

PHYSICAL CULTURE

Published Monthly and Primarily Devoted to Subjects Appertaining to Health, Strength, Vitality, Muscular Development and the Care of the Body. Also to Live and Current Matters of General Interest.

VOLUME XXII

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Contents

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EDITORIAL DEPARTMENT—BY BERNARR MACFADDEN

Our Past Achievements.....	467
Our Plans For The Future.....	468
Treatment of Diseases.....	469
Menus of Cooked and Uncooked Foods.....	470
Our Serial Story.....	470
Costly Experiments For Our Readers' Benefit.....	471
Confessions of a Doctor.....	472
The Editor's Sanatorium Experience.....	472

LEADING ARTICLES FOR DECEMBER—

Football as a Builder of Body and Brain.....	By William Unmack	475
Physical Culture Popular in Society.....	By J. Hollister Meade	487
Splendid Influence of the Turnverein.....	By Charles H. Fisher	492
The Peanut Diet for Strength Building.....	By Charles Merriles	523
The Science of Physcultopathy.....	By Bernarr Macfadden	534

CONTRIBUTIONS—

Developing a Powerful Physique.....	By Bernarr Macfadden	473
An Ideal Recreative Exercise.....	By Norman Earle Jones	480
The Scooter, a Queer Craft.....	By H. Mitchell Watchett	483
My Physical Culture Baby.....	By Mrs. Anna von Hemert	498
Prince Hagen.....	By Upton Sinclair	501
The Distortion of the Human Foot.....	By C. A. Parker	509
The Young Mother and the Fat Hog.....		512
Balancing Feats.....	By James Boyle	513
Some Medical Monsters.....	By Sidney Cummings	521
An Experiment in Cooking.....	By Milton Hastings	530
The Beef and Hot Water Diet.....	By Edward Quincy Norton	550

DEPARTMENTS—

Menus and Recipes for Three Days.....	537
Department of Motherhood.....	540
General Question Department.....	541
Comment, Counsel and Criticism by Our Readers.....	543
Virtues of Our Methods Proven.....	547

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I do not advocate Lung Culture to the exclusion of all other hygienic measures. The therapeutic value of proper diet, exercise, etc., is thoroughly understood by me and employed

PHYSICAL CULTURE

DEVOTED TO HEALTH, STRENGTH, VITALITY, MUSCULAR DEVELOPMENT, AND THE CARE OF THE BODY

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No. 6.

THE EDITOR'S VIEWPOINT

IN the past few years there has been a marvelous revolution in public sentiment as to the character and value of many of the reforms so emphatically advocated in this publication. This is the first magazine that really made any impression in the fight against patent medicine frauds. Other publications took up the reform after we had proved to them that it would not mean financial annihilation. There were many

OUR PAST ACHIEVEMENTS

editors who no doubt agreed with us as to the harm that patent medicines were doing, but publishers depend to a very large extent upon their advertising patrons for the financial support essential to continue their business. A large part of the advertising business comes from agents, and these agents often handle all kinds of accounts; in other words, they often have in charge the advertising business of a patent medicine firm, a corset manufacturer, a dealer in health foods, etc., and if a publisher should harshly condemn patent medicines and corsets, the agent might refuse to give him the advertising of other firms under his control, and you must therefore realize the reason for the silence of many editors who might really be in favor of reforms that would forever eliminate the evils to which we refer.

Patent medicines are fast losing their hold upon the public; they are being condemned everywhere. We take upon ourselves a large part of the credit for this great change in public sentiment.

Perhaps the most important reform that we have worked for diligently since the first issue of this publication, is that which stands for the promulgation of knowledge in the physiology of sex.

Prudery is being dealt fearful blows from all quarters. The prude is beginning to see himself as others see him. The time is not far distant, perhaps, when the vile minds of these human perverts will cease to influence the public. The contents of their filthy craniums cannot then befoul the minds of growing boys and girls. When the human mind is shocked by the beautiful outlines of a well-developed body, and gross and immoral suggestions appear under such circumstances, then there is need for a mental disinfectant, and men and women who are so steeped in vulgarity and vileness ought to be compelled by law to keep their mental filth to themselves.

Prudery has been scathingly arraigned in the columns of this publication again and again. There has been a public awakening along these particular lines of thought that one might almost term unbelievable. Men and women have everywhere awakened to the need of more knowledge on these divine subjects.

We take upon ourselves a large part of the credit for assisting in bringing about this vastly important reform. The time is soon coming when the principles we have so earnestly advocated will be taught in our public schools; when the various evils connected with this particular perversion will be so universally known that there will be no excuse for deviation from the path that leads to the development of complete and superior manhood or womanhood.

The principles of physical culture, not only in the building of superior vitality, but in the curing of disease, have advanced with wonderful strides. We now find our theories advocated editorially and otherwise throughout the entire English-speaking world. The value of exercise in building the health and strength that we are all seeking, is acknowledged and understood by nearly all intelligent persons. Our schools and colleges are placing physical culture in its proper sphere; they are giving it the importance it deserves in their curriculum. Drugless healing of all kinds is gaining in popular favor. Drugging is one of the superstitions of the past. The importance of scientific dietetics is nowadays realized everywhere. "Tell me what you eat and I will tell you what you are," is often repeated. The importance of proper foods in building superior vigor, or in the curing of disease is now universally acknowledged.

The value of fasting in cleansing the system and curing disease, or building increased vitality is recognized by many intelligent people.

The future for the principles that this publication has fought for during its entire existence is extraordinarily brilliant. Physical culturists in many communities are still looked upon as fanatics; they are often told they are extremists and that they go too far, but those very persons who are strongest in their criticism in many cases live to see the day when they have to turn to the very methods they have so strongly condemned to find health and strength they have failed to discover elsewhere.

Every principle that has been advocated by us has advanced in public favor with marvelous strides. In looking back over our past achievements it might reasonably be stated that our propaganda has grown and expanded to such an extent that no influence can disturb its continued growth. Even should this magazine be wiped out of existence, our principles have become so clearly fixed in the minds of thousands of followers that they would go on until their influence would be felt in the life of every intelligent human atom.

We are pleased beyond words at what has been accomplished in the past, but though our reforms have met with such remarkable favor we still feel there is work to do. The more you advance in the study of our propaganda, the more you find there is to learn. There is a whole world of knowledge which one might say has not been touched upon, and investigators of the future, I am firmly convinced, will make the science of healing and health building as exact and as definite as the science of mathematics. We are now delving on in the primary school, which means that a mighty revolution in the science of healing, and upon the fundamental principles we have laid down, will be built up, and a new science that will enlighten the world and make men and women stronger, nobler and more superior specimens of human life.

OUR usefulness has only begun. We are teaching the truths of right living; we are spreading the science of health building more thoroughly now than ever before.

We want to make **PHYSICAL CULTURE** magazine a necessity. It should not be looked upon as a luxury. You should buy a copy each month because you feel that you cannot really do your best work without it. If you should fail to find a single new suggestion throughout the twelve numbers issued during the year, I venture to say you will readily admit that as a monthly reminder of the various important features of right living it would be worth many times the price asked for a yearly subscription.

To make Physical Culture Brighter, Bigger and Better than ever
 Arrangements are now being completed to secure contributions from the world's leading authorities on diet, mastication, bathing, exercise and every subject of interest to the health-seeker.

We intend to repeat many of the good things that have appeared in former years in a more thorough and more interesting manner. We want this magazine to come into your life and be made an important part of it. If you take **PHYSICAL CULTURE** magazine in the right spirit it will enter into almost every minute of your existence. It will tell you how to eat, what to eat and when to eat. It will enter into every detail of your life which is now influencing your bodily condition for good or evil, and you might say that this would practically cover every wakeful moment.

It would be impossible to give in detail the many good things that we will be able to present to you during the coming year. We would like, however, to call your attention to a few of the most inviting features.

IN connection with the series of articles now being published on Physcultopathy, there will be a series of articles on the treatment of various common diseases. These articles will deal plainly and concisely with the various causes and symptoms of

TREATMENT OF DISEASES

these complaints, and will also give our readers the various natural remedies that can be used at home without additional expense. To truly compute the value of knowledge of this kind to one who might be in need of it, would indeed be difficult. It will often save heavy doctor bills, and what is more important it will frequently mean the avoidance of pain, suffering and even death. There is hardly one of our readers who does not occasionally find knowledge of this character essential, either in his own case, or those to whom he may be closely related.

We might add that this series of articles, after it has been published in the magazine, will be considerably extended and published in book form. The price of this book will probably be not less than \$5.00. Almost the entire material to be used in the book will be published in the **PHYSICAL CULTURE** magazine, and you will therefore be able to secure this information in this series of articles for considerable less than half the price of this book.

Many of our friends are greatly puzzled when they endeavor to apply our principles in the treatment of various diseases of children. Though one may be ever so firmly convinced of the value of our propaganda, when they find themselves facing the possibility of death they are often compelled, against their own judgment, to adopt methods in which they have no confidence. We have received so many

HOW TO TREAT DISEASES OF CHILDREN

letters making inquiries as to the treatment of various diseases of children, that we have concluded to devote a series of articles to this particular subject. Our friends who have the care of children on their hands will find the careful reading of these articles will be of very great value. They should not only be read—they should be carefully retained for future reference. Thousands of little ones pass away into an early grave, made to suffer all sorts of tortures through drugging methods, all of which can be avoided. The mortality record among growing children is appalling. You might say this high death rate is due entirely to the mistakes that are made in their care and treatment. There is absolutely no need for the use of drugs in the treatment of growing children. The nervous organism of a growing child is almost as sensitive as a photographer's negative; is almost as easily marked for good or bad, and the drugs which may be used for relieving a temporary ailment are often

The Editor's Weekly Lectures at His Chicago Healthatorium

On every Tuesday evening, the editor delivers a lecture at the Bernarr Macfadden Healthatorium, 42nd Street and Grand Boulevard, Chicago, Ill., in connection with a physical culture entertainment. No charge is made for admission, and all readers are cordially invited to attend.

the cause of defects that cling throughout one's entire life. The statement can easily be made that nearly all deaths of growing children are caused by ignorance concerning the evils of those drugging methods of treatment. Within this series of articles a complete and detailed description will be given of the various methods of treatment that can be used in remedying diseases of children.

WE have not been entirely satisfied with the menus that have been presented to our various readers in recent issues. It is our intention throughout the coming year to devote some of our space to attractive menus of cooked foods. The previous menus that have been presented really contained so many suggestions for various meals that it would be difficult for one to pick out the articles that might attract them. The menus that will be presented in future issues will contain only the variety that is ordinarily used in preparing a home meal. For each one of the dishes that are suggested a recipe will be given, and we will try and make these recipes as attractive and valuable as possible to our readers during the coming year.

MENUS OF COOKED FOODS

There is a great deal of interest among our readers in the preparing and combining of raw foods. It is our intention during the coming year to present some excellent raw food menus that we are certain will not only prove of very great interest, but at the same time will provide our friends with suggestions for some very appetizing meals. The idea of living solely on uncooked food is new. It might be termed revolutionary. To those who have not investigated its possibilities our theories may seem amusing, but raw or uncooked foods have come to stay; their popularity is constantly growing. As a wholesome health-building dietary it cannot possibly be equalled. When it is known how many attractive and appetizing dishes can be prepared from uncooked foods a dietary of this kind will be far more attractive.

MENUS OF RAW OR UNCOOKED FOODS

It is our intention to present during next year various menus from which one can prepare a simple or an elaborate meal. The description of methods of preparation will be plain and concise and will enable one without additional information to fully prepare various meals that will be definitely described. For those searching for a wholesome and health-building dietary these various uncooked recipes will be especially valuable. Many of these recipes will be valuable even to those who are in the habit of using cooked foods, as they can be added to the ordinary cooked meal and be greatly relished.

UPTON SINCLAIR, the well-known author, beginning with the January issue of this publication, will be one of our editorial staff. We cannot definitely promise just what he has in store for us, but you can depend upon his efforts being interesting to an extreme degree. The serial story from his pen now appearing in our pages will unquestionably be read with a great deal of interest. However, in addition to this story he will write several special articles, and is preparing to comment, from a physical culture standpoint, on various happenings that will no doubt be of much interest to our readers.

A NOTABLE RECRUIT JOINS OUR RANKS

It will unquestionably add to the interest in Mr. Sinclair's work to know that he has become a physical culturist from every standpoint. After a few months sojourn at a Physical Culture Sanatorium he states that he was cured of ailments that ordinary methods and noted physicians and scientists had failed to noticeably improve. Our readers will no doubt heartily welcome this gifted author into our ranks. We are sure that his tongue and pen will greatly assist in advancing our principles.

PERHAPS the most interesting and valuable feature of the various good things that we will promise our readers for the coming year, will be the published results of various experiments we expect to carry on with a view of determining the value of various diets. We hear a great many opinions expressed as to the value of different diets, and as a rule the conclusions are derived largely from personal experiences, or from various unreliable reports that have been indifferently tabulated.

COSTLY EXPERIMENTS FOR OUR READERS' BENEFIT

Now we are desirous of forming some definite conclusions as to the values of various diets, and it is our intention during the year to carry on some experiments with animals and also men and women of different ages, testing the strength and endurance previous to, during, and after the experiments. Naturally these experiments will be very expensive, especially when made upon human beings. We are satisfied the results will be worth far more than the price of the magazine.

During the coming year it is our intention of presenting a series of articles on Beauty Culture. In preparing this series the combined knowledge of various beauty experts will be used. In other words the special recipes and business secrets of these specialists will be presented to our readers for use in their own homes.

BEAUTY CULTURE

All women are desirous of being beautiful; even the male sex is not entirely proof against similar desires. A bright clear eye, a smooth clear skin, and the general appearance of health and wholesome comeliness and which is associated with beauty, is well worth the efforts that may be made to secure these characteristics. All the various methods that can be recommended for the purpose of improving one's personal appearance will be presented in this series. Methods for removing various defects, pimples, moles, etc., care of the hair, eyes, teeth, finger nails, will all be given deserved attention, and though this series will be especially for women, much of the information presented therein should be just as interesting to men.

NEARLY all colleges are co-educational. Men and women are attending and securing rewards that come from their efforts in these institutions of learning. Advanced thinkers in many cases now readily admit that it is a mistake to separate the sexes. Growing boys and young men often become uncouth and even vulgar largely because they do not come in contact with the refining influences of feminine society.

COMBINING THE Y. M. C. A. AND THE Y. W. C. A.

It has therefore been suggested that some interest be aroused among prominent people with a view of suggesting that the Y. W. C. A. and the Y. M. C. A. change their policy of excluding the opposite sex. In other words it is suggested that these two associations that are now distinctive be combined into one great powerful body, and that they work together hand in hand for the one purpose of advancing the moral and physical welfare of mankind.

The statement has been made, and we distinctly believe it is true, that such a combination would increase the strength and influence of these organizations tenfold.

In addition to the publication of an article by the editor on this subject, the views of many prominent men and women in this work will be obtained and published.

Frequent reports have reached us that indicate that the moral influences in our various colleges are not anything like what they should be. Many young men who attend these institutions for the distinct purpose of adding to their mental qualifications, come in contact with environments that are easily inclined to lead towards immoral dissipations of all kinds.

MORAL LIFE IN OUR COLLEGES

We are preparing a series of articles that will disclose conditions as they actually exist in our various institutions of learning. These articles will not be colored in any way, but will simply be a description of the actual experiences of various young men who are attending these great institutions.

WE are strongly desirous of publishing a series of articles that will give us the inside secrets of the drugging profession. We have not yet found a man who is able or willing to properly prepare these articles, but we think, however, that such a man will soon appear, and if one of our medical friends cares to take upon himself the responsibility of preparing a series of articles of this kind, in which he will tell the whole truth and nothing else but the truth, we will be glad to hear from him, and we assure him in advance our price for the work will be liberal if he can make his story interesting.

CONFESSIONS OF A DOCTOR

We would also like to publish a series of articles that will give us some inside details of commercial surgery. Many a man could weave a tale from actual experiences that would literally make your hair stand on end, and we really would like to have stories of that kind. We want to discourage the operation hobby and want actual inside facts that come direct from the operating table. We want to make the public realize the terrible character of many of these so-called necessary operations, and if there is a surgeon or nurse or anyone in close touch with commercial surgery that will tell us the truth we assure him we will make it interesting financially, and will be glad to publish the results of his efforts for the benefit of our readers.

CONFESSIONS OF A SURGEON

IT may be of special interest to our readers to know that all the various remedies we are advising for treatment of various common diseases, which will appear in future issues of our publication, have been tried out to a large extent in the editor's sanatorium experiences. They will not be experiments; they will be facts. The advice given will be the result of twenty-five years of experience, and has been derived in

THE EDITOR'S SANATORIUM EXPERIENCE

many instances from actual experiences of hundreds, and in some cases, thousands of patients. It might reasonably be stated that no physician has ever had the opportunity to learn from experience that has been granted the editor of this publication. Not only has he come in personal contact with thousands of patients, but in former years he advised thousands of patients by mail, and in addition to these opportunities he has indirectly advised thousands of people through his various articles, and has received letters giving the details and results of following this advice. We might therefore reasonably state that from one to two hundred thousand patients and pupils have passed through the hands of the editor of this publication—that is, who have followed his advice either directly or indirectly.

Future issues of this publication will give you actual practical results of this prolonged and costly education that has been secured by the Editor, and if you miss a single copy of the **PHYSICAL CULTURE** magazine for the coming year, you may lose a hundred times its value because of the practical suggestions which that particular issue may have contained.

Bernarr Macfadden

REMOVAL OF EDITORIAL DEPARTMENT.

Address all mail intended for the Editorial Department to BERNARR MACFADDEN, the Bernarr Macfadden Healthatorium, 42nd Street and Grand Boulevard, Chicago, Ill.

All orders for subscriptions and premiums, and all correspondence of any ordinary business nature, should be addressed to **PHYSICAL CULTURE PUBLISHING COMPANY**, Flatiron Building, New York City.

Developing a Powerful Physique

The Science of Physcultism

WEIGHT-LIFTING WITHOUT WEIGHTS—THE DEVELOPMENT OF THE BODILY POWERS THROUGH PHYSCULTISM, THE SCIENCE OF ACQUIRING STRENGTH THROUGH SPINAL DEVELOPMENT

By Bernarr Macfadden

LESSON No. XI.

IN this lesson I am giving special attention to what might be termed the central portions of the body. Some of the most important vital functions are performed in these particular regions. Therefore, strength in this particular part of the body is especially important. Though external muscular vigor is a great desideratum, its importance is not to be compared to the value of vigorous internal vital organs.

The exercises presented in this issue will materially affect the entire vital organism—although, of course, all the organs that lie adjacent to the central portion of the body will be more thoroughly affected than would other parts. When taking these exercises one should always continue the particular movement one is performing until there is a slight feeling of fatigue. When you continue each exercise in this manner, the circulation of the blood is accelerated to a marked degree in the particular muscles you are using, and more benefits result than if you were to change frequently, taking each movement but a few times.

I hardly need add that special attention should be given to deep breathing, and that thorough ventilation of the room in which the movements are performed should be maintained at all times. This is necessary in order to furnish the fresh, outdoor air which is essential, to furnish the oxygen necessary to build the strength and health that each and every physical culturist is striving to obtain.

Exercise 61 is quite plainly illustrated by the photograph we reproduce. Rest the weight of the body on the feet and

hands, and raise the central portion of the body as far upward as possible. Now, while the body is in this position, turn shoulders and chest far over to the right. From this position, twist the body until it is in an opposite direction, that is far over to the left. This is quite a vigorous exercise and requires considerable strength of the neck before it can be attempted. If it is found especially difficult, the central portions of the body can be lowered each time the body is turned in the direction mentioned, and the movement can be more easily performed.

Exercise 62 consists simply of the movement necessary to raise the central portion of the body as high as possible, the weight of body resting on the heels and the back between the shoulders. When taking this exercise lie prone on the back, keeping the legs fairly rigid, raising the central portion of the body as high as possible. This exercise may be found a trifle difficult in the beginning, but practice will soon enable one to perform it with comparative ease.

Exercise 63 is shown in reproductions of photographs numbered 63 and 64. The first position is shown in photograph 63. Place the toes on the side of a chair of moderate height, resting the large part of the weight of the body on the hands as indicated. Now keeping the body and legs rigid, straighten the arms and raise the body as indicated in figure 64. This is a fairly strenuous exercise and is certain to vigorously use the muscles of the principal part of the upper arm. It is also a splendid movement for expanding and developing the chest. When assuming the position in figure Number 64,

lower the body to first position, and repeat until a feeling of fatigue is induced.

Exercise 65 is illustrated by photographs 65 and 66. This exercise will not be found especially difficult unless the arms are very weak. Partially recline on the floor, as shown in photograph 65, placing the palm of the left hand on the floor as shown. Now, bracing yourself, raise the central portion of the body as high as possible, at the same time keeping the left arm rigid, the body assuming the position illustrated in Number 66. This is a splendid exercise for bringing into vigorous use the lateral muscles of the abdominal region, and will be found especially advantageous in developing abdominal strength. In raising up to the position shown in Number 66, lower the body to first position, and repeat until a feeling of fatigue is induced, after which take the same exercise with position of the body reversed—that is, resting the weight of the body on the right arm instead of the left arm.

Exercise 67 consists of performing the movements shown in figures 67 and 68. In the first position, as shown in figure 67, it will be noted that the heels are placed on a table and the weight of the body is resting on the palms of the hands and heels. Now from this position raise the central portion of the body as high as possible, at the same time bringing the head far backwards, as shown in Number 68. This exercise is especially valuable for bringing into active use the muscles of what is termed the small of the back, and the large muscles on the posterior portion of the hips. The movement very vigorously flexes these muscles, and is especially valuable for developing the strength of these parts—which is so important a factor in maintaining the highest degree of general physical vigor. I have previously referred to the importance of a straight, strong spine. There is no exercise that so vigorously brings into active use the muscles of the back in the region of the back as the one illustrated here. After assuming the position shown in photograph 68, return to the former position, and repeat the movement until there is a distinct feeling of fatigue induced.

The movements illustrated and described in this lesson called into play many muscles which are not involved in most exercises or in the performance of ordinary manual labor. The uncommon nature of the movements commend them to those who are interested in perfecting their physique, and in maintaining a degree of health and efficiency in every organ and muscle of the body.

While some may find the exercises difficult of execution in the beginning, a little persistent practice will enable any one to perform them with pleasure and profit. They will be found unusually effective in maintaining the greatest possible activity of the internal organs, and for this reason the movements are well adapted to the use of women as well as of men. The uncommon nature of the movements should not deter members of the fair sex from indulging in them. Even women who have ignored the great value of systematic exercise in keeping the body attuned to the highest pitch of perfect health will find that a reasonable number of trials will enable them to indulge in these exercises, and that the results they will secure will be most beneficial.

It can not be too frequently repeated that not only do exercises of the nature of those embodied in this lesson improve the carriage of the body and make symmetrical the entire form, but that they add wonderfully to one's nervous energy and vitality.

Women as a class possess perhaps even greater vitality than men, but in most cases their energies are so poorly controlled or diverted to such useless ends as to place women in the unwarrantable position of being of immeasurable weaker physique than man. This condition should not exist. The utilization of the nervous force which women so frequently waste upon their attire, their affairs, and their emotions in wholesome and rational exercise, and a proper degree of attention to the needs of the body will bring gratifying results, and will enable those women who have the intelligence and independence to think for themselves to live more fully and completely than they have ever even dreamed of.



A wing run stopped by a tackle.

Football as a Builder of Body and Brain

A DEFENSE OF FOOTBALL AS A SPORT, WITH A DISCUSSION AND PHOTOGRAPHS OF THE MODIFIED RUGBY GAME

By William Unmack

The game of football reminds one of a pitched battle; in one sense it really is a battle. It is a conflict for supremacy. To be sure it is strenuous, but there are few rewards in life that can be secured without vigorous endeavor. Football might be considered the counterpart of the strenuous battle that one must wage throughout life in order to attain success. Although it is not a pastime for the weakling, it will make the strong stronger and can be heartily commended as a game that will develop manliness.—Bernarr Macfadden.

HOWEVER just may be the condemnations at times voiced against the game of football, this favorite sport of the autumn months is entitled to a certain amount of praise. To be sure, football is a rough game; but when played according to both the letter and the spirit of modern rules, and by men who are strong and carefully trained and who strive to be clean, honest athletes, the game is not nearly so rough as the casual observer imagines.

Football is not a game for weaklings, either physical or moral. The man who is not heavy enough or strong enough to endure the taxing demands of this game should seek some form of exercise for which he is fitted. The man who does not have the moral stamina to control his appetites and his temper ought to take up fasting instead of athletics. Football is a game for men who have strong bodies, clear minds, and clean

morals, and who desire a thrilling sport which will tend to develop sturdy manhood.

The right kind of a player, one who goes into the game to do his best, win or lose, who strives in every way to bring honor to his team and true development to himself, may have a few bruises, and sprains, or even a broken bone among his fond recollections; but he will also enjoy satisfying memories of happy experiences on the athletic field. He will appreciate the fact that there he received most excellent training for use in his honest struggles for true success. Football helps to develop a strong, healthy body, a quick, active mind, and a character of courage, fairness and self-control.

The general uprising against intercollegiate Rugby football at the close of the 1905 season all over the country, which resulted in the revision of the rules, is



A well formed scrum. Backs in proper positions for receiving ball. (Canada vs. Stanford.)

still fresh in the minds of all followers of football. On the Pacific Coast, as elsewhere, there was the same feeling of discontent at the intercollegiate game as it was then played. The public and the press alike were unanimous in their condemnation of the game and the result was that in the East the authorities revised the rules and the West awaited the result of their conference. The revised rules came out, but were not satisfactory to the "powers that be" at the two great universities of the Pacific Coast, viz., Stanford and California. These two institutions adopted the Rugby game as played in Great Britain and her colonies. That was in 1906, and since then the game has spread rapidly over all parts of the Pacific Coast, and even as far inland as Nevada. The game has made such wonderful progress that in less than three years these men of the Pacific became so proficient that they were able to compete on an equal footing with the world-famous "Wallabies" of Australia, who toured the globe this year.

Rugby and intercollegiate football are different in every respect. In the first place, fifteen men form a Rugby team. The game is played on a field 110 yards long and 75 yards wide. The goal posts must exceed eleven feet in height and are placed 18 feet 6 inches apart, joined by a cross-bar 10 feet from the ground.

The field is divided off as follows:

At each end of the field chalk lines are placed and designated the "goal line."

Twenty-five yards from each goal line another line is drawn clear across the field which is known as the "25-yard line." In the centre of the field another line known as "half-way" reaches from one side to the other. The lines on each side of the field are also properly drawn and are called "the touch-lines." These lines are continued twenty-five yards back of the goal lines at each end, and this space is known as "in-goal." An imaginary line joins the ends of these touch lines and is known as the "dead-ball line."

There are several different fashions in which the players take the field when taking up their different and respective positions. The formation most generally used is what is known as the "four, three-quarter" system, with a flying half back and scrum half. The forwards in most games pack the scrummage in the two-three-two formation, with the wing forward on the outskirts. It is these formations that I will use in describing how the game of Rugby is played. In the first place the position of the players is an essential matter. One player known as the "full-back" takes his position immediately in front of the goal posts and is the last line of defense. Four players in a line at equal distances from one another, stretch across the field, and a few yards ahead of the full back, are known as the "three quarters." The next position, generally known as the "flying half" or "five-eighth back" is occupied by one player, who in turn is a few yards ahead of the three quarter line. Right in front of the

"flying half-back" and immediately behind the forwards is a player known as the "scrum half-back." In the next position eight men take places and are called the forwards. When a "pack" or "scrum" is formed seven of these men form the pack and the other man is known as the "wing forward." This last position is probably the most criticized one in the game, the critics claiming that a wing man is an encumbrance to his side, and furthermore, is the cause of most of the penalties against his side. Be that as it may, the position has been played for a number of years, but at last the different Rugby Unions of the world are taking a stand against this floating position, and it is more than probable that it will soon be abolished.

Having given an idea of the positions of the Rugby players, I will endeavor to explain the functions of each man.

The full-back is the final defender of his side's goal line. For this position a man who is a sure tackler and a fine punter is generally chosen. He at all times remains in the back field. As his team approaches the opponents' goal he follows the play up, but is always the last man of his side and must be ever on the alert to receive the ball unexpectedly, or stop a rush. The full-back also drops back when the opposing players are forcing his team towards his own goal, at all times keeping in a proper position to

defend his goal line. It is not necessary for a full-back to be an "even timer." It is his object to gather the ball in neatly, and run as far as practicable with it, and then punt it down the field as far as possible with the object of making it go out of the touch as near his opponents' goal line as he can. It is only on rare occasions that one will see a full-back make a long run, and whenever he does leave his place unprotected, one of the center three-quarters always drops back and so covers the most vital point in the defense.

The next players, the three-quarters, are known as the scoring line, although any man on the team can score if the opportunity presents itself to him. It is the three-quarters who need to be swift of foot, and heady dodgers and runners.

The man on the left wing three-quarter is known as the scoring wing, and is generally the fastest man on the team. When there is a possibility of a try being gained, the spectator in many cases, will see the ball travel out to the left wing. The two center men of the three-quarter line are the ones who receive the ball direct from the flying half-back, who in turn has received it from the scrum half-back, as soon as the scrum men released it.

The centre three-quarters, as a general rule, run as nearly on a straight line down the centre of the field as possible.



Stopping a "dribbling" rush. In this instance, the ball was being rapidly advanced by short, accurate kicks.



A passing rush. One of the exciting features of Rugby.

This is to draw their wing men in toward them, and an experienced center man, rather than try to dodge too much, will transfer the ball by a "pass" to either of his wings as soon as he sees a man about to tackle him. The pass will not take place until the very instant the tackler dives at his man.

The right wing three-quarter is known as the defensive wing, and in this position, as with the full-back, a first class tackler is required. The defensive wing plays immediately opposite the opposing scoring wing man. The half and five-eighth backs are the ones who in most cases start the fine spectacular open-work of passing rushes for which rugby is noted. The half-back plays immediately behind the scrum, and as soon as the forwards heel the ball out to him he quickly transfers it by a sharp, low pass to the five eighth-back. This player immediately starts on the run and keeps the ball until he is about to be tackled. Just at that instant, he transfers the ball to another player (generally the centre three-quarter). And so the passing rush goes on from one player to another until the ball is finally grounded behind the opposing team's goalline, and a "try" scored.

These are the tactics of the backs when on the attack, if hard pressed on the defense altogether different methods are used, especially if the play is within the defenders' 25-yard limit.

So much for the duties of the back division. Now we will look into the part a forward has to take in the game.

If a "wing forward" is used there are only seven men in the pack. If there is no "winger" there will be eight men in the pack.

Two men are known as the front row. They bend over from their hips with the

body thrown out at right angles. Their inner arms are thrown across one another's backs below the shoulder blades, and their shoulders rest against their opponents' shoulders.

Behind the "front row" three other men, known as the second rank, take their positions. One man, the center forward, bends down between the front rankers, and throws his arms over their backs, thus holding them together, and at the same time the center man throws his full weight against the front men.

The other two second rankers bend down, one on each side of the center man, with their inside shoulder against the front ranker, and their inside arms across the back of the center forward.

The last two men take positions in a similar manner behind the second row between the center man and each of the outside second rankers, with their arms across one another's back.

Now we have a solid body of seven men, each holding the other and all putting their weight forward against a similar combination of their opponents. This is called the scrum.

The photo of a game played by Canada vs. Stanford, which we reproduce will give a good idea of the scrum formation and the positions the wing forward and half-back assume.

The game is played in two halves of forty minutes each, with a fifteen-minute interval between them. Once the game is started any man (provided he is on side), can pick up and run with the ball, or kick it. If the player puts it down over his opponent's goal line a "try" is scored, which nets his side three points. From this try a kick at goal is allowed, and if successful two more points are scored.

