# PHYSICAL CULTURE

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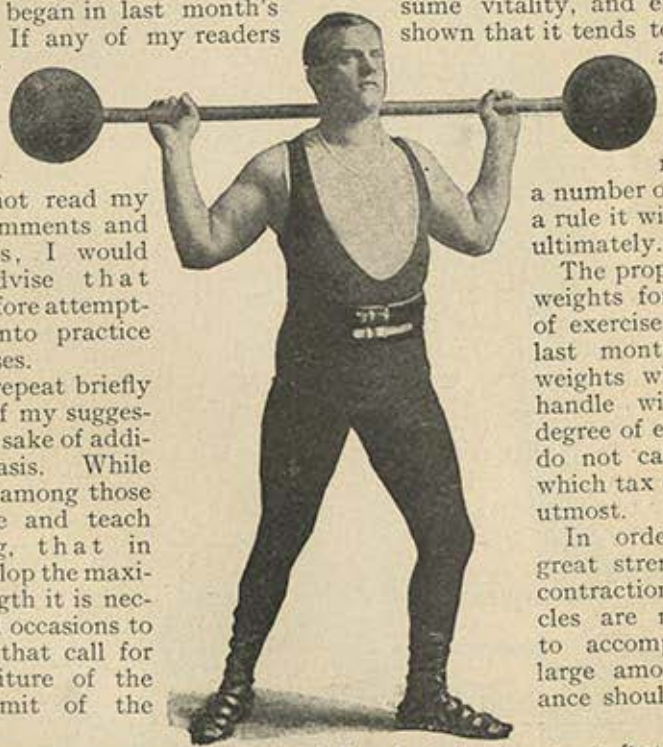
# Right and Wrong Methods of Weight-Lifting

By BERNARR MACFADDEN

THIS article is a continuation of my discussion of weight-lifting which began in last month's issue. If any of my readers who are interested in the movements illustrated herewith, have not read my preceding comments and suggestions, I would earnestly advise that they do so before attempting to put into practice these exercises.

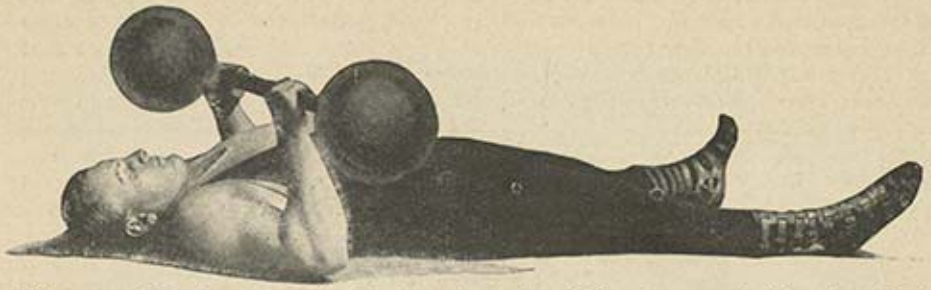
I wish to repeat briefly one or two of my suggestions, for the sake of additional emphasis. While it is the rule among those who practice and teach weight-lifting, that in order to develop the maximum of srength it is necessary on all occasions to use weights that call for the expenditure of the utmost limit of the strength of an individual, yet it is plain that such a course is inclined to consume vitality, and experience has shown that it tends to shorten life, as well as break down the various internal organs. This may not be for a number of years, but as a rule it will be the case ultimately.



The proper way to use weights for the purpose of exercise as I described last month, is to use weights which one can handle with a certain degree of ease, and which do not call for exertion which tax one to his very utmost.

In order to develop great strength, powerful contractions of the muscles are necessary, and to accomplish this, a large amount of resistance should be afforded.

Photograph No. 6.—Holding the bar-bell in both hands, raise it first high above the head, then lower it behind the head until it rests on the back of the neck and shoulders. Then put it up to arm's length overhead, and lower again to the back of the neck. This is a particularly advantageous exercise, inasmuch as it tends to bring the shoulders back, and overcome round shoulders. The position herewith shown may be used for several exercises—for instance, rising high upon the toes, for strengthening the ankles by standing first on the outside of the foot, and then on the inside, and also standing on the heels and raising the toes.



Photograph No. 7.—Lie on the back, with the bar-bell resting on the floor just back of the head. Now take hold with both hands, and raise it until in the position illustrated. From this position you can press it straight up to arm's length, back to the position shown, and finally back to the floor as at first. In addition to this movement, another splendid exercise will be found in getting up to a standing attitude from the position illustrated. In this case it would be well to first bring the bar-bell down toward the knee, that is, over the hips, whereupon you will find it quite easy to arise first to a sitting position, and finally to get up on your feet. The reverse of this movement, lying down on the back in the same way, and finally placing the bar-bell on the floor back of the head, is an equally good exercise.

It does not matter whether this form of resistance is provided by a similar contraction of an opposing set of muscles by another individual, as in a wrestling match, or by a weight. Light resistance, as in the case of very light dumb-bells may enable one to develop endurance if the exercise is continued long enough, but cannot develop the great muscular energy that may be attained in overcoming great resistance. But the point to be most careful about is that in using weights, if one is particularly interested in that form of exercise, it is important that he avoid strain and the overtaxing of his powers, which is so common among weight-lifting enthusiasts. If a due amount of intelligence is used, one may make use of a bar-bell or dumb-bell, providing it is his ambition to acquire a high degree of muscular power and vigor.

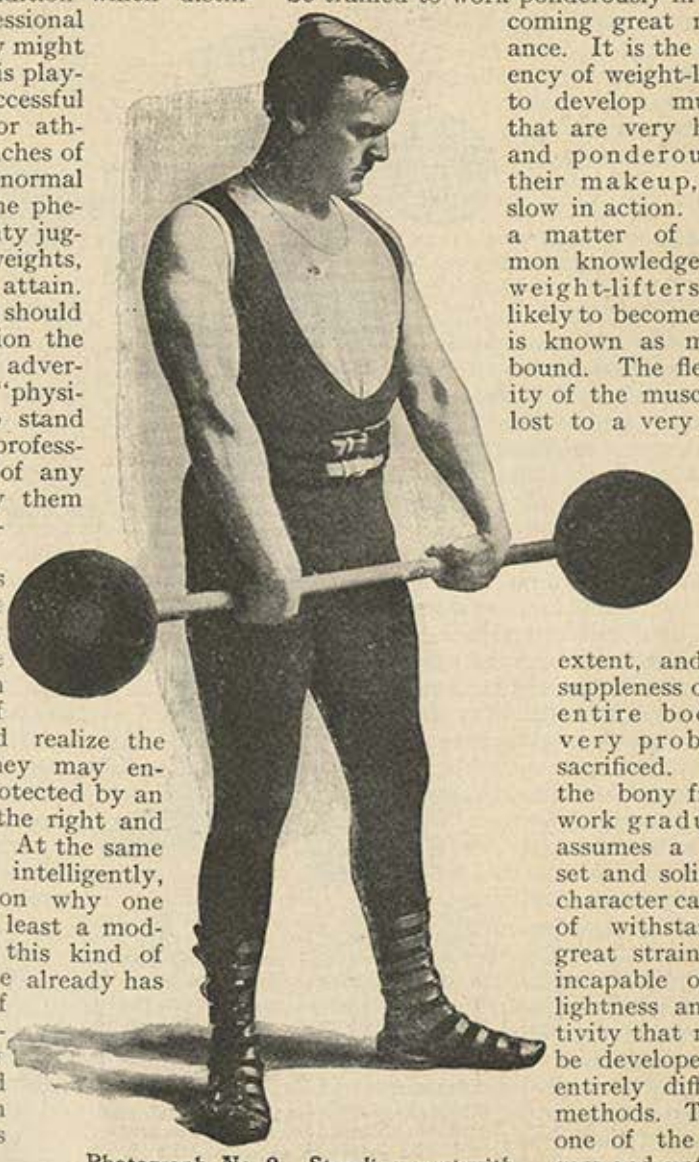
So much by way of recapitulation. It is true that an extreme maximum of muscular development cannot be acquired except by forcing the muscular system to the utmost day after day until at length the gymnast has acquired a degree of at least muscular strength which is positively amazing. But such a point when reached, is exceedingly abnormal, and may not be attained except at the cost of vitallty and usually health. Furthermore, only those of the most robust and hardy constitutions can attain this end, inasmuch as they only have sufficient vital energy and functional strength to enable them to respond to the ever increasing demands made upon their systems. A great many individuals under similar circumstances cannot recuperate from the exhaustion resulting from such a course. Their nervous energies would be consumed, and instead of gaining strength, they would actually lose it, and if they

Photograph No. 8.—Taking the first position illustrated in Photograph No. 7, bring the left hand over to the right side, thus placing the bar-bell parallel with the body, as illustrated above. You may then lower it slowly, until it rests upon the floor at the right side parallel with the body. Lift it and reverse the movement, placing it upon the floor to your left. It would be to your advantage if you place the feet well apart when performing this exercise.

continued the practice they would probably go into a decline. In other words, it is impossible for a great part of our present population to develop the muscular condition which distinguishes the professional strong man. They might be successful tennis players, perhaps successful runners, boxers, or athletes in other branches of sport, but the abnormal qualifications of the phenomenal and mighty juggler of great weights, they can never attain. In other words, one should view with suspicion the claims of many advertising teachers of "physical culture," who stand ready to make a professional strong man of any one who may pay them for a course of instruction.

I take great pains to explain these things, so that my readers may have a clear conception of the subject of weight-lifting, and realize the dangers which they may encounter, unless protected by an understanding of the right and wrong of the art. At the same time, if pursued intelligently, there is no reason why one might not do at least a moderate amount of this kind of work, providing he already has some degree of strength, and always takes pains to keep easily and comfortably within the limits of his strength.

I would say, however, that although one may take some exercises with a bar-bell or dumb-bell, he should make it a special point to take a variety of other exercises as well. One's muscles adapt themselves to various conditions, and modify their shape and quality according to the use which is made of them. Muscles may be trained to act with great speed and delicacy, or they may be trained to work ponderously in overcoming great resistance. It is the tendency of weight-lifting to develop muscles that are very heavy and ponderous in their makeup, and slow in action. It is a matter of common knowledge that weight-lifters are likely to become what is known as muscle bound. The flexibility of the muscles is lost to a very great extent, and the suppleness of the entire body is very probably sacrificed. Even the bony framework gradually assumes a more set and solidified character capable of withstanding great strain, but incapable of the lightness and activity that might be developed by entirely different methods. This is one of the dangers and unfortunate consequences of weight-lifting. Furthermore, while the practice of such exercises is inclined to give one the ability to make a great effort, still it is only for a few moments, and as a rule, the individual trained in this way is lacking in en-



**Photograph No. 9.—Standing erect with the bar-bell in front of you, bend the wrists inwards as illustrated. (See next photo.)**

durance as well as in activity of movement.

It is possible to develop the muscles of the body in various directions at the same time, that is to say, while the muscle is trained in such a way as to develop vigorous strength such as will enable one to meet and overcome great resistance, yet by the proper course of training and suitable exercise, it may also be so directed as to develop quickness, lightness and delicacy in action, when desired.

I would therefore recommend that if you adopt some special exercises, such for instance as the movements illustrated herewith, for developing great muscular vigor, you should also adopt other forms of exercise to be practiced daily, which will develop the speed of the muscles, and other qualities referred to. Fencing, boxing, tennis, ball and other games of this character can be particularly recommended for this purpose. It would also be advisable to take some means of developing the endurance as well. Of course, the games I have just mentioned will help to accomplish this, though such exercises as walking, cross-country running, and others involving long continued activity can be recommended. In his way one can avoid the one-sidedness and sameness of the tense and muscle-bound condition which the use of weights, even moderately and carefully, is somewhat inclined to bring about and which are unavoidable if one goes to the extreme in weight-lifting.

Photograph No. 10 (continued from Photograph No. 9).—Now flex the arms at the elbows, and raising the bar-bell to the left of the shoulders, bend the wrists in the opposite direction, that is, turn the palms of the hand outward instead of inwards, in the manner illustrated above. By performing this movement carefully according to these instructions, not only will the upper arm be strengthened, but the forearm will be developed and the wrists strengthened. Put as much action as possible in the wrist movement referred to, and let the flexing of the arms and the bending of the wrists be simultaneous.

The enthusiastic weight-lifter may easily consume all of his energies in his favorite pastime, and would not have any vitality left for the other exercises that I have referred to. But I am satisfied that my readers, with a proper understanding of the subject, will avoid errors of this kind. It must be remembered also, that what might be easy for one person in this respect, would not be so easy for another.

There are a number of tricks used in weight-lifting which professional performers resort to, and which enable them to accomplish much more than an amateur possessing the same strength. There are little knacks and tricks in making great lifts, which enable persons to use their strength to the greatest advantage. However, it is not my purpose here to make professional performers of my readers, and lack of space prevents me from describing such tricks. I am concerned chiefly with the building of strength, and the improvement of health, and the exercises presented herewith are given only with that object in mind.

Perhaps my readers would be interested in a few words concerning Mr. Warren Lincoln Travis, who posed for the accompanying illustrations. He is a remarkable example of one who has apparently not injured himself in any

way by the attainment of his great strength. He may be distinguished by his exceedingly clean and wholesome manner of living. He does not use tobacco, alcoholic drinks, and in fact as he says himself, he has no bad habits whatever, except money-making, and according to Bernard Shaw, this is a good habit.

Mr. Travis does not give exhibitions of dumb-bell lifting in the cut-and-dried manner of the average strong man, but his performance consists of other feats of much greater interest. Among other things, he allows six horses to be harnessed to his arms above the elbow, three horses being hitched to a belt around his left arm, and the other three to the right arm, and then clasping his hands, and with the six horses pulling in opposite directions against each other, he resists successfully all their efforts to pull his hands apart. Another of his feats is to lift on his back, a platform supporting a piano and a dozen men.

As a rule, when athletes of this character develop an apparent maximum of muscular power, they seem practically devoid of fatty tissue, especially when the muscles are tense. In the case of Mr. Travis, however, it will be seen that he is supplied with just a sufficient quantity of fatty tissue to give him a round contour. He possessed a little too much flesh when he posed for these photographs to be in his best condition, nevertheless it must be remembered that the possession of a moderate amount of fatty tissue represents surplus energy, energy stored up. As long as one retains the proper amount of this surplus tissue or energy, he need have no fear that his vitality is being consumed by his strenuous exercises, faster than it is generated.

## HE HOPES FOR A PERFECT CHILD

Dr. Asher Gluck, who is the inaugurator and conductor of the "simple life and equality system colony" of Chicago, believes that it is possible for "any healthy man and woman who will live perfect lives for fifteen months may have a perfect child—a child that will talk at birth, have an adult brain and stature at the age of five years and be a genius in any line that the parents shall select during their fifteen months perfect living."

It will be noted that the doctor's own words are used. The colony of which he is the head, started about a year and a half ago, began with twenty-four members, now has fifty and endeavors to live the simple life in its highest and ultimate development. The colony has never produced a perfect child of the Gluck type for the reason that it is only a year old—which is just three months short of the time required for preparation on the part of the would-be perfect parents. But Dr. Gluck does not lose hope on that score. He is waiting and trusting and believes that in due course of time, the extraordinary youngster which he describes will evolve.

Without endorsing all his beliefs regarding the "perfect child," it is certain that if as much care was expended in the breeding of children as in the breeding of fowls and cattle, pigs and turkeys, cabbage and apples, the race would be vastly improved within a few decades. The worthy doctor may be mistaken in regard to the characteristics of the perfect child, but if he does nothing more than call attention to the benefits of prenatal influences and the evil conditions which now attend the conception and the birth of the ordinary child, he will have served a purpose which is useful, though his methods are fantastic.

The members of the Gluck community observe many excellent habits. Thus they shun tobacco, liquor, candy, heating condiments and a good many more things. No money is handled and the social principles of the community are of a communistic order. Furthermore, its members are vegetarians and there is a weekly fast. Industry is inculcated, and morality of the highest type is essential to membership. Altogether there would appear to be many less useful and less desirable citizens than Dr. Gluck and his followers.

# "Rope-Swinging" as an Art and Exercise

By BOB GRAY

I NEED hardly say that the lariat, or lasso, or "rope" as it is generally called in the West and Southwest, is one of the most important parts of the outfit of the cow-puncher. In fact, he can hardly exist without it as far as his business is concerned. The most refractory steer, active yearling or broncho, chock-full of cussedness, can be reduced to submission with the aid of the rope. Besides that, it is valuable in a number of other ways which I need not speak about in this connection. And because it is a part of the daily life of the ranchman it follows that it becomes a sort of third limb to him, so perfectly is it under his control. With it, he can do all kinds of stunts quite outside of his regular work. In a business way, the rope is used with a straight throw with the intention of getting the loop around the neck of an animal, or is swung upwards, sideways, or what not, for the purpose of noosing the fore- or hind-legs of horse or steer, as the case may be. This calls for much skill and constant practice. But the possibilities of the rope in another way, are best shown by the sport of "swinging" it, with which this article has to do, and some phases of which the pictures illustrate. I may say right here that "rope swinging," as it is called by us cowboys, develops the wrist and forearm in a wonderful manner, besides giving you a quick eye, command of your poise and making you alert in general.

No. 1. The Simple Loop—Perpendicular

I am going to try to teach the reader how to "swing" the rope, and I am sure that if he will follow my instructions he will get a whole lot of fun and much healthy exercise out of it. Before I begin, however, let me say that I know something about the subject, because I was born on a ranch out West, and my first recollections are of being in a saddle, dangling a tiny lariat and trying to imitate the grown-up cowboys.

First then, as to the rope itself. The Mexicans use what is known as a Maguey rope, which is very wearable and flexible. But for tricks or swinging—I shall stick to this last term, which is the one that can best be used—ordinary manilla or closely woven cotton rope will answer the purpose. It should be seven-sixteenths of an inch in diameter, and you will need three ropes. One about twelve feet, another about fifteen and still another about twenty-three feet. Clever ropers perform a trick which they call the "Crinoline," but this calls for a rope from fifty to ninety feet in length,

No. 2. "Raising" the Loop

and the feat is usually performed on horseback, so that I shall dismiss it with this single reference to it.

After you have got your rope, the next thing is the making of the "hondu," which is the little permanent loop at one end of the rope through which the other end passes so as to form a noose. There are several ways of making the hondu. The ropes used for ranch purposes have one made of light metal, which is oval shaped, about two and a half inches in length in its interior and three-quarters of an inch broad, and its edges are turned upwards so as to form a sort of groove in which the rope rests. The end of the rope is passed round the hondu and fastened in position below its lower end with the aid of copper wire. But for my own part, I think, that a hondu such as I am about to describe is better for "swinging" purposes than the permanent one to which I have alluded. At one end of your rope make a little loop of the measurement told and of the oval shape. Now take fine copper wire and wind it around the end of the rope as it rests against its fellow portion, so as to make the hondu keep its shape. Wind closely upwards, until you reach the lower portion of the oval. Then pass your wire right through the hondu and continue winding up to the left, but not so closely as you have wound around the stem of the hondu; in fact, let each turn of the wire be about a quarter of an inch from its fellow turn. Continue winding until you have gone right around the hondu and have descended again to the stem, around which you take a final turn and a knot to keep the wire in place. Now place the hondu on the tip of your forefinger, the latter being below it and just where the oval springs from the stem. Let the oval be in a line with your finger, If the hondu has been properly made. it will balance on the tip of your forefinger, but if it exhibits an inclination to drop either one side or the other, you must wind more wire on the opposite side to counteract such inclination. Unless the hondu is thus balanced, it will "twist" on you, as they call it,

No. 3. The High Raise

No. 4. The Jump Through the Loop

when you are trying to do your stunts. Of course, in actual ranch work, this balancing of the hondu is not necessary, but as "swinging" is a totally different thing, and calls for much nicety, both as far as your rope and your work is concerned, the balance as described, is an absolute necessity.

There is another way of making a hondu, which is done simply by forming the little oval loop as described and fastening it with very thin but tough twine in place of the copper wire. This is all very well, but if it gets wet or twisted, trouble ensues and you won't be able to do your swinging. Altogether I recommend the copper-wound hondu as the best for a beginner, and indeed for a professional rope swinger.

The amateur must begin with the simplest of the tricks, which is the single loop as shown in illustration No. 1. As most of the swinging tricks are started by the rope being held in the position which I am about to describe, I must ask your careful attention. Supposing that you have your fifteen-foot rope prepared, with its hondu, then select some other space, or big chamber, in which you have plenty of room to work. Now, after having passed the clear end of the rope through the hondu, you form a loop about three feet in diameter. Let the top of the hondu point to your right in a horizontal fashion. Grip the rope of the big loop just below the hondu with the first, second and third fingers of the right hand, and let the little finger come up between this portion of the rope and the other and long end of the rope. Drop the thumb on top of the two ropes so as to hold them together. You will then see that you have a grip on the hondu, and at the same time the little finger separates it from the long end of the rope so as to permit of the entire business getting into action quickly and without friction as you begin to swing. The left hand loosely holds a portion of the long end of the rope, the knuckles being outward and the rope consequently resting on the fingers.

With the right hand make a semi-circular sweep outwards and from right to left, the knuckles turning outwards. As this is done and when the rope is on a level with the knee, that portion of the hand which holds the hondu loosens its grip upon the latter, but retains its hold upon the long portion of the rope. At the same time, you must be careful not to grip that part of the rope which is held in the left hand, but allow it to freely revolve, as it will do. I need hardly say that you must keep up a circular sweep from left to right in a vigorous though easy and regular fashion, or else you won't get your big loop. Naturally you will have a whole lot of failures in the first place, but after a dozen or so trials, the idea of the thing will come to you if you have observed the instructions I have given you, and

you will see just what is wanted to make the rope form the loop. In illustration one, you will see me making this simple loop. Observe the position of my knuckles and also note that the left hand is just holding the rope and no more. After you can make this simple loop with a certain amount of ease, you have mastered the A B C's of rope swing ng.

Note that this simple loop as described is vertical or nearly so. A variation of the same trick is the horizonta loop, to make which the hand is held with the knuckles pointing upwards, the fingers outwards, while there is imparted to the rope a circling motion from right to left, but in a horizontal direction.

"Raising the rope" as shown in illustration two, is done by forming the simple loop in a perpendicular manner, then gradually coaxing it upwards, while at the same time you raise your hand and wrist so that the tip of the thumb points upwards, or nearly so. If you have mastered the art of making a simple loop, you will have but little difficulty in performing the "rais ng." It is a very effective and spectacular trick, and is used as the starting point for a variety of other feats.

