

While
you're
"HAVING
A
WONDERFUL
TIME"

WHY not do a little missionary work among the new people you meet on your vacation? Tell them about **HEALTH and HYGIENE**—that brave slayer of "sacred cows"—that thorn in the flesh of patent medicine men—that honest, sane, and helpful magazine that gives you the truth on all phases of health and hygiene and costs only \$1 a year.

DOUBLE FAVOR

Your friends will thank you later for getting them to subscribe to *Health and Hygiene*. And we'll thank you for boosting our circulation, which, as you probably know, is practically the only source of revenue for continuing our important work. We'll thank you with a **FREE** book—read the list below, take your choice, and **USE THE COUPON**.

FREE

with two yearly subscriptions

Your choice of one of these books in the National Health Series

THE COMMON COLD

By W. G. Smillie, M.D.

DIABETES

By James Ralph Scott, M.D.

VENEREAL DISEASES

By William F. Snow, M.D.

THE COMMON HEALTH

By James A. Tobey

TAKING CARE OF YOUR HEART

By T. Stuart Hart, M.D.

TUBERCULOSIS

By H. E. Kleinschmidt, M.D.

FREE

with five yearly subscriptions
Your choice of one

100,000,000 GUINEA PIGS*

By Arthur Kallet

DIET AND DIE*

By Carl Malmberg

INDIVIDUAL EXERCISES

By Stafford, de Cook, and Picard

* Autographed by the author

FREE

with eight yearly subscriptions
Your choice of one

A MARRIAGE MANUAL

By Drs. Hannah and Abraham Stone

MODERN MOTHERHOOD

By Claude E. Heaton, M.D.

THE NURSERY YEARS

By Susan Isaacs

HEALTH and HYGIENE
215 Fourth Avenue New York City

I enclose \$..... (\$1 for each subscription; foreign and Canadian \$1.50 each) for which please send **HEALTH and HYGIENE** for one year to the people listed on the attached sheet. (List names and addresses to which magazine is to be sent and attach list to this coupon.) Please send the **FREE** book to me at the address given below.

Name of book

My name (print)

Address

City State

If you wish only one subscription for yourself, enclose \$1 and fill in name and address.

THE SEXLESS LIFE

HEALTH

AND HYGIENE

AUGUST, 1937

15 Cents

THE THOMAS'
A Hair-Raising Tale

Horrors of Gas Warfare

Some Dental Don'ts

The Sun and You

The Popular Health Magazine Written by Doctors

STATIONERY • OFFICE AND Mimeo SUPPLIES
PRINTING
SPECIAL LOW PRICES TO ORGANIZATIONS

Gensup Stationery Co.
FORMERLY GENERAL SUPPLY CO.
41 EAST 14th STREET • GRamercy 7-7211

Coming
in the
SEPTEMBER ISSUE

The Need for Health Insurance
by JOHN A. KINGSBURY
This paper has just been awarded the Pugsley Award as the year's most outstanding contribution to social work.

Pluto Water
Exposing a well-known laxative.

Dog Bites Man!
Rabies or "hydrophobia."

The Endocrine Glands
Their effect on physique and personality.
And other articles and features.

Don't miss the September issue of
Health and Hygiene

Save

WITH

ROVAN COSMETICS

One Box Rován Superb
Non-Allergic Face
Powder, One Jar Rován
Cleansing Cold Cream
No. 9, \$2 value. **\$1**
BOTH FOR . . .

Rován Cosmetics are delightful and enhancing
—they are free from harmful substances—no
ballyhoo; reasonably priced.

NOT VALID WITHOUT THIS COUPON

Rován Products
163 West 23rd Street, New York City

Enclosed find \$1.00 plus 10c for postage.
Please send me your special offer.

My shade face powder is.....

Name

Address

City State

OFFICIAL I. W. O. PHARMACIES

PATRONIZE YOUR NEAREST I. W. O. PHARMACY
Pharmacies are selected by the Order on a basis of reliability and service. Their prices on Hospital goods and prescriptions are regulated by the Order. I.W.O. Pharmacies employ union help exclusively.

MANHATTAN

BERNER'S PHARMACY, Inc.
131 Rivington Street
DRydock 4-7963

ESTROFF'S PHARMACY
132 Second Avenue
STuyvesant 9-9209

JAR-CROW DRUG STORE
329 Second Avenue
STuyvesant 9-9614

BRONX

L. DAVIS PHARMACY
231 East 174th Street
TRemont 2-9660

GINSBERG PHARMACY
1722 Bathgate Avenue
JERome 6-8206

LANG'S PHARMACY
231 St. Ann's Avenue
MOTT Haven 9-9412

LUXOR PHARMACY
220 East 170th St., Corner Sheridan Ave.
JERome 7-1272

PRYLUCK PHARMACY
1907 Prospect Avenue
TRemont 2-9140

SCHUMANN PHARMACY
Aldus St., Corner Hoe Ave.
INTERvale 9-0733—9095—9316

SLAYTON'S HOE PHARMACY
1760 Hoe Avenue
DAYton 9-8827

BROOKLYN

ASNIS PHARMACY
3601 Neptune Avenue, corner 36th Street
CONEY Island 6-4067

I. BROWERS PHARMACY
235 Sutter Avenue, corner Bristol
DICKens 2-8817—8818

ELI EMANUEL
373 New Lots Avenue, corner Pennsylvania
DICKens 2-8855

LIPPIN PHARMACY
2281 86th Street, corner 23rd Avenue
BEachview 2-0125

B. LOWENTHAL, Ph. G.
4324 Twelfth Ave., corner 44th St.
WINDsor 6-4714

CHESTER'S ZUNBARG

MENU
Fast Clay Tennis
Courts, Real Hand-
ball, Swimming,
Ping-Pong, Skat-
ing, Fencing, Bi-
cycling, Solariums,
Badminton, Arch-
ery, Arts and Crafts,
Unusual Films, Fine
Library, Musicals,
Open fireplaces,
Dancing — and
things and stuff!

**A DELIGHTFUL HIDEAWAY
IN THE MOUNTAINS**

IF the setting counts heav-
ily with you—if abundant sports,
fascinating friendships, inviting
quarters and tempting "vittels"
compose your idea of an exhill-
arating vacation, be good to your-
self. Come to the Zunbarg.
LOW RATES.

