

STRENGTH

FEBRUARY 1921

When Are We Old?

Wrestling

Speed—Its Relation to
Strength

The Bent Press

Price, Fifteen Cents

Vol. V

Copyright 1921 by the Milo Bar-Bell Co.

No. 8

8/10/38
CH

The Strength of a Strong Man

YOU don't want it, of course—wouldn't have it for a gift. But you do want the bounding energy and vitality—the limitless endurance and vigor that only the strong man enjoys. Just the brute strength alone may not be of much value to you, but the confidence in your own ability that comes from the assurance that your well-trained body is capable of meeting all emergencies—what is that worth to you?

The strength of a strong man—not just a strong arm, or a strong back—but to be really strong in all parts of the body, sound organically and active physically and mentally—this is going to be worth real money to you in everyday life. You may be a brain worker, and may figure that you have no need of brawn, but of what value are your brains when the doctor shakes his head and counts you out? Your poor, weak, undeveloped body will be an actual handicap then, a happy hunting ground for germs of all descriptions.

The strength of a strong man—to be able to meet your fellow men on the ground of physical equality. To have sufficient faith in your own ability and enough pep and vigor to back that self-reliance to your own personal advantage. Strength is a breeder of confidence. You must have both to succeed.

The strength of a strong man—to have good, red blood singing through your veins and to feel that the world is a pretty good place to live in. All these things we can give you, or rather can show you how to obtain them for yourself.

Our illustrated booklet will show you how you can obtain all these things by exercising for a half hour every other day. Begin the new year right. Send for it today.



E. W. GOODMAN A MILO-BUILT MAN

The Milo Bar Bell Co.

Dept. 17, 301 Diamond Street

Philadelphia, Pa.



A new Gillette Razor the Big Fellow

THIS is it—the Big Fellow—the sensational new Gillette.

At once the greatest razor advancement of a generation and the most instantaneous success.

The razor big-handed men everywhere have expectantly waited for.

We never knew how many big men there are in America until a few months ago when the demand from big-fisted chaps for the Big Fellow swept over the country.

Speak for your Big Fellow today. Put one of those tried Gillette Blades in it—and shave.

*No Stopping
No Honing*

Gillette

MADE BY U. S. A.
MADE BY Gillette MARK
KNOW THE WORLD OVER

Boston

Canadian Factors:
73 St. Alexander
Street
Montreal, Quebec

New York
Chicago
San Francisco
London

Paris
Milan
Madrid
Brussels

Copenhagen
Amsterdam
Geneva
Buenos Aires

Sydney
Shanghai
Singapore
Calcutta

Saloniki
Port Elizabeth
Rio de Janeiro
Tokyo

New Secret in Jujitsu Makes You Master of Men

*A Score of Secret Grips Never Before Published
Now Clearly Revealed by Capt. Smith*

YOU are more than able to take care of yourself if you know Jujitsu. In any emergency you become a pantherlike fighting machine that is best left alone.

If you are strong you are able to use your strength to better advantage.

If you are weak physically you may overcome a giant who knows how to use his muscles only as a brute.

A woman equipped with this science is no longer at the mercy of a ruffian or bully, but is able to defend herself effectively and is able to retain her presence of mind.

Jujitsu teaches you how to utilize 100 per cent. of your strength and put your opponent in such a position that he can only use 20 per cent. of his strength. It teaches you how to throw and handle stronger men than yourself with ease. Whether your opponents are armed with gun, club or knife, they are helpless against your science.

Japanese teachers do not give the underlying secret of Jujitsu when explaining a throw or trick. They teach the use of arms, legs, hips, and shoulders but do not reveal the basis of the whole science. It is therefore an average of ten years before a student of Jujitsu masters the science. Jujitsu is not done with the strength of the arm and leg and it is because of the failure to grasp the underlying principle that it takes so long to master the art.

Reveals The Secrets of Jujitsu

"The Secrets of Jujitsu," written by Captain Allan C. Smith, formerly chief instructor of Jujitsu in the United States Army, reveals for the first time the underlying secrets of this remarkable science. Thousands of white men have tried to learn the art of Jujitsu, but Captain Smith has the reputation in Japan of being the only foreigner to really master its mysteries. In 1916 he won the "Black Belt"—a mark of great distinction and unassailable evidence of his supreme skill. He is the only citizen of the United States with the right to wear it. Thus the elusive secrets which Captain Smith discovered only after ten years of constant effort in Japan are imparted to you during your first ten minutes' study of his course.

Any man, woman or child can easily and quickly become expert in Jujitsu by this new method. All the holds, breaks, throws, defenses, blows, tricks and secret death holds are explained and fully illustrated in this wonderful new course. Yet the course is taught in such a manner that two people practicing together run no risks of injuring themselves.

253 Photographs

"The Secrets of Jujitsu" consist of 59 lessons profusely illustrated by 253 photographs contained in seven interesting books. It is the most recent and the most complete and authoritative course on Jujitsu ever published in this country. Each trick is illustrated by several actual photographs and these are so clear that any one can do the trick after seeing them. The photos are right on the same page so that the eye learns from the illustrations just what to do and how to do it. This makes it all amazingly simple and easy.

Captain Smith gives you right at the start the boiled down, crystallized secret which you will agree is in itself worth more than the small sum asked for the entire course. The publishers of this illustrated course by Captain Smith are so absolutely sure that once you have a chance to examine and test out for yourself the wonderful secret tricks, you will find them to be just what you have always wanted, they have allowed me to make you the following offer.

Send No Money

Don't send a single penny. Merely mail the coupon and the complete course will be sent at once all charges prepaid.

If you are not entirely satisfied send the course back any time within five days and you will owe nothing. On the other hand if you are as pleased as I know you will be, send only \$5 in full payment. Mail Coupon today!

Stahara Pub. Co., 122 Exchange Bldg., Columbus, Georgia.

FREE EXAMINATION COUPON

STAHARA PUBLISHING COMPANY
122 Exchange Bldg. Columbus, Georgia

Please send me Captain Smith's complete course of seven books, containing 59 illustrated lessons on the "Secrets of Jujitsu." Within 5 days after receipt I will either re-mail them or send you \$5 in full payment.

Name

Address

What Would You Do?

—if a man grabbed you from behind?

—if he seized you ABOVE the arms?

—if he seized you BELOW the arms?

—if he seized you around the neck?

—if he secured a Rear Strangle?

Captain Smith tells you just what to do to free yourself instantly in every case. He gives you the secret fair methods and also other means which you can use in case of need.

STRENGTH

Vol. 5

FEBRUARY 1921

No. 8

Entered as second class matter at the Postoffice at Philadelphia, Pa., November 20, 1920,
under the Act of March 3, 1879.

TABLE OF CONTENTS

	Page
Editorial	6
Another Illusion Destroyed. Drawing by Harry Barton Paschall	8
Speed—Its Relation to Strength. By Norman Evan Price..	9
The Bent Press. By Alan Calvert.....	11
The Development of the Hips and Thighs. By O. R. Coulter	17
The Cup Comes Back. By Robert W. Maxwell.....	20
Pictorial Section	25
When Are We Old? By L. E. Eubanks.....	29
How's Your Serratus Magnus? By Walter Mann.....	31
Wrestling. By William J. Herrmann.....	34
Another Hypnotic Feat Exposed.....	48

Published Monthly by The Milo Bar Bell Co.
Publication Offices, 301 Diamond Street, Philadelphia, Pa.
J. C. Egan, Editor D. G. Redmond, Publisher
Subscriptions, \$1.50 per year. Canada, \$1.75. Foreign, \$2.00.
Copyright, 1921, by The Milo Bar Bell Co.

RENEWALS—When your subscription expires we will place a subscription blank in your final copy. Renewals should be sent in promptly in order to receive the next issue. Please use the subscription blank for this purpose so that we may extend your subscription in our files. Changes of address should be accompanied by the old address as well as the new.

Secrets of Glorious Daily Health!

Bernarr Macfadden's Encyclopedia of Physical Culture Reveals Nature's Methods and Secrets of Perfect Health. A Wonderful Service for Those Wishing to Banish Sickness From Their Lives and to Gain Glorious Health That Never Skips a Day, a Powerful Physique, and Vitalized Energy Unlimited—Don't Fail to Read About This Special Free Offer.

WHY should you "feel great" only some of the time? Why have only half health, half energy, half life? The state of your health is up to you. You can be nervous, weak, and sickly—or you can be strong, healthy, and sick-proof.

You rule your health as surely as you rule your actions. If you are not enjoying the 100 per cent. health which makes life so much worth the living it is merely because you haven't employed the methods provided by Nature to keep you well. "But what are these methods?" you say. "How can I learn these secrets of glorious daily health?"

These methods and secrets of perfect health are now unfolded to you. The lifetime experience of Bernarr Macfadden, America's greatest health advisor, is now put before you. In his wonderful five-volume Encyclopedia of Physical Culture are the methods which have brought perfect health to thousands of sufferers from all manner of ill-health.

Why Lose \$4100?

\$4100 is about what sickness costs the average person during his lifetime. The person who does not understand Nature's methods of preventing and curing sickness is ill an average of 21½ days each year—or a total of about 3½ years in his lifetime. Suppose that person earned the very moderate salary of \$20 a week—his total loss would be about \$3700. Then think of the worry of sickness, the inconvenience, the doctor and hospital bills, the pain—whatever of this can be figured in mere money would bring the average person's loss because of sickness to about \$4100.

Why be among this class who must be economical in order to pay bills due to ill-health, who must suffer the pain and inconvenience, of sickness, all because they do not know how to build health?

Feel 10 Years Behind Your Real Age

The way you feel and not the number of your years is the real barometer of your age. Why catch up to your

A Complete Education in PHYSICAL CULTURE

This set of five volumes contains a complete education in Physical Culture and Natural Curative Methods—

- (1) A complete work on Anatomy, fully illustrated.
- (2) A Physiology in plain language, and embracing many illustrations.
- (3) A reliable and comprehensive handbook on Diet.
- (4) A complete Cook Book.
- (5) A book on Exercise in its Relation to Health.
- (6) A Handbook on Gymnastics, with full instructions on drills and apparatus work.
- (7) A book on every form of Indoor and Outdoor Exercises, Boxing, Wrestling, etc.
- (8) Handsome colored charts and instructions for Developing a Powerful Physique.
- (9) A most complete and extensive work on Fasting.
- (10) A comprehensive work on Hydrotherapy, including water treatments of every variety.
- (11) A book on Mechanical Therapeutics, giving full details, many illustrations of physiotherapeutic treatments.
- (12) A thorough work on First Aid with drugless methods.
- (13) A complete work on Diagnosis, giving plainly written instructions for detecting diseases and finding their cause.
- (14) A comprehensive, illustrated book on Home Treatment for All Diseases.
- (15) An Anatomy of the Sexual Organs.
- (16) Sexual Weakness and Disease, Their Cause and Cure.
- (17) Rules for Happy Marriage and Parenthood.
- (18) A complete work on Child-birth—how to make it safe.

years? Nature's methods of keeping you healthy will keep you young too. Learn them. You can look and feel at least ten years behind your real age. Thru learning Nature's secrets Sanford Bennett at 70 brought himself physically back to 50. You too can apply the natural methods of bringing back youthful "pep," vitality, and bodily vigor. Thru these methods hundreds have been guided by Bernarr Macfadden to renewed youth and wonderful health that never skips a day.

The Daily Guide to Perfect Health

Guiding health seekers for more than 30 years—this has been Bernarr Macfadden's preparation for this remarkable work, the Encyclopedia of Physical Culture.

This great work is a complete "natural-method" doctor. It tells how to build health, vitality and strength for every member of the household, young and old. It describes the symptoms of every known disease and gives detailed instructions for treatment. It contains invaluable information on fasting, diet, exercise and hydropathy for health and beauty building. A thorough and extensive treatment is given of the laws of sex, the attainment of virile manhood and womanhood, and happy, successful parenthood, together with details for the diagnosis and treatment of all sexual diseases. Handsomely illustrated charts on anatomy and physiology are given.

A reading of the two panels printed here will give you a better idea of the vast scope of this Encyclopedia of Physical Culture. In it is contained the equivalent of at least twenty complete books. The Encyclopedia contains more than 3,000 pages and 1,200 illustrations, besides scores of color plates.

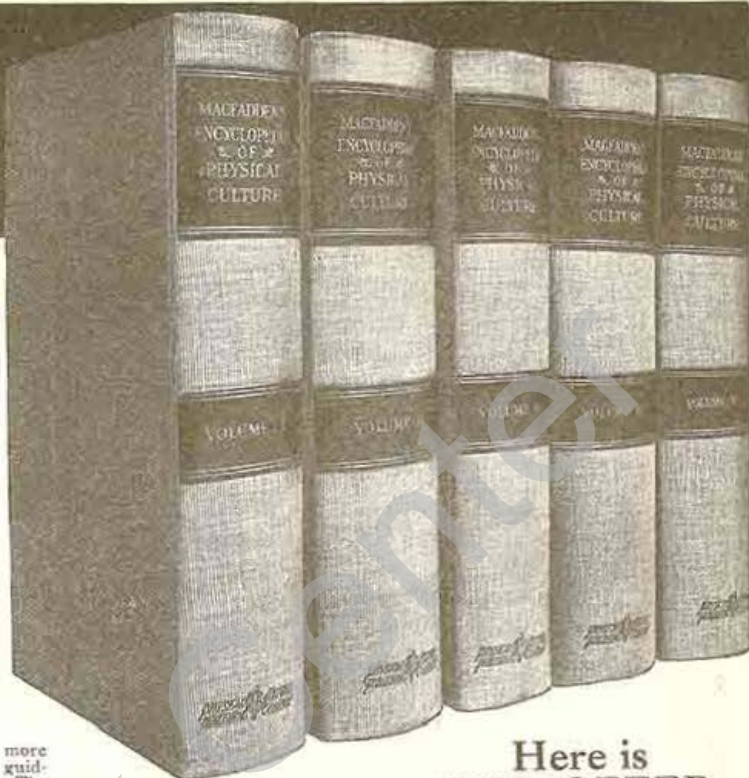
Because it is impossible for us to explain adequately about this Encyclopedia in this space, we therefore want you to mail the coupon printed on the next page so that we can send you any volume of the Encyclopedia you select for free examination. Read the full details of this offer and mail the coupon at once.

A Complete Guide-Course to Perfect Health by Bernarr Macfadden

Read About
OUR OFFER
to Send for
Free Examination
any Volume You
Select.

If this Offer is Accepted,
the Price Includes
a Year's Subscription to
Physical Culture

The Most Valuable Health
Course Ever Prepared



Here is OUR OFFER

Decide which volume of Macfadden's Encyclopedia of Physical Culture you wish to examine. Then fill out the coupon and mail it at once. The volume you select will be sent to you prepaid for five days' free examination. Then if you decide that you want the Encyclopedia send a deposit of \$2 and the other four volumes will immediately be sent prepaid. Then pay only \$3 a month until the total cost of the Encyclopedia, \$35, is paid. If you care to pay cash, the price is only \$31.50. If, on the other hand, after 5 days' examination of the one volume you select, you decide that you do not wish the Encyclopedia return the volume and the matter will be considered closed. If you decide to retain the volume and purchase this Encyclopedia a full year's subscription to Physical Culture is included. No offer could be fairer than this. Pick out the volume you wish to examine and mail the coupon now.

This offer is confined to persons residing in the United States or Canada.

**PHYSICAL CULTURE
CORPORATION**
Dept. S-2
119 West 40th
Street,
New York

**PHYSICAL
CULTURE
CORPORATION**
Dept. S-2
119 West 40th St.
New York City.

Send me for inspection
Volume of the Ency-
clopedia of Physical Culture.
I agree to return the volume in
five days or pay \$31.50 cash for
the entire Encyclopedia or \$35 on
my acceptance of this offer.
My acceptance of this offer includes a
year's subscription to Physical Culture
Magazine.
Name
Occupation
Residence
Business Address

How to - -

possess exhilarating health every day in the year
know your own body
eat for health
diet for the cure of disease
know the art of food preparation
build a powerful physique
correct physical imperfections
become a physical director
avoid unhappy marriages
avoid disease
fast as a curative measure
cure by hydrotherapy (heat by the use of water)
apply all methods of drugless healing
give first aid in emergencies
apply home treatment for disease
recognize disease by manifestations
build nervous energy
treat the common forms of disease
understand the process of reproduction
benefit by laws of sex and marriage
treat diseases of women
diagnose diseases
have healthy and vigorous children
treat female disorders
treat male disorders
obtain virility and manhood
care for the complexion
manicure; care for the hair and feet
cultivate the mind
These are only a few of the matters explained in the Encyclopedia.

Bernarr Macfadden has had more than 30 years of experience in guiding thousands to renewed health. The methods that have brought exhilarating health and physical power to others will prove valuable to you. If you want to enjoy glorious health every day in the year—if you want your family to enjoy the health which makes home life radiate joy and happiness—if you want to drop a few years from your age and have more success-winning energy, power, and vitality than ever before—select the volume of the Encyclopedia which you wish to examine, and mail the coupon for it today. The general contents of each of the five volumes are as follows:

- Vol. I.—Anatomy, physiology, diet, food preparation.
Vol. II.—Physical Training, gymnastics, corrective exercise, physical culture, exercises for women, sports, athletics.
Vol. III.—Fasting, hydrotherapy, first aid, spinal manipulation, mechanical diet and regimens.
Vol. IV.—Diagnosis and detailed treatment for individual diseases alphabetically listed.
Vol. V.—Sex Hygiene, physiology, motherhood, pregnancy, maternity, baby care, disorders of men and women, beauty culture, mental culture.

Do not let the word "encyclopedia" give you the impression that it is dull or boring. This is the only word which would describe the comprehensiveness and completeness of the work. This is the very latest edition and is the crowning effort of Mr. Macfadden's life-time of experience. Its worth to you cannot be under-estimated unless you wish to under-estimate the glorious daily health it will show you how to gain.



The Survival of the Fittest

THE survival of the fittest is one of the ordained laws of Nature that none of us can change. It was true in the days of the jungle, and it is just as true today. For several years the country has been floating along on a wave of prosperity. Jobs were to be had for the asking, both for the fit and the unfit. There was no doubt lots of extravagance, but the standards of living for the average man were raised, which was a very good thing for all concerned.

Now everything is changed. There are more men than there are jobs, so the jobs are necessarily at a premium. However, it is no time for calamity howling. With the end of the abnormal conditions which resulted from the war, the law of the survival of the fittest is again in force, if it ever really was suspended. It is a time of readjustments, and there must be physical readjustments as well as industrial ones. Those who are fit will weather the storm, and those who are not will be counted out. Where do you stand? Among the fit, who with a clear mind and a strong body are ready for whatever Fate may bring? Or among the unfit, who with weak and inefficient bodies, gaze with apathetic eye on the changed conditions and shout "Calamity"?

You alone can answer that question, and you alone can lift yourself from the unfit class, if such is your misfortune. A clean, healthy interest in life, wholesome food, but not too much of it, and the proper amount of exercise will work wonders for you, mentally, physically and morally. The changed conditions make physical fitness of greater importance than ever before. The law of the jungle—the survival of the fittest—is still with us. Lion or jackal? It's up to you. Choose your class.

* * * * *

WE APOLOGIZE

In the January issue of *STRENGTH* we promised some definite plans for the formation of the weight lifting association, to appear in this issue, for which we apologize. This does not mean that there has not been any action, or that the thing is not feasible. The success of the project is now practically assured. All of those who have been approached on the subject have exhibited a great inter-

est in the association, and have pledged their support. There still remains however, some details, such as determining just which lifts shall be chosen as standard, and rules of competition.

The association will naturally be amateur in its purpose, as only in this way can it be of any value. By promoting frequent contests and stimulating a real interest in this healthful sport, it can accomplish a world of good. To pit your strength and skill against that of your fellow men and to win, or if you have lost to feel that you have given the other fellow a run for his money—these are the things that help to breed self-confidence in a man. And in order to be a good weight lifter you must live clean. Those who are not acquainted with the sport will realize these things, and will be encouraged to take a healthful interest in exercise. However, there will also be arrangements made for professional competitions, as these will help to encourage the amateurs to greater efforts.

Until the final arrangements are made, we crave your indulgence. Meanwhile, you can help things along by talking it over with your friends and by being ready to boost the association in your locality as soon as it is launched.