The "high" raise is shown in illustration three, and as will be noted, is nothing more or less than an exaggeration of the simple raise. It is not possible, however, to keep the rope in the high raise for more than a few seconds, for obvious reasons. This same picture gives one a good hint in regard to the necessity of keeping the loose end of the rope unhampered by the grip of the left hand. If you will observe that portion of the rope which is shown between the right and the left hands you will note its spiral motion, which, if checked by an undue grip of the left hand, would of course, spoil the trick. A good rope swinger will keep the high raise going for quite a little time, but only experts can do this.

When you have mastered the art of the high raise you can try the jump through the loop, illustration four. When the rope is well above your head and firmly "open," or well-defined as a circle, stop the motion of your hands for a second and permit it to drop down over your body, at the same time bringing both hands to the level of the chin. As the rope descends, you leap upwards and a little outwards, being careful, however, that in so doing, you lower your hands so as not to interfere with the loop. If the trick is properly done, you will find the rope on the grass and you yourself outside of it which is a very catchy bit of business, and calls for a good deal of agility and practice.

Illustration five gives you an excellent idea of the art of opening the rope. To do this, you perform the high raise, and then, still keeping up the loop-forming motion, permit the loop to settle

No. 5. "Opening" the Loop

No. 6. Inside the Loop

down around you a little. As you do so, however, slacken off that portion of the rope which is in the left hand and by means of a motion which can hardly be described, but which you will *feel* how to acquire by practice, "pay" out the rope through the hondu inch by inch, thereby opening it until it is whirling around you in a loop, whose side is only limited by the length of the rope. This is a splendid trick, because it keeps your arms, eye and lungs busy all the time.

In illustration six, we see the cow-puncher inside the rope, which is revolving around him. After the high raise, you permit the rope to drop down over you until it is about waist high, when by a quick motion of the hand, you check its descent but at the same time keep it whirling. Now if you desire to lessen the diameter of the loop, you begin to draw in slightly with each of its revolotions, using the left hand to gather up the slack. It need hardly be added that this trick calls for nicety of motion, because you have not only the job of keeping the rope open and swinging, but of preventing it from "breaking," or spoiling its formation by coming in contact with your body.

When you have thoroughly mastered the inside trick, try that one shown in illustration No. 7. Still keeping the loop going, gradually descend on one knee. Now let the posterior portion of the body come back on the heel of the right foot. After you have steadied yourself for a moment, lower your back in a sort of sidewise manner until it touches the grass, still keeping the loop going. This is not so difficult a matter as it seems to be by the picture or description, but it calls for a great deal of practice and *finesse* with the wrist. After you have rested for a moment in this reclining position, proceed to pick yourself up by reversing the motions which brought you to grass. When you are on your feet again, finish the trick by a swift jump outside the loop and you will certainly get the applause to which you are entitled.

The "Butterfly," as it is called by the cow-punchers, is pictured on the cover page of this issue of this magazine. It is a very spectacular and pretty bit of rope swinging, but must be begun in a different way from the other feats. First make a loop of about three feet

No. 7. Going Down Through the Loop

or so in diameter, holding the hondu on the inside and towards your body by the right hand with the knuckles turned outwards. The left hand should loosely hold the disengaged portion of the rope. By a rapid revolution of the wrist from the right to the left, while at the same time the left hand gradually lets go of the rope, a large perpendicular loop is formed. The motion is continued, the right hand being gradually raised until the loop clears the head. In the preliminary stage of making the loop it is better that the right hand and arm should be extended outwards somewhat, by which means the lower portion of the loop will *come in* towards the feet. When the loop has attained its largest possible diameter—and I need hardly add that a lot of vigorous work with the arm and wrist is necessary for so doing—the leap through the rope forward is made. It is then that the diagonally inclined sweep of the swinging rope makes its usefulness manifest, because the feet have little difficulty in clearing it. At the same instant the right hand passes the upper portion of the rope backwards over the head. It should be said that the leap through the loop must not be made until that point of the swing when the hand is above the head.

Most swinging is done with the right hand going from right to left as told. But back-hand swinging is a good exercise also and consists of the loop being formed from left to right instead of *vice versa*.

I consider rope swinging one of the best exercises for the "wind" that I know of, and that it keeps your senses busy, hardens the muscles of the arms and sends the blood whipping through your veins like a mill-race goes without saying. If you don't believe it, try it.

## SCIENTIFIC OPINIONS ON THE SIGNIFICANCE OF DIET

It is instructive to note how our leading scientists are being aroused to the importance of diet. In proof of this we will quote some of their utterances as follows:

"The preservation of a large peasant population is one of the most indispensable necessities for all the great continental Powers—they are the physical basis of national prosperity."—Emil Riech.

"Between 1881 and 1891, farm laborers decreased in England 173 in 10,000. In the same period, insanity increased from 2 to 3 in every 1000." —Encyclopaedia Britannica.

"Take care of your digestion, which means brain."—Thomas Huxley, F. R. S.

"This question of food is one of primary importance, far more so than education."—Sir James Crichton-Browne, M. D., F. R. S.

"The study of dietetics should be looked upon as very nearly, if not quite, as important as the study of the apeutics."—British Medical Journal.

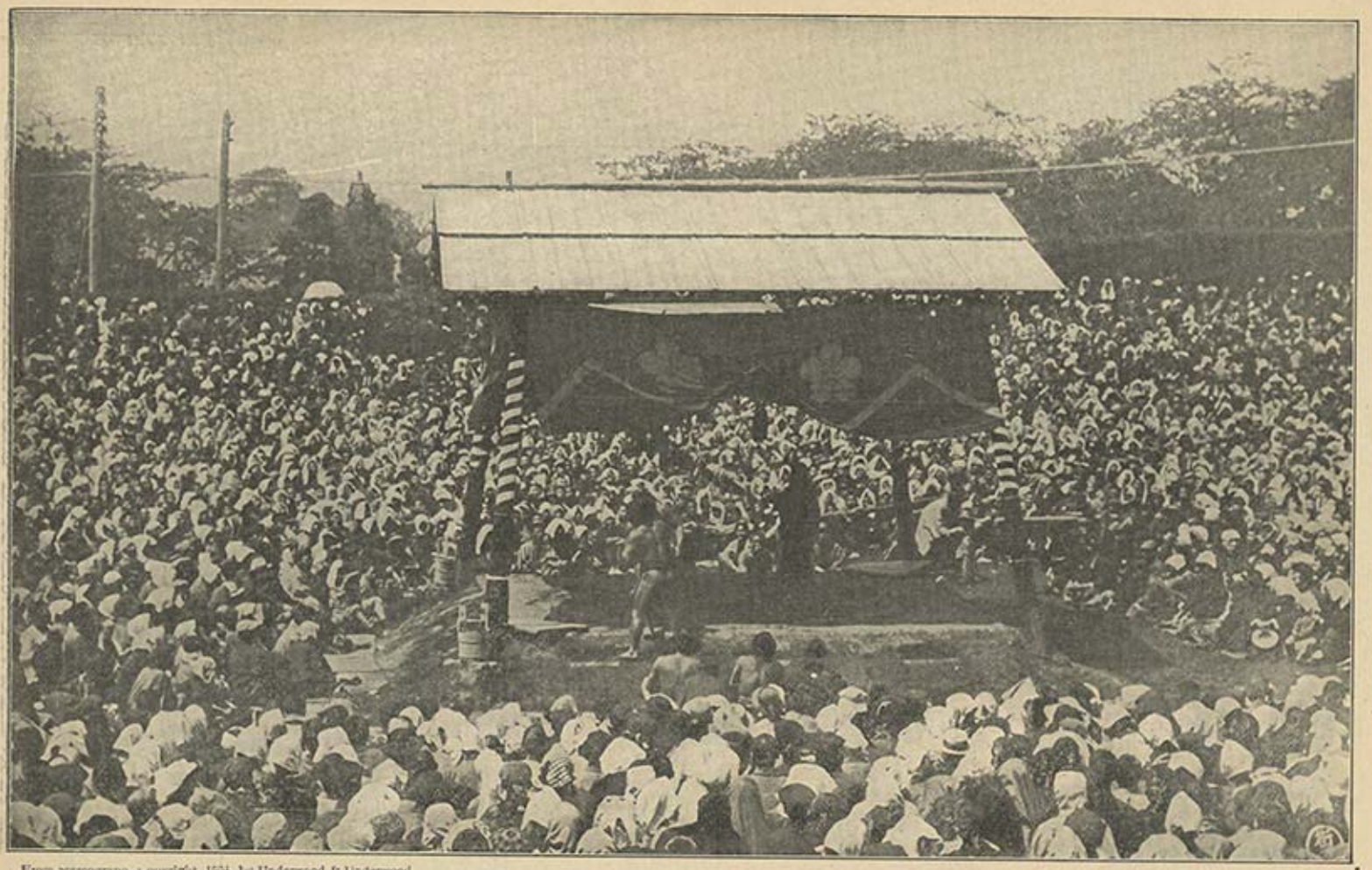
"To lengthen life, shorten meals. Dyspepsia is due, in nine cases out of ten, to too much food, too little exercise."—Sir John Lubbock, F. R. S.

"The misery of the women of the poorer classes is more than doubled by the use of tea."—Sir Benjamin W. Richardson, F. R. S.

"Food is the point about which turns the whole problem of degeneracy."—Alfred Eichholz, M. D., B. C., H. M. Inspector of Schools.

"It is one of the maxims of physiology that the majority of the diseases of mankind are due to, or connected with, perversions of nutrition."—Prof. Chittenden, Ph. D., LL. D., Sc. D.

While some of the researches and conclusions of scientists are open to doubt and criticism, yet no sane man will deny the vast debt which the world, as a whole, owes the patient investigators of the phenomena of Nature. Consequently, the attention which our scientists are now devoting to the subject of diet must be hailed with satisfaction. And the quotations just given are significant indications of the fact that food is beginning to take its place among the things important in the scientific category.



From stereograph, Copyright, 1904, by Underwood & Underwood

View of the Arena while Japanese Wrestlers are Contesting

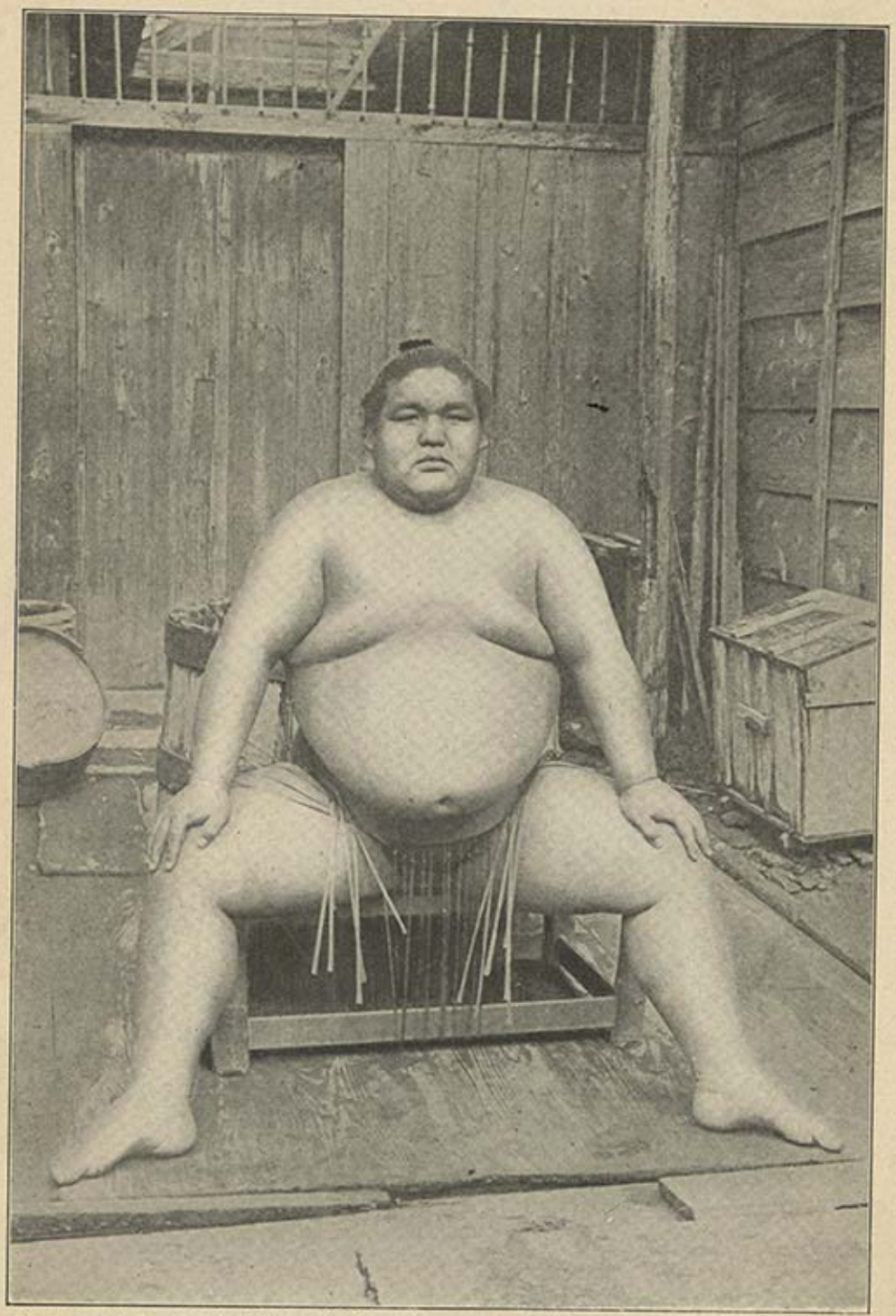
# Hitachiyama, Japan's Champion Wrestler, is Paying Us a Visit

By CORNELIUS FALLON

FOR the first time in wrestling history we have had an opportunity of passing upon the modes and methods of the art as it is practiced in Japan. Hitachiyama, Japan's greatest wrestler, in more senses than one, is touring the United States and Europe. Nor has he come alone. With him are three or four other experts and a corps of attendants. So that on several occasions American audiences will be given a complete presentation of the ancient Sumo, or wrestling according to Japan, which by the way, is one of the most interesting forms of athletics known.

The versatility of the Japanese has been made manifest in many ways. In muscular, moral and mental makeup, the average son of Nippon is a creature of acute contrasts. One of the most desperate fighters that ever struggled on a field of battle, he is at the same time, one of the daintiest and most "finicky" of individuals in many matters of daily life. A creator of what many claim to be the most exquisite art that the world has ever seen, he is capable, as recent events have shown, of building battleships and inventing the most destructive weapons ever used by a soldiery. While his patriotism and the details of his daily life are founded and centered in ancient tradition, yet he has adopted most things modern with the same facility that a woman slips on a Parisian glove. And in this matter of wrestling, he is consistent in his apparent inconsistency. By which is meant that in Japan there has been evolved the two extremes of putting a man down and out, with the use of natural weapons. Thus on one hand we have Jiu-Jitsu, "the science of the weak," as it may be appropriately called, and of Sumo, which first, last and all the time is the privilege of mighty men of muscle. Jiu-Jitsu is a matter of lightning-like dashes, delicate touches and the application of a knowledge of bodily mechanics—all dainty, effective and artistic. But with Hitachiyama and his colleagues, it is very much otherwise. Strength and weight are essentials with these, and while of course they exhibit and exercise a certain amount of skill, yet as a matter of fact, bull, brute force, constitutes the chief features of their art. Jiu-Jitsu is a more or less modern invention. Sumo belongs to the old Japan of Daimio days, when the feudal lords with their two sworded samurai, or noble warriors, flourished and ruled over the land. Then it was that each Daimio had his wrestlers, and contests between the representatives of various provinces were considered events of the highest importance. The exponents of Sumo have been bred to the business, if the term may be used, for many generations and hence it is that they form a sort of big family or cult.

Without referring to the many anomalies which one meets with in Japan, it is curious to note in this connection, that while the male population is undersized, yet to the contestants in the Sumo ring, the word "giants" may be properly applied. This not only in regard to their height, but as far as girth and weight is concerned. In fact, there is no other nation in the world whose professional athletes attain the proportions that do those of Japan—the country of the little brown men. Some of the wrestlers run to 6 feet 4 inches and their average weight is nearly 300 pounds. Hitachiyama is comparatively short, standing only 5 feet 10 inches, but he weighs 306 pounds. A literal translation of his name is "The mountain of Hitachi"—the latter being his birthplace. In view of his proportions, his stage-name is appropriate enough for he is really a human mountain. The



From Stereograph, Copyright, 1904, by Underwood & Underwood

Hitachiyama, the Champion Sumo Wrestler of Japan

mystery of the existence of these men—pure Japanese as they are—in a nation which, as already stated, is notable by reason of lack of stature on the part of its males, can only be accounted for on the score of heredity, for, as already stated, the Sumo champions are chiefly descendants of the wrestlers of the Samurai days. Which goes to show the truth of that upon which this publication has often insisted, namely, that men and women can be bred to be anything that is desired of them, provided that physical culture methods are used in the breeding.

Outside of his gigantic stature, the outward and visible sign of the wrestler in Japan is the peculiar top-knot of hair which adorns his head. Furthermore, if you see a giant perambulating the streets of Tokio, or any other of the larger towns, followed by an adoring crowd of boys, you may depend upon it that he is a popular Sumo idol. Nevertheless, the social status of the wrestlers of Nippon is distinct from, and decidedly better than that of, any of our famous pugilists, or professional athletes of any kind whatever. It would seem that the Japanese realize that it is a good thing to encourage the spirit of athleticism in a nation and at the same time excite the desire of the youth to emulate the deeds of the exponents of physical strength and skill. Hence the wrestler is given that social respect and treatment which is conspicuous by its absence in the case of English or American athletes.

The wrestling meetings of Japan are looked upon as events whose importance is only second to that of the elections, the state of the crops, the status of foreign relations, and so forth. This is true of the provincial meetings; but in the case of the great national contests which occur each year at Tokio, all other considerations take the second place, and nothing is heard for the two weeks during which the contests last, than what has taken place, or is about to take place in the Sumo ring. Curiously enough, the scene of these famous meetings is the grounds of a Buddhist temple on which is erected a huge tent capable of accommodating several thousands of spectators. Each day this tent is packed with people, women and chlidren as well as men and boys.

The contests begin in the early morning and last until sundown. In the center of the tent is built a circular stage with a canopy-top held up by four tall, upright pillars. The walls of this stage are of stone, but the floor is earth which rises a little above the external stone lining. The earth covers a space of about fifteen feet in diameter and constitutes the wrestling ring. The end and aim of each contestant is to push or throw his adversary outside of the circle or ring. If one of the wrestlers put so much as the tiniest fraction of a foot on the stone lining, he is defeated.

There is also a tremendous amount of technique and ceremony about the Sumo, and while, as already stated, strength and weight are the chief factors in the game, yet there are very strict rules which govern the actions of the wrestlers. Thus there are no less than forty-eight principal movements of the hands and feet which are recognized as lawful, and if movements are made outside of these, something equivalent to a foul is declared. Also, there is such a tremendous vocabulary of technicalities that it would be absolutely impossible to translate into English, a Japanese newspaper report of one of the contests. The foreigner who tries to get an idea of a wrestling match from a native's report, would be in just as much of a fog as would the Japanese, with a very limited knowledge of English, who tried to understand what baseball was through the medium of an account of the game as written by a baseball reporter of the slangiest description.

The ceremony of the contest is imposing, and slow, and, if the truth must be told, somewhat tedious to the foreign devil who is in the audience. A curious feature of a Sumo match is, that the names of the contestants are announced by an official who first raps together two small sticks to attract attention, and then in a shrill falsetto squeaks that which he has to say. The umpire wears a handsome kimono of a certain pattern and carries in his hand an "authority fan." Seated at the four corners of the ring, their backs against the uprights which hold the canopy-top, are four

judges who pass upon any technical question raised by the umpire.

As their names are announced, the contestants arise from their places on the low benches around the ring-side and mount the seat of conflict. Then the wrestlers raise aloft, first one leg, then the other, and bring them down with a resounding smack of the feet. Next they face each other and go through the same motion. At a signal from the umpire, the men now crouch and glare at each other at close range. Slowly one puts a tightly clenched fist upon the ground in front of him, the other following suit. Then after another wait, the first man puts down his other fist. The other bides his time. The rule is, that all four fists must be touching the ground before the spring that marks the opening of the contest takes place. All this time the umpire is piping out "Wulla-Wulla-Wulla." If the second man does not regard the conditions as right, he rises without putting down his second fist. Then both men walk to their corners and take a sip of something refreshing. This kind of thing may be repeated eight or ten times before they settle down to business. The Japanese explain that these false starts are a sort of warming-up affair. When they do grapple, however, the fun is fast and furious. The contestants strain and push, the umpire is kept on the jump, the crowds cheer and all delays are forgotten.

While, as already stated, weight and strength count, yet there is a certain amount of skill exhibited, which, in some cases, overcomes or offsets mere weight. When the contestants are evenly matched and they have been at each other for three or five minutes without making headway, the umpire breaks them, but he has carefully noted their position and hold, and when he calls time, or the Japanese equivalent to it, he puts them back precisely as they were. After the decision, the victor walks gravely to his side of the ring and squats upon his heels, while the umpire, holding his fan over the former's head, makes a formal announcement of the result.

Outside of the hereditary wrestlers, are some that have been selected for the honorable art on the score of the physical promises of their youth. Hitachiyama is a case in point. When a boy at Mito Middle School, his size and his prowess in athletics, attracted general attention and led to his being induced to cast his lot with the wrestlers. In Japan, a boy who gives promise of being either very fat, or very large and strong, is pretty sure to come under the notice of the wrestling authorities, and rarely do the parents refuse to honor the wishes of these, because, as already stated, wrestling is regarded as a highly honorable vocation. According to Occidental ideas, and in the native pictures, Japanese wrestlers are usually thought of or shown as great fat persons and nothing else. It is true that, in some instances, they are not much more than masses of adipose tissue, but on the other hand, the leaders of the art while plump, show splendid muscular development. While their regime while training is totally distinct from that practiced by Western athletes, yet the fact remains that they are usually in good physical condition. In fact the foremost of the exponents of Sumo look like real athletes.