Write for Folder.
Telephone: FALLSBURG 53
WOODBOURNE, N. Y.

Purely Personal

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 car 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*. I personally 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 given 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, smoke, etc., and therefore the following day we feel sick to our stomachs. Some of the employees
(Turn to page 70)

In This Issue

AUGUST, 1937

VOLUME 6, NUMBER 2

Questions and Answers	42
<i>Readers' Medical Questions Answered</i>	
"The Thomas'"—A Hair-Raising Tale	43
<i>By Irving Sturman</i>	
The Sun and You	47
<i>Advice to Suntanners</i>	
The Baby in Summer	49
<i>The Infant's Trying Season</i>	
Swimmers—Beware of Ear Trouble!	50
<i>A Summer Sport Hazard</i>	
Vacations with Pay	52
<i>Editorial</i>	
Some Dental Don'ts	53
<i>Safeguarding Your Teeth</i>	
What's New in Medicine	55
<i>News from the Laboratories</i>	
The Horrors of Gas Warfare	56
<i>By Victor Brinton</i>	
Civilians Die Too	59
<i>By Charles E. Colahan</i>	
Hot Weather Hints on the Care of Food	61
<i>Managing Your Refrigerator</i>	
The Sexless Life	62
<i>Is Continence Harmful?</i>	
Cosmetic Problems	65
<i>Shaving Soaps and Lotions</i>	

*Drawings by Chas. E. Colahan
and Mischa Richter*

Editors: CARL MALMBERG and JOHN STUART
Business Manager: SADIE FRANKLIN

**HEALTH
AND HYGIENE**

Magazine of the People's Health Education League

HEALTH AND HYGIENE is published monthly by the H. & H. Publishing Co., Inc., 215 Fourth Avenue, New York, N. Y. Subscription price \$1.00 a year, in advance; Canadian and Foreign, \$1.50. Single copies, 15 cents. Copyright, 1937, by the H. & H. Publishing Co., Inc. Entered as second-class matter March 27, 1935, at the Post Office at New York, under the Act of March 3, 1879. Text may not be reprinted without permission. HEALTH AND HYGIENE is a non-profit, cooperative organization and does not pay for articles. Subscribers are informed that no change in address can be effected in less than three weeks. Please send old address along with the new.

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

Wiscasset, Maine

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 scopolamine 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.



The drug has the power of removing certain inhibitions that are normally present, and consequently it may cause a person under its influence to reveal certain things that would normally be withheld. This, however, does not mean that it will attain the results implied by the name "truth serum" which has been applied to it by newspapers who are always on the alert to sensationalize any new medical discovery or practice.

Treatment of Goitre

Pasadena, California

DEAR DOCTORS:

I should like to know if there is any cure for goitre other than an operation.—N.D.

Answer—There are several kinds of goitre, so one cannot state the possibilities of cure without knowing the type of goitre.

Secondly, each individual is different and it is therefore necessary to hear the medical history and to examine the patient before knowing about treatment.

It may be generally stated that small, non-toxic or simple goitres, that is, simple enlargements of the thyroid gland, respond to treatment with iodine under competent medical direction. Larger goitres or those which cause obstruction to the breathing apparatus usually have to be operated upon for cure. Toxic goitres, 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 goitre 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

Pittsburgh, Pennsylvania

DEAR DOCTORS:

A friend of mine, aged nineteen, is experiencing a great deal of psychological difficulty because of a 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 adjust eventually to the change in position without any loss of function of the joints, but this is something that the surgeon cannot guarantee. Bow-legs can be straightened in childhood without any fear 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)

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 phoney "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 panicky about them, reliable medical attention immediately suggests itself. Why 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 along very nicely because of our inadequate medical practice laws.

One day, in a curious frame of mind, I decided to visit *The Thomas*, self-styled world's leading hair and scalp experts, just to see how the wheels go around in one of 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 antechamber. The chairs were well-appointed, but not ornate, and shaded lights cast a soothing glow over a deeply tinged carpet.

Before and after



Mischa Richter

In a little while, I was shown into an inner sanctum. Here the attempt to imitate a doctor's office was also evident; anatomical charts of various sizes depicting the intricacies of hair structure and growth hung on the walls. Here, it seemed, was a spot where science reigned supreme. A question from the "hair expert," who had received me and who was now officially seated behind a mahogany desk, interrupted my observations.

EXPERT: What's the trouble, young man?

I: I'm losing my hair at the temples, and it kind of has me worried. I'm rather young to be losing my hair. At first I was sceptical about coming here; but the fact that your ad appeared in the *New York Times*, which I consider a reliable periodical, made me feel that I was coming to the right place.

EXPERT: Why should you feel sceptical? Do you know anything about this?

I: Not much, but you know how most people are—just a little leery of things they don't know much about.

EXPERT: What's your name? *(At this point, he takes a card from a desk drawer and proceeds to write down my name, address, occupation, and so forth. This done, he comes over to me and begins to examine me.)* Do you use water each morning when you comb your hair?

I: Yes.

EXPERT: You shouldn't do it. *(Meanwhile he is running a wooden spatula through my hair. After this he starts to stretch the skin of my scalp. The purpose of this is to determine whether the skin of the scalp is loose or tight. This procedure lasts about five seconds. Right afterwards, he produces a magnifying glass and peers through it to inspect the texture of my scalp. This bit of diagnosing is over with in about half a minute. The complete examination, which lasted barely two minutes, is now ended.)*

I: Well, can anything be done?

EXPERT: The hairs that are falling from your head are not being replaced. You have a dandruff condition, too. Besides losing your hair at the temples, you're also losing it at the crown. We can correct this condition in two and a half months. In this period you will take two treatments a week. The treatment is not supposed to be washed out for forty-eight hours.

I: What is the charge for all this?

EXPERT: \$94.00 in cash or \$109.00 on the instalment plan. *(He states these figures without blinking an eyelash. I have all the information I want and take leave with the customary bromide that I'll think it over.)*

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 could. 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 successfully administered, in the forty-five offices we maintain. We have been outstandingly successful in producing the

THE THOMAS'
WORLD'S LEADING HAIR AND
SCALP SPECIALISTS—45 OFFICES
811 CONTINENTAL BLDG.
1480 BROADWAY AT 41ST ST.
PHONE LONISACRE 8-2328
NEW YORK, N. Y.

