

Figure No. 13

Otto Arco, in one of his "easy" poses. It gives you an idea of the proportions which won him the world's title for harmonious development.

OTTO ARCO

Athlete Extraordinary



AFTER we had finished taking the accompanying pictures of Arco, Mr. Scott and I agreed that he was the hardest of all men to photograph. Not that he moved. If once a pose was decided on, he could hold himself absolutely immovable; and not that he was particular, for he willingly assented to try anything we suggested. No! the trouble was to decide which of the many possible poses we would take. My original idea was to get some pictures for my study of the back, and some showing "muscle-control."

As the athlete would shift from one position to another, we would get a succession of muscle vistas—poses that would have been highly original. But when we would try to have him reproduce the pose which had caught our fancy, neither Scott nor I could recall the exact relative position of arms, legs and body which had produced the particular muscular display selected.

~~Of all the well-developed men I have seen~~, Arco has the greatest power of controlling his muscles. His ability to alter their size or shape by flexing them, is something which has to be seen to be realized. At one moment he will be standing at ease, always wonderfully balanced on his feet, and his body and limbs as smooth as those of a swimmer; hardly a muscle would show except those on his breast and abdomen; just the ones you see on the statues of the Ancient Greek athletes. But as soon as he would shift his position, or make even a slight movement, the muscle would move in ripples. At the call for a certain pose he would instantly freeze into immobility, with the required muscles standing out in great smooth bosses or cables. Arco's pictures have appeared in several magazines which deal with muscular development. I showed some in the original "Strength" Magazine in 1917, being glad to seize the opportunity after seeing his pictures in the European sporting journals in 1906-7. In practically all such pictures, Arco deliberately posed to show his muscles at their maximum size, specializing on the display of the arm and abdominal development. It was at his suggestion that we posed him in a way that would better show the general lines of his figure, and the aspect of his muscles when in repose.

In the set shown herewith we used either a very strong top light, or an equally strong light from one side. Figures 13, 14 and 15 are in the first lighting, 16, 17, 18 and 19 in the second.

In only one of the lot was there any attempt to make a display of muscle; figure 14, where he tensed most of the arms and body muscles. Because the position is easy there is no impression of strain. Possibly it is the abdominal muscles which will first impress you, but you must not overlook the sinewy forearm, and the really wonderful deltoid muscle capping the right shoulder. In this pose the remarkable thing is not just the size and clear-cut shape of the individual muscles, so much as the fact that the man is able to show the deltoid, the triceps, and the biceps muscles without the necessity of putting

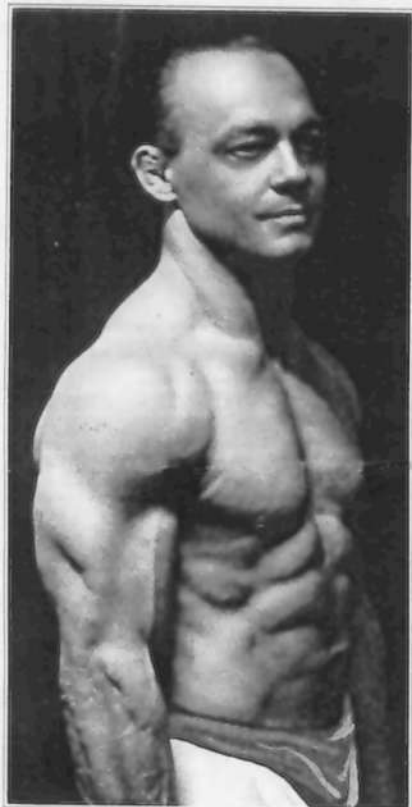


Figure No. 14

Arco doing a "simultaneous muscle-control" in which he has flexed every muscle above the waist.

cles. When I said to him, "Otto, those muscles on the small of the back are the best ones you have," he looked up, smiled and replied, "Exactly what Des Bonnet said when I posed for him in Paris." Which makes me repeat that the small of the back is the most important part of a "strong-man;" the keystone of the muscular arch.

The picture I like best is Fig. 13, because it shows such a splendidly well-knit balanced figure, and such roundness of body limb and muscle. I infinitely prefer it to the usual "bent arm" pose which displays his flexed biceps, marvelous as that biceps is.

any one of them in the position of extreme contraction; a thing which is possible only when the muscles are naturally highly developed, in repose as well as in action.

