brushless shaving creams are often claimed to afford protection against wind, sun, insects, and germs. This is nonsense, as is the claim that the cream provides a “powder base.”

Many manufacturers of shaving soap also make and sell lotions to be used on the face after shaving. Williams’ Aqua Velox, Mennen’s Skin Balm, and Palmolive Lotion are preparations of this type. All lotions of this kind are essentially mixtures of alcohol and water, with coloring matter and perfume added. Some contain a small amount of menthol which has a cooling effect upon the skin.

The Women Can’t Resist It

According to the advertisements these lotions possess certain important “soothing” qualities, act as antiseptics against germs, “tone up” and “revitalize” the skin, and close the pores. Certain of them are also said to contain alluring odors which members of the opposite sex will find it difficult to resist. It should hardly be necessary to state that all such claims can be discounted practically a hundred per cent. The actual effects of these lotions is to impart a temporary tingling or cooling sensation to the skin, and that is all. The tingling is due to the presence of the alcohol in the solution.

If a person finds that this tingling sensation is an indispensable or even desirable adjunct to shaving, he may find the use of a lotion warranted. However, he will not find it necessary to buy any of the widely advertised products. These are all unreasonably expensive, their high cost being attributable to fancy containers and the advertising necessary to acquaint the public with their hypothetical virtues. Exactly the same benefits can be obtained with hay rum or witch hazel, either of which may be purchased in a drug store or ten-cent store at a fraction of the cost of the proprietary mixtures.

HEALTH AND HYGIENE
QUESTIONS AND ANSWERS
(Continued from page 42)

So if your friend wants to take a chance, he should go ahead and have his bow-legs operated on—but it may stop his dancing.

**Grapes for Reducing**

Juneau, Wisconsin

**DEAR DOCTORS:**

Is it true that drinking grape juice will cause one to lose weight? I have been reading for some time to the Irene Rich broadsheets advertising Welch's Grape Juice—P.W.

Answer—Drinking grape juice will not cause one to lose weight, regardless of what either Welch's or the perennially youthful Miss Rich may say.

The principal food ingredient of grapes or grape juice is sugar, and the sugar in grapes will add to a person's weight as well as any other type of sugar. It is true that an easily digestible simple sugar such as grape sugar will aid in the utilization of fat by the body, but this does not mean that grape sugar in itself has any particular virtue as a reducing sugar in itself has any particular virtue as a reducing sugar.

It is not uncommon for commercial food houses to erect a mountain of falsehood or misrepresentation out of a few grains of scientific fact.

**Inulin Shock Treatment for Dementia Praecox**

Utica, New York

**DEAR DOCTORS:** I have recently read a number of articles in the newspapers on the new insulin treatment for the form of insanity known as dementia praecox. Is there any merit in this treatment?—I.S.

Answer—The insulin treatment of dementia praecox is the latest newcomer to the host of methods which have been tried and abandoned in the effort to find a cure for one of the most tragic and most hopeless of human illnesses. This new treatment has found a most cordial reception among psychiatrists in America. The hopes it has aroused in the professional press have been exaggerated in the newspapers. This has been unfortunate, since the inevitable result of such widespread propaganda is to create expectations which, if disappointed, will be bitter experiences, and will only hinder the development of a treatment which offers much promise. A new treatment must be tried and tested not by hope but by clear thinking and the patient accumulation of experience.

Briefly described, the treatment consists in inducing in the patient a state of coma by the injection of insulin, a hormone which lowers the blood sugar content and which is also used to control diabetes. This is repeated daily for several weeks. The treatment demands a high degree of skill on the part of the physician. It is a costly treatment because it requires the constant presence, over a period of many hours daily, of the trained physician, nurse, and attendant. A treatment set-up for twenty to thirty patients will call for at least one physician, one nurse, and from two to four attendants for each patient. The treatment is relatively free of danger but its success depends entirely on the skill of the physician and the cooperation of the nursing staff.

The treatment has been tried out in Europe for only a few very years and in America for only a few months. The results thus far have been stimulating and encouraging but it will be impossible to reach any definite conclusions as to its real value for many years to come. Remissions (temporary lessening of severity or abatement of the symptoms) have been reported, varying from 30 to 80 per cent of the cases treated. Results are said to be significantly better in patients who have been ill less than six months. A remission does not mean a cure. It merely means that for an indeterminate period of time the patient is free of symptoms and behaves normally. The use of the term "remission" implies that the symptoms may return. Dementia praecox is a disease in which remissions are common even without treatment. One hospital has reported that 10 per cent of its patients with this disease showed remissions over a five-year period under hospital care alone.

It is for this reason that time must pass before final judgment can be given on the insulin treatment. If the remissions it produces are permanent in a much greater percentage of cases than recovery without treatment, the insulin treatment will be regarded as one of the great medical discoveries of all time. If not, it will be abandoned as another illusory hope. There is some danger that in their eagerness to meet the demands of a prematurely aroused public interest physicians will plunge into the treatment without adequate training, inspired by enthusiasm rather than knowledge. Poor results in the hands of the untrained may outweigh the good results of the well-trained.