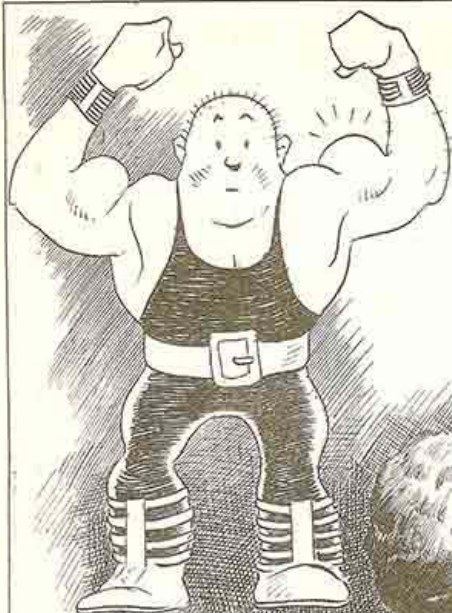
* * * * *

CLEANLINESS IN SPORTS

The baseball scandal which agitated the whole country just a short time ago is probably one of the best things for sports that ever happened in this country. There has always been a big interest in baseball. It is something that all of us have played "in the days of real sport," and sometimes later in life. It has been the great national pastime, and one which everyone thought was on the level. The fans have heard rumors from time to time of crookedness, but have been content to leave it go at that. Now that the truth is out, the game is being regulated to prevent a repetition of the scandal in the future. If these plans are carried out—and with a man like Judge Landis as official arbiter of the game they certainly should be—we can rely on the big league games being open and above board in the future.

Boxing has been under the same cloud in the past, and in most states we now have an authorized board of control which puts the official ban on all boxers who have been guilty of violation of the ring regulations. The result is that boxing is now enjoying unprecedented popularity. It is now being taught in our schools and colleges, and even some of our grammar schools have boxing gloves among their athletic equipment. And it's a good thing. It will teach our youngsters to play fair, and to fight fair, aside from the physical advantages which this vigorous sport gives them.

The same thing holds good with other branches of sport. As soon as they are placed on a basis that raises them above suspicion of crookedness, a great public interest is manifested in them. And any nation that has a healthy interest in sports and athletics cannot be far from right in other things.



MOST PEOPLE SEEM TO THINK THAT ALL "STRONG MEN" ARE BUILT ALONG THE GENERAL LINES OF A TRUCK HORSE OR A HIPPOPOTAMUS—SOMETHING LIKE THE EXAMPLE AT THE LEFT ~

BUT—
WHEN THE TRUTH IS KNOWN—WE FIND THAT THE STRONGEST MEN (AND THE BEST ATHLETES) ARE MORE LIKE THIS →

ISN'T IT TOO BAD THAT THE OLD "MUSCLE-BOUND" IDEA HAS TO BE DISCARDED ?



Speed--Its Relation to Strength

By NORMAN EVAN PRICE

SPEED—in either mechanics or athletics—is an interesting subject. Now, in discussing anatomy we often speak of the muscles and the organs of the body. But a muscle is an organ. It is an organ of motion. It moves. And that's mighty important. It is the most important function in life, and you find it in the simplest and most primitive cell. The most elementary forms of life have only two functions, movement and digestion, and movement plays a part in digestion. It is the first thing that distinguishes animal life from vegetable, although even some flowers and leaves move, opening and closing. So the next time one of your high-brow friends is inclined to sneer at muscle culture, just sit on him.

We may say that there are two characteristics of muscular movement. One is power. The other is speed. In most of our discussions of strength we think chiefly in terms of power, forgetting the other factor of speed. Perhaps we assume, subconsciously, that speed is a part of strength. In a practical way this is often more or less true, but it is not necessarily so.

This brings us to the question: Is speed a factor of strength?

Speed is an expression of energy, either in muscular action or in mechanics. It is just as truly an expression of energy as is what we call strength.

But in the realm of athletic work, in which one is concerned with moving the entire body, as in sprinting, swimming, boxing, wrestling, baseball or tennis, speed is at once seen to be a manifestation of strength. It is a kind of strength, the direct expression of power.

To move an object requires energy, whether it be the human body itself, a part of the body or some external thing. Common experience demonstrates that to move it slowly does not require so much energy as to move it rapidly. You are keenly conscious of the difference in effort between walking and running, or even between slow walking and fast walking, especially when climbing hills. To move anything with lightning speed, as in some forms of athletic work, requires a tremendous amount of energy. You have probably found that out, when you have attempted some fast work at a time that you were not in training for it.

I was once told that engineers had figured it out, with reference to speed on railroads and steamship lines, that to double a certain speed required eight times as much power. Not being in the engineering line, I have never checked that up. It would seem to me, off-hand, that double speed would call for double power, measured in "foot-pounds" of energy. But I don't know beans about it, and there may be other factors, momentum, increasing resistance and what not, that have to be figured on. Anyway, let us now apply that formula to our common experiences in running. Suppose we run at a certain easy pace for a while, timing ourselves over specified distances so that we know just what we are doing. Then let us double our speed and see how far we go before we are completely exhausted and obliged to stop.

Perhaps a more practical and convenient way of getting at this would be to reverse the proposition. Suppose that we are first class sprinters. Running a hundred yards in ten seconds flat brings us to exhaustion. Or, let us even make it 220 yards, and assume that we do it in twenty-two flat. That would surely take all the breath and strength we had. All right. Now let us apply our theory that this takes eight times as much power as would be consumed in running half that fast. Let us see how it works out. Suppose we experiment with running eight times as far at half the speed. Running the two-hundred, which is an eighth of a mile, in even time, would mean running the mile in a little under three minutes—four seconds under. At half the speed this would allow us almost six minutes, or exactly 5:52. Well, any one who knows anything about running at all knows that running a mile in 5:52 would be child's play as against running that eighth at double the speed, in twenty-two flat. The effort required in the one case would not compare with that required in the other. A mile at the slow pace would hardly make a man breathe, that is to say, any runner in the physical condition necessary for top-notch sprinting.

Of course if we assume that one is a second class sprinter, able to do the two-hundred in twenty-five seconds, or a third class sprinter, doing it in thirty seconds, the thing would

still work out the same way in respect to the effort necessary to run at the two speeds, one twice that of the other.

Of course, forcing the human machine to such limits is rather a different thing from mechanics, but so far as energy expenditures go the same principles hold good. It is found that running automobiles or airplanes at extra speed is very hard on them and wears them out quickly. Your car may be capable of going, we will say for argument, sixty miles an hour, but if you drive it thirty miles an hour you will find that it will go along smoothly for from ten to fifty times as far.

If you desire further instances of the relation of speed to consumption of energy, we might ask if you have ever tried to do any fast boxing, especially when you were out of training. In that case you know what three minutes, or even one minute of fast boxing, will do to your breathing apparatus and your muscles. We mean really fast work, as fast as you can make it. Of course professional boxers appear to keep up a fast pace for ten rounds, but actually they last because they have learned how to relax and to save themselves more or less, even when there is plenty of action.

The fact that fast work in any line is so quickly exhausting is the most practical demonstration in the world that speed is a manifestation of strength. The most tremendous weights are lifted only slowly. You never saw a strong man "jerk" a thousand pounds around. Your heavyweight athlete will get whirlwind speed in throwing the sixteen pound hammer. But there is no speed in the turn that he makes in throwing the fifty-six pound weight, only three and a half times as heavy.

Now, looking at the subject from a more personal standpoint, what are the requirements for developing this quality of speed, as in running, cycling, boxing or fencing? Can anyone acquire great speed?

The answer is that anyone can through cultivation acquire greater quickness of movement than he ordinarily possesses, but that when it comes down to maximums some are faster than others, because of peculiarities of build. Those who have comparatively light bones, but at the same time an athletic make-up, naturally and easily manifest speed. But very light-boned men are seldom powerful or heavy enough to stand high in the rating for pure strength. Certain physiques are specialized for quickness of movement by nature.

And this does not necessarily mean the very light-boned type of man, either. One may have medium weight bones, that is to say, bones heavy enough to endure great stress and strain, and yet by reason of unusual muscular power possess the quality of speed.

For in the last analysis it is not so much a matter of how much total power one possesses as it is of the relation of power to weight. A man of large frame may have the greatest total of muscular power in the world, but because of the weight of his bones, he may not have speed. The question of how fast one can move his feet and his hands and his whole body is determined entirely by the proportion of power available in moving them. That is why a little superfluous fat slows up a boxer. An extremely light man either may be fast, or, if lacking in muscular vigor, may not be fast, while on the other hand, a fairly heavy man may be fast if he has enough strength. Of course in the average run of life, the very heaviest men seldom have any speed. You sometimes hear it said that a certain heavy-weight, perhaps well over two hundred pounds, is as quick as a cat, or as fast as lightning. The chances are that this is not strictly true. Upon investigating you would find that, in fact, he is an unusually fast man *for his size*, but still materially slower than a cat, or a fast lightweight. Always you will find, however, in such a fast "big man" that the measurements of his wrists, elbows, ankles and knees are relatively small as compared with his forearms, biceps, thighs and calves. And you will find that he has a good neck development, a strong back, indeed, an unusual muscular make-up throughout. Every once in a while you find these big men who are fast, with hands and feet that are none too large, and exemplifying this principle of the relation of power to weight, as making for speed.

You cannot get away from the mechanics of the matter. Most commonly the slender, "greyhound" type of man shows speed, but often the fairly stocky man has it too, when he is strong enough. Which would suggest an interesting conclusion on the subject of developing speed, namely that in some instances the thing that is most needed is not the mere practice of fast work, but the building of the strength that is required. For you cannot move bones and body without proportionate power.

Of course one does not choose his own

(Continued on page 44)

The One-Arm Bent Press

By ALAN CALVERT

GIVE a novice a 30 lb. dumbbell and ask him to "put it up"—nine chances out of ten, he will stand perfectly erect and push the bell straight upwards by using only the arm and shoulder muscles. This is the only method the novice knows, for it is the way he has used in exercising with 5 lb. and 10 lb. bells, (incidentally it is approximately what lifters know as a "one arm military-press").

Now give the same man a 45 lb. dumbbell, or if he is a large and heavy man, a 55 lb. bell, and ask him to "put it up." Nine chances out of ten he will again attempt to raise it as before and get temporarily stuck. But then you will see him instinctively bend his body to the left; and thus having attained a more favorable position, you will see him complete the lift. The heavier the weight you ask the novice to "put up" with his right arm, the more he will incline his body to the left—it is natural and inevitable



Figure 1. The Start

—because by the second attempt, he will have found out for himself that he cannot exert the full pushing power of his arm and shoulder if his body is held upright. He employs what lifters call a "side-press." After a few weeks practice the beginner at lifting, may find that by employing a side press, and exaggerating the bending of the body by a sharp swinging motion, he can put up twice as much as he could by using the "military press."

Then after weeks, or months, of developing exercises and simple lifts, he may master the intricate bent-press—and find that this bent-press beats the side-press just as much as the side-press beats the military-press. For example—

Arthur Saxon has a record of 127 pounds in the one arm military style. He admitted that he could not side-press 200, and yet did 336 pounds in the bent-press.

I once had a pupil, a 17-year-old-boy, who at the end of the first six months could not military-press 75 lbs., but was able to side-press 125 lbs. and bent-press 175 lbs.

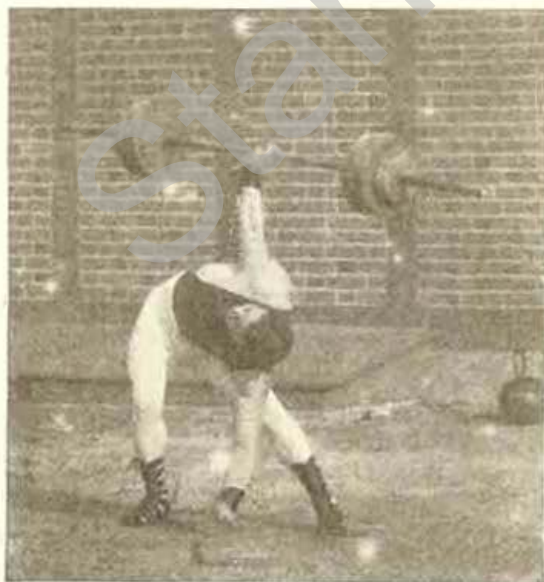


Figure 2. Arm About Straight

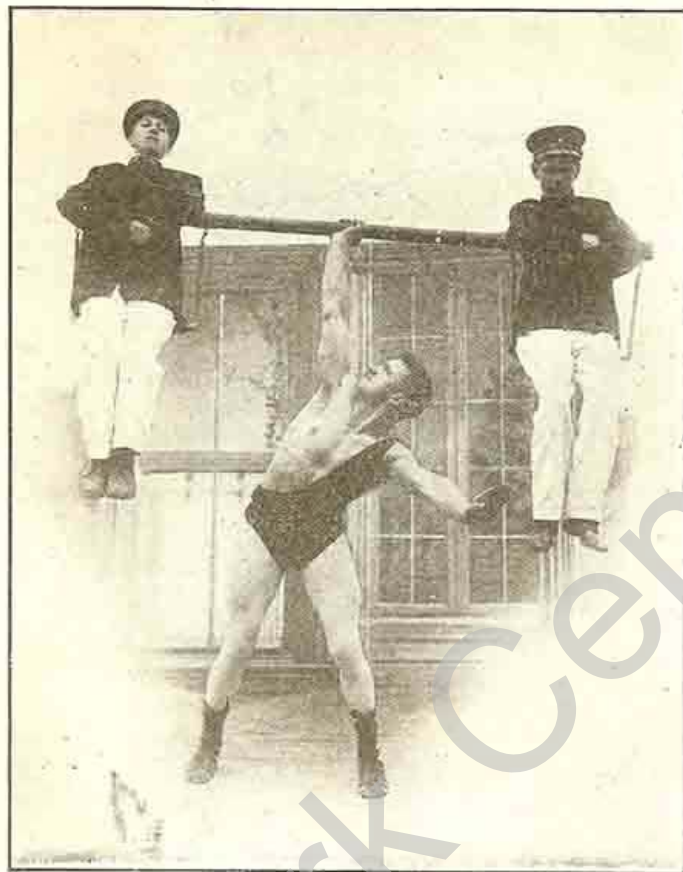


Figure 3. Finish of a 249-lb. Press

My experience is that out of the first ten men you meet, nine of them will not be able to "put up" a 60 lb. dumbbell, no matter what method they use; therefore, the one man who succeeds is a wonder to the other nine, and furthermore, if the same men see a real lifter "bent-press" 200 pounds or more, they are apt to cry "fraud."

Two hundred and fifty pounds seems incredible to the fellow who has failed to put up a 60 lb. bell, but that is simply because he does not understand that the expert is using practically every muscle in his body, while the beginner is using only his arm and shoulder muscles.

There are other methods of "putting up" heavy weight bells, for instance, the jerk, where the lifter raises the bell to shoulder height and then, after bending at the knees, straightens them quickly and at the same time "shoots" the bell aloft.

The jerk is the next best method to the bent-press if the weight is really heavy.

The one arm jerk was known and practiced in England from 1850 on, but the English never saw a bent-press until Sandow showed them how to do it, and amazed them by raising 250 lbs. by that method.

Sandow, shortly after his English debut, had a contest with a lifter named McCann. They followed the silly custom of each lifter naming three lifts, McCann selected the jerk lifts, with one or both arms, and Sandow went in for bent-press work.

The Englishman beat Sandow all hollow in the jerk and Sandow simply lost McCann in the bent-press. McCann was awarded the prize but Sandow actually lifted the biggest weight. The bent-press became the favorite stunt of English lifters, and for the next decade they neglected such fascinating and legitimate one arm lifts, as the "snatch," the "jerk" and the "swing."

France, Germany and Austria—the three great lifting nations—absolutely barred the "bent-press" from all competitions, and in the end it was England's greatest exponent of the bent-press, Thomas Inch, who by his example and precept finally induced his countrymen to resume the practice of the swing and jerk and the snatch. Inch is a most intelligent lifter, and was far-sighted enough to see that a man who practiced all kinds of lifts, and thus strengthened all parts of the body, could bent-press more than the man who specialized in that lift alone. To my mind that is the great merit of the "bent-press." It requires "all-round" strength.

The chap with the big arms and skinny legs and poor back and waist, may make a respectable military-press, but will make a miserable failure at a bent-press. The only

fellows who succeed at the bent-press are those who are equally strong from top to toe.

Go down the line and you will find that, in every case, the lifter who is renowned for beauty of form and symmetry of development is also a star at the bent-press.

The bent-press is the most spectacular of all one arm lifts, which is the reason why it is used so much by stage performers. Theatre audiences don't care much for iron dumbbells, and are always skeptical of the weight. A fair lifter can "put up" another man by using a one arm "jerk," but a good lifter can raise to arm's length above the head *two* other fair-sized men, if he employs the bent-press method.

Once a lifter masters the bent-press he finds it the easiest of all ways to raise a big weight aloft. Many a time I have heard a lifter say that he would rather make a one-arm bent-press with 150 lbs. than make a *two-arm* press with the same weight. The fact is lots of lifters can actually bent-press with the right arm more than they can press aloft with two arms. Arthur Saxon could bent-press 336 lbs., a weight so tremendous that in order to get the weight to his shoulder he had to use a long bar-bell, stand it on end and "rock" it into position on his shoulders, using both hands. When he got it to his shoulder he would shift the huge bar to his right hand, and slowly and steadily get it to arm's length.

Now in the two-arm press, Saxon's record is certainly less than 275 pounds, and, if I remember rightly, his record in the two-arm jerk is 345 lbs. The two-arm jerk is a quick lift in which the strength of the legs supple-



Figure 4. Perfect Form in a Bent Press

ments the strength of the arms. Here we have the amazing spectacle of an athlete bent pressing with one arm within nine pounds as much as he can "jerk" with two arms.

The careful reader has probably noticed that in describing Saxon's bent-press I said that after he had the bell in his right hand, at shoulder height, "he got the bell to arm's length." I was very careful *not* to say that he *elevated the bell*. That is the great secret of the bent-press, for as a matter of fact, the lifter actually holds the bell at one height and bends his body over until the lifting arm is *nearly* straight. Then by bending both legs at the knees he lowers his body a little more and locks his arms straight and stiff. After he has his arm "locked" and the bell firmly "fixed" (i. e. supported) he stands erect.

To the inexperienced observer it seems as though the weight is so heavy that it literally forces the lifter almost double in his effort to "put it up," whereas the bending over is necessary and intentional.

No inexperienced person can possibly realize how much strength of wrist, arm, shoulder, back, sides and legs, it takes to successfully bent-press a weight of 200 lbs. or more. So if my statements have led any of you to believe that such a bent-press

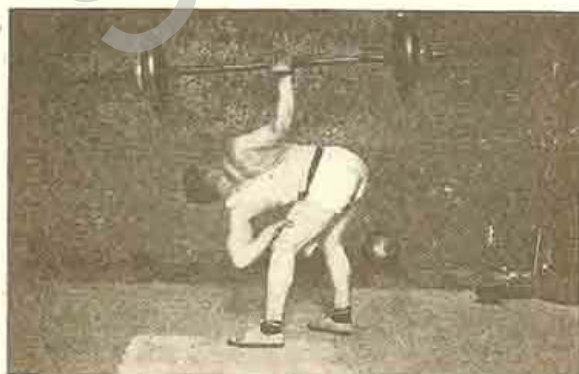


Figure 5

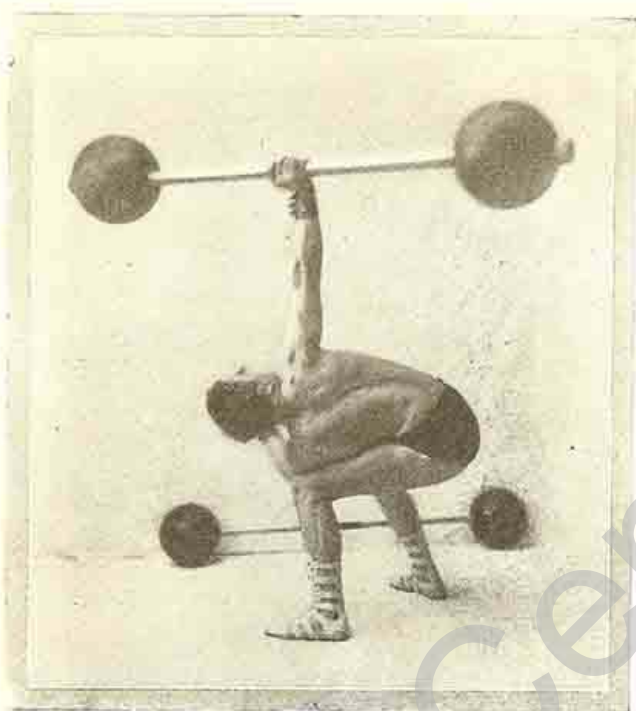


Figure 6. Arm Straight

is easy. I suggest that you try holding a 200 lb. bar-bell in your right hand at shoulder height, just as if you were going to bent-press it.

If you try this you will find:

First. That you can't get 200 lbs. as high as the shoulder, even if you use both hands to get it there.

Second. That if a couple of men lift it to shoulder height for you that your wrist is not strong enough to enable you to support the bell for one second.

Third. If your wrist happens to be so exceptionally strong that you don't drop the bell, your right shoulder will sag to such an extent that you will be compelled in a few seconds to lower the bell to the floor.