No "interference" is allowed in Rugby. For instance a player, or players, cannot prevent opponents from getting the ball. If this should happen the offending side would be penalized for "interference." A player cannot tackle an opponent until the latter actually has the ball in his possession and a player cannot hang around "off side" on the chance of tackling his opponent (who is waiting for the ball), the moment he receives it. "Off-side" brings more penalties in Rugby than any other breach. A man is off side, if he is in front of the ball when kicked by one of his own side. There are other ways a man can be offside, but this is the most general. The ball cannot be hit forward or "propelled forward by the hand." This breach is termed a "knock-on" and is punishable with a scrum. Neither can the ball be thrown or passed forward. This is called a "forward pass" and likewise results in a scrum. The ball can be run with and passed from one player to another, always provided it is never passed forward. It is these "passing rushes" that lend such excitement to the game and on many occasions in an experienced passing team it is not an uncommon sight to see a rush go from one end of the field to the other, fully a dozen different players taking part. If the ball goes over the side lines (touch lines), marking the sides of the field of play it is called "out of touch." The ball is brought into play again from touch as follows:

The opposing forwards line up in the field of play at the spot where the ball "went out." The half-back (as a general rule), then throws the ball in (from

the spot), and at right angles to the touch line. Both teams strive to get the ball and the play goes on.

A player can kick a goal from the field of play; if such a goal is kicked it is known as a "dropped goal" and counts four points to the kicker's side. A dropped goal, however, can only be obtained by a "drop kick;" a "punted goal" is unknown in Rugby.

Much the same course of training is done for Rugby as intercollegiate. The University of California, however, has tried training with physical culture methods and the results attained were highly satisfactory. The following article from the *San Francisco Call*, speaks volumes for the training of a football team on strictly physical culture lines:

"Professor Magee's method for the training and conditioning of an athletic team, while novel, is meeting with success. In every respect, the course is on physical culture lines, as used by the world-renowned Bernarr Macfadden. Again Magee also has put in ideas and theories to suit the climatic conditions, etc.

"We often hear of individuals using physical culture methods for getting into condition, but this is probably the first time these methods have been used with a large team of athletes.

"That this system is successful was demonstrated on Saturday."

Rugby does not require a certain class of athletes to play it as does intercollegiate. A man of any size, no matter how small can become expert at Rugby. Again the game gives a greater number of players an opportunity. But one of the most important things (and the three years it has been played on the Pacific Coast has positively proved it to be correct), is the elimination to a very great degree of serious accidents.



A perfect pass. A good example of the spectacular, open playing in Rugby.



Photograph by Pictorial News Co., N. Y.

Scene on Saturday afternoon at Van Cortlandt Park, New York City. The two school girls shown in center of photograph are fine skaters.

An Ideal Recreative Exercise

By Norman Earle Jones

THE VALUE OF SKATING IN IMPROVING VIGOR AND HEALTH. ITS SUPERIOR POINTS AS A RECREATION

There are few, if any, exercises more pleasant or profitable than skating. It demands the use of nearly all the muscles of the lower limbs, and in addition it requires vigorous action on the part of the lungs in order to secure the necessary amount of oxygen. As an exercise for increasing vitality, it can hardly be excelled, and the enlightening comments of the author in the article below should be of interest.—Bernarr Macfadden.

IF there is one exercise which never fails to make the blood tingle, and which invariably brings a flush to the face of even the anemic performer, it is skating. For, apart from the mere muscular efforts it involves, the sheer pleasure of the sport is well-nigh sufficient to bring this about. The very fact that it yields such pleasure is evidence of its beneficial character, for we may generally trust our instincts in this respect. Consciously or unconsciously,

we naturally turn to those activities and conditions which give us pleasure, and avoid those which are unpleasant. Indeed, down through the ages, or rather,

up through the ages, in the course of the progress and development of all living things, throughout our evolution from the lower forms of life, from the primordial quickening jelly, up through invertebrate and then through vertebrate creatures, from hairy forms to those less hairy, and from savage



Photograph by Pictorial News Co., N. Y.

An improvised sail for use when the breeze is favorable.

estates to our present less savage one, we have constantly advanced through the following of these instincts, dreading and shunning pain, and seeking comfort and happiness.

True it is that there are pleasures and pleasures, and that men often find momentary enjoyment in many unwholesome, even harmful recreations, mistakenly called recreations—though this is seldom the case with children. If it may seem from this that our instincts may lead us astray, we may distinguish between those normal, healthful pleasures which we afterward look back upon with a delight and satisfaction almost equal to that with which we may have indulged in them, and those other more or less unnatural pleasures which we do

advantage to persons of that class. But they cannot have the wide appeal nor the great general value to the community at large which mark those pastimes that are as beneficial and as well adapted to the old as to the young, to the wife as to the husband, to the parent as to the child.

In some localities, and especially in Holland, which is pre-eminently a country of canals, of water highways, indeed, one might almost say a "land of water," the practice of skating is universal throughout the colder seasons, men and women, young and old, all using this method of going about, not merely for pleasure, but for business and convenience. In many parts of America, however, the season for skating is limited,



Photograph by Pictorial News Co., N. Y.

Skating in Prospect Park, Brooklyn, provides healthful exercise for city folk.

not recall with such delight, but rather look back upon with some distaste, if not actual disgust. Even the half-deadened instincts of the pervert usually assert themselves in this, and point out what is normal and abnormal, wholesome and unwholesome, through retrospective relish or the reverse. And skating answers grandly to this test.

Another of the very best tests of the value of any form of sport is its adaptability, not merely to one sex or to persons of any special age, but to all classes irrespective of sex or age. There are various recreations which are peculiarly suited to either one sex or the other, being in many cases also restricted by their natures to a certain, definite age, and which are of almost inestimable physical

owing either to lack of ice or to heavy snowfalls under which it is sometimes buried. But this is all the more reason why every one should make the most of the opportunity while it lasts. For the most part, however, indulgence in this exercise is limited to the young, who find a large surface of smoothly frozen ice one of the greatest treats under the sun, or, as frequently happens, under the moon, for skating in the evening is a delightful possibility for those who work or attend school by day. The fact that married men, married women and others mature in years do not more commonly take advantage of the privileges thus afforded, is due largely to the fact that, to our shame be it said, the vast majority of our adult, "settled down" population in-

dulge in absolutely no physical recreation whatever, though they may be devoted in many instances to card parties, theatres and other indoor amusements.

Those who desire a fairly mild form of exercise, one which will arouse the circulation and quicken the action of the heart and lungs, though without making too great a demand upon their sometimes limited muscular powers, will find in skating a pastime exactly suited to their needs. On the other hand, those who prefer an exceedingly strenuous sport, of a nature to give full scope to their maturely developed strength, will also be able to find what they are looking for in the more vigorous play of the thin steel blades upon the ice. For it is in just this respect that skating commends itself to all sorts and conditions of men and of boys, of women and girls. It can be made as easy or as energetic as the whim or the physique of the individual may dictate, and in either case will yield a pleasure all unlike that afforded by any other means. Smoothly and gracefully gliding over long stretches of mirror-like, frost-hardened water, with that long, rhythmic swing, must be almost the next thing to flying, as far as sensations go. And the exertion for this may be of a mild or moderate character, whereas in skating for speed, the possibilities for severe and even violent endeavor, if one chooses, are unlimited. Besides, there are games that may be played on the ice, which may be made as strenuous as the players themselves desire. And there are trick and fancy skating, for the development of grace. For these reasons, and because of its excellent physiological benefits, skating answers all of the requirements of an ideal exercise.

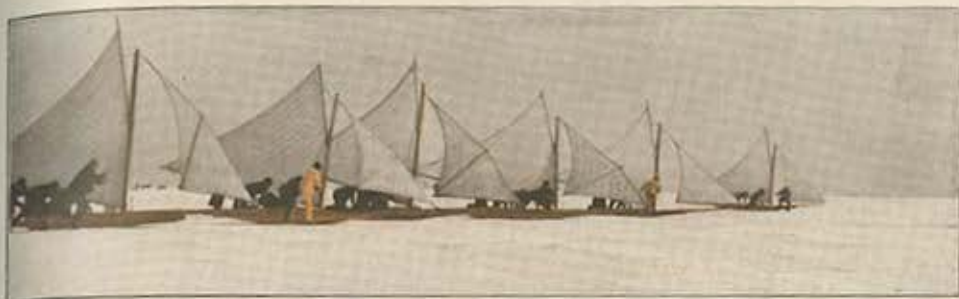
The fact that it is an essentially out-of-door pastime is another consideration greatly in its favor, inasmuch as all open air activities are infinitely to be preferred to those carried on within the confines of walls and windows. For along with the importance of exercise in creating a demand for an increased supply of oxygen and promoting deep respiration, there goes the necessity for supplying pure air for such deep breathing. It is for this reason that skating is the kind of an exercise that cures a cold, relieves a head-

ache and gives one the old-fashioned appetite that insures a robust digestion. The cold winter air adds to the sport a bracing, invigorating influence which is most valuable.

In its influence upon the heart and lungs, as well as in its general constitutional effect, skating is superb. It calls into play and strengthens not alone the muscles of the legs, but to a large extent those of the sides, back and torso generally. In short, it involves the large and important muscles which are concerned with locomotion, either in walking or running. It is apparent that even a moderate use of these large muscles will call for an increased supply of blood and of oxygen, to an extent beyond that occasioned by a far more intense contraction of some of the smaller and less important muscles. Accordingly, even in leisurely skating, the heart and lungs are aroused to the most healthful activity, while the increased circulation and the stimulation of the functional system result in great constitutional benefit.

The alternate strokes upon the ice of the right and left legs provide for the alternate relaxation of the muscles of each side, a great advantage, this provision for intermittent or frequent relaxation being one of the essentials of an ideal exercise.

Lack of space makes it impossible for to give any detailed information in regard to learning to skate, though the writer would suggest briefly for the sake of beginners that they cannot expect to skate well as long as they depend upon their legs alone. They should employ the muscles of the upper body, these acting in harmony with the legs, for a great part of the mastery of skating lies in the "swing," the graceful shifting of the balance from one leg to the other. If you find your progress slow, and your efforts hard work, you will know that you are not doing it right, for skating is anything but laborious, and you will only find yourself on the right track towards the mastery of the sport when you learn to do it with ease. This, indeed, is a rule which will apply to a large extent not only to other sports and exercises, but also to artistic, musical, literary and various other human activities.



Racing Scooters lined up for the start.

The Scooter, a Queer Craft

By H. Mitchell Watchet

A NOVEL FORM OF BOAT, SUITABLE FOR WINTER OR SUMMER USE, THAT IS SURE TO PROVIDE EXHILARATING EXERCISE

Here is a craft that at least has the distinction of being uncommon. It ought to furnish sport equal or superior to automobile racing, and, to a certain extent, minus its dangers. It should certainly furnish all the excitement that one might be craving, particularly on a windy day.—Bernarr Macfadden.

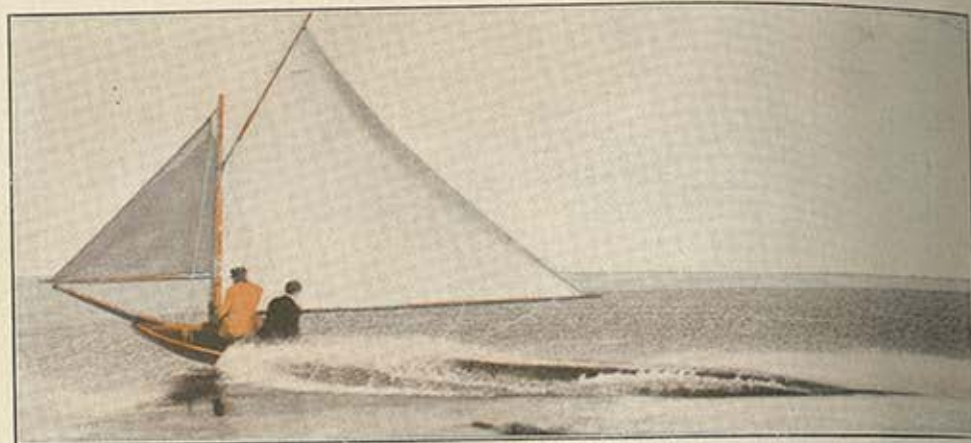
THE scooter is a craft that furnishes a most exhilarating and wholesome sport. It is more or less peculiar to the Great South Bay of Long Island, New York—that eighty mile stretch of salt water which is bounded on the north by the mainland and on the ocean side by the narrow sand-bar which is a distinctive feature of the island's geography. It is true that in Moriches, Shinnecock and Great and Little Peconic Bays the scooter is not altogether unknown, but in these latter instances, it is rather an incidental than an essential of the cold weather, as it is in the case of the Bay first named. Also, the craft has come into being by reason of winter conditions which are hardly to be duplicated outside of the territory in question. Given the ice-sheet which will cover placid salt water after a few days' hard freeze, split this ice in some places and hummock it in others by means of tidal currents and comparatively warm bottom-springs, the waters of which necessarily float upwards, let there be fairly wide spaces between floe

and floe and you get a state of affairs in which the ice-boat proper and the ordinary sailing craft would be equally useless. It is right here that the scooter comes in, and its simplicity of plan and construction are by no means the least of its several good points.

Take a flat-bottomed gunning punt that will hold a couple of persons; fasten stout runners on her which extend from stem to stern on either side of the keel; rig her with a main-sail and jib and tackle that allows of the quick handling of the canvas; have on board an oar for paddling when necessary, and an ice-hook, and there you are, ready for a clip with another craft or a cruise up and down the Bay if the fancy so strikes you.

Such a craft can be readily carried on land by two men to the launching place, and its cost need not exceed fifty dollars.

It will have been gathered by what has been written, that the scooter is equally at home on ice or on water. To which may be added that it travels from one to the other with a speed and a lack of jar



Taking to the ice from the water.

that, considering all circumstances, is extraordinary. If the start is made in water, it goes along until it encounters a cake of ice. Now it is an axiom of scootering that the craft will surmount any obstacle over which its bowsprit can project, the upsweep of its bows and its runners enabling it to perform the feat. Hence, the craft when it encounters ice, rises up on top of the latter and sweeps swiftly and smoothly along at a rate which those on board scarcely realize, until water is again met with on the further side of the floe. A lively and holding breeze on the beam is preferred by the scooter. Given this and proper handling, and the craft does its work with a sort of crisp rush that is inspiring. It furnishes an ideal physical culture sport.

Those terrors of the ice-boater, breaks or hummocks, are ignored by the scooter and instead, it shoots over them with ease and facility. The sport which the craft thus affords is, as one enthusiast remarked, "automobiling, minus fear of arrest for breaking the speed laws, risk of conflagration or dread of bursted tires or broken-down machinery." It is also claimed that no other "sport of motion" furnishes so many and varied forms of excitement. Perhaps when the aeroplane becomes a thing familiar, it may compete with the scooter in the respect cited. But at present, the latter seems to stand in a class by itself, if its adherents speak the truth.

For all that, the scooter of the ordinary

type isn't free from defects. Thus, owing to the flatness of its bottom, and want of rudder and centreboard it cannot be held true on its course for more than a comparatively short distance, when it strikes clear water. The steering on ice is done by clever handling of the sails. But such handling will not overcome the tendency to drift to leeward when the craft takes water. However, the scooter has been recently given that attention from boat builders of repute which it so properly deserves, and the probability is that in the near future, it will have its present defects modified or eliminated altogether. Already there are scooters with droop rudders and auxiliary power in the market. Some good examples of the new type were to be seen at the last Sportsman's Show at Madison Square Garden.

To call a scooter an amphibious craft, isn't so much of a misnomer as would seem at first sight. Apart from its being equally at home on ice and water there are a good many instances on record on the South Shore of its having been seen careering along the streets of the Bay villages. This has been brought about by a rapid frost following hard on a heavy rainstorm which in turn was preceded by snow and freezing. Then have scooters been hauled ashore and made good time along the inviting surfaces of the thoroughfares. On the other hand, snow on the ice of the Bays or slush-ice will not stop scootering forthwith.

One of the advantages of the sport

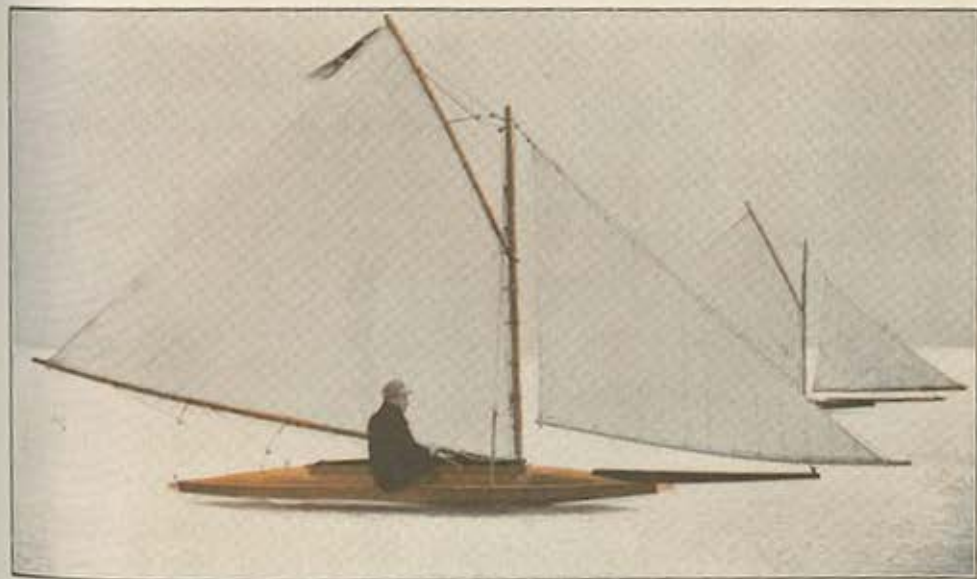
furnished by this craft is its safety. The only harm that can come to the scooter or her occupants, is apparently brought about by the staving in of her bottom planks by reckless driving over very rough ice. Such an accident is very rare, however, and is usually due to inexperience. In the case of seasoned hands, mishaps are not only quite uncommon, but are practically unknown. During the past season, the total casualties arising from Long Island scootering were but three and these of a slight sort, consisting of foot strains and splinters. In each instance, the craft was being forced over jagged ice, which by all the laws of scootering she ought to have avoided. As a result, her bottom gave way.

Scooters are used by South Shore folk for pleasure and business. As far as the first of these is concerned, the unique possibilities of the craft are becoming more generally recognized with advent of every winter.

Racing is the sport for which the scooter is most chiefly used. On the other hand, a whole lot of people, visitors as well as natives, are becoming better acquainted with its general "fun value" as well as its health-yielding qualities, with the result that scooter-building has gotten a recent boom of an unprecedented sort.

Racing meetings are held weekly during the winter, or, during the height of the season, even tri-weekly. Bellport, Patchogue, Sayville and other of the big towns on the northern edge of the Bay are the scenes of these affairs. The towns named support six scooter clubs, the total membership of which runs into several hundreds. There are also a number of minor organizations dotted along the Bay line, each one of which sends its crack craft and crew to the meetings in question. A scooter with a reputation for speed and a crew renowned for daring, are by no means wanting in fame along the South Shore. Both are discussed in scooter-land with something of that reverential regard accorded to a turf favorite or a football hero in the circles of their devotees.

The scene at a scooter race meeting is decidedly inspiring. The craft freshly painted, resplendent in bunting, dazzling with snowy canvas and groomed to the minute, are lined up, head to wind. The adjoining shores and ice, by reason of the number of spectators attest the popularity of the sport. Judges, referees, starters and other officials, flit about the boats to see that rules are obeyed and none violated. There are bands playing, there is the hub-hub of many voices and



A typical scooter on the Great South Bay, L. I.



A dash through "pebble" ice.

—if the truth must be told—some modest betting. Finally the preparatory gun is fired, then the one that signals the start, the boats wheel, the wind catches them on the beam and away they go like a flock of frightened gulls. Very beautiful the spectacle is if the day is fine and the Bay in that "flecked" condition which makes for ideal scootering. Also it calls for a good boat and sailing skill within it. On the ice, the craft seems to literally fly along. When water is reached, there is a sliding, hissing plunge while a high bow-wave tells of the rate at which the racer is going. And so it goes until the triangular course has been covered as many times as need be. Then with a final swirl and curve, the winners glide into the line of victory.

There have been attempts made to classify the scooters for racing purposes, but so far, unsuccessfully. In practice, it was found that the small craft were just as likely to win as were their larger rivals.

For some reason, no official time seems to have been taken of past scooter races.

It would seem that along the bay, the rule obtains that, "who gets home first, wins." This is simple, but hardly satisfactory. For all that, unofficial, but reliable clockers have declared that the Sayville triangular course of twenty miles, was covered last winter in a trifle less than twenty minutes! And this too, without check or accident to any of the competitors. This is, indeed, travelling.

Small scooters, known locally as "bay sleighs" are in great demand along the South Shore for "riding" purposes. They are chiefly used by young couples, the Bay Cap'n tells one with a chuckle.

Added proof of the wintery value of the scooter is shown by the fact that all of the life-saving stations which are to be found at frequent intervals along the great sand bar of the South Shore, are equipped with the craft. Without the scooter, the stations would be isolated for weeks at a time. This is saying nothing of its usefulness in conveying wrecked and injured persons to the mainland.



Racing with the wind on the beam.



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Mrs. Louise Brown, of Pittsburg, playing golf at Palm Beach, Florida, during the social season of that resort. Mrs. Sturmer, of Chicago, and Miss Van Dusen, of Minneapolis, in background, at right.

Physical Culture Popular in Society

By J. Hollister Meade

THE PRINCIPLES ADVOCATED BY THIS MAGAZINE FAST GAINING FAVOR AMONG AMERICANS WHO ARE SOCIALLY PROMINENT

Within society's circles in all of our cities one now finds great interest manifested in the building and maintenance of health through the practice of physical culture. The simple life is becoming popular; at least those phases of it that have to do with exercise and other methods which are not too difficult to follow, and which add to health, strength and beauty. The comments of the author of the article which follows will be found of value—Bernarr Macfadden.

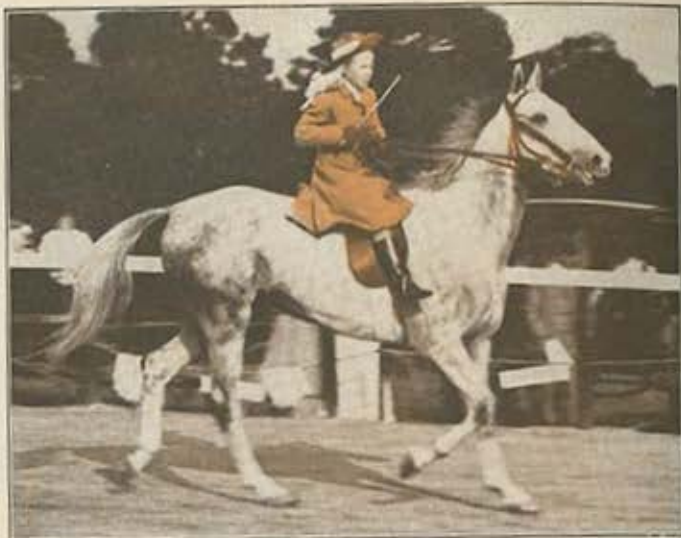
SOCIETY as a whole is going in for physical culture in some form or the other. George Bernard Shaw, the brilliant author and playwright, in one of his books says that "the saddle has done more for the salvation of society than precepts, prayers or priests." In other words, that the moral benefit of wholesome exercise is more than that which arises from the church. It is possible that in making this statement, Mr. Shaw has sacrificed somewhat of the truth to the temptation of an epigram. However this may be, it is certain that, as intimated, "society" is becoming more and more imbued with physical culture principles.

The term "society" as thus used, includes those people who belong to the leisure classes—persons who have time and money wherewithal to gratify their fads, fancies or chosen pursuits. Now it is not the intention of the writer to attempt to pass on the ethics of the communal value of society men and women. His belief is however, that if the members of the so-called "upper classes" had a proper understanding of their duties and responsibilities, they might fill a very different place in the scheme of existence from that which they sometimes now do. For example, they could become the patrons of the fine arts; the practical encouragers of budding, but impover-

ished genius, the financial patrons of inventions that have to do with the welfare of humanity, etc. Most of all might they make themselves examples of the results of right living in such a fashion that they would be imitated, instead of being

envied and reviled by the "masses" as now. If this they did, the reproach of blocks of childless homes on Fifth, Madison and Park Avenues would among other evils cease to be; the divorce courts would be less busy, and hints of unspeakable scandals would cease to issue from certain of the metropolitan clubs.

The outlook in this direction is distinctly en-



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Miss Titania Hitchcock, daughter of Mr. Thomas Hitchcock, Jr., whose stable of horses is one of the best in the country. Miss Hitchcock is considered one of the most expert riders of the Long Island Colony.

condition, including the popularity of college athletics, and the fact that polo, driving, the gymkhana, rowing, etc., are fashionable in European circles whose example in this respect is eagerly followed by our gilded youth.

Then again, society, like other circles of the community, has felt the growing influence of the gospel of physical culture



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Miss Ethel Rockefeller, niece of John D. Rockefeller, although of a retiring disposition, gives much time to outdoor sports, especially horsemanship. She has won many prizes.

couraging. That "society" within the past few years has begun a reformation of its habits along the lines of physical culture will be admitted by those who are in touch with it and its affairs. Several causes have brought about this

and that it has put this influence into practice, the pictures which go with this article bear testimony.

Time was, and not so long since at that, that the youth born in "society" after passing through college, either became an apology for a man of business, or a blasé man-about-town, or a regular rounder with a perpetual "jag" and a passion for the society of chorus girls. Types of each class still remain; but on the whole, the young American of to-day who is "a son of somebody" is a clean-run, wholesome lad, at home in the sad-

set the healthful influences of such sports, but on the whole, the society girl of the present is inclined to defy those edicts that violate the first principles of nature and consequently harm her health. As an illustration thereof, the fashion journals of last spring announced that "waists would be worn much smaller this season than heretofore." As a matter of fact, they were not worn smaller, but larger. The writer was in Newport, R. I., in August last watching the afternoon parade on the avenue, and he noted with much satisfaction that the



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Mrs. Reginald C. Vanderbilt has taken a great interest in horses, and established one of the largest stables in the United States. She has driven in the leading horse shows in New York, Boston, Philadelphia, and Chicago.

dle or with gun, oars, or tiller, and who, because of his love for outdoor life and recreation, has little use for the artificial pleasures or the vices of the big cities.

Equally satisfactory is the fact that his sister or sweetheart has become, or is becoming, imbued with the love of athletic recreation. The fainting, fragile, anemic society girl has gone, and in her place, has come a bonnie, clear-eyed and well-set-up lassie, who takes part in a good many of the strenuous sports of her male friends and relatives. It is true that every social season sees attempts on the part of the arbiters of fashion to off-

women who rode on horseback or in a smart turn-out or those who walked had, for the most part, natural waists. The empire gowns that were the rule lent themselves to emphasize this state of affairs and the result to the artistic as well as to the physical culture eye, was distinctly charming.

It may also be noted in this connection that the women's fashions of this winter are distinctly in favor of natural forms. For example, one of the metropolitan publications devoted to female dress announces that "waists will be worn from two and a half to three inches larger than

they were six months ago." This is significant of the trend of thought as far as fashions are concerned, and, in the opinion of the writer, is another of the outcomes of the increasing popularity of physical culture.

While it is true that the social functions of the winter season in New York and other big cities show no signs of falling off, yet during the summer, society goes in for the things that make for health and which to a very great extent, enable the devotees of fashionable life to withstand the drain on the strength and vitality that balls, receptions, theatre parties, and so forth, demand. That this drain is a severe one, the writer can testify. Once upon a time he was the social editor of a metropolitan newspaper and hence can speak with some authority on the subject.

With the fitting of society to the country when the hot months arrive, there begins the wholesome out-door life that is to be commended, and that restores the roses to fair cheeks that have become pallid and sallow from late hours, and the continual round of dinners, luncheons and functions that a season calls for. The men not less than the women show signs of the physical stress that has been imposed on them. And so there is a general turning to the yacht,

the horse, the golf links and the other things that tend to restore the physical poise.

Perhaps the horse plays the most important part in the restoration of vitality of the jaded ones. Apart from all else, the animal lends itself to the spectacular side of physical culture in a manner all its own. Even when society is at play, it loves to pose. Its recreations must have a flavor of functions about them. Hence we have the horse-shows in the open; the races of an exclusive sort, and incidentally, for both sexes; the gymkhana, with its fun and skill; the riding parties, the "saddle luncheons" the cross-country rides and all the rest of it. These things admit of gatherings of the elect, and the display of pretty garments and more, without which society cannot exist. Yet much good results from a physical culture point of view, and so the display of vanity may be forgiven on the same score.

Exercise on horseback is excellent from a bodily standpoint, and it also brings into being a mental stimulus that is an additional factor in its favor.

Within the past few years, yachting is another of the out-door sports that has become popular with the rich. A glance at the yacht club memberships will show that practically every name that is known



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Start of the "Goose Race"—one of the many strange diversions of society at its outdoor gatherings.

to the American public in connection with finance, figures among the list of amateur sailors. A few weeks spent on a cruise amid the sights and scenes and pure air of the sea will do much to offset the harmful influences and unhygienic surroundings of Wall street. It is possible too, that the philanthropic deeds of certain great financiers may at times be indirectly due to the broad and kindly influences bred of contact with the ocean.

Out-of-door bathing is another of the recreations of society that are becoming more and more popular with the passing of the years. For instance, Bailey's Beach, at Newport, R. I., which is sacred to the "four hundred" is crowded during the summer months. In this connection, the writer can vouch for the excellent development of society girls and the majority of the men—especially those of the younger generation. Also, it may be noted that the garment of the former worn during bathing hours, are showing signs of the anti-prudery campaign inaugurated by physical culture. In other words, they are now more or less in line with the garb recently advocated by Miss Annette Kellerman in the pages of this publication.

Nor does society confine its love for the water to the summer months. A visitor to Palm Beach, Florida, last December, relates that the daily dip on the part of both men and women was a feature of the social set there. In proof therefore, he showed a number of photographs of bathers sporting in the surf when people further north were shivering with the cold. In New York too, the private swimming pools are extensively patronized during the winter season.

Polo is another of the strenuous sports that is favored by society. It can hardly be undertaken by the man of even moderate means, but that fact does not detract from its physical culture benefits. The Goulds, the Vanderbilts, the Brokawes, the Tailors and the Keenes are some of the social notables whose names are identified with the game. The reader need hardly be told that during the past summer, an American team wrested international honors from their English rivals. Polo is a dashing sport that calls for a cool head, much endurance,

skill and horsemanship of a very high order.

That the golf links are in high favor with the great ones of the land, goes without saying. PHYSICAL CULTURE has before now and on several occasions, paid the game the tribute due to it. Its value would seem to lie in the fact that it calls for much exercise combined with a pleasant objective. By these means, both brain and body are kept busy and the accruing benefits are many. No country club patronized by the wealthy is without its links and a good many private estates are equipped in the like manner. Best of all, the game is as suitable to the women as it is to the men, and that this is recognized by the fair sex, the links anywhere and everywhere will bear testimony. A girl or matron; a youth or man in the sere and yellow leaf, who has once known the wholesome joys of "driving" over well laid out links, has but little use for the artificial and debilitating pleasures of a social season. Therein lies the value of golf and, for that matter, any other physical culture pursuit. All these make for normality in recreation, and normality breeds health.

Walking parties are among the recent hobbies of society. There are now in New York City two or three "Pedestrian Clubs," the members of which belong to the exclusive "sets" of the metropolis. The clubs meet on the average, twice monthly during the season and, equipped in suitable garments, set out on a tramp that has been planned by the acting committee. Some of these walks are quite lengthy, and involve trudging from fifteen to twenty miles. They are so planned that when about half over, it is luncheon time. After the meal, the return trip is begun, usually by a different route from that which constituted the outward journey.