It would be interesting to see what would happen if these fleshy giants come up against the best of the Western wrestlers. It will be remembered that Jiu-Jitsu did not fulfill its expectations when Bothner and some of the other prominent wrestlers, matched their catch-as-catch-can style against it. Whether the same kind of thing would stand good in the case of Sumo is a matter that has yet to be decided.

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**Dr. E. M. Hartwell, Ph.D., says of the relation between exercise and mental development: From this we might deduce that swaddling bands so applied at birth as to restrain all muscular movements, and kept on during infancy and childhood, would result in idiocy—a speculation to which the wretched muscular development of most idiots and imbiciles, and the fact that their mental training is most successfully begun and carried on through muscular lessons, gives some countenance.**

# The Seamy Side of Marital New York

By HENRI DE COURRIER

**This article is one of a series which is referred to editorially in this issue. It will tell some very startling tales about the moral depravity which is so prevalent in large cities. It shows in a remarkable manner, the fruits of a prudery besmudged civilization. May the truths found herein arouse some interest in educational methods that will so educate the new men and new women that degeneracy of this character will soon be in the distant past.—BERNARR MACFADDEN.**

BEYOND doubt, that state or condition which we call "sin" is nothing more or less than the violation of natural law. That is, sin in reality. There are in addition lots of other so-called "sins," which, as a matter of fact, are merely transgressions of customs or statutes that have been brought into existence by individuals or classes for selfish purposes. History is full of these multipliers of alleged evil—the obnoxious and iniquitous laws in question—such varying from the sumptuary laws of the Middle Ages to the insane decrees passed by a Nero or a Caligula. Thus in one case it was a "sin" for a woman to wear a ruff more than an inch and a half wide, and in the other, it was a "sin" punishable by death when a careless Roman citizen passed a statue of either one of the emperors named, without prostrating himself before it. Again and more recently, it was counted a "sin" by the Scotch Covenanters to have any sign or ornament in their churches which symbolized the Passion of the Saviour. The writer remembers, when he was a small boy, that he was assured by well-meaning, but mistaken aunts, that if he toyed with his marbles in his trouser pocket on a Sunday, he was committing a sin which would put him in danger of eternal damnation. And with all due respect to those who through honest conviction obey the dictates of certain creeds in regard to eating and drinking and dressing, and so forth, we beg leave to say that such dictates are nothing more or less than manufacturers of artificial iniquity, for by reason of their harrassing nature, they tempt one to depart from them.

So much for the two forms of sin. Now let us go back to the first proposition, viz., that sin—the real, not the counterfeit article—is a violation of natural law and let us endeavor to trace the connection between it and the odious and lamentable conditions that are to be found in every large civilized community in connection with the marital relation. It will be noticed that we use the term "large civilized community." We do so purposely. Where civilization is unknown, the conditions in question do not exist. The days of exploration are well nigh over, for the reason that there is but a very small portion of the earth's surface which has not been visited by travelers, and which does not, either directly or indirectly, feel the influences of our civilization, so-called. But in the past and whenever Europeans have plunged into the secrets of an unknown land and in consequence came in touch with the savage tribes, there existed a general and noble continence; a system of matrimony which was rarely if ever disregarded by the parties to it and a chaste nudity of language and body at which our prudes would shrink with horror or declaim with disgust. In other words, matters of a sexual nature were assigned that place in the thoughts and affairs of the individual of the tribe, which Nature had intended for them. Furthermore, no man was allowed to take unto himself a wife or wives, unless he gave tangible proofs of his powers to support them in what passed for comfort among

the primeval people. And lastly, unfaithfulness was punishable by death, tribal law in this respect, being apparently based upon the fact that, as under proper conditions, a man or a woman could legitimately satisfy their desires, it followed that the illegal gratification of passion, could only be due to the Lothario and his companion being naturally "cussed" and hence "undesirables." So they were put out of the way precisely as a civilized individual would get rid of a dog which showed traces of rabies, or a horse which developed an unmanageable temper.

If you doubt the foregoing statements, go to any library whose shelves are well filled and take down the books of Speke or Grant; Livingstone or Stanley; Catlin, Boutier or a score of others, and see if the statements just made in regard to the marital and sexual affairs of savage tribes *before* they come in contact with a civilization which at once debases and annihilates them, are not verified.

But why should the savage have the advantage of his civilized brother in the respect cited? The answer is easy. Nature is constantly storing up energy or vitality, or what you like to call it, in the human body. The mere fact that she does so, presupposes the added fact that this energy must be used in some way or the other. Now, in the case of your savage, this energy is expended on hunting; the athletic recreations or games which every tribe possesses; wars with other tribes, dances, and so forth, a proper portion being left, however, for the performance of the marital duties. What applies to the men of the tribe, applies equally to the females who usually work as hard if not harder than the members of the other sex. In other words, this energy is properly dispensed and expended in the way told, and so there is no chance for it to manifest itself in an abnormal and unnatural way. Consequently, the scandals and liasions and unnameable vices and habits which can only be hinted at, but not told, that fleck and foul the face of civilization, are unknown or practically so among the primitive people of the prairie or forest.

Now the writer is not going to attempt to discuss the vexed question of what is the proper sexual relation of men and women as far as its shape or form, or type is concerned. This has been one of the problems which has at once pleased and troubled the world since history began. As the reader will remember, King Solomon is credited with seven hundred wives more or less, and St. Paul distinctly states that a bishop should be the husband of one wife, which command would suggest that some of the early Christians were polygamists. The attitude of Turkey in regard to polygamy is too well known to need reciting. In spite of the avowed present opinions of the Mormon church, a good many people believe that the individual of that creed who has a multiplicity of wives is not considered to be any less decent a member of the community than if he had only one. Mr. Bernard Shaw has recently put himself on record as an advocate of what is known as Kalin polygamy, which is nothing more or less than a temporary marriage for the purpose of obtaining children of an ideal sort. Trial marriages have been a subject of recent discussion and recrimination. Not so long since, an article appeared in a famous English publication from the pen of one of the most learned and well-known adherents of the Moslem faith, in which he declared that at least eighty per cent. of married men in Great Britain were polygamists, in the sense of having private harems, so to speak. And incidentally, nobody attempted to refute him. And there is no doubt whatever but that his criticisms apply equally to the majority of married men in this country.

Yet it must be noted in this connection, that a man cannot be "bad," to use the term usually in vogue, without the assistance of a member of the other sex. It would hence follow that the sexes are equally to blame in this respect. But enough on this point for the time being. What has just been written is for the purpose of showing that public opinion—by which is meant the opinion of all the nations that lay claim to being civilized—is by no means at one in regard to that which constitutes the proper form or type or relation be-

tween the sexes. Nevertheless, there is no doubt but that marriage, as the term is usually understood—that is, the union of one person of each sex for the purpose of forming a home and raising a family—is most acceptable from our current social, political, economic and religious viewpoints. Whether man is or is not a monogamous animal, and hence should be satisfied with one wife, is a question which the naturalist and the physiologist must decide. But the fact remains, that society as constituted, has decreed that he is, or rather shall be, the possessor of one wife. And hence, if he departs from the standard which is set him, he usually finds himself in a peck of trouble, not only as far as his social relations are concerned, but in a legal way also.

You will note that we have used the term "man" in the preceding sentence. But the word signifies the race instead of the sex in this connection. That which applies to the male in a monogamistic sense, applies equally to the woman, and perhaps in a more literal and accurate degree. Without declaring that a double standard of morality is permissible, it seems to be reasonably certain that unfaithfulness on the part of a wife is apt to breed much graver consequences than if the husband were untrue to his marital vows. The law in a way takes cognizance of this fact. The husband is the home maker, the home supporter, and is legally responsible for all that takes place in, or in connection with that home. Also, he is charged morally and legally with the care and education of the children, and if these last do not receive the things that are due them, in a mental or physical sense, it is not the wife but the husband who is punished. Then again, an unfaithful wife is apt to saddle her deceived spouse with offspring that are not his own; a condition at which common sense and the legal instinct alike revolt. Furthermore—and this statement may raise a howl of protest—it is certain that women are so constituted that where they give their bodies they usually give their hearts and minds also. With a man it is different. This and other reasons are frequently given to prove that the wife who greets her husband with lips that are warm from the touch of those of her lover, is capable of inflicting much more harm on her spouse and on society at large than the husband who, in a moment of forgetfulness or worse, has forgotten what is due to his mate, his home, his children and himself.

Now then, if we have conditions which breed passion and we have other conditions which furnish opportunities or temptations for the expenditure of this passion, what is likely to be the result? The reply is unfortunately too easy. We shall have a city, say like New York, which simply festers with matrimonial unfaithfulness; a city in which morality of the kind under discussion is a jest, and the man who is true to his wife is looked upon more or less as a milksop, while a woman who fails to remember her marriage vows is by no means rebuked by society for so doing as long as the affair is merely an "open secret," so to speak. A city in which, as the writer knows, it not infrequently happens that the wife and the "other woman" have credit accounts at the same dry-goods store, and that that of the latter is usually far more advantageous to the firm than is that of the former. A city in which wives of certain rich men have been known to open accounts in the name of the reigning male matinee favorites at the swellest jewelers on Broadway and Fifth Avenue. A city where, in the theatrical season, fifty per cent. of the trade of the florists on Broadway between 23d and 59th Streets, consists of flowers sent by well-to-do matrons, some of them grandmothers, to men-folk behind the footlights. A city in which the society reporter of any one of the big Metropolitan dailies, can, if he so chooses, tell you the names of the "bow-wows" or gentlemen friends of pretty nearly all of the young married women or matrons whose names figure in the columns of the newspapers devoted to society affairs. A city in which some of the most exclusive restaurants make a specialty of *cabinets particulaire*, or little private rooms in which the spouses of men who spend the day downtown in the financial district, can meet and dine with their trousered friends.

A city in which the greater portion of the conversation at "hen" luncheons or teas, or during calls, takes the form of scandal, relative to the imprudence of maidens, or of the latest "affair" of matrons old or young. A city in which, as the writer knows, a good many married women of the wealthier classes dare not dismiss their butlers, or other upper servants, for the latter "know too much."

But is this kind of thing confined to the ladies who can be seen in the Park during the afternoons in their broughams or victorias, or on the Avenue earlier in the day, or in the "diamond circle" at the opera house, or at Newport in the summer, or at the fashionable churches during the season, on Fifth or Madison Avenues? Unfortunately, no. New York is a city of men who, without being exactly wealthy, earn such incomes as do enable their wives to enjoy a continuous procession of matinees, little luncheons outside of the home, gaddings in the shopping district, stolen visits to the race track, promenades on Broadway, or around the financial district whenever they see fit, and much more of the same. In these cases too, "Satan finds some mischief still for idle hands to do." And the consequence is, if you are "in the know" you will have little or no difficulty in detecting in the swell Broadway restaurants or dining-rooms of the more flashy hotels, or in the boxes of the continuous vaudeville houses, the couples who are parties to flirtations, or "affairs" which are not recognized by the law, but which often meet their fruition in the divorce courts.

It is the old story—the violation of natural law leading to natural "sin" and offences against that jurisdiction which is founded on natural principles. There is a storing up of energy in the first place and there are no healthful or wholesome pursuits or labor which acts as a safety valve. There is the eating of too much food, including a stimulating flesh diet, drinking of rich and inflammatory wines; the interference with both the moral sense and the due sense of social proportions which such a dietary breeds, and then there are the thousand and one artificial wants in the shape of jewelry, dress, exciting recreations, and all the rest of it, which are secondary products of the cited conditions. Given the passion bred by this leisure and diet; the desire for the superfluities of life which can be gratified provided that a woman will yield herself in return for dollars; given also, the fact that the husband, worn and weary at night and of comparatively limited income all the year round, is unable to gratify his wife, and is it any wonder that marital infelicity is unhappily one of the commonest features of New York's daily existence? But in our next installment we shall treat at length on the conditions just alluded to and give some actual instances of the foul fruit which they yield.

(To be continued.)

## THE DEATH OF AN ALLEGED CLUTTON

The Indianapolis newspapers report the demise of Carl Schuester, a young German, who "ate himself to death" while the guest of a family of Hungarians at 711 Downey Street, of the city named. A post-mortem examination of the man's body by the deputy coroner, revealed the fact that Schuester had ruptured his stomach through over-eating. That's about all there is to the story. The man gobbled and swallowed and gorged, unheeding of the intimations that he was receiving from his stomach, that it had had enough, and he paid the penalty for his gluttony. But how many there are who, while blaming him and pitying, are doing precisely as he did in kind if not in degree. Humanity over-eats itself, and if it does not die suddenly as did the unfortunate German, it dies long before its time, because of the diseases induced by the strain which it puts upon its digestive and excretory organs. Of course, poor Schuester's taking-off will hardly act as a deterrent to the other gluttons in Indianapolis and elsewhere, but for all that, his death emphasizes the fact that the stomach has its limitations and when these are overstepped, something is bound to happen sooner or later.

# Goat's Milk—An Ideal Physical Culture Food

By JAMES QUIGLEY

IT is the desire of the writer to call the attention of physical culturists, especially those who live in the smaller towns or in rural districts, to an article of diet which seems to have been generally overlooked. This too, in spite of the fact that it has everything to recommend it to the followers of the simple life. The reference is to goat's milk.

It has always appeared to the writer that the dislike which vegetarians of an extreme type exhibit in regard to the use of milk on the score of its being an animal product, is not well founded. I can understand why these people do not like to eat eggs, because the process of cooking the latter certainly does destroy life Then again, an egg is but a chicken in an embryonic form. Thus there is "killing," and the contents of the shell are of an animal nature.

But with milk it is otherwise. The Almighty has intended it as a means of prolonging life rather than of destroying it. It is the most perfect nutriment of its kind that Nature has produced, for it not only contains the elements of nourishment, but of growth also. Furthermore, it is charged with the mysterious "life principle" which is absent in all cooked foods, whether it be of the animal or vegetable kind. I know that some people who are not over particular about the makeup of their diets may be inclined to smile at the idea of this "life principle." But that is because they have not given thought to it, or do not understand it. Smile as they may, this same principle is a great dietetic truth, and because it is absent in meat and indeed in any kind of food that has been "killed" by the knife or the fire, post-mortem poisons are bred in such food which make themselves manifest in the shape of indigestion, intestinal disturbances, and sometimes as ptomaine poisoning. You will remember that the reports of ptomaine poisoning that are published in the newspapers are almost always accompanied by the statement, "The victim had eaten heartily of food that had been left over from a meal and had been placed in the ice chest over night." Or it may be that the story runs that the toxic material came from some form of packed food product.

But let us presume that you have no objection to milk and indeed, that you like it. In such a case, it is evident that you should endeavor to get the cheapest and purest and most nutritious milk possible. What kind of milk answers these requirements? You will probably reply right away:

"Why, that which comes from a dairy of the better kind," meaning, of course, a dairy of cows.

This is all very well and the answer is one to which exception can hardly be taken. But the objection to it is, that the dweller in a large city, rarely if ever knows anything of the cows that yield his milk, or of the environments in which they do so. Then again, even supposing that the animals have done their due share in the matter, there are no guarantees that the milk will not be adulterated, or is not handled by unclean people in an unclean manner before it reaches the lips of the consumer; or it may be polluted in half a dozen different ways, unintentional perhaps, but effective as far as harm-breeding possibilities are concerned. All this is leaving out the factor of cost and nothing has been said about the evil which milk that holds "preservatives" in solution, may work to the digestive organs. Of course, there are many creameries in which the utmost pains are taken to obtain ideal purity not merely from a layman's but from a chemist's standpoint. But however admirable these places may be, it must not be forgotten

that they purchase milk from all sorts and conditions of farms, and that after the liquid leaves them, it may have to pass through a half a dozen hands before it is served either with your cereal, or as your beverage.

It follows then, that the best thing to do under the circumstances is to have your own dairy. At which remark you will probably laugh, thinking that a joke is intended. But the writer is in dead earnest, provided always, that you are a dweller in the suburbs of the city, or that you live in the country. In either instance, you can keep your goat or goats as the case may be, which brings us up to the subject with which this article has to do.

Over in Europe, the value of the goat as a giver of milk and a source of cheese and even butter, is much more recognized than it is in this country. However, United States Government statistics go to show that this condition is being improved and that the goat is coming to his or rather her own on this side of the water. According to a recent census of the Department of Agriculture, it was proven that goats are now kept on 77,534 farms throughout this country, and that these farms are the abiding places of 1,871,253 goats, an increase of over forty-three per cent. within the past ten years. More than that, the number is rapidly increasing. It is even thought that with the recognition of the merits of the animal as the producer of a valuable textile fabric, as well as a supplier of a most nutritious food, the little animals will eventually make the abandoned farms of New England valuable as pasture lands. More than that, the goat can fertilize land almost better than most of the domestic animals and in this respect too, it is believed that it will be capable of reclaiming a great deal of property in the East that is now looked upon as worked out.

Apart from this, the physical culturist who has a fair sized bit of ground surrounding his home, should certainly pay attention to the goat on the score of its milk, especially if there are children in the family. The nutrient value of goat's milk is not merely a matter of belief, but has been proven by scientific investigation. Without giving a lot of figures on the subject it will be sufficient to say that, according to government experts and the experiences of some of those who have practically tested the matter, goats' milk is especially beneficial for invalids, children, and cookery in general. It is stated that in no single instance have the germs of tuberculosis or consumption been found in it; that it is absolutely odorless unless contaminated by foreign substances, and that it is more easily digested than cow's milk. It is very rich in fat and proteid. A milch goat, in good condition, will, so it is claimed, produce milk that in point of nutritive quality is nearly fifty per cent. richer than the ordinary cow milk. Such an instance may be of an exceptional nature, but in any event, goat's milk is unquestionably more sustaining and fattening than is the milk of the cow. As compared with its weight and the cost of maintaining the animal, a goat yields a very large quantity of milk. It is not at all uncommon for an animal to yield from four to five quarts of milk per day, an enormous quantity as compared with its size. The average yield, however, is about three quarts, the sustaining power of which are quoted as being equal to five quarts of cow milk!

There are on record many instances of a goat yielding ten times its body weight of milk in a year, while in some exceptional cases they have been known to give eighteen times their weight. In view of the fact that the animals can live on a territory or on vegetable substances on which cows would starve, and remembering the fruitful natures of their udders, it will be seen that from an economical standpoint they are almost ideal. And of course, the richer the pasture, the larger the yield of milk and the more pronounced its richness. As illustrative of their powers to extract nutriment from the least promising of pasture, it is a fact that thousands of goats thrive on land which produces practically nothing but sage brush, sand and rattlesnakes. A family in the country districts of Mexico, that does not have its half dozen goats, is practically unknown. The dwellers in the burning and barren stretches of the

Southwestern part of this country also look upon the goat as their standard food supplies. It is said that in these cases the milk is flavored with the sage brush, and that to Northern tastes it is unpalatable, but this is to be expected. Meanwhile, the nutritive value of the liquid is unchanged and it is not too much to say that without the goat, life would be impossible in the regions in question, or nearly so.

Perhaps one of the reasons why goat milk is not appreciated as it should be, among the people of the Northern portion of the United States is, that there is a popular mistake or delusion regarding its taste. It seems to be generally believed that it has a strong flavor, or that somehow, it has a distinctive taste of an unpleasant and goaty sort. Now this is all wrong. Provided that the animal from which the milk is drawn is in health, the liquid closely resembles that yielded by cows, both in taste and appearance. The distinction between the milks of the two animals is, that that which the milch goat gives is slightly sweeter, thicker and richer than that which comes from the cow. This is due to the fact that in the case of the goat, the milk has a larger percentage of sugar and cream and less water. If the milk does happen to be unpleasantly flavored, it is due to the fact that the goats have not had an opportunity of keeping themselves as clean as Nature prompts them to. Furthermore, and as already intimated, all milk, no matter what the animal is that yields it, is affected and flavored by their feed. But provided that the goat is given some little care; that its quarters are clean and its pasture is of a reasonable sort, there is as already stated, no distinction between its milk and that of cow's, except in the way indicated.

From what has been said about the number of goats in the United States, it follows that there must be a market for their milk and there is, but up to the present, the sale is limited or nearly so, to foreign colonies, especially the Italians. If you go into any one of the Italian quarters of New York, and are familiar with the language you will notice that in all the grocery stores, goat's milk is posted for sale, together with goat's cream, cheese and a variety of other delicacies derived from the same source.

Of late years many doctors have been known to recommend it for the use of convalescents. There is a small goat farm in Westchester County, New York, which makes a specialty of supplying milk for this particular purpose. In two or three of the famous restaurants of New York, goat's cheese of domestic make is also on the menus and both it and the milk are not altogether unknown in the case of some of those minor restaurants which are patronized by persons of Bohemic tendencies. The price of the milk in New York varies from twelve to twenty-five cents per quart according to where it is bought and its quality. Quite recently, a company was established for the purpose of raising goats on a large scale on Long Island. The farm, so it is said, will be chiefly for dairy purposes, although, as in the case of sheep, the shearing of the goats will be one of the sources of financial return.

To the average individual, a goat is a goat, though as a matter of fact, there are so many varieties of the animal that it does not seem as if an attempt has even been made to record or classify them. At all events, no such classification appears in the standard works of natural history, or those other books which have to do with domestic animals. Yet of the milch goats alone there are more than thirty varieties, some of which are but little known in this country. It is a singular fact that while the goat was one of the first animals to be utilized by man, if ancient historic records are to be believed, yet no animal has been bred so aimlessly, or with such utter disregard to its possibilities. In connection with the future of the animal in this country it is proposed, however, to have the American goat become the ideal of his kind by breeding it from a blend of the best European strains. The foundation for the breed, so it is said, is to be the Toggenburg or Saanen goat which comes from Switzerland, which has been evolved by careful interbreeding and gives a very plentiful supply of milk.

