

June 1923

19

Strength

The Magazine of Good Health



From WEAKLING to HERCULES

Mr. J. E. Woodrow of 2510 Western Avenue, Peoria, Ill., wrote us as follows:

"I am sending you two pictures showing the development I got from your course. The half-length picture was taken just before I started, and the full-length picture was taken after I had been practicing for sixteen months. The first two months I saw little improvement, but after six months' training I hardly knew myself when I looked in a mirror. I wanted health, strength and development, and I got them—and more."

There is more to Mr. Woodrow's letter, and you can read it, and other letters just as startling, in the booklet mentioned below. We are naturally proud of the development that Mr. Woodrow acquired. His pictures show the way his body grew. Comment on his muscles is therefore unnecessary, but there are two points you might overlook—namely, his face and his neck.



The Neck Is the Index of Vitality— The Face Is the Index of Condition

A thin, scrawny neck is a sign of low vital powers. Hollow cheeks and a drawn face are a sign of lack of condition. Compare Mr. Woodrow's face and neck in the two pictures. Consider them not only in regard to his improved personal appearance, but also as signs of health, and you will understand why we are even more proud of improving his health and appearance than we are of developing his muscles.

If He Could Do It—So Can You!

The fact that you read this magazine is proof that you are interested in the improvement of your body. Granting that, ask yourself just what have you accomplished so far. Take stock of your physical condition. Are you what you would like to be? Have the methods you have been following produced satisfactory results?

Have You the Least Idea of Your Own Possibilities

In the way of development? As most people have not, we suggest that you send for the booklet described in the "special" on this page. It will be an eye-opener to you. The last time we advertised this demand in the first few days cleaned us out of pamphlets. We now have plenty on hand. Did you get your copy?

We have been teaching our system of Progressive Bar Bell exercise for twenty years. We have brought thousands of men to physical perfection. You can read about many of them in our big booklet.

HEALTH, STRENGTH and DEVELOPMENT and HOW TO OBTAIN IT

Sent Free on Request

The Milo Bar Bell Co.

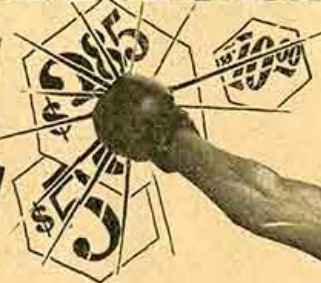
301 Diamond St., Dept. 39, Philadelphia, Pa.

Special

When writing for our booklet be sure to ask for your copy of the pamphlet:

"How Much Should I Weigh and How Much Should I Measure?"

Another Knockout!



Great Marshall Stillman Boxing Course now \$1.97

Plus
actual
postage

Sent on
10-day
approval

Marshall Stillman makes another price-cutting knockout! His great course in Boxing, Jiu-Jitsu and Wrestling is now only \$1.97—the same course that sold for \$5.

When we began, we charged \$10 for the instruction. As sales increased, we improved the course and cut the price in half—\$5. Sales grew faster still. We enlarged the course again and cut it to \$3.85. Now, with a record-breaking enrollment of over 30,000 pupils, we are able to offer this famous course for only \$1.97. We send it on 10-day trial—you send no money.

This short-cut method of teaching boxing right in your own home is based on the principles developed by famous Professor Mike Donovan, who taught boxing for many years at the New York Athletic Club.

You learn the fundamentals in the first six lessons. Standing before a mirror, you start with such simple movements as the breast-stroke in swimming, reaching at your hand for a coin, etc. Subconsciously you are led into similar movements in boxing—hitting, guarding, ducking, fainting, side-stopping, etc., just as though you had a real opponent before you. When the fundamentals have been mastered, you are taught the more professional blows and guards such as the Benny Leonard Triple Blow, the Fitzsimmons Shift, the Jack Dempsey Triple Blow, etc. You learn how to land these blows, when to land them, and how to guard against your opponent's counter.

Then comes three lively rounds of Shadow Boxing, cleverly combining these blows just as you will when you meet your first opponent. A right for the nose, a right for the stomach, a right for the jaw, a right for the ribs, a straight counter, cross-counter and

cross-parry—and your shadowy opponent goes down for the count!

When you finally face your first opponent, you're really prepared!

But we want you to be more than a clever boxer. So we also teach you 15 Jiu-Jitsu Holds and 14 of the best holds in wrestling—how to disarm an opponent, how to break a strangle hold and how to cripple an assailant with bone-breaking holds.

There are 246 illustrations in this great course. With the course you get a History of 69 Great Prize Fighters with their pictures and "inside" stories seldom heard outside professional circles.

Send no money. Simply fill in and mail the coupon. When you have the course in your hands, deposit 97 cents, plus actual postage with the postman. Use the course for 10 days—try it out thoroughly. At the end of 10 days, either send us the small balance of \$1 in final payment, or return the course, and we'll send your deposit back at once. Mail the coupon now.

