

STRENGTH

JULY 1920

Bone Strength
vs.
Muscle Strength

22

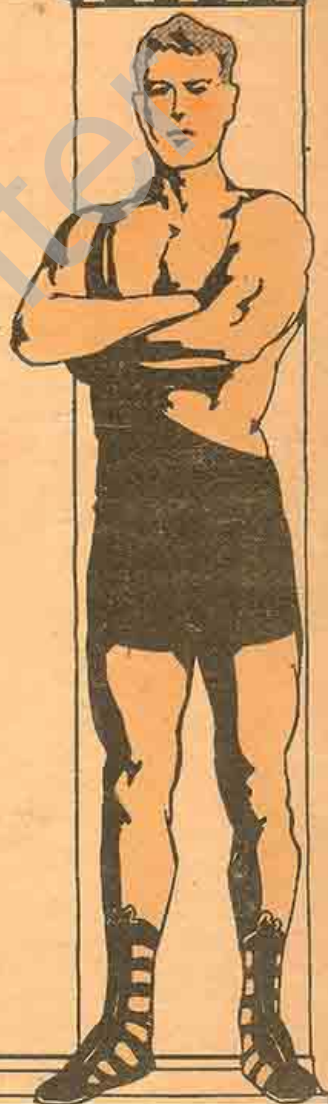
Roman Rings

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The Development
of the Shoulders

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STRENGTH

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EDITORIAL

That the necessity of good health is being recognized not only by individuals, but is also given official recognition is evidenced by the Physical Improvement and Physical Perfection contests held under the auspices of the Delaware State Fair Association and the Wilmington Community Service, open to all residents of the State of Delaware.

The Physical Improvement contest is divided into three classes for men and three for women, each class graded according to age. The physical perfection contest consists of two classes, one for men and one for women. Silver cups will be awarded to the winners in each class. This contest is open to everyone on an equal basis, regardless of age or physical condition, and is arranged to encourage the people of Delaware to improve themselves physically and mentally; and to arouse interest in healthful living. The leaders of this movement rightly believe that "It is possible for every man and woman to enjoy abundant health and a well balanced physique. Every person should understand how to make the most of himself and reach a condition of physical fitness and mental alertness which will enable him to make the most of his opportunities. The chief factors in promoting health are proper and systematic exercise, substantial food, a proper amount of sleep, proper bathing habits, suitable clothing, healthful occupations and wholesome recreation. Definite systematic exercise is absolutely essential to health."

This movement does not stop with staging the contest, but has also provided for a special development class, free to all, under the direction of a former athletic instructor of the U. S. Army.

Delaware is one of the smallest states of the Union in area and population. That it is not correspondingly small in intelligence and progressiveness is quite obvious. Many states have elaborate public health departments, intended primarily to cure disease and to check its spread on discovery. Let's have more of them modelled after the Delaware ideas—ones that will help prevent disease by arousing public interest in good health.



We are all of us more or less lazy by nature. And when the first warm days of summer come, we are likely to forget our good intentions or habits of exercising formed during the cooler months, and to think that exercise is not at all necessary during the summer, which is a good enough excuse to cover our natural laziness—the real reason for not wanting to exercise.

As a matter of fact, regular exercise is of just as much importance in summer as in winter. There are very few men whose time permits them sufficient indulgence in their favorite sports or recreations to provide enough exercise to keep them in first class physical condition. It would take a well balanced and varied program and several hours' time a day to do this. While it might be an excellent way of spending the summer, there are comparatively few who have the time to do so.

Regularity in exercise is absolutely necessary if we would keep in good health and fit to fight the battles of life. When you feel this laziness stealing over you, you can be quite sure that it is a condition of the mind as well as of the body. The mind commands and the body obeys. When we speak of a man as being lazy, it implies sluggish habits of thought as well as of action. And in these strenuous days, who can afford the luxury of a lazy body and a sluggish mind?

There is, of course, a vast difference between laziness and restfulness. After we have accomplished some difficult or tedious tasks, the body cries out with fatigue, and we feel that we have earned a much-needed rest; and it is absolutely essential to good health that we obtain this rest. This is only a temporary condition and perfectly normal. But when the desire for rest becomes perpetual, it is laziness. Fight it as you would the plague.

22

You, Mr. Man, whose breath is getting shorter each year, whose waist line is growing and whose muscles are flabby,—are you in as good condition today as you were ten years ago, or five years ago? Can you swim as far, run as fast, or hit a ball as hard? Getting old? Forget it. You should be in as good shape at fifty as you were at twenty. Making due allowances for the exuberance of youthful spirits, you should be able to duplicate and surpass the feats of your youth.

To use the slogan of the Salvation Army, "a man may be down, but he is never out." The summer is a good time for a man to determine just how far he is down. Almost everyone takes a vacation of some sort. Use yours to good advantage, and take stock of your physical condition. Use your eyes on the bathing beaches, the ball fields, or wherever your inclinations may carry you. You may see lots of human scarecrows, but you will also see some pretty fair examples of physical development. Compare your own physique with the best, and then dig in with the determination of equalling or bettering that development. Don't let anyone tell you it can't be done. Remember, "A man may be down, but he is never out."

Bone Strength vs. Muscle Strength

By Alan Calvert

When I was a boy I remember having owned a volume entitled "Magic," and one of the chapters of this volume was called the "Magic of Strength." This chapter described the marvelous feats performed by several athletes who lived in the Eighteenth Century. All these feats were tricks, and were not genuine tests of strength. I can remember very distinctly the old wood-cuts which illustrated this chapter, one of which showed a man standing on a high platform; around his waist was a belt and to this belt was tied one end of a rope, and on the other end of the rope was hanging a two-thousand-pound cannon. This feat was given as a sample of the different lifts performed by the Eighteenth Century athletes. As a matter of fact it was not a lift at all, but was really what is known as a "supporting feat," and it illustrates the natural strength which lies in a man's bony construction. The bones of the hips form a natural arch and this arch is capable of sustaining an immense amount of pressure, if the pressure is applied from outside the curve of this arch. This feat is used to the present day on the variety stage and generally creates a great impression on the audience. It seems like a wonderful thing for a man to stand upright and support a ton hanging from a rope which is tied around his waist; but almost any sturdily-built mechanic, or day laborer, could easily perform the feat.

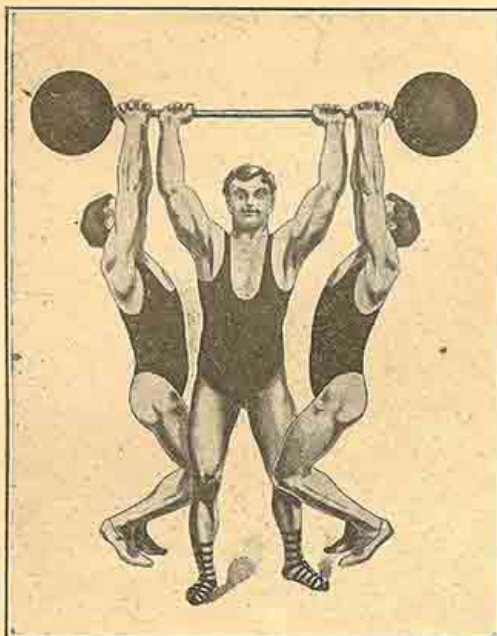
Several years ago in New York City I

saw an athlete, who has considerable fame as a back-lifter, raise from the ground a weight of 1,000 pounds 100 times in 75 seconds, and he did it by what is known as the hip lift; that is, he stood on a small platform above the weight, had a belt fastened around his waist, and lifted and lowered the weight by alternately straightening and bending his legs at the knees.

Another attractive supporting feat is known as the bridge lift. The athlete supports himself on his hands and feet. A specially prepared board (which is heavily padded on the under side) is then rested upon his knees and on the points of his shoulders. At right angles to this board, and resting upon it, is a long plank; and on this plank are assembled the weights which the athlete has to support. The important point is that the cross plank must be placed much nearer to the knees than to the shoulders, so that most of the strain is thrown upon the bones of the leg. I have seen a man support in this way twenty other men, total weight of over 3,000 pounds. Sandow, who introduced this feat in America, used to support three small horses. An athlete in Europe recently supported a small elephant in this manner. I have seen a comparatively slender woman, who certainly did not weigh over 140 pounds, support in the bridge lift a number of men and heavy iron dumb bells, whose aggregate weight was nearly a ton. Recently two or three



The Human Bridge



Supporting 600 lbs above head on straight arms.
Not as hard as pressing-up a 225 lb. bell.

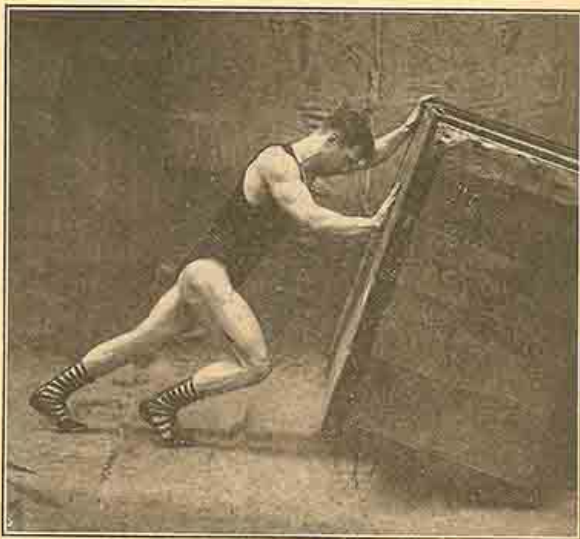
American strong men have introduced a variation in the feat by allowing an automobile to run across a long plank. One end of the plank is rested on the ground, the automobile runs up the plank from this end, crosses the man's body, and as the plank tips, runs down and off the other end. In this way the athlete supports the weight for only a fraction of a second and it is not nearly as difficult to do this as to support a pair of horses for a couple of moments.

If the reader wishes to test for himself the remarkable strength of the bones of the lower leg, let him sit on an ordinary chair and put a 12-inch plank across the knees; sit well forward in the chair and put a cushion under the plank to act as a pad. You will find that you will be able to support the weight of seven or eight people sitting on the plank without making any exertion, or feeling any strain on the legs.

I might mention that when the bridge feat is performed, the athlete always keeps his head towards the audience when he assumes the bridge position. This is not accident, but design. In the first place, it prevents the audience from seeing that the cross plank is really above his knees, instead of over his chest; and in the second place it enables him to make a wonderful display of his tricep muscles. If a man stands with his arm hanging

at his side, with the palm of the hand front, and then straightens his arm, he will feel the muscle on the back of the upper arm tighten; this is the tricep muscle referred to above. Now, if the reader will raise his arm backwards, still keeping it rigid, he will feel the tricep muscle tighten more and more, until the tension becomes almost painful and the muscle stands out in knots. When the athlete assumes the bridge position his arms are, of course, rigid and drawn behind him and the tricep muscles stand out prominently, even before the weight is put on the cross plank. As the weight is put in place the lifter will throw all the tension possible on the arm muscles; and the spectators, who see only the top of his head and shoulders and the back of his arm, notice that the tricep muscle is in a state of high flexion, and naturally assume that the arms are doing a large part of the work. These things are only detail, but they show how a professional will work in order to create an impression.

Lifters sometimes gain great reputations by holding enormous weights at arm's length above the head. This is very much easier than lifting an equal amount of weight from the shoulder to arm's length. A man who can push up one hundred pounds should be able to support, on the straight arm, at least two hundred and fifty pounds. The illustration on Page 5 shows an easy but impressive feat of strength which can be performed with two men and a light bar bell. Sometimes it is performed with an iron rod instead of a bar bell. One man stands at each end of the bar and holds it above his head, as shown in the illustra-



Showing how the strength of the legs is employed in moving heavy crates.

tion. The lifter steps in between the two men, bends his knees until he can get beneath the bar with straight arms; and then, by straightening his legs, he can raise the whole weight from the ground. The strength of the legs and back raises the weight, and all the arms have to do is to support it. Any intelligent workman who handles bulky packages of goods applies this same principle. When a stevedore has to up-end a large box, or crate, he never stands close to the object and attempts to move it by straightening his arms. He will, instead, stand about two feet from the crate and lean against it with perfectly straight arms, and then by throwing his weight against the crate and by pushing with his legs, he will be easily able to overturn it.

The same principle of utilizing the strength of the back and legs is applied to almost all supporting feats. For instance, an even more striking variation of the feat just mentioned is to support the weight of two men and a bar-bell on one upraised arm. Thomas Inch first introduced this feat and supported 500 pounds in this manner. Back in the nineties Sandow used to carry a horse across the theatre stage in the following manner: A very heavy girth was fastened around the horse, and the

horse was then hauled about six feet in the air by means of a block and tackle. Sandow would stand under the horse and grasp a specially prepared handle on the side of the girth. By leaning forward he would bring a large part of the horse's weight on his shoulders and on the back of his neck. The tackle would then be released, and Sandow would walk across the stage, carrying the horse with him. We copy the program in using the word "horse," but, as a matter of fact, the animal was only a good-sized pony, weighing in the neighborhood of 600 pounds.