The physical culturist who concludes

to let a milch goat become a member of his domestic arrangements, must remember that the natural habitat of the goat is a mountainous country and that Nature has provided it with the instinct and the legs to jump; consequently it can overcome obstacles which would be insurmountable to the average domestic animal. Consequently too, the owner must take steps to prevent its escape from his own lawn or pasture, into the domains of his neighbor. A stake and a stout cord attached to a collar on the animal's neck would be sufficient, unless indeed, the fences are high enough to prevent its escape. Out in the country, however, these precautions are not necessary, because the goat, while it likes to wander, has a pronounced homing instinct and never forgets the place in which it can find shelter, protection and those dainties in the shape of a handful of barley or a wisp of hay, which its proprietor should be wise enough to give it once or twice a day if he conveniently can. If possible, shade should be provided for the animals during the hot weather and if no convenient trees are handy for that purpose, a lean-to may be built at the cost of a dollar or so. Plenty of fresh water is a necessity, although the animals can go without drinking for some time. If the space in which they are confined is somewhat limited, care should be taken to keep it quite clean and do not forget that the fertilizer produced by the animals is of a most valuable sort, so do not throw it away. Under no circumstances keep the goats in constant confinement, for if you do, their milk will surely be disagreeable and unwholesome, and the animal is liable to contract disease. The writer has known or some cases even in New York in which goats have been stabled like horses or cows, but in each and every instance, the results were the reverse of satisfactory, and the goats either contracted maladies of an incurable nature or died.

Speaking of New York and the goats, the time was not so many years ago, when the animals were as common on the upper portion of Manhattan Island, about say, 90th Street, as were the shanties in which the owners of the creatures lived. In those days, goat's milk and goat's cheese were among the chief foods of that queer population, now extinct, known as the "squatters."

Goat milk is at its best just after it has been drawn and cooled somewhat. Some people prefer to mix water with it before using it, but the writer thinks that this is a mistake. It should be chewed very thoroughly and swallowed slowly, for the fact must never be forgotten that it is an extremely condensed food. In Switzerland, there is on record a happening which gives point to the value of goat's milk as a nutrient. Three men and a goat while in a chalet, were buried beneath an avalanche. They were not dug out until three weeks later. Fortunately, there was in the chalet an abundance of hay on which the goat lived. The milk obtained from the animal kept the three men alive during the period in question.

I need hardly remind the readers of this magazine that some of the most expensive and fancy cheese known to the patrons of the swellest restaurants in New York are made from goat's milk. If the physical culturist who has facilities for supporting two or three of these animals will only exercise a little labor and ingenuity, I have not the slightest doubt but that he could find a ready market for the cheese that he could manufacture. It may be added that the writer is no mere theorist about goats, but for some years past has kept four fine animals to his satisfaction and profit. A couple of acres of land in a secluded Long Island section was found to be more than ample for the support of the animals, and among the writers' friends, the fame of goat milk has spread abroad. It goes to show that there are a good many good things in this world which are but little used or not at all, simply because they are not known to the greater public. And goat's milk is one of them.

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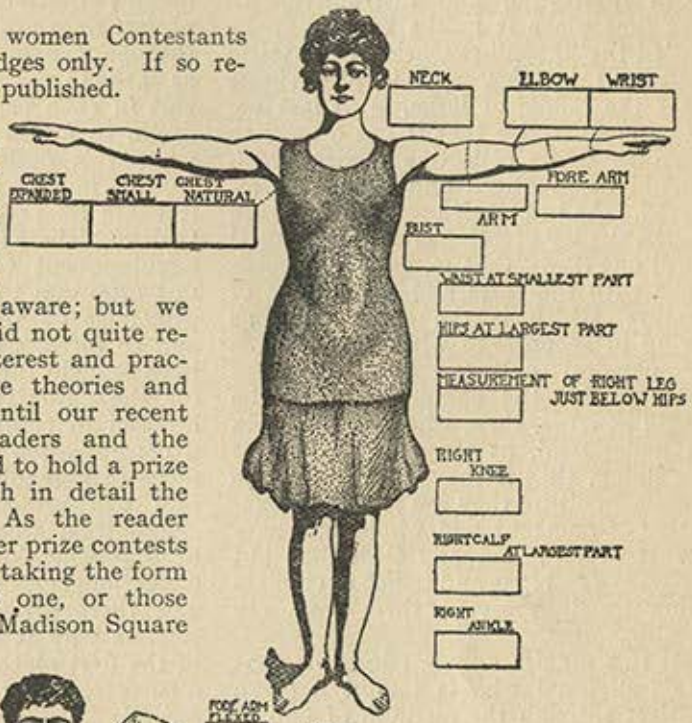
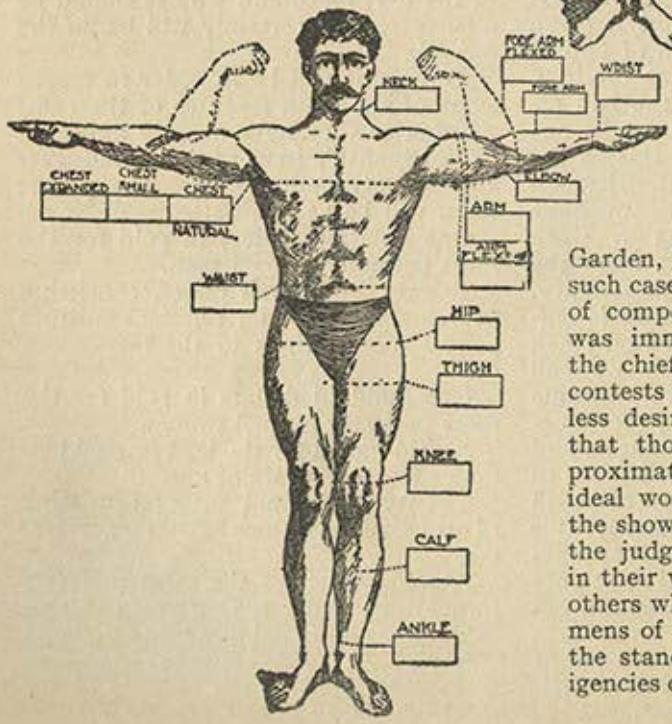
The increased supply of oxygen to the blood through exercise is the best of tonics.

# Our Grand Prize Competition

Measurements of all women Contestants are for the use of the judges only. If so requested they will not be published.




THAT the number of those who are interested in physical culture and its possibilities is increasing by leaps and bounds, we are well aware; but we must confess that we did not quite realize the widespread interest and practical application of the theories and methods of our cult until our recent notification to our readers and the public, that we proposed to hold a prize competition as set forth in detail the course of this article. As the reader knows, we have had other prize contests in the past, these either taking the form of that of the present one, or those which were centered in Madison Square




Garden, New York City. In all of such cases, the response on the part of competitors was as large as it was immediate. In fact, one of the chief difficulties of these past contests was the weeding out of the less desirable contestants in order that those who most closely approximated perfect manhood, or ideal womanhood should be given the showing due to them, and that the judges might not be hindered in their work by having to pass on others who, while fairly good specimens of humanity, were not up to the standards required by the exigencies of the contests. Yet, many

as were these same competitors, actual or would-be, they are numerically greatly surpassed by those who have entered for the current contest. This fact is both interesting and instructive. In the first place it marks what may be called the "fixed" extension of physical culture principles, and it also shows that the public at large, is at last beginning to realize that it has a duty to perform to its collective bodies which should be practiced and cannot be ignored. As has often been said in these pages, the joy of living is not understood until one *lives*—that is, lives in accordance with the rules and regulations of Nature, which is the same thing as living in accordance with the methods of physical culture. It is a helpful sign for the community and the world at large, then, when people begin to understand, as they evidently now are doing, that if they do not practice physical culture they are robbing themselves of constant and wholesome happiness which is actually their due, but which the fashions and follies of civilization usually prevent them from obtaining.

It is a maxim among educators that the individual who is taught a given subject through the medium of two or three senses, is much better off in a mental way, than if he or she had attempted to amass the knowledge by one sense only. The bearing of this on the present competition is evident. Through the pages of this magazine we have done and still are doing a work which is leaving its imprint upon the world's mental and physical personality. Still, in reading, but one sense is employed, that of sight, directed on black and white characters, which we call print. Now if the lessons of these same characters are reinforced by reproductions of human forms of strength and loveliness, the lesson is carried home to the mentality in a dual fashion, and with a double emphasis. Consequently, this competition is more than what it appears to be in the first instance. It not only brings to light the perfect human products of physical culture and gives them that reward which they deserve in the shape of gold, and the applause of their fellows, but in addition, it is educational in each one of its aspects. It is impossible for the average man or woman to see perfect specimens of their kind without desiring to be likewise. It doesn't matter whether these same perfect ones are viewed in the flesh, or through the medium of pictures such as are to be shown in our pages. But in each case, they bring about a desire to attain bodily perfection, and while this desire does not reach full fruition in each and every instance, yet it bears its percentage of fruit nevertheless. There is, on the part of many a subsequent taking up of exercises, due attention to diet, a regard for the principles of ventilation and bathing, and so forth, which would never have been brought into being had it not been for the curiosity and legitimate envy aroused in comparative weaklings by a consideration of the splendid specimens of humanity which this competition will present. Consequently, the competition would be justified—if indeed justification were needed—on its educational ground only, if on no others. But there are a variety of excellent reasons why it should be inaugurated in the first place and why it should be a success, as it certainly will be, in the second.

Perhaps it will be in order to repeat some of the main features of the competition as they have already appeared in last month's issue of this publication and *Beauty and Health*. The prizes, then, will be as follows:

One hundred dollars in gold for the most perfectly formed man.

Twenty additional prizes, consisting of valuable works on physical culture; yearly subscriptions to the magazines, etc.

One hundred dollars in gold for the most perfectly formed woman.

A gold medal for the best formed boy under fourteen years of age.

Twenty additional prizes consisting of books, subscriptions to the magazines, etc.

A gold medal for the most perfectly formed girl under twelve years of age.

Twenty additional awards of physical culture books, subscriptions, etc.

A gold medal to the parents of the most perfectly formed baby.

Twenty additional prizes of books, subscriptions to the magazines, etc.

### SPECIAL PRIZE OFFER

In addition to the foregoing we want to send the copies of this magazine, free of all charge, to the best formed man and the best formed woman in every city that has a population of three thousand souls or more. Send us the names of those whom you consider the ideal man and the most beautifully formed woman of your community. If the information is confirmed, we will at once place them on our subscription list and will, if they or you see fit, publish their names and the honor to which they are entitled.

There are some simple rules which govern the competition, these being as follows:

Each competitor must send in his or her measurements and photographs, these last, taken in not less than two positions. The pose selected, is left to the judgment of the competitor. If you will refer to the pictures which are published with this notice, you will see what measurements it will be necessary to take. It is understood that the act of submitting photographs gives us the publication rights of the same. Be sure to write your name and address on the back of these photographs, and if you desire them to be returned, sufficient stamps must be enclosed for that purpose. Give as many details about yourself as possible, and among other things, state whether you are a physical culturist, wholly or in part; whether married or single; an athlete or otherwise, together with facts about your diet, habits, and so on.

In the case of men, the photographs must be taken in trunks similar to those shown on the pictures of male figures published in this magazine from time to time.

As far as the women competitors are concerned, they can wear any costume that they select, but we naturally prefer one that will show in detail the outlines of the figure, so that the Committee of Selection may be enabled to judge with accuracy of the good points of the contestant. We suggest that photographs be taken in a two-piece underwear suit, such as was used by the women competitors whose pose-photographs were published last month. A dark or blue, green, or brown material should be used instead of white. If you decide to use this two-piece underwear, please note the following instructions:

Secure a very tight-fitting suit, so that when it is once on there shall be no wrinkles, but an unimpaired view of the outlines of the figure. Put on the drawers first, then pull the stockings tightly over them; now put on the vest or shirt, pull it down tightly and fasten the center of the front and back lower edges between the legs.

Women contestants must agree to have their measurements verified, if necessary, by a local medical practitioner.

The remarks about women's costume apply, to an extent, to those that should be worn by girls, although in their cases, photographs taken in tights are to be preferred.

In regard to the babies, any costume may be worn, although as a matter of fact, we prefer that the little ones have no clothing whatever when photographed.

Be sure to send your measurements on, with your pictures and a description of yourself. Note carefully the measurements called for by the line-cuts which accompany this notice. Write legibly and be careful when giving figures, that these are of such a plain nature that they can be understood. Let us hear from you as soon as possible.

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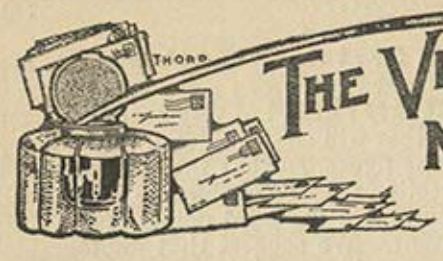
**The grand Greek ideal of compulsory physical training bore fruit in the most magnificently developed race the world has ever seen, and along with that superb physical basis the brain reached a height which marked the golden age. The crime of modern life is neglect of body while forcing brain.—Whitney.**



# The Virtues of Our Methods Proven

### Perfect Boyhood at Sixty-Seven

To the Editor:

I want to tell you what I can do. First, I can stand on my head. Second, I can lay flat on my back and touch the floor back of my head with my toes. Third, I can turn the head-spring. I can hold my arms out horizontally for eight minutes, and never did try it a dozen times in my life before. I can stand erect with my legs crossed, lower the body and rise to a standing position again. I can lift fifty-eight pounds with one hand from the floor high above my head. I can run one hundred yards in twelve seconds. I read all the time without glasses. I can stand with my legs ridgid and touch the floor with both hands. I can do all the feats that you have published in your magazine in the last two years.

I was sixty-five years old before I ever did try to do any of them. I am now on the road to the sixty-seventh mile-post. How is that for a sixty-seven-year-old boy? As long as I live I shall go barefooted about home. If I had known fifty years ago what I now know, I believe I would still live as long as I have lived. I never did eat white bread. I have used corn bread all my life. I never did use either tea or coffee. I use no tobacco. I have not eaten any hog meat for three years. Some forty years ago I abstained from hog meat for ten years, but I fell from grace and got to eating a little of it again. For the last three years I have scarcely eaten meat of any kind. I expect to read and practice physical culture from this time on.

Milburn, Ky. J. F. Sutton, M. D.

### Three Months of Physical Culture

To the Editor:

I am a man thirty years old, and regret to say that I had never read a copy of Physical Culture until July, 1907 For the last six years, since I came home from the Philippine Islands, I have never been very well, but always managed to be about until this last June, when I broke completely down. I contracted a heavy cold, it settling on my chest. I coughed and raised considerable at night. My doctor sent me to Cambridge Springs, thinking I would get strength. I spent two weeks there, and while there my cough got worse and my fever ran from 100 to 103 every day. Two different doctors had examined me there, one of whom said to me, "This is no place for you, and if you go back to Pittsburgh it will kill you. I would advise you to go to Denver." Well, I began to get a little afraid after hearing this, but came back to Pittsburgh the same day. While waiting for my friends in the P. & L. E. depot at Pittsburgh to meet me there, I picked up a magazine called Physical Culture, which someone had left on the seat. I began to read it, and from that time on I concluded that I was going to take my case in my own hands, with the assistance of Physical Culture. It is now, as I said, a little over three months since I picked up that magazine. I then weighed 121 pounds, being 5 feet 10½ inches tall. I now weigh 152 pounds, or 12 pounds more than I ever weighed in my whole lifetime before. I credit Physical Culture with my improved health and strength.

I rise in the morning at six o'clock and take a cold water bath, something I never did in my life before I took to reading Physical Culture. After my bath I take a three to five mile walk, and with deep breathing, and various other exercises. One stunt which I do every morning, and which I think does me so much good is to bend over and touch my toes from twenty-five to fifty times without bending my knees, then rest a little, eat my breakfast and then I am ready for a good day's work. I feel better now than I have felt for nine years, or before I went to the Philippines, where I had my health broken down with malaria, typhoid and dysentery. My muscles are solid from the physical training, where before they were always soft and flimsy. My cough, which I had for about two months, has left me, and I hope never to have it again. J. W. Donaldson.

McKeesport, Pa.

### Chronic Constipation Cured in One Month

To the Editor:

For the last four years I have been a sufferer from constipation, but about a month ago I met one of your readers who let me have a number of copies of Physical Culture. I soon found a treatment that I believe will cure me, because while I have always had to take physic, I don't have to take it now. My stomach is in fine order and my bowels move regularly.

The man who helped me was Arthur Voughn, Peru, Clinton County, N. Y. He is a subscriber to Physical Culture.

F. H. Provost.

R. F. D., Peru, Clinton Co., N. Y.

# 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.**

### Food, Hot or Cold

To the Editor:

"As a rule, man's a fool;
When it's hot, he wants it cool.
When it's cool, he wants it hot;
Always wanting what it's not."

This is true, especially in regards to the temperature of the American people's food. When the weather is "red hot" he wants ice cream, frozen pudding, iced beer, tea and fruits. When winter comes he desires all foods and drinks as hot as they can be swallowed without scalding the delicate linings of the alimentary duct.

Let us quit contraries and get to harmonies. The birds and beasts of the forest drink iced water in winter and tepid in August. The temperature of their food is always in harmony with the weather.

The Australian people think our ice cream soda habit idiotic. So it is. They have a cup of warm tea on a hot day, which causes free perspiration and consequent coolness of the body.

Hot weather headaches, suffering from the heat, and tendency to sunstroke are almost altogether due to the unnatural artificial habit of eating and drinking in July at January temperatures.

Conversely the very hot, highly seasoned foods consumed in winter create a degree of warmth during the meal time only. Then a reaction sets in, resulting in chilliness, colds, and oftentimes more serious maladies of the throat and lungs.

Food should be eaten at natural temperature. But it is not always convenient to get it thus. Then thorough mastication will help us out of danger; for a mouthful of hot food sufficiently chewed will be reduced to almost the same degree of warmth as the stomach when it is ready for swallowing. And likewise a mouthful of cold food thoroughly masticated will be brought up almost to blood heat when swallowed.

Hot foods and drinks relax the stomach muscles, weaken digestion, and renervate the whole system. Iced foods and beverages cause a nervous shock to the stomach, temporary paralysis of digestive power, headaches and constipation.

Any dentist will tell you that extreme temperatures crack the enamel of the teeth and hasten their decay.

Now go back and read again the rhyme at the beginning of this letter.

J. R. Adams.

### A Suggestion on Foot Gear

To the Editor:

I am an advertising agent and *walk* many miles each week-day. I used to be bothered a great deal with my feet, but I have worn *no feet* to my stockings all this season and have had *perfectly healthy feet.* Just cut off the foot of the stocking, leaving a narrow band to go under the bridge of the foot to keep the sock down. My feet do not now perspire and I have no lameness whatever.

This may be of help to someone else.

Providence, R. I. Herbert G. Chase.

### A Delicious New Clabber Recipe

To the Editor:

I love to experiment with foods and just to-day discovered how to produce a very healthful variety of clabbered milk. I was recently at a loss how to "clabber" it, for the weather has been cool for two or three days, therefore I hit upon the following plan, which worked to perfection and gives me a very delicious clabber, which is, I believe, exceedingly healthful also: Take a quart of sweet milk, put it into a convenient dish, and squeeze into it the juice of two lemons (imported ones are better, for some reason, than the Californian), then put the rinds in also, set away and stir up every six hours or so, and in about twenty-four or thirty-six hours you will have a fine dish of food. When ready to eat the lemon rinds can be removed, the clabber beaten with an egg whip, and if desired can be sweetened with two or three tablespoonfuls of extracted honey, in this sweetened condition it is most delicious with a cup of raw *rolled* wheat stirred into it.

This is from one whom *you rescued* from hell six years ago. I am persecuted and

laughed at and called crazy, but I *will* continue to follow your teachings as near as I possibly can EDWARD J. SMITH.
Great Elm Farm, Romeo, Mich.

### Washington's Water Supply

TO THE EDITOR:

I have thought for some time that I would like to write you of what was going on in the District of Columbia as regards health, or I should more properly use the word, *death!*

I took part in one of the D. C. Protective Association's meetings a few weeks ago, and from what the other speaker said, I decided to write you about the Capital of this great nation.

To begin with, the three and a half million dollar filtration plant does not render the filthy, Potomac water fit to drink. The three hundred wells, which *official analysis* found contained purer and healthier water than the filtered water, have been filled up by the health (?) authorities. There is more typhoid fever in Washington than ever before. There was *none* in homes of those who could get the water from the *wells*, before they were closed up. Since they were closed, typhoid has been on the rapid increase. Water meters are being installed, and the people are forced to drink (or go dry) the diseased, Potomac water, and *pay for it* by the meter measurement! This is outrage number one.

The fact that dairymen's cows are being inoculated with "tuberculine," to prevent tuberculosis, and that such an operation *poisons* the milk, is outrage number two. All healthy cattle are being *poisoned* in this manner about Washington, by the "Health (?) Board" inspectors!

Outrage number three is, that the blood of innocent, little school children (future American citizens!) is being forcibly polluted by vaccine virus!

I used to be proud of Washington, but now I am ashamed of it. It is the most *un*-American city *on the globe*. It has taxation without representation, and a disease-spreading, medical tyranny to corrupt the lives and life-blood of its American citizens! The Health (?) Board there would be a disgrace to the darkest town in darkes Africa! The capital city of America is being rapidly converted into a death trap, by a Board of Health (?) and medical trust composed of a set of criminals!

America is no longer a free country. Who says so, lies. HARRY B. BRADFORD.
Kensington, Md.

### Stock Raising and Farming

TO THE EDITOR:

A writer in your September issue treats on "Physical Culture and Stock Raising," a subject to which I have given considerable thought, though I never have seen the matter discussed in print before.

It seems to me that the "great many things in connection with a farmer's business that are especially conducive to non-physical culturism," which Mr. Harrington seems to see, may be explained by another sentence from the article quoted: "In order to do the kind of farming that is done," etc. Again, "One great problem is the live-stock." With the discontinuance of flesh-eating the great problem of the live-stock will cease to burden the farmer, and "the kind of farming that is now done" will give place to a better system.

A large part of the land of the Eastern States is better adapted to the production of timber than anything else, yet much of this is kept cleared for pasture. As there is likely to be a demand for all the timber that can be produced on all the "rough" lands of the United States, it should be easy to forecast something of the destiny of the Eastern farmer that is to be when physical culturism has done its beneficent work. Small fruits and nut-bearing trees do fairly well in the New England and other Eastern States, but doubtless most of these will be produced in the South which is better adapted to their culture.

In the West, instead of the monotonous fields of corn and wheat, there will be beautiful groves of Japan and native walnuts, chestnuts and pecans. And so the world will be much more beautiful, both topographically and socially, when human sentiment is no longer swayed by the butcher knife and its companion, the sword. "They shall beat their swords into ploughshares" and butcher knives into pruning hooks.

"For I doubt not through the ages one increasing purpose runs,
And the thoughts of men are widened with the process of the suns."