June 2, 1937

Mr. Irving Sturman,
309 East 170th St.,
New York City.

Dear Mr. Sturman:

I have your letter of May 29th.

Our organization includes a physician who has been assigned by the Medical Board of New York.

Trusting that this information is satisfactory, I am

Sincerely,
THE THOMAS'

W. J. Mattel
W. J. Mattel,
Eastern Manager.

WJM:GM

THE THOMAS'
WORLD'S LEADING HAIR AND
SCALP SPECIALISTS—45 OFFICES
811 CONTINENTAL BLDG.
1480 BROADWAY AT 41ST ST.
PHONE LONISACRE 8-2328
NEW YORK, N. Y.

July 7th, 1937

Mr. Carl Halsberg,
Health and Hygiene,
New York, N. Y.

Dear Mr. Halsberg:

Your letter of July 1st asks for an explanation of our letter of June 2nd to Mr. Irving Sturman. The thought in mind when the letter was written was that I wanted Mr. Sturman to know that our physician was licensed to practice medicine by the State of New York.

This physician has been on our staff for several years; in fact was placed there prior to the time that I became manager of this district. I have taken this matter up with Mr. Thomas and have found that I was in error in stating that he was assigned to this position by the Medical Board of New York.

I regret that I was not fully informed on this matter when I wrote Mr. Sturman on June 2nd. In order that the matter may be clarified for him, I am sending him a copy of this letter.

Yours very truly,
THE THOMAS'

W. J. Mattel
W. J. Mattel,
Eastern Manager.

The Thomas' was in error

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 pinnacles 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; (3) 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 another 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—do you realize that forty-seven visits 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 flocculation test, since the symptoms of the disease, which has often been called the "great imitator," resemble 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 medico is endorsing their service or 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)

Exposure to the sun may be either beneficial or harmful. Caution and correct procedure mean the difference between a good coat of tan and a painful or serious burn.

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 as 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 quantities. When, however, the exposure to the sun is continued for too long a period and the limit of the outer skin layer's

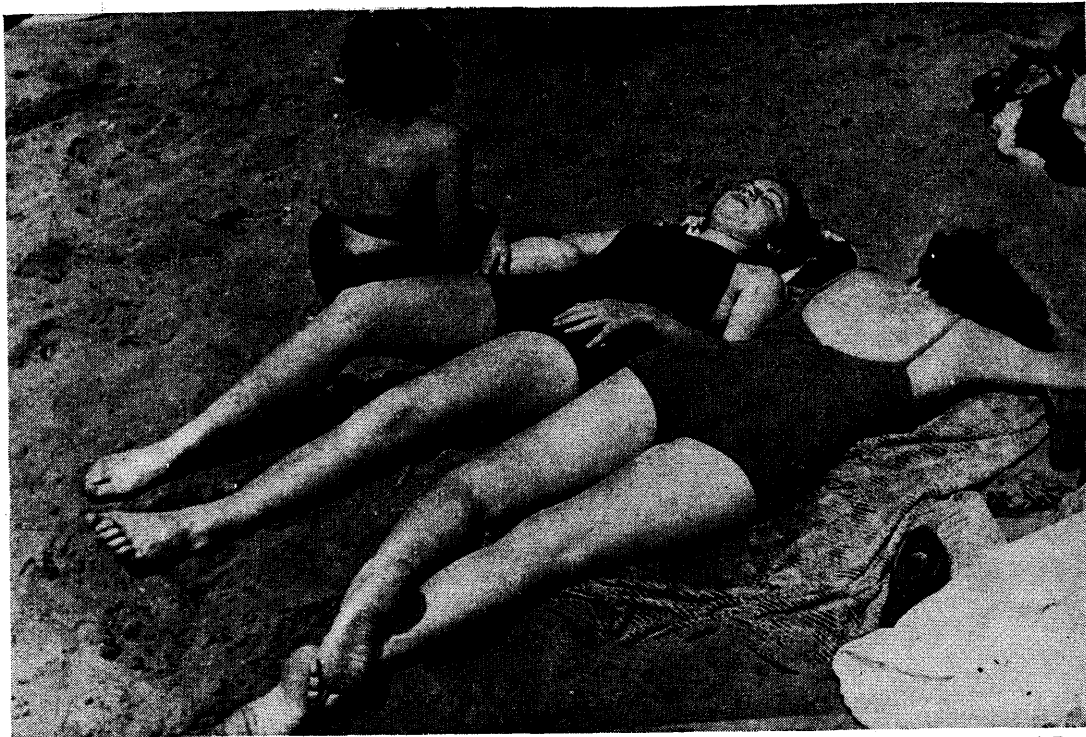
absorptive capacity has been reached, the rays penetrate through to the underlying tissues, and the chemical changes which are known as a burn take place.

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 the sun. If the production 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 slight 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.



Lyon and Engel

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 allows enough of them to pass through to the underlying skin layer to form the brown protecting pigment. A clear oil or cream which is spread thinly over the skin and becomes 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 *Mulsitan*, 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, cheekbones, 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)

Hot weather often brings with it a number of serious infant disorders. Strict attention to certain rules will safeguard your child against sickness.

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.

The nipples of the nursing mother should always be washed gently with a weak solution of boric acid before feeding. Formula preparations demand thorough sterilization and the use of boiled water exclusively. Furthermore, all such preparations should be kept in the ice-box until they are used.

When taking a city baby to the country or to the beach for the summer be doubly careful about the water and milk supply. Boil the water for at least ten minutes and, if pasteurized milk cannot be obtained, use only boiled, evaporated, or dried milk.

Should diarrhea develop, omit everything but the breast feeding and water. If the baby is on a milk formula, omit the sugar and give only water and orange juice. These are proper measures to check the condition at its very beginning.

To forestall any possibility of typhoid or paratyphoid fever infection in the country, it is advisable to give the child (or adult) a course of typhoid and paratyphoid immunization injections at least three months before the vacation.

The Sun Bath

During sun baths keep the baby's head away from the sun. The best time for sun baths is between 8 A.M. and 11 A.M., when it is not too hot, and again after 3 P.M. Exposure to the sun may be increased gradually from day to day.