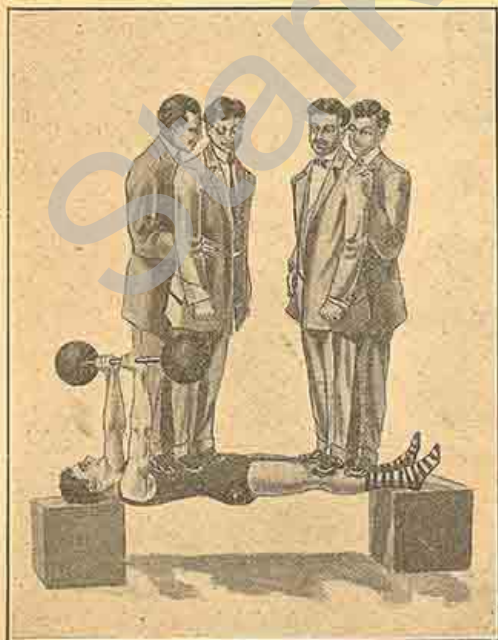
George Lurich, the noted Russian lifter, made a specialty of carrying weights in this manner, one of his feats being to carry across the stage five men hanging from a ring, which he grasped in his upraised right hand. He has also succeeded in carrying three men suspended from the middle finger of his upraised right hand.

Arthur Saxon introduced a novelty in the way of supporting feats. Instead of using the bridge feat he would lie flat on his back, raise a heavy bar-bell to arm's length and allow one man to sit on each end of the bar-bell; at the same time he would hold on a plank (which rested on the soles of his feet) as many as twelve or fifteen men. This feat is very much harder than the bridge lift. In the bridge lift almost all the strain is thrown on the bones of the leg from the knee to the ankle; whereas, in Saxon's feat, he not only had to keep the entire leg straight, but also had to balance the weight.

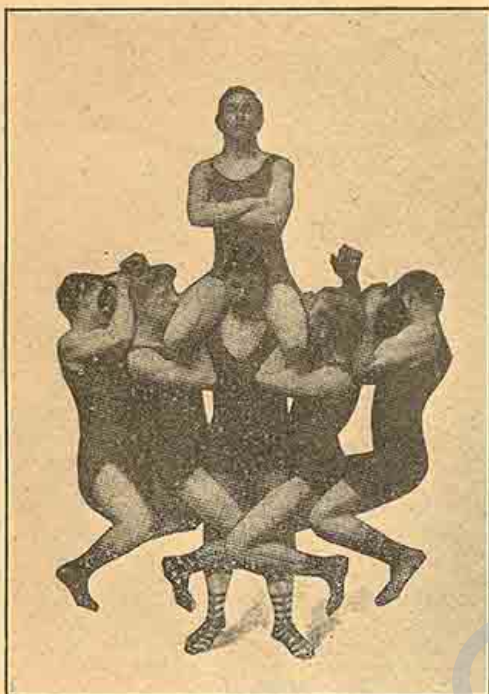
Rudolf Klar, a German amateur, who attempted to imitate Saxon, succeeded in holding twelve men in this manner, but when he attempted fifteen men the weight came down on him, breaking both legs.

The wrestlers' bridge, where a man supports his whole body on the heels and crown of his head, is another well-known supporting feat. I have seen a man in this position hold a heavy bar-bell and four men; a total of eight hundred pounds.

Another supporting feat which makes a hit is when a lifter assumes a horizontal position with his heels on the seat of one chair and back of his head on the seat of another chair and holds a few bar-bells or a number of people on his chest, abdomen and legs. The illustration shows an athlete holding a combination of live and dead



A Supporting feat that is a test of back strength



A pyramid supporting 880 lbs.

weight amounting to about 900 pounds. When this feat is performed nine out of ten people in the audience will exclaim: "My, that man must have tremendously strong muscles!" As a matter of fact the feat is a pure test of back and neck strength and the muscles of the chest and abdomen are hardly called into play.

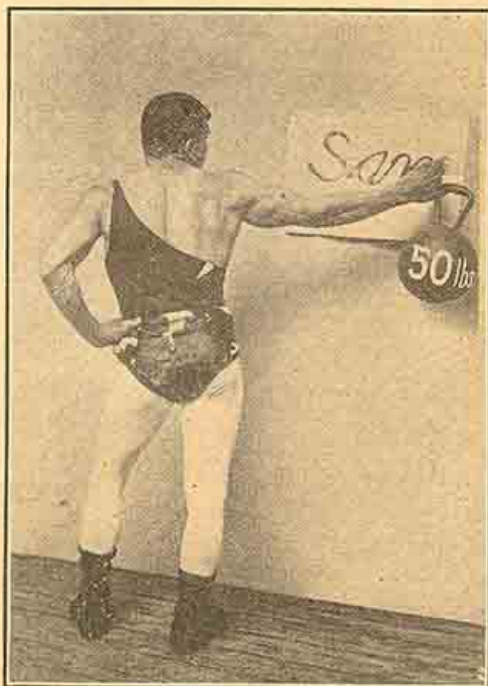
Acrobatic teams generally conclude their acts by a display of pyramid work. The largest and strongest member of the troupe will support on his shoulders, hips and outstretched arms, the remaining members of the troupe. This trick is not at all difficult; all that is necessary is to have the feet about fifteen inches apart and to concentrate all the attention upon preventing the legs from bending at the knees.

In the accompanying illustration, a lifter is shown, supporting on his shoulders a large bar-bell and five men, total weight 880 pounds. Sometimes you will see a picture of a man supporting such a load, who is apparently walking lightly across the stage. I have seen some powerful men take a few steps, while carrying on their shoulders weights of 800 or 1,000 pounds, but invariably the athlete, instead of striding out in a natural manner, takes steps about 8 inches long, and shuffles along with straight legs.

If he allows his legs to bend at the knees he and the weight would come down in a heap.

To return to the book which I mentioned at the beginning of this chapter, I recall two other feats that were mentioned. In one feat the athlete sat on an inclined plane with his feet braced against a vertical board. A rope was tied around his waist and passed through a hole in the vertical board, and pulling on this rope was a team of horses. This feat worked on the same principles as in the common supporting feat before mentioned.

Another startling feat described in this old book, and which is still popular in circuses and variety theatres, is performed as follows: An athlete will lie flat on his back and hold on his chest a heavy stone, or iron anvil, which must weight at least 300 pounds. Small stones are then placed upon the anvil (or large stone) and an assistant will break the small stones by repeated blows of a sledge hammer. The only hard part of this feat is to support the weight of the anvil. If this is sufficiently large and heavy, it absorbs all the shock and the man who is doing the supporting act hardly feels the blows of the sledge hammer.



The Feat as Advertised



The Feat as performed

The illustrations will show the difference between a strong man's feat of strength, as advertised, and as actually performed. The first picture shows a man who is apparently writing his name on the wall, while he has suspended from his little finger a 50-pound weight. This would be impossible for any man in the world, if he stood in the position shown in the first illustration. In the second illustration we see how the feat is actually performed. Instead of a weight hanging from the finger, it actually hangs from the septum between the third and little fingers. Instead of holding the weight at arm's length, the performer will deftly turn it until it rests on the back of his forearm and his biceps muscles. He then stands close to the wall and writes his name, and in this way the feat is dead easy. After taking the second picture, the photographer performed the feat, and yet he could not hold 20 pounds out on the palm of his hand in the position shown in the first picture.

If a professional wishes to create the impression that he is a champion at one-arm lifting, he can often make his point by having a photograph taken showing him holding above his head with one arm an enormous bar-bell. In describing his own picture he can state that he lifts 250, 300 or 350 pounds above the head with one arm, just as the fancy strikes him. He may or may not have lifted the bell into position with one arm. The chances are that the bell was pulled into position with ropes before the picture was taken. Sandow used to say: "I believe that I could hold almost any amount of weight above my head on a straight arm if it was lifted into position for me." If a man can push up 100 pounds he ought to be able to support 250 pounds in a straight arm. George Lurich, whose best one-arm push was 265 pounds, has supported 750 pounds above his head on a straight arm.

The careful reader has probably perceived for himself that in all supporting feats, the weight is supported by the strength of the bones, while, when a weight is actually lifted or moved, the work is thrown on the muscles. If you want to know how strong a man is you can find out how much he can lift or carry. "Supporting feats" are not tests of strength. The fact that a man can assume a certain position and support a weight of several pounds does not prove that he is a particle stronger than the average sturdy day-laborer.

DO YOU LIKE STRENGTH?

We are not looking for bouquets —if you like it, tell your friends! This magazine is published for you, and it is our aim to make it of real importance to every man who is interested in bettering his physical condition. We feel that Strength is improving with each issue, and will be glad to receive suggestions from any of the readers of Strength. If the kind of articles which you feel would be of greatest help to you are not printed, why not drop a few lines to the Editor? He will be pleased to receive your suggestions, and will try to give you what you want.

At the request of several readers, there will be a question and answer department in the next issue of Strength, and in each issue thereafter. All questions relating to development, methods of training, records, etc., will be answered in this column. Address all questions to the Question Box.

Roman Rings

By Joseph V. Prada.

The advantages of Roman rings over all other apparatus and appliances for exercising the human body are many and decided. In considering exercising apparatus and appliances we must necessarily bear in mind what advantages, if any, they offer. First of all, we should consider the results to be obtained by this and that method of exercising the human frame, before we should venture to assay any of the better known systems of exercise, or the many new fangled methods, so common nowadays and widely advertised throughout the country. The results to be obtained from the use of Roman rings are positive and lasting; positive, because no one who has assiduously exercised, say for two years or a little less, on this apparatus, can fail to admit that the muscles developed are of such con-texture and size as to readily manifest a marked superiority over all other forms of exercise; with exception, possibly, of weight lifting proper.

And this must necessarily be so; anybody who can easily perform some of the stunts and exercises on the Roman rings, such as the handstands possible on this apparatus, the plagues and the crucifix, not to mention others equally as difficult; must necessarily possess a degree of strength and musculature as can only come from the methodical use of the muscles involved in the different feats; having one's weight as a resistance to overcome throughout the routine of the training. The heavier the weight of the performer, the greater the development acquired. This of course, only means added strength and greater size of the muscles themselves. What muscles are developed on the Roman rings? Principally those of the arms, back and chest, that is, the whole of the torso will be greatly benefitted by the constant and proper exercising on this apparatus. Can the legs be developed from the use of Roman rings? Not advantageously or to any appreciable degree. This defect, however, is an adjunct of all forms of suspended apparatus for exercising the body, and which can be easily supplanted by adding weight lifting exercises for the legs in connection with ring work. The results are lasting, because any one who has faithfully trained on this apparatus, even though he may have left off his former habit of exercising, will readily evince to the fact that soon after re-

suming training, even after extended periods of inactivity; everything will "come back" to you.

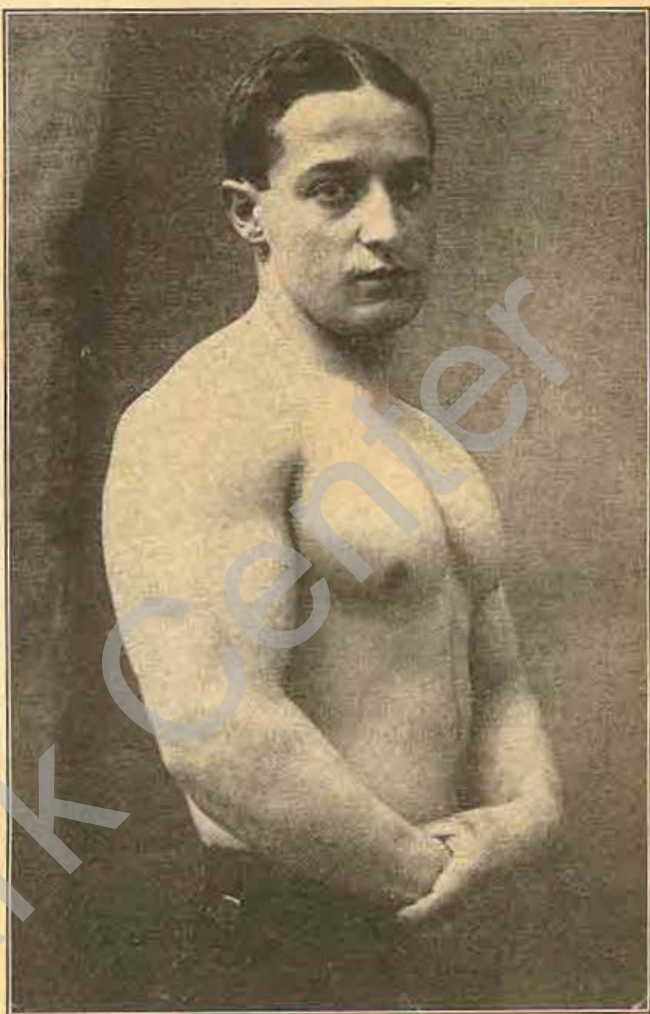
Another advantage of Roman rings, and one not to be overlooked, is the comparatively small space and room taken up by the apparatus itself in being installed. The size and general essence of the apparatus is out of all proportion to the beneficial and gratifying results to be obtained by the faithful and proper use of same. Roman rings should be made of the proper thickness iron bar and should be nicely burnished, so as not to hurt the hands, in fact, the rings should fit the hands snugly, being neither too thick nor too thin. They should be of an inside diameter of $7\frac{1}{2}$ inches and they should be set apart from each other at a distance of say 18 inches or a little more, according to the breadth of shoulders of the would-be performer. The ropes suspending them should be strong; and when hanging from the rings there should be no "slack", as this would be a serious impediment to the proper execution of the exercises and feats. In this connection I would recommend that chains be used instead of ropes. They should not be very heavy, but strong enough to support the gymnast without any undue strain. There are also swinging rings, but when strictly referring to Roman rings, the diameter to be adhered to is the one mentioned above. The length of the chains or ropes should be about seven feet in length, so as to admit of a perfect handstand to be performed. In other words, the feet should in no case touch the ceiling of the room or place from which they are to be suspended.

