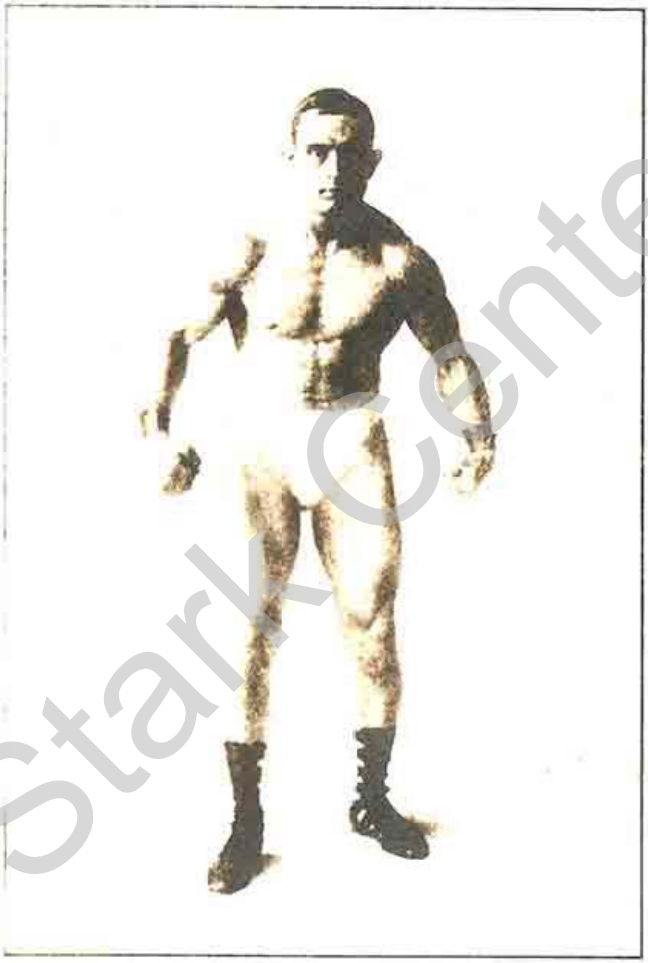
"STRENGTH"

NOVEMBER, 1915.



ROBERT DALLAS

(See pages 10 & 11.)

Issued by
THE MILO BAR-BELL CO.
1116-1122 Olive Street
Philadelphia, Pa.

Special Announcement

This November issue of STRENGTH is very late in putting in an appearance, owing to the fact that I spent the latter part of November and the first part of December moving into new quarters. I have to write this STRENGTH magazine in my spare time, and time was at a premium when I was moving.

My new establishment is at 1116-1122 Olive Street, Philadelphia. I have now factory, offices, and showroom under one roof. My readers are cordially invited to inspect my showroom and gallery of photographs. In the next issue of STRENGTH, I will try to publish some pictures of the showroom, which will give you an idea of the many different styles of exhibition and training bar-bells and dumbbells which I manufacture.

I am only about twelve to fifteen minutes' ride from the big railroad terminals, so that out-of-town visitors can reach me easily. Those arriving at the Reading Terminal should take a car on 11th Street, at the east end of the Terminal, and ride to Fairmount Avenue, which is only half a block from my place. Those arriving at the Broad Street Station of the Pennsylvania Railroad should walk on Market Street to 13th or 11th Street, and take a northbound car, alighting at Fairmount Avenue.

I expect to issue the January number of STRENGTH about the middle of February, but if it is a few days late don't worry; your name is on the list and you will get your copy. I am giving this explanation because so many of my correspondents have written in asking what had become of the November number.

N. B. I give away free, copies of the current numbers of STRENGTH, but my supply of back numbers is becoming so low that I will have to charge 5 cents a copy for them.

"STRENGTH"

NOVEMBER, 1915

The Man of Thirty

Can He Improve Physically?

By ALAN CALVERT

Proprietor

THE MILO BAR-BELL COMPANY

Three or four centuries ago, some lawyers in Europe decided that a man was legally of age when he became 21 years old. Apparently the reasoning was that a youth of 21 had acquired sufficient experience and judgment to manage his own affairs.

It is a peculiar fact that thousands of people to-day believe that a man stops growing **physically** at the age of 21; that for some mysterious reason he cannot gain in height, weight or measurements after twelve midnight on his 21st birthday. I am perfectly willing to admit that very few people grow in height after they are 21. Most people reach their full height at the age of 18 or 19; some few continue to grow in height after they are 21, but the percentage is very, very small.

Most youths who have gained rapidly in height between the ages of 15 and 19, will, between the ages of 19 and 23, broaden out and gain considerably in weight. If an individual between the ages of 16 and 23 will take systematic exercise of the right kind, he can greatly aid the natural growth and "broadening-out" process. This does not mean, however, that improvement cannot be made after the age of 23.

Trainers of athletes will tell you that at about the age of 25 a man will commence to lose his speed. Most 100-yard sprinters stay at the top of the heap for three years at most; usually every second summer sees a new set of champion sprinters. (So far as I know, only one sprinter has ever won the 100-yard dash two Olympic games in succession.)

The middle-distance runner will sometimes last four to six years in the championship class. Long-distance runners will go for eight or possibly ten years.

Now let us turn to field sports. A jumper can remain in the championship class eight to twelve years. A weight-thrower, fifteen to twenty years. George R. Gray, of Canada, the first great American shot-putter, won the championship about a dozen years in succession. Big Jim Mitchell was the great hammer-thrower of the nineties, and he won the championship regularly year after year, until Flanagan came along, and he lasted about ten years until McGrath beat him. Moreover, Flanagan and Mitchell were both better hammer-throwers and finer athletes at 35 than they were at 25 years.

Formerly, a man was not considered to be in the "prime of life" until he was 40. At that age he was supposed to unite the greatest physical and mental powers. It is a known fact that a man can, at the age of 40, perform just as great feats of strength and endurance as he could at the age of 25, providing that he has lived an ac-

tive life. Of course, a man who sits in an office all day, and cultivates a "bay window," is not much good, physically, at the age of 40.

William Tuerk, of Vienna, was, at the age of 30, persuaded by some friends to take up heavyweight lifting. At first a man of only moderate ability, Tuerk improved rapidly, and at the age of 40 he created a record in the two-arm Jerk, which stood for nearly seven years. I have known many other cases where men of 30 have taken up heavy work and not only improved their health, but have, at the age of 35, been infinitely better built, stronger, and more active than they were at 25.

Hard work, intelligently directed, is what builds a man up, and it does not matter so very much whether the work is done indoors or outdoors. When I consider the thousands upon thousands of men who have tried to build themselves up by light exercise and have failed, I can understand the current belief that improvement is impossible after a man is 25 or 30 years old. I myself think that a man would have to do an immense quantity of **light** work to make any appreciable change in his physique after the age of 25. Graded heavy work, however, is a different matter. If you do heavy work regularly you will soon show Nature that there is a demand for the kind of muscle that can stand heavy work, and Nature will respond by furnishing such muscle.

Suppose a 30-year-old friend of yours, in bad health, was to spend a winter in a logging camp in Michigan. Suppose on his return he told you that he had chopped down trees every day, that he had lived, eaten and slept in the open air, and that by so doing he had become about three times as strong as he was before, and had gained 30 or 40 pounds of solid muscle. You would undoubtedly believe him—but you might make the mistake of thinking that all the gain was made because your friend lived in the open air. Fresh air alone will not make a man strong. If it did, every chauffeur, every letter carrier, and most farmers would be perfect Samsons. A man who builds himself up by spending the winter in a logging camp builds up because he has done **more and harder muscular work than ever before in his life,** and the improved digestion and enhanced vigor is due to the hard work rather than to the outdoor life.

If a man of 30 is willing to put in two or three hours a week of good hard practice, he can build up in his own bedroom just about as rapidly as his friend did in Michigan; possibly more rapidly, for the man training in his own bedroom can use his judgment and stop work when he commences to get tired, whereas the man in the logging camp has to keep on working until his foreman tells him to quit.

A man in a logging camp uses all his muscles; he swings a heavy axe; he pulls and pushes at one end of a big two-man saw; he helps roll enormous logs onto sledges; and he carries small logs on his shoulders, or staggers along supporting one end of a big log. That kind of work uses the back and legs and shoulders, and is bound to make a man strong all over. Contrast this kind of work with the exercise taken by a business man in his own room, who for 10 minutes every day swings a pair of wooden dumbbells, or pulls at the end of a couple of rubber cords, and puts almost all the work on his arms and shoulders. Is it any wonder that the man doing the heavier work builds up, and the man who does the light work fails to improve? When will men learn that a moderate amount of graded heavy work will build a man up; that big powerful muscles have to work against big resistance to be properly exercised; that exercises which call into play the big, powerful waist, back and leg muscles are far more important to a man's health, endurance and vitality, than calisthenic movements which put only a very

slight tax on the muscles of the arms and shoulders?