And so illustrations of the current regard by society for physical culture principles and practices might be multiplied. But perhaps enough has been said to show that with all its faults, society is at last waking up to a realization of the fact that it has a duty to perform to itself and the public by conserving and preserving its health and strength by the means indicated.



A happy group of healthy, active Turn ladies.

Splendid Influence of the Turnverein

A BRIEF HISTORY OF THE GERMAN METHOD OF PHYSICAL TRAINING
—WHICH HAS ACCOMPLISHED REMARKABLE RESULTS IN THE
PHYSICAL DEVELOPMENT OF THE ADHERENTS OF THIS SYSTEM

By Charles H. Fisher

The German Turners are a splendid body of strong, finely developed men. They have avoided the mistake of confining the benefits of their propaganda to the male sex alone. Girls and women of all ages are invited to take part in their exercises. As a result, the German Turnverein is usually a sort of family resort, and the vigor and vitality that is developed by their system of exercise is shown in the fine specimens of manhood and womanhood that are found in the ranks of the Turners everywhere. The contribution which follows should prove of special interest to our readers.—Bernarr Macfadden.

WHAT has been the influence of the Turnerei movement upon Germany? Briefly speaking, the entire strength of the great German Empire, and its present standing as one of the powers of the earth, may be attributed to the work of the Turnvereine. And not only from a physical and military standpoint, but intellectually as well, the strength of Germany is largely due to the training of her sons in the Turner societies.

For what was Germany a hundred years ago and more? A pitiful collection of small states, all quarreling and fighting with one another, weak, utterly demoralized, and entirely at the mercy of any well organized force which might be sent against them. Had they not suffered at the hands of Napoleon, they might have been made the victim of some other foreign invader. But this was not

all, for the commoners suffered even more severely from the yoke imposed upon them by their native princes.

It was just at this juncture, or, more specifically, in the year 1811, that Friedrich Ludwig Jahn launched his far-sighted scheme for the liberation of his countrymen from the burden of their tyrants, both foreign and at home. He established the first Turnanstatt at a secret spot in the woods near Berlin. Besides his system of gymnastics, his followers practiced wrestling, running, swordsmanship, target-shooting and other exercises, all having the general effect of strengthening and hardening the men, and fitting them for the hardships of war. Soon other gymnasiums were established, and the Turner propaganda spread rapidly.

In conceiving his plan of action, Jahn proved a far shrewder general than any

mere military genius, no matter how clever. He saw that the strength of a nation lies not in its wealth and military equipment, but rather in the quality and efficiency of its men, in their physical stamina, vitality and character. He saw that rigid training of both body and mind was essential to make perfect warriors, and he chose for his motto the now familiar "Mens sana in corpore sano!" And the lesson which Jahn taught Germany a century ago is still more sadly needed here in our own country than probably any other lesson that we need to learn, certainly more important than aerial navigation, yes, or even the conquest of the North Pole. For not only the question of military power, but every other aspect of sturdy national strength equally depends upon the sound physical character and moral stamina of its individual citizens.

Jahn established the gymnasiums, but he did not stop at this. He aimed at the improvement of the mind as well as of the body, and so, to make his movement a complete and successful whole, he made each gymnastic society a center both for social activities and for the study and discussion of all important questions of the day. And the Turnvereins have retained all of these qualities, practically unchanged, up to this date.

The princes of Germany were at first much alarmed at the spread of the new

movement, but soon accepted the situation, at least for the time being, in the hope of thereby being able to throw off the yoke of Napoleon. And three or four years after the inception of the Turner propaganda, its results were shown in the battles of Leipzig and Waterloo. Jahn's followers demonstrated the value of their training, and all Europe wondered how and where Germany had suddenly acquired such strength.

But with Napoleon overthrown, the native tyrants foresaw their own doom in the growth of the Turner societies, and everywhere the attempt was made to crush the movement entirely. For more than twenty years the Turners, eluding and sometimes fighting the police, carried on their work in secret as best they could. Yet gradually the movement grew. Finally, as a result of the constitutional revolution of 1848, thousands of Turners were driven into exile, great numbers of these coming to America.

But still the struggling societies carried on their work in Germany, growing ever more powerful, until in the course of time they were recognized by the Government and their system was universally adopted throughout the army, navy and schools of the Fatherland. Germany's overwhelming success in the Franco-Prussian war, in 1871, was largely due to this fact, and even France, then learning the same lesson, thereafter adopted



Exhibition drill by ladies at the National Turnfest in Cincinnati.



Indian club drill, in exhibition costume. In their gymnasiums the Turner ladies dress in the more convenient and comfortable bloomers.

practically the same system in her own army.

At present there are over a million active Turners in Germany, and there is not a village or household, but has felt to some extent the influence of this great movement. It has penetrated to every fibre of German national life. Early in their childhood, the native sons and daughters of the Fatherland are put through gymnastic drills in schools, continued and diversified as they grow older. And apart from the school and the army, the Turner societies continue to train both sexes, old and young. In addition to the regular classes for the members, there are classes for the children, classes for the women, and even the *altersriege*, for those advanced in age, while in connection with all this are the social and educative aspects of the Turnverein, these being considered equally as important as the gymnastic activities.

But what of the Turnvereine, in America, did you say? The movement has not colored our national life to the extent that it has influenced Germany, it is true, but yet it has had more to do with the spread of physical culture ideals and propaganda than is generally realized. It has been such a silent force that it has been overlooked in a great many quarters. Not only has it helped to determine the character of the systematic physical training of our army, navy and school children, but it has had much to do with the spread of physical culture ideals, the increased practice of athletic

pastimes and the growing inclination toward out-of-door life. As a matter of fact, Jahn, the founder of the first gymnasium may be regarded as the father of the entire modern physical culture movement.

Immediately following upon the revolution of 1848, in Germany, many of the exiled Turners set about the organization of new societies in America. Among them were Gen. Franz Sigel, later distinguished in our own Civil War, and other men of note. The New York Turnverein was one of the first of the gymnastic societies in this country, and may be regarded as the part-parent of the others, but in 1854, six years after they had been driven from the Fatherland, the Turners had organized thirty-one societies, and their representatives met at Philadelphia in the first National Festival (Bundesfest), of the Nord-amerikanische Turnerbund (North American Gymnastic Union).

At the outbreak of the Civil War there were seventy-three societies comprising the Bund, and sixty-seven independent Turner societies. Each of these sent so many members to the front that in most cases there was hardly any society left. Of a total of some 10,000 members, the Turners sent into the field over 8,000 fighting men, strong, athletic, hardened men, and schooled in the use of arms. The pioneer New York Turnverein, with a few small neighboring societies sent forward an entire regiment of 800 men, known as the "20th N. Y. Volun-

teer Turner Rifles." On the battlefield of Antietam there now stands a large and beautiful monument to the memory of the fallen heroes of this regiment. And it need scarcely be said here that the service rendered to their adopted country by all of the Turners who bore arms in that great conflict, could not have been surpassed by any class of fighting men anywhere.

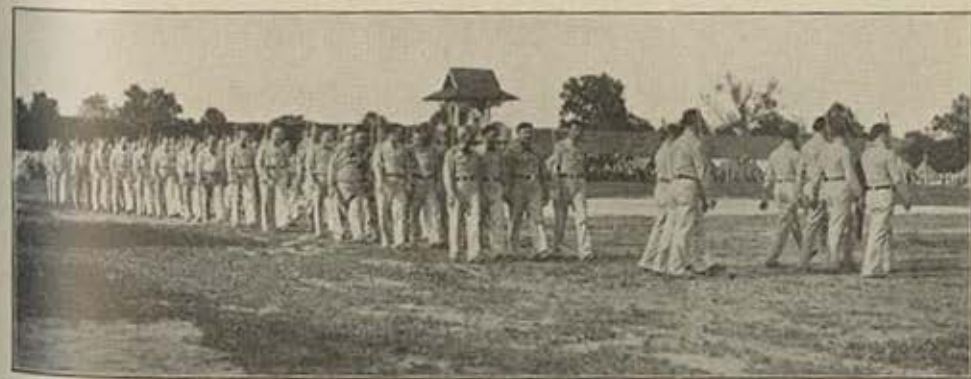
At present there are some three hundred Turner societies, federated together to form the North American Gymnastic Union, or Turnerbund. These societies are to be found in every State of the Union, altogether possessing several million dollars' worth of property, although their buildings are fitted out in the very plainest fashion, with great economy and the simplest of comfortable furnishings. There is nothing wasted in luxurious or extravagant trimmings. In addition to the members of the federation, there are a few other independent Turner societies, the chief reason for their failure to associate themselves with the Bund being the desire to use the English language. For in order to preserve the original character of the Turnerei, it is decreed that the German tongue shall be the official language, this applying to society records, songs, orations, plays, debates and even the commands in the gymnasium.

This does not mean that the movement in America is restricted to Germans, for although it was at one time necessary that the members be of that nationality or blood, yet at present any one is eligible for admission, irrespective

of nationality, religion or politics, except that he must be over eighteen years of age, a citizen of the United States, or must have declared his intentions of citizenship.

However, in spite of this liberal provision for admission, the membership as well as the character of the organization continues to be distinctly German. Not only do the somewhat different social customs of the Turners, as well as the use of the native tongue appear to influence the Anglo-Americans against a desire for membership, but the rigid discipline also does not appeal to them favorably. The native American is more easy-going, does not care for discipline, and therefore avoids the Turnverein, often to his own disadvantage.

For while the severe discipline maintained in the gymnasium may seem an unpleasant feature of the work, from the American point of view, yet this very discipline is in a very great measure responsible for the success of the Turnverein in producing thoroughly trained, vigorous and efficient men. No such results can by any possibility be accomplished in a gymnasium in which the exercise was left to the individual whim of the men. A certain amount of voluntary effort is commendable and is granted in the Turnverein, but the great part of the work is performed in classes, and under careful supervision. For this reason, every individual member is compelled to go through all of the work, bringing into control and strengthening every part of his body. Consequently there is not and



A marching drill at the National Turnfest, at Cincinnati.

cannot well be a single active member, who has been a member for some time, who is weak and undeveloped. On the contrary, the Turners, as an entire body, present the very finest specimens of physical manhood that can be found. Another advantage of the strict discipline and careful supervision of all the work lies in the fact that there is none of the over-exertion and strain upon the vital organs that is frequently associated with voluntary training or athletic competition. They aim at the harmonious and symmetrical development of the body as a whole, all parts of the same co-ordinating with a well trained mind.

The regular classes meet usually two evenings each week, devoting the first hour to drills, calisthenics and other systematic class work by all of the members on the floor. The second hour is given up to apparatus work, carried on in squads or sections, each under the direction of an instructor, one section using the parallel bars, another the vaulting horse, another the rings, and so on, each section passing from one style of apparatus to another. The work done on the apparatus by each section is graded to suit the requirements and the degree of progress attained by the members thereof. Finally, at 10:30, the men are given the freedom of the gymnasium for a half hour, to follow their own desires with the apparatus.

It will be seen that though the entire evening of two and a half hours is spent in exercise, yet it is done without hurry; the work is not condensed in such a way as to exhaust or strain the vitality of the members. One of the conditions of any ideal exercise is the opportunity to relax between successive exertions, a period of brief rest alternating with each period of effort. And this condition is fulfilled in most of the gymnastics practiced in the Turnvereine, and particularly in connection with the more strenuous work. In using the apparatus, for instance, only one member of the squad is actually engaged in the execution of a movement, as a rule, the others waiting and resting until he has finished, when one of their number, next in line, steps forward to repeat his "stunt." Each feat or exercise on the apparatus is first indicated by the

leader of the squad, who shows just how it should be done.

The Bund maintains in Indianapolis a Normal School of Gymnastics, the oldest normal school of its kind in America, in which are prepared not only instructors for the various Turnvereine, but for many public schools, colleges, athletic clubs and other institutions. The school is co-educational, and the course is a most thorough one, including hygiene, physiology, anatomy, first aid, English and German languages, history, vocal music and other branches, in addition to every variety of gymnastic work and athletic pastime. In consequence, fencing with both foil and sabre, wrestling, boxing, military tactics, track and field athletics and other games are practiced in most of the Turnvereine to a greater or less extent. The New York society, which was so well represented in the Civil War, still maintains a cadet corps, and is also represented by an exceptionally proficient and skillful group of fencers.

For the ladies' classes, separate and appropriate drills and exercises are arranged, aiming at grace and symmetry as well as strength, and including figure dances, fancy steps, games, calisthenics and light apparatus work. High attainment in these lines makes possible the most beautiful exhibition work, one of the features of the Turner festivals. In many cases the female classes drill to music.

This reference to the festivals brings us to the social side of the gymnastic societies, for the Germans are nothing if not sociable. This feature of Turner life has helped largely to maintain the membership and the interest in the work. Every Turnverein is a social center for its members, each society having its own outings and entertainments, the latter provided by its own members. Great is the interest in singing, with singing classes for both sexes, and also, in many of the larger societies, dramatic sections. So that in addition to frequent concerts, the Turners occasionally enjoy the pleasure of the play, performed by their own members, and usually very well acted.

But in addition to the social functions of each individual society, there are oc-

casional festivals held jointly between the various Turnvereines in each section or State, while every four years is held the great National Festival, representing the entire country and even outside bodies, the intervals between and the character of the festivities reminding one somewhat of the quadrennial Olympic Games of ancient Greece. For not only are there gymnastic competitions of various kinds between representatives of the different members of the Bund, but there are also oratorical and literary competitions, with prizes for essays, poems, declamations and orations. And permeating all, the great jubilee of song helps to give each festival the unique character and atmosphere peculiar to the Turnverein.

And the music is music of quality. No cheap rag-time here, or sickly-sentimental trash, but standard folk-songs and Turner-songs, filled with the inspiration of the high ideals with which the great movement was inaugurated.

The photographs reproduced herewith present scenes from the last National Turnfest, held in June, 1909, at Cincinnati. The circuit, district and society festivals follow the general plan of the National Turnfests, though necessarily upon a small scale. Some societies also give mask-balls each year. But let it not be thought from this that frivolity is the rule, for most of the festive occasions are marked not only by song, but also by speeches, recitations of good poetry and sometimes by debates, practice in which is continually encouraged as one of the educational features of the work. Regular school work for the children is carried on in some of the larger Turnvereine, as well as the gymnastic classes for the boys and girls, the women, and the old men.

It must be said, however, that in some unfortunate respects the customs of the Turners are far from ideal, from a physical culture point of view, and particularly in the matter of food and drink. Fancy meats, sausages and other foods

of the "delicatessen" variety, occupy an important place upon the table, while to a stranger it would almost seem as though the first object of a festival is to ascertain the utmost beer-drinking capacity of each member. And it is not an uncommon practice, also, for the members to partake freely of these refreshments after each meeting of the classes in the gymnasiums.

It must be said to their credit, however, that actual drunkenness of a pronounced degree is exceptional. And it may also be said, in justice to the Turners that these unfortunate and unhealthful habits are characteristics of the German nation rather than qualities peculiar to Turner life. And while it is true that their gymnastic work would be far, far more effective if with it could be combined the advantages of temperate living and a clean, wholesome diet, yet one cannot but recognize the fact that their vigorous physical training enables them in a large measure to overcome the unfavorable influence of their liberal consumption of beer and somewhat too carnivorous diet. A robust and well-trained man can withstand abuse far more readily than others not so well developed.

If all classes of Americans were given the same training and offered the same associations for mental as well as physical improvement, as the Turners of the United States, then truly would there be little occasion for alarm over that degeneracy which is not alone feared, but which is actually a fact among certain elements of our population. In the Turnverein is combined the means of answering to the chief requirements of our natures, the all-important and fundamental training of the body, the culture of the mind and the much needed opportunity for social recreation. And it is not saying too much to add that the United States has few more vigorous and healthy citizens, few more enterprising and progressive, few more loyal and faithful, than the German-American Turners.

There is an instinct which impels the human being to seek health in muscular exercise and pleasure in physical exertion.—*Sir Frederick Treves.*

My Physical Culture Baby

Mrs. Anna Von Hemert

Here is an example of a real physical culture baby. Both father and mother are physical culturists. They have from the beginning followed the principles that we consider so important in building strong bodies during babyhood. The benefit of their methods of training has been emphatically illustrated in the vigor and comeliness of their son. Their experience should supply a lesson of great value to parents everywhere.—Bernarr Macfadden.

THE writer of this article is only a mother, and does not lay any claim to scientific knowledge; she can only relate the results obtained by following the principles advocated in this magazine and in Bernarr Macfadden's books. And, however strange these theories might appear to the layman, or however unscientific to the professional wizard, there is nothing so convincing as a healthy, living proof to demonstrate the value of a theory.

I acknowledge that, at first, it requires a considerable degree of confidence and a certain bravery to get out of the beaten paths and defy "public opinion." There are a few bugaboos to overcome; tradition and its twin sister, superstition, and, worst of all, the narrow views of relatives, friends and neighbors, besides the physician's disapproval of one's course. The more friends one has, the more suggestions one receives.

The physical culture mother must arm herself with patience and forbearance, for a unanimous chorus of friends will predict that the new venture will be a failure and nothing less than criminal when it concerns the life of a living being. Confidence, however, is a marvellous thing and gives one the

strength to endure almost any amount of criticism.

In order to assure satisfactory results, three requisites are absolutely necessary. First and foremost, faith—the implicit faith which will give the parent the strength to bear the test. Then perseverance, without which no lasting success can be accomplished. And last, but not least, the knowledge, the capability, to carry out the purpose.

When my baby-boy was born (December 21st, 1905), I had a strong faith in Bernarr Macfadden's theories, and I resolved to apply them to the bringing up of my boy, notwithstanding the entreaties of relatives and friends. I had the

courage to stick to my belief, which, if possible, was strengthened still more by the experience of one of my neighbors with her children, brought up according to the orthodox views usually adopted. She strongly condemned the system I followed, assuring me that I was committing a crime to "experiment" with baby.

"Why, you cannot tell me how to bring up babies," she assured me, when I explained to her the new ideas. "I have a greater experience than you, dear. I ought to know. . . . Why, I have brought up ten children. . . ."



Photograph of the author and her baby taken when Teddy was one year old.

"How is it that I never saw more than three out of the ten?" I inquired somewhat puzzled.

"Well, the others died," she confessed embarrassedly.

It appeared ridiculous to me for this woman to give me advice, when her own experience had resulted so disastrously. I realized more than ever the necessity for my child to live and to be healthy. The world is always prone to condemn those who do not follow the beaten paths, and those who dare venture beyond this narrow sphere are called cranks and are persecuted. Thousands of infants die before they reach one year of age, and the world closes its eyes and says: "all is well." But let one physical culture baby die and the whole community will be down on its adepts.

Since baby was a week old, I let him have plenty of fresh air, taking him outdoors daily for at least two hours, rain or shine. After a while he passed most of the day outside, sleeping in his basket in the back-yard, although it was in mid-winter, but I preferred to keep him in the open air as much as possible, well covered up.

Baby was two weeks old when he received his first physical exercise. In the beginning, the exercises were very mild. Then they were gradually increased until baby, who is now almost four years old, is quite a little acrobat. However, I would never allow any one to do "stunts" with my boy. I have an implicit confidence in my husband, who takes care of Teddy's physical training and who is always very careful. My husband is an athlete himself and knows exactly how to handle his boy. It would indeed be a terrible calamity should an accident happen, caused by the mere desire for "showing off." And I would never advise any mother or father to practice "stunts" with their children, unless they are very skillful and perfectly sure of themselves.

Exercising baby is desirable only, when administered in moderation; it helps to develop his muscles, gives him self-reliance and increases his health. It is well to remember, however, that what babies of tender age require most is rest, and that they get plenty of exer-

cise by their own exertions, if they are given an opportunity to stretch themselves, entirely nude, roll and frolic on a large bed, after they have had their bath.

Too much bathing is also injurious to baby's health, but a strong, healthy, physical culture baby can stand, in summer, two baths daily with good results. One bath in winter, in luke-warm water, should suffice. In summer, the bath should be taken at the natural temperature.

I never burdened my baby with unnecessary woolen garments, preferring,



Teddy von Hemert, at the age of three years.

even in winter, the cotton underwear, which allows his body to breathe freely. Babies need heat, especially new-born babies, but too much clothing is apt to render them delicate. I could hardly recommend the Spartan practice. We are told that a child, as soon as born to a Spartan family, was exposed in the open air for a couple of hours, entirely nude, rain or shine, and if he survived this ordeal he was considered fit. In a happy medium lies wisdom. Plenty of air, sunshine and light clothing, backed

by a hygienic diet, will make a ruddy, healthy youngster.

I fed baby until he was six months old, when I began to wean him gradually, feeding him on whole-wheat flour and cow's milk, mashed bananas, oranges and almost any sort of fruit—of which he has always been very fond. It is a mistake to overfeed babies. Every two and a half hours when they are very small should be sufficient. Their last meal should be taken at 10 P.M., and they should be trained to sleep the whole night through. I never fed mine during the night. Babies are little creatures of habit, and I resolved that mine should not be spoiled and that it were best for him to sleep the whole night through. So I have never been obliged to walk the floor with him at night.

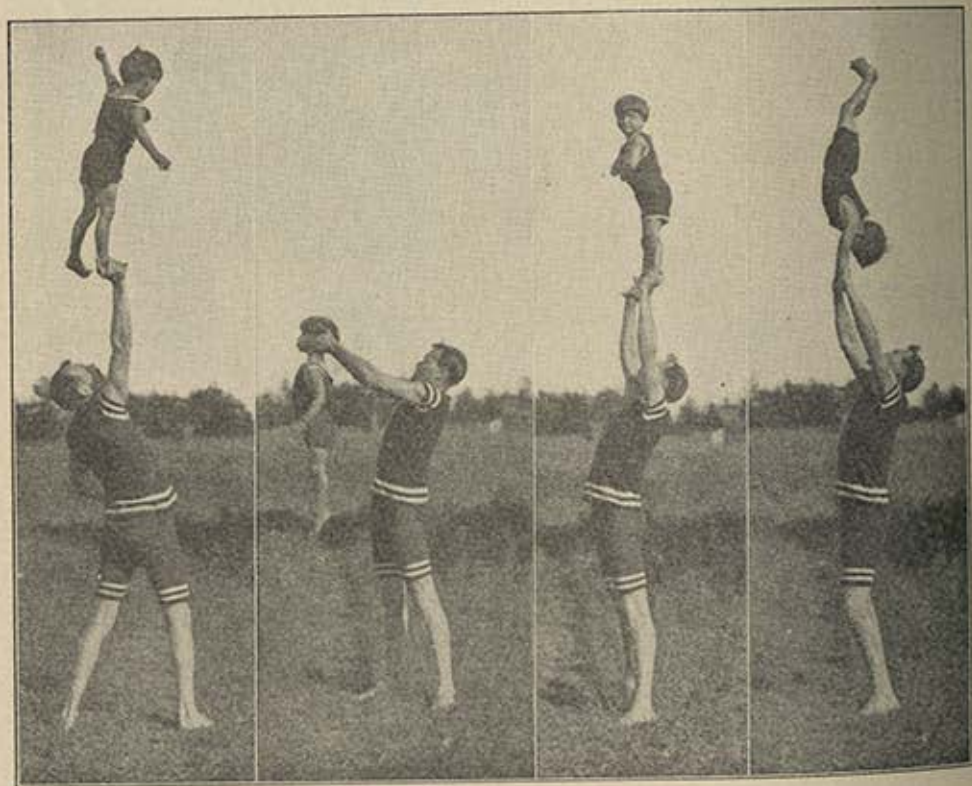
Teddy is quite a boy now and he knows how to take care of himself. He eats sparingly three meals a day, often only two.

Teddy never overeats. As soon as his appetite is satiated, he will stop eating, no matter how tasty the dish might be—an object lesson to many grown up people.

I like to see my little man think for himself and find out things by his own efforts, giving him ample latitude in this regard. I never stop his natural impulses by "Don'ts." When he does wrong, I try to explain to him why he should not do so.

He is very fond of all physical exercises, especially of walking, a tramp of six or eight miles being comparatively easy for him. He enjoys both the summer heat and the wintry blasts, and fares well under whatever climate.

It is not my intention to pose as the mother of a wonder-child. I recognize the fact that, had other children been given the same chance as Teddy, they would, probably, be just as advanced. With children, it is principally a matter of environment and bringing up.



Teddy and his father in some fancy feats.

Prince Hagen

A Phantasy

By Upton Sinclair

Author of "The Jungle," "King Midas," Etc.

FIRST INSTALLMENT.

CHAPTER I.

MY story—which has to do with the Nibelungs—began one warm day in midsummer. I was camping out in the mountains that summer, and back from the tent there was a deeply-wooded glen with a streamlet in it—a very pleasant place when the weather was sultry. On this particular day I was sitting there in a hammock, and in my lap, lying open, was the score of "Das Rheingold," which I had been studying.

In these days, when the works of Wagner have been so much written about and sung about, one might perhaps assume the Nibelungs to be a people familiar to every one; but lest this should not be so, it must be said, at the outset, that the Nibelungs are strange creatures who live in the deep caves of the ground, and being blind to beauty, spend their lives in digging for gold. Once upon a time, one of them named Alberich found a magic ring which gave him power over all the rest; and Alberich's son, Hagen, a most unpleasant person, was the murderer of the hero Siegfried, and was drowned by the nymphs of the Rhine, as he well deserved. One may see all these things exactly as they occurred many hundred years ago, in Wagner's "Nibelung Ring."

It was a very warm day, and a hammock is a treacherous contrivance; the streamlet tinkled on, and the wind swayed the pine trees gently. I sat for some time trying to imagine the sort of people the Nibelungs must have been, the kind of life they live, and the nature of the world they built, until entirely without realizing it, I began to nod, and strangely enough in a few moments I must have fallen asleep.

How long it lasted, I cannot tell; I only know that when I opened my eyes it was dark night; and I stared about me in wonder. Then, in spite of everything, I could not help smiling; for I had fancied that I heard, from the depth of the woods, a few dancing notes of music. As the breeze stirred more strongly, I heard it again—and yet again, and I whispered, half breathlessly, "What can it mean?—It is a violin."

Now my camp was several miles from the nearest house, and I lived in it alone. There was no violin in those mountain-forests except my own, and that lay beside the hammock; and yet, even while I stood repeating this to myself, and arguing with my foolish fancy, the skipping music came nearer and nearer, louder and louder. It seemed to spread out on every side of me, the whole place seemed to become alive with it; and I heard not only violins, but, in spite of my astounded incredulity, flutes and a drum, and a triangle—a whole orchestra, in fact—all merrily tripping the same quaint measure. The trees about me shook with it, the rivulet danced to it, the forest resounded with it. It swelled out, it rose higher, it took hold of me in spite of myself; it rose to a very Wagner climax, and I cried aloud in breathless wonder: "It must be the Nibelungs."

Now a moment later I was, of course, ready to laugh at myself. "It can't be," I said, "because there aren't any," and thought it a very fine argument. And so it seemed to be until a moment later; for then I gasped, helplessly, "There they are."

I have said that the forest was dark; there was a moon, however, half-veiled by clouds. It lighted faintly a little glade just beyond, and there all at once I saw a figure moving—and then a second

—then a whole crowd—with the quick little running motion I knew so well. It was the Nibelungs for a fact.

Then suddenly, as if the little creatures had read my mind and meant to convince me of their actuality, I felt a sharp pinch that made me cry out. I heard a laugh from one of the dwarfs, and as I leaped forward, I felt another and yet sharper twitch, and then another. I broke into a run, and in a flash the whole swarm closed about me, pushing and yelling like mad. The music swelled into a deafening crash, with blare of trumpets and clatter of cymbals, and away up the glen we tore. It was only a few yards further—we came to a sudden turn, to a high black wall of rock. I was about to swerve, when it yawned open before me; the swarm pressed about me, and, before I realized it, I had plunged through the cavernous entrance. There was a loud hissing of steam, and I remember the thought flashing over me that it happened just so in "Das Rheingold;" and then, all was blackness, and I found myself rushing swiftly down a steep incline, swept onward by the surging throng.

A man of literary tastes is not usually in training for sprinting, and I very speedily reached the end of my strength. I was breathless and staggering, and I had just concluded that if the mad creatures did not stop, I should fall and let them do with me what they choose, when suddenly I felt the ground become level beneath me, and saw a dim light in front. We swept out into the open, and I gazed about me at towering cliffs and yawning caverns, black as night. I took one look, and then gave a cry of wonder, for I knew it in an instant—we were in Nibelheim.

I was still consumed with wonder, though my breath had returned, when I heard a voice coming from the depths of one of the passages—a voice so deep and grave that it seemed as if it could scarcely come from one of the dwarfs. "Let the earth-man advance," it said, and I, knowing that the words were meant for me, stepped quietly toward the sound. I had not gone very far before I saw in front of me a figure seated upon a raised chair—a huge chair, which glittered even in the half-light so that I

knew it must be made of gold. The figure bore in its hand a sceptre, and upon its head was a crown, while about it, bended upon one knee, was a throng of the little dwarfs. The man had long black hair, coming half-way to his waist, and I needed to take but one glance in order to know him. I started back, gasping the word "Alberich."

I stopped, for I felt some one nudge me; looking down, I saw one of the little creatures. "Your Majesty," he admonished, in a piping voice. "Your Majesty."

"Yes," said old Alberich, gravely, having heard him, "for I am the king of the Nibelungs, you know."

"Oh," I echoed, and then suddenly exclaimed: "But, your Majesty, I understood that after you lost the Tarnhelm and the ring, you ceased——"

I stopped again, embarrassed. King Alberich laughed.

"Oh, yes," he said, "but you are far behind the age. The Nibelungs discovered the need of a ruler again, you know, and they were used to me; so I am still king."

I bowed in silence, and after that I said nothing for a long time. I listened, and, when the spell was broken, it was by Alberich's voice again.

"The way of your coming here is strange, my dear sir," said he, "and no doubt you are confused and puzzled. But I pray you to have no alarm, for no harm is meant. I have only taken the liberty of having an earth-man brought to me because I have need to consult some one upon a matter of grave importance."

I looked at him in some astonishment, wondering very much what the old Nibelung could possibly wish to consult me about; I saw he was eyeing me keenly.

"Well," he said, suddenly, "there is plenty of time for us to discuss the thing; we need not make up our minds at once. You are in no great hurry, I trust?"

I answered that I was not. "I am very much interested in my adventure," I continued, with a smile. "It is quite new to me—all your Majesty's kingdom."

"Ah, yes," replied the king, and, with

a sudden gesture, he rose. "It is well said," he continued; "it is always customary to show our visitors about the land—to show our treasures, above all. That will please you, no doubt."

"Most certainly, your Majesty," I replied.

Although I had been impressed with the thought that king Alberich was now a very old man, with trembling, palsied hands, he moved with alacrity, as we approached the treasure vaults of the Nibelungs.

As the great iron door creaked on its hinges, vast darkness, yielding a damp odor, loomed beyond it. The king preceded me through a passage just wide enough for our bodies.

"It must be an immense place," I exclaimed.

"This cavern runs for several miles back in the earth," the king answered.

I gasped for breath.

"You do not mean that it is all full of gold," I cried.

"From ceiling to roof, with solid masses of it," was the grave reply.

"The gold is on both sides of us," continued Alberich. "One is almost overpowered by the presence of so much majesty, of so much slumbering power. Put your hand upon it, feel it—how cold and hard it is."

The old man's voice had suddenly become deep and resonant. "Forward," he exclaimed. "There is so much to see."

We strode on, past solid walls of the metal, all in utter darkness; we walked, and walked until I was weary, and until I began to fear that there was no end. "One thousand, six hundred and seventy-two paces," said the king, counting. "In eleven more we come to the vault of the carved and beaten vessels. Ah, here we are."

As the king described his treasures, and dilated upon the immense value of the world-renowned Coronation-cup and other masterpieces of the collection, I asked that a light be provided. My request was received in wonder. "Candles are so expensive" protested king Alberich. "We never dream of bringing a light into our treasure-vaults."