In executing a perfect handstand this will be a serious obstacle to the execution of many a pretty and meritorious combination possible on the rings. It has been my experience and one that often disappointed me, that in installing rings in the ordinary rooms and dens of modern house constructions, the impediment referred to will always be encountered, because of the prevailing low ceilings. In this connection, it goes without saying that the non-attendance of a perfect handstand on the rings, because of the lowness of the place from where they are to be suspended, will greatly handicap the performer in executing

and arriving at some of the nicest and most difficult combinations which can be performed on the apparatus in question. However, great results can also be achieved when the height is sufficient to allow of a perfect "full mount" to be done.

Are Roman rings hard? That is, does this apparatus, one of the many installed in clubs and gymnasiums, but seldom used and even touched by the members or attendants,—offer any particular difficulties to be overcome in the various exercises and feats to be performed, let alone special stunts executed by professionals or experts? Unquestionably they are. Any frequenter of gymnasiums and athletic clubs will readily tell you so, also the "profession" will readily admit that Roman rings is the hardest apparatus on the stage. Yes, they are hard, but everything that is hard and worth while in this world offers exceptional results—providing one is willing to put forth his efforts and show his mettle—that are not only gratifying and beneficial but astounding as well. Is this apparatus not attractive enough in itself to make it more popular than it really is? This seems to be the prevailing conception. I should say misconception, but I am sure that it is an erroneous one. The exercises and feats are very attractive when properly done, and the "stuff" absolutely necessary to the proper execution of first-class ring performing is an asset in itself worth striving for.

Here in America the use of Roman rings is limited indeed. The difficulties presented before, and the fact that Americans, especially gymnasts, are more partial to the use of the horizontal bar and the parallel bar and other apparatus, makes Roman rings negligible in the gymnastic field. Europeans are more partial to the use of Roman rings, one of the "strong acts" in the gymnastic repertoire on the stage. Frenchmen and Germans distinguish themselves as real performers on the apparatus at issue. The "stars" are always to be found among the nationalities mentioned, and their great superiority cannot be questioned. I am perfectly aware that there is a considerable amount of ring performing going on in the



Joseph V. Prada

vaudeville theaters, and also outside of the stage by experts and amateurs, but in my opinion the kind of ring performing referred to does not come strictly under the classification of "strong acts." Hence my assertion alluding to the kind of Roman rings performances often seen in the vaudeville theatres and circuses, where there is little display of genuine skill and strength, but a lot of stalling characterized by not a few "back yard" stunts, executed by artists who are fortunate in having a pretty face, and to help them along, a prettier girl also. They usually get away with their "stuff," the public being none the wiser for it.

To depart from my rather long preamble, I shall now proceed to explain some of the better known exercises and feats. I say some, because it is only after considerable experience when the gymnast has acquired proficiency and strength, that new feats and combinations will readily suggest themselves. I assume that most of my readers ignore the value of exercising and training on the Roman rings as a means of acquiring a beautiful and vigorous development, therefore, I shall start by explaining the method that would necessarily be followed by one about to begin training and exercising on the apparatus in mind. First of all you must learn properly to "chin" yourself with both hands until a count of at least twenty is reached. Once you have mastered this exercise, which is known as "chinning," and which should be a slow deliberate pulling of the body, hanging at full length, until the shoulders reach the level of the rings themselves; you can then begin to try what is known in Roman ring gymnastics as the "full mount". This feat is the key to all ring exercises and feats and should be thoroughly mastered, until you can easily do this exercise at least eight times.

THE FULL MOUNT (two methods).— This feat is to be practised and executed by what is known as the "double grip", that is, the hands should rest on the rings midway between the wrist and the hand itself, in this connection I wish to say that all feats and exercises on the Roman rings are to be practiced and executed by the double grip, until such a time when the gymnast has acquired such a degree of proficiency and strength as to be able to do entirely away with it and resort to the "single" grip, or the ordinary grip that would be naturally assumed by one who has not the least experience on the rings. However, in my extended experience as a ring gymnast, I shall frankly say that the "double grip" is always to be preferred in practising and executing most of the feats and exercises possible on this apparatus. Gymnasts will readily resort to this grip as it insures greater ease and efficiency for the proper execution of the feats and exercises on this apparatus. The single grip or ordinary grip, however, should be used in doing the front and back "planges" and for combinations; for the planges when performed singly, because of the muscles involved in these feats; and which with the double grip cannot anatomically perform their task to the best of advantage. For all other overhead, or over the rings exercises, the double grip is always to be used and adhered to. How to perform the "Full mount." Method No. 1: Providing you can now *double grip* and chin yourself, say eight or ten times, by a vigorous chinning, and once your shoulders have reached the level of the rings, a powerful lunge throwing out your chest and legs slightly backward will place you above the rings, from which position, it is only necessary to do a press to full arms' length to complete what is

known as the "full mount". Method No. 2: Very few indeed are able to accomplish it, and even professionals and experts seem to ignore that it can be accomplished in this way. Once mastered it means astounding ease to "full mount" on the rings, and as I said before, this being the "key" to all other feats and exercises, it should be practised, persevering until you have fully mastered it. The strength and development acquired until this method of "full mounting" is completely mastered throughout the routine of your training, will be not only be gratifying and surprising, but you will have made great headway in overcoming the principal difficulty in executing the most difficult stunts and feats on the Roman rings. I remember that when I used to perform on them, about eight years ago, my friends often seeing me, would exclaim that I seemed to be cutting butter, to use the very phrase they would use in expressing the remarkable ease with which I went up over the rings in the "full mount". At the time I was 21 years of age, and only weighing 120 pounds, had upper arms measuring 15 inches and forearms of 12½, you will therefore see that I am not exaggerating in the least.

Method No. 2 for the "Full Mount": Double grip the rings and hang all the way down, and begin chinning yourself in the position often assumed by those who are desirous of demonstrating a powerful biceps development, often seen in the front-view photographs of athletes generally. Continue chinning in this way, until the shoulders reach the level of the rings, then make a most powerful effort (for most powerful it must be) and try to go over them in a perfectly straight position, without throwing out your chest or your legs slightly backward. This will seem almost impossible at the start, but keep at it and you will be amply rewarded. When you reach the level of the rings with your shoulders, it is where the "kink" comes in, but as I say, persevere until you can fully master this feat, going perfectly straight without throwing out your chest and with no visible movement either way, of the legs. This stunt should be practised until you can total a count of at least eight easy "full mounts" in this particular manner. It is superfluous to say that chinning in the way described above is in itself much more difficult than in the common manner, let alone trying to go over the rings in a "full mount", keeping the body in a perfectly straight position. I assure you that once you have completely mastered this feat, the advantages referred to above will more than clearly manifest themselves in greater strength and development. It is a very pretty way of "full mounting", and as I say, seldom used even by professionals or experts outside of the stage. **SLOW FULL MOUNT**: This feat consists in what its very name would imply. It is a slow full mount on the rings, coming down also slow and to be really meritorious

and to show the gymnast's or athlete's development, it should be performed in the position outlined for the "full mount", No 2, until the shoulders reach the level of the rings, when then it is permissible to slightly throw out your chest and the legs slightly backward. It should also be done as slow as the performer can manage it without showing the least quivering either of the muscles themselves or the ropes or chains suspending the rings. The feat is completed after the gymnast is once more hanging from the original position, when he should let go of the rings as easily as he placed his hands on them at the beginning of the stunt. The feat as outlined is one which the utmost ease in execution should be shown, and as explained, there should not be the least quivering of the muscles, the ropes or chains.

HANDSTAND: There are many ways of performing a handstand on the Roman rings, and I shall only explain two or three of the most common, but not by any means, the most difficult. After the gymnast has accomplished a "full mount" in a thorough manner, he is to proceed to try the handstand, which is executed in the same way that it would be performed on the floor or on a table. He should be very careful to make a very neat *bend* at the waist, so as to insure that the rings be perfectly still, or otherwise, if not careful, he will inevitably go over. Having performed the handstand he is to return to the original position. This feat should be practised until easily executed. Method No. 2: This way of doing a handstand on the rings is quite common among the profession, and it is known as a "back circle into a handstand". It is performed by double gripping the rings, then curling the body upwards, he is to try to go over them in an inverted position, once having reached the overhead position; he is to try to reinverse, striking a handstand and completing the feat by going up at full arm-length. It is needless to say that it is quite hard, but not as difficult as it would appear at first. It is showy and when mixed up with another feat, the general result is pleasing in appearance and takes on. Another way of performing a handstand on the rings is to raise the body in a horizontal position after you have completed the "full mount". This is somewhat more difficult than the first manner described as it takes more strength of the triceps and the deltoid muscles. **SWINGING HANDSTAND:** This is a handstand performed in any of the three ways just explained, and holding same when the rings are swung either by a momentum produced by the gymnast himself or by some other person. It is very difficult and usually requires considerable experience to perform this feat with ease.

FRONT PLANGE: This feat requires good development of the forearm muscles and the muscles of the small of the back. The gymnast takes hold of the rings by the single grip, and is to try to hold his body in a perfectly

horizontal position for about five or eight seconds. It will appear at first almost impossible to hold the horizontal position, but with Roman rings, this is always the case in attempting the feats and exercises to be executed on them. However, as explained before, persevere and you will succeed. You will be able to accomplish the feat after some practice and then you can begin to try to hold in this position another gymnast or your partner, taking hold of your shoulders and performing the same feat, even a second person can take hold of the first and you will be able to maintain the horizontal position necessary for the accomplishment of the stunt. This feat is very nice if properly done, and when executed in a combination as outlined, it has the tendency to create the impression that the first one performing the stunt has almost superhuman strength, but as a matter of fact, after you can easily accomplish it by yourself alone, the added weight of others will only be an advantage. Any one who can do this feat properly and hold it the length of time pointed out will tell you so.

BLACK PLANGE: This stunt is to be practised, both with the single and the double grip. The performer takes hold of the rings either way, and tries to assume a horizontal position facing downward, by bringing his body between the rings in a perfectly straight position until he strikes the plange, which should be held the length of time indicated for the front plange, in a horizontal position. This also admits of combinations by the other gymnasts performing either the front plange or the same stunt by hanging from the first man's neck. It should be also practised by the double grip, as this feat is always used mixed up with other stunts in combinations, and of course, for combinations, the double grip is to be used.

SLOW OR FAST REVOLVE: This exercise or feat consists in revolving over the rings in either a fast way or speedy one. Once the gymnast has accomplished a full mount, he is to try this exercise. The rings should be double gripped and the revolving, preferably should be done fast. This feat can also be executed keeping the body in a horizontal position, it is then somewhat more difficult, as the weight of the body, in this case, falls directly on the muscles of the arms alone. Usually it is preferable to do it fast as it has a better effect and should be completed by executing what is known as a "cut off", that is the gymnast lands on the floor or ground in a graceful manner, by having his hands under the rings and letting go at the right moment. He should be sure of executing the "cut off" neatly and at perfect ease, otherwise, he will sprawl over. He should be perfectly sure of it, or he will bungle the feat.

THE CRUCIFIX: This stunt consists in supporting the body in the form of a cross after a "full mount" is performed. Undoubt-

edly if not the hardest stunt on the Roman rings, it is one of the most difficult, as it requires terrific strength of the arms and back muscles. It is very easily explained but not so easily performed. The gymnast once he has completed a perfect "full mount" begins to come down slowly at the same time spreading his arms in a perfectly straight position. Once he reaches the position of the cross, or once his arms are on the level of the shoulders he is to hold same for about five seconds, at any rate, long enough to allow him return to original position. The feat should be done three times in succession, each time returning to the original position, gracefully and with perfect ease. It is needless to say that to do this feat properly, requires great strength of the arms as I have referred to above, and it is only the gymnast who has considerable experience that may attempt same, as it should be done with perfect ease and elegance. Few professionals or experts can do it properly, and much less the number of times indicated to be in any way meritorious and worthy. It should not be attempted by the beginner until he can easily accomplish at least six "full mounts", as described for Method No. 2, that is, by going up in the full mount in a perfectly straight position.

INVERTED CRUCIFIX: This stunt is what its very name implies. The gymnast after he has executed a perfect full mount, is to do a handstand, and from this position he is to start downward until his arms are wholly spread out and on the level with the shoulders. This is very much harder by reason of the balance that the gymnast must keep while executing the inverted cross in holding the handstand. It should be mixed with some other feat to be meritorious.

FULL MOUNT WITHOUT BENDING AT THE ELBOW: By many this is considered the most difficult feat on the Roman rings. It consists in "full mounting" with your arms perfectly straight, and as the very name suggests "without bending at the elbow" as in the other methods of "full mounting". It is superfluous to say that it takes incredible strength and very few indeed are those who are able to accomplish it even once, not to say a number of times, which should be the case in order to really attract attention. In my wide experience as a Roman gymnast, having seen the best performers in the United States; I have only seen one performer who could easily do it three times in succession. He was the comedy man in an act which gave an all round performance of ring work, tumbling and hand-to-hand performances. I myself was just beginning to master this feat, when an unforeseen vicissitude in my life came along and I had to stop training altogether. This was in 1912.

In conclusion I wish to say that I shall be very glad to correspond with any of my



readers who might have become interested in Roman rings on reading this article, or from those who may be already experienced gymnasts on the apparatus in question. I truly believe that due to my extended experience I am in a position to answer one and all questions concerning Roman rings, and I shall only be too glad to make anything clearer to those in whom I might have created an interest, by trying to solve their difficulties in grappling with the subject at hand. My complete address may be had from the Milo Bar Bell Company.