Frequently men write me and say that they have practiced light work for years, and they are dissatisfied and would like to improve further. To prove that they are in earnest, they state that they don't smoke, nor drink; that they eat vegetables, fruit and nuts; that they don't do this, and they don't do that; they take long walks daily; and they live as much in the open air as possible. That sort of life may lead to moderate health, but it does not lead to the abounding health and vigor which accompanies a superbly developed body.

If a man is willing to practice hard, I don't object to his smoking one or two cigars a day, nor to taking a glass of beer or wine occasionally. I most positively do **not** approve of anyone smoking two or three packs of cigarettes, or a dozen strong cigars a day; nor do I approve of swilling beer all day long, or of taking a dozen drinks of whiskey between sunrise and sunset. But I would rather have a pupil who smoked in moderation, occasionally took a drink, and who was willing to work hard when he did work, and to **study** the exercises—than to have a pupil who don't smoke, don't drink, don't eat meat, don't get his hair cut, and who cannot see the value of performing the exercises in any other than a mechanical way. My greatest trouble is in convincing some of my pupils that taking 15-mile walks three times a week is **not** the way to build up big powerful leg muscles, and that to get up at the screech of dawn and put in 90 minutes at light exercise before breakfast is **not** the proper way to build up a superbly muscled body.

But to get back to the man of thirty. Blaikie, one of the earliest authorities on physical culture, cites the case of Professor McLarren, who, in the course of a season's mountain climbing in the Alps, increased the girth of his calves over an inch, his thighs over 2 inches, and his chest 3 inches. There is no work much harder than mountain climbing. It requires a strong back, and legs, and makes the lungs work so vigorously that the chest is increased in size. Almost any man of 30 could build himself up by a few weeks' hard mountain climbing.

Unfortunately, we cannot all spend winters in logging camps, or summers in the Alps. Most of us are lucky if we get a couple of weeks' vacation; but all who wish can get most of the benefits of a logging camp and a season in the mountains by taking a moderate amount of heavy work in their own homes.

ARM DEVELOPMENT

(Continued)

THE FOREARM

Those of my readers who have seen pictures by celebrated artists depicting scenes in Biblical and ancient history must have been struck by the enormous forearm development of the men. When I was a boy I used to pore over such pictures and wonder whether these men of the Bible, these Roman Legionaries, these soldiers of medieval Germany and Italy, really had such tremendously developed forearms—such development that when the arms were held straight, the forearm seemed very much larger than the upper arm. It seemed incredible to me then, and it was not until years later, when I first saw photographs of such weight lifters as William Tuerk and John Marx, that I realized that such development was really possible.

Up to a few hundred years ago, a man's hands literally kept his head. It needed a wrist of iron to hold a blade so steady that it would turn aside the tremendous swinging slash of a two-handed sword. The old-time soldier or artisan was continually hauling, pulling, or lifting heavy objects that would to-day be moved or transported by machinery. Continual vigorous use of any set of muscles tends to develop them to the limit, hence, such forearms as we see in Michael Angelo's "Last Judgment," and Dore's illustrations for "Dante's Inferno." Dr. Oswald said that in a single company of soldiers of the middle ages you could find more Herculean athletes than in a whole modern army. I doubt that, but certainly there were strong men in those days. The Doctor also says that the custom of handshaking arose in a desire to know the hand and wrist strength and consequent wrestling power of a stranger.

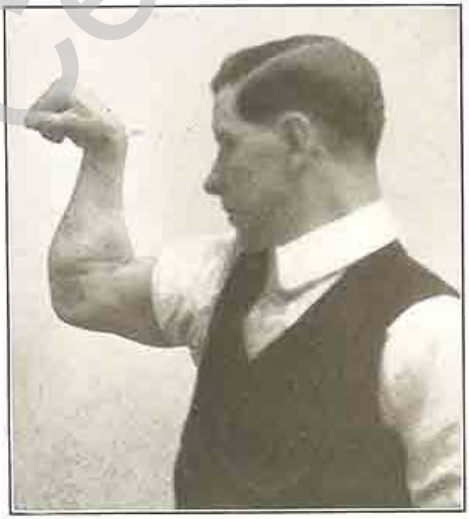


Figure "A"

One thing that my experience has taught me is this: A man with big forearms, big shoulder muscles, and moderately big upper arms, looks far stronger than a man with big biceps and only fair forearms and deltoids.

In my last article I said that while the average trained physical culturist

had a forearm measuring 10¾ inches, the average weight lifter had a forearm measuring 12¾ inches. The light-exercise enthusiast is taught to develop the forearm by "gripping" and by twisting the wrist; which is very good work as far as it goes, but the trouble is that it does not go far enough. You cannot develop the forearm to the limit by simply gripping the fingers, or by holding the arms straight and bending the wrist in various directions. The big muscles of the forearm are part of the flexor system of the whole arm; that is, there are muscles in the forearm which help bend the arm, and those muscles are called into play whenever the hand is brought up to the shoulder. So-called "grip dumbbells" will not develop these flexor muscles; but handling moderately heavy dumbbells will. Grip a 40-pound dumbbell in the right hand and then raise the hand slowly to the shoulder by bending the arm at the elbow, and your forearm muscles will have worked very vigorously.

You cannot get real action unless there is some weight in the hand. It does not matter how tightly you grip a light dumbbell. To explain: Suppose you were going to haul a heavy safe to a second floor window. No matter how big and strong the iron hook was, you could not haul the safe up if you used only a slender rope. That is the way with the forearm: no matter how tightly you grip the object, you cannot lift it to your shoulder unless the forearm muscles, which help bend the arm, are big and strong. These big forearm muscles can also be vigorously exercised and developed in "chinning" the bar, or in working on the Roman rings. In that kind of exercise the bar, or ring, is gripped tightly, and then the athlete's body is lifted to the level of the bar by the simultaneous flexing of the forearm, upper arm, and upper trunk muscles. Of the two methods, handling weights gives the quickest results. Gymnasts have good forearms; lifters have wond rful forearms, and the strength of their grip is many times greater than in the case of the light-weight athlete who has trained solely for grip and wrist strength.

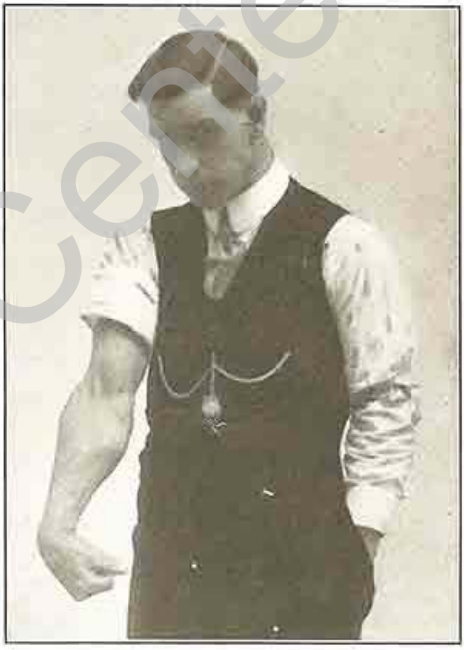


Figure "B"

As far as I know, the quickest possible method to develop the forearm is to practice curling moderately heavy dumbbells (say 35 to 50 pounds) while twisting the hand into various positions. "Curling" is slowly lifting a bell from thigh to shoulder by arm strength alone, that is, by bending the arm without swinging the body. Curl the bell with the palm front, and you

will develop the muscles on the inside of the forearm. Curl the bell with knuckles front, and you can develop big muscles on the outside, or back, of the forearm. By bending the hand into various modifications of these two poses, a perfect and enormously strong forearm can be developed.

There is one bone in the upper arm; two bones in the forearm, therefore,

Figure "C"

the forearm looks much bigger in some poses than in others. Stand in front of a mirror, arm hanging to the side, and palm front, and you will see the forearm at its greatest breadth. Rotate the arm so that the knuckles are front, and the forearm will look thin. Constant training with weights will tend to make the forearm round, and thus make it appear large from any angle of observation.