I was quite helpless with perplexity.

"But then, what is the good of the beautiful vases?" I cried.

"Why, my dear sir, can you not know their value without seeing them? These works, you must understand, are by the acknowledged masters; every one knows their worth without the need of examining them."

Finally, convinced of the futility of attempting to feast my eyes upon the wondrous works of art my guide gloated over in the darkness, I politely declined to continue the journey into the vaults further, and we returned to the palace in which I had first been presented to King Alberich.

At last I ventured to suggest: "Your Majesty had some business to talk about with me."

"Ah, yes," said Alberich, quickly, "let us attend to that now." And he seated himself upon the throne, and had a chair brought for me. He dismissed his courtiers, and in another minute we were alone in the hall.

"Now," said the king, "we can talk the thing over thoroughly." And he leaned over toward me, becoming confidential.

"You know, my dear sir," he inquired, "that I had a son, Hagen, who was the slayer of the great Siegfried?"

"Yes, your Majesty," I responded.

"A most lamentable affair," said he, "I have since lived bitterly to repent my own share in such violence. You did not know, I presume, that Hagen, too, had a son, by one of the daughters of earth?"

"No," I said; "he is not mentioned in history."

"Very true," replied Alberich; "but that son, Prince Hagen, is now living. And, in the inevitable course of events, he will fall heir to the throne which I now occupy."

"Ah," I said, "I see."

"The boy," continued the other, "is seven or eight hundred years old, which in earth measure would make him about nineteen. A very critical age, my friend, in the training of the young."

"Yes," I assented.

"Now," said the king, "I have sent for you to speak frankly. I am in trouble—in fact, I am utterly at a loss; I am helpless, and almost hopeless. I

call myself, sir, a plain, hard-headed man of business; I generally know what's what, and I've held my own with the best. But my understanding has not proved equal to this emergency; and it is because I have been given to understand that earth-people think more and see farther than others, that I have had one brought here. I need advice."

I was interested in the old man after this confession; the flattery was very subtle. "I will do what I can," I said.

"Well," continued the other, "you know my interest in Nibelheim. This prosperity which you see is my life-work; and now, when I think of the possibility of my death, my one care is about its future. When I look at the future now, I see storm. Yes, sir, storm."

"To put the matter in a nutshell, my dear friend, Prince Hagen is his father come to life again—a child of violence and crime."

Old Alberich's voice had been trembling as he spoke, and there were almost tears in his eyes. "Ah," he pleaded, "think what will become of the treasure I have amassed, of the laws I have made."

"It is very sad," I said, mechanically.

"Yes," cried the other, "but what am I to do?" Then he continued rapidly: "Let me tell you, in a word, why my followers led you here: If you could show me any way to remedy this evil—if you could only stay here and use your greater strength of mind and body to overcome Prince Hagen, and teach him what is right—sir, you should carry hence a treasure beyond anything the surface of the earth has ever seen. Tell me, can you give me help?"

And the old man stopped and gazed at me imploringly; there was a long silence.

"King Alberich," I said, slowly and thoughtfully, "I have things of importance to do, and I have no time to stay down here and train Prince Hagen—"

I saw the old man's face fall. "Oh, do not tell me that," he cried. "I—"

"Listen," I said. "There is perhaps something else that we can do. How would it do to take Prince Hagen up to the world?"

King Alberich gave a start.

"If you can manage him, that is one

difficulty out of the way," he said at length; "but your proposal is so unexpected I scarcely know what to reply."

I tried to put the matter before the old man as delicately as I could. I could not well have said that I was cherishing a hope of teaching his grandson the ideal of a Christian society, of awakening in his savage heart some gleam of a soul, so that he might learn to love other things than wealth, and might come back to Nibelheim with a fiery determination to clean it out as a noisome swamp. I could not say that I was sure Prince Hagen could not live with honest men very long without coming to hate the meanness of this cave-born race.

The king paced back and forth, knitting his brows and mumbling to himself, twisting the question about, and peering at every side of it, as if it were a precious treasure he was buying. At last he came back to his first question, of whether or not Prince Hagen could be controlled. I made a suggestion which cut the matter short abruptly—"Why not see what he thinks of it himself?"

A light dawned on the other's face; he called the Nibelungs, and, in response to his command, several of them went to seek the boy. As they led him in, they clung so close to his side that I fancied he must even now be in durance for some offence.

Truly, he was not a promising person to wreak one's ideas upon; there was, as Alberich had said, all of Hagen in him. He was, in the first place, a foot taller than any of the other Nibelungs, coming, in fact, up to my shoulder; he had the wizened, dwarf-like features of the race, but with a grimness that came from elsewhere. His hair and eyes were jet-black, the latter gleaming darkly from beneath deep, lowering brows. As they brought him in, he spoke to neither of us, but glowered sullenly at me. He gave no sign of hearing, as his grandfather timidly ventured an introduction.

I must say that, as I watched this figure, I had waverings; I began to share the king's doubts if he could be induced to submit himself to me, and even to hope that he might not. But the question was settled otherwise, and with the swiftness of a lightning-flash; for the king stam-

mered, hastily: "Hagen, this gentleman wishes to take you with him to see the life of the earth-men;" and the boy started back, a swift glow flushing across his face, and a new light leaping into his eyes. He stared from Alberich to me, and back again to Alberich, exclaiming, incredulously, "No!"

"It is true, Hagen," the old man reiterated. "It all depends upon whether you wish to go!"

And Hagen flung out a wild cry. "Wish to go!" he gasped, his face transfigured. "Oh, by the gods, just try me!"

And that settled the matter. I found myself whispering faintly, "You're in for it;" and then upbraiding myself for a coward.

Between Hagen's eager inquiries, and the cautions and exhortations of the old king, I passed the next hour or two of my time. It was agreed that we should start immediately, but afterwards we found that it was far after midnight, and so I accepted the king's invitation to remain with him until the following morning.

"You would find it a tedious climb to the surface, anyhow," he said, laughing. "How would you like me to have you carried there while you slept?"

I did not make any answer to what I thought his jest, but followed him to his palace, a cavern in the rocks near by; in one of its several niches, called the guest-chamber, I bade good night to my host and his excited grandson, and then flung myself down upon a pallet of straw. Being a tired and healthy person, in a few minutes I was sound asleep.

* * * * *

The next incident of this tale is the opening of my eyes. I awoke all at once, and gave one glance about me; then I sat up with a start. The brook was tinkling beside me, the breeze was murmuring through the pine-trees above me, and I was lying in the hammock, gently rocking, the open volume of "Das Rheingold" still lying in my lap.

I knew not what to make of it for a moment; I saw that the sun was just sinking behind the mountains, and I exclaimed, half-aloud: "How long have I been sleeping?"

I got up from the hammock, trying to

collect my faculties. I found myself debating in perplexity. "How in the world can Alberich have gotten me here?" when suddenly the real truth of the thing flashed over me, and I started back and caught hold of the hammock, and shook from head to foot with uncontrollable laughter.

"Certainly," I gasped, "that was the most extraordinary dream I ever had in my life!"

And truly, the more I thought of it, the more wonderful it seemed. It had taken such a hold on me that I had actually sat in the hammock, convinced for a moment that I had spent the previous night in Nibelheim!

I was so much amused at these things that I never once thought of being angry at having slept away a warm afternoon. I thought, in fact, that if one could dream like that often, it would pay him to sleep. "There is a story in it," I muttered. "It is a real idea!"

I took up my book, and made my way down the glen to where my little tent stood by the lake-shore; I went in and sat down, still thinking about that dream. Every circumstance was as vivid as ever. I saw the dark caverns, saw the wizened face of old Alberich, and the sullen glare of young Hagen; I was sure that my ears were still ringing with the Nibelung music.

"The Nibelung music," I mused, as I sat there; "I really think there are possibilities in that thought. Fancy a poet dowered with the gift that the life of his soul should be uttered in music; fancy him dreaming in the forests, and battling upon the mountain-tops with the storm; fancy him by his gift made master of all true men, and wondered at for a madman by the mean!"

Then outside I heard the footsteps of the little French-Canadian boy, who rows up the lake to bring me my milk and butter, and who always takes care to arrive with his clinking pails whenever I am nearest to the heights. I gave up in despair, and sat waiting, for I knew that he could not set down his burden and be gone; I knew that he would need to stop and chatter.

I was not mistaken; he dropped his load, and then stood leaning in the door-

way, twisting his bare toes together and eyeing me. I sometimes wonder just what his fancies are about the man who lives away off in the forest.

"Bon jo'," said he, in French-Canadian fashion.

"Good day," said I, abruptly. I did not expect to be interested in the youngster's conversation; but as it happened, his next three words made me jump.

"Where you yest'day?" he asked.

"Yesterday?" I inquired. "Why—what do you mean?"

"You not here," he replied; "where you go?"

I stared at the youngster; I could not half believe my ears. "You are crazy!" I laughed—I noticed that the laugh was strange. "Don't you remember yesterday I gave you the penny?"

The boy shook his head. "No, no," he declared, stolidly; "that day 'fore yest'day."

I said nothing; I could not even think. Meanwhile, the boy went on, "I come yest'day with my pa; you not here. We wait—ve'y late; you not come. Where you go?"

Now it may seem incredible, but all the time I had been so calmly musing about that dream of mine, I had been haunted by a strange, uncomfortable feeling. This is the twentieth century, and I am not given to superstitions. But for all that, there was something in me which wanted to cry out what it did not dare to cry out—that it was no dream at all—that I had really spent the night in Nibelheim!

And now, therefore, the effect of the boy's words may be imagined. For a long time I simply stared at him in consternation, groping in darkness; and then, suddenly, I sprang at him and caught him by the shoulders. "You can't mean that!" I cried, wildly. "It can't be possible!"

"W-what?" gasped the boy, in fright.

"That I was not here yesterday! That I did not give you that penny last night!"

"But I spend that penny yest'day matin," said the boy, stolidly.

Now a thing like that was almost maddening; I stood in the middle of the

room, running my hands through my hair, and staring blankly into space. "Nibelungs!" I gasped. "Why, it is utter madness—it is ridiculous! But in heaven's name, can I have slept twenty-four hours in that hammock? And that music! Surely it couldn't be possible—"

And then I stopped short, transfixed; I bent forward in wonder, my eyes staring; and then I turned upon the boy, and saw that he was staring too.

"Did you hear that?" I panted. "Did you?"

"Somebody play," he said, wonderingly. "Who do that?"

And then, just as on the previous night I heard the sound again. An instant later it rang out suddenly in a loud crash that made me leap; and it surged louder, swifter and swifter, nearer and nearer, until it seemed to burst in my very face.

And after that for one brief instant there was a dead silence; it seemed an age. I looked at the boy, and the boy looked at me, and both of us were white; my own hands were trembling. "That could not be a delusion!" I found myself thinking, swiftly. "It must be true!"

And a moment later came a knock!

The flap of the tent had fallen down, and some one had tapped upon the tent-pole, in the absence of a door. I was weak and trembling, and there was warm perspiration on my hands, as I said to the boy, "Go and see who it is."

He obeyed; I saw him take hold of the flap to push it aside, and was conscious of a cold chill. But at the same instant, the flap was flung back from the outside, and I saw a dark figure standing in the entrance, and smiling at me.

"Good afternoon!" said a familiar voice. "Did you think I was not coming?"

It was Prince Hagen!

CHAPTER II.

Soon after that, Prince Hagen and I were seated in the tent, the farm-boy having taken his departure. The Nibelung had parted with the uncouth costume of his fellows, and was clad in a natty summer suit, obtained, I could not guess how; he twirled a straw hat in

one hand, and, seated on a chair, with his legs crossed carelessly, he gazed at me from beneath his half-closed eyelids.

"Well," he said, "what are we to do now?"

The truth to be told, I did not know. I gazed at him in perplexity, and at last stammered, "Why—you see—I have scarcely had time to think about any plans, it has all been so sudden."

"Oh, very well," said he, with a laugh; "think away. I sha'n't bother you."

He turned, and began coolly surveying my premises; in the meantime, I strove to "think away," as directed, but found it not easy to take my eyes off my newly found protégé. He, for his part, was sufficiently occupied to take no notice of me; everything was evidently new to him, and he got up and began strolling around, examining each object in turn. He studied my oil-stove in perplexity, and gave it up as hopeless, incidentally leaving it so that the kerosene ran out. He examined my shot-gun, looking into the muzzle, and tapping it to see if it was hollow, in a way which showed plainly that he did not know what it was. In the same fashion, he wandered about the room, until at last, happening to see me eyeing him, he asked, "I beg pardon, but what do you do?"

"I am an author," I said, deprecatingly; "I write books."

"Oh," said he, "but why do you come way out here in the forest, and live like this?"

"I wish to be alone," I explained, "so that I can think undisturbed."

"Humph!" said Prince Hagen, and no more. I was destined to learn afterward, to my discomfort, how often he thought a great deal and said nothing.

"You do not expect me to stay here, too, I hope?" he observed, at last.

"Oh, no," I replied, "by no means. I understand that it is your wish to see the world."

There was a silence for a moment, and then I remarked, "It is about supper-time, and perhaps we should get a little better acquainted if we first had something to eat. We can discuss all our problems after that."

"I am willing," said the other, with the ut-

most good humor; "what have you got?"

"Let me see," I mused; "I am afraid this is rather an 'off day;' provisions are due to-morrow." I named what I had.

"That's all right," said Hagen; "bring 'em along."

I got out my little folding-table, and spread the feast; for a few minutes nothing more was said, my guest falling vigorously upon the eatables, and I, in the meantime, diligently thinking. When at last, the repast was over, and the Nibelung had laid down his knife and fork, I coughed once or twice, and then began, very impressively:

"Prince Hagen, I think it best to tell you frankly, in the first place, just why you are sent here, and just what I have promised your grandfather to attempt. It is his hope that your sojourn here may have the effect of broadening your understanding, and making you more fit for the grave duties of kingship, which must some day devolve upon you; that it may also—"

I had a great many thoughts in my mind, most of them phrased very finely, as I thought; but I stopped just then, because my companion's eyes were twinkling, and because I felt uncomfortable.

"Jolly old cuss, my grand-dad, ain't he?" observed he.

I was silent. Prince Hagen remained in his former position, leaning back and watching me under his half-closed lids; I felt as if I were in an ambush. His wizened features had taken on a quizzical look that was most disconcerting.

"Tell me," he asked, suddenly, "you don't suppose that that's the way I'm looking at this thing, do you?"

I stammered some words; the other went on: "I'm not losing any sleep over the grave duties of kingship that are going to devolve; when they do, I'll chance 'em, but, between you and me, I think the old chap means to hang on as long as he can. Pray don't let us worry any more about that."

There was a moment's pause; then the speaker went on, with easy self-possession: "I have to humor old Alberich sometimes, you know, but there's no need of any taffy between you and me; I'm out for some fun, and I think I can

soon find out how to have it. There's not the least use of your worrying yourself thinking what you are going to do with me."

That had not been my idea of how matters were to stand, but Prince Hagen seemed to take it all serenely. I was quite nonplussed for the time.

"I suppose," he said, a smile flitting across his face, "that the governor's been telling you some spicy tales about my general department?"

"Ahem!" answered I. "Why—he did say that you had been rather—er—"

"Yes," said the other, "that's all right. And I suppose he's scared you not a little, and you've been wondering if you mightn't be murdered in your bed?" He laughed, and moved his chair a little nearer.

"Now listen to me, old man," he began; "we'll soon get things straight." (I was not a little taken aback by the "old man," but I presumed it came from the other's princely training, and so let it pass for the present.) "The truth of the matter is, you know, that I like to have my way; I always have had it, and always mean to, and I can be just as ugly as necessary when I don't. But there's not the slightest reason why you and I should quarrel. I want to see the world, and so long as I'm entertained, I'm all right. I mean to lay low, you understand, and look 'round me, and I might just as well tell you beforehand that I don't mean to give anybody any trouble."

After which speech, Prince Hagen leaned back and beamed upon me, conveying his genial conviction that he had said a very handsome thing.

I was completely taken aback and overpowered by his condescension. I could only reply vaguely that I thanked him for his kindness. After a moment he went on:

"In the first place, of course," he said, "I'm entirely helpless, for I've no more idea of this world of yours than an unhatched turkey. I should be quite lost, and I must obviously have time to learn things, and get to feeling at home. What are we going to do about that?"

"That was what I wished to talk to you about," I said, brightening a trifle.

"Well, talk away," said the prince.

"Your position," I said, "is not so very different from that of our own sons; they, too, have to learn about the world, and it is the custom to send them to schools, where they are taught everything that is needed to fit them for life. Afterward they go to some college, where they complete their education." It was rather humiliating to find myself offering these suggestions, when I had meant to take firm command; but my relief was greater than I chose to acknowledge to myself when Prince Hagen agreed promptly with my idea.

"That's very excellent," he said, his face brightening up. "And how long should I have to stay in these places?"

"Some years," I replied; "It would depend upon how much it was found necessary to teach."

"I see," was the response. "I don't think it will take me any such time to catch on to things; but of course I sha'n't stay any longer than I wish to."

"Er—yes," said I, hesitatingly.

"And now," went on the prince, mildly, "the rest will be quickly settled. You have any such place in mind?"

"Yes," I said, "I have an old college friend, whose father, an excellent clerical gentleman, keeps a boarding-school not so many hours' ride from here. There is a summer session, for which you would be just in time. You will find Doctor Myer a most delightful man, and I can recommend him as a person of the highest character."

"Yes," said Prince Hagen, vaguely, "that will be very nice. But I'll find out about him myself when I get there. And now—we don't want to waste any time—tell me how I am to travel."

"Let me see," I mused, glancing at the clock. "The night-train leaves the village at the foot of the lake at ten. It is a moonlight night; there is no reason why we should not start to-night, if you wish it."

And Prince Hagen was on his feet in an instant. "Come," he said, "let us be off."

(To be Continued)

The Distortion of the Human Foot

LESS THAN ONE PER CENT. OF CIVILIZED HUMAN BEINGS POSSESS NORMAL FEET—SOME CRITICISMS OF OUR FOOT-WEAR BY AN EXPERT

By C. A. Parker

The average civilized human foot is forced to conform to the prevailing style of shoe. The foot, in many cases, does not approach the shape of the shoe favored by fashion. In consequence the human foot is in many instances sadly distorted. The following contribution gives a few particulars that are unquestionably interesting.—Bernarr Macfadden.

DR. FRANCIS D. DONOGHUE, one of the Boston's most successful surgeons, has started a new and hitherto neglected movement in sociology. He believes that men and women may live several years longer and may add to their industrial or earning capacity by an average of fifteen per cent. through intelligently caring for the feet.

Not only may the lame, the halt, and those afflicted with acute diseases of the feet and legs be restored and rendered capable of becoming efficient workers, but the shop girl, the laborer, the merchant and the woman of fashion are included among those to whom Dr. Donoghue believes his crusade will prove a veritable godsend.

Dr. Donoghue makes the statement, backed, he says, by years of study and research, that only a small fraction of one per cent. (practically none), of the present-day men and women have normal feet or walk properly.

"The shuffling walk of the pauper, a phrase so often heard," says Dr. Donoghue, "is simply the result of broken down arches, and the common splay-footed walk in which the spring has been lost and the industrial capacity of the individual impaired. Fifteen per cent. of to-day's pauper-

ism is thus directly traceable to a lack of care of the feet."

The doctor further states, what seems stranger still, that only a very small percentage of the people are aware that, each day, they are being handicapped in business, socially and hygienically, simply through a lack of knowledge of the physical strain which their improperly-shod feet are inflicting upon them.

He says that thousands of shop girls, domestics, factory workers, workingmen, mechanics, artisans, merchants and also people of the wealthy classes are unwittingly, but constantly laying up a store of trouble by ignorantly abusing the delicate arches, joints and tendons of their feet and legs.

Dr. Donoghue believes that if this new movement towards a reform in the care of the feet is immediately advanced, tired feet and many petty ailments, such as corns and minor foot diseases, will be-

come troubles of the past; that the general longevity of society will be greatly advanced and the industrial efficiency of people will be increased to an extent which society has not dreamed possible through such simple precautions.

He says the shop girl behind the counter will be able to stand all day without getting tired, that people



Examples of healthy feet.



Toes squeezed out of position by tight shoes.

of all classes and conditions who are now wearied before the day is over by being constantly upon their feet will discover that this exhaustion has mysteriously disappeared; that the body and the brain of the worker will become infinitely better capable of increasing the individual earning capacity as soon as the human foot receives the simple

care which is now given to other members of the body.

The purpose of the new crusade is also to establish better and more general facilities for caring for the feet and for placing a premium upon restoring to health sufferers from foot ailments.

Additional departments and more beds at public hospitals are to be secured, the purpose being to not only restore foot sufferers, but to furnish such advice in caring for the feet as shall at once do away with that class who are thus rendered sufferers and often public charges.

"Of all the organs or members of the body" declared Dr. Donoghue to a reporter last week, "the feet are the most neglected, with the startling result that the adult normal foot to-day is rarely found.

"The normal foot is provided with three under arches: the small arch, in front in a line with the foot, between the outer and the inner toe knuckles; the large arch on the inner side of the foot and a smaller arch running transversely from the large inner arch across the foot.

"The normal foot moves freely and

easily upon the ankle-joint and in walking strikes the ground upon three points of contact; the two on either side of the front arch of the foot and the one on the heel.

"The step should be in the direction of the ankle-joint in its natural position—that is on the axis of the leg in the line of weight of the body. In other words when the foot goes down it should strike the ground so that it does all the work intended of it in support of the weight of the body.

"A shoe is intended as a support for the foot and it is due to the overlooking of this fact that there is to-day an almost universality of abnormal feet.

"The first requisite in buying a shoe is that it shall support—that is, act as an aid for the large arch of the foot.

"Among ten people chosen indiscriminately, it will probably be found that in nine cases the shoe does not properly support this arch, as will sometimes be noticed by the wrinkles in the leather.

"The second essential to be determined in the selection of the shoe is that the point or front of the shoe does not squeeze the front of the foot out of its normal position and thus produce a constant tension.

"For instance, the average person with normal shaped legs walks straight ahead—that is, with an appearance of



An example of broken down arch and varicose veins.

being slightly pigeon-toed when in motion. If the foot is forced into a shoe that has a decided point outward the whole tendency of the shoe will be to skew the toes around from their normal direction and thus thrust the foot out of shape: a result that is sure to bode trouble of various kinds to persons thus shod.

"Pointed-toed shoes are not necessarily ill-fitting, provided the shoe is built to toe in the natural direction of the foot when drawn on, and provided there is always room inside the shoe between the large and the small toe for the joints of the toes to have free action.

"What happens when these precautions are overlooked or disregarded?

"Supposing the foot is slightly thrown out of its normal position and skewed around by the fit of the shoe. Either the inside or the outside of the foot is forced from the natural direction in which it has a constant tendency to swing. There is a squeezing together of the toes, and sooner or later the little under arch in front, just behind these toes, is broken down. Then, instead of falling upon the two supporting points in the front part of the foot, the whole weight of the body begins to be thrown upon but one point here; that is, the equilibrium of the foot is lost and the person begins to walk upon the one point of contact of the heel and only a single point in the forefoot. Immediately a strain is inflicted upon the foot, the ankle and the leg.

"This straining of the foot out of its normal position eventually results in the breaking down of the large inner arch, and in causing flat feet and the loss of all the natural spring which is intended to relieve the body of the jar in walking.

"The average child has a perfectly normal foot. It is only when the growing person begins to wear stiff leather shoes that the process of twisting the foot and ruining its arches begins.

"Shoes should be built to fit the feet, but instead it seems to be an almost universal thing to-day for people to make the feet fit the shoes.

"An illustration of the abuse of the feet may be found at any time in the spectacle of one or a number of pedestrians upon a public street. In the walk of many, actual pain may be observed. Hundreds of people walk

with their feet thrown slightly outward whereas if their shoe had been properly fitted from youth their feet would point straight ahead when walking—the normal walk of the child and of the rare individual with the normal foot.

"Few people realize that much of the weariness which they experience from standing still or walking is incurred by the improper fit of their shoe—that the foot is being continually twisted from its normal position."

Dr. Donoghue has delivered a number of lectures upon flatfootedness and the care of the feet, and his latest purpose is to inaugurate a means of diminishing the industrial inefficiency consequent upon the present-day ignorance in the protection and care of the feet.



View of a foot that has been squeezed into an angle.

What Healthy Fatigue Means

"Even the fatigue that comes over a man, who is in good condition and who has taken a long spell at exercise, is pleasurable. Such a one eats well and

digests well; the functions of his body, are carried on normally, and he experiences to its full the delight of living."

—FREDERICK TREVES, F.R.C.S.

The Young Mother and the Fat Hog

NOT A FABLE. SIMPLY STRAIGHT GOODS

ONE time a little mother, who was only twenty-five years old, began to feel tired all the time. Her appetite had failed her for weeks before the tired feeling came. Her three little girls, once a joy in her life, now became a burden to her. It was—"mamma," "mamma," all day long. She never had noticed these appeals, until the tired feeling came. The little mother also had red spots on her cheeks and a slight dry cough. One day, when dragging herself around, forcing her weary body to work, she felt a sharp but slight pain in her chest, her head grew dizzy, and suddenly her mouth filled with blood. The hemorrhage was not severe, but it left her very weak. The doctor she had consulted for her cough and tired feeling, had said—"You are all run down, you need a tonic." For a fee he prescribed bitters made of alcohol, water and gentian. This gave her false strength for a while for it checked out her little reserve. When the hemorrhage occurred she and all her neighbors knew she had consumption and the doctors should have known it and told her months before.

Now she wrote to the State Board of Health and said: "I am told that consumption in its early stages can be cured by outdoor life, continued rest, and plenty of plain, good food. I do not want to die. I want to live and raise my children to make them good citizens. Where can I go to get well? The reply was—"The great Christian State of Indiana has not yet risen to the *mighty economy* of saving the lives of little mothers from consumption. At present,

the only place where you can go is a grave. However, the State will care for your children in an orphans' asylum after you are dead, and then in a few years a special officer will be paid to find a home for them. But save your life—*never*." "That is a cranky idea," for a member on the floor of the Sixty-fifth Assembly said so. Besides, said he—"It isn't business, the State can't afford it." So the little mother died of the preventable and curable disease, the home was broken up and the children were taken to the orphans' asylum.

* * * * *

A big fat hog one morning found he had a pain in his belly. He squealed loudly and the farmer came out of his house to see what was the matter. "He's got the hog cholry" said the hired man. So the farmer telegraphed to Secretary Wilson, of the U. S. Agriculture Department (who said the other day he had 3,000 experts in animal and plant diseases), and the reply was—"Cert., I'll send you a man right away." Sure enough, the man came. He said he was a D.V.S., and he was, too. He had a government syringe and a bottle of government medicine in his hand bag, and he went for the hog. It got well. It wasn't cranky for the government to do this, and it could afford the expense, for the hog could be turned into ham, sausage, lard and bacon.

Any body, even a fool, can see it would be cranky for the State to save the life of a little mother, and it could not afford it either.

MORAL: Be a hog and be worth saving.

Hints on Exercise

A good exercise consists of raising an ordinary chair from the floor, with one hand grasping the lowest front round.

One can fasten a strong rope, three or four

feet long to the wall, and practice the tug-of-war alone for exercise. A strong spring can also be used in this way.

Amsterdam, N. Y.

A. E. BEN.

Balancing Feats

STUNTS THAT CALL FOR STRENGTH, SKILL, AND ENDURANCE

By James Boyle

IF you wish to learn balancing feats, begin with easy ones and work with patience and persistence. I think that about the easiest balancing trick to acquire is the head-and-hand-stand. In trying this, put your hands about a foot back of your head. It does not take very long to master this feat.

After the head-and-hand-balance, the next is the hand-stand. This is very much harder. I found that the easiest way for me to learn this was to put my feet up against a wall, and then walk on my hands away from the wall. It is much easier to walk on the hands than to stand still.

When you have mastered the trick of standing on both hands, then try this same stand in a little different form, using only the thumbs and index fingers for supporting your weight. See photograph number three.

Another very interesting feat is holding a man aloft at arm's length, with one hand. This is not so difficult, however, as some other stunts performed by the writer.

After you have mastered the various styles of standing on both hands, then you ought to try balancing and standing on only one hand. The one-hand lever, which I perform with either hand, is a good one with

which to begin. It is easier to balance the body horizontally on one hand than it is to stand vertically. Standing on one hand, as shown in one of the accompanying illustrations, requires not only skill, but considerable endurance.

After you have acquired the ability to perform several of these feats, then try balancing while holding weights in hands and teeth. The head stand, with a 25-pound dumb-bell in each hand, is a rather difficult and very entertaining stunt.

The feat shown in the last illustration is my hardest. I stand upon one hand, holding one 25-pound bell in the other hand, and support with my teeth another bell of the same weight. In performing this

feat, I can stand upon either hand.

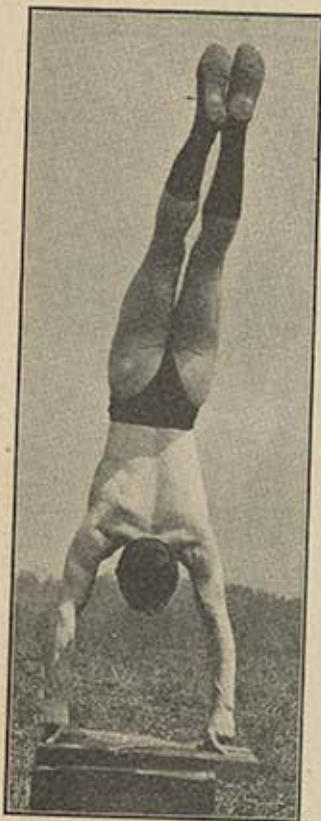
When you have mastered the hand-stand, get a friend who is interested in physical culture to work with you. Try the hand-stand on his hands, having him lie on his back. A man does not have to have great strength in order to support you on his hands in this way, provided you have your balancing part learned well.

The next feat requires an assistant of unusual strength. In this, you have your friend stand up and lift you over his head while you poise yourself upon his hands the same as in the stunt last described.



No. 2.—Standing on the hands—the second step in the mastery of balancing.

No. 1.—Head and hand balance. The writer regards this as his easiest "stunt."



No. 3.—Standing on thumbs and index fingers—a difficult feat.

There is hardly any limit to the different ways of doing the hand-to-hand balance. If you should practice a long time, you might be able to do a one-hand stand upon your partner's hand. To learn this, however, would require several years of practice. Perhaps you never could learn it. I have known performers to work at this constantly for years without succeeding.

I have attended circus a great many times, and have often seen a man applauded for a one-hand lift, as shown in photograph four, while a one-hand stand received scarcely any notice. There is really no comparison between the two. Any healthy, vigorous man could learn to lift another man and hold him in this way, and could perform the feat within a year; but I have yet to see anybody learn this one-hand stand in five years.

"Everything comes to him who works for it." Don't wait for things to come. Athletic stunts don't come that way. Get into a gymnasium if you can, and then get a routine of balancing feats or similar performances. I know some young men who attend the gymnasium exercises almost every night, but learn little; for they do not know what to do outside of class time.

A very important thing is to get a

partner to work with you. You cannot very well talk to the side-horse or parallel bars; and they do not care whether or not you do your work well. Get some fellow-worker who is interested, and then work together. Then you can practice even if you do not have gymnasium apparatus.

If you master the hand-to-hand balance, with your partner standing, you will be able to perform something very few amateurs learn to do.

One thing I like about hand-balancing is the excellent development it gives the muscles, especially the muscles of the upper arm, although too much value should not be placed on muscles that look abnormally large when a man is not using them. What you want to develop is your energy. The muscles do not need to be large. Hand balancing makes the



No. 4.—A good lift for one hand.



No. 5.—Left hand lever.

muscles strong and symmetrical, and also develops energy and endurance. Your energetic man, the man who never gets tired, is the fellow who gets there.