I regret that figure 18 was not finished in time to permit its publication in "The Broad of the Back," as it furnished a striking demonstration of the right *latissimum dorsi* muscle. Incredible! almost, and, perhaps, some will say unjustly. Possible only for a man whose back, when in repose, shows the great smooth expanses of muscle seen in Figure 17. Did you ever see such muscles as these along the spine? Before posing he was sitting on a chair, leaning over and lacing his shoes, a position in which the average man will show no muscle, but only a row of bumps, where the spines of the spinal column are pressing against the skin. You could see no such bumps on Arco's back, —they were hidden in the channel between the great cables of the erector mus-

As previously remarked, his ability to increase the size, and to change the contour of any given muscle is almost unbelievable. It seems hardly credible that the almost slender looking man in Figure 19 can be the same individual as the rugged Hercules in No. 14; or that the back which is so smooth in Fig. 16 could be made a moment later, to assure the extraordinary width and contour of the one in No. 18.

Arco's "act," as given in vaudeville, is what the professionals call a "routine" of hand-balancing feats of the Herculean order. The hardest stunts are in the beginning of the act. On their completion the stage is darkened for a couple of minutes while he poses in a lighted cabinet. There are many physical culturists,—enthusiasts on shape and development,—who would have Arco's posing continue for ten minutes. It is perhaps *the* feature of the act; altho he will tell you in confidence that its principal value is that it allows him a rest after the greater exertion of the preceding stunts. The posing done, he closes with some very sensational feats, which tho they create enthusiasm, do not require a tithe of the strength used in the opening routines.

It is probable that no other performer in his line has so many back-stage visitors as has Arco. Boys and young men seek the opportunity to express their admiration, to ask advice, and to beg for pictures. Besides which, he is kept busy welcoming members of the "profession" who obviously regard him as one of the masters. Even his rivals consult him on matters of physical condition and performance.

Those who are supreme in one line of work invariably attract the leaders in other lines. When showing in Los Angeles, the management on several nights would make arrangements to permit the two best-known male movie stars to slip up to the back of the Gallery, where, unobserved, they could watch Otto's act.

Equally interesting were snap-shots showing him wrestling with his greatest pal, Stanislaus Zybysko. One,—most astonishing,—showing the 145 pound Arco starting a "flying mare,"—that is, preparing to hurl the gigantic Zybysko over his shoulder. Posed? Of course. They are great jokers!—but nevertheless a startling picture.

It happens that Arco and Zybysko were schoolmates in Poland; that they did their training in company; and that about 18 years ago (I forget the exact date) when Zybysko won the world's wrestling championship (at Paris) in the heavy-weight class, Arco annexed the crown in the light-weight division. It was in 1913 that Arco won the prize and diploma in the same city, as the "best developed man in the world," something which I had not known until recently, and would not have learned if he had not come across the diploma among his store of pictures.

If asked his age he will smilingly admit to being "over forty," "about as old as Stanley (Zybysko); ask *him*." Another one of his pictures,—on the steps of the Zybysko summer home at Old Orchard,—Jack Dempsey, Mr. and Mrs. Zybysko, Otto and one or two others, most of them in bathing suits.

Remarkable, because it includes the World's Champion fighter; the man who was for years the world's Champion wrestler; and the man whom experts regard as the champion in regard to development.

Before leaving the personal side, it might be mentioned that tho a "Strong Man" by vocation, Arco is a Stamp-collector by avocation,—famous as an authority in that line; and that one of his great ambitions is to prove to the Zybyszkos that he is also a leading expert in the art of playing poker.

How did he train? Acrobatics, tumbling, weights, wrestling, and muscle control. Probably the world's best at his weight in the third and fourth, and certainly supreme at the last. He is gently reproachful because I abandoned the field of heavy-weight work; but, being in agreement with me on many phases of body-building work, offers me his co-operation, which is valuable beyond estimation.

He has spent some time during the last couple of years in perfecting a device which is absolutely unique in the line of exercising apparatus. Something which enables any one to master the basic feats,—the first principles,—of tumbling and hand-balancing. A mechanical aid, which makes unnecessary the presence of an assistant or instructor, and which provides conditioning and developing exercise. When he is ready to market it, I am going to present him with two or three pages in one of my future issues, and let him explain the uses of his apparatus. It will be worth while, for he is one of those remarkable people who has the gift of perfecting anything in which he takes an interest. While I have only a sketchy idea of what his apparatus is like, I know that when marketed it will be *perfectly made*: and that it will do what he claims for it. He is that kind of a man.