After a lifter has properly developed the forearm by handling weights, he can, by bending the arm at the elbow and holding the hand in a certain position, flex the forearm muscles so as to make the forearm measure one to two inches larger than when the arm is held straight. Figure A shows this position; here the athlete has flexed simultaneously every muscle in the forearm. Some athletes when having their pictures taken, hold the elbow near the camera so as to make the arm appear larger, but this man is actually holding his elbow away from the camera, and yet see the marvelous development of that arm. This Mr. Rufus Tasker, wrestler, hand-balancer, and one-time champion lifter of England in his class, has as remarkable a pair of forearms as I have ever seen on a man of his size. Tasker is a light weight, but has the development of a Hercules. These pictures of him were taken to give you an idea of what forearm development can be like.

In Figures B and C, Tasker shows another way of displaying the forearms to great advantage. Holding the arms with palms of hands forward, he then clinches the hands and gradually rotates them into the position shown, without altering the position of the forearms.

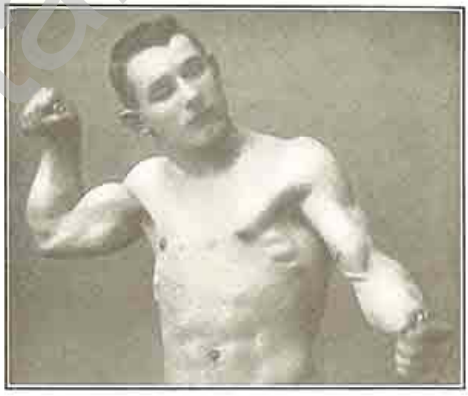
There are certain kinds of labor and mechanical employment that develop fine forearms. Blacksmiths and carpenters usually have good forearms. Icemen, who carry huge blocks of ice while gripping the tongs in a peculiar way, sometimes develop fine forearms. Laborers digging in trenches, who have to twist the shovel to rid it of its load, usually have big wrists and forearms; while hoeing mortar in the old-

fashioned way seemed to develop forearms of tremendous size and power. A man training with weights can obtain, in a few months, more development than a laborer gets by years of the hardest kind of work, largely because the lifter can make the work progressive, and can use his judgment and stop when he feels tired.

There are no muscles in the wrist, only tendons. As a general rule, the bigger the bones the bigger the wrist, and a big wrist is usually strong. The man who develops his forearm muscles properly can acquire a wonderfully strong wrist, no matter if it does measure 6¾ inches or thereabouts. Many noted Strong Men have had wrists measuring less than 7 inches, with forearms measuring over 13 inches, this measurement being taken with the arm held straight.

It will doubtless occur to many of my readers that if there are no muscles on the wrist it must be impossible to increase the size of the wrist. This is true to a certain extent, but if a man uses his hands a great deal in heavy work, and thus brings the forearm muscles into very vigorous action, the wrist will build up to a slight extent. It has been often noted that the ankles of toe-dancers, both male and female, will gradually become thickened on account of the tremendously heavy demands that toe dancing makes upon the muscles of the foot and the calf of the leg. If the ankles increase in size under the stress of heavy work, it is fair to assume that the wrists can be increased likewise.

As usual, I am able to point to cases of fine forearm development among the pupils whose pictures appear in this number. Observe, for instance, the fine forearm development as shown in the back views of young O'Neill, and of Hobert; also the splendidly rounded forearms of Dallas, as shown in several of his pictures; also note how the forearm muscles are displayed to the limit in the picture Figure A, page 16, where McMahon is holding a kettle-bell by the ring.



W. P. CASWELL

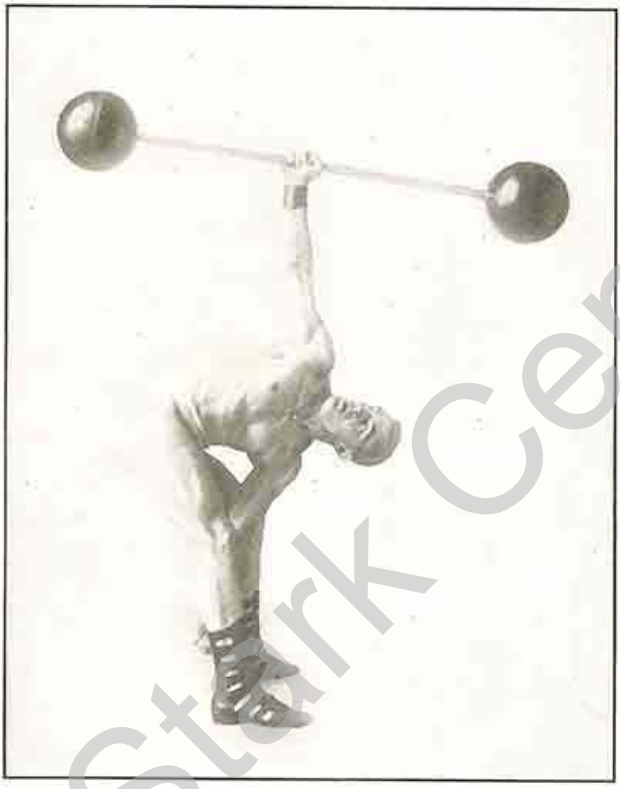
who has wonderful forearms developed by Bar-Bell exercises. Can tear tennis balls in two, bend spikes, and lift a 200-pound Bar-Bell from floor to shoulder, using only one finger.

ROBERT DALLAS

Mr. Alan Calvert, Proprietor,
The Milo Bar-Bell Company,
Philadelphia, Pa.

Dear Sir:

Two years ago I bought one of your LARGE SIZE Milo Triplex Bells. I have never been able to train regularly, and in consideration of this fact, I think the results I have obtained have been quite remarkable. Money could not buy what I have gained through using your system and bells.



MR. DALLAS ALL THE WAY DOWN IN THE BENT PRESS

Mr. Dallas is one of those who believe in carrying the left arm and shoulder between the legs, instead of resting the left shoulder on the left knee. This pose is absolutely correct in all the details. It shows that point in the press where the lifter has succeeded in getting his right arm straight under the bell and is preparing to stand up. Notice that the bell is pointing fore and aft, having swung completely around from its original position. As Mr. Dallas stands up the bell will swing back again.

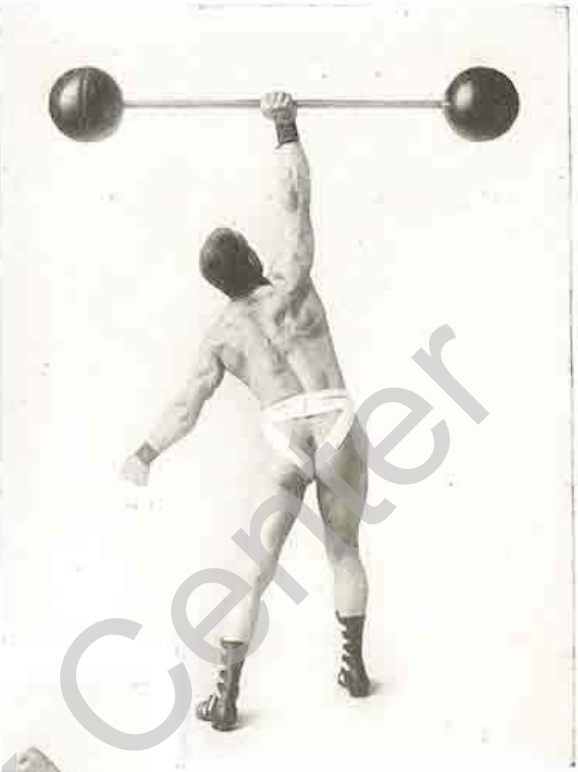
When I started training, I weighed 145 pounds, had a 39-inch normal chest, and a 13-inch biceps. To-day I weigh 172 pounds, my normal chest is 43½ inches, biceps 16 inches, and my neck measures 17 inches, waist 33 inches, wrist 7 inches, forearm 13 inches, thigh 23½ inches, calf 15½ inches.

Most of my work has been aimed towards securing development, and I have given comparatively little time to the practice of the Standard Lifts. I have, however, succeeded in raising 150 pounds in the right-hand Snatch, 170 pounds in the one-arm Jerk (either hand), 225 pounds Bent Press with the right arm, 200 pounds in the two-arm press, and about 260 pounds in the two-arm Jerk.

I hope you will be pleased with the pictures I am sending you. You are welcome to publish them, for it may help some other young man who is looking for a way to develop great strength and a fine physique. Yours truly,

(Signed) ROBERT DALLAS,
52 North Denny St., Indianapolis, Indiana.

I honestly believe that Mr. Dallas' pictures will be an inspiration to many an aspiring physical culturist. Mr. Dallas has a wonderful physique, is a first-class lifter, and he knows how to pose. Young men wishing to have muscular poses taken of themselves would do well to study these pictures of Mr. Dallas. Those of my pupils who are at present studying the Standard Lifts should give careful study to the pictures which show Mr. Dallas in the act of lifting.