Another thing that I like about head-and-hand-balancing is the fact that it does not require any apparatus. I do all my practicing in my room in the evening after I get through work. I always



No. 6.—Head balance, with 25-pound bell in each hand.

take my clothes off for my practicing in warm weather. I practice a few minutes every evening. When I get through, I take a cold bath.

I was twenty-three years of age before I began trying to stand on my hands. The fellows at the gymnasium told me that I was too old to learn any handstands. They said that those performers who followed that line were at that kind of work since childhood, and that there was no use in my trying. After six years of steady work, however, I find that I can stand on either hand. The way I feel pays me for all my practice. It is simply great to enjoy the health I possess.

I would advise the reader not to forget to walk on his feet once in a while. I think walking is the most healthful of all exercises. Nobody is too poor to indulge in it. I have walked forty-four miles in ten hours and thirty minutes on several occasions. I think that a friend of mine and I can beat Mr. Weston's record if we have a chance, and things look now as if we are going to have an opportunity next spring.

One of the strongest points of walking as an exercise is that it keeps the body in splendid condition to meet any unusual stress or strain which it may be called upon to withstand. Then, too, walking



No. 7.—Standing on one hand.



No. 8.—The writer's most difficult feat—standing on left hand, with 25-pound bell in right hand, and another 25-pound bell supported by teeth.

seems to effect a general tuning-up of the entire system, which enables the athlete or gymnast to perform his favorite feats of strength, even when circumstances are such as to make it impossible for him to keep in constant practice. If one is particularly fond of an athletic specialty, and is deprived of the opportunity of indulging in it except on certain occasions it will be found that walking provides an admirable method of preventing one from getting stale, and entirely out of practice. However, as I have already stated, balancing exercises possess the advantage of not requiring a gymnasium, or any special apparatus for their performance. There is hardly anyone whose surroundings will not permit him to perform regular exercise of one sort or another. The very number of one's days depend upon maintaining a proper degree of activity of the physical organism.

I work in a mill on six days of every week; so I do not have much time to indulge my taste for athletics. If I can get to perform a few more stunts like number eight, I think some circus will make me a good offer.

Taken Our Exercises Four Months—Puts Over Head 100-lb. Dumb-Bell

TO THE EDITOR:

Please find enclosed a picture of myself taken a few months ago. I have taken the exercises given in your magazine for the last four months and they have helped me greatly.

I am 5 feet, 4 inches tall and I weigh 139 pounds and I am but sixteen years old. I have put a 12 pound shot 36 feet. I can hold a 40 pound weight out from shoulder and can also put a 100-pound dumb-bell over my head with one hand. I have gained most of my strength through your methods.

RALPH S. REED,
1022 Grant street, Beatrice, Nebr.



R. S. Reed, of Beatrice, Nebraska. Sixteen years of age and puts up a hundred-pound dumb-bell over his head with one hand.

Menus and Recipes for Three Days

Readers will please note that all the foods embraced in these Menus, as well as the products represented on our advertising pages, are given our endorsement as of first quality, and as fully complying with the Pure Food Law.—Bernarr Macfadden.

FIRST DAY.

Breakfast.

Bananas	Oranges	Shredded Wheat
Glacé Sweet Potatoes	Beet Salad	Omelet Nut Butter
Educator Crackers	Soaked Prunes	Banana Coffee

Dinner.

Tomato Bisque	Celery Hearts	Plain Rice	Mixed Nuts
Uncooked Wheat Bread	Spinach Salad	Triscuit	
Baked Asparagus with Cheese	Dates	Apples	Prune Whip
Milk	Sumik	Apple Tea	

SECOND DAY.

Breakfast.

Oranges	Figs	Grape Nuts	Lettuce
Cream of Kidney Beans	Tonic Salad	Steamed Potatoes	
Poached Eggs on Toast	Bran Biscuit	Date Coffee	Postum

Dinner.

Lyonnaise Potatoes	Combination Salad	Stuffed Peppers
Lentil Roast	Ripe Olives	Lettuce with Onion Dressing
Shelled Peanuts	American Cheese	Hawaiian Pineapple
Apple Whip	Cocoa	Milk

THIRD DAY.

Breakfast.

Grape Fruit	Corn Flakes	Bananas	Figs
Grated Sweet Potatoes with Nuts	Soft Boiled Eggs	Corn Bread	
Grape Nut Pudding with Cream	Apple Sauce	Banana Coffee	

Dinner.

Cream of Lima Beans	Mashed Potatoes	Celery
Snowballs of Cottage Cheese and Cocoanut		Creamed Onions
Macaroni with Tomatoes	Entire Wheat Bread	Nut Butter
Ripe Olives	Peach Blanche Mange with Vanilla Cream	
Oranges	Grape Juice	Cocoa Milk

Baked Asparagus with Cheese.

Cut asparagus into short lengths and place in a buttered baking dish. Then pour over layer of white sauce. Add to the sauce two yolks of eggs well beaten. Then add layer of grated cheese. Two tablespoonfuls should give yellow color. Then add extra layers of asparagus, white sauce, beaten yolks, and cheese. Cover with buttered crumbs and brown in hot oven.

Prune Whip.

One-third pound prunes, whites of five eggs, and one-half tablespoonful of lemon juice. Wash prunes carefully and then soak several hours in cold water. Then cook slowly in the same water. If cooked several hours slowly, natural sweetness will be developed and less sugar will be needed. When still warm, remove stones and rub through sieve. Then add sugar and cook five minutes, or until sugar has dissolved and formed thick syrup. Then beat whites of eggs until stiff and dry. Cool prune mixture and then add gradually to whites. Add lemon juice, a few drops at a time. Pile lightly on well buttered plate, or else use pudding dish. Place in pan of hot water and bake one-half hour in moderate oven. If baked too long, or at too high temperature, will be tough. If not long enough, will fall. Serve cold, with boiled custard made from yolks.

Spinach Salad.

Select crisp leaves of spinach, and shred very fine. Cover with a dressing of sour cream and sugar. Garnish with parsley and serve very cold.

Tonic Salad.

Equal quantities of raw beets, cabbage, celery, and raw peanuts. Mince the ingredients and season with olive oil and salt to taste. Have very cold and serve on lettuce leaves.

Lentil Roast.

One cup lentils, one cup nut butter, one-half cup bread crumbs, and two eggs. Mix thoroughly and make into a loaf. Baste with butter while roasting slowly. Serve with egg sauce.

Grape Nut Pudding.

One package grape nuts, two and one-half quarts of milk, one cup of sugar, six eggs, one-half pound raisins. Heat milk to boiling point, pour over the grape nuts, and let stand until cool. Beat the eggs and sugar together, mix with the grape nuts, and stir thoroughly. Add the raisins, place in buttered pans, and bake for one hour, or until a light brown. Take from oven and let cool. Then cover with whites of eggs beaten stiff with sugar, and brown lightly in oven.

Tomato Bisque.

One quart can fresh tomatoes one quart milk, one-half cup butter, one-half teaspoonful soda. Heat the tomatoes to boiling point and salt to taste. Let cool a little and stir in milk gradually. Then add butter and soda. Stir well and serve very hot.

Pound Cake.

Two cups pitted dates, one cup ground figs, one and one-half cups raw wheat flakes, one-half cup English walnuts (ground). Mix well and place in shallow pan. Put on ice, and when cold serve with thick cream.

"Triumphant Health"

It laughs from out of sparkling eyes
It shouts from rosy cheeks
It calls aloud from glowing skin
In lusty voice it speaks.

It advertises with its strength
Proclaims its rugged reign
It thunders with its vigorous step
The world admits its fame.

It sweeps all gloom before its march
And conquers with its mien
It gives the world a hopeful creed
It's clothed with golden sheen.

A monarch who is truly great
More so than pomp or wealth
Let it's immortal mission speed
All Hail, Triumphant Health.



Department of Motherhood

IT IS THE DUTY OF EVERY MOTHER TO BE HERSELF

By Marion Malcolm

A MOTHER ought to know herself; a mother ought to develop herself, a mother ought to be herself. Self-knowledge and self-development should have as their supreme purpose, the creation of self-being. In no other profession or career is individuality, self-being, so important as in the sublime and sacred calling of motherhood.

The world is full of imitations and imitators; and the world is full of failures. Nearly all the failures in the world, failures even as measured by our false, foolish, and superficial standards of failure and success, are due to lack of individuality. A person cannot make a more serious failure, however, than that of not being himself. Even though, because of gaining wealth, or fame, or some other possession which the world almost invariably misplaces, we call a man a supreme success, yet, if he has failed to be himself, he is a colossal failure. Success consists in doing our best in the place for which Nature has prepared us.

In order to protect ourselves against those who we fear would steal our ideas, we pass laws providing for patent-rights and copyrights. The patent-medicine manufacturers, through fear that someone as rascally as themselves will imitate their abominable concoctions and thus do some of the robbing they are seeking to do, devote so much energy to worrying that they are often forced to call upon a physician to prescribe some dope which they are willing to trust to cure their ailments. Along with all our

anxiety to protect ourselves against the scheming of imitators, however, we are constantly striving to preserve and to perpetuate a collection of crippling customs whose chief tendency is to increase our crop of imitators and imitations. We invent corsets for body, mind, and soul, and then bribe and drive the ignorant multitudes to wear them.

For some reason (just why, Satan could probably explain), every unjust custom is more unjust to our mothers than to anyone else. Further, every wrong committed against motherhood places a dangerous obstacle in the path of progress, causes a calamity fatal to the highest interests of mankind. Progress, like charity, must "begin at home." If we wish to evolve a civilization of enlightenment and liberty, if we wish to produce a superior humanity, let us first set free our mothers from the enslaving power of monstrous customs which rob woman of her inherent right to be herself.

"No man can serve two masters."
No woman can serve the dissipating demands of conventional, sensual society and also the divine responsibilities of worthy motherhood. If a woman wishes to be a wife, merely for the sake of social convenience, but refuses to be a mother, she is not committing any serious additional sin in seeking to worship all the gods and goddesses of pagan fashion. If, however, a woman is fitted for motherhood, if she has in her heart that most holy purpose of becoming God's greatest gift to earth, a true mother, such a wo-

man cannot afford to listen to any call which would interfere with the fulfilling of this purpose.

No, I am not advocating that a woman ought to live a life of seclusion. Certainly not. Seclusion helps to deprive a woman of the privilege of being herself. Shutting women away from the world is one of the most atrocious practices of heathenism. While a woman should not remain constantly at home, however, she ought to seek only those associations which will contribute to the development of her womanhood.

A mother should have the best possible education. She ought to possess a high education, true education, of her whole being. She ought to know the important principles of right living; she ought to know the value of a well developed body, and of a carefully trained mind; she ought to appreciate the importance of strong and sensitive instincts, cultivated by natural living; she ought to learn everything she can learn which will contribute to the building of a rugged character. Literature, music, science, art, all ought to have a place in her life. Helpful associations with noble men and women, and close contact with Nature, these ought she also to have.

Fortunate the woman who has been trained naturally from childhood, who has a normal body and mind and a strong, pure character, who possesses keen instincts, who has naturally chosen a husband worthy of her, who has a home of which every feature bears testimony to the self-being of the woman for whose womanhood, wifehood, and motherhood that home has been builded. Such a woman puts herself into everything she does, into everything she says, into everything she thinks.

We need to train our children to be human units. We need to develop ourselves into self-being persons. We need to express ourselves. The majority of people do not possess the power of self-expression; they merely patronize other people. They have no self to express. To be sure, we do not need to be outlandish. We do not need to put forth effort to attract attention to ourselves. We do not need to hire a brass band to accompany us, or to employ a herald to go

before us and announce through a megaphone that we are individuals. We may be very modest, very quiet, very reserved. Reserve may be a part of our self-being. Demonstrative, external appearances do not necessarily express power; they often indicate weakness. True power will find ways to express itself. What we need to do is to develop the power, generate the self-force within us.

The mother who has gained self-poise and self-power, who possesses natural development of her whole being, will express *her self*. The world will feel the force of her life. She will respect the rights of others, and she will influence others to respect her rights. Loving truth, she will cause others to love truth. Free herself, she will help others to gain freedom. Self-reliant herself, she will inspire others to seek self-reliance. In endeavoring to rescue others from error and gain their allegiance to truth, she will use her power to lead, not to drive. She will use her power for protection, to be sure; but she will use it as Nature directs. She will speak less in words than in works. Everything that is hers will be truly hers, will be an expression of herself. She will think her own thoughts, follow her own tastes, form her own habits, build her own character, fill her own place in the enterprise of world-making, live her own life. She will win from Nature the truths of the universe, fit them to her personal needs, use them for her own purposes, make them her own truths, transform them into parts of her own self. So carefully trained, so delicately sensitive, will be her intuition, that she will be able to recognize instantly the true and the false, the genuine and the superficial, men and monstrosities. Her inner self will respond to truth, rebel against error.

Such a mother will not be a mere creature; she will be a creator. She will create pure ideas and uplifting ideals. She will create physical strength, mental power, moral force. She will create individuality in her home, self-being in her children. She will create influences of transforming power. She will create an environment of health and helpfulness. She will help to create a perfect manhood and womanhood.

Some Medical Monsters

MEN WHO ARE DISGRACING THE MEDICAL PROFESSION, AND TO WHOM LIFE ITSELF IS VULGAR AND VILE FROM BEGINNING TO END

By Sidney Cummings

Though there are many praiseworthy men in the medical profession, there are black sheep in all flocks, and this profession has a liberal share of them. There is, however, no excuse for the existence of such "medical monsters" as are described in this article, and whenever they are encountered the decent members of the profession should see that their ranks are cleansed of these foul human birds of prey.—Bernarr Macfadden.

HOWEVER great a blessing to mankind may be a clean, pure-minded conscientious physician, a man who looks upon the human body as the home of the human soul, who considers his calling as a sacred privilege, and who earnestly strives to serve his fellow-man, there surely can not be a much more monstrous curse than is an unscrupulous vile-minded, vicious doctor, a creature who looks upon the human body as a chunk of meat upon which he may glut his wolfish lust for lucre, for experiment, or for sensuality, who considers his calling a selfish opportunity, and who strives diligently to swindle his fellow-man and to enrich himself. Such a reprobate is more loathsome than a leper. A spreader of perversion, a promulgator of that infernal idea that immorality is essential to health, a fiendish foe of virtue, his presence ought not be tolerated in a decent community.

One of the many fathomless mysteries of human inconsistency is the popular practice followed by clean, moral, Christian people, of summoning into their homes for the performance of sacred ministries an abominable doctor whose mind is as foul as a pig-pen and whose heart is as black as the bottom of hell. This is even more difficult to explain than is the custom of multitudes to seek medical advice by mail from these "strictly confidential" vampires that suck the blood of the credulous. These latter victims, of course, are ensnared by the appeal to their false modesty, their desire for secrecy, their fear of disclosing their ailments to people whom they know, and by the preying upon their colossal ignorance, "which passeth all

understanding." The former must be either blinded by unadulterated ignorance or limitless inconsistency, or else rendered helpless or hopeless by the deplorable scarcity of doctors that are decent. Perhaps Anthony Comstock, or Mrs. Eddy, or Dr. Pierce, or Lydia Pinkham, or Peruna Hartman, or some other angelic dispenser of divine wisdom, can offer a better explanation of this puzzling practice of cultured people. At any rate I am forced to be content at present with stating the fact of the existence of this piece of inconsistency. Without attempting, therefore, either to claim an unerring diagnosis or to guarantee an infallible remedy, I freely but considerately offer a few suggestions for your careful study, and humbly ask your earnest co-operation.

I shall now proceed with my dissection of this offspring of depravity, the medical monster.

It is not the purpose of this article to deal with those hideous quacks whose advertisements adorn the pages of that marvelous moulder of public morals, the newspaper. Those venereal vultures usually live in the larger cities, from which they collect by correspondence their carrion in the smaller towns. No, this article will not endeavor to supplement the courageous efforts PHYSICAL CULTURE has long been putting forth to disclose and to destroy these dragons from the pit of perdition. It is the writer's intention to display for inspection another species of imps, who establish their branch offices of hell in city, town, and even in village.

Almost every town of any considerable size is cursed by the presence of one

or more of these medical monsters, who encourage immorality and thrive upon the harvest of licentiousness. Why? Because their pernicious prostitution of their profession helps to supply the devilish demand of a depraved public seeking scientific aid to the unlimited licensing of lust. They serve as a sort of cesspool for the moral sewage of sensual society. Especially are their scientific services in demand in communities infected with this fashionable, silk, satin, broadcloth, beer-guzzling, perfumed, superficial, sensation-seeking, abnormal, hell-boosting aristocracy, who often seriously need professional aid in their lustful, Satanic diversion of perverting their reproductive power from the natural purpose of perpetuating humanity to the lascivious pastime of perpetuating hell. Feeding upon the carrion thus profusely strewn about in the fields of conventional society, these vile vultures wax as financially fat as they are physically foul and morally depraved. Ignorance, prudery and sensuality are the principal items on their obnoxious bill of fare.

A friend of mine, a physician, located a few years ago in a thriving town of four thousand people, a town more productive of money than of morality. The first year he was there, he turned away calls for criminal practice which would have added over a thousand dollars to his income for that year. Had he responded to all these calls, he probably would have received as many more of their kind that year. In that same town, other medical men are piling up almost as much wealth as wickedness by practicing the refined art of abortion.

Another clean, conscientious physician tells of having a similar, though far more startling experience, in a fashionable suburb of one of our capital cities. In this community, conditions are evidently even more deplorable than in the town alluded to a moment ago. Indeed, it is claimed that scarcely half the people in this elite section of the city confine

their immorality to the lust licensed by marriage, but that about fifty per cent. of the homes are infected with marital infidelity. The population of this aristocratic suburb, this Palestine fluttering with silk and money, is composed largely of a set of conventional, conceited, self-righteous, hell-bent Pharisees, whose god is fashion, with all its infernal foolishness and devilish lust, and whose religion is "Be dignified or be damned." For the professional murderer of children unwelcome and unborn, this community holds forth a cup running over with the wine of wealth.

Why should I multiply illustrations of the prevalence of this pestilence? How about the community in which you live? Clean out your nostrils and fill up your lungs, and then see if you think the moral atmosphere needs the cleansing effects of a thunder-storm of righteous wrath. See if the decency of your perfumed social set ought to be embalmed in formaldehyde. See if any red lights are needed along your Grand Avenue of elegant mansions. Give a little time to the study of your professional men, and see if there are among them any characters deserving to be classed beneath your depraved keepers of devilish dives.

It is time for decent people to strive to exterminate these parasites of sin. It is time for the public to give itself a thorough fumigation, and to cleanse itself of the sensual slime in which these abominable bacteria thrive. It is time to quarantine those already infected with this scourge. It is time to vaccinate the prurient and the prudish with the anti-toxin of decency and knowledge.

Typhoid fever is a filth disease; so is cholera; so is abortion. Each has its microbe of propagation, which lives and multiplies in filth. The abortion microbe is the medical parasite of prostitution. Let us get rid of our filth. Let us annihilate this putrid parasite. Let us strive to save the race from the ravages of the bubonic plague of abortion.

A Remedy for Constipation

TO THE EDITOR:

Boil, until thoroughly cooked, one pound of dried peaches. Pour about three cups of

water on them. After cooking drink two or three cups of the juice.

Norristown, Pa.

Jos. A. NOLL.



Gathering peanuts by hand. This is a dusty job which is now being done, to a great extent, by machinery. See the stacks of peanut vines in the background.

The Peanut Diet for Strength Building

THE PEANUT AN EXCELLENT MUSCLE-BUILDING FOOD AND
A MOST ACCEPTABLE SUBSTITUTE FOR MEAT—AS A CROP IT
BRINGS THE FARMER SPLENDID FINANCIAL RETURNS

By Charles Merriles

The peanut is ordinarily looked upon as a tid-bit, rather than as a staple article of diet. From the standpoint of actual food value, however, it is hard to equal. It forms a very valuable meat substitute, and as an addition to the ordinary diet, it is extremely valuable. It is a highly concentrated food, and must of course be eaten with care, but when not consumed beyond one's actual requirements, it will be found to be a valuable food.—Bernarr Macfadden.

THE cultivation and marketing of peanuts is a most interesting industry from several points of view. In a favorable locality, the farmer finds peanuts a very profitable crop, and, as in days of old, the peanut-stand is still a paying institution at circus and fair and on the street corner. In recent years, however, the peanut is growing in popularity as a regular article of diet. The increase in the consumption of peanut butter is remarkable, and it is a very common thing to find the peanut itself on the dining table. Why not? It is a more healthful and far less expen-

sive food than meat, which seems to constitute the greatest item of expense of those who are obliged to keep close watch on table expenses.

The farmer who raises peanuts is producing an article of commerce for which there is a great demand. The peanut vine also furnishes him with excellent food for his stock in addition to the more marketable parts of the crop. Like alfalfa and other kinds of clover, the vine is of such a nature that it tends greatly to enrich the soil in which it grows. Beyond all this, the cost of raising peanuts is very low in comparison



Piling the gathered peanut vines about the "drying-stakes." Notice the completed "shacks" in the background.

with the possible returns. The entire cost of raising this crop, including seed, fertilizers, etc., is variously estimated at from \$12 to \$25 per acre. While the average yield per acre is only about 35 bushels of peas and not quite a ton of vines, proper methods ought to produce a yield of at least 60 bushels of the peas from one ton to one and a half tons of vines. As the vines are worth from \$8 to \$10 a ton and the peas from \$40 to \$60 per bushel, such a yield would bring a net profit of from \$36 to \$45 above the highest cost of production. As the United States Department of Agriculture is making a scientific study of the peanut industry and publishing valuable information concerning the best methods of raising and using this product, we may look for a considerable increase in the average yield. There are authentic records of such large yields of the Spanish variety as 160 bushels of peas and two tons of vines per acre.

It is in peanuts as an article of food that the physical culturist is most interested. The American people are now

using yearly about 4,000,000 bushels of peanuts, at a cost of \$10,000,000. This quantity is all the more enormous in view of the fact that nearly all these peanuts are eaten at odd times, as a delicacy, and not as a regular food at meal-time. The majority of the people who thus use them also eat extensively of meat and other foods containing the elements found in peanuts. So, by using the peanuts as regular items of diet, and by getting along without these between-meal extras, thousands of people could greatly decrease their living expenses and remarkably increase their health and efficiency.

As food, peanuts may be used in a great many ways. They are very good shelled and eaten as ordinary nuts, either raw or roasted. If any variety of candy is healthful, surely those kinds of confectionery composed largely of peanuts—such as peanut crisp (made of peanuts and sugar and sometimes coconut), and the chocolate-dipped meats—ought to be wholesome. Then there is peanut butter. While non-physical cul-

turists generally consider peanut butter as a sort of picnic dainty, many people use it regularly as a substitute for ordinary butter. Chopped peanuts, not made into butter, make an excellent ingredient for sandwiches. These chopped meats are also delicious when baked in bread. They may be combined with sweet fruits for making wholesome fruit cakes, or with many fruits and vegetables as salads. As a result of some experiments carried on by the German Government, biscuits made of peanut-meal were adopted as a part of the regular rations of the German army. On the whole peanuts are a very nourishing food for man, and are capable of being used in a large variety of forms, both separately and in combination with other articles of diet.

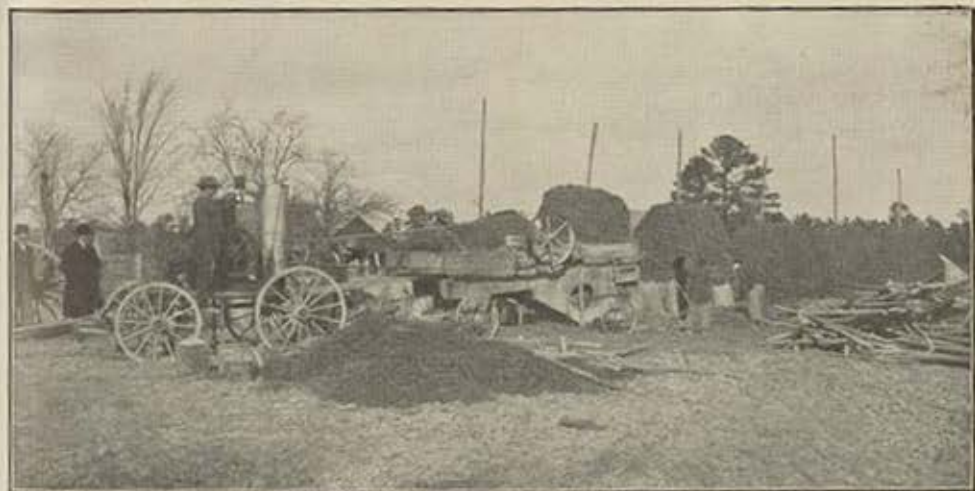
Another way in which peanuts are used as a food is in the form of peanut oil, which is often used as a substitute for olive oil. In Europe, India, and Brazil, and also in this country, peanut oil is used for medicinal purposes, in place of olive oil. It is also used by manufacturers in fulling cloth. In some places, especially in Europe, it is used extensively in the manufacture of soap, and also as a lubricant for machinery. The oil is also valuable as a lighting fluid.

In the United States, a large part of the peanut crop is produced in Virginia, North Carolina, and Tennessee. It is

probable, however, that improved methods of cultivating and harvesting, an increasing demand for the various forms of the product, and the opportunities the industry offers for a healthful, interesting, and profitable outdoor occupation, will lead to a growth of the industry in other States having favorable soil and climate. The industry of peanut raising ought itself to be of interest to physical culturists.

The peanut is such a familiar and favorite edible with the people of America that they are apt to think of it as native to the soil in the first place, and of enjoying a long-time popularity in the second. As a matter of fact, Brazil, Asia and Africa in turn, claim to be the original home of the "goober" and each has its army of scientific witnesses to bolster up its assertions. Botanists also agree that the peanut was brought to the United States in the early part of the eighteenth century by some philanthropist whose name has not been preserved, and that its transplantation hither has refined its taste and increased its virtues. This is the experience of a good many other immigrants. So it is, that the American peanut leads the world in flavor, appearance and nutritive qualities. But of those things we shall speak later and in detail.

Apart from this, a good many people will be surprised to know that the popu-



The latest type of machine used in the peanut industry. It digs, "shacks," and collects the legumes in the piles shown in the foreground.



Virginia bunch peanuts.

larity of the peanut only dates back to the years following the close of the Civil War. In 1850 the nuts were grown in one or two places in Virginia and in small quantities at that. But from thence on, up to the outbreak of the war, the crop grew steadily. With the beginning of hostilities, however, the industry died out or practically so, to revive again in 1866, since when it has increased by leaps and bounds. The indications are that its proportions will increase annually for a long time to come.

Even as late as 1870, peanuts were shipped to consumers just as they were picked from the vines. They were mixed with dirt, twigs, light nuts or "saps," dark nuts and all the rest of it. Then, cleaning and grading machinery was introduced and gradually perfected. At present, some of the big "factories" of Virginia—the Peanut State—have machinery valued at millions of dollars.

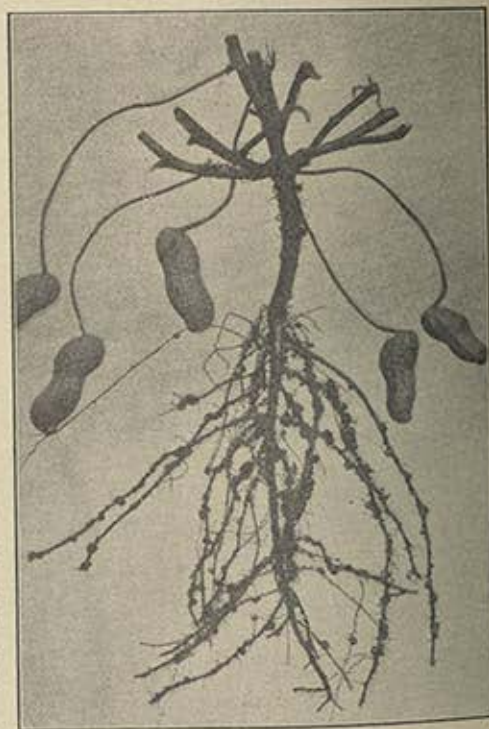
As has been stated, the peanut possesses other virtues than those of a dietetic sort, and unlike many crops it enriches instead of impoverishing the soil in which it grows. Without going into a long explanation of this phenomenon, it may be said that the fertility of soils depend upon the nitrogenous elements in them. These elements are sucked out by nearly every crop that grows with the exception of the peanut, which seems to have the faculty of drawing nitrogen from the air to its roots and from thence distributing it to the adjacent earth.

There is little or no waste to a peanut crop. The stripped vines make an excellent hay. After harvesting, domestic

animals are turned into the fields and no scattered nuts escape them. Such animals thrive and get fat on the gleanings. The screenings and scrapings of the factories furnish capital food for fowls. The hulls from the shelled nuts were formerly used for bedding for stock or as a fertilizer for the soil; recently however, it has been found that when ground into meal, they make a nutritious food for chickens and cows.

Last year, the crop was valued at about \$15,000,000. Virginia growers produced the bulk of the legumes—for such peanuts actually are. North Carolina came next, and Tennessee contributed about 900,000 bushels. A few nuts were grown in Southern States other than those named, and also at infrequent intervals in California. But in these latter cases, the supply is taken up by local demands.

The Virginian, the Spanish and the African varieties are most favored by the farmers, the first named leading by a large majority. About 400,000 acres of



Roots of peanut vine, showing the value of this plant as a nitrogen gatherer.



Spanish type.

land are employed in producing the crop, which gives employment to nearly half a million people. Naturally, the peanut loves a rich alluvial dwelling place, but failing to get that, it contents itself with a soil which is otherwise useless, or nearly so—at least for farming purposes.

As suggestive of the importance to the State in which it is at its best, it is a fact that the Gwaltney-Bunkley Peanut Co., of Smithfield, Va., sends to its customers in a year 6,000,000 pounds of peanuts. These figures are also suggestive of the esteem of the public for the once despised or ignored edible. That this esteem is based on a foundation of nutritive fact we shall endeavor to show.

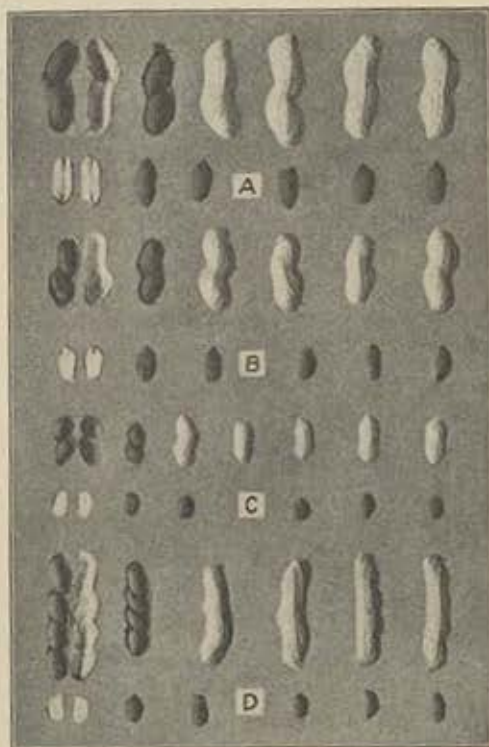
Impressive as is the peanut crop in point of size and value, it doesn't meet the demands made upon it by consumers at home and in Canada. Canada, by the way, has developed a remarkable appetite for United States peanuts of the best grades, this too, in spite of an import duty of two cents per pound, which its people are called upon to pay. Last year she bought of Virginia dealers thirty per cent. more than she did in 1907 and the indications are that in 1909 she will break her peanut record by a considerable margin.