Litchfield Co., Conn. THOR.

### A Complete Cure of Hay Fever

TO THE EDITOR:

I, the undersigned, testify that:

Eleven months ago I began the exercises as directed by Mr. Bernarr Macfadden, in his magazine, PHYSICAL CULTURE.

At that time I was suffering yearly from bronchitis, resulting from a severe attack of La Grippe, in 1893.

That I generally felt distressed after eating; gas on the stomach and heartburn.

That, whenever in America—for about thirty years off and on—I was a victim to an aggravated case of rose cold in June; a martyr to hay fever—punctual as clock work—on August 19th until frost.

That since the time above-mentioned I have experienced complete relief.

That I attribute this to the exercises I have followed as conscientiously as possible without an instructor, and to deep breathing in particular.

That at the time I began my course of exercises, October 15th, 1906, I measured 39½ inches around the waist; now the tape shows 34 inches.

That now I feel in perfect health, cautious as to diet, etc.; active; as muscular and limber as can be expected of one of fifty-three.

That I am ready to fill in any blank—in justice to Mr. Bernarr Macfadden—which may be sent to me to this effect, and to testify to it under oath. GEO. W. L. CURTIS.
Northampton, Mass.

# General Question Department

By BERNARR MACFADDEN

**In connection with the subscription department, there has been organized a competent staff, including the editor, for the special treatment of ailments in accordance with the theories we advocate, and each applicant will secure the same individual attention as he would if he applied to a competent physician for treatment. Write for full particulars and refer to "Offer Q." If you are willing to solicit subscriptions you can secure our treatment free in return for your services.**

## Singing and Throat Difficulties

Q. I am a tenor singer and have a splendid position owing to my voice, but I can never depend upon it. There always seems to be something in my throat which causes me great embarrassment and difficulty on nearly every occasion that I sing in public. Gargling with salt water relieves it somewhat but not satisfactorily. How can I remedy this?

A. You are suffering from a catarrhal condition of the throat and it would be necessary for you to adopt general constitutional measures for purifying your blood, building increased vitality and thus remedying your catarrh. If your diet includes much meat this should be eliminated. Use fruits more freely. Even milk and eggs should be used sparingly. The more nearly you follow an uncooked diet the more rapidly and surely can you rid yourself of this complaint. The use of a little lemon juice and honey mixed may relieve slightly, but, like your plan of gargling with salt water, this is only a temporary and palliative remedy, whereas you will have to overcome the causes of your trouble by general constitutional treatment if you wish a radical and complete cure. It is a most important thing that you avoid singing except on an empty stomach. If you sing in the evening you should avoid eating supper. Drink more freely of water, spend as much time as possible in the open air and secure enough exercise daily to induce free perspiration and thus relieve the catarrhal condition as much as possible. There is no local remedy that will bring about an immediate and complete relief from the annoyance that you mention.

## Strength vs. Endurance

Q. I desire to develop strength in the arms and shoulders. Would holding the hands out at arms' length at the sides on a level with the shoulders be of benefit in this connection?

A. While the experiment you mention would indicate a certain degree of endurance and might give evidence of some strength, yet it would certainly not be inclined to develop strength in these parts. If you wish to develop strength you should use movements which require a vigorous contraction of the muscles concerned, and the more energy you put into the movement, the greater will the results be in the form of increased strength, and to keep them in such a position for a long time merely represents the enduring power of the muscles. This depends more upon the condition of the heart and lungs and the ability to build up the tissue as fast as it is broken down, rather than to the contractive power, or, in other words, the strength of the muscle itself. It is far better always to employ movements in which the muscles are given an opportunity to contract and relax alternately at quick intervals. The circulation of the blood through a muscle is perfect when in a relaxed state, whereas it is much obstructed when the muscle is vigorously tensed. For this reason the muscle recuperates to a certain extent each time that it is allowed to relax, owing to the momentarily improved circulation. So that on the whole the exercise you mention would not be of any use or value except as an occasional test of endurance.

## Coated Tongue

Q. My tongue is continually coated, although it is apparently worse in the morning than at any other time. Would you kindly give me the reasons and state the remedy?

A. The coating on your tongue indicates that you do not digest satisfactorily the food you eat. Either you are over-eating, or you do not masticate your food thoroughly, or you do not take into your system enough liquids. The failure to secure sufficient exercise and the consequent lack of proper circulation are often conducive to this result. While the thorough mastication of every morsel of food is important in every instance, it is particularly so in your case owing to the condition of your stomach which is indicated by your coated tongue. Not only should you chew your food until each morsel has been reduced to a complete liquid, but you should endeavor to retain each morsel of food in the mouth as long as you can taste it. In addition to this you should drink water very

freely throughout the day, but not at meal-time, nor within a couple of hours after. The use of a much larger proportion of acid fruits in your diet would also help you to overcome the difficulty. I would say also that the trouble is frequently due partly or wholly to the presence of an excessive amount of waste and impure matter in the entire body. In this case naturally you should make it a special point to secure sufficient exercise and in other ways take such general care of yourself as to help Nature in eliminating these impurities and eradicate the complaint in that manner.

### The Use of Distilled Water

Q. In the section in which I reside the only water to be had is of an extremely alkaline nature. Is it advisable to drink water of this character?

A. The use of alkali water is not nearly as satisfactory as the use of pure water. If one has a vigorous constitution and his depurating organs are healthy and active, then he may usually drink such water without apparent injury It is likely, however, that in the course of time it will prove detrimental, and if possible you should arrange to use distilled water. A small water-still can be secured, I believe, for a very moderate amount and would enable you to secure a constant supply of absolutely pure drinking water. In fact this is to be advised in all cases where the drinking water to be had is of a questionable character.

### Evidences of a Pure Life

Q. It is exceedingly important that I receive some definite advice on the following point: Is it a fact that a man can tell whether or not his wife has led a pure life up to the time of marriage? I appeal to you inasmuch as the happiness of a home depends upon the answer.

A. I have recently received a number of inquiries similar to this. There is no way in which one can tell anything with certainty in regard to a woman's past life. The popular idea that a man can always gain such knowledge is simply a superstition, founded on ignorance. There are cases in which women who have not led pure lives, in the ordinary moral sense, who would appear to have done so. Cases have even been known in which women who have had children have given the so-called "evidence of a pure life" to which you refer. Furthermore, surgical means may be employed to bring about this appearance. On the other hand, there are certain cases in which women, who have led strictly pure lives in this respect, are so constructed that they do not appear to have the "evidence of the purity" referred to, and as a result are unjustly suspected by their husbands. There have been many cases in which the happiness of a home has been destroyed on account of this delusion.

### Fasting and Starvation

Q. Does fasting mean the same as starvation? I understood that it was not so. Will you kindly clear up the difficulty?

A. Fasting assuredly does not mean the same as starvation. In *fasting*, the body merely subsists upon its surplus accumulations, upon foreign matter, and upon the tissues up to a point at which it would be impossible to abstain from food further without actually depriving the body of the means of sustaining life. As a general thing one can fast for a number of weeks before he reaches the point at which starvation begins. One will *starve* when the body is in actual and direct need of food or of some special elements without which life cannot be sustained. As a matter of fact, many people undergo a process of partial starvation even though they may eat in great abundance of a one-sided diet, which perhaps contains a surplus of some elements, but a deficiency of others. The deficiency of the latter will result in what might be termed partial starvation. If these same elements were entirely lacking a man could not live even though he had the privilege of eating great quantities of some other elements. In some cases an individual actually grows stronger during a fast, but if he continues to fast indifinitely he will finally reach a point at which starvation begins. This, however, will in most cases not occur until practically all of the fatty tissue and much of the muscular tissue of the body has been consumed, as well as some of the other tissues. As a general thing the brain is sustained and nourished on the wasting tissues of the body to the very last. Fasting is particularly valuable in cases in which the digestive system is disordered or in need of a rest and the blood is charged with impurities.

To sum up, therefore, one may fast for weeks without starving, though of course if the fast is continued too long starvation will begin. When the heart-beat becomes alarmingly slow and one becomes exceptionally weak, it is time to stop fasting. Though it is important to remember that this point will be reached in some individuals long before it would in others.

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**We know not only that gymnastics are preventative against disease, but they are also effectual to cure many of them.—C. H. Shiable, M.D., Ph.D., F.C.**

# The Organs and Their Purposes

**This is one of a series of articles having to do with the various organs of the body, the part that they play in the total scheme of the system, and the manner in which they perform their work. In these articles will be told tersely but intelligently, the story of the organs.—Bernarr Macfadden.**

## No. 11.—THE KIDNEYS

THE kidneys are the organs of the human body by which the major part of the broken-down or waste material resulting from physical activity is excreted or cast off from the body.

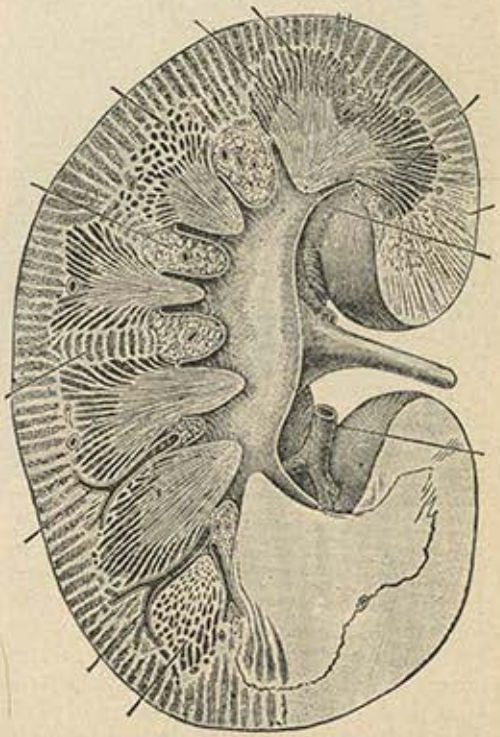
These organs are situated deep in the loins, one on either side of the spinal column, embedded in a mass of fat. Each measures about four inches in length, two and one-half inches in breadth, and about one inch and a quarter in thickness. They weigh, in the average adult, about five ounces, and their approximate shape is that of the well-known kidney bean. The kidneys lie with their greater convexity toward the sides of the body, and the depression, or nick, toward the middle line, each facing the one on the opposite side. In this depression, all the blood vessels and nerves of the kidneys have their entrance or exit, and from it comes a tube, called a ureter, which carries the urine from the kidney to the bladder.

The right kidney is situated directly behind the liver, and the ascending portion of the large intestine; while the left has, in front of it, the large end of the stomach, and the first part of the descending portion of the large intestine.

The lower tips of both kidneys are two inches above the upper edge of the haunch bones.

The naked-eye appearance of a longitudinal section of the kidney shows a picture of which our cut is a reproduction. The line at the extreme circumference represents a fibrous capsule which envelopes the entire organ, and which, sending projecting partitions within, forms the frame-work of the organ.

Next you will notice a rather narrow band, which is called the cortical, or outer portion of the kidney. This is composed of convoluted, or twisted and straight, tiny tubes, each of which arises in a spherical, hollow capsule of minute size, containing a bundle of twisted capillaries or small blood vessels. The central or medullary portion, as may be seen from the picture, is composed of pyramids, eight to eighteen in number, with their peaks or points directed toward and located at the depression, or sinus, on the internal edge of the kidney. These pyramids are



Vertical Section of the Kidney

composed of bundles of miscrocopic straight tubes which finally join together in one opening at the apex of the pyramid. The fibrous capsule previously described as investing the whole organ dips into the depression on the inner edge of the kidney, covering each and every pyramid's point, but at each such point there is a mouth, or opening, from the final tube of each pyramid. Surrounding all of these openings, and narrowing as it leaves the kidney, is a fibrous funnel, known as the pelvis of the kidney, which unites at its narrow end with the ureter, or pipe of transmission to the bladder.

The circulation of the blood in the kidney being of prime importance in this organ, calls for special description. The renal or kidney artery, which is a branch from the largest artery in the body, divides, on its entrance into the depression of the kidney, into five branches, which as they pass up between the pyramids sub-divide again and again, finally terminating in two sets of capillaries. One of these sets may be found occupying the cavity of the minute spherical capsules previously described, while the other capillaries ramify about the twisted and straight tubules. The blood is re-collected from these capillaries by little veins, which join each other as they descend between the pyramids, finally to combine into one, called the renal vein, which ultimately pours its contents into the largest vein in the body. Thus, you see that the circulation through the kidney is directly from the largest artery in the body to the largest vein in the body.

The broken-down or waste material of the various tissues of the body, goes through various processes before it is prepared to be excreted by the kidneys. As any tissue breaks down and wears out, the used-up portion is dissolved by the blood at the place where it was produced, and carried by the blood current to the liver. In this organ the waste materials from all parts of the body are collected, and so chemically changed or transformed that they are fit for filtration from the blood by the kidneys. These changed materials, the most noticeable of which is urea, are again dissolved in the blood at the liver and carried from thence to the capillaries in the kidneys.

The walls of these capillaries, especially those of the first set described, are exceedingly thin, and the pressure in the blood-vessels being much greater than in the cavities of the tiny spherical capsules and minute tubes, the water of the blood (containing in solution the urea and other waste products), passes through this thin wall, leaving the solids and albuminous constituents of the blood behind, and, flowing down through the little tubes, is known as urine.

Human urine is a straw-yellow, limpid fluid, transparent, with a mild odor, acid and weighing normally, about one and one-fortieth times the weight of pure water. Diseased conditions, not only in the kidney, but in the heart; in the brain; in the lungs and in the arteries of other parts of the body, as well as natural changes in the blood pressure in distant parts of the body, cause great modifications in the quantity, as well as the quality of the urine excreted. For example: In summer, when the skin of the body, owing to the external heat, is filled with blood, sweating is profuse, and the quantity is markedly diminished. In winter, when the skin is chilled and the blood vessels in it contracted, the amount of urine is increased. Under stress of nervous shock or emotion, the urine is many times greater in quantity. Disease or disturbance of the digestive organs, especially of the liver, cause a defective transformation of waste materials into the urea, producing by-products, such as uric acid and urates, which, when excreted in the urine, cause the latter to become darker, very acid, and to deposit the well-known brick-dust sediment. This is one of the greatest causes of stone in the bladder. Diseases of the kidneys themselves, wasting diseases of the general system and any temporary stress of over-work or worry is liable to cause albumin to appear in the urine. Disease of the nervous system, in some of its many forms, causes sugar to make its appearance in this excretion and its permanent appearance therein is a symptom of the disease known as diabetes.

# Another "Impossible" Feat of Strength

By HARRY WELLINGTON

THE photograph published herewith illustrates one of the most interesting and amusing little stunts that we have ever seen, and one which will enable our young readers to secure an unlimited amount of fun as well as some very vigorous exercise. We speak of it as an "impossible" feat of strength for the reason that it is practically impossible for anybody attempting to do it, to really accomplish his purpose. As a matter of fact, a boy or girl with but very little strength, can generally resist the efforts of one who is exceedingly strong.

Let a boy or girl place the palm of his or her hand upon the top of the head, and ask a playmate to attempt to lift it. It does not matter much whether the playmate takes hold of his comrade's wrist with one hand or with both hands; he will find it exceedingly difficult and in practically every case, impossible to lift the hand off the head. It would not be fair to attempt to lift it by jerking, because this would be likely to upset the other's balance and the hand might be removed in an unconscious attempt to keep the balance. The only fair way is to raise the hand by a steady lift. Suppose a boy and girl are doing the trick, as in the illustration. First, let the boy try to lift the right hand of his little friend from her head, then her left hand, after which she should be given an opportunity to try to lift each of his hands from his head.

The explanation of the difficulty lies in the fact that the muscles which enable one to hold the hands down tight to the head in this case are very much stronger than those which are used in pressing upwards. My young readers will recognize that the muscles used in the first instance are substantially the same as

Photo No. 1. Place the palm of the hand, or better, the finger, on the top of the head, and then let a companion attempt to lift it off in the manner shown in the illustration. It will be found practically impossible in all cases.

those used when attempting to pull the body up to a horizontal bar, that is, when trying to "chin" one's self. Practically all healthy boys and girls are strong enough to accomplish this act of "chinning," that is, pulling themselves up until the chin is up to or over the bar. On the other hand, very few would have strength enough to press upwards above the head a weight equal to their own body. So that it is easy to understand why the little girl who tries to hold her hand down tight to her head has a great advantage over her friend who is trying to lift it off.

The second illustration shows a simple but somewhat interesting feat which calls for agility rather than strength, and which will afford excellent exercise. The only apparatus needed is a chair. Stand with the back of the chair towards you and giving the right foot a good swing upwards, pass it over the top of the chair in the manner shown in the photograph. This exercise very much resembles high kicking, except that it calls for a swinging movement from one side to the other after you get your foot higher than the top of the back of the chair. After doing it a few times with the right foot, do it with the left foot. It is a pretty good paln to have two chairs, one on each side of you, so that after passing the leg over the back of one you can continue the swinging movement, turning half way round, and pass the same leg over the back of the other chair without having made a stop. This latter variation of the feat will be somewhat spectacular when you can do it successfully. Probably you will kick the chair over a few times at first, but the chair will not feel it and with practice you will learn to do it very quickly. It will tend to make you supple and active.

**Photo No. 7. Stand a couple of feet from a chair and with a kicking movement endeavor to swing one leg over its back in the manner shown in the illustration. Do it quickly and with a swing. Do the same feat with the other leg.**

## THE CUNARD STEAMSHIP COMPANY AND VEGETARIANISM

In reply to a letter requesting that provision for a vegetarian traveler on the *Lusitania* might be made, the Cunard Company sent the following: "We will give instructions for vegetarian fare to be prepared. There is no difficulty in this matter on board our steamers." We hope all vegetarians traveling by steamer will ask for suitable provision; every concession makes the way plainer for those who follow. The Purser is always willing to listen to a request of this nature on the part of ocean voyagers.

# Stilts as a Means of Exercise and Recreation for Women

STILTS are an ancient invention. An Egyptian bas-relief which dates back to the reign of Thutmes the Third, sixteen hundred years before the beginning of the Christian era, shows bird-snarers mounted on tall stilts at work in the mud on the margin of the Nile.

Among the old Greeks, the stilt was used for sport and useful purposes. They had stilt races and mock combats in which the warriors were armed with swords of lath, and were mounted on what the historians of the period called "crane-legs." The object of the fighters was to make their opponents literally "take a tumble." Also the peasants of the time used the stilts in order to overlook their flocks when the latter were grazing on rock-strewn or swampy ground. In this respect, they have their modern imitators, as we shall presently see.

Still later, we find the stilt to be a favorite property of the Anglo-Saxon mummers, and the same remark stands good of the tumblers, posture-men and jongleurs of the Norman Conquest and subsequent thereto. There are extant, rough pictures of the stilt-users of those days, and it is evident from these, that the fun which they furnished was of a strenuous kind.

During the Middle Ages, no fair, or masque or merry-making, was without its stilt walkers, who performed all kinds of antics with the help of their superabundant lower limbs. Even animals, such as dogs, monkeys and bears, were trained to use the "long-legs," and cruel indeed must have been the training for their feats. Stilt-fights were also in high favor, blown bladders being the weapons used; but kicking away the under-pinnings of the enemy was allowable, the result being not infrequently, a broken leg or head. During some of the wars of Napoleon, he tried the experiment of using a small body of trained stilt-walkers as scouts when his troops were operating in flat countries. It is said that they proved very effective, but they were subject to so much ridicule from their comrades-in-arms, that the greatest difficulty was found in recruting the unique corps.

Proper Manner of Mounting Stilts

To-day, the stilt is in constant use in that portion of France known as The Landes, where the shepherds stand guard over their flocks, the nature of the country rendering their lofty position necessary. About two years ago, there was a stilt race at Paris, the course being over a distance of twenty miles, and valuable prizes were awarded. The majority of the contestants were drawn from the ranks of the Landes shepherds. The writer does not remember the exact time in which the distance was covered, but, it was nevertheless, of an incredibly short nature and it proved the value of the stilt as a means of locomotion.

We need hardly remind our readers that the circus would be incomplete without the stilt-walking clowns. The small boy, too, especially he of the rural districts, would lose a whole lot of fun, if he had not the stilts at his command.

Preparing to Hop Over an Obstacle

One of the incidental benefits of the stilts is that they are distinctively an out-of-door apparatus. Now, any athletic device which takes one into the open air and out of the house, is worthy of commendation, particularly if it lends to that spirit of fun which is so necessary in the case of nearly all forms of athletic exercise. There are times and seasons when the expert stilt-walker, who lives in the rural districts, finds them more than a mere aid to recreation, inasmuch as he or she can go dry-shod, where the person on foot would certainly get his feet wet in spite of rubbers or what-not.

Another point in favor of the stilts is, that the financial outlay in connection with them bears no connection whatever to the ensuing fun and exercise. At a cost of a few cents and a little labor, the average boy, or for that matter girl, can easily secure a pair, and what stands good in their case is equally true in the instance of the adult. Those shown in the pictures which go with this article are strong, well-made, and cost exactly twelve cents, including the price of the long nails which fasten the foot-rests to the sticks. The measurements are: sticks, 4 feet 6 inches in length and 2¼ inches square. The foot-rests are 4 inches high and 4 inches on top, their square being naturally that of sticks themselves. The material of the sticks is white pine, that of the foot-rests, hickory. The angles of the sticks are slightly rounded, so that the hand will not be blistered by use. The foot-rests can be increased in height in accordance with the stature of the owner of the stilts. Stout nails or better still, long screws, are used to fasten the rests to the sticks. A pair of stilts made in this manner should last for years in spite of pretty constant usage. Of course, accidents will happen, but even if these result in the breaking of the stilts, the cost of making one or a new pair, will hardly be felt by one's pocketbook.

Some stilts are made with leather loops over the top of the foot-rest so that the foot can be slipped under it and be thus held in place. These loops are not recommended, however, for several reasons. In the first place, if one should

be unlucky enough to trip, the foot can hardly be removed from the loop with that quickness which the incident would warrant and the result would be a sprained ankle or something of an even more serious nature. Then too, some of the muscular benefits of the stilts are lost by the loop device, because, when this latter is absent, the muscles of the leg are brought into more constant action. Of course, professional acrobats, such as the clowns alluded to, have to use the loops in order that their hands may be free for work or action, but it must be remembered that these men are trained athletes and that which is possible to them, would be actually dangerous in the case of the amateur. Finally, if you have not the time or tools necessary for making a pair of stilts, a carpenter will manufacture them for you at a very low cost and within a couple of hours or so.