Muscle Coaching

By L. E. Eubanks.

Few people of today question the value of physical exercise. When you meet a person who does you will note one peculiarity: whereas the doubter of an established fact in most other lines is a person who has no first-hand knowledge of the thing, the "unbeliever" in exercise nearly always speaks from experience—some experience.

The hardest fellow for a teacher of physical culture to win over is the one who has tried some system and been disappointed. One of the most enthusiastic pupils I ever had was a man of 32 who had five years before given up exercise in disgust. He, like many others, learned that there is a vast difference in systems."

The trainer who said that the first essential for success in physical training is interest was only partially right. Interest most assuredly is essential, a *sine qua non*, but it will not last long—not long enough for the exerciser to win any worth-while success—without justification. I can say from experience that most people are, from the very first, interested in physical excellence and methods of its attainment; start the subject anywhere, even in mixed company, and you will have an attentive audience immediately.

Why is it then if interest is so general that many abandon exercise after a few months, or if they continue work at it in such a desultory way? It is failure of the promised results to appear. Make no mistake about it, most human interest is founded on personal considerations—"what am I going to get out of it?" The hoped-for reward is what gives the energy and patience to hammer away; it may be booty or beauty, salvage or salvation, but material or immaterial, we want it when we feel that we have earned it.

The acquaintance above referred to told me that his interest had been of the very keenest. He not only wanted fine health and physique but believed he would win them. Every day for ten months he had put in from fifteen minutes to an hour with 5-pound dumb-bells.

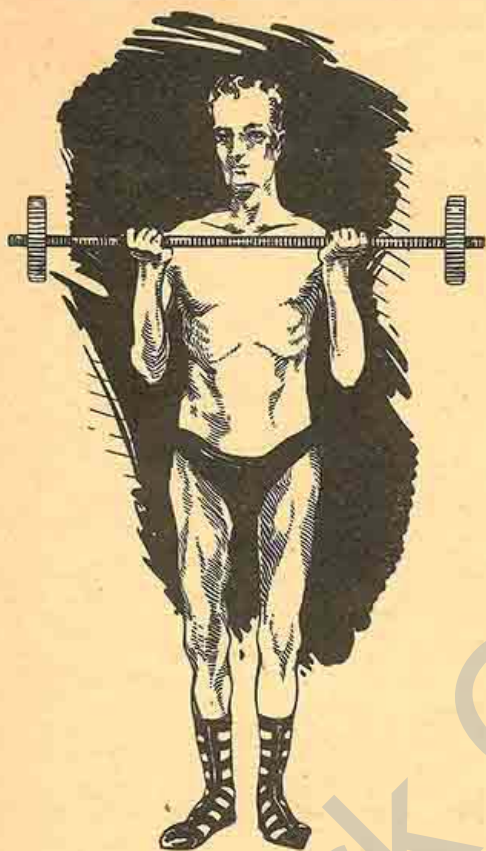
But faith is not enough. It is said to have moved mountains, but it can not make muscle, not in the absence of material requirements. At the end of three months my friend was surprised to find no appreciable improvement in his strength and muscle girths. His advisers explained that it sometimes took six months to get well started, etc., and he continued. The increase in number of movements had now made the work tedious and wearing. The victim tried heroically to keep up his en-

thusiasm, but felt it and his confidence weakening. A few more months and interest was gone; how could it live with nothing to feed on? Enthusiasm gave place to skepticism; he kept up the work a while longer, he really knew not why; but concluded that all muscular marvels were "born that way."

It is not interest, in itself, but something underlying it that I should call the greatest factor in successful muscle culture. I refer to PROGRESSION, advancement, results, gains that can be felt, seen and measured. Progression is the essence of success. It is success—in anything. Among physical culture teachers it is common knowledge that the man who trains for muscle and strength nearly always sticks to the work better than the one who "merely exercises for health." Now health is of more importance than muscle, but unless a fellow is frightened through being really ill he "gets tired", feeling he doesn't see much improvement.

Development ends when effort does. It is a law of nature that up to a reasonable point rewards are commensurate with work, quality of work. Progression in body culture gives the muscles harder and yet a little harder work, develops new powers in the natural way. True, there is a kind of progression in calisthenics and light dumb-bell work, an increase in the repetitions of each movement. The muscles gain a little in endurance, and sometimes in size, but the steady increase in amount of work is ridiculously disproportionate to the gains made. It is intensity of contractions rather than their number that develops muscle, and this fundamental fact indicates that progression in our demands on our muscles should be based on quality of exercise, its severity, not its duration.

George Elliott Flint, a staunch advocate of progression in body training, has this to say of the time element in exercise: "The theory that light weights will better develop a man than will heavy weights, is attractive chiefly in that it implies but little labor. The implication, however, is illusory; for, in order to produce even slight results, light exercise must be continued for a long time, which besides demanding much leisure, makes the work as monotonous as it is unsatisfactory. On the other hand, heavy work, while it does imply great effort of the will as well as of the muscles, exacts but one hour and a half per week—a half-hour each exercising day,—and it never becomes monotonous, because ambition is kindled and the pride constantly gratified by



achievements that augment rapidly. One sees results, accomplishes real feats, and feels that what he is doing is worth while."

The physical status of most laborers affords one of the best possible confirmations of my claims for progression. Loggers, stevedores, furniture movers, etc., if they are in fair health to begin with, get remarkably strong from their heavy work. But they stop at an almost definite point. At first maybe the work seems quite hard, then easier, then very easy—at which point the muscular development stops. A certain hod-carrier who uses three different sizes of box told me that he had to "work up" to the largest one. He handles it very easily now, but is practically as strong as he will get without heavier work. A further proof that it is "how and not how much"—as Sandow used to say—lies in the experience of most stevedores; they feel better and can lift more when they work three times a week than when putting in six days. I have seen laborers with better frames and constitutions than has the

average professional strong man, but these could not without the proper training lift them to physical distinction. As Arthur Saxon said when asked by an Englishman why most of the champions of muscle were Continental men, the difference is not so much in the men as in the methods. None of the common forms of labor will alone bring out a man's best development.

Many people, and among them not a few physical instructors, are afraid of progression in weight of dumb-bells and such apparatus. They point out that it is carried too far, that enthusiasm leads to strain. But what are powers for? What is the use of strength if we are not going to use it, test it, cultivate and be proud of it? It is a most natural desire in anyone who has followed a system of training for a while to test his strength. With anything like reasonable care it is not going to injure any sound person accustomed to exercise to do his best occasionally. If it is, the whole theory of muscle culture falls to the ground, has no foundation, no reason for existence. Without an occasional try-out how could any athlete know when he was ready for a contest? The Marathon runner would be ill-advised to toe the mark for a race without having previously ascertained the extent of his endurance; and what would we think of the boxer who entered the ring for a championship contest of twenty rounds when he had never boxed more than six in training? He would have no way of knowing whether or not he could "go the distance."

Citing an instance of the popular misunderstanding of the basic principles of exercise, I recently sent an article on exercises for development to a leading boys' magazine. It was returned with the old, old explanation that it would cause strain, the exercises were too hard, etc. Now the editor of that periodical is a man of superior intelligence (because he buys some of my stuff!); as an editor he is "there", but I am sure that I know more about physical culture than he does. Not a one of those exercises would strain the average boy of fourteen, if he obeyed instructions. "But," the alarmists say, "he doesn't stick to directions." In that case, the trouble is in the exerciser, not the exercise; such a boy—or man—is likely to injure himself in any one of countless ways. How would it do to ignore

the directions on a medicine bottle? Also, think of refusing to eat for fear of being poisoned, or because some acquaintance died of gluttony! Common sense must be one's guide in any endeavor—sport or work.

It is progression, and that only, which develops potentialities; without trying no one knows what he can do or how far he can carry it. More than one of the world's famous strong men, perhaps most of them, thought they were "done" several times before they really reached their limit. Take the instance of Thomas Inch, a leading physical culturist and weight-lifter of England. The world regarded him as a *finished* specimen of development when his measurements were as follows: Height 5 feet, 9 inches; weight 161 pounds (this is bound to have been an under estimate, according to the measurements); chest 44 inches, normal; biceps $16\frac{1}{2}$; thigh 24; calf $16\frac{1}{2}$.

Anyone at all familiar with anthropometry can see that these figures represent a very fine development. It is not much wonder that many people thought it impossible for the man further to develop his figure.

But Inch (an uniquely fitting name!) believed he could add to his girths if he cared to. A wager was made, which the athlete proceeded to win well within the specified time, with these measurements: Height 5—10; weight (roughly) 200 pounds; chest 53 inches; biceps $19\frac{1}{8}$; thigh 27; calf 18.

Progression need not be dangerous. It is, by its very nature, adaptable to any case. Rate of increase in the weight of one's bells or in the severity of some other form of training may be rapid or slow; just as conditions require. Advance, that's the point; be the progress ever so slow, it *will* bring you somewhere finally; whereas doing the same thing over and over without any call on new resources never can raise one physically far above the average.

Hereditary characteristics over which the individual has no control have a lot to do with his developmental possibilities. It may take you three times as long to bring your physique to perfection as it does some other fellow. Even if you knew this to begin with, it would be no reason to give up. And suppose that at your best you will be considerably smaller and weaker than he, what you want is the best of

which you are capable. You do just as great a work in reaching your limit as he does in reaching his.

How long it takes is thus a secondary consideration; the time will pass anyway, so why not have a "dividend" coming? Progression, addition to your weights, will bring out your physical best, whatever that may be, and you can afford to wait for such magnificent rewards.

Even at a minimum rate of progression a man can not fail to achieve great results if he sticks to his guns. I remember the case of John Y. Smith, Boston's Y. M. C. U. Strong Man of several years back. At 25 he could handle 200 pounds with either hand, and had come into that power so gradually through adding to his dumb-bells from boyhood days that he hardly knew whence his strength had come. There had never been any strain.

Clarence Weber, Australia's strongest man, states that he never handled a weight heavier than 56 pounds till after he was 21. Then three or four years' progressive work made him a champion and developed the figure that Hackenschmidt pronounced "the most beautiful of them all." Several marvelously strong men, notably William Teurk, the Austrian lifter who broke records when in his forties, did not begin training till in their thirties; and there is none but a progressive system that would have brought these "late starters" to the front. They used weights and added to the poundage as rapidly as they safely could.

Slowness of progress, far from being a cause for discouragement, has several advantages. The man who rapidly forces his development is apt to overlook some particular weakness. In his anxiety quickly to show big arms and legs he may neglect the wrists and ankles. Over-haste in bringing up the large muscles has a tendency to embarrass the small ones. If practicing several lifts with one barbell the careless, over-anxious fellow will, for instance, insist on trying to curl the same weight that he has pressed. He dislikes to change the weight, and figures too that he'll skip a few weeks' work on the curl by beginning at this poundage. Result, maybe a strained cord in the wrist, and a set-back.

Also, a comparatively slow rate of increase in weights gives better opportunity for perfection of form in execution of the exercises or lifts.

The term "muscle forcing" has been applied to development by progressive exercises. I do not like the expression; without qualification it implies haste and strain. As I have shown, there is no reason for haste; at the most it requires but a few years fully to develop a physique. Strain is, to a certain extent, necessary for muscular development, but it is a dangerous term to use unless one's listeners understand the difference between pathological and physiological strain. The former is injurious and requires treatment, the latter is that degree of effort, nicely gaged, which calls out just a little more power by showing Nature that it is needed. We should *lead* the muscles, persistently but gently; and never force them. I like to think of the process as coaching rather than driving.

An exerciser can not maintain the same rate of progression. I have heard it said that the first inch or two on one's chest or arm was the hardest to gain, that after a man mastered the first 100 pounds in a bar-bell he could sail along swiftly, etc. Such speakers have had little experience, and do not stop to reflect. Financiers say that the first \$1000 is the hardest to acquire; but the growth of muscle does not proceed on quite the same cumulative basis as does that of a fortune. Aside from the time always required to get under headway, familiarize oneself with the movements, etc., an exerciser gains most rapidly at the beginning. The nearer you approach to perfection of development and your limit of strength the slower your progress will be. And the *harder* it will be to make a given gain—right here is the pith of the whole argument for progression in weight of apparatus.

Does improvement ever absolutely stop? This is a debatable point. It does in effect, whatever the actual facts; that is, the time comes when further advance, if there be any, is imperceptible. But as yet anthropometers are poorly equipped to measure *quality* of muscle; and who can tell how long co-ordination, responsiveness and other physio-mental attributes of muscles continue to improve after it is no longer possible—or practicable—to add another sixteenth of an inch to the biceps? No one knows. It is very significant that a lifter, gymnast, track man, any athlete, may discover some little point in "form" after he has thought for years that his execution was perfect. In a lift like the bent press, for instance, no man is ever safe in saying that he can learn no more about it.



Striving to keep up a certain rate of addition to one's weights is a mistake. As long as this can be done without over-exertion it is all right, but the time will come when progression must be slower or be unwise, if not dangerous. Be sensible and be successful; again I say, there is plenty of time.