**Tuberculin Test**

Cairo, III.

**DEAR DOCTORS:** Will you please explain what is meant by the tuberculin test? Is a test that comes out positive a sure sign that the person has tuberculosis?—H.L.

Answer—The tuberculin reaction is used merely to indicate whether or not a tuberculous infection has ever taken place in the individual tested. A positive reaction does not mean that the person has active tuberculosis.

In this test a small amount of tuberculin (a substance produced by the germ of tuberculosis) is injected into the skin. If the body has ever been infected by the germ of tuberculosis it is sensitive to this substance, and an inflammation sets in with redness and swelling.

Thus, if the test has been properly performed and no reaction occurs it is a sign that no infection has taken place. It should be noted, however, that the test may not be regarded as reliable during the acute stages of certain diseases such as measles, or in the last stages of tuberculosis. Furthermore, the simple test is of greater significance in children than in adults.

**Hand Cleansers**

Coeur d'Alene, Idaho

**DEAR DOCTORS:** Since so many of your subscribers are engaged in work that cannot be classified in the "white-collar" group, I think some information on hand cleansers should be given. I have used many of the cleansers on the market, such as Gre killedin, Dij, Great Solvent, and Peridan. Are they dangerous, we who use them would like to know.—M. E.

Answer—Cleansers such as those you mention contain soap and pumice stone. They are harmful to most skins and are fairly efficient in removing grease and dirt from the hands.

Persons whose hands easily are affected by soap and who are sensitive to soap and pumice stone, should be advised by their doctors or pharmacists to avoid these products. They are harmful to most skins and are fairly efficient in removing grease and dirt from the hands. Thirdly, Dermatics is supposed to act as a pro­ tective covering against cold and salt. The product is well equipped in most cases to do this of its own accord, and if a little added protection is needed some ordinary cold cream rubbed into the skin will do the trick.

And the secret of it all, claims Dermatics, is the use of "hydronized" oil. We do not know what is meant by "hydronized" oil; probably it is the ref­ inedenzation of hydrogenated oil. Such oils are the chief constituents of lard and are of no benefit in skin conditions.

**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.

HEALTH AND HYGIENE
CIVILIANS DIE TOO

(Continued from page 60)

many other countries. The population of Macedonia fell from 175,000 in 1914 to 42,500 in 1919! In Russia the deaths in the civilian population directly attributable to the war have been conservatively estimated at 2,000,000, in addition to 2,800,000 "military" deaths.

Sherwood Eddy, traveling through Poland at the end of the war, recorded that there were practically no children under six years of age—they had all died of starvation. The British medical journal, Lancet, reported that a survey of the population of Lille, France, at the end of the war resulted in the classification of 20,000 of the surviving children of the city as "degenerate" as a result of malnutrition and disease. The "successful" Allied blockade was responsible for about one million deaths in Germany from malnutrition, tuberculosis, and intestinal disorders, over and above the normal death rate. Austria and Serbia lost another million, mainly to typhus. In Germany tuberculosis increased fifty per cent in children under five years of age and seventy-five per cent in children between five and fifteen years of age. In Serbia, in the year 1917, 145,3 people out of every thousand died of this "white death."

The Good Die Young

In considering these and other large increases in the prevalence and malignancy of disease it must also be realized that just previous to the war medical science was making its first considerable gains in the prevention of disease and the postponement of death; a new chapter was beginning to be written in pathology. All of the gains were wiped out. When we consider that the incidence of tuberculosis generally increased one hundred per cent in Europe during the war we must realize that had it not been for the war the incidence of this illness would probably have decreased fifty per cent. In 1914 malaria was actually being wiped out, but with the coming of the war it increased 246 per cent in two years in Italy. In Greece the increase was greater but statistics are missing.

To all of these horrors add the estimate of four million Armenians, Syrians, Greeks, and Jews slain in the Near-Eastern massacres and you will have the toll which was but the immediate result of the war. There were even more far-reaching effects on race devitalization and retardation. The thirteen million soldiers dead had been the world's most physically perfect specimens. The six and one quarter million maimed fighting men had been the most physically perfect, as had also the fourteen million who returned home "otherwise wounded."

The equilibrium of normal and desirable sexual selection had been completely upset by the removal from normal civil life of most of the healthy males of eligible age. Those who remained to carry on were the ones who were discarded because of physical or mental disease, deformity, lack of stature, and other shortcomings. Consider the effects of mass murder, pestilence, and famine upon what remained of the races at the end of the war, and upon the new races they were expected to produce. How many of us carry unseen scars of the first World War?