There is but little need to suggest a proper costume for use in connection with the stilt, at least as far as the average boy is concerned. With the girl or young woman, it may be somewhat different, however. To her we advise the usual physical culture wear for females, consisting of roomy bloomers, a loose blouse, stockings and gymnasium shoes or sandals.

Now let us suppose that you have your stilts and the costume and the desire to use the former. But before we go further, it may be said that the "long legs" bring into play several muscles of the legs, sides and arms that are but little used in ordinary walking, or in everyday occupations. At the same time, they develop a sense of equilibrium to a remarkable degree. Also there are any amount of exercises either of the useful or humorous, or spectacular nature, which can be accomplished with the aid of the stilts.

Now as a preliminary, the novice must learn to mount easily and gracefully. This is not quite so simple an operation as it seems to be to the spectators when an expert is performing. The first attempts of the novice emphasizes this fact. A good many get "aboard" their stilts, so to speak, by the clumsy method of backing themselves and the wooden legs up against a wall, against which they lean while mounting. This way is not only a-robbing of one's self of a portion of the benefits which arise from the exercise, but it also looks ugly, as most things do, that are not as they should be. The proper way to get on the foot-rests is as follows: The hands grasp the outside edges of the stilts high up, the foot-rests being turned inwards. Then the left foot is placed upon its rest, and after a momentary pause in order to secure the proper balance, the weight of the body is thrown upon the left foot, while at the same time a spring is taken with

Mounted and Ready to Walk

the right foot that brings it too, into position on *its* rest. The moment that the feet are thus placed, the walker slips her hands forward and from behind the stilts, so that the knuckles are outwards, and the outer edge of the stilts rest in the palms of the hands. At the same instant, the walker moves forward, in order to maintain her balance, for with the stilt, an almost constant movement, even of a slight nature, is necessary in order to maintain one's balance, and so keep aloft. The picture will show you better than words just how the trick is done. An attempt to mount as just related, will teach you the proper position of the hands after the feet are on the rests, even if the instructions you are reading were omitted from this article.

One Leg Kick; a Difficult Feat

Some little practice is naturally required before you get the knack of springing up, balancing, changing of the hands and moving forward. During this stage of the game, you must expect to be obliged to dismount perhaps half a dozen times in succession before you begin to get a return for your efforts in the shape of a few moment's balance. But a little pluck and perseverance will soon bring about the result which you desire, and the consequence will be that suddenly, almost without knowing how you did it, you find that you have mastered the stilts instead of their mastering you. Just a word of caution here. When you feel yourself falling, or to put it another way, that you cannot make the stilt do that what you wish it to, do not get scared. Just let the stilt go and your foot will do the rest. Most beginners are fearful of falling backwards, but this can be easily avoided with a little care. The mere effort on your part to go ahead, will prevent such an eventuality. But if by any chance you fancy that you are going backwards, turn slightly to one side and you will be safely on the ground in an instant.

It is almost unnecessary for me to describe how walking on stilts is done, because it comes to one instinctively with the effort of keeping one's self aloft. Suffice it to say, that, as you rest your weight on one foot, the other foot is thrown forward partly by lifting of it, and partly by the hand raising the stilt upwards and forwards. Then the weight is thrown on this same foot, and the action is repeated in the case of the other. There are a whole lot of things that are very simple when they are put into practice, but are somewhat difficult to describe in words. Not infrequently, the more simple they are, the more difficult it is to describe them. The initial act of stilt walking can be thus classified. I think that I had better stop right now in my effort to tell you more about it, and ask you to put the directions which I have just given you, into use. You will then find, that fifteen minutes effort on your part will do much more than a couple of hours talking on mine.

The case is somewhat different, however, when you come down to a few "fancy stunts" that may be done with the stilts. For instance, first try what is known as the "frog walk," which is illustrated in photo six. This is done by the young woman, when walking, suddenly dropping her hands and also her body, to the position shown. At the same time, and without losing her balance, she throws the weight of her body on one foot and repeats the action of walking, *but in the squatting pose given.* I need hardly tell you that when this thing is being tried for the first time or two, there is sure to be a coincident depositing of the novice on the ground. But she will experience no damage, however, because in the interval, she has learned just how to fall, or rather how to alight. Once mastered, the little feat is irresistibly funny to the onlookers, and at the same time it is capital exercise for the one who is performing it, for the reason that it brings into action a whole lot of muscles that you hardly suspected you were possessed of. Although the position appears to be somewhat cramped, it is a capital chest expander for all that. The writer has seen some experts who, while doing the frog-walk, could further justify its name by hopping instead of walking. It is unnecessary to add, perhaps, that this kind of thing calls for well developed muscle and a sense of equilibrium which is the outcome of a good deal of training.

The "splits," Photo No. 5, is another capital exercise that calls for a certain amount of pluck, skill and muscle. Standing upright and keeping the balance by a gentle forward and backward movement of a hardly discernible nature, the user of the stilts "jumps" the device apart, say a couple of inches at a time, until she assumes the form of a capital X as shown in the picture. The wider the stilts diverge the more difficult the feat becomes, and at the same time, there is a beneficial strain on the muscles of the interior sides of the leg and also of those of the arms. When the extreme limit of expansion has been reached, a reverse motion is in order, and continuing the little jumps, the young woman brings her stilts together until she assumes her original position.

Another feat which tends to develop the sense of equilibrium in general and those muscles of the body which have to do with any balancing, is high-kicking with the stilts. You may think that this is more or less easy, but you will drop that belief when you attempt it. The way that it is done is this: When you have a good balance, you suddenly rest all the weight on, say, the left foot, and drawing the foot-rest tightly against the right foot, throw the latter straight out in front of you and as high as you can. This will necessitate

The Backward Kick

your balancing yourself for a moment or so upon the left stilt. Here it is that the fun and the skill comes in. If you throw the right leg up and out too quickly, you will find that you will shoot forward and take a more or less humiliating seat upon the turf, after a short struggle, which will be equally funny to the onlookers and yourself—for I am sure that by this time, the stilts will have inculcated that good temper in you and the ability to take a joke on yourself, which all really wholesome exercises do.

Another humorous and at the same time, valuable exercise, is that of hopping over obstacles of a few inches in height while mounted upon the stilts. In order to do so, you walk slowly up to the obstacle, which may be a hassock, a little pile of dirt or what not—and then, pausing for an instant, stoop down as shown in Photo No. 2, and hop upwards, at the same time lifting the stilts with your hands so as to keep the footrests against the soles of your feet. It need hardly be added that there must be a slight forward motion at the same time. After a few attempts, you will undoubtedly clear the obstacle, but as you come down on the other side of it you must simultaneously get into motion again or else the impetus of the hop will throw you forward or dismount you. There are enough laughs in this exercise to add a year or two to your life and the spectators will enjoy the fun equally with yourself. In the majority of cases, the novice, during her first attempts, omits to clear the obstacle and the consequence of her so doing need hardly be described. There is a sudden mixup of stilts, stilt-walker and obstacle, and then a descent from her lofty perch, which in most cases is more mirth-making than dignified. It should be added, that this hopping is a capital thing for a whole lot of muscles, including those of the back, thighs, lower legs and upper arms.

The Frog Feat

The backward kick is something like unto the forward kick, but rather more difficult, inasmuch as the tendency is to lose control of your stilts and find yourself lying face downwards toward Mother Earth. But again, there is no danger of harm, for by the time that you attempt the feat you will have such control over yourself and the stilts, that you know precisely what to do when you find that the latter refuses to obey you in the feat that you are attempting to compass.

The one-leg-hop on the stilts is a somewhat advanced feat and will take some practice to accomplish. But it is splendid exercise and will repay you a hundred-fold the time and patience which you spent upon it. Its name suggests that which it is. A series of short, forward hops are made upon one stilt, the other stilt and leg being used as a sort of balancing pole during the performance of the feat. If, at the end of an hour's effort, you find that you can even partially hop in this manner, you are doing well. If say, three hours have passed and you can hop three or four yards without touching ground with your feet, you are to be further congratulated. When you can perform it with a measureable degree of readiness, you will find heaps of fun in challenging your friends to do likewise and the

laughter which will be yours, while witnessing their efforts, will be an added reward for the energy and strength which you gave to its accomplishment in the first place.

In the limits of this article, it is only possible to hint at the possibilities of the stilts in the way of fun and health-making. Thus, for instance, nothing has been said of stilt-races; the aid which the stilts afford the naturalist, or even the photographer, in getting into nooks and corners, that by reason of the presence of water would be almost impossible to the unmounted young woman. Then too, there are distance and endurance contests and much more of the same. It may be added, that this is the time of year when the stilt is most useful in each and every way, inasmuch as it is a warming-up apparatus when used for purposes of sport, while as intimated, it is an aid to the explorer of forest places, or swamps or those usually hidden spots of natural beauty which are never seen to better advantage than in the late fall and early winter.

Everything considered, then, the use of stilts may be recommended not only for the exercise involved in their use, but for their utility as well.

Making a Figure X

## THE FOOD PROBLEM

There is no doubt that food reform is of all reforms the most potent for man's welfare, and it may be useful to ask ourselves, why?

Tolstoy has so excellently shown that one of the greatest failures of man is his inability to value the order of importance in things; his attempt to climb remote steps before he has climbed the one immediately in front of him. Now it is precisely because food reform deals with something very near to us, and indeed with the very first step, that it is so important and is clearly the only way to any true advance in human life.

I must confess to having been much puzzled and bothered at times by the question of quantity in food and I have come to the conclusion that it is much better to substitute for anxiety of this kind the moderate anxiety to do as much bodily work as possible—to work, not aimlessly, but at the simple things which life requires and which we now leave to others. Of course, workingmen fall ill, but think of what many of them eat and drink, and many of them have to work too hard. When they consumed less filth they did not get as much bread as they could eat. If men have plenty of free bodily labor and access to plenty of good food they will easily solve all the other problems on which the happy life of man depends, for man is naturally good and the evil of his present life is a perversion, a terrible nightmare from which he will presently awaken.—*A. A. Voysey, in Vegetarian Messenger.*

# Now France Has a Pure Food Agitation

THE various countries of the world are so closely interlinked nowadays, that it is almost impossible for a wave of public feeling to manifest itself in one of them, without overflowing into some of the others. Thus the recent agitation in the United States in regard to the Pure Food Law and the Meat Inspection Bill, has stirred France into vigorous action in regard to similar matters.

The *Matin*, one of the leading papers in Paris, began the crusade for pure food a few months since, and many of its contemporaries followed suit. The results will undoubtedly take the form of stringent legislation, having for its end, the total suppression of the French food adulterator and his products.

The *Matin*, as a preliminary, published a map, showing the chief food adulteration centers in France, and declaring that the alimentary products furnished by them have been of a death-dealing character right throughout.

It is pointed out, however, that the horrible conditions will be remedied by drastic law, which will be secured by M. Ruan, the Minister of Agriculture, and it is also declared, that the people who are responsible for these poisonous products, are divided into two classes, frankly described as thieves and assassins.

That there may be no mistake as to its meaning, the *Matin* characterizes as thieves those who have been selling oleomagarine as butter, shop sweepings as pepper, horse meat as lark pie, and as assassins those who have been selling skimmed milk as an antisepticized article, thus robbing mothers and murdering infants, the latter at the rate of fifty thousand per year. Statistics are adduced to show that of the thirty-eight millions of French people, thirty-three million have no protection against the food adulterators, the latter having enjoyed a liberty of action that was as scandalous as it was abominable. And it was added "these assassins were hand in glove with the thieves, the two classes being parties to a conspiracy of the deadliest against the health and lives of the public."

Nevertheless, there are fifteen large cities in France that have laboratories for the purpose of testing the purity of food products. It must be, however, that these have been criminally lax in their duties, considering the allegations of the French newspapers. But again, there are a number of very large cities such as Marseilles, Bordeaux, Rouen, Nantes, Caen, and Amiens, which are even without the alleged protection afforded by these laboratories.

The provisions of the Rouen law are so stringent, however, that when its enforcement begins, the food adulterators will assuredly go out of business, for on the Continent of Europe they do these things differently, not only are the laws passed, but full provision made for their enforcement. In which respect, Europe is manifestly in advance of ourselves.

# Breaking the World's Record on a Physical Culture Diet

By JOHN E. GRANGER

SOME years ago, and while looking through a copy of this magazine, I came across the exercise for the thighs consisting of placing the ball of one foot upon a table, leaning forward and raising the body by the sheer strength of the upraised leg. Alternating the legs makes a fine exercise. To do it 150 to 200 times in succession is a strenuous morning's work.

This exercise, coupled with the dietetic principles advocated in the magazine, especially those relating to the non-use of flesh food, were the foundation of a physique that was destined to stand the racking strain of the "Deep-Knee-Bend" endurance test. And it was well that they were thus installed, for one year had already been lost in recuperating from indigestion and the general nervousness it caused. One happy and beneficial (though unnecessary, if right principles had been followed) year had been spent back with Nature on a farm.

Mr. Oberg, who previously held the knee-bend record at 4200, is a personal friend of mine, and I once remarked to him that I believed I could raise his mark, but thought no more about it until I saw that article "The Influence of Flesh Eating on Endurance," by Prof. Irving Fisher, Professor of Political Economy at the Yale University, as it appeared in a recent issue of this publication.

Starting then to train, I found the performance of the feat far more difficult than I had at first thought. Bending 50 times at first, laid me up for a few days; then 500 times left a soreness for a week; but, by steady work and a sensible fleshless diet, I found that 1500 times left no painful or serious effects on me.

Then came the day of the real test conducted by Professor Fisher through his brother at the Battle Creek Sanitarium. The first 2400 bends were completed in one hour and eight minutes, This was nearly ten minutes better than Mr. Oberg's latest record, which was 3000 times in one hour and twenty-five minutes!

More than four pounds of weight were lost during the test. Immediately following the feat, I took a hot and cold

Mr. John E. Granger

shower bath, which was greatly refreshing. The after-effects were not as I had expected. As mentioned in Professor Fisher's article, many of the other contestants were sore for some time. my room-mate, B. M. Mc., who accomplished 2270 bends, felt the effects for several months, and all found difficulty in climbing stairs. I ran down two flights of stairs for the shower and back again afterwards, experiencing no pain, except a little soreness which passed away in a few days.

One rather odd incident in connection with the test, yet one which shows very clearly how the minutest detail in one's condition affects one, was the fact that the nail on the middle toe of the left foot, being a little short, did not allow that toe to do its full duty. The left foot soon began to hurt and had to be favored, giving the left calf, which muscles the toes, a rest for the remaining part of the test. When it was all over I found myself much more sore in the right leg, which, as a matter of fact, is really the better developed limb of the two.

Mr. Granger Performing Knee-Bend

Just a word as to what is a reasonable diet, from my standpoint. I firmly believe we are what we eat and how we eat it, not only physically and mentally, but morally. The average person, starting in to improve his health and endurance by a "sensible diet," must follow prescribed rules in both what he eats and how he eats it. Man's appetite to-day is so unnatural that he must, at first, draw upon the experience of others, and then, when he can trust himself, his own appetite is his best guide.

Here are my measurements: Height, 5 feet 7 inches; weight, 150 pounds at beginning of first test, 145 pounds at beginning of second test; (loss due to Fletcherizing four weeks); thighs, 22½ inches; calves, 15 inches; hips, 37½ inches; waist, 30 inches. Time of second test 2 hours 18½ minutes. Weight lost, 5 pounds; 5002 "bends."

Since writing the foregoing and at your suggestion, I tried Fletcherizing my food, with the remarkable result that, after four weeks of this practice, I was able to accomplish 5002 bends in 2 hours and 19 minutes, losing five pounds in weight, which left me in a less fatigued condition than my previous test of 3000 bends four weeks before. This wonderful result I owe to the thorough mastication of my food as recommended by Fletcher.

Stagg of the Chicago University, after witnessing this last test, decided to introduce this system into his work.

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# Our Prize Photographic Competition

WE herewith present some of the pictures which have been entered in our prize photographic competition. As will be seen, they embrace a variety of interesting subjects, while no exception can be taken to their quality or technical value. Indeed they would do justice to the efforts of the professional photographer. PHYSICAL CULTURE is a great believer in the camera as a fosterer of health, because, in order to obtain good subjects one must get out into the open and use one's legs as well as judgment. In other words, photography tends to walking, and the esteem in which this exercise is held by PHYSICAL CULTURE has often been related in our pages. As the photographs published herewith will prove, the makers of them had to use "Shank's mare" in order to obtain results, and we have no doubt whatever but that the pleasure of actually acquiring the pictures was but a portion of the total pleasure incidental to the process, because wholesome exercise of any kind is almost the greatest giver of joy of which mankind knows.

As has been stated, there will be a first prize of $5.00 awarded to the person sending in that photograph which in point of originality, technical excellence and connection with physical culture, excels the entries of other competitors. Other pictures will receive awards of Honorable Mention. It is understood that all photographs submitted are purchasable by PHYSICAL CULTURE at from fifty cents upward.

There is, however, a possibility that we shall have to close this competition at an earlier date than was first anticipated. This, for the reason that the Grand Prize Competition for the most superbly formed men and women which is now in progress in PHYSICAL CULTURE and *Beauty and Health* is assuming such proportions that in order to do justice to it we shall have to use some amount of added space, which means that other department articles will have to be curtailed or closed altogether. But if we have to thus bring the photographic competition to an end, we shall resume it some time in 1908, in order that our friends with cameras may reap the reward which the skillful use of the latter deserves. Meant me, we have to thank those who have already sent in pictures

"Summer Days." (By Nellie Van Brant.)

On the Hanging Rock, Yosemite Valley
(By George Kloster.)

for this competition and beg to assure them that these will receive that attention and those prizes to which they are entitled.

An Exercise for the Neck.
(By Edith Morse.)

## SOMETHING ABOUT TESTIMONIALS

It is evident on the face of the matter that a prominent personage would hardly lend his fame to the purpose of furthering the interests of a dope-and-booze charged nostrum unless he was laboring under its influences.

The late Professor Huxley, when asked to express an opinion about Spiritualism, replied: "If the claims of the Spiritualist are true, they add a new terror to death, considering that the spirits of the great departed would be compelled to answer the call of any frowsy medium to whom you had paid your couple of shillings." But here in America we improve upon the dictum of the Spiritualist in the way indicated by Huxley, by demanding that the great and the good who are still living, shall be at the beck and call of any mendacious "medicinal" whiskey vender "who has the price." The whole affair is a national disgrace, and the marvel is, that men and women with even a shadow of a reputation, can be found willing to foster it.

# The Confessions of an Insane-Asylum Keeper

By ONE WHO KNOWS

Revelations Which Should Touch the Hearts and Prick the Consciences of the People at Large—The Average Asylum is a Veritable Hades of Cruelty and Brutality—This is the First Installment of these Exposures and the Infamy to be Revealed During the Series is as Heartrending as it is Appalling

NUMBER TWO

This series of articles is founded on information given us by a resident of New York City, who for many years acted as keeper in a number of insane asylums—State and private—in various portions of the country. Like a good many other individuals he was by force of circumstances compelled to follow an occupation which he heartily disliked. It was not until recently that the opportunity came to him for which he had for long been desirous, namely, the following of another avocation. The position which he now holds, brings him into contact with men of more or less prominence, including a number of politicians. It is for this reason that, at his earnest request, we do not use his name in connection with the articles, for were his identity disclosed, it would in all probability, mean his dismissal within twenty-four hours.

We say this because we do not as a rule, believe in publishing anonymous articles. Our readers are usually entitled to a knowledge of the name and standing of the author whose pen-products are presented to them. But in this case it is different. And hence this explanation. In the meantime, however, we beg to assure our readers that we have taken pains to investigate the truth of the statements which will be made in this series of articles, and we give our personal pledge that they are true in each and every instance, in large and small detail. It need hardly be added that we are in close touch with the author, and if the time ever arises that it is necessary to produce him, we are in a position to do so.

For a long time we had been trying to get definite and detailed information regarding insane asylums, but failed to do so. The medical men who had been identified with these institutions would not, for obvious reasons, confess to any wrong doing, while the minor employees were in nine cases out of ten, so ignorant and untrustworthy, that we did not feel justified in accepting the facts which a great number of them were ready to tell, and which although we knew to be true, could not be published for the reason just inferred. We think ourselves fortunate therefore, in having secured the co-operation of a man whose powers of observation and memory, intelligence and honesty are unquestioned. It is our hope that these articles will so stir the public and official consciences that the abuses about to be recited will be modified if not eliminated altogether.—BERNARR MACFADDEN.

THE task of reciting the brutalities inflicted upon patients not only at Mt. Pleasant, but elsewhere, is not a pleasant one, and I only allude to them for the reasons which I have already furnished. In thinking over such acts, it seems to me sometimes as if some of the keepers really became "possessed of devils," so ingenious and fiendish were the ways which they used to "make refractory patients behave." as they used to put it. One man whom I knew—a great, big fellow with a neck like a bull, had a knack of so twisting a patient's ear that he would make the blood spurt from the compressed lobe. This sounds incredible, but it is true nevertheless. This same fellow had another pleasant habit of pushing the point of his forefinger into a patient's eye, causing the latter to scream with pain, and in some instances inducing blindness. I have also seen the same man catch hold of a patient's nose and thumb, pushing the latter backwards and pinching the former horribly. The art of "banging" is one that is cultivated by most keepers in the case of those asylums in which there is a great deal of brutality. "Banging" consists of suddenly catching the patient by the lap-holes of his coat, pulling him towards you as violently as you can, and at the same time, thrusting the top of your head forward so as to catch him on the chin. The result is that his lips

and nose are almost invariably cut, and the shock which you give him by the bang will very often render him dazed, which is the object of your act. "Banging," often repeated, is apt to lead to serious consequences as far as the patient is concerned. Indeed, in one instance in a Western asylum, a man of middle age had been "banged" so severely by his attendant that he developed symptoms of brain concussion, or something like it, and died within a week. Of course, the usual threadbare explanation was given to his relatives to the effect that he had "fallen out of bed." I hardly know what the asylum authorities and employees would do without the bed excuse. Only the Recording Angel is aware of the number of homicides that have been explained by the tumble-out-of-bed theory.