In a bent-press, the difference between 100 and 200 lbs. is something like the difference between three feet and six feet in the high jump. Lots of us can clear three feet in a high jump and can bent-press 100 lbs., but mighty few of us can negotiate the big height or the big weight. My experience is that the average athletic young man

weighing 150 lb., can "put up" a 50 lb. dumbbell in the ordinary way, and I know that if he possesses a good sense of balance he can bent-press 100 lb. as soon as he grasps the principle of the lift. A young chap who has played base-ball and foot-ball, run a bit, wrestled a bit, and done a bit of hand-balancing, is pretty sure to be strong in the back, sides and legs, even if his arms are not particularly big and showy, and if such a chap weighs 150 lb. he should bent-press a 100 lb. bar-bell after two or three days instructions from any competent lifter. But even then he will be in the A, B, C class as far as the bent-press is concerned, for a lifter is not considered to have any class at all until he is able to bent-press a bell heavier than himself.

It is perfectly safe for a husky young foot-ball player or wrestler to attempt a bent-press with a 75 lb. or a 100 lb. bar-bell,

but I would not advise an office-worker or the average "health seeker" to attempt it. The indoor man is very apt to be weak in the back, waist and legs, just where the foot-ball player and wrestler are strongest. Neither do I consider that any amount of "five lb. dumbbell drill," Indian club, or chest weight exercise justifies anyone in attempting a bent press. But 15 minutes daily body-building exercises with light bar-bells (35 to 60 lbs.) will fit a weak man for bent-press work at



Figure 7

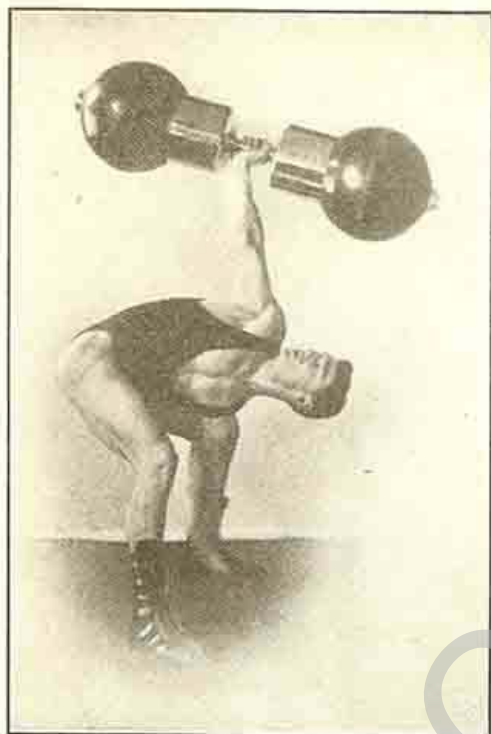


Figure 8

the end of a few weeks. Or, for that matter, so will 15 minutes a day spent at tumbling, hand balancing or wrestling.

It is very hard to describe on paper a bent-press but as so many readers of *Strength* are actively interested in lifting I will set down a few general directions.

Use a bar-bell with a handle at least $1\frac{1}{2}$ in. in diameter (2 in. is better). It rests easier in the hand, puts less strain in the wrist, and gives you a broader surface to push against.

Use a long bar-bell. The longer the bell the slower it swings and, therefore, the easier it is to balance.

To press with *right arm*.

Raise bell to shoulders thus: Stand with bar over insteps, lean over, grasp bar in center with right hand, palm front, grasp right hand with left, stand up quickly and heave bell to chest. Work it around to the right shoulder, then leave go with left hand and allow bell to swing horizontally until it points fore and aft.

Stand with feet about 18 in. apart. Bend left leg slightly at knee, incline your body to

left and *frontwards*, and rest most of your weight on your left foot.

Hold right forearm perpendicular to ground, but allow your right *upper arm* to rest on the body, as in Fig. 9.

Now rest the left wrist on the left thigh just above the knee, continue to bend body to left and *forwards*, and as you do so let the inside of left arm slide over the leg, until your left *arm pit* is resting just above the left knee (lean heavy on that left arm—get all the support you can from it).

You will now find yourself bent almost double, and, if you have succeeded in keeping your right forearm perpendicular to ground, you will discover that your right arm is almost straight. You feel that you are almost "there" but you realize that you can't bend over any further without losing balance. So now is the time to squat a bit by bending the right leg at knee.

Perhaps your right leg is already slightly bent at the knee, but now bend it *considerably*. This will bring you into a sort of squat, and will bring the body to a vertical position, and then all you have to do is to complete the lift by straightening your legs and body and stand erect.

Sounds complicated, doesn't it? You can take it from me, *it is!* But when you watch an expert make a bent press, all these details apparently merge into one slow, steady and graceful motion.

Cautions.

Always watch the bell, don't take your gaze off it for a fraction of a second.

Don't be disturbed if the bell swings in a horizontal plane. If you start with the bell fore and aft, as I suggest, then when you are bent over the bell will have swung through half a circle, and will again be fore and aft.

Witness the picture of Kirgan, Figure 5. The thumb end of the bell is in front of him, but it was back of him when he started the lift, and it will again be back of him when he stands up, because the bell will swing back to its original position.

Some lifters, before they start bending over, deliberately swing the bell until the handle bar touches the shoulder beads (see Fig. 1.). This brings the palm of the hand to the front and keeps bell from swinging so much. Such lifters claim that the swing disturbs them, but I believe that more lifters find that the swing helps them. Some lifters do not slide the left arm over the left thigh. Instead, they rest the left hand just above the left knee, and keep it there, allowing the left elbow to

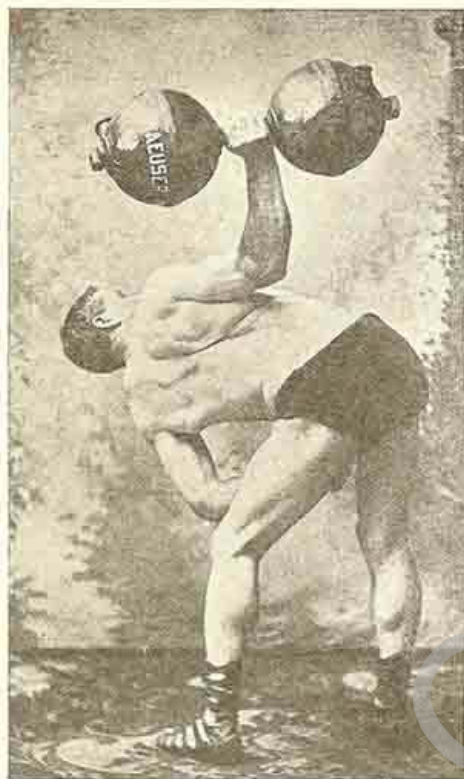


Figure 9

poke out to the left side as in (Fig. 5). Of course, they have to bend the left arm considerably as the body is bent over. Their claim is that if they keep the left hand on the knee, they can use it to great advantage when it comes to standing up at the completion of lift.

All the foregoing are simply general hints and suggestions. I do not intend them as positive instructions. Every lifter has to work out, by repeated experiment, just the position and just the style that suits him best.

The bent-press is the most interesting and fascinating of all lifts, and is possible for all lifters except two classes, namely, those who are very stout, and those who have a tendency to "rush of blood to the head."

I have seen a "cracker jack" at the bent-press who stood 6 ft. and weighed 155 lbs. and equally skillful chaps who stood about 5 ft. nothing, and were about as broad as long; and every sort of build in between.

Everybody tries it. Why? Because it is so spectacular. You know that your non-athletic friend firmly believes that if you can put up 150 lbs. with one hand it's a cinch you can put up 300 with both hands. You don't undeceive him, you simply pull off a 150 lb. bent-press and enjoy his amazement.

When you are among lifters, however, avoid being too chesty about your bent-press record; there might be a real wonder in the crowd. You can never tell by looking at him.

Remember, Saxon weighing 210 pressed 336 lbs. Albert Attila, weighing 140, pressed 240 lbs., and little Carquest, weighing about 118 lbs., pressed 220 lbs.

Study the pictures that accompany the article. Notice for instance the picture of Matysek (Fig. 7). He is only about 2 in. shorter than big Zottman, who is "standing by" ready to catch the bell if it falls. The bell is no higher than Zottman's shoulder, which proves what I said about the bell not being actually elevated until after the lifter's arm is straight.

Notice how earnestly each man is watching the bell. He does it because it helps him to keep his balance. Notice how in almost every case the left armpit is right over the left knee. That left arm will do about one-quarter of the work if you use it correctly.

Finally, if you can, practice outdoors or in some place where it won't hurt if you drop the bell. It's a big help to have the feeling that if things are not going right, you can leave go of the bell, and step from under. Most of the foreign stars trained that way.

I never heard of a bell falling on a lifter. If you lose control, you feel the bell slipping in one direction and you instinctively step the opposite way.

So practice, if possible, where you can drop the bell. It is best, notwithstanding the fact that I know three great stars at the bent-press who did all their practicing in upstairs bedrooms and never once dropped a bell.

The Development of the Hips and Thighs

By O. R. COULTER

THE training of the hips and thighs is of great importance, far more so than is generally believed. When the legs are exercised the lungs, heart and other internal organs reap considerable benefit. The leg muscles are the largest in the body and their action would necessarily have more effect on the internal system than movements applied to the arms. Some may question the advisability of extensive thigh work on the grounds that it might over strain the heart. As a refutation of this contention, I wish to state that the heart, as nearly everyone knows, is a muscular organ, and it is not so delicate as some might imply. Understrain of the heart with corresponding weakness is more fatal than over strain of this organ. Heart failure is more liable among the sedentary and thickening or hardening of the tissues is peculiar to the inactive and elderly.

While most athletes and trainers strongly decry the attempt by many misguided enthusiasts to develop the upper body at the expense of the legs, I find few attach as much importance to the shape and development of the hips as they do to the legs. In fact, I have read "write ups" of certain athletes, wherein their broad shoulders and narrow hips were spoken of as important qualities. Broad shoulders are certainly a valuable asset, but I cannot agree with the narrow hip idea. The broad shoulders as contrasted with the narrow hips may seem more elegant and perhaps more manly because of the prevalent opinion that large wide hips are characteristic of the female. A close investigation would only prove that these same wide hips are of advantage in "more ways than one." It is universally known that the large hips of the female are valuable in connection with the bearing of children, but it is not nearly so well known that a man with powerful hips is more likely to become the father of vigorous children than one who is narrow in these parts. Woman has relatively greater strength in the legs and hips than man and this is of course due to her relatively superior development in these parts.

Personally I consider wide hips as important to a man as broad shoulders. The ancients regarded the hips as the seat of bodily power.

A man with hips too narrow as compared with his shoulders appears top heavy, and is too much like an inverted pyramid to have as much bodily power as he would have with a more ample hip development. The muscles of the hips as well as those of the backs of the thighs are the muscles of progression. These propel the body forward in walking and are used in lifting objects from the ground. As a class, men with large hips have a direct advantage over those who are narrow in these parts, in lifts like the two hand bar-bell to the knees, hands and knee, and an indirect advantage in other lifts. Bankier, "The Scotch Hercules," in his book, "The Ideal Athlete," refers to the muscles across the loins as the foundation of a strong man. Leg and hip strength is always useful. These parts cannot be too strong. Improved thigh development will help not only in lifting but also in wrestling, shot putting, jumping and kindred sports. In fact trainers of jumpers aim especially at improvement in the thigh, small of the back and the buttocks. From any viewpoint pertaining to general physical efficiency, the development of the thighs and hips is of paramount importance as compared to arm or shoulder development. What chance would a Roman Ring artist have in a Canadian lumber camp? Place a really heavy weight on the shoulders of a trapeze performer and no matter how strong his chest, shoulders and upper arms may be, if his legs are undeveloped he will fold up like an accordion. Many lifters whose arm, shoulder and chest is nearly perfect, as a result of years of their method of practice, think they have reached the limit of their strength, but find that they can lift more when they develop their legs and the muscles that control them. The legs are used considerably in about all the main lifts except the press on the back, holding out to the side and the straight press and even in these lifts the legs are used somewhat as explained in last month's "Strength" by Mr. Prada in his article on Movement, wherein he mentions the far reaching effect of effort even in a "simple localized movement."

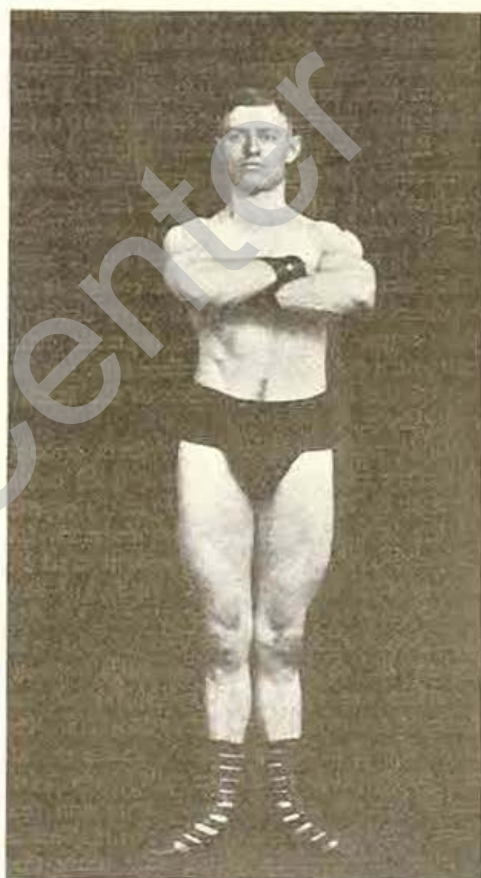
Among the various exercises practiced for thigh development is walking. By necessity it is used more than any exercise, but never-

theless, I have yet to see any noteworthy thigh development attained by walking. Walking, especially if done in the open air, is beneficial from a hygienic view point, but as usually performed, it is merely a balancing of the bodily weight upon the bones. When walking on a level the leg muscles contract but little except at the ends. In other words, the bulk of the muscles does not contract materially. It is a known fact that letter carriers as a class, have rather slim legs. Men who specialize on competitive walking fare but little better. Weston and O'Leary, famous for their endurance walking records, possessed considerable vitality, yet they never attained any especial leg development. In fact, experience shows the man who excels at middle or comparatively short distance walking is likely to have superior thigh development to those who specialize on exceedingly long distance work. However, from the entire rank and file of famous walkers, there are few examples of thigh development that could possibly encourage any one to practice the art for development's sake. G. E. Lerner, who was one of the most famous middle distance walkers, had only 20½ inches of a thigh measurement, although he was 5 ft. 9 in. in height. He performed the amateur record of ten miles in 57 minutes and 57 2-5 seconds and his light, rangy development is common to those who excel at this work.

Long distance running offers no advantages over endurance walking for the purpose of thigh development. The long, rangy, undeveloped type of physique, judged by an examination of leading marathon runners, appears to be the best suited for this class of work. W. G. George, who ran a mile in 4 minutes and 12 3-4 seconds, was 5 ft. 11½ in. tall. Dorando and Hayes were shorter and possessed more of a stocky build than most of their competitors, but they never attained thigh development commensurate with the expenditure of energy involved in their training.

Endurance bicycle work necessitates an exceedingly large quantity of leg work and has produced some good examples of thigh development, but long distance bicycle riders, as a class, do not have as well developed thighs as men who do heavier work of shorter duration. The endurance cyclist or runner can excel in his own line without any exceptional strength or development. Walking, cycling, or running,

positively will not, in itself, develop any appreciable weight lifting strength. If comparatively slight contractions long continued develop larger and stronger muscles than intense efforts for a short time, why does not Miller, Pierce, Kramer, or some other noted bicycle rider, have larger thighs than those possessed by most any first class weight lifter?



O. R. COULTER

Boxing is fine for training the eye, developing quickness and judgment of distance, but it is not of especial value for thigh development. True, a boxer does considerable foot work, but it does not necessitate vigorous or complete enough movements to make it efficient as a thigh developer. Jefferies had exceedingly large thighs, but they were the result of heredity and work done previous to his boxing training. Fitzsimmons' thighs were almost a direct contrast to those of Jefferies. The boxers them-

selves do not depend upon boxing alone but invariably use road work and rope skipping in addition.

In my discourse on forearm development, I explained that Indian Club Swinging was not a very efficient means of training the grip and lower arms. The reader can readily understand that this work could not have as much bearing on leg work as on the forearms. Burrows and Burton, two of the most famous advocates of this method of training, possess only $21\frac{3}{4}$ in. and $21\frac{1}{4}$ in. respectively for their thigh measurements. It can be said without equivocation that no exponent of Indian Club Swinging ever attained any appreciable leg development from this work alone.

Systematic methods of free movements or light apparatus work have accomplished very little in the matter of fine developed thighs. Nearly all free movement methods originated from the Sing or Swedish System. The Sing method of training the legs was based on leg raising and deep knee bending. In the first, the weight of the leg furnished the resistance, and in the last the legs straighten against the resistance of the bodily weight. Now leg raising in certain positions require considerable effort, but performed in accordance with the ordinary positions of the Swedish System, could not furnish resistance enough for developmental purposes. Deep knee bending is a splendid exercise and will develop the thighs considerable but cannot increase them to their limit as the weight of the body furnishes too light a resistance after certain degree of strength is attained. That this exercise is more a matter of endurance than of strength and development is proven by the number of repetitions of this movement that it is possible to make. Max Danthage, of Vienna, on June 4, 1899, made 6000 complete deep knee bends within three hours. Danthage possessed a $24\frac{1}{4}$ in. thigh and weighed 159 lbs. at 5 ft. 8 in. height, but remember he used weights for leg development and on September 12, 1896, made fifty deep knee bends with 100 kg. (220.4 lbs.) on his shoulders.

Nearly all free hand systems were derived from the Sing method. Staff-Sergt. Moss (late headquarters Gymnastic at Aldershot) wrote a book called "Free Gymnastics and Dumbbell Exercises." This book gives knee and leg raising and knee bending as the means of

leg development afforded by this method. That Moss recognized the limitations of this system of development is attested by the fact that he himself is an experienced gymnast and weight-lifter. I suppose the most widely known system based on the free hand method is that originated by Muller, a Danish engineer. He wrote a book entitled "My System." This was published in about four languages. He gives the ordinary bending and extension movements, but advocates running and jumping as being superior to the indoor leg work.

Dr. Sargent, of Harvard University, wrote a book entitled "Health, Strength and Power." This book departed somewhat from the ordinary free movement systems in as much as the movements were taken from positions used in various sports and forms of work, but his method would not possess any advantages over the more orthodox forms of free movement work, except that it affords more variety of leg positions.

The rubber wall exercisers and light chest weight systems obtained the most of their movements from free hand systems. The very principle of these two forms of apparatus make them more adaptable to developing the arms than the legs. Various appliances to connect the handles with the legs have been designed, and through their use some of the smaller leg muscles can be exercised, but the style of apparatus is inconvenient to apply to the legs and does not offer high enough resistance to develop the large extensor muscles of the thigh. The reader can be easily convinced of this by a perusal of Anderson's "Physical Education," which is the standard text book dealing with this method of training.

The various five pound dumbbell systems are essentially similar to those formulated by Dowd and Atila. These concentrate upon the arms and upper body and the only advantage they have over free movements, as a medium of leg development, is the slight increase in resistance caused by the additional weight of the dumbbells. Sandow's original light dumbbell system had eighteen exercises of which thirteen were for the upper arms. As a means of improving the thighs, Sandow advised performing the arm exercises while standing with the knees slightly bent. This position, if depending upon the bodily weight alone for resistance would affect principally

(Continued on page 50)

The Cup Comes Back

By ROBERT W. MAXWELL

THE Davis Cup, emblematic of the world's team lawn tennis championship, returns to the shores of America next month. Not since 1913 when it was wrested from Great Britain in an epochal series of matches won by Maurice E. McLoughlin, the California Comet; R. N. Williams, Boston, and Harold H. Hackett, the veteran doubles player, had the United States won the famous trophy until it was captured at the close of the past year.

To William T. Tilden, 2nd, of Philadelphia; William M. Johnston, of San Francisco, and Samuel Hardy belong the credit for winning back the cup by smothering the Australasian team of Norman E. Brookes and Gerald L. Patterson at Auckland, New Zealand, December 30-31 and January 1. Although Johnston and Tilden did all of the playing the advice of Hardy and his handling of the men both on and off the courts was an invaluable factor and contributed largely to the splendid success of the skilful American players. Watson M. Washburn, one of America's first ten, was the fourth member of the team that sailed from Vancouver in November for the land of the Southern Cross. It was not expected that Washburn would be called upon to play, however, the experience of Americans in past years in Australia taught the value of having substitutes. Several times our players were seriously affected by the damp climate of Australia and on one occasion, 1911, William A. Larned, seven times singles champion of the United States, was unexpectedly defeated by Rod Heath, of Australia, because the climate had brought on a recurrence of rheumatism that threw the American master of the courts completely off his game.

Washburn, by the way, was a ninth hour selection. R. N. Williams, 2nd, was chosen over Charles S. Garland, Pittsburgh, and Wallace F. Johnson, of Philadelphia, but at the last minute business prevented his going. Washburn was chosen not only because of his lawn tennis ability but because of his diplomacy and ability to draw the two great tennis-playing nations of the Northern and Southern hemispheres closer

together. It is understood from recent dispatches that he did his work well and that Australia intends to enter a team for 1921 Davis Cup competition, the challenge round of which probably will be staged on the courts of the Westside Tennis Club, at Forest Hills, L. I.