So keen has become the zest of the public in general for the peanut that, as already stated, the home-grown supply is not sufficient for the demand. As a consequence, about five years ago, a few thousands of bags of peanuts were imported from Japan. These, however, were used up on the Pacific Coast. In-

cidental, they are said to have been "much below" those grown in America in point of size and quality. The importations continue, but only to a limited extent. Exportations of American peanuts are unknown or nearly so, for the reasons given. If any do find their way to Europe, they are not only of the poorest grades, but they are sent abroad because the home market is temporarily glutted with such.

Once upon a time, we ate peanuts only on circus days or consumed them merely for the sake of tickling the palate. At present, they are an adjunct to the food supply of multitudes of well regulated households, taking the shape of "butter" sandwiches, salads, soups, confections, being or eaten roasted, candied and—best of all—raw.

Uncooked peanuts are much more nutritious than are those that have been subjected to the action of fire, and what is more, they are appetizing and even



Commercial type of peanuts. (a) Virginia bunch or Virginia runner; (b) North Carolina; (c) Spanish; (d) Tennessee Red.



Raw shelled peanuts, favored by all physical culturists who prefer raw food. Though not palatable at first, they taste better than roasted peanuts, after one becomes accustomed to their flavor.

delicious when one becomes accustomed to them. A taste for roasted peanuts is artificial. It is due to custom rather than natural desire. But to get the true flavor of the peanut and to extract from it all its nourishing qualities, you must

eat it *au naturel*, as the French say, that is, before it has been steamed or roasted or what not. Of course, a raw peanut calls for much more mastication than does one that has been cooked, but this is a manifest advantage in a dietetic sense. If you try to "bolt" an uncooked peanut before your teeth have done their full duty to it, your digestive organs are likely to suffer in consequence. The same remark applies to any food that may be "gobbled." On the other hand, a well chewed raw peanut is most digestible. In fact, the writer has never known of internal trouble or distress resulting therefrom.

After a time, you will prefer the raw to the roasted nut, and as the nutritive value of a food to a very great extent depends on our enjoyment of it, this too is quite a consideration. It is perhaps unnecessary to add that the brown-red skin which surrounds the kernel should be removed before eating. Some people take a little salt with the nuts, but this is by no means essential. Nature has dowered the peanut with flavor, and nutritive qualities in due proportion and

we have no reason or right to interfere with these last by adding condiments.

Speaking of the nutritive qualities of the peanut, it may surprise some to know that weight for weight, it surpasses nearly all other generally used foods in the respect in question. Here are the official figures of the Department of Agriculture which give proof thereof:

	Nutritive units per lb.
Skim Milk.....	98.2
Skim milk cheese.....	870.0
Ordinary milk.....	145.5
Bacon.....	1257.7
Butter.....	1186.3
Veal.....	520.9
Beef.....	530.0
Peas.....	778.6
Potatoes.....	136.2
Rye flour.....	603.6
Rice.....	534.6
Peanut meal.....	1425.0



Ordinary roasted peanuts as commonly sold.

When one takes into consideration the low cost and the high percentage of nutrition in the peanut, its economic value will be made manifest. This is saying nothing whatever about its other good qualities.

The food constituents of the nut are as follows, the figures of the Department of Agriculture again being quoted:

	Per Cent
Water.....	10.88
Ash.....	4.26
Protein.....	35.37
Fibre.....	2.66
Nitrogen (free).....	10.33
Fat.....	55.37
Nitrogenous material.....	5.50



Roasted and salted Spanish peanuts, a popular variety of this food.

As will be seen, the peanut possesses a remarkable quantity of protein or flesh-forming food, and a large supply of fat, which produces heat and energy. As these are the chief factors in nutritives of any kind, the value of the peanut as a food is obvious.

Yet it must be remembered that no one article of food can furnish every element that is necessary for the health of the body. The "perfect food" does not exist. We have to draw our needed nutritives from many sources. The juices of fruits, the bulk of say, whole-meal bread, the salts of vegetables—all in turn have their place and function in the scheme of normal diet. This explains why an "exclusive diet" of one food is bound to cause trouble in the long run. Not so many months ago there was a good deal published in the news-

house steak as the standard of comparison, dietetic authorities calculate that the peanut yields the same amount of nutriment and energy as the steak at exactly one-sixth of the cost of the latter. This is worth remembering, especially if one happens to be the parent of a family whose hungry little mouths eat big holes in the weekly income.

Yet it is somewhat difficult to lay down hard and fast lines in regard to the amount and proportion of peanuts which should be consumed at a meal or during a given day. The quantity must necessarily vary with the peculiarities of the individual and the nature of his calling. An out-of-door worker would plainly require more of the nuts than would one engaged in a sedentary occupation. But a glance at the preceding table will be of



Peanut brittle, a peanut candy which has a very large sale.



Chocolate-dipped peanuts, in the popular form of "peanut clusters." Really wholesome confectionery.

papers about a Western man who was living and allegedly flourishing on peanuts only. The writer has been informed that at the end of six weeks, the experiment came to a sudden end owing to the development of intestinal trouble. The peanut could not supply all the requisite constituents of a wholesome diet and the experimenter's body resented the omission of these.

But such an instance by no means detracts from the value of the peanut considered as a cheap, appetizing and nutritive food. Provided that fruit, vegetables and cereals be used in connection with it, the peanut—preferably in a raw state—may form the basis of one's dietary with benefit to one's health and one's pocket-book. Taking porter-

some assistance in this connection. As will be seen, the raw peanut is nearly three times as nutritious as beef. Now, if you were accustomed to eat say, three-quarters of a pound of meat a day, before you became a physical culturist, it follows that about four ounces of peanuts should take the place of the carnivorous food. A little experimenting along these lines will soon teach you what amount of nuts is needed by your body.

But to repeat, the American peanut is at its appetizing and nutritious best when it is removed from its shell, thoroughly masticated and eaten raw in well considered quantities. And in this form, it is commended to the attention of the reader.

An Experiment in Cooking

By Milton Hastings

Physiological Chemist of Christian's School of Applied Food Chemistry.

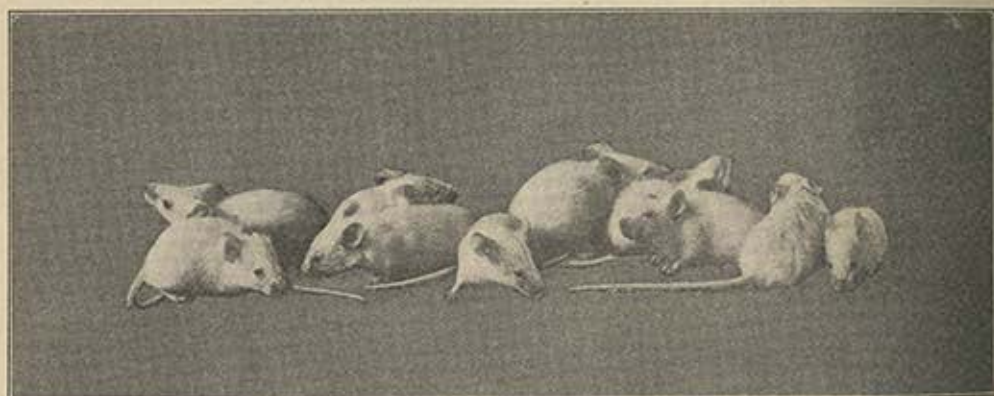
The experiment of which the results are here published, is a forceful illustration of what would occur if the advocates of cooking should carry their theory to its logical end. In connection with this article I want to call attention to the following rather surprising quotation from Dr. J. H. Kellogg, who has in the past been a most relentless advocate of excessive cookery: "Some raw food must be eaten daily, at every meal. According to Prof. Combe, the great authority on children's diseases, of Lausanne, Switzerland, children begin to show symptoms of mal-nutrition which develop into serious conditions after being fed on cooked or sterilized food for more than ten or twelve days."—M. H.

THE following experiment was undertaken for the purpose of contrasting the extremes of cookery, *i. e.*, uncooked foods *vs.* supercooked or dextrinized foods.

Domestic mice in their eating habits are about as near man as any animal we could select, for while mice live chiefly on vegetable foods, they are also fond

of cream cheese. In this experiment a diet of uncooked foods was contrasted with a diet of the same foods, which had been subjected to as great a degree of heat as has the most thoroughly cooked portion of the conventional diet.

The man who accepts everything in the way of eatables that the tradesman offers him, without stopping to question



The ten young mice as they were at the beginning of the experiment.

of many foods of animal origin. In fact the mouse has lived on man's own food stores for so many generations that any argument that could be raised concerning man's adaptation to the peculiar foods of civilization, could also be applied to the mouse. This similarity to man in feeding habits, together with the advantages of rapid growth, convenience in handling and weighing, and the fact that they are accustomed to confinement, make white mice an excellent subject for experimental work.

The foods selected were four in number, *viz.*, wheat, corn, peanuts and full

the reason of things, eats during the day foods subjected to greatly varying degrees as far as heat is concerned. His breakfast may be of soft boiled eggs, the centers of which have hardly been warmed through, and toast which has been subjected to a temperature three hundred degrees. During the day he may eat fresh fruit and munch peanuts that are roasted brown. For dinner he will eat anything from a rare-done beef-steak to zwieback and tea.

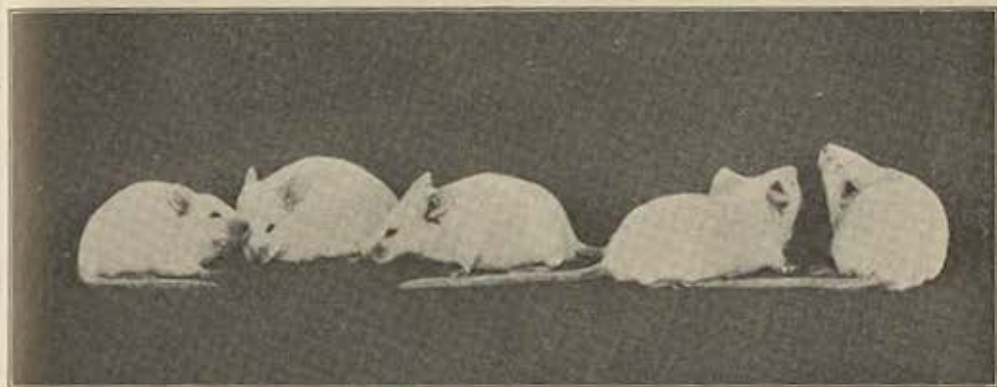
An experiment from which we are to gain knowledge, must unquestionably contrast two distinct factors or things,

and not be a jumbled mass of inconsistencies as is the contents of the man-of-the-world's alimentary receptacle.

In this experiment the heat of a slow oven was selected as the proper factor to contrast with natural or uncooked food.

roasted nuts, and, sold from a street vendor's stand, would have been accepted by the public without complaint.

The cheese, after being subjected to this temperature, could hardly be said to be palatable, for it was thoroughly dried



After three weeks on uncooked food.

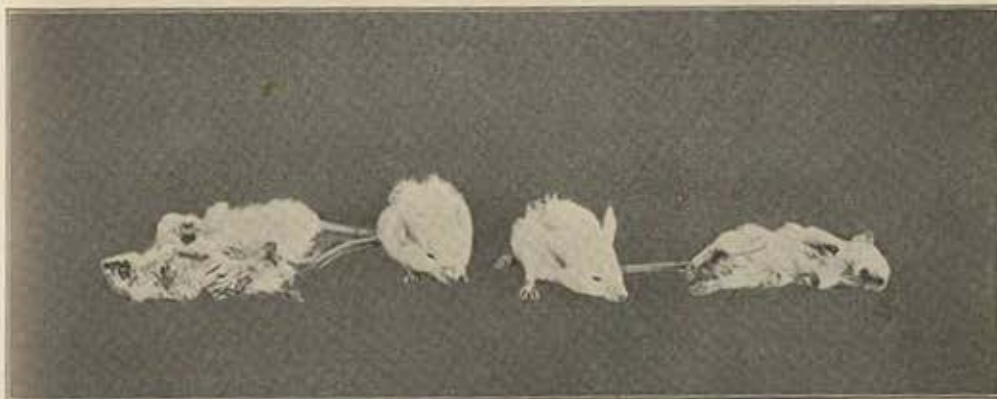
Weighed portions of the four foods employed were placed in an oven and held for two hours at a temperature of 300° Fahrenheit. This temperature is the same as is used in preparing zwieback, and a piece of bread placed in the oven as a check came out an excellent sample of zwieback or hard toast.

The wheat and corn used in the experiment were nicely browned but still quite palatable—the roasting process had not gone nearly so far as is the case in preparing some cereal coffees.

The peanuts were typically well-

out. It was not burnt, however, and was seemingly less affected by the heat than is the outside of a nicely browned roast. Taken as a whole the diet of the mice on cooked food was not unlike the most completely cooked portions of the foods that enter into the every day diet of civilized man.

The mice, at the beginning of the experiment were thrifty, growing youngsters, and had been living upon the four articles of food mentioned for some time before the experiment began. The ten mice involved in the experiment are



After three weeks on cooked food.

TABLE I.—FOOD CONSUMED.

	Wheat.	Corn.	Peanuts.	Cheese.	Total.
Mice on Uncooked Foods Ate.....	106.2	83.4	11.7	98.4	299.7
Mice on Cooked Foods Ate.....	71.4	65.3	29.1	37.1	202.9

shown in the first photograph. Their weights are given in the first column of Tables II and III.

The mice were then divided into two groups of five each and each group given a cage 12x12x24 inches. Ample quantities of the four foods employed, together with drinking fountains, which were kept filled with pure water, were placed in each cage, the mice in one cage being provided with uncooked foods exclusively, and those in the other cage being fed solely on the foods which had been cooked.

The mice were weighed each week, but the weight of the foods eaten was determined for the entire period only. The amounts of each food eaten during the three weeks covered by the experiment are given in Table I.

That the mice did not relish the roasted foods, notably the cheese, as well as the uncooked foods, is very evident; but as the only cause for this lack of relish was the effect of the process of cooking, either upon the taste of the food or upon the health of the mice, the cooking must bear the responsibility.

From the small consumption of raw peanuts it is evident that mice do not care much for peanuts; but the mice whose favorite articles of diet had been tempered with ate more largely of the less palatable peanut.

Tables II and III give the results. The mice fed upon uncooked foods thrived as only young mice can; and practically doubled their weight in the three weeks that the experiment continued. The mice subsisting upon roasted foods seemed to do well for the first week, and by their appearance could not be told from the other lot, although the scales showed some difference. During the second week this lot stopped growing and towards the end of the second week began to lose weight rapidly. With the exception of No. 7, which was some-

thing of a runt, they were lively and very active and ate more greedily than during the first week. During the third week it quickly became evident that these mice were starving to death, though surrounded by an abundance of food. On Sunday, which was the fourth day of the experimental week, No. 7 died; but as this mouse had been much weaker than the rest I thought the others would live till the end of the week. Monday evening I found another mouse about dead. I hastened to get some fresh milk and feed them, but they were farther gone than I had realized, and two of them had not enough vitality to assimilate the milk. Tuesday was a holiday and I could not get a photographer until Wednesday morning, by which time numbers 9 and 10 had died. The remaining two mice, though very weak for a few days, began improving, and have now fully recovered, though they are stunted in size.

The writer's explanation of the results of this experiment is that the roasting process to which these foods were subjected coagulated and changed the proteid or nitrogenous substance so as to make it quite unassimilable. This is altogether in harmony with Hasting's findings at the Kansas experiment station, where egg albumen, on being subjected to the temperature of boiling water until it was thoroughly dried out, was found to pass through the human alimentary canal wholly without digestion. In all probability the starch, and undoubtedly the oil in the roasted foods was still digestible and usable in its function of producing bodily heat and energy; but the proteid substances are so changed by this degree of heat that they are of little or no use in cell construction.

The case of the mice in this experiment was a typical one of what the food chemist calls nitrogen starvation. The

animal body, as a natural protection, normally carries a surplus of available proteids or non-cellular nitrogen. With this stored nitrogen an animal may live nicely for a while upon the carbohydrate and fatty elements of the food, and even make gains in weight. After this circulating nitrogen is exhausted the vital functions call upon the less important calls to give up their nitrogen, which process, together with the consequent loss of weight, continues until the body actually eats itself up and death results.

Had a quantity of fresh proteid been supplied the mice might have lived upon roasted grains indefinitely. This is indeed what happens when a human being eats milk and zwieback. But the proteid of the grain is made worthless by this heating process. It has even been suggested that as the average man overeats of proteid, the beneficial effects claimed for the supercooked diet, may be due to a cutting down of the quantity of digestible proteids. If this is the case certainly the advocates of the supercooked theory of nutrition cannot claim much credit for results achieved in such a roundabout method.

The fact that the conventional man eats such a wonderful variety of things and twice as much as he needs has been the means of preventing our earlier discovery of many important facts of nutrition. If meat is not a good source of human nutriment our conventional man eats enough vegetables to cover his tracks, while if roasting destroys the proteids of our foods it will all be the same, for there is an abundance of unheated or slightly heated proteids in the ordinary bill-of-fare to nourish the man. With such an array of nutritive possibilities the conventional eater is in small danger of starvation, prides himself with his fat paunch and ravenous appetite and pooh-poohs all talk of dietetics and food science.

But along with the things he does need, the man on "three square meals a day" gets a lot of chemical caricatures of what foods once were; which are total strangers to the physiological economy of the human machine. It is here that half the ills of mankind find their origin and the well-fed man who came yesterday to scoff may return to-morrow with a pain in his "tummy" and humbly offer prayers.

TABLE II.—WEIGHTS OF MICE FED UNCOOKED FOOD.

Mouse No.	Weight at Beginning	Weight at end First Week.	Weight at end Second Week.	Weight at end Third Week.
1	8.84 grams	10.79	13.38	16.70
" " 2	7.67 "	9.41	11.57	14.28
" " 3	8.44 "	10.33	13.09	15.19
" " 4	8.14 "	9.96	12.84	16.11
" " 5	7.42 "	9.68	12.42	15.83
Average	8.10 grams	10.03	12.66	15.62

TABLE III.—WEIGHTS OF MICE FED COOKED FOOD.

Mouse No.	Weight at Beginning	Weight at end First Week.	Weight at end Second Week.	Weight at end Third Week.
6	8.47 grams	9.85	7.91	6.74
" " 7	6.90 "	6.97	5.83	(a) 5.12
" " 8	9.06 "	11.48	10.14	8.93
" " 9	8.17 "	9.31	7.54	(b) 6.31
" " 10	8.28 "	9.45	7.49	(c) 6.17
Average	8.17 grams	9.41	7.78	6.65

(a)—Died fourth day of week.
 (b)—Died fifth day of week.
 (c)—Died sixth day of week.

The Science of Physcultopathy

The Cause of Disease

A FEW FACTS THAT SHOULD BE OF GREAT INTEREST TO
THOSE SEEKING LIGHT ON THIS IMPORTANT SUBJECT

By Bernarr Macfadden

In the series of lectures being published under the above heading, I am presenting a thorough exposition of the fundamental principles upon which Physcultopathy, the new science of healing, is founded. If you become thoroughly familiar with the information found herein, you need never thereafter have the slightest fear of disease. You will know what it is and how to treat it whenever it may appear. This series of lectures has been given in an institution with which I am connected, and I want each reader to feel that I am standing before him and emphasizing each statement that is found herein. These lectures will be weighted with practical and valuable truths. As nearly as possible they are given here just as they were taken down by the stenographer at the time they were delivered.—Bernarr Macfadden.

LECTURE III.

THE problem of "What is Disease?" presents itself to the average individual at more or less frequent intervals throughout life. At times it assumes prodigious importance. As a rule, men and women lack the confidence essential to depend upon one's self, at such times, and consequently the services of a reputed expert, who is regarded as a master of medical lore are called upon.

Most of us depend entirely too much upon the judgment of others, in matters of this sort, and if I could only impress all those who hear and read this series of lectures with the terrible necessity of doing some of their own thinking on important subjects, the effort expended will not be unrewarded. I would like to encourage the habit of investigation in every one. In the study of healing, as well as every phase of human life, use your own judgment. When doctors disagree, it is time for you to do some thinking on your own account. He who depends entirely upon what can be accomplished through drugging, when his health is in need of urgent attention is walking blindly toward impending disaster. He is apt to fall over the edge of a precipice, and into the great beyond at any moment. One might say he is "feeling" his way through life. He is unable to look ahead, and he knows not what is

before him. He is groping in the darkness of a hidden mystery, though in many cases his fears are alleviated to an astonishing extent by sometimes absurd and ridiculous advice that guides his physical welfare.

In my previous lecture, in referring to the nature of disease, I called attention to impure blood as the direct cause of disease. The various symptoms associated with disease are induced by foreign elements in the blood, which are inclined to lower the vitality and depreciate the strength and energy of every organ and nerve of the body. Now, the question naturally arises: If impure blood causes disease, what is the cause of impure blood? I will answer this query in detail as plainly as possible.

There is practically no physical disorder without a cause. All disease is the result of certain causes. Health is natural. Health is the manifestation of a normal condition. One who is not healthy, is, as a rule the victim of his own ignorance or mistakes. Your ill-health may be the result of abnormal environments through which you have groped your way through life. The various habits which you may have contracted may have had a great deal to do with your physical troubles. Now, if health is normal and natural, and ill-health is unnatural, one might reason-

ably state that many persons are unnatural. We are all suffering because of our own ignorance or carelessness. I can hardly regard myself as an exception. I had to go through the school of experience, though I congratulate myself that I learned a great deal in that particular school. The difficulty with many persons is that they are unable to learn anything in this school of life, no matter how vivid the lessons may be. Most persons acquire learning like a parrot. They talk and think the thoughts of others, but they have none of their own. Now, real knowledge one must acquire for one's self. One should not accept another's word as absolutely conclusive—one should seek the truth until the question is settled to his own satisfaction.

Now, I never claim to be an authority on any subject. I do not desire especially to impress people with my knowledge. I would like to have a hearing, and would like to have all those who are interested in obtaining superb health, consider the conclusions that I may present, but I do not, under any circumstances, want any one to accept my conclusions as truth simply because I present them. I want you to reason from the facts that I may present and derive your own conclusions. Though I have studied this subject for over a quarter of a century, I am still a student and expect to continue to learn as long as I have the capacity for reasoning. As long as you maintain an open mind, you will progress and will be able to deduce clear, rational and really valuable conclusions. My advice is to take no conclusions for granted. Learn all you can from the knowledge and conclusions that are presented to you by books and by those looked upon as authorities; all knowledge is of unquestionable value. Use the ideas thus acquired, but do not accept them as indisputable facts. Take the knowledge as presented and make it a part of yourself. For instance, if you read a book that appeals to you, do not accept the statements made in it until through your own individual efforts you have been able to prove the truth of the conclusion. The questioning habit is a splendid one to cultivate. Take nothing for granted

until you have reasoned from premises to conclusion yourself.

The struggle for health and for happiness, is one continual, never-ending contest, and those who are able to struggle the hardest, those who are able to see and reason the clearest, are the men who accomplish the most in life. There is no problem that assumes such momentous importance as that of maintaining health and strength. This problem represents the very fundamental principles that have to do with superior manhood and womanhood. Health is the root, the very foundation of the human career. Without health you are lost in the sea of suffering. You know not what to do, and you turn from one expedient to another. My advice is to stand on your own foundation. Acquire the knowledge that is sent you and depend on yourself. Use your own God-given intellect, and if you become possessed of the necessary knowledge, you will not be only free from disease, but you will avoid many other evils with which you are bound to come in contact in your pathway through life.

There are many causes for disease that are under our own control. I believe that the most important and most prolific cause of weakness, sickness, disease and death is found in that terrible evil that I would term prudery. This is the cause of vulgar mystery in which certain physiological knowledge of the human body has been shrouded. The vulgarity and the nastiness with which these subjects have been surrounded might reasonably be regarded as the greatest evils of the day.

There is certainly tragic need for some plain talk at this time on this vitally important subject. I have received letters from thousands of young men and young women who have gone down to an earthly perdition, to sickness, to wreck and to ruin, and in many instances to an early death, because of prudery. Their parents or guardians or teachers had neglected an imperative duty. They did not have the intelligence or clean minds that were essential to furnishing the truths that were so pitifully needed in growing to manhood and womanhood. The subject requires a special lecture in itself and I will not dwell on it in detail.

I would simply say that the information that has to do with human sexuality is of more importance than any other knowledge that can enrich the human brain.

The next cause of disease on which I will dwell is the breathing of impure air. Neglect to supply the proper quantity of oxygen is the cause of many very serious ailments. It produces disease frequently in the first instance and is the cause of its continuance. In the first issue of this publication I called attention in an emphatic manner to the value of outdoor treatment for consumption. I emphasized the importance of this method of treatment in every conceivable way and the result of my own efforts and those of others, is seen in the marvelous change that has come about everywhere in the treatment of this complaint. Even the medical profession are now advocating the outdoor treatment, and strange as it may seem, even professors of various medical societies have admitted that medicine is ineffective in the treatment of consumption. To be sure, they still cling to the germ theory, maintaining that this disease is caused by breathing the minute micro-organisms which are associated with the complaint, but the time is coming when they will grow able to see above and beyond even this error. All the scientific research carried on for the purpose of delving into the mysteries of germ life, as far as furnishing information in regard to the curing of consumption is concerned, has proved of little or no value. The scientific men of the past and of the present have neglected the simple, yet magnificent principles of nature. They look on these simple things as unimportant. They fail to consider them of value because they are simple, and when some one comes along and proves to them their value, they will often remark "Oh, there is nothing in such simple things. I was familiar with their value years ago." Now within the simple theories that are being definitely advocated largely by nearly all members of the healing art who have eliminated the drugging idea, you will find the real science of bodily rejuvenation. There is no guesswork about this science. You will know what you are doing and in

practically nearly every case you can be certain of the consequent results.

To further discuss the effects of bad air: When you are in a poorly ventilated room you breathe the same air over and over again, and while continuing this process you breathe in the noxious poisons that have already been eliminated from the lungs. By this process you poison yourself. Not only does the air lack sufficient oxygen, but it is filled with poisons. The average individual is afraid of a draft. Now, there is nothing harmful in a draft. If you were to go out on a very windy day, you would meet a very vigorous draft. If you were to encounter with a cyclone, you would have a still more emphatic representation of a draft. As a young man for a long time I was much puzzled in endeavoring to learn the nature of a draft. I heard much about drafts. The average individual, of course, will tell you that a draft is a current of cold air in a warm room. Whenever you go out of doors from a well-heated room in the Winter, you will meet a current of cold air. Some may say that baneful effects come from a current of cold air on one part of the body while other parts are surrounded by the warm currents. If you go out in the open air with part of your body heavily clothed and other parts of your body with little or no clothing, you will meet a similar condition. Therefore, to my mind, drafts are a mere superstition; and if you desire to be free from disease, one of the first things you should do is to eliminate the fear of a draft. The oxygen that you find in pure air is absolutely essential to life, and you will live longer and be more capable, mentally and physically, if you freely supply yourself with a liberal quantity of the purest air obtainable. This advice is especially important to all those who may be suffering from lung or catharrhal troubles. Consumption, you must remember, is catarrh of the tissues of the lungs. It frequently begins with a catarrhal condition of the mucous membrane of the nasal passages, which in time passes down into the larynx, then into the bronchial tubes, then into the lungs, and we have consumption.

For many years, after learning of the necessity of ventilating my sleeping room, I pulled down my window at the top about an inch or two and imagined that I was securing pure air. Now, I had an inherited disease to fight. I say inherited, and yet no disease can really be inherited. To my mind, one inherits weak or defective parts of the body. For instance you can inherit weak lungs, and you can ultimately acquire consumption, but you cannot naturally inherit consumption. For years I had a hollow cough—of the sort that usually causes people to shudder. Whenever one hears that cough, as a rule a wave of pity will come over him for the afflicted victim. You feel that it is only a matter of a short time until he will be in another world. Now, I was not able to remedy that hollow cough until I learned how to avoid breathing bad air, until I learned how to ventilate my sleeping room. When I thoroughly understood the value of pure air, I opened my windows to the fullest extent possible. My object was to secure outside air, and to ventilate my room in such a manner as to secure, as nearly as I could, the same advantages in the way of pure air as I would secure if I were out of doors. I was never satisfied unless I could feel a breeze playing over my face when I went to bed. In other words, I began to sleep in drafts, and if you once cultivate this habit, you will never get away from it thereafter, for then will you secure real pleasure and rest from sleep. You will arise in the morning full of life and vigor and enthusiasm. You will feel rested and able to cope with the duties of the day. But when you sleep with closed windows, you often get up in the morning more tired than when you went to bed at night, and through a habit of this kind, your vitality is liable to be greatly lowered.

The need for proper supply of oxygen cannot be too strongly emphasized. It is necessary to ward off disease. It is still more necessary to cure disease. It is therefore the duty of every one to cultivate the fresh air habit until the average person would regard you as a fresh air crank. Fresh air cranks are, of course, a great source of annoyance to those who insist on closed windows. They are

especially bothersome when traveling. They are often inconsiderate of the feelings of others. On one occasion I remember traveling in a sleeper; fortunately I had the lower berth where I could open a window. A little while after I had retired, I heard some one climbing into the berth over me. Now there is quite an aperture between the upper berth and the wall of the car, and I heard this person exclaim indignantly when he felt the draft coming his way, "There is some fool got his window open, porter." I opened the curtain and said to him that I was the fool, but I heard nothing further from him thereafter. I would like to have accommodated the gentleman, but I could hardly afford to be polite with the possibility of poisoned blood staring me in the face from breathing the same air over and over again throughout the entire night.

Several years ago I went on a lecture trip through Canada. It was in the middle of winter. They are not satisfied with the ordinary windows in that country, they have double windows. Coal, I suppose, is expensive. They have what they term an inside and outside window. In most of the homes and hotels the outside window is fastened securely and cannot be opened. On the inside window there is often a little round hole in the glass that you can open if you so desire. Now I had to sleep in one of these closed rooms on one occasion and as long as I live I shall never forget the experience. Outside the mercury was thirty degrees below zero, but I would not stand another night of such suffering as I had to endure on that occasion even if I had to walk the streets during the entire period. After that experience, I was careful to secure a room in which the windows could be opened. When the thermometer is forty degrees below zero you can rest assured that it is necessary for you to have quantities of bed clothing; in fact it is necessary to pull the blankets up over your ears, for otherwise your ears are apt to be frozen by the morning; but when the temperature is so low, the atmosphere contains a vast amount of oxygen, and has tonic qualities that beneficially affect life, and health and strength to an unusual degree.

Dietetic evils are no doubt the cause of the diseases that are next in importance to lung troubles. The average individual knows little or nothing of diet, and when you discuss the value of knowledge of this character, you will often hear remarks like the following: "My father lived to be eighty or ninety and he did not bother about these new fangled ideas of health. He was rugged and healthy." He may have been, but as a rule he had a great deal more vitality than his sons or his daughters. He might have been one of those pioneers who grew up on farms, who had to chop wood and grub up stumps the larger part of their early years. These vigorous exercises, long continued, connected with the simple diet that he was necessarily compelled to subsist on, were the means of building great vitality, and consequently, after he attained maturity, any ordinary deviations from a healthful diet would have little or no effect upon him. The digestive organisms of many individuals possess such an extraordinary degree of strength that they seem to be capable of getting nourishment from any kind of food, no matter how difficult it may be for the ordinary stomach to digest. There is but little need in those days for the rugged habits of life that were so essential in former days, and naturally we do not have the vitality that many of our ancestors possessed. Then, too, we have been feeding on their vitality for generations. The conclusion is very easily proven by the experience of the average man who moves into the city to found a home. He brings with him all the vitality and strength that he has gained from outdoor country life; but notwithstanding the great vigor that he brings to the city, his family tree, as a rule, exhausts itself in from three to five generations.