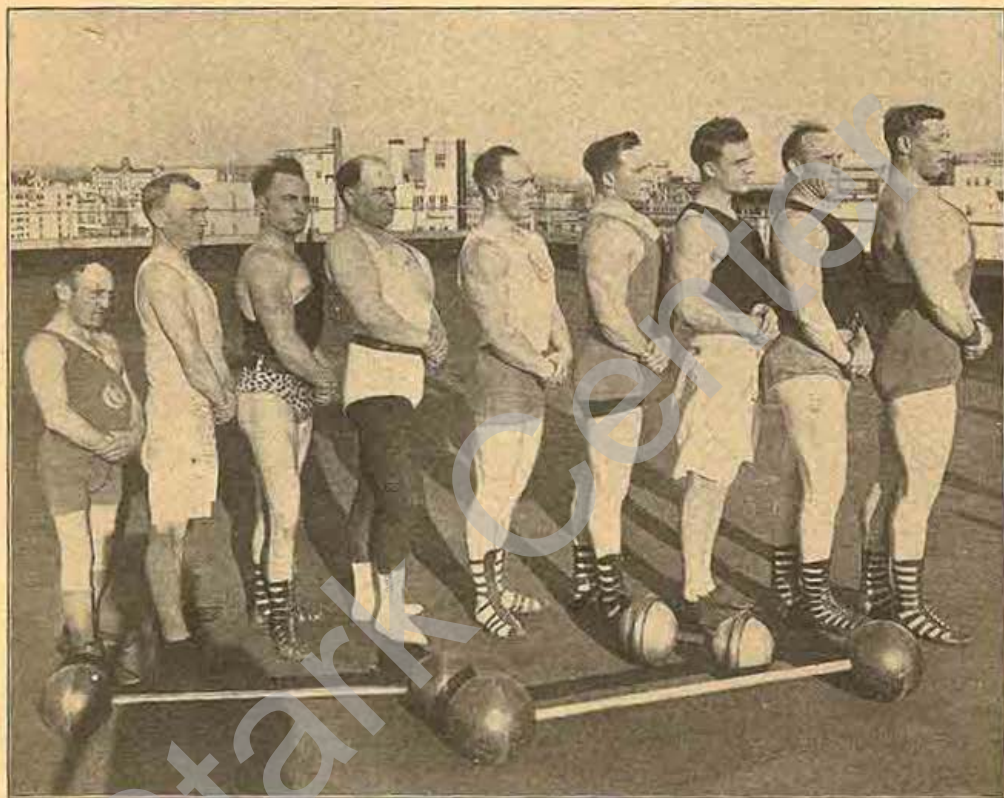
Slow increase, in addition to giving more time for perfection of form, has the advantage of lasting longer. The mental stimulus of progress is a powerful health tonic in itself, reacting on the body; and the incentive to exercise is never greater than while yet uncertain as to just how far you will get. It is obvious that a man who takes two years to reach his limit in some certain lift will get more benefit from this objective mental attitude than the one who runs his course in one year—to say nothing of the better chance given the smaller muscles by the slower additions.

Advance persistently—you *must* if you would achieve high physical aims; but be careful and take plenty of time. I am not boosting any particular system or apparatus; I am merely stating the truth as I have found it during twenty years' work in the physical culture field.

A Coterie of the Strongest Men in the United States

Athletics of the Los Angeles Athletic Club

By the Editor



The above photograph shows an aggregation of athletic stars and performers, all of whom are members of the L. A. A. C. This club, with a membership of 5000, is the most finely equipped in the United States. Its gymnasium facilities are unexcelled. Special attention is given to weight lifting under the direction of "Al" Treloar, former Orpheum Star (who won the \$1000.00 prize in Madison Square Garden, New York City, 20 years ago for being the most perfectly developed athlete in the world). Mr. Treloar is an athlete with an international reputation, has always been an enthusiast on weight lifting, and attributes his own perfect physical condition to the practice of this fascinating sport.

Left to right in the above photograph are: "Sammy" Brooks, "Paperweight" Champion; "Admiral" Long, Indian Club Champ; Mark Jones (Madono), Professional Lightweight Champion; Milo, Professional Ex-Champion of the World; "Al" Bevan, famous English lifter; Edw. W. Goodman, Champion of Southern California; Arthur Poll, Flying Rings Champion; "Al" Treloar, Physical Instructor of the Club; Noah Young, National Champion.

These athletes range in weight from 90 pounds to 230 pounds, and their combined and respective performances are nothing short of remarkable. Take, for instance, Noah Young, "Al" Treloar, Edw. W. Goodman, Mark Jones (Ma-

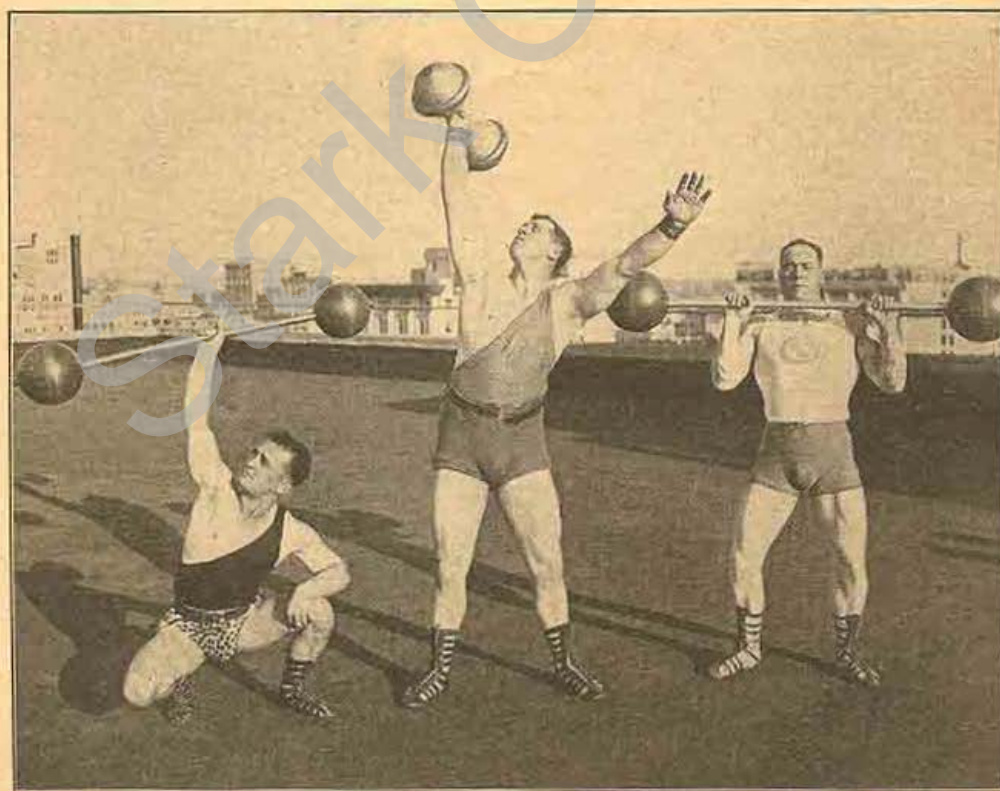
done) and "Al" Bevan, without a doubt the greatest combination of athletic stars to be found in one club in America, if not in the world. Any one of these men can press well over 200 pounds above his head. Collectively, they could hold up 1400 pounds at arm's length, or lift over 1½ tons, dead weight, with hands alone from the floor. Young, Treloar, Goodman and Bevan can get down on their backs and with feet in the air support considerably over 4½ tons—a weight equivalent to a good sized motor truck. (After an attempt of this kind, Ajax, of olden days, would have made a good trademark for pancake flour!)

Milo, former professional champion lifter, has volunteered the assertion that Young and Goodman are undoubtedly the strongest men of their respective weights in the world, and that Jones and Bevan possess no superiors in particular lifts.

The individual records of these active athletes make most interesting reading. Young (the National amateur champion) has successfully negotiated 294 pounds in the two-arm clean and jerk; 204 pounds in the one-arm clean and jerk; 170 pounds in the one-arm snatch and 286 pounds in the bent press. He has also easily lifted the limit on the club scales (3200 pounds) with the back lift, and holds all amateur quick lift records, won in San Francisco in 1915 under A. A. U. sanction.

Edw. W. Goodman, who is only a middleweight, is a physical marvel. He is the holder of the Southern California weight-lifting championship held under sanction of the A. A. U., which title he has successfully defended for the past three years. He has made a record of 275 pounds in the two-arm jerk; 230 pounds in the two-arm (military) press;

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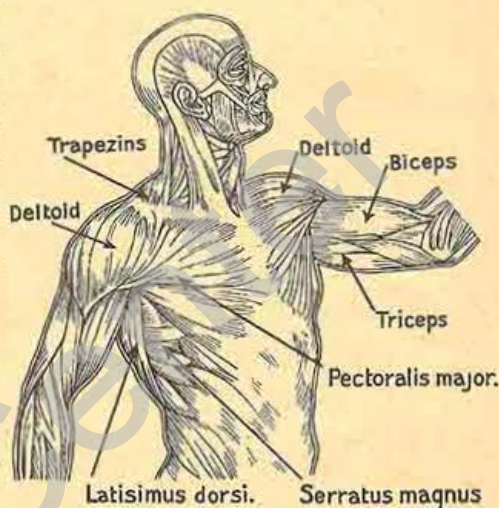
Mark Madono, Noah Young and Albert Bevan

The Development of the Shoulders

By O. R. Coulter.

Nearly all physical culturists admire a man with broad shoulders, but unfortunately, few aside from those who work the weights, ever attain anywhere near the shoulder development possible. Light exercises, such as many repetitions and much nerve concentration with light bells, sometimes develops large biceps and fairly good sized triceps and deltoids, but to an experienced critic there is always something lacking. The development appears as though the centers of the muscles alone were developed and as if the muscles were independent of each other. The reason for this is that light weight systems concentrate on the individual muscles and ignore the principle that muscles should be developed in groups. I think this idea was first brought to "Strength" readers' attention by Mr. Calvert, but it has been used, consciously or unconsciously, by strong men in training for many years. Furthermore, no one training on any light weight system ever attains the shoulder development that he would if he trained at all-around lifting, no matter how much he may use special movements for his deltoids, and if he ever puts them to a test, he will find that their strength is not even proportionate to their development.

Before I discuss the proper means for developing the shoulders, I advise the reader to notice the accompanying chart which shows the deltoids of the shoulders and some other muscles closely associated with them in their work. It will be seen that the deltoid covers the shoulders and acts as a cap and protector to the deep structures of the shoulder joint; its muscular fibres being coarse, and so placed in layers as to reinforce one another and increase their functional power. The deltoids take their name from the Greek letter delta Δ , as they are triangular



in shape, due to the divergence of their connections at the upper end and their convergence into a strong, round tendon at their lower end, which is inserted in the outer side of the arm bone about half of its length down. The front strand rises chiefly from the outer one-third of the collar-bone, the middle strand chiefly from the acromion process,—that point or hook on the shoulder-blade which overhangs the joint,—and the last strand, from the ridge of the shoulder-blade. The middle strand is therefore shorter than the other two.

The first action of the deltoid, the shoulder being fixed, is to raise the arm from the side. The middle or lateral portion raises the arm out and up at the side till the elbow is level with the shoulder, and further elevation is then accomplished by the contraction of the front or anterior and back or posterior portion of the deltoids, assisted by the Trapezius. The anterior fibres, aided by Pectoralis Major draw the arm forward and upward, and the posterior fibres, assisted by the Teres Major and Latissi-

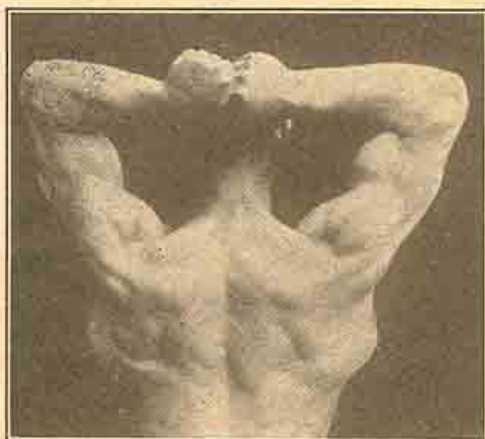
mus dorsi, draw it backward and downward, or enable it to rotate when extended. In addition to these uses of the deltoid it has another, namely, depressing the shoulder when the arm is fixed. It is probably due to this known use of the deltoids that some muscle builders trying to develop them have made use of the well-known exercise of dipping on the parallel bars. This depressing action of the deltoid is such a small part of its functions that I cannot see how it could increase the shoulder development to any noteworthy extent.

Oftentimes working men are noted who have broad shoulders and powerful physiques, but if we examine these men stripped we usually note that the deltoids are not just what might be expected from the way the men appear in their working clothes. The reason for this is that working men never lift anything above their heads except as a last resort and their shoulder breadth is due to length of collar and shoulder bones rather than to any especial deltoid development. Furthermore, if we compare these same men with trained lifters we find that they do not appear as broad and powerful as lifters of the same accurate caliper breadth and are not able to accomplish near the feats of shoulder power that the lifters are enabled to do.