Impressive Play.

Returning to the recent matches at Auckland, the outstanding feature was the complete overthrow of the Australasians, who contemplated a hard struggle. The thousands who saw the matches were more impressed with the play of Tilden and Johnston than of any other players that ever competed in the Southern hemisphere. Tilden, particularly, was the cynosure of all eyes from the time he landed until he left the country.

"Austral," the famous lawn tennis critic, and the Australasian fans were unanimous in the opinion that Tilden is the greatest present exponent of the game, although some believe that Brookes, in his prime, would have beaten Tilden. However, they admit that when the Philadelphian has had more international experience that he should develop into the greatest player the world has ever known. His startling varieties of strokes and his cannon-ball service were a revelation to the spectators at the matches in Auckland.

And "Little Bill" Johnston was not far behind Tilden in making a hit with the Australasians. His perfect court demeanor and ability to keep his game at lofty heights throughout every match made a distinct and lasting impressions. Johnston's forehand drive, which caused such a furore in England last summer, was the subject of equally as much discussion in New Zealand. "It is the greatest drive in the history of tennisdom," is the way one expert described that whip-like stroke that has scored so many points for the frail-looking little Californian.

The playing of Patterson in both the singles and doubles was a big disappointment to his followers at home. They expected better things of him than losing to Johnston, 6-3, 6-1, 6-1. Patterson's woefully weak back-hand, which has caused much unfavorable comment everywhere he has played,

again proved his undoing. Johnston literally played it to death and demonstrated clearly that unless the young Australian changes this stroke he will be hopelessly out of international competition, now that his weakness is thoroughly established and widely known.

Brookes' work against Tilden, by whom he was beaten 10-8, 6-4, 1-6, 6-4, also was somewhat of a blow to the Australians, although they realized that it was really the greatness of Tilden and not the weakness of Brookes that caused his defeat. In the doubles again it was Patterson who broke and broke badly. "Austral" said that he developed "dry rot" and was never able to get over it.

At any rate the fact remains that Patterson was unable to stand up under the terrific attack of Johnston and Tilden, although he and Brookes won the first set, 6-4. The last three sets, however, were sad affairs and went to the Americans, 6-4, 6-0, 6-4. It was only the super-playing of Brookes in the second and final sets that enabled the Australasians to make any kind of a showing.

Considered in the final analysis the 1920 matches at Auckland were not nearly as great as many others, but the reason lies in the ultra-skill of Tilden and Johnston. It is highly probable that at any stage in competition for the Cup since it was donated in 1900, the Tilden and Johnston of today could have won, though not so easily when Brookes and the late Anthony F. Wilding were at the height of their games.

Donated in 1900.

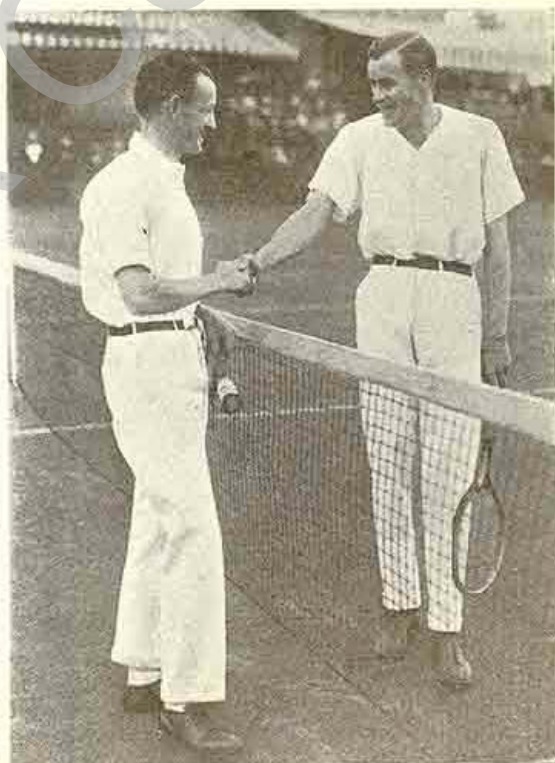
The return of the Davis Cup recalls many thrilling incidents in the fifteen contests for its possession. The reason for the donation of the cup, too, is an incident that invariably comes to mind at the conclusion of every match.

It was in 1900 that Dwight F. Davis, of St. Louis, purchased the huge bowl and donated it to international competition, hoping that it would develop a great series of annual contests on the court. How well his idea worked out the donor has lived to see. The cup has been competed for fifteen times. The war prevented competition in 1915-16-17-18 and in

1901 and 1910 there were no challengers.

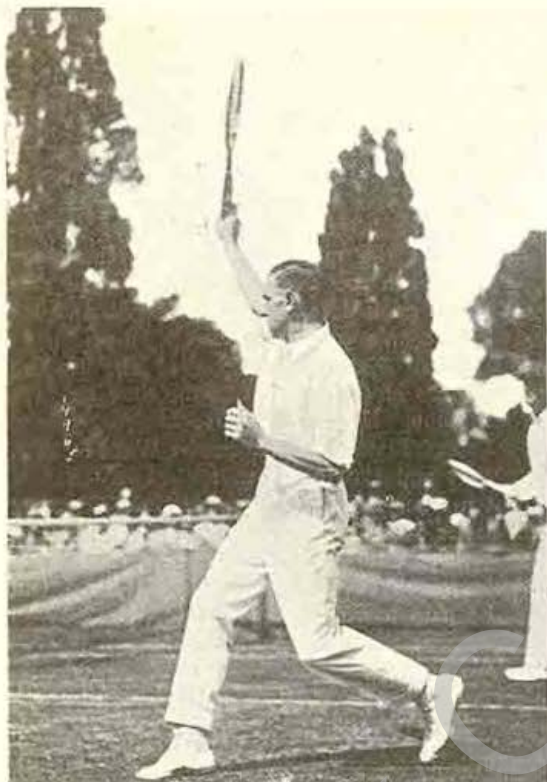
From these figures it is readily seen that no trophy offered for international competition has had such a great career as the Davis Cup and from the present outlook the future holds in store an even greater series of matches for its capture and retention. When Davis gave the cup he was sure that lawn tennis would become popular, but the mighty hold which the game has taken on every civilized people was never even dreamed of by Davis and his lawn tennis contemporaries.

Davis himself was one of the leading players of the country at the time he gave the cup. He was doubles champion of the United States with Holcombe Ward in 1899, 1900 and 1901 and was ranked in the first ten from 1898 to 1900, inclusive. After the latter year Davis gave up tournament competition and consequently passed out of the limelight of play, although his name will be perpetuated by his celebrated trophy as long as the game endures.



Wm. M. Johnson congratulating Wm. T. Tilden, 2nd.

Copyrighted—International.



GERALD L. PATTERSON

Copyrighted—Central News Photo Service

Davis Competes.

The first year that the cup was competed for was in 1900. Davis himself was on the American team that won it from Great Britain. These two nations, incidentally, were the only ones to compete. In that series of matches which were played on the courts of the Longwood Cricket Club, Boston. Davis defeated E. D. Black, 4-6, 6-2, 6-4, 6-4 and his other singles match was called off after he had beaten A. W. Gore the first set and the second had reached 9-all. Davis and Ward won the doubles from the Englishmen—Black and H. Roper Barrett—in three sets, 6-4 each. The other member of the American team was Malcolm D. Whitman that year.

There were no matches played in 1901, but the following year Great Britain again sent a team to this country. The contests were at the Crescent Athletic Club in Brooklyn and once more the Americans won, this

time three matches to two. Malcolm Whitman won two matches, one from R. F. Doherty and the other from Dr. Pim. It is worth remembering that Dr. Pim was the player after whom the famous "Pim" racquet was named. This "bat" was used extensively all over the world for nearly two decades. It was this year, too, 1902, that the Davis Cup donor played his last international matches, losing in the doubles for the trophy with Ward to the Doherty brothers.

W. A. Larned was in the Spanish-American war of 1898 and that accounts for his not being chosen to represent America in the Davis Cup matches until 1903. The British made virtually a clean sweep of this series, winning four matches. The fifth match went to the United States on a default, Larned winning from R. F. Doherty, who was unable to play his first match on account of an injured shoulder.

Belgium and France entered teams for the Davis Cup in 1904. The former won the preliminary tie, three matches to two, but lost in the challenge round to Great Britain, five matches to none at Wimbledon. The

United States did not send a team to compete that year, but in 1905 Holcombe Ward, Beals C. Wright and William J. Clothier went to England to try to land the trophy. They were unsuccessful, however, for after the American trio had won their preliminaries contests from France and Australasia, they fell before the Doherty brothers and S. H. Smith, five matches to none. The preliminaries matches that year were held at the Queen's Club in London, where Billy Johnston won last summer. The finals were played on the historic "Central Court" at Wimbledon. It was this year also that Norman Brookes, A. W. Dunlop and the late Anthony F. Wilding made their entry into international tennis.

Great Britain Wins.

In 1906 Great Britain won again. America was in the field again with R. D. Little and Holcombe Ward doing all of the playing. Our team beat the Australasians for

the second successive year, but were unable to make a showing in England, losing five matches to the Doherty's and Smith. The next season America was eliminated by Australasia in the preliminary round, Beals C. Wright and Karl Behr representing this country. Brookes and Wilding had then reached the crest of their career and they captured the cup for Australasia, beating Great Britain in the challenge round three matches to two. The Dohertys had dropped out and England was represented by A. W. Gore and H. Roper Barrett.

With Bill Larned and Beals Wright playing the singles and Fred Alexander and Harold H. Hackett in the doubles, the United States won the preliminary round in 1908 at Boston. The American team went to Melbourne the following winter, but lost three matches to two. In that series Brookes defeated Alexander and, so did Wilding Beals Wright played marvelous tennis, however, and evened the count at two-all in matches by beating both of the Australians. The doubles decided the contest and Wright and Alexander lost to Wilding and Brookes in a gruelling five-set match, 6-4, 6-2, 5-7, 1-6, 6-4.

Philadelphia had its first real taste of international tennis in 1909 when the preliminary cup ties were played on the turf courts of the Germantown Cricket Club. All five matches were won by the Americans. Bill Larned defeated C. P. Dixon and J. C. Parke. W. J. Clothier duplicated this performance. All of the matches were won in straight sets. In the doubles Hackett and Little trimmed Parke and W. C. Crawley in five sets, 3-6, 6-4, 6-4, 4-6, 8-6. Again the Americans journeyed to Australia. The matches were played at Sydney. Unfortunately America's best players were unable to make the trip, so that Maurice E. McLoughlin and M. H. Long had to bear the entire burden. They lost all the singles and the doubles to Wilding and Brookes. Then it was that the Australians named McLoughlin "The Comet" because of his dashing style of play.

No Matches in 1910.

No team challenged in 1910 hence the cup remained in Australia by default. Larned and McLoughlin captured the preliminary tie from Great Britain at New York

in 1911, four matches to one. This pair and Wright went to Christ Church, New Zealand, that winter. The Americans were heavy favorites, but unfortunately for us, the damp weather brought back Larned's old bugbear, rheumatism, and again the Americans lost, failing to win a match. The big upset of this meeting was the defeat



NORMAN E. BROOKS

Copyrighted - International

of Larned by Rod Heath, who was a ninth hour choice for the Australasian team.

Great Britain got the cup back in 1912 by beating France in the preliminary round after America had withdrawn. The challenge round was played at Melbourne and the English squeezed out a victory, three matches to two.

The competition in 1913 was the keenest since the cup had been donated and was participated in by the United States, Great Britain, France, Germany, Austria, Belgium, Canada, South Africa and Australasia. The United States won its preliminary tie from Australasia at New York, four matches to one, early in June with McLoughlin and R. N. Williams playing the singles and Hackett and McLoughlin the doubles. In the semi-final round Wallace F. Johnson, of the Cynwyd Club, Philadelphia, made his first appearance in Davis Cup ranks. The matches were played against Germany at Nottingham and the Americans made a clean sweep with Johnson, Williams, Hackett and McLoughlin, all playing. The United States won the finals from Canada at Wimbledon, three matches to none, then captured the cup for the third time by beating the British three matches to two at Wimbledon.

Australasia Victorious.

A year later the Australasians came over and snatched away our trophy in a series of matches that were the most thrilling of any in the history of Davis Cup competition. In the preliminary matches France, Germany, Belgium, Canada and Great Britain competed, but they were not able to stop the masterly play of Norman Brookes and Anthony. The challenge round was played at the Westside Tennis Club, Forest Hills, L. I. This was Wilding's last appearance in international competition, as he was killed on the western front shortly after the war began.

The matches began with Wilding defeating R. N. Williams. Then came the historic tilt between Brookes and McLoughlin in which the Victorian was within a point of the match and had an easy kill at the net, but he shot the ball the wrong way. Instead of making a placement Brookes elected to smash the ball recklessly. McLoughlin was crouching in mid-court. The ball

struck his racquet and bounded back over the net. Brookes was so surprised that he didn't make a move, although once more he could have had an easy kill.

That freak play seemed to take the life out of Brookes and put renewed energy into McLoughlin. The outcome was that McLoughlin won the set, 17-15, and match. The Californian also defeated Wilding but Brookes won from Williams and it remained for the doubles to decide the cup series. Wilding and Brookes won it and the fault may be laid at McLoughlin's door. He played well himself, but he insisted that his partner, Tom Bundy, play with him instead of Williams. Bundy, as ever, played weakly and America lost the cup which they have spent ten years in retrieving.

After this famous series of 1914 the season's real climax came when Williams defeated McLoughlin in the American championships after the former had been beaten by Brookes and Wilding and the latter had trimmed them both. This marked the beginning of the end of McLoughlin's flashy career. He was ranked third in 1915, but since then he has been a nonentity in the lawn tennis world and there is no chance that he will ever come back.

After 1914 there were no more Davis Cup matches until 1919 when Australasia defended successfully against the British challengers. America did not put a team in the field.

America now finds herself in a rather unique position regarding the Davis Cup. The trophy has not been here since 1914 and actually will not arrive until March when Tilden, Johnston, Hardy and Washburn return. It then will be competed for in June or July. In short, after waiting six years to capture the Davis Cup, America stands the chance of losing it four months after it has been brought home.

But the actual winning of the cup does not amount to so much after all. The great benefit of having such a trophy for international competition lies in the fact that it inspires nations, cities, clubs and individuals to raise lawn tennis to a higher level.

This the Davis Cup has done and the end of its usefulness is not yet and probably will not be for many years to come.



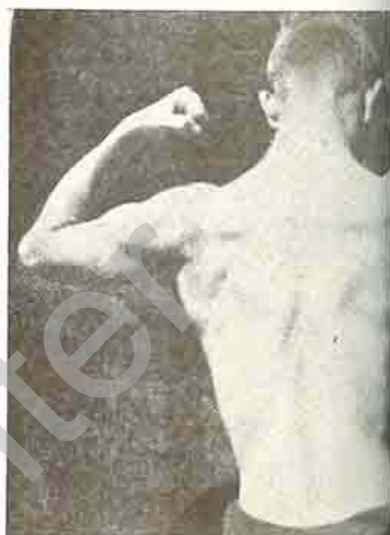
See article on page 48. Frank S. Leavitt attempting to lift Rose. Note how easily he accomplishes it when the finger is removed from his neck. The picture below shows how the trick is done.

Copyrighted—Central News

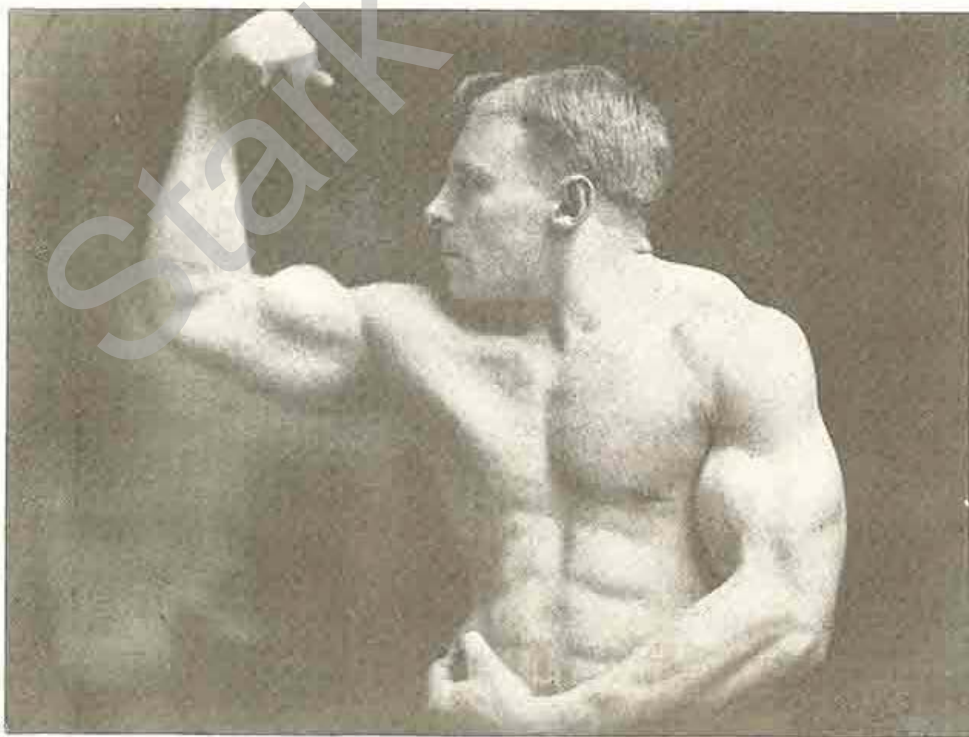




At the left—NICK CAMPION
Formerly of the Saxonian Brothers



Above—FRED L. HUNTER
of Ossining, N. Y.