It is customary to finish an article like this by giving the measurements of the athlete. If I ever knew Otto's measurements I have forgotten them. Moreover, I do not particularly care what they are, for mere bulk does not mean either strength or shape. It is the strength and shape of his muscles which interest me. He was in Philadelphia for two engagements and we spent a lot of time together. As I recall it we never once got around to the subject of measurements; either his, or any one else's. (Rotten grammar that!) Shape! Yes, Strength and *ability*. Yes, indeed! But measurements were forgotten.

I am aware that I promised you 2500 words on Arco, including his views on training. There may, or may not be, 2500 words in the foregoing. Anyway you will find his opinions woven in the two following articles.

“THE LARGER ASPECTS OF MUSCLE CONTROL”



FIRST impressions are apt to be very lasting. The words “Muscle Control” were first applied to a group of flexing exercises issued by Maxick (Max Sick) in England. A very similar set of exercises, (published under the same title) were later advertised and issued in this country. Consequently, I find that every physical-culturist, whom I meet, clings to the idea that the few exercises, or stunts, given in the above mentioned courses comprise all there is to “Muscle-Control.”

What is really meant by “Muscle-Control” is mind-control over muscle. Simply, the ability to flex a muscle by an effort of the will, without the motion of limb or body which usually accompanies such flexion. For example—If while standing erect you rise as high as possible on your toes, the muscles in the rear of the calves will flex and harden. In fact, it is the contraction of these muscles which lift your heels, and thus put you on tip-toe. As the calf-muscles contract, the aspect of the calf is changed. The muscles shorten and rise in lumps; the calf itself becomes momentarily wider from side to side. *That* is muscle contraction associated with motion. In “muscle-control” there is contraction *without motion*. Most of you can, when sitting in a chair, harden the calf muscles, just by *willing* to do so. Try it *now*. It is easier to do, if the calves are perpendicular. Without raising your heel, just harden the muscles of the right calf. Place your hand on those muscles and you will feel that they are bunched up, and that the calf gets wider every time you tighten the muscles. (It happens that it is much easier to thus mentally control the calf muscles when you are sitting than when you are standing erect.)

Anyone who can so control the calf muscles can, if he chooses, learn to control *any and every muscle in his body*, to a greater or less degree. In speaking of the thighs I said that keeping the knees back, helped to shape and develop the thigh muscles. That entails a slight degree of muscle-control. Stand loose-kneed and the thigh muscles are rather limp. “Tighten” your knees and you can feel the thigh muscles contract.

If while standing erect, you alternately tighten and relax the knees, then the kneecaps will move up and down; and, as they do so, the muscles on the front of the thighs will do likewise.

Anyone who has ever taken arm-exercises, can harden the arm muscles, if he first bends his arm at the elbow. This is the most common feat of muscle-control, owing to the desire of some to display a “big arm.” To control the arm and leg muscles is a simple thing,—easily learned. To control (flex by will-power) the different muscles on the body is a more difficult matter; a thing which does not come natural, and which has to be taught.

So these courses in “muscle-control,” consist mostly of directions how to gain mental control of the muscles which cover the trunk, hips and shoulders. Queer stunts, some of them, in which the abdominal muscles are made to appear as a double or single cable; the shoulder-blades to project like wings;

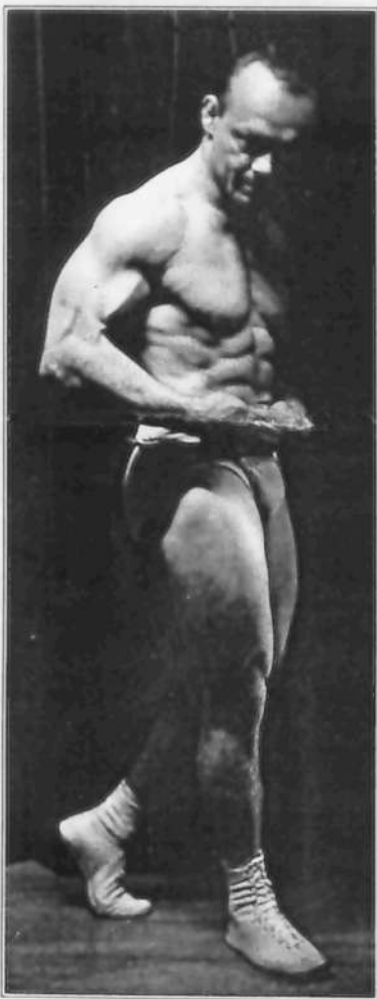


Figure No. 15

Arco, looking rather dissatisfied, because we could not adjust the lighting so as to get the effect he desired.

the breast-muscles to jump up and down; or the digitations of the intercostal and external oblique muscles to appear like parallel saw-edges. (In Figure 2 those last named muscles can be plainly seen, owing to the contractions necessary to raise the leg and maintain the balance.) There are specialists who can cause a similar contraction and display without any movement of body and leg; and just by an effort of the will.