If the great cities were not fed by the life blood of the country districts, they would cease to exist. They would begin almost immediately to decrease in population and would soon be wiped out of existence entirely unless they learned the lesson of preserving the vitality of their people. The American people have been wasting their vitality generation after generation. We have been feeding

largely for the last generation upon the vitality of the people who have come to us from foreign shores, and now we are beginning to realize that we must learn something of the laws of health if we are to fight disease, sickness and early death. We must learn how to feed ourselves. We know how to feed our horses. Scientific dietetics, so far as they are concerned with the feeding of hogs, chickens, dogs and various other live domestic property, have been thoroughly studied, but scientific dietetics for the human race are still in their infancy. If you doubt the truth of this statement, simply watch how people gobble their food. This statement may seem to be a jest, but the average individual does gobble his food. He does not chew it. Go into the average restaurant and watch the patrons eat. They will take a mouthful of food, chew it once or twice, and down it goes. Now, that is enough to give Mr. Fletcher, the mastication expert, an epileptic fit. Such habits are an insult to the stomach. Your stomach is not supplied with teeth; your teeth are in your mouth. They were put there for a purpose. No wonder we have need for so many dentists. If you feed a cow on slop food, her teeth will fall out. If you feed yourself on mushy food, if you use mostly those foods which require no chewing, your teeth will gradually lose their strength and vitality and will require fillings, and may finally be destroyed through decay. Now, Mr. Fletcher, the mastication expert, states that you can live on half or at least three-quarters the amount of food you are eating at present if you will simply masticate your food thoroughly. Now thorough mastication does not mean thirty-two times as has been advocated by Gladstone, the renowned English statesman. It means that you should masticate and continue masticating every mouthful until it disappears without swallowing. It frequently takes a great deal of practice to cultivate the mastication habit—to actually make it a habit. In some cases it takes determination. We have to be persistent for a long period. Now, if you were to masticate to the extreme advocated by Mr. Fletcher, you would have to chew an ordinary mouth-

ful of food from seventy-five to one hundred times in order to thoroughly masticate and liquefy it until it would pass down your throat without any effort being made to swallow. As a rule, if you will simply retain the idea that food should be swallowed at all times without effort, that is, that you should never make an effort to swallow your food, that you should masticate it until it seems to disappear without swallowing, you can rest assured that you are masticating sufficiently. Of course this would not require you to masticate to the extent advocated by Mr. Fletcher, but you will be following the laws of mastication as nearly as can be expected. If it were not for the liquids that are used at meal-time, very many human beings would nearly choke to death in endeavoring to swallow their food. The average individual takes a mouthful of food, and washes it down with a swallow of coffee, without mastication. Then think of the abominable mixtures and concoctions that most people put into their stomachs. But few individuals have any respect for their stomachs. If their stomachs were their worst enemies, they could hardly treat them worse. Take the average meal that is eaten at what one would term a high class restaurant. It begins, for instance, with soup; then a small piece of fish with a potato; then one would have a roast and some vegetables, and perhaps then a salad and a bite of chicken; then ice cream and a *demi tasse*—small cup of black coffee. Suppose for instance you would take all these various articles and mix them together in a large punch bowl. Now if you were to stir them altogether and carefully examine the mixture, I think you would receive a lesson that would awaken the average human mind sufficiently to do some careful thinking on dietetic subjects. To be sure, you will no doubt say you have not the time; you will often say it is not necessary, and until one comes in contact with serious ill health, the subject does not interest him. I have studied dietetic subjects all my life. I began the study first of all to save my own life, and continued it because of a desire for more knowledge. There is one peculiar result of adhering to a wholesome diet, and that

is the more rigid rules you follow, the more closely your stomach will force your obedience to the laws of dietetics. Your stomach then begins to tell you what is right and what is wrong. Many persons, when they have been accustomed to three meals a day and change to a more reasonable diet, will find that their stomach causes them more trouble than it did when they were eating three meals daily. Then they become aware that they have a stomach. In other words the stomach develops a capacity to discriminate between right and wrong; and many, when they notice this particular inclination, have the impression that they are beginning to acquire stomach trouble, but in reality the delicate nerves of the stomach are coming to life. They are not being doped with food, and they begin to understand the difference between wholesome food and that which is pernicious, and the more closely you adhere to what is normal and right, the more delicately acute become the nerves of the stomach, and when you fail to obey the rules of dietetic wholesomeness, the stomach very plainly indicates its displeasure in pain and discomfort.

I do not believe much in dietetic combinations. Most people eat too many different articles. Nearly every one eats entirely too much. If you would eat less in quantity, masticate more thoroughly and avoid such a great variety, confining the meal to say two or three articles, the digestion would be carried on to a far greater advantage. It is not right to eat a combination of various articles of food. You eat all you really require of one or two articles of food and then you proceed to tickle the appetite with a half a dozen other foods, while if your meal had been confined to two or three articles, you would not have eaten half as much.

Now please note this very important conclusion. The less you eat to maintain health and strength and the vitality that is essential, the longer the human machinery will wear; the longer you will live; the fewer diseases you will have, and the stronger you will be in every conceivable way. Variety in food is in nearly all cases baneful. There may be exceptions now and then when it is allow-

able, but they are rare. This statement is made of course providing you are eating complete foods. Providing you are eating foods that are not lacking in certain elements, for instance white flour foods; they do not contain the muscle or bone-making material necessary to nourish the body. In my younger days, when I was struggling for health, I went to a farming district in which people lived mostly on white flour and bacon. Now most of these farmers had been raised on corn bread and they had acquired the impression that this sort of bread was not good enough for them, and they had substituted white bread instead, their diet consisting mostly of white bread and bacon. I really think I would have starved to death while in that vicinity if it were not for the milk that I was able to secure. The men and women in that vicinity were not strong and I frequently saw young women twenty-five or thirty years of age, whose teeth had been reduced to mere shells, absolutely starved to death by their white flour diet. To be sure one can use white flour products if one has plenty of other articles of food. It is quite filling. It may be better than saw dust, but it is certainly not much better.

Now there are many features of this subject of dietetics that we could dwell upon, but I want to say that the more

nearly we approach simplicity, the more nearly we go back to the old time régime, the stronger and healthier we will become. Do not forget that white flour is a partial food. Corn bread is a complete food. You can live on corn bread indefinitely; you feed your muscles, your nerves and your brain.

In conclusion, remember the necessity of eating few varieties of food. If you mix your food, note this simple rule that will appeal to your good sense: Do not put into your stomach any two articles of food that will not taste well if they are mixed and chewed in your mouth at one time. In other words, do not eat beefsteak and ice cream, or fried potatoes and pudding. If you must have meat with your diet, try and eat sparingly of it. Remember the value of other foods. Meat is a prolific cause of disease. Learn to like natural foods that have a natural flavor; the flavor that is given them by Nature; and after you have acquired a taste of this kind, you will have but little use for pepper and other condiments. Foods that have been cooked to death or that have part of their elements removed lose their vitality.

My next lecture will be devoted to additional causes of disease, as it is impossible to cover the subject properly without devoting further attention to it.

Discarded Meat—Uses Uncooked Foods

TO THE EDITOR:

Being a constant reader of *PHYSICAL CULTURE*, I have tried several experiments in the way of dieting for strength and endurance.

For the past three years I have entirely discontinued the eating of meat, resorting to an uncooked bill of fare, to my entire satisfaction.

I find that my strength as well as endurance are excellent and I think that if a diet of this kind be strictly adhered to, there would be little need of fasting. Two meals a day and these thoroughly masticated, consisting of luscious fruits and nourishing tissue-building cereals, can produce none other but clear sound minds and bodies.

Being in a position where I can obtain pure honey, I use this very freely on cereals and

wherever sweetening is desired, hence eliminating the use of the dangerous present-day sugar. I have found sour milk a splendid article, and upon experimenting for two weeks on a sour milk and sour milk products menu, I found my strength increased a great deal, but that my endurance was not so great. For heavy weight-lifting I think such foods would be a good thing to include instead of the meat that most think necessary.

A more interesting and beneficial profession could not in my estimation be followed than Physcultism, which I thoroughly believe is the coming method of treating all forms of disease and bodily affections. You are doing splendid noble work for humanity and surely you will not regret it. Wishing you continued success, I am with enthusiasm,

Stapleton, N. Y.

FRANK BLUM.

General Question Department

By Bernarr Macfadden

Our friends will please note that only those questions which we consider of general interest can be answered in this department. As we can only devote a small portion of the magazine to matters of this kind, it is impossible for us to answer all the queries received. Where the letters, however, do not require lengthy replies, the editor usually finds time to answer by mail. Where an answer of this kind is required, please enclose a self-addressed, stamped envelope.

Diet When Weaning the Baby

Q. What kind of food would you advise me to feed our baby after it has been weaned? Should he have any food before weaning, and at what age should he be weaned?

A. The best food to use in weaning the baby is cow's milk. Gradually various fruits and other foods should be added, though in most cases it is better to wait until the baby has a fairly good supply of teeth before feeding solid foods of any kind. Cow's milk can be fed to the little one by means of an ordinary nursing bottle. It is always better to use a bottle, as the milk is then taken more slowly and is properly mixed with the saliva before swallowing. Between each feeding of milk, however, the baby should be given a bottle of water. This can be sweetened for a time for the purpose of developing the water-drinking habit—gradually lessening the amount of sugar used until it is avoided altogether. The baby can be weaned from the breast most any time after nine months of age, though in some instances it is better to wait until he is a year old if not especially inconvenient.

Tobacco Heart

Q. Would a person affected with what is called tobacco heart, and who is following your suggestions for strengthening the heart, find bowling as an exercise too violent?

A. Bowling should not be too violent an exercise if you are careful to avoid excitement, which is often incidental to contests such as bowling. When one is suffering with trouble of this kind very great care should be taken to avoid violent exertion of any kind, though if he will study his own symptoms and avoid any movements which cause the slightest pain or feeling of discomfort in breathing or about the heart, he can usually feel safe as far as exercise is concerned. Those exercises that are ordinarily used in expanding the chest will usually be found valuable in strengthening the heart. It should be remembered, however, that heart affections are caused mostly by stomach disorders and that very great care must be used in diet in order to avoid difficulties of this kind.

Growth of Hair on the Body

Q. For the past four months I have been taking cold baths in the morning, preceded by exercise, followed by a rub down with a rough towel. I notice the growth of hair on my body seems to have been stimulated. I would like to know how to prevent hair growth?

A. A régime such as you mention, if followed persistently for a long period, would be inclined to materially lessen the growth of hair on the various parts of the body. Athletic training always seems to lessen this growth. Athletes rarely have a noticeable growth of hair on the body. Though for a time you might feel that the general training you are undergoing would increase the growth, ultimately it will materially decrease it.

Remedying Asthma

Q. I am at a loss to know how to treat my little four year old boy, who has presumably developed asthma. Our medical adviser says that he should be sent away from this climate in order to be cured. Can you give us more reassuring advice?

A. I do not see that it is at all necessary to send the boy away from home; in fact, living away from his parents would be productive of harm that would be greater than the benefit derived from the change in climate, which would be doubtful in character. It is especially important in treating a trouble of this kind that the patient be kept out of doors both night and day; at least he should be supplied with a copious supply of pure air at all times. In nearly all instances there are digestive disorders connected with asthmatic troubles and the diet is important. A fast can be taken with benefit in nearly all cases in beginning treatment. If this is followed by an exclusive milk diet it will usually be of advantage. Naturally, in treating a child, the régime must be varied to suit his individual needs, though I am inclined to believe that if exclusive milk diet were adopted, using in addition only acid fruits that might be desired, a change would be noticed in a very short time—especially so if the child is encouraged to exercise out of doors as much as possible.

Nut and Fruit Diet

Q. Can you give me list of nuts that you consider equally as wholesome as almonds and brazils, which are mentioned by Mr. McCord in his recent article referring to his experiences with nut and fruit diet? Would you combine the names of a few nuts and fruits which may be used with good results?

A. Some nuts that can be recommended in addition to brazils and almonds, are: filberts, hickory nuts, pecans, pignolias, cashew nuts, walnuts, chestnuts. Peanuts can also be used occasionally, though as a rule they are not so satisfactory as the other nuts mentioned. I do not think it makes a great deal of difference what fruits may be selected to combine with the nut and fruit diet, provided the demands of the appetite are followed. It would be far better to follow the appetite than it would be to follow any set rule that might be laid out as a régime. If the suggestions of Mr. McCord are followed, simply pick out a nut that you feel would be most easily digested and make a meal on that particular article, and then follow the same rule in the selection of your fruit in the evening, and I am satisfied the results will be pleasing in every way.

Women Strong as Men

Q. Will you kindly give me your opinion as to whether a woman can be developed mentally and physically to the same degree of strength possessed by a man? Some seem to believe that a woman is naturally weaker than man owing to her different physical formation.

A. There should be no more difference in the strength of the female of the human world than there is in the various species of what we term the lower animals. The female horse for instance can run about as fast and seems to be physically able to keep up with the male in feats of strength and endurance. Many female athletes and gymnasts are as strong as members of the other sex. The weakness in women is not caused by the difference in physical formation, but is caused by their environments and habits of life, which are to a large extent influenced by dress and conventional requirements. If a woman were to follow similar habits to that which the average man is accustomed she would develop a similar degree of muscular and mental vigor.

Remedy for Epilepsy

Q. Kindly advise me what is good for an ailment called *petit mal* (a mild form of epilepsy)? My health seems perfect in other ways.

A. To cure a trouble such as you mention depends largely upon diet and exercise.

Nearly all victims of this trouble suffer from abnormal appetites. They eat large quantities of food and this produces digestive disorders, which are the actual cause of the effect or else have an irritating influence upon it. A cure of epilepsy in its first stages can nearly always be effected if one will simply go through a course of training with the distinct purpose of developing superb vitality, which is essential to making one athletic in body and mind. This will require a large amount of exercise. It will be necessary to walk many miles each day and to take a general course for developing all parts of the body, and in addition the dietary régime should be revised so as to reduce the amount of nourishment to the smallest possible proportion necessary to retain the weight and strength of the body. If a régime of this kind is followed, satisfactory results can be expected in this very serious complaint in nearly all cases.

Cold Hands and Feet

Q. For several years I have been troubled with extremely cold hands and feet in winter, and in fact a general tendency to be cold. Even in summer my hands are often cold.

A. The particular symptoms mentioned are caused in practically every instance by defective circulation. Your blood does not contain the elements necessary to properly heat the body. Though you may be attempting to lead a physical culture life, you are unquestionably making some mistakes or these particular symptoms would not appear. What you need is stronger digestive power and more vitality and increased strength in every way. In many instances defective circulation can be very materially improved by following an exclusive milk diet for several weeks. A diet of this kind is inclined to flush the entire circulatory system with a large amount of nourishment and at the same time materially increase the strength of the digestive organisms. Following this diet you can adopt a raw food régime or a general diet if so desired, and can depend upon an improvement that should be satisfactory in character. Of course you should remember that the more nearly you live out of doors, the more speedy results you can expect.

Reducing the Bust

Q. My bust is entirely too large for the rest of my body. Is there any way in which I can reduce it?

A. It is a comparatively easy matter to reduce a large bust. All that is necessary is to perform those movements which are essential for bringing into play the muscles about the chest that underlie the busts. Various exercises can be taken while lying on the back, bringing the arms upward from the sides high over head, and all the movements that can be taken in this position will be useful in reducing the bust.

Comment, Counsel and Criticism by Our Readers

If, at any time, there are any statements in *PHYSICAL CULTURE* that you believe to be erroneous or misleading, or any subject discussed regarding which you take issue or upon which you can throw additional light, write to us, addressing letters to this department. We intend to make this a parliament for free discussion. Problems that you would like to see debated, interesting personal experiences, criticisms, reminiscences, odd happenings, etc., are invited. We shall not be able to publish all letters, but will use those of greater interest to the majority of readers. For every letter published we will present the writer, as a mark of our appreciation, with a subscription to *PHYSICAL CULTURE*, to be sent to the writer or to any friend the writer may designate. For the convenience of our office, kindly write us after the publication of your communication, giving name and full address of the person to whom you wish subscription to be sent.—Bernarr Macfadden.

Criticizes Our Article—"Persecution of Benefactors"

TO THE EDITOR:

As a reader of your magazine for many years past, and one who has profited greatly by its teachings, I desire to enter a vigorous protest against the classing of William Lloyd Garrison as a public benefactor, in any sense whatever, as set forth in the article in the current edition of *PHYSICAL CULTURE*, under the caption of the "Persecution of Benefactors." The fact that he desired the abolition of slavery, was of course, no discredit to him whatever, as there were thousands of better men than he, right here in the South, who desired the same thing. It was his method of abolition which I desire to take up, and set before your readers as briefly as possible. In the first place, I want it distinctly understood that the South was not primarily responsible for the institution of slavery; but that the New England states, the section of these United States which produced Cotton Mather, and those who burnt innocent young girls, and helpless old women for alleged witch craft, and harried Roman Catholics and Baptists on account of their religious convictions; this, I say, was the section of the country which was first responsible for the introduction of slavery here, and after finding slaves unprofitable in their own section of the country, they sold them to the South, and it was only after this had been done, that the enormity of the crime of slavery seemed to pierce their hearts and understandings. This institution was recognized by the Constitution of the United States, all of the States concurring, consequently it could not be classified as a sectional matter. This same Constitution, understand, William Lloyd Garrison and his associates termed a "compact with the devil, and a covenant with hell," and claimed their right to disregard it, and did disregard it in every possible way. Mark that, please.

Now, in the article referred to, you state that the Georgia Legislature offered a reward of \$5,000.00 for his capture; but you leave off right there, allowing your readers who are ignorant of the facts, to believe that the Georgia Legislature did this simply because he was opposing slavery. Now the fact is, in this

particular case, William Lloyd Garrison and his associates and tools tried to incite the slaves in Georgia to revolt and rebellion against their owners, to murder, arson, pillage and every other crime which could be mentioned, just as that old border ruffian, John Brown did, for which he was justly hung by the United States Government. Weapons and arms were smuggled into the South for this purpose, and put into the hands of the slaves, but all credit to them, that they did not take advantage of the opportunities which were literally thrust at them.

After the war was fought, and the slaves for which the good New Englanders had received their golden dollars were liberated, they were still not satisfied; for the next move on their part, was to undertake to reverse the laws of Nature, by acts of Congress, and amendments to the Constitution, and make the negro the social and political equal of the white Anglo-Saxon race, with more than one thousand years of civilization behind it. They even undertook to make them the superior, mark you, for with their carpet bag allies, negroes were appointed to rule over us, and make laws by which we must be governed.

I venture to predict that the day will come when the North will curse the day that their representatives in Congress were so blindly mad with passion, that they made such a stupendous blunder as pass such amendments as the fourteenth and fifteenth to the Constitution. The British Government to-day, profiting by this blunder of our country, have debarred the negro from taking any part in the government of the South African Confederation, and rightly and properly so, too.

So far as the institution of slavery was concerned, no one deplored it more than the thinking people of the South, and I have always contended that if the subject had been treated as an economic measure, instead of a sectional issue, as was the case, just as it was in the British dependencies, that it would have been abolished peacefully and satisfactorily many years ago, and I defy any one to truthfully dispute this statement. I believe that the negro should be justly treated, so that he can make an honest living for himself, and that he should be granted the same privileges in the eyes of the law as are granted to white men;

but there it should stop. I am in favor of a law which would put every white man in the penitentiary who has been proved to have been cohabiting with negro women. I say this from the standpoint of a man, born and raised in the South, who is absolutely free of having ever committed any such crime. I do not believe in mixed marriages of any sort, either with Indians, Chinamen, Japs or Malays, any more than with negroes. They all make a mongrel race.

Pensacola, Florida. OLD SUBSCRIBER.

One Way of Spreading the Good News

TO THE EDITOR:

I live in a town of about 2,500 inhabitants and we have two papers. Several years ago I wrote physical culture notes for one of these papers. I dropped the matter for a time. But for the last four months I have been writing a column article each week. It is some thoughts that are suggested by the Sunday school lesson, but invariably I insert something that shows my stand on the question of diet or exercise. I do not know how much good this does, but I believe that some good accrues from it. I make the suggestion that if more of us would use this means of spreading the good news, we would have more physical culturists than we now have. Most city papers and practically every country paper would be pleased to print your articles, and if you had a consultation with the editor, he would probably print your articles regularly, as is the case here. It should be our desire to spread the intelligence that we have gained, and although the word of mouth is probably the most efficient, the newspaper circulates more widely and reaches those with whom we could never come into personal contact.

Newport, Pa

DAVID S. FRY.

Gives His Old Magazines to Carnegie Library

TO THE EDITOR:

As you have taught a great deal to myself and others I know, I advocate your teachings wherever I go. I am not now a subscriber of your magazine, but I read it every month. I propose to give my old ones to the Carnegie Free Library in this town. I make the suggestion here that you publish this idea so that many people may know the "gospel" of good health as taught in PHYSICAL CULTURE.

I hope you will be successful in your fight against prudery and I also hope you will succeed in winning your case in court. But if you do not you will have the satisfaction of knowing that you were in the same class as all people who in the past have suffered for their opinions. I wish you Godspeed in the work you have set yourself to do.

Wilkesburg, Pa.

L. M. SMITH.

A Criticism on the Declining Birth Rate

TO THE EDITOR:

I was rather interested in "A Mother's Opinion on the Declining Birth Rate," which

you recently published. I am not a mother, nor yet am I married, but I felt that I could not let an opinion like this one pass unnoticed. It hurt me to think that one of my own sex could express herself in such a manner. I have raised more than one child for other mothers—being a teacher—and at present have the care and the responsibility of raising my motherless little sister, although I am still in my twenties. The mother from Kentucky certainly can express herself logically and otherwise, but I should advise her not to express herself as she had in the October issue of PHYSICAL CULTURE. Why should anyone expect to be paid for doing their duty? The privilege of raising children should be a crown to any woman, whether she is married or not, or whether they are hers or someone's else. Why did you marry, little Kentucky mother, if it has caused you so much suffering and expense? I hope your children will never know how you feel about having brought them into the world, for how can they ever respect a mother who either does or has it in her heart "to thwart the laws of Nature." You certainly are not complimentary to your husband. Doesn't he love you or take as good care of you as he should? If you do not like or want any more children, simply do not have them. That is all. Read some reliable work on the sex problem; I should suggest Bernarr Macfadden on the laws of sex. It may help both you and your husband to solve the race suicide problem to your advantage and to that of the United States.

A CALIFORNIA PHYSICAL CULTURIST.

Government in the Bread-Making Business

TO THE EDITOR:

From a detailed account furnished by the Burgomaster of Budapest, respecting a municipal bakery in that city, it appears that in order to supply good and wholesome bread to the citizens at a cheap rate the municipal authorities have built a factory which will commence working this month with a minimum daily output of 50,000 pounds of bread. The principal objects are to force bakers to produce bread of the same quality and to sell it at a reasonable price. The bakery is to be fitted with the most modern machinery, which will cost an immense sum, exclusive of the value of the land it stands on. The bread will be sold in special shops belonging to the municipality, and also in market halls and in private shops, but the price at which it will be retailed will always be fixed by the municipal authorities. Would it not be nice if that happened in our country in every city?

Let us get pure food and all the profit there is to get out of it. We are a half of a million physical culture readers, let us all advocate wherever we go to the motto "Let the Nation own the Trusts."

The present capitalistic society is a failure entirely and the reason of nearly every misery in this world, therefore let us study socialism as well as Physcultism.

Union Hill, N. J. RICHARD SCHNEIDER.

White Flour not Used in Corn Bread in the South

TO THE EDITOR:

In Mr. Maxwell Remington's article in the October number, just to hand, on "Interesting Facts about all kinds of Bread," he is mistaken in saying (foot page 319), that "corn breads and Johnny cakes, with which we are all familiar, are invariably made up with a certain proportion of white wheat flour."

I know nothing about the composition of "Johnny cake," but born and reared in Richmond, Va., and living all my life in the South, have never heard before that "corn bread" had flour of wheat mixed in it. The old "corn-dodger" is corn-meal, called simply "meal" mixed with water and salt, the dough rolled in the hand, long and diminishing in size until rounded ends are formed, and then baked. Batter bread, peculiar to East Virginia, I mean tide-water Virginia, has the addition of an egg and is called batter bread because made like batter cakes, except that it is baked, and must be removed from the bowl or deep pan, in which it is baked, with a spoon, because of its consistency. There are other forms of corn bread, but I have never heard before of wheat flour being mixed with the corn meal.

Corn bread when rightly made has the dough formed by pouring boiling water over it. This gives a certain sweetness and an added flavor.

Now it may be that, in some sections, wheat flour is added, but I have never met with it knowingly and I am sure any of the black mammies—"aunts," I should say—who pride themselves on their cooking, would be quite scandalized at the idea of making an admixture of wheat flour.

I have been reading your magazine for years and trust you will excuse my correcting an error.

McMinnville, Tenn. B. A. PENDLETON.

"Be Not Discouraged"

TO THE EDITOR:

I have been a silent, but intensely interested reader of your most excellent magazine for several years and I want to compliment you on the grand work you are doing in leading men—and women too—from the realms of medical superstition back to nature, for only by such teachings will this great country of ours be saved. I think, however, that most sensible people are beginning to realize that true happiness does not lie in wealth, but health.

I loan old copies of PHYSICAL CULTURE to the neighbors whom I am trying to interest in themselves.

In conclusion I would say that you be not discouraged, every good work has its opposition. The skin on Paul's back was cut into shreds, Luther was turned out of church, Servetus was burned at the stake and Columbus was put in irons, you are not meeting such opposition as this, so may you continue to prosper.

Briscoe, Mo.

M. L. TAYLOR.

Physical Culture in Our Schools

TO THE EDITOR:

The principles of physical culture are no longer ignored by the progressive thinkers. The movement of reform along these lines has made wonderful progress. But much remains to be accomplished. There is a dire necessity for more enlightenment along this subject in our common schools.

It is a startling fact that hundreds, yea, thousands of our boys and girls leave the school to face the world destitute of the knowledge essential to virile manhood and real womanhood. They are unwarned of the awful result of a neglected body.

The question arises, what is the cause of this deficiency? One strong factor in bringing about this state of affairs is, our teachers are not educated along these lines. So many do not even know how to take care of their own bodies as the "grouchy school marm" and "sour masters" too often testify.

Again, the text-books are in too many cases not adapted to the needs of the pupils. A great number of our books on physiology and hygiene are practically worth less. They contain scientific terms which many teachers do not understand and much less are the pupils able to comprehend their meaning. The result is that it frequently creates a dislike for the subject on the part of both teacher and pupils, and the instruction in this important subject is lost.

The study of our bodies—How to take care of them, how to avoid the dangers to health and morality, is one of the most essential studies, but is sadly neglected.

How can we improve these conditions? In the first place, we must have intelligent teachers, teachers who fully realize the value of a strong mind in a strong body. The value of such teachers to mankind is beyond estimate. Next, the workmen on immortal minds must have proper tools. The books must be practical. They must conform to the needs of the pupils.

Weakness and degeneracy greet our vision on every hand. What untold vices arise from ignorance of the result of violations of nature's laws.

We are prone to hail the factory as the mother of vice (and certainly it is not stainless of this black charge), but let us not fail to remember that the vast majority of those factory boys and girls spent at least from six to eight years under the care of the school. What preparation has the school given them to fight against the snares of vice, to preserve purity? This is a question of paramount importance.

What we need is strong minds, but we must not forget that the strongest and most efficient mind is found in a strong body.

Will we launch our children on the uncertain sea of life in a frail craft at the mercy of the waves, with only a small chance of its being rescued, or will we render them seaworthy by a careful preparation to fight the battles for health and purity?

Fleetwood, Pa.

S. H. R.

Physical Culture Diet in a Boarding House

TO THE EDITOR:

In a late number of your magazine, a correspondent asked: "for the best method of securing a healthful diet, in an ordinary boarding house?" and thinking that my experience may be of interest, I will write a brief account of it: I have been a physical culturist and a strict vegetarian, for about two years. At first I encountered some trouble with my diet, but I managed to get board with families that would feed me as I wished.

But during the last three months I've had some experience with a boarding house in a coal mining camp. For breakfast there is generally served rolled oats or breakfast food, such as Shredded-Wheat, Force, or Egg-O-See, besides meat and hot buckwheat cakes.

For dinner and supper there are generally some vegetables served that are not seasoned with beef or grease, and when there is fruit served, it makes the biggest part of my meal. Pie—which is often served—I unharness by scooping out the fruit and leaving the crust, which I never eat. At times, when there is no suitable dish served, I just leave the table, and don't feel any inconvenience by missing a meal.

I drink milk when I can get it, and shun tea and coffee. I haven't eaten any bread since at my present boarding house, as they serve white bread, which is unwholesome. My occupation is at manual labor, at present I am a fireman in a boiler room, working nights. I'm on duty from seven o'clock in the evening until seven o'clock in the morning, and I have not lost any weight in the time that I have been at the boarding-house, on the contrary I have gained about three pounds.

I believe a person can get enough nourishment at an ordinary boarding-house, if he does miss a meal every now and again; it does one good to fast sometime.

Hebron, Colo. JOSEPH YASULEVICZ.

A Photographer's Experience

TO THE EDITOR:

I am agitating PHYSICAL CULTURE during my spare time. I have, and am, reaping so much benefit from it myself that I am scattering the seed broadcast. I meet with rebuffs occasionally but all seed does not grow, hence I am not discouraged.

I purchased my first book—"Building of Vital Power"—this Spring. I began walking three-quarters of a mile morning and evening and gradually increased this to five miles. I have just returned from my walk. This is the third day since I increased the distance to five miles morning and five miles in the evening, making ten miles daily. I am also taking sitz baths, with cold plunge twice daily. I was a nervous wreck when I started; worked fifteen hours a day; never exercised; and took a hot bath once a week; had very little fresh air, being a photographer and in love with my work—like many others, I was applying myself to the sacrifice of the important things that would have made my work a greater pleasure

and much less arduous. I am a new man now and expect to continue all my life seeking the health-giving elements nature so kindly endows us with if we will but seek them diligently.

I have been much ridiculed for my long walks, and until about two months ago was a lone pedestrian in our little college town of five thousand. I said little about it but persisted in my walks, adding to them the exercises for vigor-building and cure of varicocele together with sitz baths. I performed, and do when opportunity permits, feats of strength that even college trained track men cannot attain; and to the entire satisfaction of my friends have demonstrated what persistent and scientific attention will do. I now have a class of professional men (seven in number), walking with me. They can testify to the merits of a well devised régime. Three of these were my worst scoffers at first.

Ada, Ohio. B. FRANK FREDERICK.

Husband Converted to Physical Culture Methods

TO THE EDITOR:

Your magazine, with its far-reaching articles, has only come to my notice these past few months, but I regret its late arrival in my home. I should say that a housekeeper may save many visits to her doctor and save many dollars on her monthly accounts by perusing PHYSICAL CULTURE regularly.

Your recent article on "The Complexion" is excellent—is almost identical with the ideas of a famous masseuse who also advocates a strict diet for good skin.

Your exercises are most helpful—my husband, who never greatly interested himself in exercise previously has been completely won over by reading PHYSICAL CULTURE. He now exercises twice a day, and is exceedingly proud of his development. I myself, have observed the "Reducing-Weight-Exercises" with equally good results.

Complimenting you on your wide-spread fame, and your most beneficial magazine, believe me.

(MRS.) LAURA O'BRIEN.

501 W. 176th street, New York City.

Proper Position During Sleep

TO THE EDITOR:

I have never seen an article written as to proper positions or methods in sleeping. I have found that one can be benefited while sleeping properly as well as eating and exercising properly. I lie on my right side and breathe deeply and regularly until I fall asleep—a sleep so sound that I never wake until broad daylight.

The deep breathing while awake produces an even and regular motion to the lungs, which continues throughout the night, therefore the lungs are strengthened while you sleep.

People who have difficulty in falling asleep, by following this method, will find this difficulty eradicated. The deep breathing which continues throughout the night is beneficial to the entire system.

Ogdensburg, N. Y. BERT R. POPE.



THE VIRTUES OF OUR METHODS PROVEN

Was a Sickly Youth—Now Strong and Enduring

TO THE EDITOR:

I have been an interested reader of *PHYSICAL CULTURE* for four years, and perhaps my experience would be of interest.