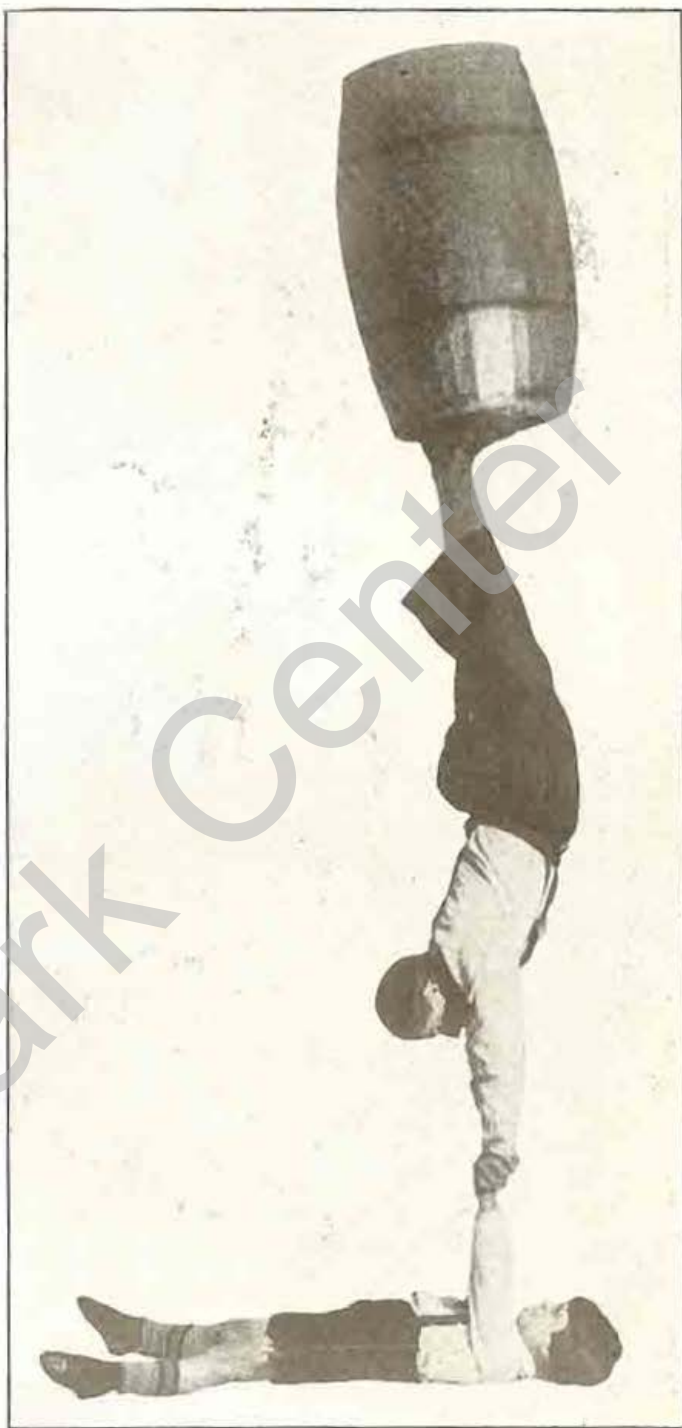


PROFESSOR HEROLD

SECTION



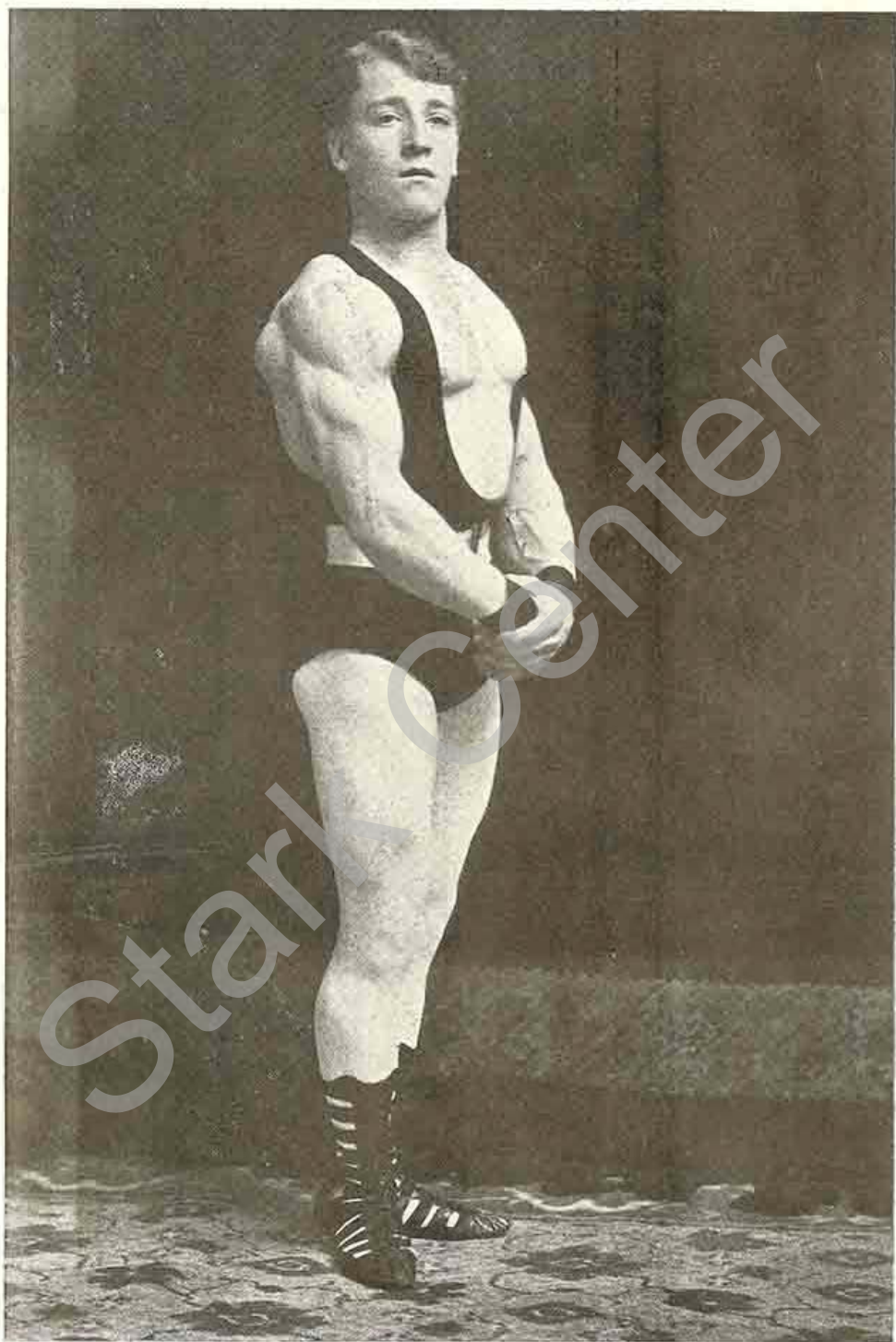
DDMAN, of the Los Angeles Athletic Club



NINE YEAR OLD ACROBATIC MARVEL

Franz Urbani, of the Urbani Troupe of acrobats, is probably the youngest professional acrobat now on the stage. He is astonishing audiences in Germany at present. While lying on his back he supports with his hand a 140 pound man while the latter juggles a barrel.

Copyrighted—Central News



EDDIE WIEGAND
Formerly of the Saxonian Brothers

When Are We Old?

By L. E. EUBANKS

IF there is one subject in which every living normal adult is interested it is long life and how to attain it. From men in every walk has come the lament that they must die so soon. If we do nothing up to the evening of life we resent being taken off "before we have done anything"; if we have been successful and are busy, we think the grim judge should defer sentence till we finish our work. No matter when we die we die too soon; for getting right down to facts, we love life and hate to give it up.

What is the normal length of life? Religion, science and superstition have answered. The first tells us that there is no death; the second allows that we die, but should not if we knew what we shall someday know; while the third offers many and marvelous, weird and wonderful elixirs.

Investigators who get right down to facts and figures apply the same law to human life as exists for the lower animals; they figure that man, like a horse or dog, should normally live five times the period required for his maturity. If these figures are two and ten years for a dog (on the average), why shouldn't a man, requiring as he does about twenty years for maturity, live 100 years?

Doubtless he *should*; but facts, statistical records, are a bit discouraging. Only three persons out of 100,000 in good health at the age of thirty, live to the age of 95. In America the average lifetime is not more than 42; some give it much less; in England about 44; in France about the same. The Danes and Swedes average about 50 years.

Man's life is relatively shorter than that of the lower animals because it is more unnatural. The remedies are intelligence, sanitation and simplicity. This last is an important factor. In Bulgaria where there are not more than five or six million people, there are more persons over 80 years old than can be found in many countries with immense populations. The simplicity of the Bulgarian diet is an important factor in the explanation. In Iceland, where simplicity is at its simplest, the average lifetime is 61 years. The Japanese are world renowned as simple livers, and it is said that in Tokio there are 70,000 persons over 70 years old!

But human life is growing longer each generation; doubtless ancient records of time were based on a different year-unit from ours. Popular attitude on the subject of age has changed greatly since father was a boy. Gone forever is the time when a man of 35 was considered middle-aged; when the heroine of a novel had to be in her teens and was *passee* at 25. The modern world has learned, as did Greece and Rome, that there are "cumulative advantages of living," as Emerson puts it. Cicero said that "rashness attends on youth as prudence does old age." It was literally a wise old Indian who reminded his arrogant young braves that "the sixties have all the twenties and forties in them."

Today employers are not discarding the 60-year old workers. I understood a few years back that the Pennsylvania Railroad lines had 4000 employes between the ages of 60 and 70. Many important government positions are held by men commonly regarded as old, but who are in reality at their best. The fact is that responsibility in matters of state is best reposed in the older men. Gladstone was 60 when he became Prime Minister of England, and at 81 put up the fight of his life for home rule in Ireland.

Really, the prime of life seems to be between 35 and 60. Mental workers, under normal conditions, seem actually to gain in efficiency up to 60 or 70 years of age. When we are tempted to think ourselves old and worthless, let us recall a few examples of the possibilities. Cato mastered Greek when he was 80 years old; Sophocles wrote "Oedipus" at 80; Goethe was 80 when he finished "Faust"; Sir James Paget wrote his "Case Book," one of the best contributions to medical literature, at 80; Dr. Oliver Wendell Holmes was 82 when he wrote one of his best books; Gen. Ben. F. Tracy, at one time secretary of the Treasury Department, was retained by Governor Sulzer as head counsel when he was 86. Pope Leo XIII was 68 when he took the papal chair. He became one of the greatest political factors in the world, and maintained his abilities to the age of 93.

Intellectual workers have proved the age of 70 not at all old. Some of Huxley's best essays were written at about this age. Darwin wrote till he was beyond 70. Senator Hoar of

Massachusetts wrote his autobiography at 77.

The achievements of 60-year old men in the realm of mentality are far too numerous to mention, in spite of the fact that many, many persons cry that they are old at three score.

One of the principal causes of premature age is the resignation attitude. There are still some people who take it as a matter of course that when the thirties are left behind stiffness, wrinkles and senility must come rapidly. A person is just as old as he feels and looks. He who retains his interest in life, his childish enthusiasm, does the things characteristic of youth—in a word, retains the spirit of youth, will feel young. Feeling and acting young, he will *look* young. This is important; for the impression one gives the world reacts on him. "The world takes a man at his own appraisal," so if your looks and general demeanor suggest youth you will be treated accordingly.

Just as there are different diseases of the body, so there is a vast variety of mental disorders. Heading the list as an age-producer is worry. "Those who pine in their youth cannot look spruce in their old age," says an old maxim. Worry brings the wrinkles and crow's-feet associated with age; and if you look old and are told it a few times, you will soon feel old, as I have said.

Equally important with a favorable mental attitude, is good physical health. Moderate exercise, a light but nutritious diet, and daily bathing are fundamentally important. As a result of his attention to such rules, George Meredith found a 12-mile daily walk very easy, and was still practicing it at the age of 80.

Recent discoveries of science have called particular attention to sleep as an aid to longevity. Without going into details, we know that the time in bed is the recuperative period for the body; and if the complex mechanism of brain and brawn is to last it must have ample rest. Long restful sleep in a well ventilated room is one of the fundamental requirements for health. One need only study the lives of the wretched East Indians to see the effects of overwork, meager food, and carelessness as to sanitation. The average life-time with these poor creatures is but 23 years! Also, I have read of a remarkably short-lived tribe of people in New Guinea. The cause in this case, as given by scientists, is interesting. In the first place, the chief diet is a beetle that tastes good, but has in it a certain slow-acting

poison. Secondly, a great deal of sea water is drunk, and this gives the system more salt than it can successfully handle.

A prominent writer has summed up the requirements for youth-preservation as: "food, relaxation, water, large lungs, sunshine and air, cleanliness, sleep, protection from the elements, social and financial comforts, mental attitude, conservation of vitality."

To these should be added a happy marriage. French statistics, according to Bertillon, showed that in a year the number of deaths per 1,000 men, among bachelors between 35 and 40, was 19; while among married men it was 8. Between the ages of 55 and 60 the figures were 41 and 23, respectively. Among women the figures for the first comparison are 12 and 8, for the second comparison 24 and 18. These facts are significant; "single blessedness" is unnatural. A man cannot grow without some responsibility; to love and care for somebody, something, is a part of the day's work. Reasonable responsibility expands a man, broadens his character, brings out the best that is in him—ripens and sweetens existence, bringing a self-esteem and contentment that adds years to his life and life to his years.

Now let us talk of age more specifically, in its relation to athletics. If men in general are young at forty, if in business and social circles this is not old, why should it be in the athletic world? We would naturally expect to see muscle workers particularly benefited by conditions that prolong life, since these conditions are largely physical. Farmers and other outdoor workmen hold their age well when not overdone; a farmer is not too old for work at forty—not by any means. There is nothing essentially age-producing in physical exercise.

Then why is it considered safe for a 40-year old farmer to lift a 200-pound sack of grain, but dangerous for an athlete of forty to lift a 200-pound bar-bell? The difference is mostly imaginary, and when real lies in the methods of training.

Dealing with the popular opinion, it is traditional that there are no 40-year old athletes. How this belief can live on year after year in the face of hundreds of refutations is a mystery. It is a positive fact that age is very seldom concerned in an athlete's retirement; and when it is it is nearly always a premature age, induced by unwise living.

The most universally known athletes are the

(Continued on page 42)

How's Your Serratus Magnus?

By WALTER MANN

PICK out a friend whom you know well—preferably one who is good natured—and ask him how his serratus magnus is? The chances are he won't know what the dickens you are talking about. Yet this is an important muscle of the chest. When you see a man with an exceptionally fine chest, do you appreciate the fact that his fine appearance is only possible by the symmetrical development of five main or sets of muscles? I'm betting this never occurred to you, even though you know a lot of fellows with *real*, sure-enough chests!

To begin with there are the Intercostals—both external and internal—which are found between the ribs, and it is because of these muscles that when you raise one rib the others automatically follow. Imagine, if you can, what would happen when you tried to lift a heavy weight if each rib was not joined to its neighbor. It would be something like a Chinese lantern when the starch in the paper has given out.

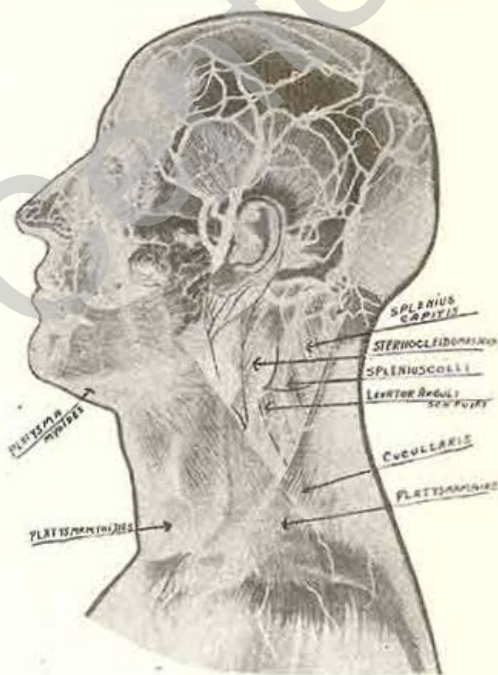
The outer, or external, Intercostals are twenty-two in number; eleven on each side of the chest; one muscle between each two ribs; each starting at the under or lower edge of the rib, extending to its finishing point at the upper edge of the rib next below. These muscles believe thoroughly in the adage that "One good turn deserves another," and so they show no partiality when it comes to one rib moving—they just naturally take the whole rib family along, also.

The Intercostals are a large family and we find our friends the externals have close relatives called inner or internal Intercostals whose number is exactly the same as their cousins the externals. These inner or internal Intercostals start at the breast bone—known also as the Sternum—and the inner ridge of each rib. They run slantwise from the breast bone towards the sides of the body. The external muscles, you will remember, ran exactly the opposite way.

Just here it might be well to remark that the Intercostals, in addition to being quite numerous, are also fond of work, and if they are to be kept in condition it is well to give them plenty to do. And don't be afraid to let the work be heavy enough, because they are hardy stock and like all willing workers

will surprise you at the amount of work they can take care of.

And now we come to our friend mentioned in the beginning of this article—the Serratus Magnus—which is an irregular, four-sided muscle, lying close to the ribs; there being nine strips arising from the eight upper ribs and the second rib having two strips attached to it is the favored one. The Serratus Magnus extends across to the shoulder, entering at the shoulder blade (known as Scapula). It is, of

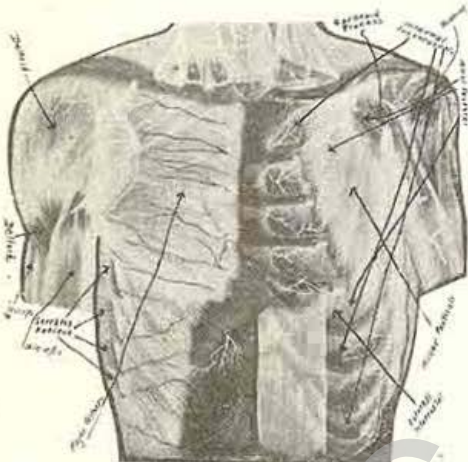


course, found on both sides of the chest, and helps in the raising of the ribs. Here again we see that spirit of "help the other fellow." While old Serratus may feel that the Intercostals could raise the ribs quite O. K. by themselves, he still comes along with a helping hand, to make sure the job is well done.

The Major and Minor Pectorals are the other two main muscles of the chest. Pectoral, literally, means the chest.

This Major muscle is broad, thick and of a triangular shape, and it covers the upper and front part of the chest, beginning on the front of each half of the collar bone, nearer

the breastbone, as well as from the front side of the breast bone, where the cartilage attaches to the sixth or seventh rib. The termination of this muscle is in the form of a tendon, approximately two inches in width, which is attached to the outer ridge of the bone of the



upper arm, at the base of the shoulder. The bone in question is known as the Humerus. The main activity or function of this Major muscle is to draw the arm forward and across the chest. Just think a moment what an important member of the anatomy this muscle is.

The Minor Pectoral is of a similar shape to that of the Major muscle, but is thin instead of thick. It starts at the third, fourth and fifth ribs, close to their cartilages. These parts of the muscle end in a thin, flat tendon, inserted at the inner side of the upper surface of a bony projection found at the front side of the shoulder blade—and this bony projection is called Coracoid Process. The position of the Minor muscle is beneath the Major Pectoral. The main function of the Minor Pectoral is to depress the point of the shoulder. This is another of the muscles that does not enjoy an eight hour a day schedule. As one surgeon expressed it, "This muscle works like blazes at meal time."

As you cannot have a well-developed chest without also having good-sized shoulders, we'll leave the chest and consider the shoulders. A short reference to the bony structure of the shoulders would not, I feel sure, be at all out of place. The first of this structure is the shoulder blade (also called Scapula); a flat, triangular-shaped bone, longest up and down. The outward termination, as already stated,

is known as the Coracoid Process, while at the back of the shoulder blades is the spine, which terminates in a projection of bone (acromion process). In the socket formation (called glenoid cavity) of these processes (the Coracoid and Acromion) the head of the upper arm (humerus) works. The shoulder blade (Scapula) is attached to the collar bone (clavicle), but apart from this it is attached to the body by muscles which number seventeen; some of the muscles being among the most powerful in the human anatomy. Only the most important of the seventeen muscles will be dealt with here, as they are the easiest to trace.

Of the ones of most importance might be mentioned the giant deltoid muscle; the Minor Pectoral and Serratus Magnus, which have already been covered in this article; the back muscles known as the Major and Minor Rhomboids and lastly the biceps and triceps.

The main shoulder muscle, however, is the deltoid. It's work is to move the arm out and up. It is very thick, and like the Pectorals, is triangular in shape. Unless this muscle be well developed proper shoulder appearance is impossible. This muscle has starting points (1) from the rear border of the spine that runs along the back of the Scapula (2) from the front border and upper surface of that part of the collar bone near the shoulder blade and from the outer margin and upper surface of the acromion process. The strands of this muscle end in a thick tendon inserted in a triangular shaped ridge of bone in the middle of the outer side of the shaft of the bone of the upper arm (humerus). All of which may sound intricate, yet if you will stand before a mirror, or better still get two mirrors and arrange them as your tailor does when he wants to show you how well that suit of clothes fits you, you will see how it works. Oh, yes, right here let me ask you not to depend upon your tailor to give you that breadth of shoulder so necessary at all times, but rather give Mr. Deltoid Muscle plenty of good heavy work to do, because if you depend upon your tailor you may be caught without your coat on! However, to get back to our mirrors. Having arranged the double mirror to your satisfaction, grasp a kettle bell weighing, say twenty-five pounds, and allow your arm to hang at the side of the thigh; then slowly raise the bell outward and upward until it is on a level with the shoulder. Keep

your eyes on your reflection in the mirrors and the mysterious Deltoid will be seen plainly in action. This Deltoid Muscle, for some reason or other, follows the line of least resistance and unless you keep him in view will do things his own way; which is usually with the least effort to himself and, therefore, with the least benefit to you.

Strange as it may seem, many an otherwise well-developed man is deficient in Deltoid development. To prove this notice some of your well-built friends, when they are in their bathing suits at the beach. The exercises necessary for the development of this muscle are simple, and should certainly be carefully considered.

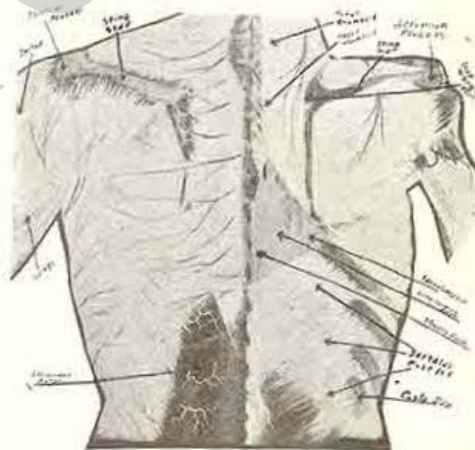
Our next consideration will be the neck muscles. Did you ever see a man with a good-sized pair of shoulders and a "scrawny" neck? He looks even more out of proportion than the man with large shoulders and chest and a pair of pipe-stem legs. One of the peculiarities of the neck muscles, fortunately, is that when a task is undertaken which calls most of the muscles of the body into action, those of the neck unconsciously do their share. A thread-bare saying has it that if one link be weak, the whole chain is weak—and 'tis the same with the human body; all parts must be strong or some day there's going to be a collapse. The brain is the known centre of the "body universe" and when the brain is ragged or underfed the rest of the body soon knows about it through the nerves. To get the proper amount of rich blood to the brain you absolutely must have a properly developed neck. It is not necessary to have what is commonly called a "bull neck," but you should certainly strike the happy medium. Now, even though the muscles in the neck are great in number and variety, these muscles are among the most simple to develop.