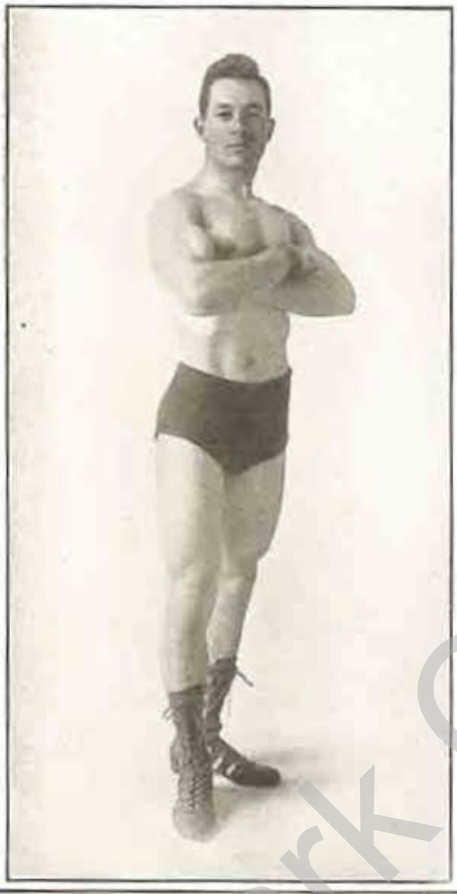


Completion of a one-hand Snatch by

MR. DALLAS

This graceful pose shows how much speed is necessary to successfully complete a quick lift with a heavy weight.

A pose showing the beautiful outline and great size of the muscles on Mr. Dallas' back and shoulders.



W. B. HOBERT, Jr.

Jackson, Miss., Nov. 29, 1915.

Mr. Alan Calvert, Propr.,
The Milo Bar-Bell Co.,
Philadelphia, Pa.

Dear Sir:

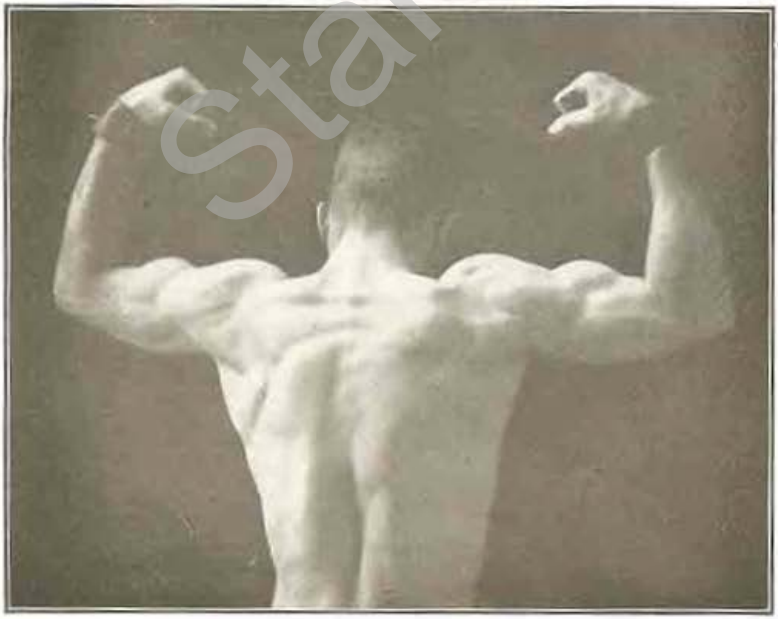
Last spring I bought a Large Size Milo Triplex Bell from you, but I have not been able to use it regularly. Altogether I have practiced about four months. When I started I could press 70 pounds above the head with my left hand. Now I can press 140 pounds in the same way, and I think that to double one's strength in four months shows pretty good progress.

I have made gratifying gains in the size of my arms and chest. At present I stand 5 feet 9 inches, weigh about 158 pounds, and my measurements are as follows:

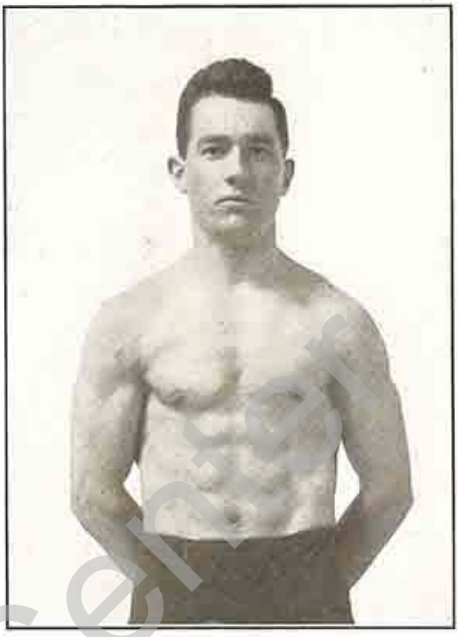
Normal chest	42	inches
Neck	16	"
Upper arm	15¼	"
Forearm	12½	"
Waist	31	"
Thigh	23½	"

(Signed)

Yours truly,
W. B. HOBERT, Jr.,
513 East Capitol St.



P. S.—I am having a little trouble in mastering the correct method of lifting with my right arm, and would like you to help with your advice.

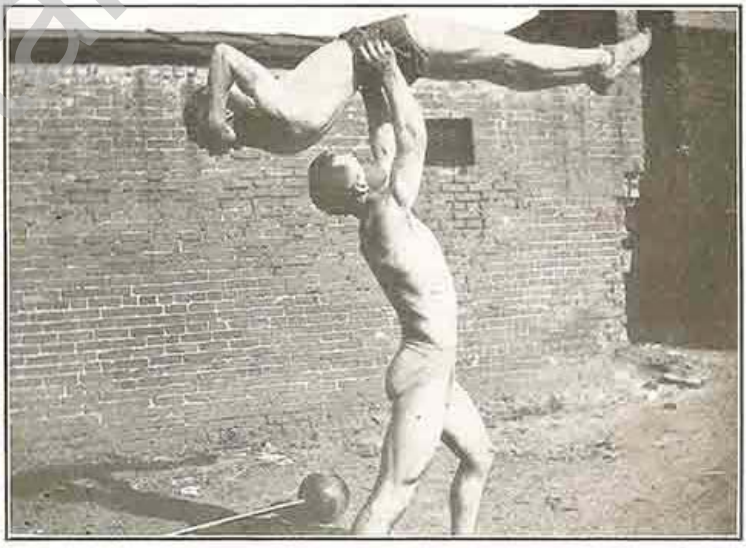


Mr. Hobert is what we may call a rugged type. He is a big-boned man and his muscles are still forming. In a few months more I expect Mr. Hobert to develop a 45-inch chest, 16½-inch upper arm, 13-inch forearm, 24½-inch thigh, etc.

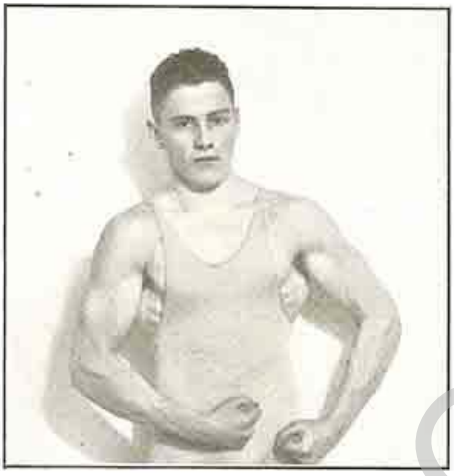
One noticeable thing about Mr. Hobert's build is his very broad hips; and broad hips are as important as broad shoulders to the very strong man. Mr. Hobert ought to excel at lifting and carrying very heavy weights. He is a man who eventually should make great records in dead-weight lifting, and he should be able, after he takes up the Advanced Course, to walk around with a weight of 1000 pounds across his shoulders. He tells me that recently, in order to demonstrate his strength to some of his friends, he raised from the ground the front end of an 1800-pound automobile, a feat which requires great back and leg strength.

The full-length picture shows the breadth of Mr. Hobert's shoulders and hips, and also gives you an idea of his fine arm development. At the bottom of page 12 is a picture of Mr. Hobert's powerful back. At the top of page 13 he is posed to show his abdominal development. In the last picture he is lifting a 160-pound friend above the head. This picture shows his great depth of chest and also his splendid thigh development.

Here is a point that should be noted. A man with a strong back almost invariably has a deep chest, because the strength of the back muscles holds the shoulders in position, and lifts the ribs. A man with a strong lower back almost always shows a pronounced curve on the back (or underside) of the thighs, a region in which a weak man is perfectly flat. You can see the curve referred to at the back of Mr. Hobert's right thigh.