Exposure of the infant's skin for long periods to wet and soiled diapers causes an annoying rash and chafing. Overdressing brings sweating and prickly heat. The "ammoniacal diaper" is caused by the action of harmless germs in the air on the urea in the urine, which in turn produces a weak solution of actual ammonia. To prevent the action of these germs and the resultant diaper rash rinse the diapers in a strong solution of boric acid, about three tablespoonfuls to a quart of water.

Ear infections are a common penalty paid for the pleasure of water sports. Observance of a few simple precautions will protect you from the danger.

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 twitcher 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 Stickinamud, 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. Stuffing 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 the nasal passages are filled with water. 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 infec-



H. Armstrong Roberts

Apparent cleanliness is no guarantee that water is pure. Even the chlorinated water of swimming pools may contain germs.

tion 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 with Pay

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 in-

dication 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.

Modern dental practice discloses tooth defects before they become serious. Early correction saves the patient unnecessary pain and excessive dentist's bills.

Some Dental Don'ts

IN THIS brief article we will present a few suggestions which may help to preserve good health through a sound common-sense attitude toward dental problems. Few fields of advertising resort to so many misstatements and exaggerations as that intended to entice people into buying dental products. Each manufacturer directly or by inference tries to make the listener or reader believe that his product is compounded of all the virtues while all others are hopelessly inadequate. Such statements as “Do as Your Dentist Does, Use Dr. Blank's Tooth Powder,” or “Only XYZ Toothpaste Contains Irium,” are high-pressure bids for the consumer's money. If we want the truth about dentifrices we can find it in a book entitled *Accepted Dental Remedies*, published by the Council on Dental Therapeutics of the American Dental Association, 1935 edition, pages 91 and 92. The book has this to say: “Dentifrices are generally mixtures used locally on the teeth in conjunction with a toothbrush, without demonstrated medicinal, curative or prophylactic virtues . . . they are used to assist the toothbrush in cleaning the surfaces of the teeth . . . *there is no essential difference in the cleansing property of a tooth powder over a tooth paste* . . . the sole function of a dentifrice is to aid the toothbrush in keeping the surfaces of the teeth clean in the removal of loose debris by the mechanical use of the brush . . . the dentifrice may aid the process but it cannot replace the brush.”

Don't Be Taken In

In the above statement is included all the important information that the public needs as a guide in purchasing toothpastes 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-

septics which never achieve expected results. Again, the data from *Accepted Dental Remedies* are pertinent. On pages 140 and 141, it states: “Toxic or caustic antiseptics, even in dilute solutions for general rinsing purposes, are undesirable because the margin of safety between the germ-killing power of such germicides and possible tissue injury is too narrow. In view of the lack of evidence brought forward by the exponents of the indiscriminate and general use of ‘mouthwashes,’ it may be stated categorically that the general use of ‘mouthwashes’ can be considered to serve no more intricate purpose than as an aid in the mouth hygiene in the removal of loose food and debris . . . and that the main action appears to be due to the mechanical rinsing . . . it has not yet been shown that the average mouth is in need of medicated mouthwashes that contain ingredients with active germicidal properties . . . claims that certain trade-marked ‘mouthwashes’ overcome ‘mouth odors’ should be viewed with suspicion until the promoters thereof bring forward acceptable evidence to support such claims.”

Don't Fail to Use X-Rays

Here we have the official opinion of the dental profession that “mouthwashes” are to be considered only as mouth cosmetics that wash away loose food and debris. Any claims as to their antiseptic or germicidal properties should be taken with a grain of salt. Your dentist will gladly recommend a rinse that will best suit your particular needs. In the meantime, a homemade solution made up of a teaspoonful of hydrogen peroxide, another teaspoonful of a powder composed of equal parts of salt, sodium bicarbonate, and borax, dissolved in half a glass of warm water, will accomplish as much and perhaps more than expensive, colored mouthwashes. Special pains should be taken to avoid any solutions containing sodium perborate, unless prescribed by a dentist, since recent tests have shown conclusively that the extended use

of sodium perborate solutions produces inflammation and irritation of the membranes of the mouth, often leading to complications of a more serious nature.

The extensive use of x-rays for mouth examinations in the past few years has served to uncover many hidden defects in the mouths of patients. The elimination 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. Briefly, 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 overhanging fillings or bridgework, abscesses, devitalized 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 *Taxi*, 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 vacancies drift from their 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 grave 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. The modern dental office 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 postponed 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. The difference is striking. Frequent visits make for fewer cavities, less painful work, and smaller dentistry bills.

What's New In Medicine

From time to time we will publish brief accounts of some of the newer findings in medicine as reported in the medical journals. It is to be understood that these findings are not yet fully 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 founder of chemotherapy, the science which is 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 tryparsamide 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 the more serious of these diseases are septic sore-throat, erysipelas, puerperal (child-birth) 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 gonorrhoea by the drug. Early reports seem to indicate that the drug may be used as success-

fully 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.

Protamine-Insulin

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 protamine, 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 total 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, protamine-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, vomit-gas, blister-gas—the whole list of some sixty and more known military chemical agents are so many "humane" instruments which enable us not to get too rough with an enemy who is, at bottom, not such a bad fellow if only we will let him have what he wants in the way of our "life, liberty, and pursuit of happiness."

Get this straight: When high-ranking medical officers of the United States Army like Major Samuel A. White and Colonel Adelno Gibson start pulling the "My-dear-fellow-it's-nothing-at-all" stuff on you, it's simply a verbal smoke-screen behind which the real chemical shells are being loaded in preparation for "M-Day." A bare hint of what is really going on behind this screen comes to us in the frank words spoken to the American Association of Military Surgeons by a colleague of the above-mentioned officers, none other than Major General Edward Croft. Analyzing certain results of the recent Second Army maneuvers before these hard-boiled realists, Dr. Croft foresaw a war in which two types of casualties would occur, namely mustard cases and out-and-out burns.

"It should not be an uncommon occurrence," said Dr. Croft, "to find mustard casualties soaring to the hundred per cent in the smaller units. . . . In addition to these . . . it seems to me that we must expect and prepare for another type of burn. Today there is more than one indication that thermit the white phosphorus [incendiary agents—V.B.] are going to be dumped on rear area installations in

appalling quantities. . . . In any event, I hope you will be ready for them. . . ."