The muscles at the front and sides of the neck are known as the Platysma Myoides, which while thin are extremely broad, and care as to exercise will quickly thicken and therefore strengthen them. This highly sounding named muscle covers the sides of the neck, entering over the collar bone and shoulder as well as covering the whole of the front of the neck, first covering the chin and jaw, extending downwards. It is extremely necessary to have this muscle well developed as it is the safeguard of the carotid artery and jugular vein. We all know how important

these latter are. Directly beneath this muscle is another known as the cervical fascia which benefits equally with the Platysma Myoides when properly exercised. It is these muscles which among other things draw down the jaw and lower the upper lip. Just remember this at meal time.

Immediately back of the lobe of the ear, crossing in front of the neck and continuing down to the breast bone, will be found the sterno-cleido-mastoid. The action of this long named muscle is to pull the head from one side to the other; to rotate the head and also to keep it upright. When the head is held erect these muscles on either side are like the Irish guards whose captain when asked whether his men were with or against the cause replied that "They were." 'Tis the same with these muscles—"They are."

Next in line is the trapezius and splenius muscles, which while considered by some to be muscles of the back, since some of the foremost authorities on physical development deal with them as part of those muscles developed by all neck exercises, so they are classed under this heading here. The former



are found at the back of the neck extending over the shoulders, while the latter will be located immediately back of the sterno-cleido-mastoid, running up and forward, its end being in the neck. It is broad and flat and with exercise becomes most powerful.

The object in writing this article is to assist those who are interested in physical development, to follow their efforts, not alone by guessing that the muscles of the chest, back,



Wrestling

by
WILLIAM J. HERRMANN
 of Herrmann's Physical Training Institute
 Boxing, Fencing and Wrestling Academy
 Philadelphia, Pa.

Editor's Note.—The line cuts illustrating these wrestling lessons were made from drawings sketched from life by *Strength's* artist. Einer Johanson, of Norway, the light heavy-weight wrestling champion of America; Charles Olson, of Sweden, the well known professional heavy-weight wrestler; Cyclone Green, of Philadelphia, champion light-weight, and William J. Herrmann (himself) have posed for the drawings which illustrate this course. They also will collaborate with William J. Herrmann in presenting these lessons.

Defensive Measures Against a Near-Side Nelson

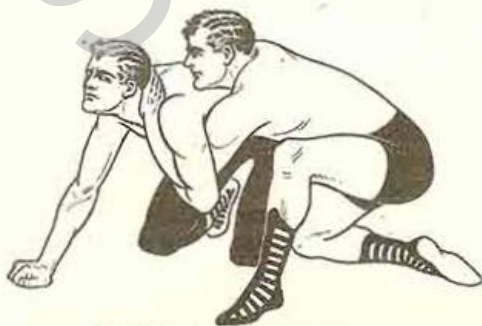
UNDER-WORK

THE FOLLOWING stops, blocks, breaks, counters, doubles, escapes, counter-moves and get-aways against a near-side half nelson are described under the supposition that your opponent is working on you while you are on his right, with you the under-man in readiness to do the under-work as combat conditions may warrant.

Practice all these moves when you are on the left of your opponent as well as when you are on his right.

BLOCK AGAINST NELSON

You can block your opponent's attempt to secure a near-side nelson by pressing your left arm tight to your own left side. This prevents opponent from slipping his



Block Against a Half Nelson

left arm under your left shoulder preparatory to securing a nelson. This effectively

blocks the first stage of opponent's effort towards securing a half nelson.

STOP AGAINST A NELSON

In case your opponent caught you napping and in consequence was able to slip his nelson hand under your left shoulder, but not far enough under your shoulder and



Break Against a Half Nelson

around to your neck to enable him to hold the nelson effectively, you nevertheless can still stop his attempts to further develop his nelson by clinching his nelson arm tight to your own left side. This will check any further progress of his nelson hand.

Hold his nelson arm in a vise-like grip tight to your own left side, with your left upper arm and elbow, while at the same time you press your head well up and back in order to keep your head safely out of reach of his nelson hand. Strengthen your position. Press your head up and back as much as possible. Clinch his nelson arm tight to your own left side with your left arm in order to check him from further improving the position of his nelson hand and arm.

HEAD TURN TO LESSEN LEVERAGE

Should your opponent's efforts to get a nelson prove successful, you can lessen the potency of his hold and even break the nelson he holds in the following manner:

Turn your head and face well to the right while clinching his nelson arm tight to your own left side. Pull your left arm and elbow well down and in towards your left side. This will help pull his nelson hand off your head. Lengthen the distance between his



Head Spin Out of a Half Nelson

nelson hand and your head as much as possible in order to weaken his leverage. The combined action of both head and arm will usually enable you to force his nelson to slip off your neck, or your opponent may voluntarily release his nelson due to the hold he held losing its potency.

This will free you from a weak or loosely held half nelson. However, it would not likely be effective against a well-held nelson on the part of a stronger and superior wrestler.

BREAK AGAINST NELSON

Should your opponent's effort to get a good half nelson prove successful you nevertheless can still free yourself of his nelson hold by the use of the following effective break:

Pass your left hand between your knees and grasp the outside of your left lower leg with your left hand. In grasping your leg below the knee with your left hand, grasp so that your thumb and fingers are

on the same side. Lean towards your opponent. Keep your head well up, and your left arm fully extended. An effective break even against a good, strong and tightly held nelson.

ARM SLIP

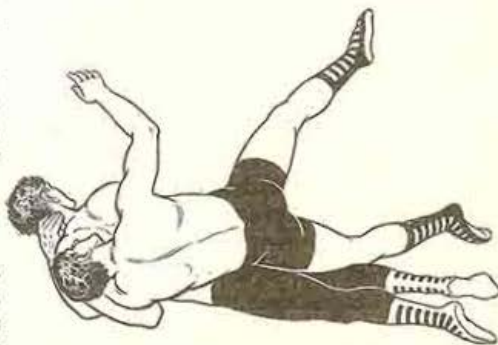
An escape against a half nelson in which you pass your left arm over your opponent's head to free yourself of his nelson. Throwing your left arm up and to the left, over your opponent's nelson arm and head, will free you of his nelson, providing nelson is not held too tight. Possible against a nelson held by an inferior opponent, but not likely to be effective against a strong and well-held nelson.

DUCK OUT

An escape against a half nelson, similar to an arm slip. Pass your left arm over your opponent's head while at the same time you duck your head towards your man to free yourself of his nelson and give you an opportunity to follow it up with a quick get-away. Like the arm slip, this escape is possible against a nelson held by an inferior wrestler, but not likely to be effective against a strong and tight nelson held by a superior opponent.

THROW OFF

A defensive chip that frees you of a loosely held nelson when opponent holds nelson on you with his right leg between your legs and much of his weight on or over your back. Brace your head on the



Side Roll Following Sit-Out

mat and lift your opponent's body up with a left leg crotch lift and throw him off to your right to free yourself of his nelson or throw him forward over your back to put him out of position.

As a rule your opponent will voluntarily release his nelson in order to be able to use his hands to save himself from getting further out of position.

CIRCLE OUT

An escape that leads off somewhat like a duck-out. Circle out from under by swinging your body still further around towards your opponent so as to bring you in back of and on the left side of your adversary with your right arm around his waist. A complete reversal in the position of the two wrestlers is accomplished by this play. The wrestler who just before was the under-man and on the defensive has now gained the superior top position. Possible against a nelson held by an inferior opponent but not likely to be effective against a strong and well-held nelson.

HEAD SPIN

An escape from a half nelson in which you toss your feet up in the air like a head



Side Roll and Leg Trip

stand. Using your head as a pivot, you can safely spin out to the other side to free yourself of your opponent's nelson. A showy escape for exhibition wrestling.

THE SIDE ROLL

A clever and effective counter against a nelson when your opponent's position is too far back of your shoulders and his body more or less parallel with yours.

Counter opponent's half nelson by locking his nelson arm well above his elbow with your own left upper arm and elbow. Lock his attacking arm in a vise-like grip, between your left arm and the left side of your body. Clinch his left upper arm tight to your side with your own left upper arm and elbow. Hold his nelson arm tight to your side as you pull him in and under

you by the use of the side roll. Roll to the side on which you elbow your opponent.

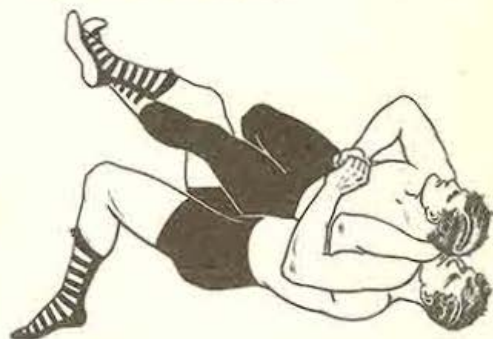
The side roll in its many variations is undoubtedly the most popular and effective counter against a half nelson used by professionals in catch-as-catch-can wrestling. Successful against even the most powerful of nelsons. One of the most effective and



Start of Sit Back and Inside Leg Grape-Vine

clever of all defensive-offensive moves. The deadly foe of a carelessly applied half nelson. Many a wrestler was felled by its use.

A disappointing surprise to the wrestler who but a moment before was under the impression he held the upper hand, to suddenly find himself not only the under-dog, but flat on his back as well, due to the swift, sudden and unexpected reversal caused by a cleverly used side roll.



Fall From Sit Back and Inside Leg Grape-Vine

Practice this play diligently. Master it thoroughly. One of the very best of under-work moves that puts the top man down in catch-as-catch-can wrestling. Make it a point to perfect this chip in all its many variations and combinations.

SIDE ROLL AND LEG TRIP

A clever and powerful counter against a near-side half nelson that combines a leg trip with a side roll. Bring your left leg into action to trip, by slipping it up and placing it in front of and across your



Fall From Sit-Out, Turn and Side Roll

opponent's left leg. Simultaneously roll and trip your opponent on the nelson side. An effective counter whether your opponent's position be on one or on both of his knees.

SIDE ROLL AND OUTSIDE LEG GRAPE-VINE

A good counter to use against a half nelson if both your opponent and yourself are in a more or less extended position and when your opponent has his right knee and leg between your legs. Take an outside leg grape-vine on his left leg with your left leg. Simultaneously use your outside grape-vine with a side roll to your left. A clever and effective counter against a half nelson when opponent has his legs in position as described and his body more or less extended and parallel to your own.

INSIDE LEG GRAPE-VINE AND SET-BACK

When opponent in holding his half nelson is on both his knees with his left knee and lower leg between your knees, take an inside grape-vine with your left leg on opponent's right lower leg and ankle. Elbow lock opponent's nelson arm tight to your own left side. Set back and straighten the left leg that holds the inside leg grape-vine. Keep your left elbow well in close to your left side in order to weaken the leverage of his nelson. An effective counter that gives you the advantage, puts your

man out of position and gains you the fall. Your opponent will probably expect you to side-roll him on the nelson side, only to be disagreeably surprised to finding himself foiled by an entirely different style counter.

ARM ROLL

If your opponent in holding his nelson makes the mistake of holding his right arm too far around your waist in holding his body hold, you can effectively counter his nelson with an arm roll to the right side. Grasp his right wrist with your right hand, pull his right arm under and hold it tight to your right side. Clinch his left nelson arm tight to your left side with your left arm. Re-enforce the grasp of your right hand on his right wrist by grasping it tightly with your left as well. Pin both his arms tight to your side and roll him under and to your right side to a fall. Your opponent will probably expect a side roll to the left. However, you fool him by arm rolling him to your right.

SIT-OUT

Another good defensive move against a near-side half nelson. Professionals are partial to this chip. It offers good opportunities to turn the tables on your man, as its combinations are so many. Be in a good mat position



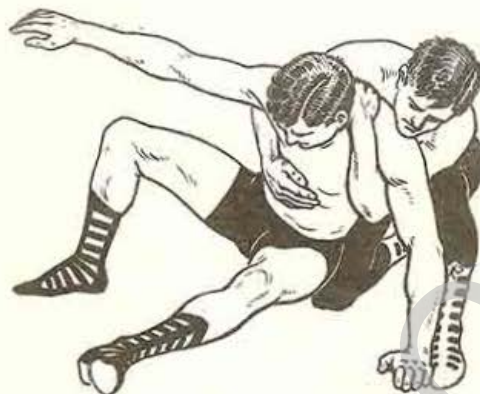
Sit-Out of Leg Trip Against a Half Nelson

with your right leg partly extended at right angles to your body on your right side. Cut your left leg through between your right foot and your left hand. Lift up your right hand in order to let the left leg pass in front of your body, so you can sit out to a sitting position. This play brings you sitting on the mat, in front of your opponent, with your legs well apart and your back towards your opponent.

Also learn to sit out as above when starting from position on both of your knees. Circle both legs outward, the left leg cutting through between the right foot and your left hand at the same time as your

right leg cuts in front of your right hand to a sitting position.

Don't let your opponent surmise your intentions. Watch your chance to use it in order to be sure of success. Time it carefully. Attempt it neither too soon nor too late nor when in a bad position, as it may lead you into difficulties. However, a good wrestler who thoroughly understands the fine points of a sit-out and a side roll is practically safe against most any nelson.



Going Into a Sit-Out Against a Half Nelson

As a rule against a well-executed sit-out your opponent's nelson arm is likely to slip off your neck or he may voluntarily relinquish his nelson in order to free his hands to take a full back-body hold. Should he continue to hold the nelson, it nevertheless has now lost its potency, as its original leverage has been weakened to such an extent as to practically render his nelson more or less useless and ineffective. However, should your opponent continue to hold his nelson after you sit out, counter it with the chip that follows.

TURN AND SIDE ROLL FOLLOWING A SIT-OUT

A showy and clever counter that combines a sit-out with a side roll. Follow up the sit-out by lengthening your body and turning to the right while keeping your opponent's nelson arm clinched tight to your side, so he cannot release it. Lengthen your body as you turn, elbow rolling your opponent across your body and then side rolling him to your right side to a fall. You can further strengthen the efficiency of this counter by taking a leg hold on

him in combination with the side roll. Take a leg hold as you take his head and shoulders across your body to your right. Grasp his left leg at knee with your right arm locking his leg tight to your side. Hook your two hands together to better lock the leg hold. Master this counter in all its details. It will stand you in good stead.

CIRCLING OUT

Should your opponent after your sit-out release his nelson and take the full back-body hold on you instead, you can circle out from under and free yourself in the following manner:

Turn to your left, reaching with your left arm for an inside leg hold on his left thigh. By bringing your body still further around and to your left you will force your opponent to release the full back-body hold he took on you following the release of his nelson. Throwing all your weight against his left arm will separate his hands and force him to release his grip. This will enable you to swing safely to your left in good position.

A GET-AWAY

If after your sit-out against a half nelson your opponent voluntarily releases his half nelson and takes instead a full back-body hold, you can make a safe and quick get-away from it in the following manner:

Grasp his wrists and press back strong



Circling Out

with your head and shoulder against your opponent's body as you push with your feet and lift your hips clear of the mat. This will break his body hold and free you of his grasp and enable you to turn, rise and make a quick and safe get-away.

CHANCERY OVER SHOULDER

If following your sit-out against a half nelson your opponent voluntarily releases

How I Improved My Memory In One Evening

The Amazing Experience of Victor Jones

"Of course I place you! Mr. Addison Sims, of Seattle.

"If I remember correctly—and I do remember correctly—Mr. Burroughs, the lumberman, introduced me to you at the luncheon of the Seattle Rotary Club three years ago in May. This is a pleasure indeed! I haven't laid eyes on you since that day. How is the grain business? And how did that amalgamation work out?"

The assurance of the speaker—in the crowded corridor of the Hotel McAlpin—compelled me to turn and look at him, though I must say it is not my usual habit to "listen in" even in a hotel lobby.

"He is David M. Roth, the most famous memory expert in the United States," said my friend Kennedy, answering my question before I could get it out. "He will show you a lot more wonderful things than that," before the evening is over."

And he did.

As we went into the banquet room the toastmaster was introducing a long line of guests to Mr. Roth. I got in line and when it came my turn, Mr. Roth asked, "What are your initials, Mr. Jones, and your business connection and telephone number?" Why he asked this I learned later, when he picked out from the crowd of 60 men he had met two hours before and called each by name without a mistake. What is more, he named each man's business and telephone number, for good measure.

I won't tell you all the other amazing things this man did—except to tell how he called back, without a minute's hesitation, long lists of numbers, bank clearings, prices, lot numbers, parcel post rates and anything else the guests had given him in rapid order.

When I met Mr. Roth again—which you may be sure I did the first chance I got—he rather bowled me over by saying, in his quiet, modest way:

"There is nothing miraculous about my remembering anything I want to remember, whether it be names, faces, figures, facts or something I have read in a magazine.

"You can do this just as easily as I do. Anyone with an average mind can learn quickly to do exactly the same things which seem so miraculous when I do them.

"My own memory," continued Mr. Roth, "was originally very faulty. Yes it was—a really poor memory. On meeting a man I would lose his name in thirty seconds, while now there are probably 10,000 men and women in the United States, many of whom I have met but once, whose names I can tell instantly on meeting them."

"That is all right for you, Mr. Roth," I interrupted. "You have given years to it. But how about me?"

"Mr. Jones," he replied, "I can teach you the secret of a good memory in one evening. This is not a guess, because I have done it with thousands of pupils. In the first seven simple lessons which I

have prepared for home study, I show you the basic principle of my whole system and you will find it—not hard work as you might fear—but just like playing a fascinating game. I will prove it to you."

He didn't have to prove it. His Course did; I got it the very next day from his publishers, the Independent Corporation.

When I tackled the first lesson, I suppose I was the most surprised man in forty-eight states to find that I had learned—in about one hour—how to remember a list of one hundred words so that I could call them off forward and back without a single mistake.

That first lesson stuck. And so did the other six.

Read this letter from Terence J. McManus, of the firm of Olcott, Bonyne, McManus & Ernst, Attorneys and Counselors at Law, 170 Broadway, and one of the most famous trial lawyers in New York:

"May I take occasion to state that I regard your service in giving this system to the world as a public benefaction. The wonderful simplicity of the method, and the ease with which its principles may be acquired, especially appeal to me. I may add that I already had occasion to test the effectiveness of the first two lessons in the preparation for trial of an important action in which I am about to engage."

Mr. McManus didn't put it a bit too strong. The Roth Course is priceless! I can absolutely count on my memory now. I can tell the name of most any man I have met before—and I am getting better all the time. I can remember any figure I wish to remember. Telephone numbers come to mind instantly, once I have filed them by Mr. Roth's easy method. Street addresses are just as easy.

The old fear of forgetting (you know what that is) has vanished. I used to be "scared stiff" on my feet—because I wasn't sure. I couldn't remember what I wanted to say.

Now I am sure of myself, and confident and "easy as an old shoe" when I get on my feet at the club, or at a banquet, or in a business meeting, or in any social gathering.

Perhaps the most enjoyable part of it all is that I have become a good conversationalist—and I used to be as silent as a sphinx when I got into a crowd of people who knew things.

Now I can call up like a flash of lightning most any fact I want right at the instant I need it most. I used to think a "hair trigger" memory belonged only to the prodigy and genius. Now I see that every man of us has that kind of a memory if he only knows how to make it work right.

I tell you it is a wonderful thing, after groping around in the dark for so many years to be able to switch the big search-light on your mind and see instantly everything you want to remember.

This Roth Course will do wonders in your office.

Since we took it up you never hear anyone in our office say "I guess" or "I think it was about so much" or "I forget that right now" or "I can't remember" or "I must look up his name." Now they are right there with the answer—like a shot.

Have you ever heard of "Multigraph" Smith? Real name H. Q. Smith, of John B. Price & Co., Seattle, Wash. Here is just a bit from a letter of his that I saw last week.

"Here is the whole thing in a nutshell; Mr. Roth has a most remarkable Memory Course. It is simple, and easy as falling off a log. Yet with one hour a day of practice anyone—I don't care who he is—can improve his Memory 100% in a week and 1,000% in six months."

My advice to you is don't wait another minute. Send to Independent Corporation for Mr. Roth's amazing course and see what a wonderful memory you have got. Your dividends in increased earning power will be enormous.

VICTOR JONES.

Send No Money

So confident is the Independent Corporation, the publishers of the Roth Memory Course, that once you have an opportunity to see in your own home how easy it is to double, yes, triple your memory power in a few short hours, that they are willing to send the course on free examination.

Don't send any money. Merely mail the coupon or write a letter and the complete course will be sent, all charges prepaid, at once. If you are not entirely satisfied send it back any time within five days after you receive it and you will owe nothing.

On the other hand, if you are as pleased as are the thousands of other men and women who have used the course, send only \$5 in full payment. You take no risk and you have everything to gain, so mail the coupon now before this remarkable offer is withdrawn. Independent Corporation, Dept. R-1732, 319 Sixth Ave., New York.

FREE EXAMINATION COUPON

Independent Corporation

Dept R-1732, 319 Sixth Ave., New York

You may send me the Course or Courses checked below. Within five days after receipt I will either return them or send you \$5 for each in full payment, except as noted.