I am not aware of the current conditions in Bloomingdale, or Ward's Island Insane Asylum, as it is popularly known, but as I have not heard of any revolutionary charges in the management either through my friends or the newspapers, I suppose that matters are just now very much like they were were when I was on the staff of the institution. If so, the patients have my most profound sympathy. Mismanagement, brutality and a general disregard for the needs of the insane characterized the place when I was there. Is it in any way different now?

In the first place, the personnel of the keepers, both men and women, was not by any means what it should have been. I need hardly say that an attendant in an asylum in an English-speaking community should at least have a knowledge of the English language. This proposition is so plain that it seems unnecessary to advance it. Nevertheless, it was absolutely ignored by the authorities at Bloomingdale and a great proportion of the keepers there were Swedes, Norwegians, and so forth, greenhorns, many of whom could not speak one word of our language and who for the most part, were obtained from employment agencies that make a specialty of newly arrived immigrants. Naturally, too, they received very small salaries. Naturally also, they tried to make the patients understand with their fists, being unable to explain with their tongues. The result was that broken heads and noses, bruised bodies and all the rest of it were the rule rather than the exception amongst the male insane, and I do not think that the women fared much better at the hands of their ignorant, non-English-speaking female keepers also. In many cases I knew of the law being violated by such keepers being engaged when they were under twenty-one years of age—mere lusty and very often ruffianly boys—the last persons in the world to be entrusted with the task of caring for demented people. However, when they began to speak some English and began to apparently notice conditions, they were invariably discharged. This was so much the rule indeed, that it used to be a standing joke among those of us who were old employees and whom the doctors believed that they could trust, insofar as keeping our mouths shut was concerned. The consequence was, that there were really no minor attendants in the institution who could speak English, and during the process of their breaking in I can assure you that the patients had a pretty bad time of it.

"Special attendants" were features at Bloomingdale, as indeed they were and are at most insane asylums. These men are paid about $75 per month by the relatives of the insane to give individual service to the latter. It is the supposition of the relatives that the "special attendant" does nothing else but look after the afflicted one, tend to his wants, listen to his incoherences and endeavor to gather from the latter just the state of his mind, what his needs are, what he is thinking about, and so on, and at the same time the making of his unhappy lot as comfortable as possible. Now, the truth is, that special attendants are farces or humbugs, or whichever you like. Not only does the "special" do little or nothing for his charge, but in addition, he may be "special" for a half dozen of patients simultaneously. Meantime the relatives are comparatively happy in their belief that the insane one is being looked after in a home-like sort of fashion, whereas he is subject to practically the same treat-

ment as an ordinary patient. I need hardly say that the position of special attendant is one that goes to the favorites of the officials of the asylum, and that they are men who are as interested in keeping the facts from the outside public as are the chief officials themselves. To my mind, there is a pressing need for some legislation which deals with this "special attendant" abuse and swindle of relatives, for such it really is. As the matter stands, it is just one of the many forms of graft which exist in asylums and the subject is naturally open to criticism.

The lack of system and the disregard of the needs of the patients in this asylum were indicated by the fact that while I was there, two attendants had the care of *not less than eighty-three patients*. Those who have any knowledge of insane persons will understand what such a condition means. At the very best, the man or the woman who is demented—I am speaking now of the comparatively mild cases—need almost as much care as an infant does and in the same way. The poor things are irresponsible in regard to many of their habits. A weakness of mind seems to lead to weakness of the body in more senses than one, and the result is, that unless they are properly cared for they are apt to become unspeakably filthy. It follows then, that insane people require a whole lot of looking after, which, it need hardly be added, is only possible when they have a sufficient number of attendants. On the basis of these hints then, you may judge as to the condition of the eighty-three patients that were "attended" by two keepers. The protests of the patients, who had sense enough to make them, were absolutely unheeded and were very often silenced by means of the ready fist. The result was, that many of the demented lived in filth during their waking hours, and slept under the same conditions. The subject is not a pleasant one and for obvious reasons I cannot dilate upon it. You may judge, however, how bad the whole thing was when I tell you that even case-hardened keepers sickened at it, and threatened to resign unless there was a change for the better. I may add that even as the patients were circumstanced, only one change of underwear was allowed them during the week. As this is but little enough for a person of normal and cleanly habits, you can gather some idea as to the shape the poor things were, when the day arrived for clean underwear to be issued to them.

Another abuse that used to make me desire to go for somebody was, that the patients—many of them incapable of doing manual labor—were sent to work, day after day, on the coal pile, even on Sundays. On one occasion, I counted sixty-nine wretched men shovelling coal and gasping and groaning while they did so. A bookkeeper who was a patient and whose hardest work had been handling a pen all his life, had the shovel thrust into his hand and was told to get busy or "have the life kicked out of him." The poor wretch did his best, but it was not long before he collapsed through sheer weakness. When it was discovered that he was not shamming, he was sent back to the quarters, but as a punishment was not allowed to wash the grimy coal dust off of him. And he slept in the condition in which he left the coal pile. I simply tell you this as an illustration of Ward's Island methods, as I knew them, and to give you a sample instance of the unnecessary tyranny that was exercised either with, or without, the connivance of the authorities.

Here is another case in point. A man named Wolfe, an epileptic, who was formerly one of the musicians in Victor Herbert's band, was ordered one day to play a cornet for the amusement of a keeper. He refused, whereupon he was locked up, and not permitted to exercise in the yard. Those who have had anything to do with the care of the demented, will understand what this order meant to the poor wretch. To prevent an insane person from getting in the open, even in the limited space of the exercise yard, is cruelty in the extreme.

(To be continued.)

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**No health without exercise is a law of Nature from which there is no escape.**

# Modern Inventions for Cleaning the Teeth

THE workings of the human mind are often past finding out. Among its peculiarities is its tendency to overlook the necessary and expend its powers upon the more or less superfluous. Some of the most wonderful art work that the world has ever seen was produced at that period of civilization when the noble of luxurious tastes had fresh rushes strewn on his floor daily, carpets being unknown, while forks and pocket handkerchiefs were conspicuous by their absence. The chasing and inlaid work of the armor of the knights of the Twelfth and Thirteenth centuries is said to have been a miracle of artistic ingenuity and beauty. But the sanitary and domestic arrangement of the castles of the exponents of chivalry were such, that a farmer of to-day who ventured to harbor his cows or pigs amidst such environments, would be looked upon as a foolish if not a cruel individual.

Of course, we have emerged from this extraordinary neglect of the first needs of the body, and at the same time the development of our artistic and intellectual faculties has, to a very great extent at least, kept step with such development. But in a good many minor matters we are still behindhand. This too, in spite of the fact that they, the things in question, are part and portion of our everyday existence and in a good many cases, play an important part in our comfort. health and good looks.

And the inventions for the care of the teeth are cases in point.

Up to a comparatively few years ago, the average father and mother paid about as little attention to their children's teeth as do the lower animals in the instance of their offspring. The same remark stands good as far as a large proportion of adults were concerned. People seemed to think that the teeth took care of themselves, and that an occasional rinsing of the mouth when the policy in question resulted in the occurrence of a "bad taste" was all that was needed. The writer was once discussing the question of teeth and their care with a Yorkshire (England) farmer, of what is known as the "good old sort," which is the same as saying that he was very ignorant and very much set in his ways. "I tell thee," blurted the old chap, "that aw've no use fur these noo' fangled ideas o' thine. If God Awmighty had meant th' teeth o' thee to be cleaned wi' brushes thee'd a' bin borned wi' a brush in thy mouth!"

This was an extreme case, but it illustrates pretty well the attitude of mind that a whole lot of people on farms or in cities, have in regard to teeth and their care.

However, the farmer in question represented the beliefs of a couple of generations ago, not only on the other side of the water, but on this side also. Nowadays, the toothbrush is in fairly general use. And what is more, and in a sense additionally gratifying, is, that the demand for these articles, together with a whole lot of dental requisites in the shape of floss-silk, mouth washes, tooth powders, and so on, is steadily increasing. Which goes to prove that the public is awakening to the important part that the teeth play in the daily scheme of things. Nevertheless, the average tooth brush isn't many degrees removed from the bit of stick, frayed at the end, which no small proportion of savages use for mouth-cleaning purposes after a meal. The majority of the Hindoos, after eating will begin to industriously chew on a twig of a certain tree whose fibres are fine, long and tough, and within a very short time they are possessed of what is a respectable form of tooth brush, with which they proceed to vigorously remove from their teeth, any traces of the food which they have just eaten. Nearly all the tribes of Central Africa, so travelers tell us, do likewise. The natives of Polynesia use the frayed wood religiously also.

Other savages substitute for this primeval tooth brush, wisps of fine grass, and in New Zealand, a species of moss is used for the same purpose. But in each and every instance, the idea is the same—a collection of small, fine, tough points permeating the cracks and crevices of the teeth in which morsels of the food are likely to lodge and decay.

Now, while a tooth brush in its primeval form, or in the shape that we purchase it at the stores, is all very well in its way, it does not quite answer the purposes of its being. The fact that "dental silk" has a steady sale is but one of the proofs of this statement. This silk, as it will be remembered, is passed between the teeth in order to get at those portions of their surfaces to which the bristles of the tooth brush have been unable to obtain access. Those forms of brushes too, in which the surfaces of the bristles are cut in an undulating fashion, is another confession of one of the weaknesses of the ordinary brush—which is, that when one portion of the bristles is pressing on the flat of the teeth it is debarred from searching into the crevices which serve as lurking places of the food morsels, that are the source of decay and tooth troubles in general.

Lastly, the tooth brush that does not shed its bristles after a week or so of use, is a rarity. And is there anything more exasperating and occasionally dangerous than finding your mouth filled with small, sharp and elusive spikes which refuse to be washed or coughed out, and which not infrequently lodge in the throat tissues, causing pain and apprehension.

Of course, some manufacturers *do* make tooth brushes that will not shed their bristles, but in such instances, the articles are not very often offered for sale in those stores, or at those prices which are popular with the multitude.

The point of the whole matter is, that the time seems to be ripe for a radical improvement in the apparatus used to clean the teeth. Dental silk is undoubtedly a step in the right direction, but it has its disadvantages in that it is somewhat tedious and slow to use. It lacks "handiness" and in these days of rush and bustle, this is a fatal defect in any thing or article. Tooth brushes with irregular surfaces are also good in their way, so the writer has been given to understand. Some brushes on the market are claimed to be manufactured so that it is absolutely impossible for them to part with their bristles. But even in such instances, the defect of the flat surface remains. More than that, humanity, ever since it began to use tooth brushes, insists upon passing them horizontally across the teeth, by which means, the more exposed portions of the enamel is cleansed, but the danger points or spaces are ignored, for the very plain reason that the movement in question does not touch them. The writer knows of a good many parents who teach their children to use the brush, not only across their teeth, but in a perpendicular manner also, so that the crevices may receive their due share of attention. However, the horizontal action seems to have come instinctively to the adult or child who gets a tooth brush in his or her hand. Hence it is that even with those persons who would indignantly deny that they neglected their teeth, there is but too often an exhibition of tartar, holes, decay and all the other unpleasant manifestations of teeth that have not been treated in a proper fashion.

One of the latest attempts to overcome the weak points of the flat tooth brush is that in which the user of the apparatus must of necessity bring into operation, whether he wants to or not, a movement of the bristles which effectively searches out the cracks, crannies and crevices of the teeth, so it is claimed. If this be so, a problem has been solved which has been puzzling civilized humanity for too long. It is possible that the dentist will take an opposite view of the case, for the simple reason that if the teeth are properly cleansed there would be little or no occasion for his services. This is by the way, however.

Of course, inventors are apt to claim many things for the offspring of their brains, which may and may not be justified. But apart from that, the fact that it is becoming recognized, that there is a need for more or less radical change in the shape, form and properties of tooth brushes is a hopeful sign. Man

lives by food, and unless that food is properly masticated, he ceases to be that which Providence intended him to be. Hence the prime importance of sound teeth, and as these are only possible when proper care is given them, the tooth brush, in one of its forms, fills a much higher place in the scheme of existence than we think of its doing at first thought. Consequently any improvement in its form or function should be hailed with acclamation and encouraged by patronage.

Physical culture stands for all-round development, mental and physical. But it is not too much to say that such development is absolutely impossible unless one has a good, sound set of teeth. The experiences and experiments of Mr. Horace Fletcher have, in the most emphatic fashion, proven the necessity and the advantages of thorough mastication. But even if one does not go to the extreme of chewing as he does, one must reduce one's food to a pulp before it is swallowed if he would enjoy that health which physical culture insists is the inalienable right of every man, woman and child. Exercise, ventilation, proper clothing, the use of the bath, appropriate recreation, and so forth, are of course, essentials in the natural and wholesome life. But underlying all of these, is the necessity of the digestive organs fulfilling their offices in a perfect fashion. And the work of these organs can only be carried on as Nature intended them when the function of the teeth is perfect. You must not forget that no small portion of the work of digestion is actually done in the mouth. The act of mastication, by mixing the saliva with the food, causes certain mechanical changes in the latter which are the first stages of digestion. If you do not properly chew your food, a double task is thrust on the stomach, which naturally resents the imposition, and digestive disturbances result. Now, as in the presence of such disturbances, you cannot be as healthy as you ought to be, it follows that a normal physical condition really depends upon the teeth, to a greater or lesser extent. The necessity of keeping one's "ivories" in perfect condition will therefore be made manifest. Hence the importance of the tooth brush, or the other appliances, to which allusion has been made in this article.

## WHICH WAS WORSE, CURE OR DISEASE?

Doctors, perhaps more than other persons, are given to the making of theories and testing the truth thereof. In a good many cases the theories turn out to be precisely the opposite of what the doctors believe them to be. Then there is a funeral and that's the end of it. And no one kicks but the family when it comes to settle with the undertaker. Dr. Rudolph Mankowsky, of Baldwin Township, Pa., seems to be an unfortunate exception to the good luck which attends his professional colleagues in this respect. In other words, the object of his theory, while she could not kick in a literal sense for reasons given later, has done so in a legal manner.

Mrs. Adelgunda Vercharen suffered from rheumatism and called in the doctor. Now Dr. Mankowsky just loved to dally with a case of rheumatism, because, as he declared, the disease on his approach did not stop to pack up, but simply fled. In the case of Mrs. Vercharen, the rheumatism, after a month's treatment or so, was not only holding its own, but getting a firmer grip than ever on the patient. Then it was that Dr. Mankowsky declared that the court of last resort, so to speak, was the breaking of the patient's leg. He explained at some length that with the snapping of the bone the rheumatism would be so scared that it would fly then and there, never to return. With some misgivings Mrs. Vercharen submitted herself to the heroic treatment, the bones of her lower leg were snapped and—the rheumatism remained. What was even worse, the ends of the broken bone refused to knit and she became permanently crippled. Then, being unable to kick the doctor literally, she did so through the medium of the courts. She wants twelve thousand dollars damages, and the end is not yet.

# Money and Disease Germs

By ALFRED H. BARBAZON

THE views of the editor of this magazine in regard to the germ theory of disease are so well known to his readers, that it is hardly necessary to repeat them for the benefit of the latter. Nevertheless, as PHYSICAL CULTURE has a constantly increasing circulation, it follows that among those who scan these lines will be many who are not quite so familiar with his beliefs in question, and hence it would be well perhaps, to briefly restate such.

Now, the advocates of the germ theory, believe that all diseases are due to microscopical organisms, either of vegetable or animal nature, which, obtaining lodgment in the tissues or blood of the body, proceed to multiply with amazing rapidity and so cause the malady with which they are allegedly identified. The theory of cure held by these germ adherents is curious. It is, in the main, that you can make a serum or kind of liquid from a collection of the germs or bacilli, as they are sometimes called, and by injecting this serum into your blood or otherwise administering it, you kill the germs. In other words, it is a case of "taking a hair of the dog that bit you." It is further asserted by these same wise ones that a given type or species of bacilli is identified with each and every disease, and that if an examination of the blood, sputum, or exudations of the patient is made, the bacilli found therein, will without fail, establish the nature of the malady.

Furthermore, it is declared, that disease-bacilli of nearly every sort, are in evidence anywhere and everywhere—in the atmosphere, the dust, the food we eat, the liquids we drink, and so on. In other words, that it is impossible to escape the bacilli because they are like unto the Almighty himself in that they are omnipresent and more or less everlasting.

Now it would seem to the sane and sensible individual that if the bacilli men are right in their theories and conjectures, it would be impossible to escape disease. If we raise disease germs with every step we take; if we inhale multitudes of them with every inspiration; if we swallow them by millions in our food; if the touch of the lips of babies, wives and sweethearts convey to us, as we convey to them, the noisome, wriggling things that the microscope discloses; if we cannot put on clean underclothing, or a new suit of clothes, or a pair of hose or even use handkerchiefs without accumulating or coming in contact with hosts and hosts of these uncanny creatures or particles, and if we cannot even give or receive good American greenbacks or those circular discs of silver so dear to every American heart, without standing in danger of becoming infected with an acute or chronic complaint, it would seem that health is abnormal and that our normal condition should be that of sickness. This statement may seem to be of a somewhat humorous nature, if indeed there is any humor connected with the acquisition of disease, which is doubtful. But it is the logical deduction of the germ theory, nevertheless, and there is no dodging the conclusion. The only way out of the difficulty is by disavowing the germ theory altogether, or dodging it in that ingenious, but more or less mendacious manner, to which its promoters resort when brought face to face with the difficulty in question.

Now science and common sense are never at odds. It is only *so-called* science which dogmatizes on matters of which it knows little or nothing, or that runs foul of the obvious; that disregards the first principles of truth, and that seeks to over-rule that reason which Providence has given us in order that we may maintain wholesome minds and bodies. It is such quasi-science that it is responsible for the germ theory of disease and the unending mischiefs to which it has given rise.

What are the facts of the matter? They may be stated in a very few words. In this connection it should be said that the beliefs of the editor of this magazine as they are about to be set forth, are shared by many scientific men of repute, the number of whom are increasing steadily. In the first place, then, it is admitted that there are organisms, either of the animal or vegetable sort, which are more or less identified with given diseases. *But they are not the cause of the disease, merely the outcome of it*, a distinction with a very great difference. If a man or woman has lived such an unhygienic life, that his or her blood is charged with poisonous and effete matter that should have been cast out of the body by the excretory organs, but which has been retained owing to the failure of the latter to do their work, that same body is ripe for disease. The term "disease" is in such a case, used to define the effort of Nature to cleanse the body of its impurities. But at this juncture, the befouled blood and tissues are ripe for the reception of the germs, which being everywhere, immediately take advantage of the fertile soil presented for their activities. So that they effect a lodgment in the body and proceed to do that work which Nature has destined for them—for Nature never creates man or bacillus without giving him or it, a specific place in the scheme of existence. The duty of the bacillus is to assist in the cleansing of the body by devouring or nullifying the effete matter which is the secondary product of the disease, so to speak. Now it is true that under certain conditions, disease germs may *infect* persons other than the originally diseased. But in such instances, the person so infected, must have a body fitted for the reception of the bacilli in the manner told. A healthy person can live and move, and eat and drink, and sleep and exist amid an atmosphere and in touch with effects and things that are swarming with bacilli and yet never have an hour's sickness through the medium of these latter. All for the reason just given. And these are the beliefs bearing on disease germs, improperly called, which are held by this magazine.

No more striking illustration of the truth of these same beliefs could be given than that afforded by money, its handling and general usage. Common sense will suggest, the microscope will confirm and the "culture" of the bacteriologists will prove that money, either in the form of paper or metal, must simply swarm with whole museums or menageries of "disease" germs. And the reason is so obvious that it is hardly necessary to recite it. It is of course, the result of the constant handling which it gets and the association of one bill or silver dollar with many others.

Money is made for the express purpose of being circulated, and the average American, or citizen of foreign birth, rarely forgets its function in this respect. As the old adage has it, "Money is made round so that it may roll easily." And that it does so roll, especially in big communities, let the multitudes of stores relate and the observation of the eye decide. Consequently it passes into and out of the hands of all sorts and conditions of men, including the clean and dirty, the religious and the dissolute, the respectable and disreputable, and so forth. In each and every instance it is constantly acquiring that which the layman calls dirt, but which the scientists know is, to a very great extent, a layer on layer, crust on crust, strata on strata of harmless or harmful bacilli, and the result is that, theoretically and from the germ-disease theorist's point of view, money is about the most dangerous thing to handle outside of ten-year-old smokeless gunpowder, or nitro-glycerine cans with a layer of crystals on their exterior. It may be remarked in parenthesis, that the citizens of the American nation, with characteristic courage, never hesitate to face this danger and indeed, seem to court it.

If it were possible, it would be more than interesting to trace the travels and the adventures and the vicissitudes of the dollar bill. As a rule and from the time that it issues, crisp and clean from the mint, to the period when it returns thither, bruised, torn, faded and bacilli-charged, to be reduced to pulp, it is rarely in possession of a given individual for a longer period than a few days. And even when at rest, the work of acquiring more bacilli goes on,

especially if the old-fashioned stocking or a corner of the more or less worm-eaten bureau drawer, is used as its hiding place. Now the exigencies of trade, unless it be in the Fifth Avenue jewelry or bric-a-brac store, necessitates the hands of the workers being somewhat soiled. By the term "soil," is meant dust, dirt and grime which is charged through and through with microbes or germs of some kind or the other. Whether it be the hands of the grocer's clerk, the grimy paws of the coal man, the more or less uncleanly digits of the huckster, the evil-smelling fingers of the proprietor of the fish-shop, or those of the old-clothes-man, the shoe-black, the ice-man, and what not, dirt first, and dirt ever, must be. And when any one of these people gives you back your change, he is simply restoring to you, some portion of the bacilli which you gave to him with the bill or coin that necessitated his rendering to you that selfsame change. In the world of the "disease-germ," "Exchange is no robbery," for you usually get pretty nearly as much as you gave.

But this is not all. If you have ever visited the New York Ghetto on a Friday afternoon and have mixed with the shrieking, shouting, excited crowds of men and women who are to be found by the thousands in the narrow streets, whose gutters are lined by countless hucksters, you will have noted the shocking disregard of the germ theory which these people evince. A vender of vegetables, say, while he searches his pockets for change, does not hesitate to thrust soiled quarters or one-half dollars into his mouth in the meantime. The same remark stands good of the Hebrew maids and matrons who hold folded bills between their teeth while they too, hunt for small coin or stow away their purchases in pockets or baskets. The children find their mouths convenient receptacles for cents and nickels also. The youngsters who purvey Jewish newspapers invariably use their gleaming teeth as a third hand to hold nickels or dimes while hunting for pennies due their customers. And—this is not said in a spirit of unkindly criticism—most of the paper money which obtains currency on the East Side of New York, whether it be in the Jewish or other quarters, is chiefly remarkable by its dinginess as are the hands that handle it. The struggle for existence is too severe in the Ghetto and the other parts alluded to, to permit of one wasting much time with the nail brush or manicure set. Hence it is, that the digits in question, are happy hunting grounds for untold billions of bacilli which are in turn transferred to Uncle Sam's greenbacks and these last are, according to the germ theorists, menaces to public health and disseminators of decay, disease and death.