Some idea of the immense range and 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 dis-

tinct 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. So far 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 Prentiss' own words:

The 23,765 engineers employed as gas (chemical) troops during the war [by all combatants—V.B.] constituted approximately 2 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 (.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 were produced 4.6 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 picnic, about equally divided between tears, gagging, vomiting, blistering, and first, second, and third degree laughs—pardon, I mean burns. As further proof, let us consider certain figures on the casualty-producing efficiency of various types of weapons.

Five Hundred Pounds of Explosives to Kill a Man

Approximately five billion pounds of high explosives were let loose during the World War. With this colossal rain of steel and nitrates the belligerents ran up 10,000,000 casualties (including deaths), which is at the extremely costly rate of 500 pounds of high explosives for every man put out of action. If you take rifle and machine gun fire, an equal number of casualties required fifty billion rounds of ammunition, or one casualty for every 5,000 rounds. Contrast with these figures the 9,000,000 chemical-shells discharged, with casualties numbering 400,000, or one casualty for every twenty-two and one-half

shells used. And these were mustard-gas shells alone, consuming in all 1,200 tons of the transparent amber oily liquid which is still known as "the king of poison gases." For every sixty pounds dispersed in battle a soldier went out of action. If we include all the other types of gases, with a grand total of 125,000 tons used on all fronts, the rate is still at the remarkably low level of one casualty for every 192 pounds of chemicals. And remember, these results, which look so insignificant when lumped uncritically with a mass of statistics, were obtained principally during the latter part of the

Civilians Die Too

Human Costs of the War

By CHARLES

WHEN we who hate war attempt to picture it at its worst it is always a vision of savage battle, murderous 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 fight 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 millions 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 deserted trenches and pockmarked with shell holes. The usefulness of the soil was impaired or destroyed by gas, and

war, by barely more than 100 necessarily inexperienced chemical units, operating with deadly chemicals that were still in an experimental stage of development.

Well, you will say, but now we have gas masks, "shelters," and other protective devices. This is about as comforting as the knowledge that you can get hold of a nice-looking life preserver on a ship that is about to sink on the high seas. The whole question of gas defense is submerged in a fog of mystery, fear, ignorance, and misrepresentation. In regard to masks, there is plenty of information available on what to do

in case of an attack by certain recognized—and recognizable—gases, such as chlorine, phosgene, tear gases, and smokes. 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 mask alone is utterly useless*; 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, will be one tough job for the authorities.

Bombs That Melt through Steel

And what of those appalling quantities of thermit 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.

putrid corpses lay shallowly buried by shells or an advancing army. At the same time hundreds of thousands of men were released from indescribable military prisons and left to wander their way across the continent seeking their homes and carrying with them the diseases they had contracted. Let us not believe that we must await the prophesied bacteria warfare of the future before disease death will be war's great toll.

St. John the Divine, in his revelation, saw four horsemen ride forth over the earth. The first was Conquest. The second was War. The third was Pestilence, carrying the scales of Famine, and the fourth was Death. It was the third horseman who laid the heaviest and most virulent hand upon the earth during the first World War, and it is this one that will threaten to extinguish the very races in the second.

Our complete contemporary concept of war has been derived from the World War during which the efficiency of weapons for the destruction of human life was so high that the size of the official casualty lists detracted attention from the more extensive effects of the war upon the human race. Pestilence, although the very word suggests the middle ages, is the *at* killer in all wars.

Those who consider pestilence peculiar to
(Continued on page 60)

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, were as much victims of the war as were 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 a 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 750,000 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 invalidated 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 traceable to war conditions, were trench fever, cerebro-spinal fever, the after effects of gas warfare, and so-called “shell shock.” The term shell shock was employed early in the World War to describe various mental and physical disturbances due to concussion on the ear drums during exposure to unusually heavy bombardment. It was later enlarged to include forms of mental dis-

turbance 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 putrid 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 still in doubt. 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

(Continued on page 69)

Preventing the spoiling of food in the summer is a problem that faces every housewife. An article that tells you how to get the best results out of your refrigerator.

Hot Weather Hints on the Care 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 cham-

* This brief article has been abstracted from the U.S. Dept. of Agriculture Bulletin entitled *Care of Food in the Home*. Readers may get a free copy of this bulletin by writing to the Department of Agriculture in Washington, D.C. Ask for *Farmers' Bulletin*, No. 1374.

ber well stocked; open the doors only when necessary and for the briefest possible time.

Cool all hot foods before placing them in the refrigerator. The coldest place in the box—usually just below the ice chamber—should be reserved for milk, cream, and meat—the most perishable foods. Above all, keep the refrigerator scrupulously clean. 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-

(Continued on page 70)

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 distinguished 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 painful 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, can give, I assert 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 festering 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 judgment 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, or perhaps because of their training are good at sublimation, so to speak, and succeed in living abstinent 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 no 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 abstinent 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 many individuals.

The importance of repression and sublimation of the sexual instinct is very great. Freud traces most of the progress of civilization to

this mechanism, and believes that it is largely the sublimated sexual energy which has been used in making possible our great cultural development. The high degree to which man carries the ability to sublimate is one of the most striking differences between *homo sapiens* and other animals. We can see evidences of this ability in the practice of putting off the immediate response to an impulse in order to obtain a greater or deeper satisfaction at some later time, and we naturally admire and respect those self-disciplined individuals who possess this ability to a considerable degree. The important point here, however, is that abstinence is not an end in itself, but under certain circumstances a means of obtaining something which is of greater value than the immediate gratification of the instinct. When, as is so often the case, the value of abstinence in itself is greatly exaggerated, or when the period of abstinence is unduly prolonged, Freud believes that the energy required to achieve the prolonged abstinence is often so great that little energy is left for other pursuits. Freud expresses this well when he says, in his paper entitled "*Civilized Sexual Morality and Modern Nervousness*":

The retardation of sexual development and sexual activity at which our education and culture aim is certainly not injurious to begin with; it is seen to be a necessity, when one reflects at what a late age young people of the educated classes attain independence and begin to earn a living . . . but the benefit, for a young man, of abstinence continued much beyond his twentieth year, cannot any longer be taken for granted; it may lead to other injuries even when it does not lead to neurosis. It is indeed said that the struggle with such powerful instincts and the consequent strengthening of all ethical and æsthetic tendencies "steels" the character, and this for some specially constituted natures is true. . . . But in the great majority of cases the fight against sexuality absorbs the available energy of the character, and this at the very time when the young man is in need of all his powers to gain his share of worldly goods and his position in the community. The relation between possible sublimation and indispensable sexual activity naturally varies very much in different persons, and indeed with the various kinds of occupation. An abstinent artist is scarcely conceivable; an abstinent young intellectual is by no means a rarity. . . . On the whole I have not gained the impression that sexual abstinence helps to shape energetic, self-reliant men of action,

nor 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 it ceases 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—as 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 not 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 so short an article, but the reader who is eager to pursue the subject further will find an exhaustive discussion in the volume of Havelock Ellis already referred to.