Now the most practical way of ascertaining how to develop the shoulder muscles is to note a large group of men with noteworthy deltoid development and observe what manner of training has developed them. It stands to reason that if a certain method of training used by a large group of men develops notable shoulders in all of them, with only a difference in individual characteristics, that this same method would be the proper one for others who desire to attain similar results. I have been studying men with strong physiques and their modes of training and general habits for over ten years and am personally acquainted with many of the best American athletes and several of the best European lifters who have exhibited over here. I also have seen pictures of nearly all other athletes and

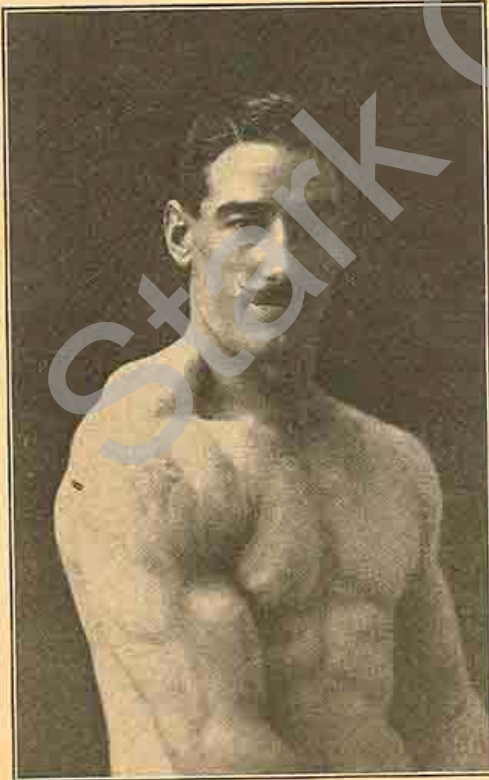
am fairly familiar with their lifts and training methods. I note from experience and study that hand balancers and lifters invariably have good deltoids. Among some of the hand balancers with fine deltoids, I recall: Mogyorossy, Wuhr, Kliment, Pulliam, Maxick, Noweleski, Bobby Pandur, Bonnes, Batta, Lavallo, Massimo, Redam, Aston and Sam Kramer. The first six of this group have all done double the body weight in the two-arm jerk, and are finished all around lifters. Bobby Pandur was a lifter previous to exhibiting as a hand balancer. Bonnes and Batta are two famed French strong men, Bonnes being a champion at clean lifting. Lavallo and Massimo have both trained with weights. Redam's deltoids are among the very best and enabled him to win European lifting competitions against men very much heavier. Aston is an expert on the bent press.

I do not know if Kramer has practiced lifting or not, but his magnificent deltoids impressed me highly when I saw him in act of "Kramer and Belleclair." Hand balancing uses both the triceps and deltoids very actively and many expert lifters are also good hand balancers. Even the huge boned Saxon does hand stands and the massive Nordquest is an expert hand balancer and small men like our classy little



Fred. Rabenau

Snyder usually take to hand balancing. If we go further in our investigation and examine some more of the great examples of deltoid development, we will note that Swoboda, Tandler, Steinbach, Cyr, Maier, Witzelberger, Empian, Apollon, Abs, Gassler, Hackenschmidt, Kyrloff, Poire, Sandow, Chas. Herold, Hermann and Kurt Saxon, Winters, Fristensly, Ratenau, Blaser, Giantella, Paul Welnowski and many others up and down the list possess notable deltoids. This group I have mentioned contains all types, tall and short, lean and bulky. The first three mentioned have massive deltoids and are champions on two-arm lifts above the head. Cyr's tremendous bulk and strength is well known to all of us. He was an all-around lifter and exceeding-



Blaser

ly good at feats of deltoid strength such as slow pushes and holding out weights. Waier, Witzelberger and Poire are champions on the one-arm military press and are exceedingly good at two-arm presses. Empian is champion of Belgium at holding out weights.

Winters won the championship of Olympic games at St. Louis at muscling out weights. Chas. Herold is one of the best 155-pound men at military pressing ever seen in this country. Fristensky is known as the "Bohemian Hercules" and has a wonderfully outlined deltoid, considering that he weighs about 250 pounds. Ratenau won a previous light weight championship of the British Isles and Blaser is a well known 10 stone 7 pound (147) London lifter. Gassler is one of the champions of Germany; "Giantella" is a European professional lifter with a great reputation at holding at the sides. Paul Welnowski is a renowned German lifter weighing 125 Pfd. (138 pounds). The rest are known to "Strength" readers. Now some of these men may have specialized on holding at the side, but most of them are all-around lifters and have developed their shoulders by all-around lifting. This should afford proof enough that the proper way to develop the shoulders is all-around lifting with a little specialization on pressing and holding out weights, but the work should not be confined too much to muscling out work as that would be a violation of the principles of working the muscles in groups and will not give as good results as it will if mixed with more work using the entire pushing group such as military presses, two-arm presses, bent presses, etc. Any one who follows these principles will attain, as near as possible, shoulders in keeping with those that lifters enjoy as a class.

Co-Ordination: What it is, and its Necessity in Athletics

By Edward W. Goodman.

Co-ordination is that ability to combine certain movements, together with the regulation of nervous force in degree sufficient so as to effect an ultimately harmonious achievement as a whole.

With successful athletes this faculty is, of necessity, developed to a very high degree. While "practice makes perfect" and one man is naturally more capable than another, a certain amount of time consistently devoted to the improvement of body will tend toward the development of those qualities which, when coupled together, make up "co-ordination."

Grace itself (synonymous with "form" in athletics) is not the correct nor only indication of the possession of this quality. There are men who, in their performance of a given feat, accomplish it in the best form, and perhaps according to long-established athletic standards, and yet these same athletes will not, in many instances, nearly approach the records made by others who do not possess grace of movement.

As a general rule, however, the athlete is a graceful performer, but only because his average performance is made with ease—and that is exactly where "co-ordination" comes in. Form is an uncertain element, however, which insofar as it approaches extreme grace of movement, many times abandons the athlete in competition and especially when new records are made.

It is very well to enthuse over "grace" when it comes to dancing or the aesthetic performances of near-athletes (in such cases grace is the only salient feature of the act involved) but the man who truly co-ordinates in athletics is the one who possesses the ability to combine strength, quickness and science, so that the term "grace" has no truly important meaning where feats of strength are concerned.

Form in athletics is a matter of "distinct individuality." That is to say, performance and training along certain specific styles is advisable for the most effective results; at the same time, it may be noticed that, when thrown into competition, the record-breaking athlete does not invariably run "true to form" as the saying goes. On the contrary, he performs, in many instances, most awkwardly and yet manages to make new records—which proves that form alone is non-productive of results.

The best advice that can be given in this respect is to study the most approved forms in the particular line of sport adopted, practicing those best suited to the physical makeup for, in the long run, it will not be the style alone

that puts the athlete over the top, but the best style for the athlete in combination (or co-ordination) with the stimulus reaching the muscles from the reservoir of nervous energy for the supreme effort made.

Jack Dempsey does not fight according to the long thought out and evolved methods of the ring, but his own particular style is a winner because it is peculiarly fitting to his own physical makeup. As a duck takes to water, so every man finds his level in athletics, and it is more a matter of instinct than anything else for him to find, at the same time, the particular style or "form" best suited to his individual requirements; and this form becomes a science with the athlete. Science alone accomplishes nothing—neither does strength alone; it is that combination of strength, quickness and science, backed by a large supply of nervous energy that does the business. Co-ordination again!

Co-ordination as outlined above is useful in the performance of a given feat to conserve energy, to get the most out of an effort with the minimum expenditure of nervous energy—an absolute essential in the breaking of records. It is true that the thing we call "co-ordination" has its origin in the mind—a voluntary or involuntary stimulus exciting the brain to action—and from the latter organ impulses shoot along the nervous system affecting the muscles by a sufficient degree of stimulation so that the particular feat can be performed.

As with everything else, co-ordination of certain faculties can be developed in anyone. Everyone can be benefitted by selecting and practicing those exercises requiring the most intensive co-ordination for the growth and development of this faculty builds strength of mind and body and (what is still more important) the construction of a reservoir of nervous energy—that force without which nothing is ever accomplished, either mentally or physically.

Now, every act is really the result of a co-ordinated series of movements, harmonized and combined so as to ultimately produce the exact movement called for, or, to be more specific, the results desired. The beginning of each separate movement of this combination is the result of an impetus emanating from the brain to the nerve centers which control the muscles sought to be affected. This impulse is, in turn, the result of the will power (or desire) to do a certain act, and the will to perform in a certain manner results from feelings which may be induced by external conditions,

or may be induced in the mind itself (voluntarily).

In some cases, where it appears as though the act performed is involuntary, the real stimulus is a feeling evolved under press of circumstances as, for instance, a feeling or realization of danger and the desire to act in order to avoid that danger. At such times the entire organism responds (co-ordinated) so quickly that there seems to be no time for a connection between

- 1: Outside circumstances;
- 2: Feelings;
- 3: Will;
- 4: Nervous impulses; and finally
- 5: Muscular action;

but the connection is there just the same. The only difference is that, when under stress of excitement, the system is keyed up, or geared up "on high", with no time for mature deliberation, causing the body to act in a seemingly automatic manner.

Training along certain lines will, of course, make any movement or series of movements easier by continued repetition, so that the involuntary nature of the act will appear more pronounced.

The fighter is always keyed up to a very high degree when in action, although he may seem outwardly cool and collected. This high state of tension naturally facilitates the easy performance of those movements requiring perfect co-ordination. To illustrate: Insofar as the automatic feature of a successful defence in boxing is concerned, the winner is generally one guess ahead of the other fellow; his time reaction is shorter by the fraction of a second, and while to the onlooker his performance may appear to be of an involuntary nature, each movement or series of movements is really the result of one step after another, thus:

- 1: The other fellow's threatened move, which is recognized as a signal of danger;
- 2: A feeling induced thereby to avoid it;
- 3: Will power exerted to avoid the same;
- 4: Impulse sent to the nerve centers;
- 5: Corresponding action of the muscles in obedience thereto.

These functioning phases are separately distinct and traceable, and their combination is Co-ordination.

Time reaction and co-ordination have been regarded as separate qualities by some writers. As a matter of fact, this time reaction that we hear so much about is a part of the same quality of co-ordination. In other words, time reaction is the ability to act without undue hesitation upon urgent necessity, and "undue hesitation" is simply relative—a matter of degree.

The ability to react quickly to certain conditions is controlled entirely by the urgency of the external circumstances and limited by the ability to co-ordinate. Thus, circumstances of

danger will excite the nerve centers to a tremendous extent, and draw upon the latent energy; thereafter, the effort made is limited only by the ability to co-ordinate strength, quickness and science, to the particular action required or desired, so that everything that is done by man requires more or less co-ordination, and the more perfect the ability to co-ordinate, the shorter time reaction will result. Thus, if the physical condition is perfect, it should be easy for the entire system to respond to the impulses created by extraneous circumstances.

There are simple tests given to determine time reaction; next time your hat blows off, note whether or not you are able to grab it or whether your grab is timed so that the hat is on the ground by the time your hand shoots out. Of course, the time can be shortened by practice. Thus, each task or act or feat or movement has a time reaction in view of all the circumstances attendant thereto, which may be longer or shorter in different individuals, and which depends a whole lot upon the urgency with which the mind regards them.

Ability to act quickly under stress is dependent almost entirely upon the ability to co-ordinate to a high degree, and the ability to thus co-ordinate is again dependent upon a number of things:

- 1: The physical condition;
- 2: Ability to think quickly;
- 3: Store of nervous energy at disposal.

These elements are severally capable of education and development, but it is again the combination or co-ordination of the three that make for the best results. A perfect physical condition should mean that there is at one's disposal nervous energy in sufficient quantity to take care of all ordinary occasions, and that the mind is alert to conditions existing.

Even in a habitual slow thinker, the mind is able and is stimulated to think more quickly under stimulus of danger, but the ability to handle a given situation is dependent upon the physical characteristics of the person involved, and the dissipation of nervous energy is essential in the putting forth of the effort required.

It is these three things that are the fundamental factors in athletics: MIND, MUSCLE, and NERVOUS ENERGY. The higher they are developed, the better co-ordination will result, and the quicker time reaction will be expressed. No single one of these elements is sufficient in itself. Thus, to improve, one needs to express thought in action, for proper action is the crystallization of thought.

Progressive exercise as a means for development along the lines suggested will work wonders. To the man who is not up to par, whether in health and strength, or co-ordination and time reaction, proper exercise is the unailing remedy.

The lifting of weights is, in itself, a fascinating sport and its continued practice will result in a most enviable condition—such per-

fect health and strength, or co-ordination and time reaction, as we find in all really strong men of the age.

Pit the weight-lifter against the ordinary athlete, track man, gymnast, boxer, etc. In genuine feats of strength and endurance the lifter will so far outclass them as to permit of no comparison. Furthermore, the perfectly developed man possesses so much real ability along the lines of health and strength, or co-ordination and time reaction, that he excels in other forms of athletics (or can, with very little preparation therefor.)

And why not? He is able to deliver a tremendous blow, to run, row, jump, swim or ride without fatigue—to do all and much more than other athletes—and to excel in all feats because of the tremendous amount of reserve energy at his disposal and the high degree of development attained to those necessary athletic qualities—and their perfect co-ordination! The total poundage lifted in a thorough workout with weights many times exceeds 50 tons, so that a workout of 1-10 the training time of a weight-lifter would exhaust the ordinary athlete.

Thus, weight lifting builds a man up to such a degree that other sports appear mild in comparison, and their proper performance is therefore easily insured.

No man can be a perfect all-around athlete, i. e., a record breaker in all forms of athletics, although some have made a wonderful showing. An athlete may be good in many things; he may be a fair wrestler, a good boxer, a fine gymnast and a good swimmer, but he cannot be a "world beater" in all of these things. This is the age of specialty and, remember, it is the specialists who make world's records. Now, a specialist in weight lifting is better by far in all-around athletics than an athlete who goes in for other sports and neglects weight lifting. The reason is that the lifter develops every part of his body equally. He will therefore possess co-ordination and time reaction to an extraordinary degree.