ORVILLE O'NEILL



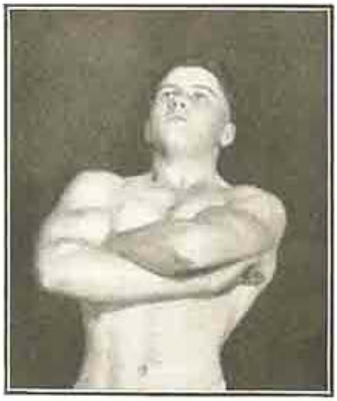
Chicago, Illinois, Nov. 1, 1915.

Mr. Alan Calvert, Propr.,
The Milo Bar-Bell Co.,
Philadelphia, Pa.

Dear Sir:

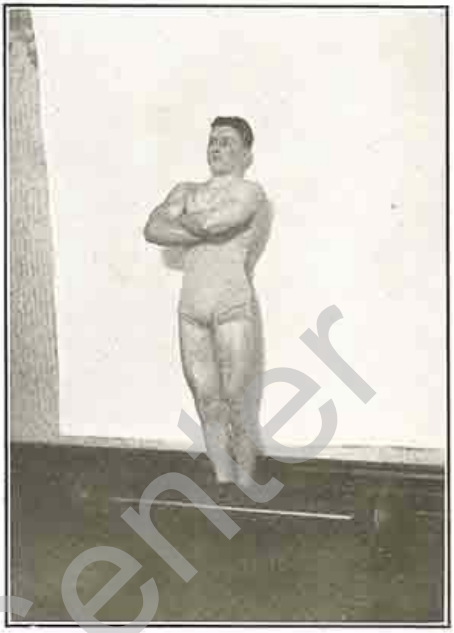
I am still training regularly, and it is surprising how I have gained in speed and activity since I have been using the LARGE SIZE Milo Triplex Bell. Before then I was rather slow at wrestling (my favorite sport), but lately the Milo has given me that great speed combined with great strength, which is so necessary to a good wrestler. Here in Chicago we have a Physical Culture teacher who claims that a heavyweight lifter's muscles respond slowly. One of his pupils is the champion rope climber of Cook County, with a record of 6 4/5 seconds for a 28-foot rope. On a test, I climbed the same rope in 6 2/5 seconds, which rather astonished some of the expert gymnasts out here.

I haven't done any big lifting lately, but I made a test in June, with the following results: Two-arm Press, 165 pounds; two-arm Jerk, 200 pounds.



I am sending you some snap-shots, taken in my room. Later on I am going to send you more, as I know I have not nearly reached the limit of my development.

Yours very truly,
(Signed)
ORVILLE O'NEILL,
632 Addison Street.



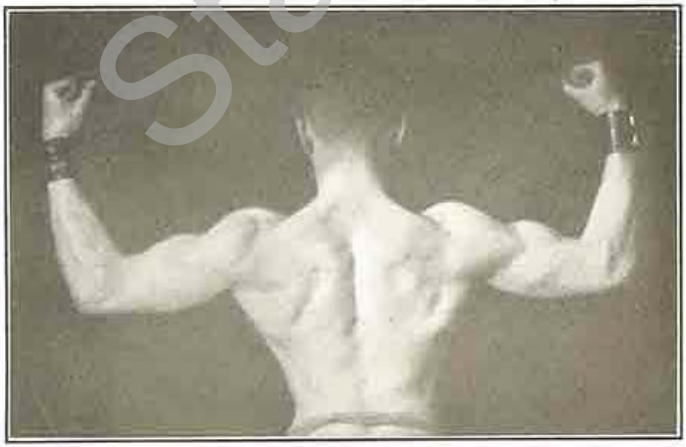
Some of the greatest stars among my pupils did not start training until they were over 25 years old. Other stars began training with weights at 16 years. Mr. O'Neill, whose pictures appear on these pages, is now 17, and has been training about a year.

He now weighs 145 pounds, and has a 40-inch chest, 14-inch biceps, etc.

Mr. O'Neill has apparently chosen to specialize on two-arm lifting. I applaud his choice, for in my opinion two-arm work with a Bar-bell brings increased bodily weight, development and strength quicker than working at the single-arm lifts. Developing work first, fancy lifting afterwards, is the best plan.

Mr. O'Neill is developing a very fine upper body; no matter what his position, you cannot miss that marked shoulder and upper-back development so characteristic of the "Strong Man." Notice in the lower picture on page 14 how the chest tapers to the waist; and in the lower picture on page 15 notice the pronounced development of the deltoid muscles. Six months ago young O'Neill was lifting 200 pounds overhead in a two-arm Jerk, and he has improved a lot since then.

Like many of my pupils, Mr. O'Neill started with a 100-pound plate bell, and as soon as he was able he graduated to a Large Size Milo Triplex Bell.



Since then he has indulged himself in a big 14-inch exhibition Bar-bell. In a future issue I will show you some pictures of Mr. O'Neil working with his big bells. A few more months will see another big increase in his measurements and records.

A TIME-HONORED STRENGTH TEST

Probably there is not one among my readers who has not at some time or other performed the feat of strength commonly called "muscling-out" a weight. This seems to be the most common strength test in this country, and it is, moreover, a very good test of the strength of one's arm and shoulder.

In writing these articles, I continually lay emphasis on the fact that the muscles of the shoulder and of the upper back and chest, which control the movements of the arm, are more important than the muscles of the upper arm itself.

Arthur Saxon, the champion weight lifter, in discussing the question of strength, stated that in his opinion a lifter must be very strong in three sets of muscles, and those were: the deltoid muscles on the points of the shoulders, the muscles of the small of the back, and the muscles of the thighs right above the knee. He further stated that great strength in the deltoid muscles helped a man to be a fine lifter, and told how his younger brothers, who had upper arms measuring only about 15 inches, coupled with tremendous deltoid development, could each lift 300 pounds above the head in a two-arm jerk; whereas many English lifters who had 16½-inch upper arms and only fair deltoids could not raise more than 250 pounds in the same lift.

The deltoid muscle, as everyone knows, is the triangular-shaped muscle on the point of the shoulder. The lower point of this muscle is attached to the bone of the upper arm, and when in action the muscle lifts the whole arm—either to the front, to the side, or, when working with the back muscles, it lifts the arm to the rear. Anyone who has a strong pair of deltoid muscles is fitted to excel at the test of strength known as "muscling-out."

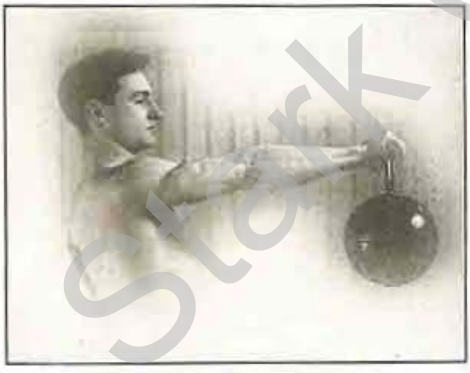


Figure A

This particular lift has never been governed by any rules in this country, but abroad it is considered as a standard test of strength, and very stringent rules are made controlling the way in which the lifter shall stand, hold his arm, etc. In France and Belgium this lift is very popular, and most of the records are held by Frenchmen. In France they recognize two ways of holding the weight at extended arm. The custom in that country is to use an iron weight shaped about like a brick, to the top of which a ring is attached. In the first test the lifter grasps the ring in his hand, and then he holds the weight straight out in front of him. The knuckles of the lifting hand are upward, and the ring is supported by the bent fingers and thumb. The correct position is shown in Figure A, and is called holding "at extended arm by the ring." You should note that the lifter is required to stand upright, because a backward bend from the waist would take some of the work off the shoulder.

In the second French test, the lifter holds the weight on the palm of his hand, and then extends the arm horizontally to the side, something as shown in Figure E. This is called holding "at extended arm on the hand." Note that while McMahon is holding a dumbbell in the palm of the hand, the Frenchman holds the square weight above referred to, one end of the weight being in the palm, and the other end of the weight resting half way up the fore-

arm, which, naturally, makes it much easier than holding a dumbbell. The arm is not supposed to be bent a fraction of an inch. The strain on the lower end of the biceps muscle, right above the elbow, is tremendous.

In this country, where we have no standard weights for this lift, it is generally performed in a rather slip-shod manner. Each lifter has heretofore been allowed to use his own particular style, and the result is that the man who is allowed to work with a bent arm is able to beat a much stronger individual who holds the arm straight and performs the feat correctly.