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 Velva*, *Mermer'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 important "healing" and "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 bay 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.

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.

* * *

Grape Juice for Reducing

Juneau, Wisconsin

DEAR DOCTORS:

Is it true that drinking grape juice will cause one to lose weight? I have been listening for some time to the Irene Rich broadcasts 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 agent. Grape sugar contains the same amount of calories as any other 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.

* * *

Insulin 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 profession have been echoed and exaggerated in the newspapers. This has been unfortunate, since the inevitable result of such widespread propaganda is to create expectations which, if disappointed, as they must be in many cases, will only hinder the development of a treatment which offers much promise. A new treatment must be tried and tested not by hopes 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 sugar 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 ten patients. 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 very few 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 recover spontaneously, 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 unskilled may outweigh the good results of the well-trained.

Tuberculin Test

Cairo, Ill.

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 germs of tuberculosis it is sensitive to this substance, and an inflammation sets in with redness and swelling.

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, this 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. If some of the cleansers such as *Gre-solvent*, *Dif*, *Great Solvent*, or *Boraxo* are 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 harmless to most skins and are fairly efficient in removing grease and dirt from the hands.

Persons whose hands chap easily are affected by them as by any soap, and it is necessary in such cases (especially during the winter) to rinse the hands thoroughly after washing and then rub in some grease, such as olive oil, cold cream, or some other suitable oily substance.

* * *

Dermetics—Another Skin "Food"

Toledo, Ohio

DEAR DOCTORS:

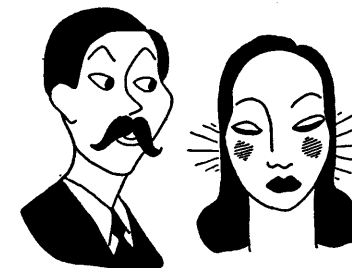
I have received a circular called "Dermetics—Replacing Cosmetics," in which it is claimed that *Dermetics* is a new scientific program of skin management that works with the physiological laws of skin health. Will you please give me your opinion of it?—D. S.

Answer—As health education enlightens people and makes it harder for the patent medicine and

beauty preparation manufacturers to sell their products, new ways of breaking down sales resistance are developed. A favorite method is to use scientific-sounding claims about these nostrums. *Dermetics* is just a slick example of the pseudo-scientific sales method.

According to the circular, *Dermetics* has suddenly disclosed to an awestruck public that the "skin is a wonderful organ of elimination." Of course, physiology (the science of how the body works) has taught this for many years, but *Dermetics* announces it as if it were a new discovery. The *Dermetics* way of helping is by "absorbing soil" and approaching "surgical cleanliness" instead of pushing the dirt into the pores of the skin and clogging them. Unfortunately for *Dermetics*, the skin is not a system of holes into which the dirt can be pushed. Also, soap and water is still the best cleanser.

Secondly, the claim is made that the *Dermetics* "blushing program" brings blood to the skin and so nourishes it, keeping it young and lovely. The massage incidental to washing the skin does the same thing, without any waste of money on *Dermetics*. In addition, good food is also needed to make blood that will nourish the skin properly. Unfortunately, people who buy products like *Dermetics* often do so at the sacrifice of sufficient food.



Drawings by Chas. E. Colahan

Thirdly, *Dermetics* is supposed to act as a protective coating against wind, sun, and soil. The skin 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 *Dermetics*, is the use of "hydronized" oil. We do not know what is meant by "hydronized" oil; probably the reference is to 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.



Family Portrait

MR. BIRNBAUM, who draws funny pictures for bright magazines like *The New Yorker* and *Stage*, painted this picture.

It's a portrait of a family in this enlightened year of our Lord, 1937.

In the front row are Papa and Mama, in their Gas-Masks for Grown-ups. Back of them is son Jimmy, in the latest Youth's Model Gas-Mask. Then there are little Sally and Tommy in their Gas-Masks for Tots. And finally, Buster, in the special Gas-Mask that man, in his great humanity, recently designed

as a protection for dogs.

Funny picture, isn't it? Only Mr. Birnbaum did it in deadly seriousness. And he's right.

What could be more serious than the fact that the ordinary citizens of one civilized country have to protect themselves from poison gas with which the ordinary citizens of another country will try to kill them? What could be more depressing than the necessity of digging up the green lawns of modest little homes to make gas-proof holes for women and children to crawl into! What could be more alarming

than the realization that these things actually are happening in Europe today. And if we think we're safely removed from it all we're crazy!

Maybe war can be stopped; maybe it can't. Maybe if it does come, we can stay out; maybe we can't. But this much is certain: it *could* be stopped if enough decent citizens reared up on their hind legs and said, "*We won't have war!*"

We think it's worth trying. Are you with us?

Write to World Peaceways, Inc. . . . 103 Park Avenue . . . New York City.

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 ex-soldiers 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 homo-sexuality 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 revitalized peoples before beginning their more complete destruction of the second World War.

NEW CHINA

CAFETERIA

848 Broadway

Near 13th Street

CARE OF FOOD

(Continued from page 61)

oughly before re-serving, as dangerous poisons can develop in such foods without making noticeable changes in either taste or smell.

Cooking fats and table oils are best kept in covered light-proof containers in a cool place.

Bread and cake should be stored in a covered box, preferably metal, which can be cleaned and aired often so as to prevent the growth of molds.

Flour, cereals, sugar, and other dry groceries should be kept dry and protected from household pests. The lids on the containers should fit securely. If weevils or worms develop in cereal products, the infested materials should be destroyed immediately, and the containers washed and scalded before they are used again.