Suppose an athlete goes in for running and wrestling only. True, he develops many muscles, but there are large groups of important muscles that remain practically untouched. On the other hand, weight lifting brings into play EVERY muscle in the body, developing the muscles singly and in groups, and equally. That is why a good weight lifter can go out with little practice and win honors on the mat, in the ring, and in the field, while the others sit back and marvel. The reason is only too apparent to the discerning: BETTER CO-ORDINATION.

Theorists of the "muscle-bound" class have long ago realized the fallacy of their arguments. A man who is alert and quick in thought will be habitually as quick in such action as calls for speed (for remember, action is the crystallization of thought). The entire

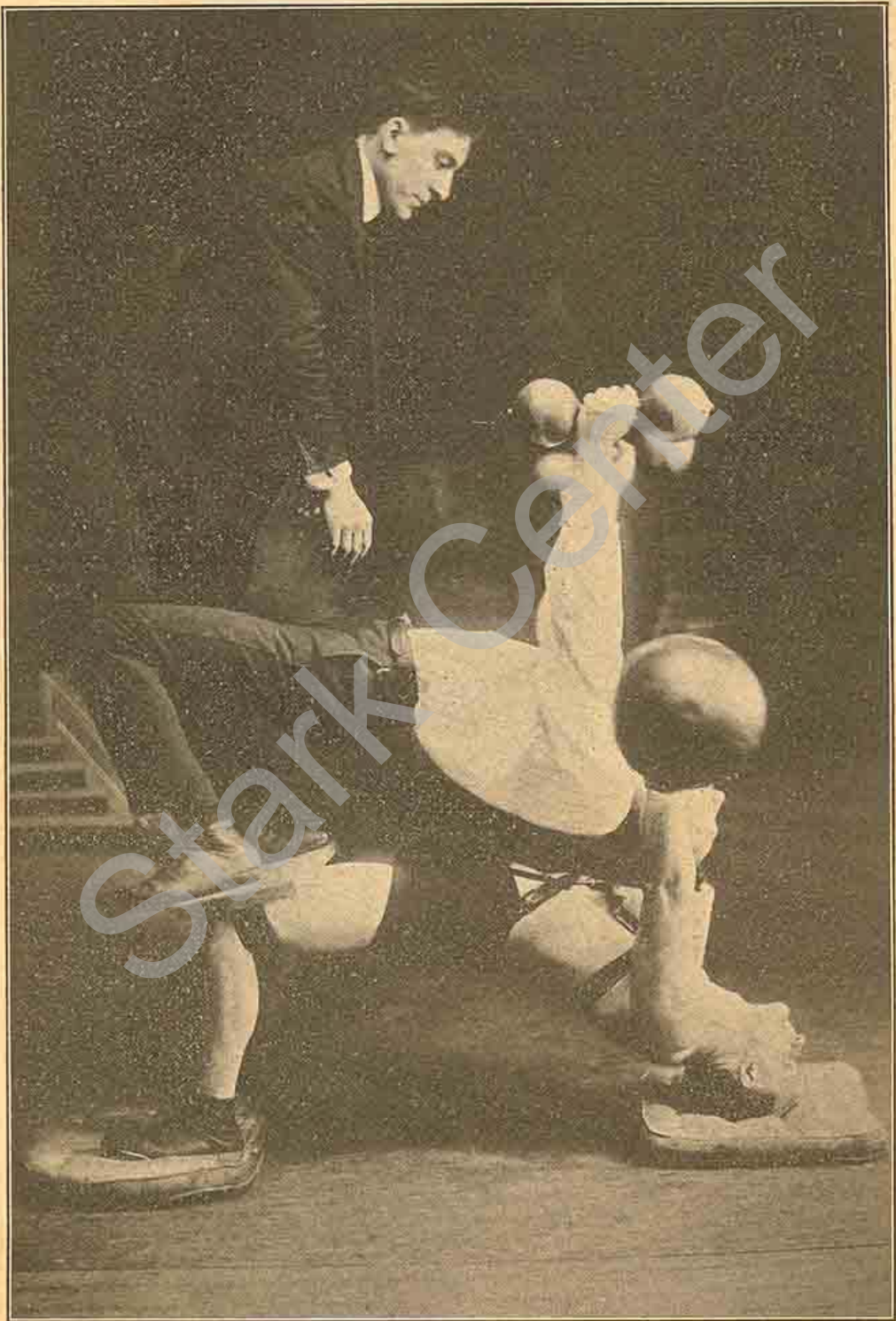
theory of quickness or slowness is relative and necessarily a condition of the mind—not of the body. The body or the muscles will become inherently as slow or quick, according to the stimulus afforded them in a given action, as the brain is capable of giving. And slowness of the mind can be overcome by intelligent training. But to say that one's muscles are slow of themselves is a statement not founded upon reason or fact.

All muscular movements are necessarily governed by stimulus which comes from the brain and is either induced by extraneous circumstances or evolves within the mind itself. So, a muscle will act as quickly as the brain is capable of stimulating and directing it to move. It is true that some movements are made without conscious volition, but (as explained above) the volition is there nevertheless. To go deeper into this matter, however, would require a treatise on conscious and unconscious mentation, which is not the purpose of this article.

When the adherents of the "muscle-bound" theory say that a man is slow, they admit at the same time that slowness is a CONDITION OF LONG REACTION TIME. And since reaction time is a matter involving the conscious or unconscious recognition of a set of circumstances requiring certain efforts to be made which, in turn, involves purely a mental state at the very outset, and as it is further admitted by these same theorists that a deficient mental state may be improved by practice along certain lines of effort, it is easily seen that slowness of movement is truly a condition of the mind and not of the body or muscles—for the muscles are secondary factors, i. e., they are the instruments which do the work under orders. Thus, to say that a man is "muscle-bound" really means that he is a slow thinker.

Weight lifting as a sport has another advantage. Unlike associated forms of sport such as wrestling, boxing, handball, etc., the athlete is not dependent upon the whims or caprices of his associates as to training. He works when he feels like it, and quits when he gets ready. He retains interest because there is always improvement. One does not stand still; we either go forward or backward, and the man who practices diligently will certainly go forward to an extent beyond his utmost expectations. There are sticking places along the line—points where further headway seems impossible; but let the beginner "dig in," and the athlete "plug away" in spite of that fact, and very soon will come improvement—slowly in some cases, more quickly in others, dependent upon the perseverance of the lifter and the capabilities of his physical characteristics.

WEIGHT LIFTING AS A SPORT IS
PAR EXCELLENCE!



Exercise for the Business Man

By the Editor

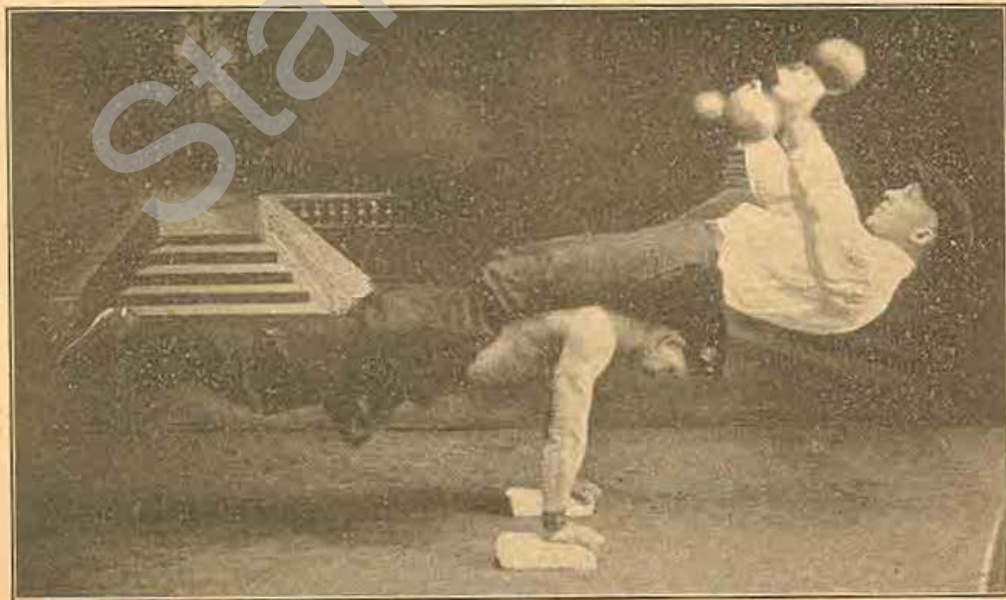
We are all interested in the successful business man, and like to hear him tell "how he did it." And some of them tell weird tales of "how I did it," attributing their success to anything from saving the first thousand to saving homeless dogs during the days of youth.

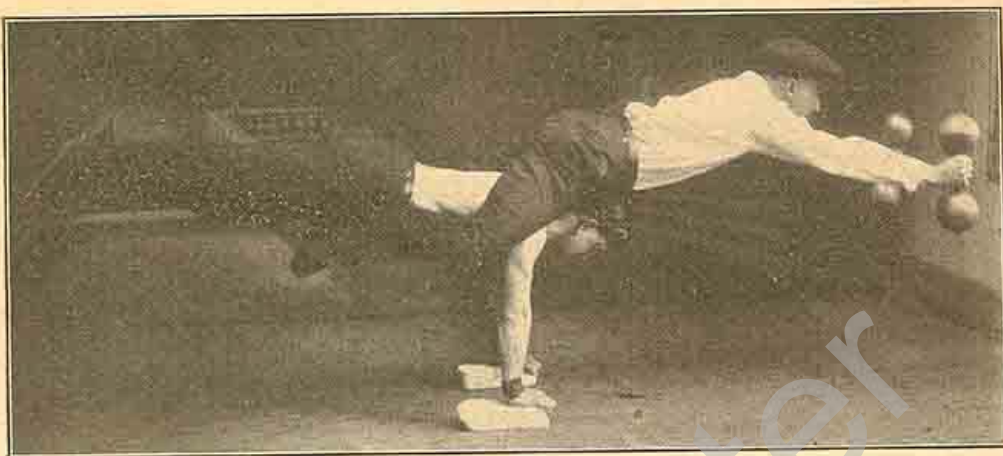
It remains for Arnold Schieman, of Baltimore, Md., to hit the nail on the head and to attribute a fair measure of his success to the possession of a strong, vigorous body, made possible by judicious exercise. He will be remembered by all the old readers of *STRENGTH*, his pictures having appeared in the July, 1917, number.

Mr. Schieman's story reads like a page from one of the best sellers, or a movie thriller. He arrived in this country in 1913, a stranger in a strange land, without any special knowledge of training to

help him to gain a livelihood. At first he had to be content with the hardest kind of work, for which he received very small pay. In 1915, he was suffering from rheumatism and still felt the effects of a recent operation for appendicitis. His prospects were apparently worse than ever, but did not discourage him. He decided that the only way to acquire success was to lay the foundation of good health by securing a strong, vigorous body. He went in for body building, with the idea of bettering his physical condition, and soon found that he had not only succeeded in building up a strong, vigorous body, but was also the possessor of a strong mind.

He then decided to start in business for himself, in which he has been successful, and now receives a good income with very little effort. While not attrib-





uting his success to exercise alone, he does insist that exercise enabled him to obtain the strength of mind and body which is so essential to success. He believes the progressive system of exercises advocated by STRENGTH to be the most efficient ever devised, and hopes that every young man in the country will have the opportunity to acquire strength of mind and body by the practice of progressive bar bell exercises. In order to stimulate the interest of the young men of the country in the principles advocated by STRENGTH, Mr. Schieman consented to pose for the action pictures shown in these pages. On pages 27 and 28 he is shown in a balancing feat, supporting a man weighing 160 lbs. and two 28 lb. dumbbells. On page 26 he is shown supporting 336 lbs. in a double wrestler's bridge, and can support 600 lbs. in this manner. On page 29 he is pressing a 160 lb. man to full arm's length, and reaching down for a 65-lb. kettle bell, and curling and muscling it out.

Mr. Schieman's present measurements are:

Height	5 ft. 5½ in.
Neck	17 in.
Chest (normal)	41 in.
(expanded)	44¼ in.

Waist	29½ in.
Upper Arm	15½ in.
Fore Arm	13¾ in.
Wrist	7¾ in.
Thigh	24 in.
Calf	15½ in.
Ankle	8¾ in.
Weight	141 lbs.
Age	32 years

He can press 295 lbs. in the shoulder bridge position, and can support 2,240 lbs. in the human bridge. In addition to weight lifting, he is very much interested in boxing, wrestling and handstanding, and hopes to make future gains in strength and development.

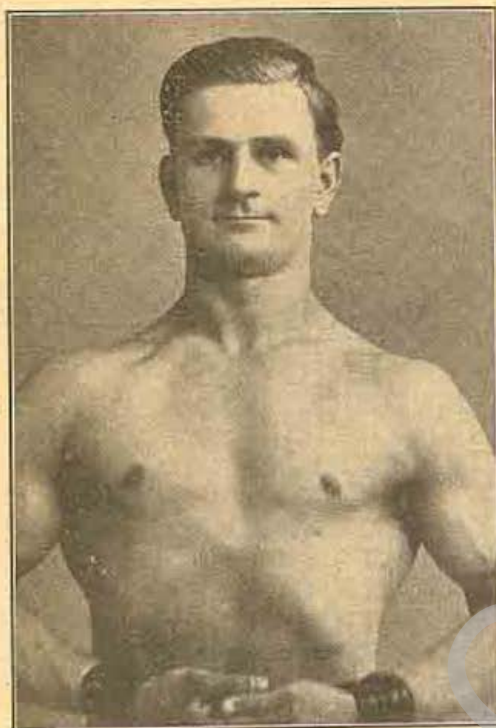
Mr. Schieman was 25 years of age when he began to exercise, and at that time he was in very poor physical condition. His case proves very clearly that it is possible for a man of 25 or over to develop a strong symmetrical body. Now, at the age of 31 he is in better physical condition than ever and sometimes feels as though he must jump and shout like a boy.