Muscle-control in that sense, is nothing new. When you watch a "strong man" displaying his muscles in a lighted cabinet, you are witnessing a series of muscle-control stunts. Sandow did that as long ago as 1893. Besides showing some new and pleasing poses in the cabinet, he introduced some "control" stunts between his feats of strength. And while he was doing that in the Trocadero Theatre in Chicago, some Egyptian women on the "Midway" of the "World's Fair" were startling other audiences by another variety of muscle-control known as the "belly-dance." For a generation muscle-posing, (which is entirely dependent on muscle-control) has been a recognized part of a strong man's act. Other performers have specialized in it, carried it to unbelievable lengths, and called themselves "dislocationists."

All that is "muscle-control" in a *limited* form. Such stunts can be used as a form of exercise; altho it is doubtful whether they add much to either the size or strength of the muscles. Unquestionably they do help to promote a better circulation of the blood. They might be prescribed for some people whose weakened condition makes even mild movements tiring; were it not for the fact that they are the very ones who find it almost impossible to *learn* control.

Arco's conception of "muscle-control" includes not only the ability to flex the muscles at will, but also the further ability to *utilize* the control in anything he does in the athletic line. In the limited use of the faculty, the posing part, he is admitted to be supreme. He can do any control stunt performed by others, and some which no one else can do. Some of the most difficult stunts were originated by him. But he is more interested in "control" as it helps him in his athletic work.

When, many years ago, he made some great lifting records, he says that his ability to control the action of his muscles, enabled him to lift far more than anyone else of his weight. That at the different stages of a lift, he could flex only those muscles which assisted in elevating the weight; instead of,—as many lifters do,—limiting his power by flexing some other muscles which counteract the lifting muscles. That, since success in lifting is largely dependent on proper "timing," his ability to instantly bring any set of muscles into action was an invaluable aid to him in shifting his position. Finally, that to this day he similarly utilizes his "muscle-control" in the performance of his hand-balancing act.

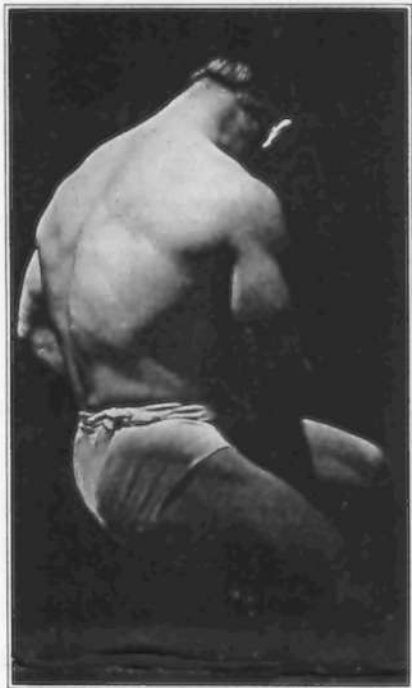


Figure No. 16

Arco. Tho in a relaxed position, it should be noted that there is no "slump", — no bend in the lower part of the back. He is about the straightest backed individual I have ever seen.

Reflection will show you that this kind of muscle-control is not only advantageous, but necessary, in most forms of gymnastics and athletics. Tight-rope walkers, and equilibrists, must have the power to control the muscles which preserve the balance. A tumbler has it in a high degree, because his ability to turn his body in the air depends on flexing certain muscles at certain instants.

For that matter a perfectly timed and controlled "drive," in golf, is an excellent example of muscle-control; since the "body-swing," the shifting of the weight to the advanced foot, and the rhythmic movement of the arms, *all* depend on the ability to accurately control the muscles.

"Muscle-control" as a means of muscular display, interests only those whose hobby is muscle-culture. Even at that, it is useful only to such individuals who are already well-developed; whose muscles are full-sized in repose; and, therefore assume lines that are more or less beautiful when flexed. For the underdeveloped, and even for those of average size, the practice of extreme muscle-control stunts serves but as a pitiless revelation of the shortcomings of a partly-developed body. When done by such masters as Sandow, Arco or Maxick, these feats of control are always impressive, rarely repulsive, and sometimes awe-inspiring.