PURELY PERSONAL

(Continued from page 41)

really fell for this fake explanation, but I know for a fact that some of us girls don't have the chance nor even the strength to go out evenings, besides most of us never had a cigarette in our mouths.

"At present the cleaning and dyeing industry is being unionized throughout the state, and one of our chief demands will be better ventilation and working conditions. I believe and hope that your article will be very helpful in clarifying our workers on this point.

"Some of us can 'take it,' but the majority is very sick. In fact, some of the workers cannot endure the strong fumes and they quit within two or three weeks. Then they find themselves walking the streets in search of another job as bad as the last one, if they are lucky enough to get one at all."

LET US HAVE YOUR opinions as to which article or feature of HEALTH AND HYGIENE you like best. Each month we will give as a prize for the best letter on this subject a free autographed copy of either Arthur Kallet's *100,000,000 Guinea Pigs* or Carl Malmberg's *Diet and Die*. When writing please specify which book you would prefer.

WE WERE GLAD TO SEE the passage of the Andrews Bill which changes the name of the "Division of Social Hygiene" of the New York State Department of Health to "Division of Syphilis Control." This change is a salutary manifestation of the change in public attitude that will do much to aid in the fight against venereal disease. As might be expected, the loud-shouting Senator McNaboe protested vigorously against the change,

maintaining that "syphilis" was "a horrid word," the use of which would corrupt youth and make for moral laxity in affairs of state. As our friends on the *New Republic* pointed out, McNaboe is a horrid word, too.

WE NOT INFREQUENTLY receive anonymous letters asking for information 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 FEELER 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, for the present, at least, the plans for such an index will have to be abandoned. If at a future date enough subscribers indicate their desire for the index we will reconsider the matter. We will, of course, 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. COLAHAN, whose *Civilians Die Too* also appears in this issue, has just completed a book entitled *Patriots for Profit*, a study of war-time profiteering. Mr. Colahan, incidentally, is an artist as well as a writer. Those spot drawings that we have been using to illustrate the *Questions and Answers* department are his. IRVING STURMAN, who this month lets us in on the facts about *The Thomas'* system of hair restoring, 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 premedical course with the intention of becoming 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 nurse in charge, 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.

THE THOMAS' SYSTEM

(Continued from page 46)

assured if they had a physician or physicians connected with their organization. I got the following answer, a distinct evasion:

Dear Mr. Sturman:

Your letter addressed to our Chicago office has been forwarded to me for my attention.

I would appreciate a visit from you at your earliest convenience.

Very sincerely yours,

THE THOMAS'

(signed) W. J. MATTEI

Eastern Manager.

Throwing them some more bait, I finally wrung this admission from them:

Dear Mr. Sturman:

I have your letter of May 29th.

Our organization includes a physician who has been assigned by the Medical Board of New York.

Trusting that this information is satisfactory, I am

Sincerely,

THE THOMAS'

(signed) W. J. MATTEI

Eastern Manager.

What "Medical Board"?

Now, supposing that the claim that a physician has been "assigned" were true, what would the situation be? With three New York offices *The Thomas'* would have only one physician. He couldn't be in all three offices at once. But the truth of the whole matter is apparent when it is pointed out that *there is no such thing as a "Medical Board of New York."* The Thomas' manager was simply talking through his hat. I leave the question as to whether or not his statement makes him guilty of a violation of the law forbidding the practice of medicine without a license, up to the Medical Inspector in the Attorney General's office, whose duty it is to investigate such matters.

The advertised claims of the various hair-restoring systems vary so greatly one begins to feel that for this reason alone they must be suspected. For example: the "Hair and Scalp Foundation" sells a much better bargain than the Thomas firm. They contend that in "two

(Continued on page 72)

MINIATURE CAMERAS

A Report on the Comparative Value of Leading Makes

Is the Leica a better camera than the Contax? How do the Rolleiflex, the Eastman Bantam Special, the Korelle, the National Graflex, the Argus, and the Retina compare in picture-taking qualities and structural details with other miniature cameras in the same price ranges? What are the nine advantages and eight disadvantages of miniature cameras as compared to larger cameras?

In a report on miniature cameras in the July issue of *Consumers Union Reports* camera experts compare in terms of brand names the relative value of over 40 leading makes of foreign and American made miniature cameras and indicate the best buys in each price range. A similar report on larger cameras was given in last month's *Consumers Union Reports* and is still available to those who wish to become members at this time.

"Best Buy" or "Not Acceptable"?

Other products rated in this same issue on the basis of unbiased technical tests as "Best Buys," "Also Acceptable," and "Not Acceptable" include:

Gasolines	Bathing Suits	Refrigerators
Golf Balls	Tennis Balls	Motor Oils
Ice Boxes	Electric Fans	Sunburn Oils

What \$3 Brings You

By mailing the coupon below you can immediately secure a copy of the July issue of *Consumers Union Reports* with the reports mentioned above. The yearly fee for membership in Consumers Union of United States, the non-profit organization which publishes *Consumers Union Reports*, is \$3. In addition to twelve issues of the *Reports* it brings you, without extra charge, the 1937 240-page *Buying Guide* listing over a thousand products as "Best Buys," "Also Acceptable," and "Not Acceptable."

Start now to get the most for your money! Mail the coupon below today!

Membership can be started with any of the following issues: SEPT.—Shoes, Tires, Whiskies; OCT.—Dentifrices, Gins, Electric Razors; NOV.—Radios, Wines, Children's Shoes; DEC.—Vacuum Cleaners, Fountain Pens, Blankets; JAN.-FEB.—Men's Suits, Cold Remedies, Shaving Creams; MAR.—Autos, Face Powders, Flour; APR.—Shirts, Cold Creams, Gardening; MAY—Trailers, Constipation, Washing Machines.

Mail the Coupon Today!

With your membership

A 240-Page Buying Guide

containing ratings of over a thousand products, by brand name, as "Best Buys," "Also Acceptable," and "Not Acceptable." Get this *Buying Guide* by mailing coupon!

To CONSUMERS UNION OF UNITED STATES
55 Vandam Street, New York, N. Y.

I hereby apply for membership in Consumers Union. I enclose:

\$3 for one year's membership, \$2.50 of which is for a year's subscription to the complete edition of *Consumers Union Reports*.