I have seen hundreds of men and boys try this stunt, and I find that even the weakest man can hold 15 pounds out in position Figure A without much trouble. Seventy-five per cent. of the men will hold out 18 pounds. Fifty per cent. will hold out 25 pounds, but when we get above 25 pounds the proportion decreases very rapidly. Not one man in ten can hold out 35 pounds straight in front of him, and not one man in a hundred can hold out 50 pounds. As this is a test of pure muscular power, it gives us an opportunity to judge the really terrific strength of some of the great lifters.

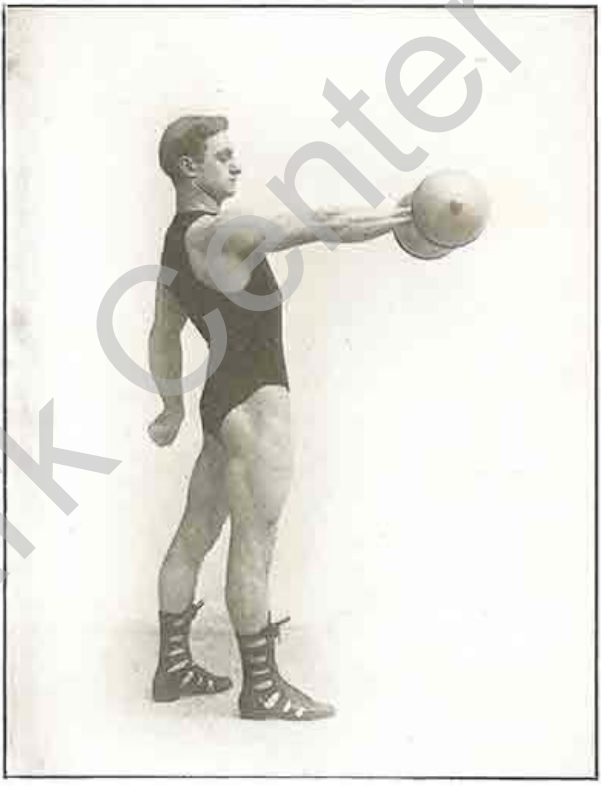


Figure B

In the March number of STRENGTH I wrote an article about the one-arm Military Press, and I told of a German athlete named Michael Maier who held the record in that lift. It is said that this man, Maier, once held 112 pounds STRAIGHT OUT IN FRONT OF HIM WITH THE RIGHT ARM, as in Figure A. Another German, named Carl Abs, is unofficially credited with 110 pounds. Apollon is said to have held out 100 pounds by the ring, and several other Frenchmen have held more than 80 pounds. All these records are eclipsed by the marvelous performance of the Canadian, Louis Cyr, who in Chicago, May, 1896, is said to have held 129 pounds by the ring. This seems to be almost unbelievable.

All the men I have mentioned above were big, heavy individuals, and Maier and Cyr were both short in stature and had short arms. No small man has a chance to equal such records as these men made. I do not believe that it is humanly possible for any man to hold straight out in front of him by the ring a weight half as heavy as he is himself. When we consider Cyr's record of 129 pounds, we must bear in mind that Cyr himself weighed 294 pounds; and that Maier, who held 112 pounds, weighed over 250 pounds.

Figuring on the same basis, a 150-pound man would do well to hold out 67 pounds. I have seen a man, who weighs only 145 pounds, hold 65 pounds straight out in front of him.

In holding the weight straight out in front by the ring, it is customary to first lift the weight in the right hand until the right thumb touches the left shoulder, and then to straighten the arm out in front of the chest. Cyr's record was not made in this way. He used a dumbbell instead of a square weight, and he first snatched the bell to arm's length above the head, and then slowly lowered his arm until it was horizontal, as in Figure B.

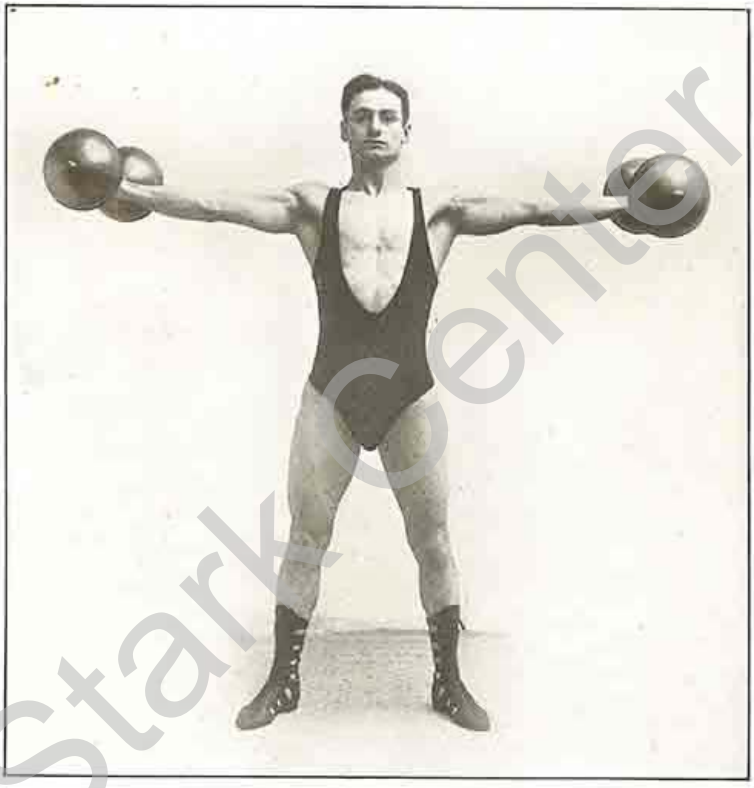


Figure C

When a lifter holds a weight out to the side in each hand it is called the "Cross" or "Crucifix Position." In this feat it is customary to first push the weights above the head, and then lower them into position with arms **straight**, that is, NOT bent at the elbows. The proper position is shown in Figure C.

It is possible, by keeping the arms bent, and twisting them in a certain way, to sustain much more weight than can be held with straight arms, because the muscles of the shoulders become "locked." Figure D shows this INcorrect way of performing the "Cross." Note that the body is bent backward so as to make the arms **appear** to be on a level with the shoulders. It is easier to support 50 pounds in each hand INcorrectly than it is to support 40 pounds correctly, although it is no child's play to hold out a 50-pounder in each hand no matter **how** you do it. When you stop to consider that the average man cannot lift a "fifty" in each hand from the floor to the shoulder, you realize what strength it must require to "hold out" that amount of weight.

Any man who specializes on this incorrect "lock" position must be almost insensible to pain. Early in 1915 I saw an English professional Strong Man and wrestler (who weighed only 148 pounds) lift above his head an 83-pound dumbbell in his right hand, and an 81-pound dumbbell in his left hand, and then lower them into the lock and hold them for about three seconds. It was one of the greatest feats of strength I have ever seen, but I consider that it was dangerous on account of the unnatural position and the immense amount of weight used. This man, however, has flesh that is about as tough as wood.

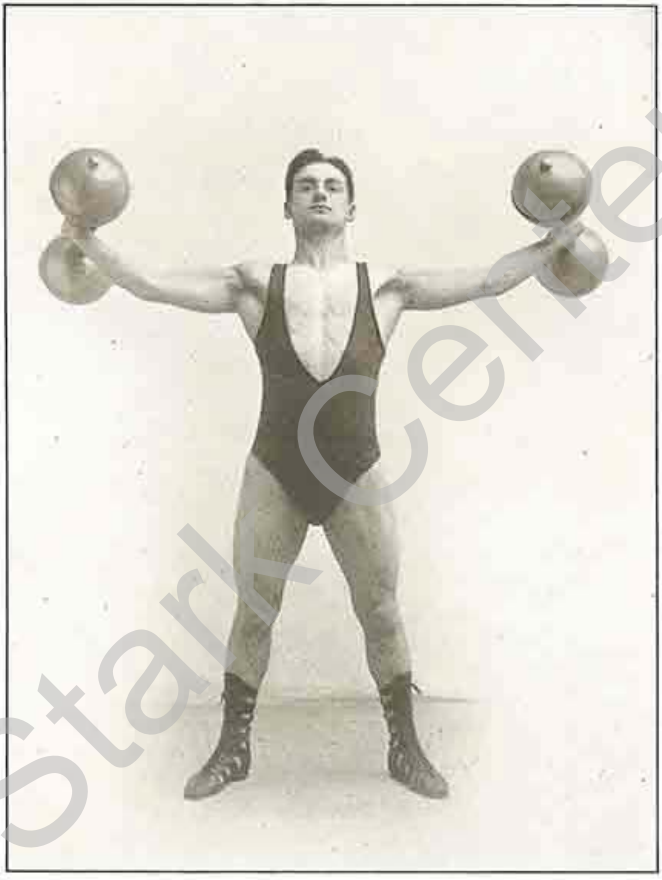


Figure D

His hands are wonderful; he can put the tips of 5 billiard cues between the first and second fingers of his right hand stretch his arm out in front of him, and hold the 5 cues parallel to the floor.