Too many people look on the body merely as a slave of the mind, a machine to do the bidding of the mind, but even a machine requires care and attention if it is to perform efficiently. Business men as a class are beginning to recognize



the need of exercise, and do not consider that they are wasting time when they play golf or devote time to other healthful diversions. Instead, they look on it as an investment which will pay them dividends in good health and efficiency.

But unfortunately, not all of us are in a position to play golf, baseball or whatever appeals most to us; as often as is necessary to keep in good physical condition. Right here the adjustable bar bell fills a long-felt need. It is the most efficient exercising apparatus ever de-



Arnold Schieman

vised, and its use for a half hour every other day will put any man in first class condition in a couple of months.

Exercise is not only necessary in order that a man may work well, but also that he may play well. Any man who loves outdoor sports, but has not much time to devote to them or to any other form of exercise will have this brought home to him very forcibly, sooner or later. He will look forward with eager anticipation to a hunting trip, will pick congenial companions, and carefully arrange all the details in order that nothing may be overlooked that might contribute to the success and enjoyment of the trip. He plans to get the utmost enjoyment from the outing, and is bitterly disappointed when his weak, unprepared body causes him to lag behind and miss the best part of the day's sport. He has been too busy or too careless to give his body proper attention, and is now unfit even for play.

If such a man possesses grit and determination he will take stock of his physical condition, frankly recognize his shortcomings, *but will not admit that he is beaten*. He will dig in and proceed to rebuild himself, and if he uses the right methods he will succeed. If he is content to acknowledge defeat, his mind will eventually become even as his body—stagnant and old before its time.

It is no longer necessary for any man to say he has no time for exercise, when a half hour every other day will put him in first class condition within a couple of months. As Mr. Schieman says, life is a joy and pleasure when you know how to live. And no one really knows how to live until he possesses perfect health. Some men will say, "I don't want to become strong, I only want to be healthy." There is only one way to lay the foundation of good health, and that is by first building a strong, well-developed body. The business man will find that a strong body will enable him to do better work and more work. And the same is true of everyone else, no matter what his aim or calling may be. Everyone has some ambition in life, for without ambition there is no life, only existence. Whatever your ambition in life may be, a strong, well-developed body will help you attain it.

NOTICE.

On and after September 1st, Strength will be published every month, instead of every other month. At that time, on account of the increased cost of paper and printing, we will be obliged to raise the subscription price to \$1.50 per year in the United States, \$1.75 in Canada and \$2.00 in foreign countries. All those who send in subscriptions before that time will be entitled to the old rate.

This increase will not affect those who have already subscribed. For instance, if your subscription was for six issues, and began with the May issue, you will receive your copy every month after September, and your subscription will expire with the April, 1921, issue.

Listen to the Voice of Experience



Antone Matysek, the muscular phenomenon, the man who is offering to place you on the energetic strong man map. When you find your place on this map, you will always be full of pep, ambition and joy. You will be a real man! Weight-lifters prepare for the championship. Fame and fortune awaits the winner.

Be a Pride to your Sex. Become a Matyseker - that means - an Efficient Strong Man.

ADMIRATION always follows the robust, graceful, and alert man. Pity trails behind the weakling. His failing energy is not sufficient to carry him over the obstacles that obstruct every man's path to progress. Do you belong to the REAL MAN—the dominant class of successful people; or are you among the sickly, flat-chested, weak-legged, and nervous—the insignificant class, that, instead of living, just merely exists? NO MATTER what your position, environment, physical and mental development now is, you are being given a wonderful chance to get more satisfaction out of yourself, by this

Amazing Opportunity for Greater Strength!

Prof. Matysek, of 629 N. Lakewood Ave., Baltimore, Md., the man who, years ago, having resolved to become healthy, strong, and highly developed, has experimented and trained himself until he is ranked among the strongest men in the world. He, in order to accomplish this, has been SECRETLY PRACTICING ON HIS "BODY-BEAUTIFUL" MAKER. It is

Matysek's Muscle Control

**The Surest and Quickest "Muscle Bulging Out" Stimulant
A System of Exercises That Produces Really Athletic Men with
Graceful Outlines Full of Strong Personality**

These Muscle-Control exercises aid me performing the many herculean feats, that hold all the so-called strong men **DEAF** from accepting my open challenge to the world's best.

Yes, my Physical Culture Friend, these Muscle-Control Movements are the CHIEF SECRET why I am growing day after day stronger and better developed as well. Do you blame me for practicing them? I want to see more Saxons, Hackenschmidts and Sandows. Do you blame me for OFFERING YOU THIS WONDERFUL CHANCE, so you, too, may acquaint

yourself with such progress-making exercises, that will bring forth maximum results you are after, and now are within your reach?

Let My Muscle Control Exercises Mold Muscle on You Quickly and Solidly!

Only ten minutes a day, in the privacy of your own room, solves any case. From my own experience, as well as the very large number of pupils that I have successfully aided, I know that in less than five days your muscles must respond, and bulge out to a most surprising extent. If you are training with Bar-Bells, these muscle control exercises will aid you in building yourself up and your records as well. Your progress will be 100% faster! If, however, you do not exercise, then for your own sake and happiness, start building yourself up into a real man. Do not merely drag on—make your life worth living.

It is My Sincere Wish to Assist Every Reader of "Strength" to Get Really Strong

For this reason, this Muscle Control Course is being offered you for a limited time at such a trifling price that YOU CAN WELL AFFORD IT. Costs but \$2.00. I GUARANTEE QUICK RESULTS AND ABSOLUTE SATISFACTION OR MONEY BACK. MY HONEST REPUTATION PROVES THAT I AM NO QUACK. COME THEN, MY FRIEND, WHEN I AM REACHING OUT TO HELP YOU! I will place you on the real road; I will show you the main secret that helped me to get what I longed for, and now certainly possess. In addition to this Muscle Control Course, you have the privilege to ask any questions pertaining to your physical training; to these I will gladly reply, giving you personal attention. This favor alone is worth the \$2.00 I ask. Matysek's Muscle Control will do wonders for you. You will be the envy of your friends. Learn how to get the most out of yourself. It is easy. GET STARTED RIGHT NOW! Simply tear off the coupon below, mail with but \$2.00, and leave the rest to me.

Detach and mail NOW, while it is on your mind

ANTONE MATYSEK, 629 N. Lakewood Ave., Baltimore, Md.

I want bulging muscles and yet want them to have fine outlines. I desire to increase my strength records. I want to be more than I am now. For these seasons, send me your wonderful Muscle Control Course, illustrated with 20 photographs of yourself. If I am not completely satisfied, my money will be promptly refunded.

Write name and address plainly.....

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HALF SOLE *for* 45c Your Shoes



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Sent by parcel post prepaid for \$2.50, west of the Mississippi \$3.00. 1 pair men's soles and heels, large size, sent by parcel post prepaid for 45 cents.

Medium size, 40c. Small size, 35c.
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190 pounds in the parallel bar "dip"; and another of his feats is to press aloft simultaneously a dumbbell in each hand, weighing 100 pounds each, lowering the bells to the shoulder and then jerking them aloft a second time, lowering them to the shoulder again and finally pressing each bell up alternately before letting them down to the ground. This is a feat which has rarely been attempted, even by men weighing 50 to 75 pounds more than Mr. Goodman, and which has never yet been accomplished by an athlete weighing 175 pounds. One more of the special feats performed by this versatile athlete is to "walk" up a tree with the hands and feet alone, for a distance of 15 or 20 feet, carrying in the crook of each arm a kettlebell weighing 75 pounds.

Mark Jones (known in professional circles as Madono) as a lightweight has beaten practically all of the British records for his class and even in the class above. In the two-arm jerk he has accomplished 240 pounds, 168 pounds in the one-arm clean and jerk, 140 pounds in the one-arm snatch, and 186 pounds with the two-arm press. In view of the fact that Jones weighs a trifle over 130 pounds, it is safe to state that he is the strongest little man in the world of modern times.

"Al" Bevan, who has won numerous contests in England and the United States, is a superb specimen of manhood. After doing his "bit" with the American troops in France, he returned to the United States, and engaged in a contest, although not in training and just recovering from the effects of "gas." He weighs about 175 pounds and has done a dip bend on one leg with 120 pounds across his shoulders; 156 pounds in the one-arm clean and jerk; 245 pounds in the two-arm jerk, and 135 pounds in the one-arm snatch. Although not a wrestler, Bevan managed to win second place in the A. A. U. Wrestling Championships, held in Los Angeles recently.

"Sammy" Brooks, who is called the "Paperweight" Champion, is one of the most astonishing examples of rapid fire development in the history of weight lifting. He weighs 90 pounds and is 4 feet 1 inch tall. When he started in lifting Brooks was not as strong as the average boy of 16 years. After 18 months' training he can press up 62 pounds with one hand, and 110 pounds (20 pounds more than his own weight) with both hands. Which is going some. If you don't believe it, try it!

Arthur Poll is more of a ring gymnast and trapeze performer than a weight lifter. Yet, with little practice, he has managed to break a record in a particular lift. In the one-arm pull over, he has accomplished 78 pounds with the right hand and 73 pounds with the left. If Mr. Poll would devote more time to weight lifting there is no reason to doubt that he would become a topnotcher within a short time.

Can you play a Man's part?

Suppose you are walking with your mother, sister or best girl, and someone passes a slighting remark, or uses improper language, won't you be ashamed if you cannot take her part? Well, can you?

Or suppose you remonstrate with a man for striking a smaller man, and the bully turns on you. Can you hold your own? Wouldn't you like to?

Or if one of your pals says, "Come on, put on the gloves and have some fun," can you do it, and get any "fun" out of it?

Less than 2 per cent. of the men and boys in this country know anything about the art of self-defense. Only 2 per cent. of our trained athletes know how to box. That means that when the test comes, less than 2 per cent. are fit and ready to play a man's part.

Wouldn't you like to learn how to box? Wouldn't you like to learn easily and quickly at less than half the usual cost?

Marshall Stillman has developed a unique method of teaching Boxing and Self Defense. You can learn the fundamentals in five lessons and can outbox older and stronger opponents after two weeks' study. His original principle has enabled him to teach professional boxers difficult blows and guards they could not learn by the old method. Professor Mike Donovan, who retired undefeated middle-weight champion of the world, and who taught for thirty years at the New York Athletic Club, heartily endorsed this new method, and helped prepare the lessons we send you. All that Mike Donovan knew about boxing and teaching, have been combined into this efficient course. Boxing instructors and Y. M. C. A. physical directors are taking the course to use in their own work, and are urging their pupils to take it to save time and money. Hundreds of men and boys—boys as young as twelve and fifteen, and men as old as fifty and sixty—in every part of this country and Canada have taken the course, not only for the boxing instruction, but also for its wonderful helpfulness in keeping them in good physical condition and in developing their confidence and self-reliance.

It is the first time that boxing has been successfully taught by mail, and it is only possible because of the Marshall Stillman principle of instruction. Marshall Stillman starts with movements you are familiar with—holding out your hand for a coin, the breast stroke in swimming, etc. The first thing you know, he has led you into striking correct blows with both hands, put-

ting weight and steam behind them, guarding, parrying blows, ducking, feinting, etc. He teaches you the rudiments in front of your own mirror, before you face your first opponent. When you finally face an opponent, you know how to hit him, what to expect in return, and how to guard against it. You are not confused by his moves.

It is almost unbelievable, but the proof is that we are willing to take all the risk in convincing you. That's our way of overcoming your doubt.

The special introductory price of the new home-study edition is less than you would pay for a single term of lessons by the old method. We will include, until further notice, "Three Rounds of Shadow Boxing," 8 Jiu-Jitsu, or bone-breaking holds and releases and 8 holds in standing wrestling, thus giving you both a knowledge of boxing and the most effective guards to use against violent attack—how to disarm a man, how to get out of dangerous holds, how to guard against a kick for the stomach, etc.—and also a complimentary copy of "Boxing Blows and Guards," describing and illustrating nearly every good blow and guard known to the ring. There are 175 illustrations in the course.

Frankly you don't believe that you can learn all these things by mail, do you? All right, we will take you on your own ground, we will send the course on ten day approval, with the understanding that if you keep it you pay \$5 (Canada, \$6; foreign countries, \$7) but if you do not want it, you can return it and end the matter. You do not need to send any money, or give us any references, or send us any stamps or anything. Simply fill in and mail the coupon to the Marshall Stillman Association, Suite J-7, 461 Fourth Ave., New York.

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No. 461 Fourth Ave., New York City

You may send me at your risk, on ten day approval, the complete Marshall Stillman Method of Teaching Boxing and Self Defense, including all of the instruction described above.

I have always been faithful in paying my obligations and I give you my pledge that you may feel safe in trusting me as agreed, and that I will either return the course, or remit \$5 (Canada \$6, foreign countries \$7) within ten days after I receive it.

Name

Address

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When the test comes to fight for the safety or fair name of someone you love, it would not be just a question of bravery or strength, but whether you know how to box or how to cripple your opponent with a jiu-jitsu or bone-breaking hold. I'll teach you how.

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