- Roth Memory Course (\$5) Mastery of Speech (\$5)
By David M. Roth By Frederick Houk Law
- Drawing, Art, Cartooning Course (\$5) Super-Salesmanship (\$5)
By Charles Lederer By Arthur Newcomb
- How to Read Characters at Sight (\$5) Money-Making Account System (\$3.50)
By Dr. K. M. H. Blackford By Wesley W. Ferrin

Name

Address

..... Strength, 2-21

his half nelson to take instead a full back-body hold, watch and see if his head is in a bad position. Should your opponent make the error of keeping his head too far forward or over your shoulder, take advantage of his poor position by reaching up quickly and taking a chancery hold over your shoulder on his head, pull him bodily over your head and shoulders to a fall.

CHANCERY AND LEG HOLD

If your opponent in holding his half nelson makes the error of holding his head too far over your right shoulder while holding a near-side half nelson with his left arm, reach up backwards and take a chancery hold on his head with your right arm and grasp his left leg at the knee with your left arm. Hold the holds tight. Pull his head and knee in tight together and roll him forward and over to your right to a sure fall.



Chancery and Leg Hold
(Counter to a Half Nelson)

CHANCERY AND CROTCH HOLD

One of the best counter-moves against a near-side half nelson. To secure it, turn to your left, against your opponent, while bringing your right foot forward and towards him. At the same time swing your left arm around and take a chancery hold on his head with your left arm while you bring your right arm around to reach under your opponent's body and take an inside crotch hold



Chancery and Inside Crotch Hold
(Counter Against a Half Nelson)

on him. A powerful and effective counter against a near-side half nelson.

BRIDGING OUT

A chancery and crotch hold can also be secured while bridging out of a half nelson as follows:



Chancery Over Shoulder on Head

If your opponent's half nelson and body hold have started to turn you towards the mat, bridge to save your shoulders from touching the mat by arching your back and supporting your body weight on your head and feet. In bridging over take a chancery hold on his head with your left arm



Chancery and Inside Crotch Hold While
Bridging Over

and an inside crotch hold with your right arm and turn him over to a fall. A good counter to use as a last resort when your opponent has started to turn you with his nelson.



See Yourself As Others See You

by using a *BEAUTIFOLD* mirror; a combination of two small mirrors, one flat and one curved, or reducing glass. Folds into small space, or opens up and sets itself *AUTOMATICALLY* to the correct reflecting angle to give you a miniature view of your complete profile—top of head—back of neck, or any view of head or hat desired. Note *COMPLETE* profile view in mirror shown above. Helps you in the selection of hats, and in deciding on the most becoming coiffure.

Absolutely New and Entirely Fascinating
An Invaluable Aid to the Perfect Appointment of Beauty
Not Merely A Necessity, But Also
The Greatest Luxury Anyone Can Possess

Study Your Own Personality

and make the most of your possibilities by developing your own style, and keeping yourself well-groomed.

The Beautifold Mirror is handsomely finished in nickle-plate and is small enough to be carried in hand bag. Packed in an attractive box. **Price, \$2.50** postpaid to any part of U. S. Remit by P. O. money order, check, or cash in registered letter.

Buy One For Your Girl

Send for our beautiful illustrated booklet. Its free.



Beautifold Mirror Co.

Dept. S, 413 Hewson Street
 Philadelphia, Pa.

(Continued from page 30)

famous pugilists, and much of the public's knowledge of athletics is confined to this branch of sport. Though there are notable exceptions, pugilists are as a rule careless liveries, given to irregular habits. When, as a result of indiscretion, a boxer loses form at 25 or 30, the world says he is too old. This happened a number of times, so 30 was set as the age limit of a boxer's usefulness. Jeffries was considered too old at 35. He was not; his years of retirement, and psychological disturbances, were his real handicaps. Abe Attell lost to Kilbane because he was too old, the papers said. Imagine a man really old at 28! Papke was described as "old and without interest" at 25.

Boxing is a sport for the young. For some reason it is seldom enjoyed at 30 as it was at 20. The infliction of punishment is a more serious thought to the mature mind, and the caution of riper years is easily mistaken for fear and a loss of form. Papke's case was typical. As soon as he began to lose interest, to find training a bore, he "went back." It's the same in other things; a business man's heart must be in his work if he is to succeed.

It is most unfair to make boxers the standard of judgment in dealing with matters athletic. As golf is the old man's game, so boxing is a youth's game. Golf requires some stamina, but there is no punishment in it; and mature men find it more agreeable. Harry Vardon, the great English golfer, is 42, and good as ever, or was a few years back. Alex. Herd is 44, and John Ball, former amateur British champion, is 49. The veteran of the Scarsdale Club, Alexander Milne, was 82 and still playing the last time I heard of him.

Between the extremes, boxing and golf, there are many sports with devotees who disprove the popular belief that athletics are exclusively for the young. Many of our best ball-players are nearly 40, some older. As most of these fellows are in good condition, some may equal the record of "Cy" Young, who played the game 22 years.

In tennis and pedestrianism there are too many "old boys" for enumeration. William Larned surely has been on the courts sixteen or eighteen years. Dan O'Leary celebrated his seventieth birthday by walking 60 miles in seventeen and a half hours. Among swimmers, we find Burgess was 42 when he swam the English Channel five or six years ago. Mrs. Bertha Rose, who distinguished herself

as a swimmer, was still a grand performer at 63.

One of the most remarkable records for the older athletes was that made some time back by Lieut. J. P. Muller, of the Danish army, in his fifty-first year. He walked, ran, cycled, sculled, paddled and swam a half mile each in slightly less than half an hour. Cycling, 1:58 1-5; walking, 5:38 1-5; running, 3:10; sculling, 4:7; paddling, 5:29 4-5; swimming, 8:56 1-5. Total, 29.19 2-5.

And this reminds me of another test by a military man, Lieut. Kingston, of the U. S. Marines in Haiti, tested 118 men for endurance by having them carry the regulation field outfit up a steep mountain trail, approximately eight miles, within a two hour limit. The results showed that training offsets the usual effects of years. Eighty-four men accomplished the feat in the prescribed time, and of those twenty per cent. were veterans of 44 years and over. The average age of those who succeeded was 29 years, while the percentage of tenderfoot recruits among the losers reduced their average to 24 years.

Usually an athlete loses his suppleness before his strength departs. For this reason sprinters and high jumpers fall off earlier than shot-putters and hammer-throwers. James Flanagan must be around 45, but he is a king of the hammer yet.

In weight-lifting, particularly in those styles where quick movements are not primarily essential, athletes often retain their prowess into the fifties; and sometimes later. There is less vital drain and nervous strain in rational weight-lifting than in most other sports; the lifts are over quickly. William Tuerk, an Austrian lifter, broke several world's records at the age of 42, though he did not take up the work till he was 32. At 50 he was still a marvelous lifter. George Litty, German athlete, was at his best at forty, and accomplished a harness lift of 3700 pounds. Dr. Krajewski, the famous Russian who trained Hackenschmidt, took up dumb-bell work when 41, and at 56 could perform remarkable strength feats. I could mention several other weight-lifters who are well up in years.

Not only is it possible for an athlete with proper care to retain his abilities for many years, but it has often been proved that developmental exercise will bring results at practically any age. As a result of a discussion on this point, W. G. George, the world famous mile runner, underwent an experiment. At

WATCH YOUR NERVES

By PAUL von BOECKMANN

Nerves Specialist and Psycho-Analyst

THE high pressure, mile-a-minute life of today, with its mental strain, worry, anxiety, grief and trouble is wrecking the nerves of mankind. This applies especially to people with highly active brains and sensitive nerves.

I have for more than thirty years studied the health problem from every angle. Far over a million of my various books on Health Subjects have been sold all over the world during this time, and as a result about 300,000 people have written me in detail regarding their weaknesses and their experience with different methods of treatment they applied. I am more convinced to-day, than ever before in my life, that worry, grief, anxiety, mental strain, and, of course, abuse of the reproductive functions, are the basic causes of nerve weakness (*Neurasthenia*), which in turn is the cause of nearly every ailment of civilized man and woman.

How can we reason otherwise? We know that mental strains wreck the nervous system, and the Nervous System is the great governing force of the body, the force that gives Life and Power to every organ, every muscle and cell. When the Nervous Forces are depleted through strain, how can the vital organs, muscles and other tissues retain their power? *It is impossible.*

The power of the nerves is infinitely great for good or evil. So great is this power that a tremendous nerve strain, as for instance, intense fear or anger, may cause instant death through bursting of a blood vessel. A less intense shock will cause the cheeks to pale or become flushed with blood. It can make the heart beat wildly and paralyze breathing. It can make cold sweat break out over the body, and make the knees tremble and become weak. It can paralyze the digestive powers in an instant. Long extended nerve strains of even mild intensity will undermine the mind and body of the *strongest man and woman that ever lived.*

Nerve Force is a dangerous power when uncontrolled, and if controlled, it can be made to give us Strength, Health, Character, Personality, Success and Happiness. *It is the greatest force of all bodily forces.*

Care for your nerves as you would the most precious possession you have. Through them you experience all that makes life worth living, for to be dull nerved means to be dull brained, insensible to the higher phases of life—love, moral courage, ambition and temperament. The finer your brain is, the finer and

more delicate is your nervous system, and the more imperative it is that you care for your nerves.

You are earnestly advised to read my 64-page book, NERVE FORCE. It is mainly a treatise on Nerve Control, teaching you how to prevent your Nerves from running "amuck," which is the basic cause of Nerve Exhaustion. The book teaches how to soothe and calm the nerves, besides containing hundreds of other important points of information. It will give you a thorough understanding of nervous and highstrung people, which will enable you to account for their irritability, crankiness, restlessness and other mental and physical peculiarities. In other words, the book will give you a deep knowledge of human nature, which is the most valuable and profound of all sciences.

The cost of the book is only 25 cents. Bound in durable Leatherette Cover, 50 cents. Send stamps or coin, if you wish. Address, Paul von Boeckmann, Studio 201, 119 West 40th St., New York. I have advertised my various books in this and other high-class magazines for more than twenty years, which is ample guarantee of my responsibility and integrity. If the book does not meet your fullest expectations, I shall return your money, PLUS your outlay of postage. I might add that large corporations have bought my book by the thousands for their employees. Schools have bought them as text-books. Physicians recommend them to their nervous patients. Extracts from the book have been again and again reprinted in magazines and newspapers, which is the strongest proof of merit. So send for the book TODAY, subject to my guarantee.

If you have strained your nerves through overwork, worry, grief, or have ignorantly abused them otherwise, *submit your case to me*, and I shall tell you definitely the exact nature of your weakness, and whether I can help YOU, as I have helped over 90,000 men and women during the last thirty years.

I am a *Nerve Specialist and Psycho-analyst*, besides being generally experienced in all sciences pertaining to the Body and Mind. I have treated more cases of "Nerves" than any other man in the world. My instruction is given by Mail only. No drugs or drastic treatments are employed. My method is remarkably simple, thoroughly scientific and invariably effective.

Positively no fee is charged for a "Preliminary Diagnosis" of your case, and you will be under no obligation to take my course of instruction, if you do not care to. Do not explain your case in your first letter, as I shall send you special instructions on how to report your case and how to make certain "nerve tests" used generally by Nerve Specialists; and I shall send you FREE, other important data on the subject which will give you an understanding of your nerves you never had before.

I shall send you authentic records of numerous cases of Nerve Exhaustion I have corrected, which have never been equalled in the history of medical practice. I have corrected thousands of cases of extreme Nerve Exhaustion.

the age of 54, after being out of training some 25 years, he undertook to increase his strength and measurements. He was eminently successful; in three months' practice of exercise, with discretion in eating, he gained fifteen pounds, increased his chest girth $2\frac{1}{2}$ inches and his arm $1\frac{1}{2}$. His strength, muscular and organic, improved wonderfully. When a man can do this at 54, surely youngsters of 24 and 34 are foolish in thinking themselves too old for athletics. Henry G. Brown, also, of England, is another well-known physical culturist who shows a strong, muscular figure at 54 years of age. His measurements are: Height, 5 feet $7\frac{1}{2}$ inches; neck, 16; chest, 40; biceps, $15\frac{1}{2}$; forearm, $12\frac{1}{2}$; thigh, 22; calf, $15\frac{1}{2}$. On this side of the "pond," we have our own matchless Sanford Bennett, now nearing 80.

These are but a few of many examples. All these men retained their interest; that is the first requirement for the maintenance of athletic ability. I repeat, we are just as old as we feel; years are but an incidental matter. When a man persuades himself that he is too old to try such and such a stunt he has thrown up the greatest barrier to its accomplishment. Without some confidence, failure is almost certain. Refuse to count the years, believe yourself young as long as you feel young; and keep yourself feeling young by doing the things young people do. Tradition be hanged! An athlete is old when he thinks he is, when he loses interest and grows too "sedate" to play.

I mentioned method of training as import-

ant. The "training by spells" that boxers undergo is not conducive to long life. They work five or six weeks under high pressure, then relax and abandon themselves to laziness, excesses, and soft living until another match is made. I don't mean that all boxers do this, but a heavy percentage do—and so do some other athletes.

The best results of exercise come from small doses taken regularly and in conjunction with a suitable diet and well regulated habits. Here again comes in the interest element; an amateur training because he wants to, because he loves athletics, may be expected to retain his form longer than a professional who follows the work merely as a means of livelihood. The former has a better chance to lead a simple, quiet life; and this counts.

In conclusion, I say there is no reason why an athlete should not be as good at 40, and in many cases at 50, as he was at 20 or 30. A man should be at his best physically at 40. From 25 to 55 there are no unfavorable changes in the most important organs, and the pulse remains practically the same. If he has trained regularly he will be nearly as supple at 40 as he was at 20, and any slight loss in this respect is more than made up by his increased strength and general solidity.

In mental qualities, coolness, judgment, accuracy, etc., essentials in the successful athlete, the advantage is surely with the man of 40. The main things are to believe yourself young, keep up your interest, and stick to the game without too many long vacations.

Speed—Its Relation to Strength

(Continued from page 10)

stature, and he is not responsible for the limitations of his own muscular system. But he can train the latter to the very fullest extent of those limitations. And through stress and effort he can even strengthen his bones. If a young man becomes a blacksmith he will possess at the age of thirty a stronger wrist and heavier bones in his forearm than if he goes to school and later takes up the practice of law. Though even then, if he is naturally light-boned, he will never acquire the heavy, powerful forearm of a man who is heavily built by nature. And it is so in the matter of speed. One may improve himself to the fullest extent of his limitations, but no further.

Of course, the way to acquire speed is to

practice it. Though it is first necessary that one should have normal muscular development. For instance, one cannot run fast if he is weak-kneed through lack of muscular vigor. I have seen a practical illustration of this in a group of young men trying to learn sprinting. They were students of a physical training school, but their gymnastics had not provided for that exceptional degree of power in the legs that is required in fast running, and particularly in "starting." Starting a sprint requires more power, a greater effort, than to keep up speed after one has gained momentum. To leave the mark, in the crouching position, like a shot out of a gun, which of course is the desire of the sprinter, requires an absolutely prodigious effort. There is nothing more exacting in all the realm of athletics. And that is one reason why so few men are sprinters. Well, let a

From a Pupil

At the time of subscribing to your course I was entering the amateur ring. After studying the course I found that it helped me beyond my expectations. I am now fighting professionally and can truly say that the Marshall Stillman Course has contributed more than anything else to my success. I have found it possible with your guards to hold my own against much heavier men.

GORDON E. MONDAY.

Troop H, 12th Cavalry, Machita, N. M.



Do you want to be a good Boxer?

Do you want to be able to put the gloves on with any of your pals, and more than hold your own? Do you want to know how to defend yourself if attacked? Do you want to be able to teach a bully a lesson if he hits a smaller man, or passes an insulting remark about you or a friend? Do you want to be able to use the blows and guards developed by the top-notchers of the ring?—the Benny Leonard Triple Blow, the Jack Dempsey Triple, the Fitzsimmons Shift, the Mike Donovan Leverage Guard, etc.? In short, do you want to be a good boxer in a very short while, and at very little cost?

Marshall Stillman's Shortcut System makes it easy for anyone to learn boxing and self-defense. In this unique course the lessons are practiced in your own home before your mirror—you do not have to submit while learning to the punches of someone who knows far more about boxing than you do. We start you with simple movements you already know—reaching out your hand for a coin, the breast stroke in swimming, etc., and, step by step, lead you into the movements of boxing. Before you realize it, we have you striking scientifically, guarding, ducking, feinting, side-stepping, etc., just as though you had a real opponent before you.

After you've mastered the fundamentals, we teach you every good blow and guard used in the ring—how to land the blow, when to land it, where to land it, and how to guard against your opponent's counters. Then we teach you shadow boxing—take you through three lively rounds for daily prac-



Science can overcome weight and strength. Carpenter was much lighter than Heckett, yet he knocked the Briton champion out in 75 seconds.

tice; this develops your speed and wind. To develop you physically, we give you set of muscle-building exercises, synthetic breathing (a great lung developer and aid in preventing nervousness) and the Colon Exercise (good for constipation).

To complete your knowledge of self-defense we teach you 15 jiu-jitsu holds and 14 wrestling holds—how to disarm an opponent, to break a strangle hold, etc.

The course includes an article on training, with a list of questions and answers, an article on Mass Boxing, the latest International Sporting Club Boxing Rules, and inside stories of 69 great fighters, with their pictures—Benny Leonard, Jack Dempsey, Carpenter, etc.

There are 216 illustrations. That shows how complete the course is. Yet we've kept it remarkably simple—easy to learn.

Sent Free on Approval

We send the entire course free on approval. If you keep it you have till the 15th of the following month to pay (\$5 in the U. S., \$6 in Canada, \$7 elsewhere). Otherwise you return the course within 10 days. Now let's see how quickly we can make a good boxer of you—mail the coupon now to:

Marshall Stillman Association
Suite J-202
461 Fourth Ave., New York

FREE TRAIL COUPON

MARSHALL STILLMAN ASSOCIATION, Suite J-202, 461 Fourth Avenue, New York.

You may send me your complete course in Boxing and Self-Defense, including extra instruction described above. I give you my pledge that you may feel safe in trusting me as agreed, and that I will pay \$5 (\$6 in Canada, \$7 in other countries) for the course on the 15th of next month, or return it in 10 days after I receive it.

Name

Age

Address

group of untrained young men attempt the sprinting start, and among them you will see some whose knees will "wobble" in the attempt, as I have personally observed more than once. All of which only emphasizes the need of preliminary development exercises as a preparation for athletics.

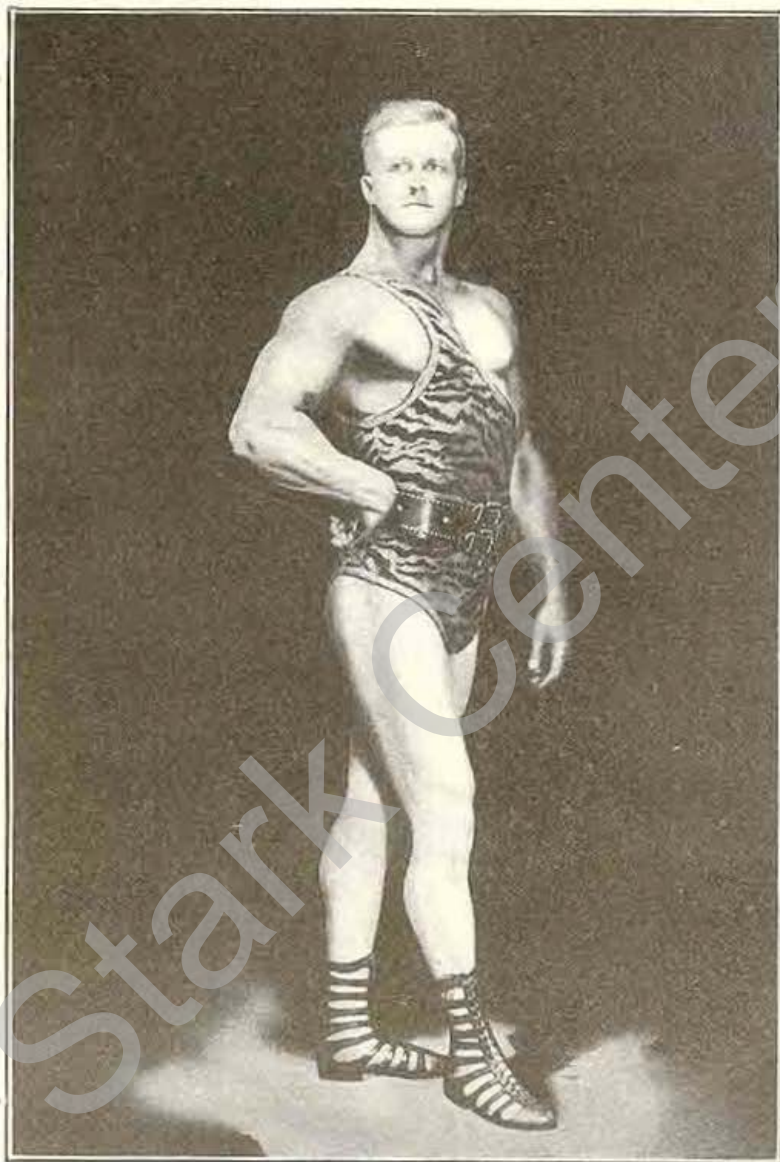
But granting that one has the necessary strength, speed is a matter of cultivation. Perhaps it is a matter of training the nerves, rather than the muscles, in quickness or speed of operation, although it all amounts to the same thing. It is a matter of nerve impulse and muscular response. However, it goes without saying that if one does heavy, ponderous work in the effort to build strength, and neglects the practice of sufficient fast work to counterbalance it, he cannot possibly have much speed. Slow work makes one slow. Fast work makes one fast.