In the single-arm feat, with the arm at the side and the palm up, it is, naturally, much easier to sustain a weight in the incorrect position Figure F than in the correct position Figure E. In a competition, no judge would let a lifter "get away with" position Figure F.

Many lifters claim that it is much easier to hold out two "fifties" to the sides than to hold out a single "fifty" correctly, the argument being that two weights balance each other and take all the strain off the sides of the waist. Certainly it is hard to stand bolt upright with a weight out at one side only;

so in the one-arm feat most lifters prefer to hold the weight out in front with "knuckles up."

It takes a very big man to make high records in the single-arm feat, but a very strong man of average size can make splendid records in the Crucifix lift.

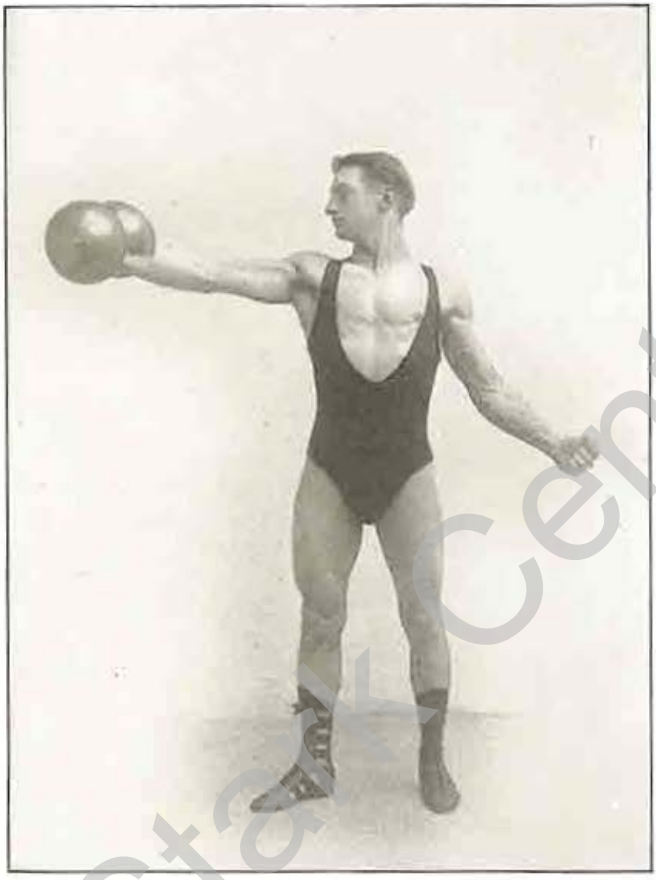


Figure E

But let me tell you about a couple of instances of wonderful ability in holding a weight out to the side. A professional weight lifter and I were talking about lifting with the little finger. In order to illustrate a point in the discussion, I hooked my little finger into the handle of a kettle-bell and lifted it above my head—a thing that is very easy to do if you allow the kettle-bell to rest on the back of the forearm. My visitor then took the kettle-bell (which weighed about 52 pounds) raised it as I had done, then lowered his arm to the side, allowing the kettle-bell to hang from his little finger, and then slowly raised his arm again to the vertical. This was a prodigious feat.

In London, in 1912, an athletic carnival was held to honor the 80th birthday of the famous Scotch athlete, Donald Dinnie [which is another proof that Strong Men do not die young]. About 50 years ago, Dinnie traveled around the world and took part in over sixty lifting matches, and lost only one, and that on a referee's decision. At every one of these contests Dinnie performed the following feat: He would hold one hand out to the side—arm perfectly straight; an assistant would then lift a 56-pound weight and place it on the palm of Dinnie's hand, and he would hold his arm steady for about 30 seconds. This is infinitely harder than it is to raise the weight aloft yourself and lower it to the side, and Dinnie says he never met another man who could duplicate the feat. At the age of 80, Dinnie could still "muscle out" a "56-pounder."

I have just been reading the life of Sir Hiram Maxim, the great inventor, who was born in Maine. Naturally a big man, he developed his muscular strength to the limit by the hardest kind of labor in his youth. Sir Hiram states that in his English factory there was a 50-pound weight, and that he

took this weight in his right hand, held it at arm's length, lowered it a few inches, brought it up to level again, and repeated this several times. Not another man in the whole works could do it even once. This is almost as hard as Dinnie's feat.

Hackenschmidt, the lifter, is said to have held out correctly 90 pounds in his right hand and 89 pounds in his left; and Khryloff, a Russian lifter, has a record of 90 pounds in each hand. Both of these men have wonderful arm and shoulder development. Hackenschmidt's arms, when he was at his best, measured 18 inches around the biceps, and Khryloff's arms were even larger.

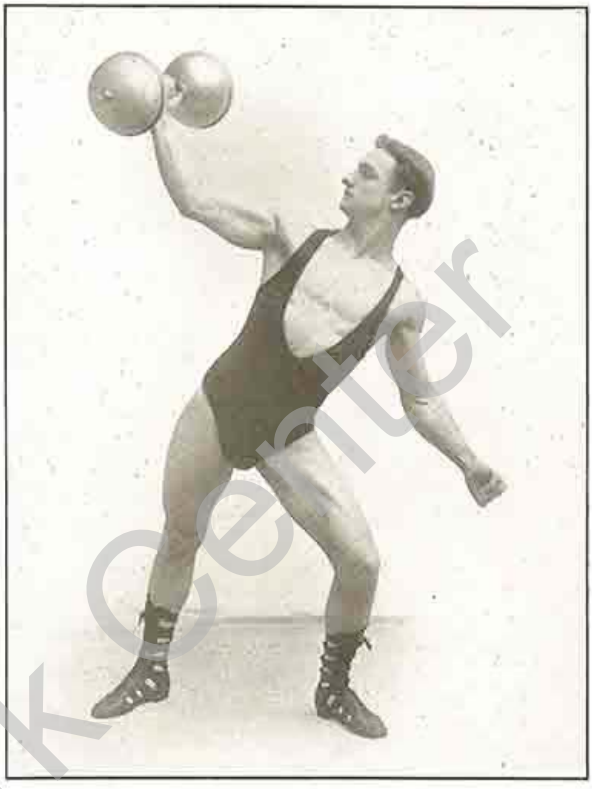


Figure F

Perhaps the greatest stunt of all was that performed by Apollon, the French giant, a picture of whose arm was shown in the September STRENGTH. Professor Desbonnet, who is the great French authority on lifting, states that he had in his gymnasium a plate bar-bell, the largest plates being nearly 4 inches thick and weighing about 90 pounds each. The bell belonged to an amateur named Briancon, and as the biggest plates resembled lozenges in shape they were so nick-named by the lifters who frequented the gymnasium. One day the bell was being packed for shipment, and Apollon, who had never seen it before, asked: "What is that?" Professor Desbonnet replied: "Oh, those are Briancon's lozenges." Apollon said nothing but continued to watch the workman who was packing up the bell. This man would pick up one of the 90-pound plates in both hands and laboriously carry it to the other end of the gymnasium and put it in the packing box. After a minute Apollon said: "Here, I will help you," and walking over, he picked up with his right hand one of the 90-pound plates by the edge, stretched his arm out in front of him in the correct position, walked the length of the gymnasium, and handed the plate to the astonished workman, saying: "Here is a lozenge for you." The plates were nearly four inches thick, and nobody but Apollon, who had enormous hands, could have possibly performed the feat.

Holding weights at arms' length is not an exercise—it is a test of strength, and should be indulged in only occasionally.