War Psychoses

Further, consider the mental scars of the war psychoses, not only upon those poor expatriates who are still locked in pens in each belligerent country, but upon the women who watched their men go forth to destruction, upon the children who suffered horror and instability in their infancy, and upon their children and their children's children. War psychoses manifested themselves in unusual forms, for example, the rampant homosexuality in post-war Germany was so widespread that for a time it became an important factor in the government of the country.

Lastly, realize that the decrease in births for Germany alone amounted to two million. Estimates of the number of years required to return the male population of the belligerent nations to a quantitative normal are: Great Britain, ten years; Germany, twelve years; Italy, thirty-eight years; France, sixty-six years. These estimates make no predictions as to the quality of the restored populations, nor do they dare to predict that the war makers are awaiting re-vitalized peoples before beginning their more complete destruction of the second World War.
Flour, cereals, sugar, and other dry groceries should be kept dry and protected from household pests. The lids on the containers should be securely fastened or formed to develop in such foods without making aired often so as to prevent the growth of mold. We do not infrequently receive anonymous letters asking for information on or advice on health subjects. We regret that we cannot answer such letters since we have no way of knowing either where or to whom the reply should go.

THE FELEER that we put out two months ago regarding a cumulative index of all the numbers of Health and Hygiene did not elicit more than a few dozen replies. Consequently, we are going to continue this feature, at least, on this basis we have such an index to be abandoned. If at a future date enough subscribers indicate their desire for the index we will reconsider the matter. The will, of course, in June and continue to print our semi-annual index in the June and December issues.

Victor Brinton, whose article on poison gas appears in this issue, is an engineer and chemist who has for some time been engaged in research on the use and effects of gases both in military and industrial warfare. Charles E. Colman, whose Civilian Die Too also appears in this issue, has just completed a book entitled Pariah for Profit, a study of war-time profiteering. Mr. Colman, incidentally, is an artist as well as a writer. These spot drawings that we have been using to illustrate the Questions and Answers department is his. Irving Sturman, who this month lets us in on the facts about The Thomas' system of hair restoration, wrote the article on the fallacies of modern advertising in last month's issue. Mr. Sturman is a young man who, according to his statement, "completed a premature spell in the army," became a doctor and since then has taken a crack at everything else but," At present Mr. Sturman is free-lancing and working on a play.

New birth control center

The International Workers Order has established a Birth Control Center at 80 Fifth Avenue, New York City, where scientific birth control advice is prescribed for women who are eligible. Dr. Cheri Appel is Medical Director of the Center, and the physicians on the staff are specialists in the field of birth control.

The center, with a name in charges, is open every day from 9:30 A.M. to 5:30 P.M. There is an evening session for those who are employed during the day. Appointments can be made by telephone.

The center is run on a non-profit basis and a nominal fee is charged.
do not scratch or break them, as this will increase the danger of infection. If the blisters do become infected, they should be treated by a physician.

The numerous salves sold for the treatment of sunburn are not as effective as the water treatment mentioned above. Besides, the risk of infection is increased if a salve is used. Very severe burns should always be treated by a physician, since there is danger of poisons from the burned skin entering the blood stream.

Much has been said and written about the health-giving qualities of sunshine. It is true that the action of the sun's rays on the skin of children produces vitamin D, an important factor in child nutrition. However, the specific value of the sun's rays as far as the adult is concerned is not very clear. Several observers have recently claimed that the only benefits that are derived, except for a general toning-up of the skin, are due to the fresh air and exercise that generally accompany exposure to the sun.

But why spend as much as twenty dollars and leave your home for outside treatment? Use Vaseline Hair Tonic and follow these advertised instructions: "Do This Every Week... Manage your scalp well with Vaseline Hair Tonic, then shampoo. This is a better way to keep the scalp fit... to overcome dandruff and dryness... to prevent falling hair with regular Tonic care. Do This Every Day... Smooth a few drops of Vaseline Hair Tonic into the hair to keep it well-groomed the day through. Its natural oils supplement the scalp oils that are lacking in harsh, dry hair." This procedure can be carried out in your own bath room, and a large bottle, which should easily last a week, can be purchased for the trifling sum of seventy cents.

And last but not least, we finally arrive at the Vitalis 60-Second Workout. The method prescribed is the very essence of simplicity: "50 Seconds to rub—the circulation quickens..." Smooth a few drops of Vaseline Hair Tonic into the hair to keep it well-groomed the day through. Its natural oils supplement the scalp oils that are lacking in harsh, dry hair. This procedure can be carried out in your own bath room, and a large bottle, which should easily last a week, can be purchased for the trifling sum of seventy cents.

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Dental Cripples

Three out of every four persons in the United States neither brush their teeth nor consult a dentist, according to figures made public by the Dental Institute of America.

According to the Institute's best estimate, about 23 million school children are in serious need of dental care. The Institute reports that "Not more than four per cent of the school children have sound, well-formed teeth."