When I first read the magazine it was more out of curiosity than any thing else that I practiced the exercises given. But so gratifying were the results that I was encouraged to continue. When I started in I was a very weak and sickly youth, in fact I was not stronger than a weak girl.

As a child I was undersized and had to stay out of school a couple of years on account of sickness. My parents always bundled me up in winter, and insisted that I keep my windows closed at night. I was always fed heartily and I also consumed all kinds of tonics and other things like that, but they did not benefit me at all. Every winter I had colds galore; one winter I had pneumonia and nearly died.

Since reading *PHYSICAL CULTURE* I have had but one cold—and that was due to the fact that I let up a little on physical culture theories—and have never been sick a day. I am not alarmingly strong, but I couldn't expect to be when one considers the poor physique with which I started. But notwithstanding the fact that I am not very strong, I have excellent endurance. I can chin myself twenty times and dip thirty-five times. I was able to do some of the endurance stunts as well as many who received honorable mention in your recent endurance contest.

I heartily indorse all of the physical culture theories except the no meat idea. This is probably caused, however, by the fact that I have not given it a fair trial. Whenever I attempted to avoid meat everyone in the family got curious and made fun of me, so I have stuck to the old diet. For exercise, I find that a recreative game is much more desirable than an exercise all by one's self. But any and all exercise is all right and so is the *PHYSICAL CULTURE* magazine.

A. K. W.

465 Broadway, Cambridge, Mass.

No Words Can Describe Benefit

TO THE EDITOR:

I have followed the methods you advocate for "Developing a Powerful Physique," and have ate the foods you recommend for the past

three months. Short as the time, no words of mine could exaggerate the great benefits I have derived. When I first took up the exercises I was almost round-shouldered, and my nerves were completely run down. To-day I am perfectly erect, and my nerves are in fine order. I cut out drinking and smoking and I can truthfully say I feel like a new man. Quite a number of my working mates have taken to physical culture and seem to be quite enthusiastic about it.

PATRICK B. McENARY.

(Old) 283 W. Adams street, Chicago.

Right Living and a Healthy Child

TO THE EDITOR:

I am sending you a picture of our physical culture baby, Helen Kathryn, who is four months old. From the time she was born, she has slept in a room with three windows open. She is given a cold bath every morning. Just before putting her to bed at night, we give her physical culture exercises, which she enjoys very much.

Her mother and myself have followed the teachings of your valuable magazine for the past two years, and now enjoy the happiness of having a healthy daughter. We both send best wishes for your success in your good work.

Sidney, Ohio.

FRANK MILLER.



Helen Kathryn Miller.



Daniel P. Higgins in his outdoor gymnasium.

Health and Strength Through Following Our Teachings

TO THE EDITOR:

I am enclosing a photograph of Daniel P. Higgins, of Elizabeth, New Jersey, a young man widely known as an all around athlete. He is noted particularly for his clever ability in amateur boxing and running.

When fifteen years of age, Mr. Higgins took a business position which kept him so closely confined that he soon began to appreciate the great necessity of taking proper exercise. He procured a copy of *PHYSICAL CULTURE* and studied its teachings with intense interest. Being keenly ambitious to acquire a good development, he followed carefully the rules of health set forth in your magazine, and also practiced several of the exercises. By diligently following the principles you advocate, he soon showed remarkable progress in development. When he had gained a high degree of endurance, he entered athletics, where he has won considerable distinction. Now, at the age of twenty-two, he has a splendid physique, as you can see from the photograph.

The accompanying picture of Mr. Higgins was taken in his yard, which he has fitted up as an outdoor gymnasium; with punching bag, horizontal bar, boxing ring, running track, etc.

527 Fifth Ave., New York. H. MOONEY.

Gained Nine Pounds in One Week

TO THE EDITOR:

The supplement to your magazine has done me much good. I have gained nine pounds in about one week. My young brother is taking the exercises too, and he has gained about four pounds in one week.

I can't help praising your magazine, because I think it's a public benefit. I am willing to recommend your magazine at any time. I belong to the Boston Y. M. C. A., and circulate my magazines to other members and they praise it very much.

Dorchester, Mass. CHARLES H. SWETT.

Saved by Our Literature

TO THE EDITOR:

I have been reading *PHYSICAL CULTURE* for nearly a year, and have been greatly helped.

I have had the same trouble to overcome as many—or perhaps most—young men. My parents never told me anything whatever concerning my body. But thanks to God, to your advice and to the love of a high-minded girl, I believe I now have complete control of myself.

F. J. M.

New Westminster, B. C. Canada.

A Transformation Brought About by Physical Culture

TO THE EDITOR:

I will mention some of the benefits I have derived since I have tried to live the physical culture life. First, I believe I am remedying a defect in my neck. (It was of an abnormal size). Second, I believe my hair is becoming healthier. Third, my face is now freer from pimples than it has been for some time. Fourth, believe my lungs are stronger. Fifth, I have greater powers of endurance.

Some time ago I would not think of taking a good long walk. Now I enjoy a long walk very much and no matter how much I walk I never get "leg-weary." Sixth, believe my general vitality is higher than it has been for some little time. Seventh, am now more ambitious and believe there is a good position in life for every man of average ability, sound morals and superb health. Eighth, work is now more of a pleasure than formerly. I distinctly remember what a task it was one time for me to rise early in the morning; while now it is quite natural and easy to do so. I hope some time to live the physical culture life in its entirety. Am now twenty-three years old and have been teaching three years. It is a shame that almost all the time of the teacher must be spent in developing the pupil's mental powers and letting the physical make-up take care of itself. Why is it that educators don't realize that mental giants but physical wrecks are almost nonentities? Why is it that the schools turn out lop-sided graduates? Why is it that our educational system seems not to comprehend that man's nature is three-sided—body, mind, and spirit? The Y. M. C. A. realizes this truth and we know it accomplishes a great deal in the uplifting of humanity. Why should our schools and colleges not realize as much?

What we want in this great world is a symmetrically developed race of people. Let every physical culturist make this one of his highest aims in life. "Let's wake up." Let's preach the gospel of spiritual, mental and bodily health. There may be many discouragements in our path, but let us move steadily onward, knowing that, although we may be misunderstood at first, people will at last awake from their slumbers and drink in the great truths of nature and be made free.

F. A. REEDS.

Fowler's Corners, Ont., Canada.

**Condemned to Die by Army Physicians—
Saved by Our Methods**

TO THE EDITOR:

I was a soldier in the Spanish-American War, and through exposure I developed "phthisis," and received an honorable discharge from the army on account of disability. The best physicians I could consult informed me that there was no hope for me, so I decided to treat my own case. I began by sleeping out of doors, taking deep breathing exercises, and dieting according to your methods, and to-day I am a well man.

M. E.

Gained Thirty Pounds

TO THE EDITOR:

Since I introduced physical culture into my life I have gained thirty pounds in weight. I hold you and your work in the highest esteem and appreciation.

I am a constant reader and lover of your magazine. Each issue is full of features of personal interest.

WALTER PRYOR.

Maeder Building, Pittsburg, Penna.

A Minister's Life Saved

TO THE EDITOR:

By specialists on lung diseases, I was pronounced a hopeless, helpless consumptive. I was told by eminent physicians, that I could not live more than two months. That I had consumption in the last stages. And that I could not live. I went South for my health, and by chance a copy of your excellent magazine, *PHYSICAL CULTURE*, fell into my hands. I at once took up some of the practices it advocates, in the way of deep breathing, exercises, cold baths, etc. I soon began to improve. I kept steadily at the work, and became again a strong man, able to take up the duties of life as a minister of the Gospel. I could with ease, at a little more than sixty years of age, stand on the floor and talk, earnestly for four hours, were it necessary that I should do so.

I attribute all to *PHYSICAL CULTURE*. I have read your magazine for a number of years either as a regular subscriber, or by purchasing it from news-stands. I have never seen in it anything that would necessarily corrupt the morals of any one. Some people are of the class who are looking for evil. Of course they see what they are looking for. Portions of the Holy Bible are to some people vulgar.

The apostle Paul said: "Unto the pure all things are pure: but unto them that are defiled and unbelieving nothing is pure: but even their mind and conscience is defiled." Titus, 1:15. The evil mind seeks the impure always.

Mr. Macfadden, you can afford, if you must, lay in prison for awhile, or even for life, for the good you have done. You have saved life, you have made souls better and happier. Your name will one day be listed with the benefactors of the country. However, I shall hope

that some turn in your case, may be taken that will procure your release and that you may live long to bless humanity in the future as in the past.

Frazeyburg, Ohio. (Rev.) J. S. BONHAM.

Splendid Development of a Physical Culturist

TO THE EDITOR:

Mr. Edward Sandow is a physical culturist who may well be proud of the excellent development he has gained through careful training. His height is 5 feet, 8½ inches and his weight 168 pounds. He can lift over his head with either hand more than his own weight. He lifts 187 pounds with his right hand, and 175 with his left.

X. Y. Z.



Edward Sandow, who secured his fine development through physical culture.

The Beef and Hot Water Diet

FURTHER DETAILS OF THE TREATMENT OF CONSUMPTION
AND SIMILAR DISEASES WITH THE EXCLUSIVE MEAT DIET

By Edward Quincy Norton

The following contribution gives further details of the use of the meat diet in the treatment of consumption. The author was flooded with letters from those interested in this diet, and this article endeavors as nearly as possible to answer the queries of the writers of these communications. Mr. Norton seems to be convinced beyond all question of the value of Salisbury's theories, and his views may be well worthy of trial, if one has failed to secure relief through other methods.—Bernarr Macfadden.

IN closing the article upon the above subject, which appeared in a recent issue of this magazine, the writer stated that "in prescribing a beef diet for the consumptive, one is restoring the balanced relations of the system of one who has been living too exclusively upon fermentative food products."

In emphasizing and reiterating the truth of the above statement, the writer again calls attention to the fact that a microscopic examination of the blood and urine shows the fermentative growth therein (these growths are never absent in cases of tuberculosis), that they are present in proportion to the extent of the ravages of the disease and that with their disappearance, there is an immediate and clearly pronounced improvement in the feeling, appearance and actual physical condition of the patient.

These acetous and alcoholic fermentative growths are the natural and inevitable products from the material taken into the system as food. In the stomach and intestines such food germinates, by the aid of the bodily heat, and produces the vinegar plant or yeast, called mother of vinegar (*mycoderma aceti*), also sugar yeast plants (*Saccharomyces cerevisia*), together with yeast plants from amylaceous (starch) and other fermenting foods, and a complete demonstration which will compel the minds assent to the truth of these statements, can be made by feeding the patient with these fermenting foods and watching the character of the blood, urine and feces.

Patients so fed will quickly show these fermentative growths to be present in the blood, secretions, and excretions, and

—in the last stages of the disease—upon the skin also, and if this diet is continued any length of time, every other indication of tuberculosis will appear. Attending these fermentations, there will be produced in the stomach and intestines, carbonic acid gas and also sulphureted hydrogen gas, which gases the diaphragm largely absorbs, soon becoming more or less paralyzed, when it loses its normal vigor, abnormal breathing then begins and the patient is unable to take in a satisfactory amount of air, in consequence of which long but involuntary breaths are taken, these often setting the patient into a coughing spell. These gases arising in the throat cause a tickling sensation and disposition to cough, though there may not be phlegm thrown off.

Frequently the gas paralyzes the vocal chords to such an extent that the voice is entirely lost for days, weeks and sometimes for months. This is the case most frequently in fibrous consumption (pulmonary fibrosis). An extension of this paralysis to the heart will frequently cause the limbs to become cold and clammy, the finger nails and lips blue and the sight dim, such symptoms calling for the prompt administration of carminatives, hot water being the most effective, the patient to be laid upon the left side, hips the highest, when the gas may be passed and immediate relief had.

If fermentative foods are excluded from the diet and only those consumed which ferment but little, and are at the same time the most easily digested and assimilated, broiled, lean, defibrinated beef being the nearest to the ideal food.

the change for the better will appear in the blood and urine within a few hours, so as to be noticeable to the microscopist, and noticeable to the patient and nurse within twenty-four hours and the patient's friends will notice within forty-eight hours the improved appearance. A return to the eating of the fermentative foods will promptly bring a recurrence of the old indications, and a continuance of the beef diet, accompanied by the drinking of hot water, will clear up the blood and urine, re-establish normal conditions in all bodily functions, and in nearly all cases result in a complete restoration to health.

The writer hereof makes the following unqualified assertions and fearlessly challenges successful contradiction.

First. That in every case of tuberculosis these fermentative growths are always present in the system, their number and character in keeping with the extent of the disease.

Second. That accompanying these fermentative growths, there is always a train of associated abnormal indications, which indications disappear with the elimination of the fermentative growths, and that these normal and abnormal conditions can be brought about at will, by the changes made in the diet.

Third. That no physician or other person can truthfully say they have ever known of a case of tuberculosis having been cured by the patient living upon an exclusive vegetable diet, nor upon an exclusive diet, nor upon an exclusive amylaceous diet. This is not to say that consumptives may not have recovered their health, while eating, even freely (though not exclusively), of these foods. Under certain climatic and other favorable conditions, one may overcome, or avoid to some extent, the fermentation due to the eating of these foods, but such cases are very rare, and none have been made a matter of record and well authenticated, where the diet has been one composed exclusively of fruit, or of vegetables, or of amylaceous foods. What may be accomplished by persons in health, raised or trained in the way of living upon fruits, vegetables and amylaceous foods, is not now under discussion; pathological conditions are.

Fourth. That no one food will so well sustain healthy, normal conditions in man, nor for so long a time, as will lean, defibrinated beef, properly cooked.

Fifth. That no other food is so efficacious in treating chronic diseases, or pathological conditions; that such beef so prepared and accompanied by the drinking of hot water, will be beneficial to the patient in all cases, even where it does not entirely remove the cause of the trouble, in time to save life.

The discovery and demonstration of the therapeutic value of defibrinated beef and hot water in the treatment of disease, ranks above the discovery of anesthetics, electricity or antiseptics. "The whole beef, if the patient can digest it well, can be used in all cases except fibrous diseases, such as tumors, locomotor ataxia, fibrous consumption, cancer, asthma, and rheumatism where enlargements of the joints have taken place. In these cases it is important to keep all connective tissue, as far as possible, out of the food."

Experiments have shown that man can exist and thrive indefinitely on lean beef pulp (defibrinated beef), and hot water. The stomach is purely a lean meat digesting organ. When too much food from the vegetable kingdom is eaten, the bile is sent to the stomach to digest it. It is the peculiar office of the bile to digest vegetable food. When bile is detected in the stomach, the condition is called "biliousness," but it is merely an effort of nature to right a physiological wrong done. The vegetable food and the fibrous connective animal tissues in excess in the stomach undergo fermentation. Carbonic acid gas, alcohol, and after a time acetic acid (vinegar), are developed by the growth of the alcoholic and vinegar yeasts feeding on the vegetable food and animal connective tissues, in the alimentary canal and stomach especially. These cause, by the action of the carbonic acid gas mainly, a paralysis of the stomach, also the formation of animal tissues in the condition of partial weakness and death, as seen, for example, in the thickening of the large intestines in chronic diarrhea. The diarrhea that accompanies these conditions is due to the catarrhal pouring forth of

the intestinal juices, and to an effort of nature to remove the offending matter. The eliminating glandular organs also are partially paralyzed. They do not properly organize their eliminations. They increase in size, and the thickened fibrous tissues make up much of the bulk of the enlarged viscera. The production of the chemical agents known as alcohol and carbonic acid (carbonic dioxide), are prime factors in the production of the paralyzed catarrhal conditions. The yeast fermentations of the food from the vegetable kingdom, and the connective fibrous animal tissues, are best avoided by removing them from the field of operation, as one would render a gun harmless by drawing the charge."

The following are the reasons why the connective fibrous tissues are removed from the beef pulp.

"First. Because they are subject to fermentation and produce carbonic acid gas, the same as food from the vegetable kingdom does.

"Second. Because fibrous tissues of animal food are special food for animal fibrous tissues.

"Third. Because the pulp acts by starving out the fibrous connective glue or colloid tissues.

"Fourth. Because experience shows in hundreds of cases that fibrous growths in from one to three years are removed more or less completely, and because a return to animal food which retains the connective fibrous tissues, will be followed by the return of the diseased fibrous growths in the trespasser.

"Fifth. Because the beef pulp is not subject to the acetic fermentation and the evolution of carbonic acid gas, and hence it does not cause diseases of fatty degeneration and paralysis, which the absorption of carbonic acid gas produces.

"Sixth. Because the advantages of chopped defibrinated beef when broiled are:

"(a)—Its easy digestion.

"(b)—Its rapid absorption.

"(c)—Its forming all the body tissues in a healthy manner.

"(d)—Its being a speedy builder-up of the blood.

"(e)—Its clearing out abnormal vegetations from the blood and urine.

"(f)—Easy to swallow.

"(g)—Usually acceptable to the palate.

"(h)—Even when administered against the appetite, it has saved life.

"(i)—It is never too heavy or too rich a food for the weakest patient, as ordinarily thought.

"Seventh. When liquid foods alone can be taken, beef essences and teas should be made from beef freed from the connective fibrous tissues."

The Salisbury plan never contemplated the feeding of raw beef to patients.

"It must always be cooked, the object being to render it more soluble in the stomach than the raw beef, which does not digest well, and the morphology of the feces where raw meat has been eaten shows it to be not well digested. When the beef is fried it is raised to a temperature of boiling fat, about four hundred degrees (400°), Fahrenheit. This meat extracts the water from the beef and makes it hard and dry, and hence it is more indigestible. But the chief objection to frying is that the beef is not ventilated, and there is no chance for the escape of the products of the destructive distillation at so high a temperature. Broiling coagulates the albumen and makes the meat juicy and tender, because not submitted to so high a heat as in frying. Roasting in the open air is equivalent to broiling, which is a mode of cooking where there is ventilation; to repeat, ventilation is necessary for cooking. When cooking in closed vessels or envelopes is adopted, it is found detrimental to the quality of the result, causing the food to become sometimes purgative and irritating to the alimentary canal. Another effect of broiling is to cause the pulp to cease to polarize light, showing a radical physical change in the structure, a discovery made by Dr. Ephraim Cutter, which holds good in the thorough cooking of all foods."

"Experiments made in the exclusive feeding of all the more common foods, show that nearly all, with the exception of beef, will, when fed for forty to fifty days, ferment, produce vinegar, lactic

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acid and other yeasts, and in the end establish a clear case of consumption, in which there is partial paralysis and interstitial death caused by the mycoderma aceti and other acid yeasts, growing in the blood, making thrombi (masses of fibrine in which are consolidated both white and red corpuscles, crystalline and pigmentary bodies, spores and mycelial filaments or vegetations, one or all), these thrombi becoming embolisms (plugs in the blood vessels), of the lungs, and these embolisms are the nidus of tubercle."

This demonstrates that tubercles, or tubercular deposits are not the beginning of the disease, as is thought by many persons. They do not appear until the third stage of the disease is reached and are well advanced before any positive indications can be detected by the use of the stethoscope.

The superiority of the Salisbury method of diagnosing disease by microscopic examinations of the blood, urine, feces and skin, together with chemical examinations of the urine, will be apparent when it is known that not only can the present physical condition of a consumptive be determined with scientific accuracy, but the pre-tubercular stages can be detected in persons who think themselves to be in a healthy condition. This foretelling of the impending disease, gives one time in which to change the method of living and adopt a diet which will, while starving out the incipient fermentative growths in the stomach and intestines, at the same time supply the system with food which will be the most easily digested, readily assimilated and strengthening in character.

Second only to defibrinated beef as a cure for consumption, is the drinking of hot water, which should be taken at a temperature of about one hundred and fifty degrees (150°), Fahrenheit, or as hot as it can be comfortable borne, this temperature varying with different individuals. As simple as this remedy may seem at first thought to be, there are many considerations that should be given to its use, the following directions being explanatory and important.

"First. The drinking of hot water ex-

cites downward peristalsis of the alimentary canal. Cold water depresses, as it uses animal heat to bring it up to the temperature of the economy, and there is a loss of nerve force in this proceeding. Lukewarm water excites upward peristalsis or vomiting, as is well known. In cases of diarrhoea the hotter the better. In cases of hemorrhages the temperature should be at a blood heat. Ice water is disallowed in all cases, sick or well.

"Second. Quantity of hot water at a draught. Dr. Salisbury began with one half pint of hot water, but found it was not enough to wash out nor to bear another test, founded on the physiological fact that the urine of a healthy babe suckled by a healthy mother (the best standard of health), stands at a specific gravity varying from 1.015 to 1.020. The urine of the patient should be made to conform to this standard, and the daily use of the urinometer tells whether the patient drinks enough or too much hot water. For example, if the specific gravity of the urine stands at 1.030, more hot water should be drunk, unless there is a loss by sweating. On the other hand, should the specific gravity fall to 1.010, less hot water should be drunk. The quantity of hot water varies usually from one half to one pint, or one and a half pints at one time of drinking."

The urine to be tested should be the *urina sanguinis*, or that voided just after rising from bed in the morning before any meals or drinks are taken.

The quantity of urine voided in twenty four hours should measure from forty-eight to sixty-four ounces; three to four pints. The amount will, of course, vary somewhat with the temperature of the atmosphere, exercise, sweating, etc., but the hot water must be given so as to keep the specific gravity to the infant's standard, to wit, 1.015 to 1.020. The urinometer will detect at once whether the proper amount of hot water has been drunk, no matter whether the patient is present or absent. Another test is that of odor. The urine should be devoid of the rank "urinous" smell, so well known, but indescribable.

The Salisbury plans aim for this in all cases, and when the patients are true and faithful the aim is realized.

"Third. Times of taking hot water: One hour or two hours before each meal, and half an hour before retiring to bed. At first the time of one half hour before meals was tried, but this was apt to be followed by vomiting. One hour or two hours allows the hot water time enough to get out of the stomach before the food enters or sleep comes, and thus prevents vomiting. Four times a day gives an amount of hot water sufficient to bring the urine to the right specific gravity, quantity, color, odor, and freedom from deposit on cooling. If the patient leaves out one dose of hot water during an astronomical day, the omission will show in the increased specific gravity, as indicated by the urinometer, in the color, etc. Should the patient be thirsty between meals, eight ounces of hot water—half a pint—can be taken any time between two hours after a meal, and one hour before the next meal. This is to avoid diluting the food in the stomach with water.

"Fourth. Mode of taking the hot water. In drinking the hot water it should be sipped, and not drunk so fast as to distend the stomach and make it feel uncomfortable. From fifteen to twenty minutes may be consumed during the drinking.

"Fifth. The length of time to continue the use of hot water: Six months is generally required to wash out the liver and intestines thoroughly. As it promotes health, the procedure can be practiced by healthy people throughout life, and the benefits of cleanliness inside be enjoyed. The drag and friction on human existence, from the effects of fermentation, foulness, and indigestible food, when removed gives life a wonderful elasticity and buoyancy, somewhat like that of the babe above alluded to.

"Sixth. Additions to hot water: To make it palatable, in case it is desired, and medicate the hot water, aromatic spirits of ammonia, clover tea blossoms, ginger, lemon juice, sage, salt, and sulphate of magnesia are sometimes added. When there is intense thirst and dryness, a pinch of chloride of calcium or nitrate of potash may be added to allay thirst and leave a moistened film over the parched and dry mucous membrane sur-

faces. When there is diarrhea, cinnamon, ginger, and pepper may be boiled in the water, and the quantity drunk lessened. For constipation a teaspoonful of sulphate of magnesia or one half teaspoonful of taraxacum may be used in the hot water.

"Seventh. Amount of liquid to be drunk at a meal. Not more than eight ounces—half a pint. This is in order to not unduly dilute the gastric juice, or wash it out prematurely, and thus interfere with the digestive processes.

"Eighth. The effect of drinking hot water, as indicated, are the improved feelings of the patient. The feces become black with bile washed down its normal channel. This blackness of feces lasts for more than six months, but the intolerable fetid odor of ordinary feces is abated, and the smell approximates the odor of healthy infants suckling healthy breasts, and this shows that the ordinary nuisance of fetid feces is due to a want of washing out and cleansing the alimentary canal from its fermenting contents. The urine is clear as champagne, free from deposit on cooling, or odor, 1.015 to 1.020 specific gravity, like infant's urine. The sweat starts freely after drinking, giving a true bath from center of body to periphery. The skin becomes healthy in feel and looks. The digestion is correspondingly improved, and with this improvement comes a better working of the machine. All thirst and dry mucous membranes disappear in a few days, and a moist condition of the mucous membranes and skin ensues. Ice water in hot weather is not craved, and those who have heretofore drunk ice water freely, are cured of the propensity. Inebriety has a strong foe in this use of hot water.

"Ninth. Summary of general considerations on the therapeutic drinking of hot water:

"(a)—Foundation for all treatment of chronic diseases.

"(b)—Excites downward peristalsis of the alimentary canal, washes down the slime, yeast, and bile through its normal channels—washes out the liver and kidneys, and the bile is eliminated through the bowels, and not through the blood via the kidneys.

"(c)—Relieves spasms or colic of the bowels, by applying the relaxing influence of heat inside the alimentary canal, just as heat applied outside the abdomen relieves.

"(d)—Dilutes the ropy secretions of the whole body, and renders them less adhesive, sticky, and tenacious.

"(e)—Inside bath.

"(f)—Dissolves the abnormal crystalline substances that may be in the blood and urine.

"(g)—Necessary to have the hot water out of the stomach before meals.

"(h)—Use is to wash down the bile, slime, yeast, and waste, and have the stomach fresh and clean for eating.

"(i)—Promotes elimination everywhere.

"(j)—If objection is made, it must be remembered that we are seventy-five per cent. water.

"(k)—The gas that sometimes eructates after drinking hot water is not produced by the hot water, but was present before, and the contractions of peristalsis ejects it; or, sometimes it is that the air is swallowed in sipping, as horses suck air. The amount of gas contained in the alimentary canal is larger than most are aware of, and yet it is not excessive, as it takes some time to eruct a gallon of gas from the stomach. This length of time can be tested by submerging a gallon jug filled with air under water and observing how long it will be in filling with water.

"(l)—Some physicians have advised against hot water, on the ground that it would 'burn the coating off the stomach.' If this is so, then a denudation of the lining of the stomach continuously for over fifty years is compatible with a state of otherwise perfect health, with no sign of illness for that period of time, and is also compatible with the numerous cases that have occurred under the use of hot water as a foundation for treatment during the past fifty years. Again, the same physicians drink tea and coffee at the same temperature; and this act belies their warning and shows their inconsistency and want of consideration before speaking.

"(m)—These dicta about the therapeutic drinking of hot water were founded on the physiological experi-

ments at the outset, verified in pathology and based on the experience derived from the treatment of thousands of cases since 1858. They are open, so that all who will may partake of this "water of life freely.

"Tenth. Personal estimate of the founder of this practice: Dr. Salisbury, after having drunk the hot water for thirty years said: 'If I were confined to one means of medication, I would take hot water.' He continued drinking it up to the time of his death, a few years since. This testimony to the therapeutic value of hot water is corroborated by Dr. Ephraim Cutter, of New York, who has himself drunk it and also used it in his practice for forty years and to whom credit is due for the foregoing statements, and the writer hereof adds to the above, his testimony, after having drunk hot water for over thirty years and tested its value not only in his own case but in many hundreds of others."

* * * * *

From the character of many of the letters of inquiry received by the writer hereof, it is plain that one must state his propositions carefully and in addition to this, must iterate and re-iterate the most important points therein, if he would be even reasonably well understood. It is therefore necessary that there be given here a brief summing-up of the Salisbury method; what it is and what it is not.

First. It is not the eating of raw beef, or raw meat of any kind.

Second. It is not the drinking of beef's blood, nor the taking of the blood in any form other than as it is to be had in the beef and this always cooked.

Third. It does not mean beef cooked so rare as to be raw inside; this would be eating raw beef. The meat should be done through, but not cooked up dry, nor burned.

Fourth. It does not mean the patient can satisfactorily "try-out" or test the value of the beef diet, by eating some kind of meat daily, or some at each meal; or beef at each meal, together with fruit or vegetables. It has happened to the writer more than once, after stating clearly to the patient, "You must eat lean, broiled beef only; you must confine yourself (for a short time at least, to

get well started), to lean, broiled beef exclusively," that the patient would say: "I can have some potatoes with the beef, can I not? Potatoes and meat go together, don't they?" Now potatoes are amylaceous food, and the Salisbury method of treating consumption and kindred diseases (which are caused largely by the fermentations of such starchy foods), is to starve the growth by cutting out those foods known to ferment and confining the diet to food having the least fermentative tendency, yet possessing the most nutrition.

Fifth. The Salisbury method does not require that one having recovered their health from having followed this plan, must ever after live exclusively upon lean beef. (This in answer to the question asked by many correspondents.)

To briefly recapitulate: The best results are had by dieting the patient for twenty-four hours, accompanying this by giving one half pint of hot water four times daily, to wash out stomach, intestines, kidneys, etc. Follow with giving four ounces of the lean, broiled beef each meal and continue drinking the hot water, not less than one hour before each meal, and not less than half an hour before retiring for the night. Increase the quantity of beef to be eaten, as indications show it to be all assimilated, and increase the quantity of hot water until one pint is drunk before each meal and before retiring. Never drink more at the time of eating than one half pint of hot water, tea or coffee, the two latter without the

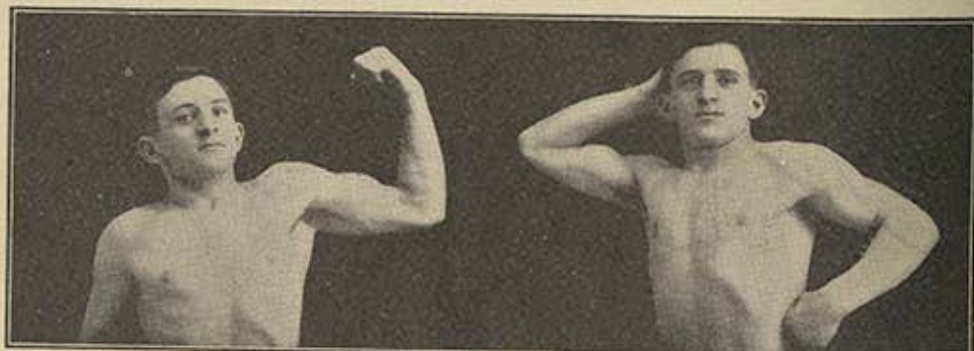
addition of sugar, milk or cream. In the treatment of this and kindred diseases, sugar and sweets in all forms are to be strictly avoided.

If the instructions given are faithfully followed, the patient should within a few weeks be able to increase the amount of beef eaten up to one, and one and a half pounds a day, and within three months extend the range of diet so as to include raw or broiled oysters—two to six at a meal—with lemon juice (never vinegar), salt, pepper, or sauce to taste. The brown meats of poultry and wild game; lean bits of mutton, deer, a small portion of broiled or boiled fish (cod fish toasted and afterwards soaked for a few minutes in hot water and then buttered and peppered, is most useful at times in coaxing the appetite), may be resorted to occasionally, but the main reliance must be placed upon broiled beef and hot water.

Beginning with one mouthful of bread or rice, to seven of beef, the patient can soon increase the amount or proportion of bread to two and three mouthfuls to seven of beef. Get the whole-wheat-flour bread if it can be had.

Remember, the first thing needed by the patient, as it is the first thing needed by the new-born babe, is pure air; the next is pure drinking water and then suitable food. With these, consumption in all its forms has been cured by the Salisbury methods, in thousands of cases, some of them remaining cured for twenty to forty years. It is no longer a matter of experiment.

A Sturdy Physical Culturist



Wolf Leiter, a young physical culturist, of 275 W. Chicago Ave., Chicago, Ill., who claims the title of champion amateur wrestler at his weight.