The deltoid muscle on the point of the shoulder opposes the enormous back muscle called the latissimus dorsi which pulls the arms downwards and backwards. Therefore, a man with good deltoid muscles usually has good

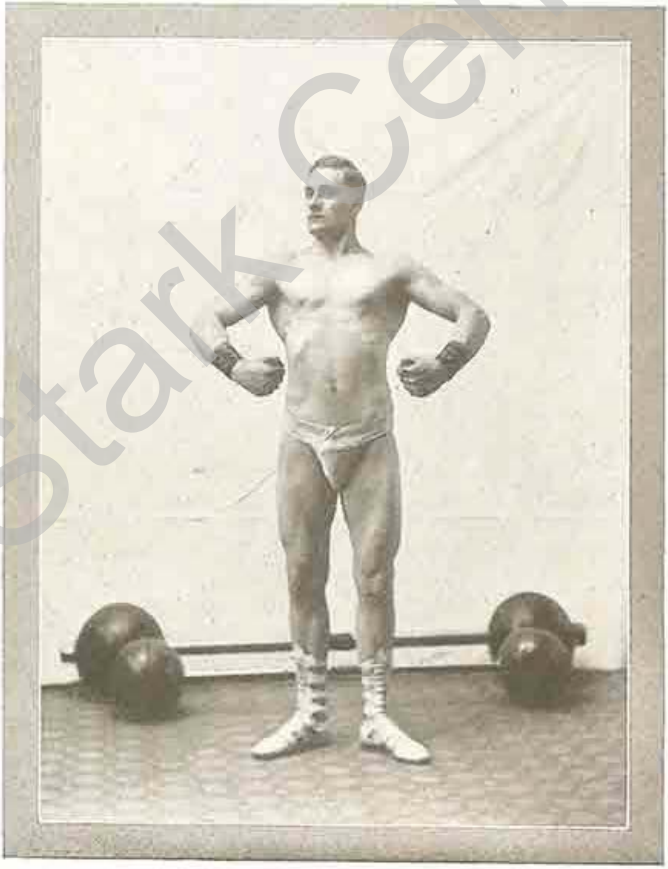
muscles on the broad of his back, which explains why most broad-shouldered men have wide backs and deep chests.

Pushing bar-bells and dumbbells aloft, and performing other developing exercises with them, quickly strengthens and develops a lifter's shoulder muscles; in fact a lifter's shoulders are so strong that it is comparatively easy for him to hold heavy weights at arms' length. An ordinary athlete or gymnast who cannot hold out in two hands as much as a lifter can in one, is generally so amazed at the lifter's power that he is sure there must be some "knack" in the way the feat is performed. I have seen many gymnasts who found it almost impossible to take in the fact that a lifter's shoulders were twice as strong as a gymnast's.

Don't let anybody tell you that there is a "knack" in holding weights at arms' length. You can make a trick out of it by doing the feat incorrectly, but if you hold the weights correctly, there is nothing except sheer strength that is going to keep your arm in a horizontal position.

NOTE.—My readers will doubtless remember the beautiful picture of Mr. Charles McMahon which ornamented the cover of my booklet, "GENERAL STRENGTH." Mr. McMahon kindly consented to pose for the illustrations for this article.

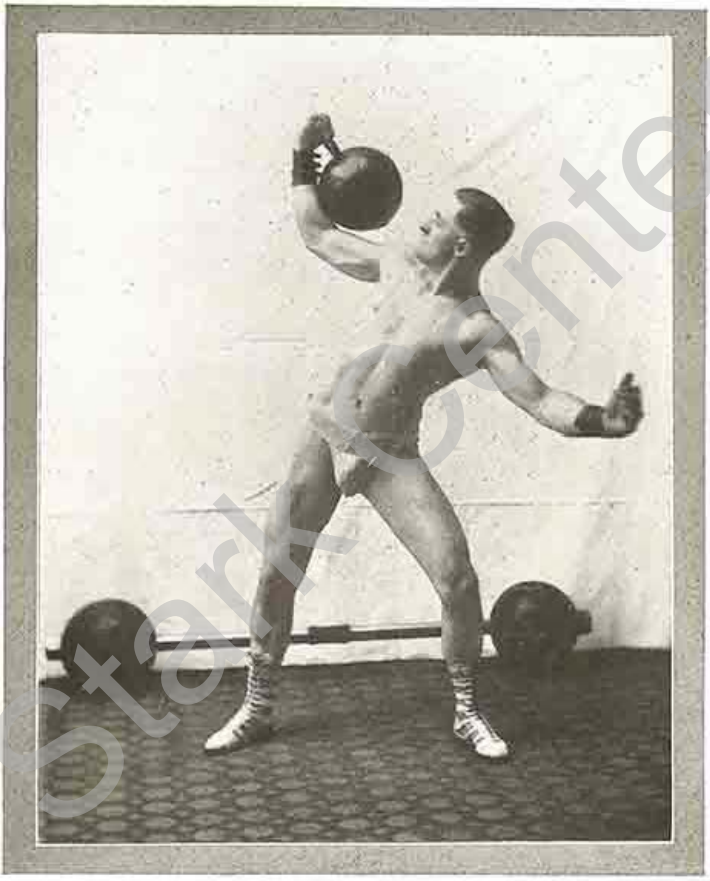
McMahon has never specialized at holding bells at arms' length, but one time in my Chestnut Street office I saw him hold a 58-pound bar-bell correctly on the hand, as in Figure E. It is much harder to hold a bar-bell than a dumbbell, or a ring-weight.



R. S. SWAINHART (See page 23)

RUFUS SWAINHART

Mr. Swainhart is one of our pupils who has already "arrived." When a lifter makes such progress that he is able to press 200 pounds above the head with one hand, he has entered the ranks of the **very strong.** For a long time 235 pounds was supposed to be the limit that could be lifted above the head by a man weighing less than 200 pounds; but a number of athletes in Europe and several of my pupils, have disproved this theory. Swainhart can press 225 pounds any day, and before the winter is out will make an official trial at 250 pounds.

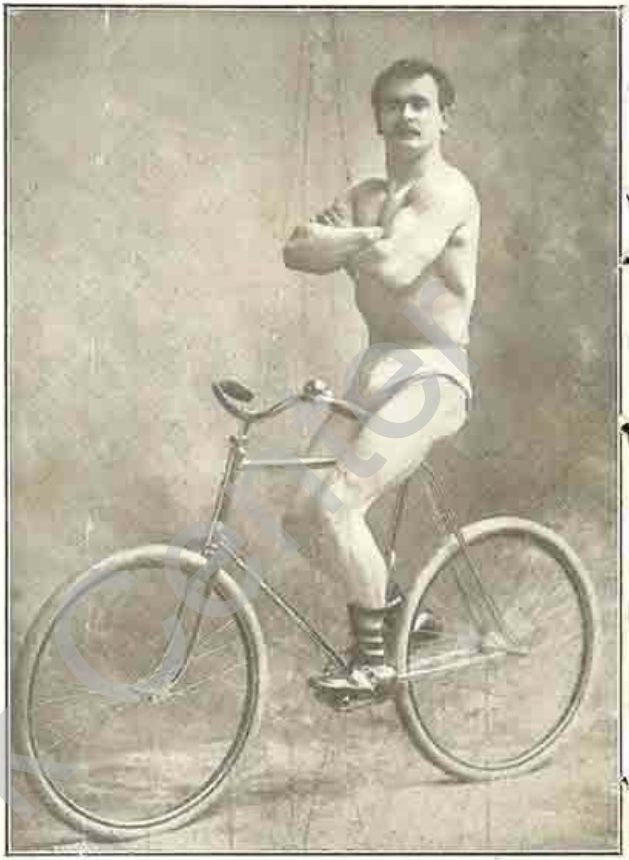


When he bought his bell some three years ago he was a very slender youth; his progress since that time has been amazing.

I like the picture on this page—it shows so well the depth of Mr. Swainhart's chest and the muscular outlines of his arms and legs. Mr. Swainhart is 5 feet 8½ inches tall, and weighs about 165 pounds, although he appears much heavier. His neck measures 16 inches, chest 40½ inches, biceps 15 inches, thigh 23 inches, etc.

Mr. Swainhart sent me two other pictures, one of which shows him making a big lift. I will publish those pictures in the January number of STRENGTH.

EUGENE SANDOW



There is a report in the newspapers that Eugene Sandow was shot in London as a German spy. The rumor seems to come from California, which leads us to hope that it is not founded on fact. Sandow was so celebrated that it seems as though authentic dispatches would have been sent out from London in case of his death.

Sandow made his first appearance in London, in 1889, and made his home there the last 20 years. He was said to have been born in 1867, which would make him 48 years old at the present time.

All weight lifters owe a debt to Sandow. The fact that he had developed his wonderful figure by the use of weights created an enthusiasm for lifting that spread all over Europe. At the outset of his career, Sandow was always anxious to life for records so as to prove his claims. He never expected anyone to take his word about his lifts, and backed his statements with actual performances.

Two of his best lifts were a one-hand Bent Press with 271 pounds, and a one-arm Swing with a 171-pound kettle-bell.

Sandow was unquestionably one of the most beautifully built men of modern times. This picture was taken in London, about 1895. I doubt whether it has ever been published before in this country.

Issued by
THE MILO BAR-BELL CO.
1116-1122 Olive Street
Philadelphia, Pa.