Arthur Duffey, the famous sprinter who in 1898 was the first man to run a hundred yards in nine and three-fifths seconds, reported that at the time of his first visit to England he found his competitors in the habit of going out in the morning of the day of a race and training their heads off, thus leaving themselves tired, stiff and slow for the race in the afternoon. Not only that, but they thought it a great idea to train with heavy boots on, the theory being that if they developed the strength to run with the heavy boots, then, when they put on the light running shoes for the race, they would find their feet so light that they would simply fly over the ground. But it did not work out that way. Their feet felt lighter, but their muscles were adapted to slow movement by training and they would not move fast no matter how light. It was a fallacy. The fact is that the greatest possible speed in training is necessary if one expects to possess speed in competition.

For the same reason the boxer who is not naturally distinguished for speed, and who wants to become fast, should not place so much emphasis upon heavy development work and slow, tedious road-work, but should concentrate more on bag punching and fast sparring. In doing his road work, instead of plugging along slowly at a dog trot, he would do better to take a series of very short sprints at top speed, alternating with stretches of walking. Herein was one of the mistakes of Jim Jeffries in training for his fight with Jack Johnson in July, 1910. Although Jim Corbett joined the training staff at Jeffries' quarters to help him in his boxing, the big fellow practically eliminated the boxing itself from his training regimen. His theory was that if he "conditioned" himself, the boxing would take care of itself. As a result he did not develop boxing speed. Unfortunately he also failed in the matter of conditioning, being overtrained and stale.

The man who wants to run the hundred yards in the track and field championships follows a plan of training entirely different from that of the man who aspires to win the mile run. He concentrates on speed, doing a few sprinting starts and one or two short dashes each day.

For purposes of ordinary development it is desirable to combine strength and speed so as to become a true athlete. If you are doing heavy work to develop strength you would do well to add a proportionate amount of hand ball or other speed work to give you snap and prevent you from getting slow. Some of our most powerful men have had exceptional speed. Cultivate snap and speed and you will have a better quality of strength. Just as speed is the expression of great energy, so the cultivation of speed will help you to develop the highest degree of energy.



EARLE E. LIEDERMAN

America's Leading Director of

PHYSICAL EDUCATION

— Expert Instruction in —

BOXING : WRESTLING : PHYSICAL DEVELOPMENT

Telephone
6714 Worth

305-309 BROADWAY
NEW YORK CITY

Personal consultation by
appointment only

Alleged Hypnotic Feat Exposed

For many years certain persons have been giving public exhibitions of an alleged hypnotic or occult power, revolving around the inability of a powerful man to lift a person of light weight. Frail women and featherweight boxers have defied giants to budge them from the floor and huge audiences were puzzled, in most cases thinking the thing was a fake pure and simple, and attributing it to some strange hypnotic power.

One of the latest exponents of this feat is Johnny Coulon, former bantamweight champion. Among those who tried to lift him was Maurice Deriaz. Deriaz failed, and his failure was attributed to some strange hypnotic power that Coulon possessed and was able to work on Deriaz.

The pictures on page 25 show how the trick is done. Frank S. Leavitt, U. S. army heavyweight wrestling champion, is shown trying to lift Charlie Rose, a noted trainer of American athletes. Rose, who weighs only 130 lbs., defied the most herculean efforts of Leavitt, who weighed about 300 lbs. of bone and muscle, to move him from the ground. The wrestler, with beads of perspiration all over his face, finally gave up in disgust.

Rose has demonstrated this trick to all the heavyweights of Europe, and is ready to repeat the demonstration with anyone. Waldeck Zybyszko became much irritated recently on failing to lift Rose in the office of Jack Curley, the noted sports promoter. Some noted men of physical science and sporting writers have disputed the claims of Rose and Coulon, claiming that the trick puts the lifter off balance. The pictures show very clearly the effort that Leavitt is putting into the lift, and how easily he lifts Rose when the impediment is removed. When Rose places his finger on the nerve in Leavitt's neck it simply results in a case of nerve paralysis, and the big man, in spite of his bulk, is unable to lift the little fellow from the floor. To accomplish this, one hand is placed on the lifter's neck in the carotid region, and the other on the pulse of the right wrist.

Johnny Coulon, who is amazing Paris at the present time, has practiced this trick

on many European strong men and has been given much publicity. Prof. Charles Nordman, writing in the Paris *Matin*, said:

"The first point shown by our experiments was that the phenomenon cannot be attributed, as has been done, to the displacement of the center of gravity of either Coulon or the lifter.

"He can prevent his being lifted just as long as he wishes, and then, without moving, can allow himself to be lifted. If three experimenters made a chain in such a way that the middle one tried to lift Coulon, who touched only the first and third on the neck and pulse, he could not be lifted while the two men touched by him kept their touch on the lifter's wrists.

"This seems to prove that there is no question of jiu jitsu, and that Coulon does possess some inhibitory force.

"For the first time we have had an experience, easily renewable, which shows that the human will can act in the manner of physical forces which we now can produce in the laboratory. In the dark wall which until now has resisted all the attacks of experiments, the entrancing mystery of the relation of the body and soul, of mental and material force, the phenomenon discovered by Johnny Coulon, is perhaps the decisive breach through which science may soon enter to victorious attack."

Rose, who used to train with Coulon, tried the trick on Leavitt, explaining how the alleged hypnotic feat was performed.

How's Your Serratus Magnus?

[Continued from page 33]

arms or other part of the body are being helped, but rather by being able to trace the effect of each exercise on each muscle or set of muscles.

The next article will cover the upper and fore arms; the back and the abdominal muscles. Later on the hips, thighs and calves of the legs will be dealt with.

In the meantime ask your friend how his Serratus Magnus is.

I Can Make YOU The Real Man You've Always Wanted To Be



Antono Matysek, the man who is best prepared to train you for the coming world's championship match. Fame and fortune awaits the winner. My own record is a proof of my ability to carry out this assertion.

Develop and Increase Those Powers Which Are Now Lying Dormant Within You. Be the Man You Should Be.

Because I want YOU to enjoy every benefit you can still get Matysek's

MUSCLE CONTROL COURSE

for but \$2.00 which is an

Amazing Opportunity for Greater Strength.

It is a scientific system of control of all the physical functions. You can cure yourself of any functional disorder. It makes for independence of medicines or drugs, which you know cannot bring health and are always debilitating. Doctors suggest my exercises when they know they are the only real cure.

Matysek's Muscle Control Course Consists of

Two handsomely finished charts containing twenty-one beautifully produced pictures of myself, all several times larger than the above specimen, showing every detail as to how to perform the movements with absolute correctness. The instructions are in book form, "straight from the shoulder," such as only an expert who went through the mill himself could ever possibly produce. Some subjects of the course are:

How to quickly make respond the inactive bowels; easily correct the rounded shoulders; in no time expel the bothering gas out of the stomach; promptly chase away the staleness of the body; strengthen the nerves and internal organs; control every muscle of your body—make them roll like the waves; store up energy for feats of strength.

Also complete relaxation and contraction—Effective breathing—The best way to arouse your inactive nerves—Creation of better blood circulation—Easiest way to increase your chest circumference—The famous shoulder blade control—How to thicken the shoulders—How to learn the art of making your shoulders supple from only three days' practice—Development and control of the neck muscles—Spreading of the back—Depression of the abdominal muscles and wall—Control of the Pectoralis (chest muscles) the biceps, triceps, thighs, calf and all other muscles—How to train the abdominal regions to be immune from rupture—How to master correct posture—Simple yet positive cure for insomnia—How to pose for good pictures—Advantages of perfect co-ordination of muscles and mind thru concentration which brings success and all the good things that go with it, and many other vital pointers you need every day too numerous to mention.

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 already training on some good "system" these muscle control exercises will force your progress to 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 now 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 (Canadian orders \$2.30, foreign orders \$2.50), and leave the rest to me.

Prof. Matysek

Dept. 204, 523 North Charles Street,
Baltimore, Maryland

.....
Detach and mail NOW while it is on your mind

PROF. MATYSEK

MUSCLE CONTROL DEPT. 204

523 North Charles St., Baltimore, Md.

I want bulging muscles and yet I want them to have fine outlines. I desire to increase my strength, my internal activity, my energy. I want to be more than I am now and I want to achieve my "chief aim" in a short and efficient manner. For these reasons send me your wonderful Muscle Control Course, illustrated with 21 high-grade pictures of yourself. If I am not completely satisfied my money will be promptly refunded, if course is returned within 48 hours.

Write name and address plainly.....

.....
City.....State.....Strength, Feb. '21

SANDLES

LOUIS BURGER

Manufacturer of Athletic Footwear

Special Pairs

2067 Third Avenue

New York City, N.Y.

SANDLES

YOU CAN HAVE

STRONG ARMS

Powerful Back and Chest, Military Shoulders
Shapely Legs and a HEALTHY STOMACH

All of the above can be obtained by following the instructions in my book, **Strong Arms**, which contain a complete course in physical culture that will develop all parts of your body in perfect proportion. The exercises are illustrated with 20 full page half tone cuts and require no apparatus.

Send 25c in coin.

300,000 Copies Sold

Send your order today before you forget.

Prof. Anthony Barker, D. C.

Studio 30

127 West 42d Street, New York City



IN THE MARCH ISSUE.

Hand Balancing: Another article on hand-balancing by P. H. Miconi. This is the second of a series of articles. The first article dealt with the hand stand itself and the following articles will take up the more difficult figure.

Does the Business Man Need Strength? You bet he does, and Norman Price tells him how to obtain it.

Your Weaker Side: Don't let that weaker side be a handicap. Read this article by L. E. Eubanks and develop your weaker side to its fullest extent.

Wrestling: Another article by William J. Herrmann. Each of these articles is a complete wrestling lesson and gives breaks and holds that have been heretofore the jealously guarded secrets of professionals.

The Development of the Hips and Thighs: By O. R. Coulter. Mr. Coulter's article does not stop with telling you why you should be healthy. He shows you how to do it.

Those are just a few of the articles, the others are equally good. Don't miss the March number. If your newsdealer can't supply you, send your subscription to

THE MILO BAR BELL CO.

301 Diamond Street Philadelphia, Pa.

The Development of the Hips and Thighs

(Continued from page 19)

the extensor thigh muscles which as previously stated, are the strongest in the body. The author has lifted, starting with this position of the thighs, one thousand pounds several times in succession, using legs alone, and men with greater strength in these muscles could do more, so imagine, if you can, developing these muscles by such light resistance. As a matter of fact the most famous light dumbbell systems were originated by men who did not attain their own development by their use. Sandow's biography is quite a matter of public knowledge and that he attained his physique by weight lifting is a familiar fact to many of us. Atilla was originally the partner of Sandow and performed with him in various parts of Europe.

Dowd trained with progressive chest weights which he built for his own purpose, and also with dumbbells and other heavy weight lifting apparatus. Five pound dumbbells and light chest weights are too monotonous and do not afford a means of testing what strength is gained. A definite proof of progress is a main factor towards keeping one interested in his training, and without sufficient interest, it is impossible to attain the best results. Boxing, distance walking, running and kindred sports are more interesting to most men than indoor calisthenics, but it can readily be seen from the foregoing that neither furnished the maximum possibility for attaining real strength and development of the thighs and hips.

(To be continued next month with analysis of best methods of thigh development.)

Weight Lifting in Germany

TO THE EDITOR:

I have received the November issue of *Strength* today and see that you have not forgotten me. This issue is very interesting. I am glad to hear of the formation of a Weight-Lifting Association in America. This will be the only chance to have the lifts of American weight-lifters recorded. . . . If every reader of *Strength* goes in for this movement with all his heart, it must be a great success. Every good citizen will gladly give aid to this movement, because it will lead the young people away from bad habits.

We are living in the time when people,

in the hunt after money and pleasure, don't care about their physical condition. After a time they realize that they can not reach their goal because they lack vitality. The richest man on God's earth is the healthy man, and we can all be healthy—through exercise and by leading a clean life. If you think I could be of any assistance here for your movement, let me know.

It may also interest you to know the lifts of the German Weight-Lifting competition at Stuttgart, August 21-23, 1920, and the International Weight-Lifting Contest at Vienna, Austria, September 4-8, 1920. In this contest Moerke, of Germany, won over Swoboda, of Austria, with a two arm jerk of 161.7 kg.

For the first mentioned contest I give you the two winners, first and second place in each class and the lifts; while for the contest at Vienna I give only the winners, from featherweight to lightweight in detail, and for the others the total poundage.

I wish you the best of health and success in your good work, and remain,

Yours for health and strength,

ARNOLD SCHIKMAN,

Zuditten, Konigsburg, Germany.

International Amateur Weight-Lifting Contest.

	ONE ARM		TWO ARM		TOTAL
	Snatch	Jerk	Snatch	Press Jerk	
FEATHERWEIGHT (132 lbs. and under)					
Widman, Germany ...	132	192.5	187	242	753.5
LIGHTWEIGHT (132-148½ lbs.)					
Phillipp List, Germany ...	134	187	187	280.5	808.5
LIGHT-MIDDLEWEIGHT (148½-165 lbs.)					
Kridstyki, Austria ...					840.5
HEAVY-MIDDLEWEIGHT (165-181½ lbs.)					
Strassberger, Germany					913
HEAVYWEIGHT (181½ lbs. and over)					
Karl Moerke, Germany					969.5
*U. Blaser, Swiss, second place, same poundage but incorrect form.					

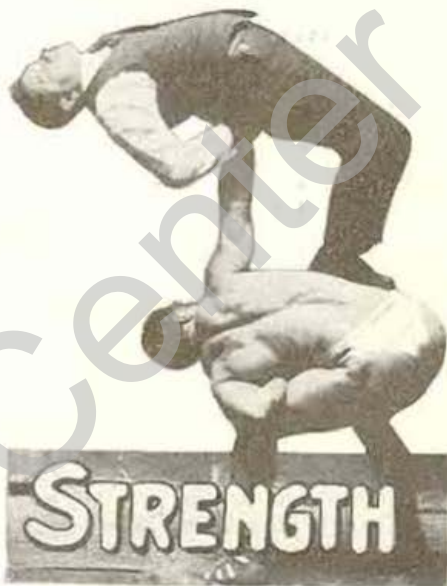
German Amateur Weight-Lifting Contest.

	ONE ARM		TWO ARM		
	Snatch	Jerk	Snatch	Press Jerk	
HEAVYWEIGHT					
1 Karl Moerke	170.5	220	231	264	341
2 H. Steinborn	187	209	231	231	319
HEAVY-MIDDLEWEIGHT					
1 Strassberger	170.5	192.5	209	198	258.5
2 Onatlebaum	165	165	198	198	247.5
LIGHT-MIDDLEWEIGHT					
1 Kohler	165	176	176	181.5	253
2 Paluskicwiz	154	165	176	187	242
LIGHTWEIGHT					
1 List	143	165	176	159.5	236.5
2 Zimmerman	137.5	176	165	170.5	225.5
FEATHERWEIGHT					
1 Widman	137.5	170.5	143	154	209
2 Rebholz	115.5	143	143	143	209

Matysek's Special Course

in Feats of Strength teaches many **HERCULEAN**

stunts that will create a sensation among your friends.



This course contains the most scientific data ever offered on many feats, among which are the

Famous One-arm Bent Press (3 stages)
Two-arm Clean to Chest, using a bar-bell or man

One-arm Clean to Chest

One-arm Swing

One-arm Jerk

Two-arm Continental to Chest, then to arm's length, and includes 18 large poses of myself showing every detail as to positions, grips, dips.

If you are normally strong, I

GUARANTEE

its great strength secrets will enable you to lift a man "over the head" in less than five days!

KNOW as much as the stage strong man. For a limited time I am offering YOU the complete course for but \$2.00 Order NOW. It's a mighty good investment.

PROF. MATYSEK

Dept. 778

523 N. Charles St.,

Baltimore, Md.

"Mizpah" Jock Supporter No. 44

Note the Patented Flap
Feature "A"



Note the Perfect
Pouch "B"

We invite your attention to a few points of advantage in the
"Mizpah" Jock Strap over all others, which are:—

- 1st The narrow understrap;
- 2d The small amount of material between the thighs;
- 3d The extra heavy webbing thruout;
- 4th The welt edges, making the webbing stronger;
- 5th Self-adjusting and perfect anatomical fit;
- 6th No buttons, buckles, hooks, snap fasteners or metal of any kind to corrode or hurt the flesh;
- 7th *Can be boiled to cleanse without injury to the rubber;*
Summing up, *the very best jock* that can be produced.
Ask for the "Mizpah" Jock Strap and take no other.

If you are unable to procure the No. 44 "Mizpah" of your dealer, send us \$1.00 with your waist measurement, and we will supply you with the same direct.

<i>Small</i> , to fit a person with a waist measure	-	22 to 28 in.
<i>Medium</i> , to fit a person with a waist measure	-	28 to 34 in.
<i>Large</i> , to fit a person with a waist measure	-	34 to 40 in.

Note the Perfect Conformity and Comfortable Fit

THE WALTER F. WARE CO.

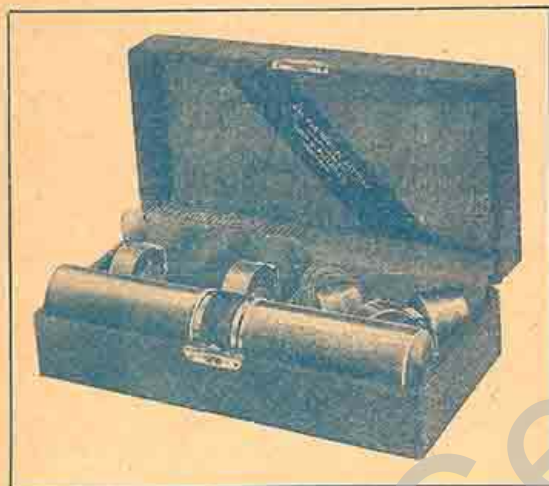
Dept. J.

1036 Spring Street

Philadelphia, Pa.

THE GAL-FAR BATTERY

A New Department of
THE MILO BAR BELL CO.



We wish to announce to the readers of Strength that the Milo Bar Bell Co. has organized a new and separate department for handling the Gal-Far Battery—the only battery that develops both galvanic and faradic currents.

Galvanic current is largely beneficial to the nerves. It is of most value in cases of neuritis, neuralgia, hysteria, insomnia and kindred ills.

Faradic current's most valuable effect is upon the blood and muscles. It is particularly effective in cases of infantile paralysis and paralysis, diseases of the skin and blood, loss of hair and similar ailments.

You have only to ask your doctor to find out just what this battery will do, and what it will not do. The field of electro therapeutics is pretty well defined. Most physicians will agree that a battery, such as the Gal-Far, is of inestimable value in treating disorders of the class mentioned above. For several years it has been used and recommended by a considerable number of practicing physicians, and is used by nurses and in hospitals.

This battery generates its own power—absolutely no wires or currents needed. Recharges can be had at a very reasonable price, and it will last you a life time. It is particularly effective in treating the following:

Acne	Deafness	Glands (Swollen)	Neuritis
Ague	Debility	Goiter	Paralysis
Anaemia	Dyspepsia	Headache	Pimples
Asthma	Earache	Hysteria	Rheumatism
Boils	Eczema	Infantile Paralysis	Sprains
Biliousness	Eye Strain	Insomnia	Sciatica
Bronchitis	Felons	Lumbago	Varicose Veins
Cramps	Flatulence	Melancholia	Wrinkles
Dandruff	Drowning	Neuralgia	

A book of instructions, showing the proper use of the battery in treating the above diseases, is sent free with each Gal-Far Battery.

Naturally, we do not claim that this battery will enable you to develop great strength and big muscles. But just as the Milo Body Building Courses have won an enviable position in the physical culture field, the Gal-Far Battery also holds an undisputed place in the field of electro-therapeutics.

The Battery is guaranteed to be absolutely as represented. We are so confident that it will please you that we are willing to send it to you on approval. Try it for five days. If at the end of five days you are satisfied with it, send us Ten Dollars. If you feel that it is not what we claim it to be, simply return it to us. You are to be the judge.

The Milo Bar Bell Co.

Gal-Far Battery Department

301 Diamond Street

Philadelphia, Pa.