But it is not only the East Side of New York that is so horribly careless in this respect. The writer has often seen well dressed women in the stores of the shopping district, use their lips or teeth in the manner described. He has one vivid recollection of a tall, stately, somewhat ponderous lady, whom he noted in a Sixth Avenue department store, stowing away nickels and dimes between her cheek and her jaw, until the former bulged very much in the manner as does the face of a monkey who is storing away nuts for future consumption. And the lady never dreamed of the—according to the disease-germ theorists—danger that she was facing, by this total disregard of the first principles of the theory in question.

But even if you do not use your mouth in the manner told, you are—again quoting the germ theorists—just as likely to acquire some disease through the touch and handling of money. The moment that a greenback comes from the press at the mint it immediately starts in on its nefarious and deadly occupation of picking up germs, so we are assured. Before it is put into circulation, it has acquired enough of these to infect a village or two, and, by the time that it has reached the bank from which it is to start out on its financial journey, it has got enough of 'em to decimate an army, provided that its germs stick to business and do not neglect their duties. When the Ghetto stage in its career is reached, if indeed the bill ever gets there, it is simply a perambulating center of death and desolation, you know, and it should be shunned like the path of a tornado!

And yet what do we actually see? Multitudes on multitudes of unheeding and healthy citizens continuing to handle these fearful green creatures with a carelessness and immunity that is simply incredible after the note of warning raised by the believers in disease germs. And what makes the thing even more inexplicable is, that the annual output from the United States mints is increasing steadily, that, according to statistics, the annual earnings or the people are enlarging also, and yet there is not that increase of sickness and deaths, which this growing amount of poisoned and polluted money would naturally lead us to expect. Can it be that the germ men are wrong and that the editor of this publication and others of his creed, are right?

Money talks and never more emphatically than in this instance. Its still, small voice refutes the germ theory of disease in terms which there are no mistaking. And among the things which it says is something like this—"If my detractors, the gentlemen who advocate the germ theory of disease are right, then no one could touch me without becoming the victim of some malady or the other. And yet it would seem that I am the dispenser of happiness rather than of ill health, and that the Boards of Vital Statistics have not as yet issued manifestos against my existence, nor do I appear in official statistics as a recognized cause of one or any disease."

Money is not the root of all evil in a disease-producing sense. In other ways, it is the root of nearly every good, the moralists and the impecunious to the contrary. And of its many excellent uses, is that it gives the lie direct to the mistaken and mischievous beliefs of those so-called scientists who assert that disease is due to bacilli, which they libel as to their intents and purposes. The writer was once told by an expert that the germs of nine distinct diseases had been found on a silver quarter that to the eye was in a normally clean condition. This gentleman was an adherent of the germ theory and on being asked how it was that he and others others, had managed to handle the quarter without acquiring one of the diseases which theoretically it should have promoted, replied, "There are mysteries in medicine of an unsolved nature and this is one of them." Which was equivalent to a confession of mistaken theories, or ignorant fallacies, so it would seem.

The truth is, that if one by natural means, maintains one's body in a healthy and wholesome condition, disease germs, so-called, are as harmless as the flecks of down from the wing of the flying dove which fall upon one's coat collar. And it is for this reason, that bacilli-charged money and everything else of the material kind that offers a resting place for these tiny organisms, can never work mischief in the case of a normal individual. The moral is so obvious that we need not point it.

## A NEW FRUIT PROMISED US

While we cannot complain of the variety of fruits which a bountiful Providence has given us in the Northern sections of this country, yet on the other hand, any addition to the list is always acceptable. This remark is pertinent to the statement that Uruguay, Central America, is preparing to ship to the United States, in large quantities, one of the popular fruits of that country. It grows on a laurel-like plant, that has leaves that are green and shiny on the upper surface, is very plentiful and is stated to be as delicious as it is nutritive. It is about the size of an apricot, the shape of an apple, yellow and scarlet when mature and has an exquisite perfume. Its seed is like a large hazel-nut. In a somewhat wild state, the edible fleshy part is comparatively small, but it is believed that it will largely increase with cultivation. The taste is most agreeable, and the pulp, according to those who have eaten it, assists digestion to a marvelous degree. Let us hope that the fruit will bear out the reputation which has preceded it. The first shipment is to be made to New York some time during the current fall, so it is averred.

# The Trend of Modern Curative Science is Toward Natural Methods

THERE is no mistaking the fact that in spite of long-standing prejudice and hide-bound tradition on the part of both the public and physicians, curative science is undergoing a change in its principles and methods of a most revolutionary nature. Partly through the educational influences of PHYSICAL CULTURE and partly by reason of the researches and the consciences of some leaders of medical thought, there is a steadily increasing reversion to Nature in the treatment of disease. Simplicity is now the keynote of those doctors who can afford to be honest with themselves and their patients. The flummery and mummery and drugging of sick people is a thing of the past, or nearly so, on the part of physicians of the advanced school. Of course, there are thousands of so-called general practitioners who cannot afford to give up those things that have for centuries almost, been identified with the healing art. This for the reason that when the ignorant fall sick, they invariably expect huge doses of nauseous physic, and that grave formula of humbug by means of which the doctor seeks to impress upon the patient that he is thoroughly entitled to his fee. Which gives point to what has been repeatedly pointed out by this publication, that no small portion of the condemnable practices of physicians is the outcome of the fact that the public has been educated to demand such. If the pint bottle of powerful laxative, or the quart or so so of alleged tonic, or the racking pills, or the "nourishing" preparation is absent, the sick man or woman is apt to believe that he or she is not obtaining that attention to which they are entitled in return for the money paid the medical attendant.

Nevertheless, and in spite of all this, the tide is set toward common sense in regard to curative methods, which is the same thing as saying that Nature's remedies are used instead of those of the medical schools, and that the work of the physician is simply that of assisting Nature. The "intention" of the disease which is the elimination of poisonous impurities from the body, is furthered by such natural means. Vital statistics show that the percentage of those treated in this manner who succumb to their maladies, is remarkably low as compared with those that occur under the old regime. There is no doubt whatever but that as the treatment continues to grow in the estimation of medical practitioners, the rate of human mortality will become less and less.

But perhaps the most significant feature of the matter is the increasing number of curative practitioners, who are looked upon by the "regulars" as interlopers in the latter's sphere of action. Equally remarkable, is the manner in which the public patronizes these same "irregulars," to use the accepted medical phrase regarding them. And still further, the excellent nature of their work is beginning to be recognized by the legislatures of certain States, with the result that in some instances laws have been passed which protect them from the oppression of the M. D's proper.

In most cases these operators are specialists in some form or the other. Thus one of them may be an osteopath, or a hygienist, a dietetician, a hydropath, a masseur, a believer in the value of suggestive therapeutics, a muscular manipulator, or one who has faith in the curative powers of mechanical vibration, or a physical culturist pure and simple, in which case he is generally known as a Health Director, which is a very inclusive and truthful term indeed. The tendency is, however, to formulate one mode of treatment or a science which shall include the best of all these things and eliminate the unnecessary or the "faddish." And herewith a word of explanation. Physical culture has

solved the problem of restoring lost health and developing the physical possibilities of the body by including in its methods and principles the best of all things furnished by Nature to that end. In so doing it advocates the use of natural remedies at first hand, so to speak, and as our readers know, with the most satisfactory results. On the other hand, there is a curative school which attempts, successfully, so it is said, to obtain the beneficial *results* that accrue from horseback riding, bathing in natural spas, etc., by means of a more or less artificial sort. The benefits of such exercises are, so it is claimed, thus made possible to those who for many reasons cannot obtain it in the ordinary manner.

To quote the new school of "mechano-therapy," "the individual is cured by what may be called mechanical means, which duplicate the benefits of mountain climbing without the effects of heart taxation imposed by that exercise; with the aid of water applications the good effects received at the spas are produced; a legitimate use of suggestion brings about a duplication of the physiological stimulation that accompanies traveling in foreign lands, while a masterful use of dietetics and hygiene make it possible for the patient to be surrounded with those environments at home that far surpass in their curative efficiency the indefinite value of a change of air. More than that, by the aid of certain vibratory apparatus, the patient receives the benefits of the oscillatory motion which horseback riding yields. The advantage of the artificial riding is, however, that a patient is not hampered by the thoughts of possible danger and the abrupt and sometimes harmful motions of the horse. We also claim that while exercise is of course absolutely necessary to health, yet there are times and seasons in which a man finds it impossible to take it, either through sheer bodily weakness or some other cause. This is where intelligent massage comes in, which induces in the muscular system that action and circulation which exercise should normally bring about."

A physical culturist will hardly take exception to these statements in as far as they concern those whose condition or environments debar them from taking natural exercise. Nevertheless, the physical culturist will always hold that as long as a man has life he is capable of action and effort which by being gradually increased will at length, bring about that degree of vigor, mental and physical, which represents normality.

But for all that, little exception can be taken to the sentiments of the expounder of the new school who has just been quoted. As a matter of fact, the principles of this school are the same as those of physical culture, with some modifications. Thus, it is taught by the former that drugs are not merely unnecessary, but positively harmful; that a stomach in proper order is, in the majority of cases, the basis of health, and that it can only work when properly treated in the way of diet; that cold water is one of the prime restorers and preservatives of health; that the use of the knife is to be greatly condemned except in the most extreme cases, and much more of the same.

The definition given to the work of this modified branch of physical culture which, as intimated, it may properly be called, is "the stimulation of physiological action by mechanical and other *natural means* for the purpose of establishing a normal condition of the body." This is excellent and includes in a nutshell, the modern tendency of the curative art as practiced, not only by physical culture Health Directors, but by a host of "irregulars" and the most prominent "regulars" known to civilization. No less an individual than Sir Frederick Treves, physician to King Edward VII, recently announced that physicians who know their business, have discarded drugs, or nearly so, and that in the course of the next twenty-five years, the drugs used would be merely three or four in number, and they only in extreme cases. He added that a disease would run its course, drugs or no drugs, and that the latter very often hindered the recovery of the patient by setting up conditions which complicated the case and prevented the normal action of the malady from fulfilling itself. By which it will be seen that Sir Frederick is evidently a physician

of the most modern school, which probably accounts for the place which he fills in the eye of the international public.

It should be pointed out, however, that while natural remedies are as effective as they are liberally supplied by Nature, they cannot be applied in a haphazard, happy-go-lucky fashion. Thus, that out-of-door exercise, which would be eminently proper in the case of an individual suffering from a nervous affection, would be entirely out of place in the instance of a person afflicted with heart disease in some one of its manifestations. Or a diet that would be most appropriate for a bronchial patient would be often unsuited to one tortured by hemorrhoids. The same remark applies to the use of baths, etc. In other words, in the hands of the unskilled and untaught, Nature's remedies may be apt to be harmful if not positively dangerous. Hence it is, that only those who are qualified by years of experience and observation to treat patients by natural methods should be entrusted with the task.

The weeding out of those who have tried to take advantage of the growing popularity of the natural treatment, by making all sorts of ridiculous claims in regard to what they could do, or could not do with the patients, is proceeding gradually and will undoubtedly result in the final extinction of these persons. Happily, these persons are few, and their lack of knowledge is soon detected by those whom they allegedly "treat," with the result that their practice rapidly dwindles into nothingness. In this connection, it may be pointed out, that the success of physical culture in its curative aspects whether these are exemplified through the medium of Health Directors, or the Macfadden Health Homes, is due to the fact that a person who has experienced the benefits of physical culture treatment, is certain to announce that fact to all his ailing friends, with the result that these in turn test the powers and follow the example of the cured one. The same kind of thing takes place in regard to any reputable individual or institution that puts physical culture principles into practice. And we do not believe that there is any profession more suitable to the earnest young man or woman, who desires to benefit humanity and at the same time, receive that due reward which waits on commendable labor, than that of Health Director, no matter whether he or she uses the exact title or something equivalent to it. We have said *young* men and women, but the opportunities afforded in this respect are alike open to the man or woman who is past the first flush of youth and is nearing the calm zone of middle age. This, of course, provided that the physical requisites are not lacking and that certain necessary mental qualifications are in evidence also. Remember that this statement is not based on theory alone. It is the expression of experience, and had we the space we could recite scores on scores of instances of persons who are enjoying comfortable incomes and a high standing in the community through the medium of the exercise of the natural methods of cure as a profession. The army of these is constantly adding to its ranks.

If these lines are read by those who are on the eve of embarking into active life, or by those who have been buffeted by the waves of disappointment and misfortune, and seek to escape the same, let them think this matter over in a dispassionate and earnest fashion and we venture to assert that they will come to the conlcusion that a profession which it is not so difficult to learn, which is not overcrowded and which, in almost every instance, is as lucrative to him who professes it, as it is beneficial to those to whom he ministers, should be gladly embraced.

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"By observing the health laws of Nature, a sound constitution can very easily be preserved, but, if a violation of those laws has brought on disease, all we can do by way fo curing that disease is to remove the cause; in other words, to prevent the continued operation of the predisposing circumstances."—Dr. Felix Oswald.

# Editorial Comment and Items from Everywhere

### Low Heels the Latest Parisian Fashion

According to the *Gentlewoman*, one of the leading publications of London, England, low-heels are the rage among Parisian women. The woman who ventures to appear wearing a pair of high-heels, is declared to be dowdy, and as everybody knows, the one thing that the fashionable world will never forgive is dowdiness. It is furthermore stated that the low-heels are "modish." This is the final, ultimate, and altogether desirable word that can be used in connection with anything of which society approves.

In all seriousness, though, the Parisians, if the *Gentlewoman* is to be correct, are to be congratulated upon the return to common sense and physical culture principles as applied to the feet. Fashion and common sense are so rarely allied that when they do shake hands, the fact of their so doing is to be noted and applauded. Hence it is that PHYSICAL CULTURE extends its sincere congratulations to the ladies of Paris, and trusts that low-heels will be followed by a discarding of corsets and of all other garments or articles of wear which stand between their owner and health.

The Baroness de Meyer is the woman of fashion who is said to have inaugurated the low-heel rage. From what is said of the Baroness, she appears to be a physical culturist of a practical sort. Apart from all else, she has been in the habit of wearing sandals for a number of years and where boots became a necessity, they were nearly without heels. Long life to the Baroness and may her principles be imitated in other respects than in the matter of heels! In concluding its notice in regard to the matter, the *Gentlewoman* naively remarks, "Doctors will be delighted to herald the new style." Now as a matter of fact, the doctors *won't* be delighted, for the simple reason that while the high-heels are productive of rushing business as far as doctors are concerned, low-heels are quite to the contrary.

### Talk that is as Plain as it is Sensible

We commend to our readers the following from a recent issue of *Collier's Weekly*. This publication has always been noted for the soundness of its convictions, and its courage in expressing them. Prudery is an unknown quantity in its editorial offices. It joins hands with PHYSICAL CULTURE in that it believes that the truth will never harm. With these words of introduction we give the matter in question.

"With certain subjects of vital importance, it is probably an unfortunate conventionality that a lay-paper must deal guardedly, if at all, with them. That this is so, is the main reason for the prevailing lamentable ignorance, among those who have the greatest need to know, regarding the peril to the public health and welfare arising from what is termed 'the social evil,' though 'anti-social evil' would be a more truly descriptive term. With the single exception of tuberculosis, there is no form of transmissible disease comparable in its widespread danger to that which accompanies this evil. The worst feature of it is, that the innocent may suffer as terribly as the guilty even 'unto the third and fourth generation.' Education is the basic requirement for the successful restriction of any transmissible disease; and education is nowhere so vitally needed and so sparsely provided as in this class of infections. For this distasteful, thankless and self-sacrificing work, the Chicago Society of Social Hygiene has been organized, with headquarters at 100 State Street, Chicago, where the literature of its propaganda may be obtained upon request of any reputable person. The officers and members of the society include men of the highest standing, not only in the medical profession, but in

other fields. No satisfaction for morbid or prurient curiosity is to be found in the society's publications; just the ugly essential facts and the warning that inheres in them. Fathers of growing sons and mothers of young daughters have thus an opportunity of imparting that knowledge which, to quote from the annual report of the society's secretary, 'their children will certainly acquire at an early age, either in the street or at home—the parents must decide from which source.' Plain talk is necessary for the protection of the public, as well as of the individual's health, moral and physical; and the plainer it is, the more private must it be. The Society of Social Hygiene, together with the New York Society of Sanitary and Moral Prophylaxis, and similar societies in Philadelphia, Detroit, Boston and Baltimore, have undertaken a work for which, unless a false and baneful modesty on the part of the public nullifies it, the present generation, and, even more, future generations, will owe it a debt of gratitude."

### City Superintendent Maxwell of the New York Public Schools Wakes Up

PHYSICAL CULTURE has on several occasions, felt itself called upon to criticize the actions, the methods and the theories of Dr. Maxwell, Superintendent of the Public School System of New York. In the opinion of this magazine, Dr. Maxwell has often put himself on record as a faddist, a prude and a person who in some respects was unfitted to hold the responsible position which he does. Cases have been cited in the pages of this publication in which unfortunate pupils of the High Schools of the metropolis have collapsed mentally and physically owing to the absurd amount of subjects and work which was imposed upon them. It has always questioned the practically total elimination of all studies which have to do with that department of physiology which is of such prime importance to young men and women. It has also questioned the wisdom of its curriculi, through the medium of which the pupils of the public schools were given a smattering of a host of subjects and were thoroughly grounded on none. It has questioned the right of Dr. Maxwell to insist upon boys learning how to sew, and it has taken exception to the girls wasting valuable time on the anatomy of lobsters when they had but a smattering of grammar, while their handwriting was of the most illegible nature. Most of all, it has censured Dr. Maxwell for his apparent inability to recognize the fact that the *minds* of children are located in *bodies*, for his school system has apparently ignored this fact. In other words, under the Maxwell regime but little attention was paid to the fact that the body had its needs as well as the intellectualities. Now it may have been through the strictures of PHYSICAL CULTURE, or it may be that the common sense of Dr. Maxwell has had a spontaneous awakening, but the fact remains that he has at last recognized that the physical welfare of the children of New York City is a matter which is as much a part of the educational system as are sewing classes or lobster dissections. Thus it was, that in a recent address to the principals of the public schools, Dr. Maxwell declared that it was their duty and the duty of the teachers under them, to make a personal investigation of the physical conditions of the children and to urge upon the parents the necessity for taking proper steps to cure physical defects in their offspring when the former were discovered. The Superintendent has also made the discovery—which is an old story to PHYSICAL CULTURE readers—that a backward child may easily be suffering from some physical complaint which accounts for its inability to perform his studies. He said among other things, "Great attention should be paid by the principals to the medical inspection of school children. Every assistance should be given to the officers of the Board of Health in their work. Special attention should be given to four classes of pupils: To overaged children, to determine whether their intellectual development has been trearded by physical defects; to children who are very evidently suffering from physical defects; to incorrigible children, who have a tendency toward idleness and mischievousness, and, finally, to the persistent truant.

"Last year I tried to have every boy

examined by a physician before committing him to the truant school. My attention was called to the necessity for this by an investigation I conducted in the truant school. I had all the pupils of the school examined by a physician of the Board of Health. There was not one who was not suffering from some physical defect.

"There can be no higher duty incumbent upon the principals of this city than to see that these afflicted children, who are backward or incorrigible because of some physical defect which is driving them crazy, should receive some help. It is the duty of the principal and the teacher to see that the defect is discovered and remedied. Of course, you know that when the defect is discovered you have a means of remedy. Give no peace to the parents of the child until the defect is remedied."

As a step toward improving conditions, Dr. Maxwell requested the principals to prepare records of examinations of children, by officers of the Board of Health, showing the results and the remedies employed. Such a record, he declared, he had found it extremely difficult to obtain at the Board of Health.

In conclusion, Dr. Maxwell gave the principals a word of "warning and caution." He declared that they were directly responsible for the physical condition of the children in their schools, and that they must not attempt to shift the responsibility to the class teacher. It seems to us that the responsibility, in a sense, rests on his own shoulders.

### A Novel Kind of Intoxicant

Humanity always seems to be hunting for ways and means by which to interfere with the workings of its physical machinery, and its so doing, generally takes the form of stimulants or intoxicants. Somebody once said that this craving for stimulants was but a proof of the fact that man had a higher nature that was constantly trying to escape from the clogging environments of the flesh. But the individual who tries to soar into the upper spheres of spiritual enjoyment through the medium of a bad whiskey jag, or other cheap booze, must have a queer idea of the best way of attaining soul development. But let that pass. What this little comment has to do with, is the very latest method of becoming drunk, which is by the constant inhalation of smelling-salts.

So great a hold has the smelling-salts habit gained upon the modern woman, it is declared, that when she is deprived of them, she experiences all the cravings that afflict the person who dearly loves liquor, and finds himself deprived of it. Some of the salts are of excessive strength, and produce a sort of stupor most gratifying to the victim. More than one woman has been suspected of drinking when her inebriety has resulted from a too liberal use of the smelling-bottle.

Not long ago, an English titled lady was carried from the cloak-room of a grand reception in London in a state of helplessness. A bottle was found in the folds of her gown containing matter of a strength sufficient to take away the breath of an ordinary person. The rumor spread with wonderful precision that my lady was a confirmed drunkard —this smelling-salts theory being derided by the majority—and the victim found it necessary to withdraw from the social circle she had long graced.

Indulgence in this habit may become expensive, for the seasoned subject soon exhausts the strength of the salts. As stimulation of the olfactory nerves is not alone the reason of this practice, it becomes necessary to renew the supply, and once enchained, the slave will accept nothing that will not yield full virtues. The story is told of an elderly lady who called upon a chemist every two or three days and requested the replenishing of no fewer than eight smelling-bottles, some of which were not of a diminutive size.

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**"The laws of health, although liberal and apparently plastic, are in reality as inexorable as time and gravitation."—Dr. Felix Oswald.**