The greatest interest in "muscle-control"—the technical kind—is in its possibilities as a means of development. Perhaps there *are* individuals, who have succeeded in getting a prominent muscular development thru the daily performance of "muscle-control" stunts. The trouble is that muscles so developed, while they may stand out distinctly, rarely have power in proportion to their size. And, almost invariably, the development is confined to these few muscles which are involved in the most spectacular display stunts. The objection to "muscle-control" as a means of development, is much the same as the objection to the once-popular "resistance exercises;" (those in which a muscle is developed thru working it against the resistance of its opposing muscle.) Unquestionably resistance exercises helped some men to get showily-developed upper arms. But both methods are limited in their application to comparatively few muscles; and both involve a nervous drain.

In our discussion, Arco very properly claimed that a muscle *should be judged as much by what it can do*, as by the way it looks, and that muscles were most useful if they were developed *by actual use*. *His* muscles are the result of the extremely vigorous exercise he took in his youth. He claims that muscle-control, while a very useful *adjunct* to training, is not in itself a source of strength and development.

It was interesting to discuss with him the effects of different training methods; especially the subject of muscle-culture. By virtue of his own superb development he could qualify as an expert; and to his own personal experience he adds his observations of the results obtained by others. We agreed, absolutely, that there is a certain danger attached to the *too intense*

cultivation of muscle, for the sake of muscle alone. Strange as it may seem to you, it is far safer to develop muscle incidentally to the performance of heavy athletics, (or actual work), than it is to employ some supposedly lighter exercises.

When a man goes in for muscle-culture,—not for strength, or shape, or general power and proportions, mind you!—but just to get his muscles as *big* as possible—he finds it necessary to work his muscles against great resistance. And if light movements are selected as the means, it is found that the resistance furnished by very light dumbbells, (or weak springs or rubber strands) fails to furnish the necessary resistance. So it becomes necessary to augment that resistance by other means. Most frequently this is done by the means of savage concentration. At the finish of a movement, (such as bending the arm to flex the biceps,) the tension of the biceps muscle is increased by an intense mental concentration,—a flexion so severe that it causes the biceps to become knotted. The same principle is applied in all the other muscles. This is called “muscle spinning,” and it is practiced by many who place the *bulk* of their muscles ahead of their general bodily welfare.

This forced flexing of the muscles is attended by an intense nervous concentration. The apparatus used is so light that it becomes negligible. The thing that produces the muscle is the contraction thru will-power. Both Arco and I could, and *did*, recall several individuals who had by such means, obtained the most fearsome muscular development. I cited the case of a boyhood friend, who had exercised three hours daily with a pair of five-pound dumbbells,—who made his arm, shoulder and breast muscles prodigious,—and who died before he was thirty,—a nervous wreck. Arco countered with, “And there was another of these ‘concentration’ fellows. He was forever flexing, flexing, flexing. His muscles were bigger than mine; and hard!—*Oh*, so hard! But for strength! They had none! Why! he spent so much nervous energy in making his muscles big, that he had not strength to do his act. Today he is in an Insane Asylum.”

By comparing notes we found that there were several others, who had become either physical or mental wrecks thru the nervous strain of *forcing* muscle by means of intense concentration; which is a condition that *never* is caused by actual work or athletics, where the muscles are flexed only as the means of accomplishing a movement of limb or body. That explains why so many people are opposed to muscle culture, as such. When a man takes up exercise, his first object is the maintenance of health. Physical fitness is the main desire. “Shape” is desirable,—since no one despises a fine figure,—and strength and development are welcomed, *if* they come as the natural result of exercise. But, surely the public is justified in objecting to any scheme of exercise, which might ultimately lead to a physical breakdown; or, worse, an actual shortening of the life-span. Exercise which makes you healthier, *should* make you live longer; as someone said, “To add life to your years, and years to your life.”

So one of the reasons why Arco commands so much of my admiration is that to his fine shape and wonderful development he adds great strength, immense agility, unlimited endurance and perfect health. And that, so far as I can see, he is actually a better man physically today, than he was when I first heard of him twenty years ago.

So far as I know he devotes but little time to exercise. It is *not* necessary for him to work hard every day in order to keep in condition. There are times when he will be on a vaudeville tour for weeks on end. And other times when he will devote a month or two to his business in stamps. But you will never catch him out of condition. Whether he is working or not, his muscles are just as cleancut, and his strength just as formidable. In other words, he is the master of his body, instead of being (what some physical culturists are) a slave to it.