\$1 for one year's membership, 50c of which is for a year's subscription to the limited edition of *Consumers Union Reports*. (Note: Reports on higher-priced products are not in this edition.)

I agree to keep confidential all material sent to me which is so designated.

Signature

Address

City and State.....Occupation.....H-8

THE SUN AND YOU

(Continued from page 48)

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 so 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. At any rate, the importance of sunshine as a health factor has been overemphasized, and those individuals who are not enthusiastic about basking themselves on beaches or roof tops may be reassured. As long as they get a sufficient and healthful diet they need not go out of their way to get more than an ordinary amount of sunshine.

ROOM AND BOARD

at

CAPTAIN JACK'S—CAPE COD

ROOMS ON WATER :: HOME COOKING

W. E. Avellar, 71 Commercial St.
Provincetown, Mass.

KATZ COTTAGE

SANATORIUM

LIBERTY, N. Y.

SPONSORED BY I.W.O.

A sanatorium for the treatment of tuberculosis situated in the foothills of the Catskill Mountains within easy reach of New York City by rail, bus, or auto. Fully equipped including flouroscopy, x-ray, and pneumothorax where indicated.

Bernard Katz, Supt.
Tel. Liberty 1235 or 28

Dr. Harry Golombe
Medical Director

THE THOMAS' SYSTEM

(Continued from page 71)

months of steady treatments new hair can be grown and old hair strengthened on heads with a tendency to baldness." The cost of such a course of treatment is about twenty dollars, or more than four times as cheap a proposition as that offered by the Thomas people—and with similar results promised.

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. . . . Massage your scalp well with *Vaseline Hair Tonic*, then shampoo. There's no better way to keep the scalp fit . . . to overcome dandruff and dryness . . . to prevent falling hair than 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 bathroom, 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—needed oil is replaced—your hair has a chance! 10 seconds to comb and brush—your hair has a lustre but no objectionable 'patent-leather' look."

We have now run the gamut of hair treatments—from the expensive and involved Thomas method right down to the *Vitalis 60-Second Workout*. These firms ought to get into a huddle and try to advertise a little more consistently. But that might be asking just a little too much.

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."

RESORTS

HEALTH PLAYHOUSE—Registered Nurse—specialized care of convalescent children—ages 4-10. Quiet country life. Personal interview required. Write: Mary Dykstra, R. N., 1249 5th Ave., N. Y. C.

CONSUMERS' SERVICE

PAUL CROSBIE

Insurance

25 Years Experience Frequent Savings
135 William St., New York Telephone BEekman 8-5262

CARL BRODSKY—All kinds of insurance for organizations and individuals. 799 Broadway. ST. 9-5557

BROWNSVILLE PEOPLE'S BOOK SHOP—Sells Health and Hygiene, New Masses, Soviet Russia Today, Fight, New Theatre, etc. Circulating library, subscriptions taken. 369 Sutter Avenue, Brooklyn, N. Y.

TRACHTMAN'S I.W.O. DRUG STORE—4301 10th Avenue, Brooklyn. Windsor 8-8745. Phone and mail orders promptly delivered.

WE FILL MAIL ORDERS for medicine recommended by Health and Hygiene at reasonable prices. Dinnerstein Pharmacy, 658 Rockaway Ave., Brooklyn, N. Y.

QUALITY PRINTING

Shop papers, bulletins, pamphlets; Union Shop
FEDERAL, 8 East 12th Street ST. 9-5736

BORO PARK PEOPLE'S BOOK SHOP—Latest popular and labor books. Circulating Library, Stencils, Mimeograph Paper. 1309—44th St., Brooklyn. Windsor 8-9691

NO ROMANTIC MIRACLES . . . NO BUNK

Crema Roselle is a finer face cream. Made of almond oil, coconut oil and lanolin. Softens rough and dry skin. Excellent after sun exposure. 40c a jar plus 10c for postage.

TALBOT LABORATORIES KEW GARDENS, N. Y.

DIAGNOSTIC LABORATORY CLINICAL LABORATORY

Examination of Urine, Blood, Sputum, Aschelm-Zondek Pregnancy Test, Wassermann Tests Done Daily, Basal Metabolism Tests, etc., done on request of your physician.

Special Rates for Health and Hygiene Readers

Flatbush Laboratories, Inc.

2700 Church Ave. Brooklyn, N. Y.

Telephone: BUckminster 4-3660

The Health Lecture Bureau

Speakers available through the HEALTH LECTURE BUREAU are preeminently qualified in their special fields. A wide choice of subjects is offered such as:

Birth Control, Sex and Social Hygiene, Mental Hygiene, Health Hazards in Industry, Care of the Pregnant Woman, Care of the Newborn Baby, Diet in Health and Disease, Patent Medicine Frauds, Care of Skin, Hair, and Teeth, Soviet Medicine, Socialized American Medicine, Tuberculosis, Cancer, etc.

Minimum fee is \$5.00. A month's notice is essential. All requests to the Bureau must be made by mail.

HEALTH LECTURE BUREAU
215 Fourth Ave. (Room 1811) New York City

To Our Readers

YOU can now get a FREE renewal of your subscription to HEALTH AND HYGIENE by sending us seven new subscriptions.

Hundreds of our readers have taken advantage of our free book offers (see back cover), and they have learned that selling HEALTH AND HYGIENE to their friends is not difficult. In fact, many of them say the same thing: "HEALTH AND HYGIENE sells itself."

Find this out for yourself by showing HEALTH AND HYGIENE to your friends. You won't have to do much talking to convince them that it is the biggest dollar's worth they have ever been offered, that it is a magazine that will save them many times the amount of the cost of subscription.

You Know What Health and Hygiene is Worth to You

So do yourself, your friends, and us a favor by getting seven new subscribers. Your subscription will be renewed for one year free of charge—regardless of when it expires.

USE THE COUPON BELOW

HEALTH AND HYGIENE
215 Fourth Avenue
New York City.

Gentlemen: Enclosed find money order (or check) for \$7*. Please send HEALTH AND HYGIENE for one year to the persons whose names and addresses are listed on the attached sheet. Also renew my subscription for a year beyond the expiration date.

* Foreign and Canadian subscriptions \$1.50 each.