Marshall Stillman Association
Dept. 1723-F

42nd St. and Madison Ave., New York

You may send me on approval the Marshall Stillman Course. I will deposit 97 cents (plus actual postage) with the postman, with the understanding that if, after 10 days, I wish to return the course, I may do so and my money will be instantly refunded. If I keep the course I am simply to send you \$1 in final payment.

Name

Address

10-DAY TRIAL



STRENGTH

Vol. 7

JUNE, 1923

No. 10

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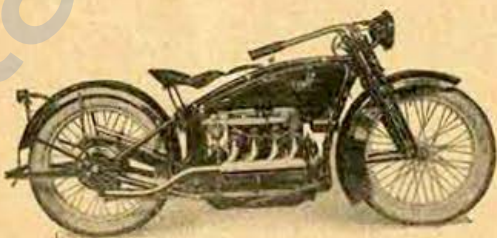
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An Ace 4-cylinder motorcycle will take you comfortably and pleasantly wherever you wish to go at surprisingly small cost—this machine has traveled from Los Angeles to New York in less than a week at total running expense of only nine-tenths of a cent per mile.

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Write for detailed information and arrange for a free demonstration and a trial ride.

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Philadelphia Retail Sales, 604 Market St.

Only Two Dollars (\$2.00) for this Complete Boxing Course!

"SCIENTIFIC BOXING AND SELF-DEFENSE," by Tommy Burns, is a complete boxing course and everyone that is interested in boxing should be sure to obtain a copy of it.

The table of contents will give you a very good idea of how complete the book really is, and you must remember that this book was written by a former world's heavyweight champion. He tells among other things of his favorite guard, a method of warding off a blow little known and rarely practised, yet so effective that it not only breaks the force of your rival's blow, but also throws him off his balance and makes him open for a counter.

To learn this counter alone is worth many times the price of the book and yet it is but one of a great variety of intimate details revealed to you by "Tommy" Burns. He devotes a great deal of attention to clinching, both inform-

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1. Why the New Style of Boxing Is Better Than the Old.
2. Points Which the Boxer Should Cultivate.
3. Defense and Counter Hitting.
4. Some Hints on Offensive and Defensive Tactics at Close Quarters.
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6. On How to Train to Scale, Together with Advice as to How to Recognize and Combat Overtraining or Staleness.
7. Ring Strategy and Tactics.
8. The Complete Second.
9. On Fouls.
10. The Boxer's Disease, Which Is Too Often the Cause of His Downfall.
11. Some Facts and Explanations.

ing you the steps that you should take against a man who persistently clinches himself and also explaining how you may use to advantage this method which is occasionally the only method by which a boxer can escape punishment.

Do You Know

that as a rule it is wisest to reserve all your offensive movements for fighting at close quarters? If you come to close quarters in the crouch you are up to your man with your shoulders rounded and your arms well placed both to cover up securely and also to give him all the digs for which

the opportunity presents itself.

In his preface "Tommy" Burns states: "I have called this book 'Scientific Boxing and Self-Defense,' and I want the first word to sink into your minds. Just get rid of the idea that boxing is 'brutal'; it isn't. It's a game in which brains count more than anything."

"Scientific Boxing and Self-Defense"

Sent Postpaid for **\$2.00** Cash, Check, or Money Order

THE ATHLETIC BOOK COMPANY

2100 N. Third St.

Philadelphia, Pa.

See How Easily You Can Learn to Dance This New Way

If you can do the step illustrated in the chart on the right, there is no reason why you cannot easily and quickly master all of the latest steps through Arthur Murray's method of teaching dancing right in your own home.

NO matter how skeptical you may be about being able to learn to dance by mail, this new course will quickly prove to you that you can easily learn without a teacher on the ground to direct your steps—and without music or partner—right at home.

Even if you don't know one dance step from another, these new diagrams and simple instructions will enable you to learn any of the newest dances in an amazingly short time. You don't need to leave your own room—it isn't necessary to go to a dancing class—or to pay large fees for private instruction. All you need to do is to follow the instructions as shown on the diagrams, practice the steps a few times to fix them in your memory and there is no reason why you should not be able to dance on any floor, to either band or phonograph music and to lead, follow, and balance correctly no matter how expert your partner may be.

Learn Any Dance in a Few Hours

Whether you want to learn the Fox Trot, One Step, Waltz, or any of the newer steps you won't have the slightest difficulty in doing so through this new method. Then, the very next time dancing starts, you can surprise your friends by choosing a partner and stepping right out with perfect confidence that every step you make and every movement is absolutely correct. Arthur Murray guarantees to teach you or your lessons won't cost you one cent.

More than 90,000 people have learned to become perfect dancers by mail, about five thousand people a month are becoming wonderful dancers through Arthur Murray's amazing new method.

Do You Know

The Correct Dancing Position
How to Gain Confidence
How to Follow Successfully
How to Avoid Embarrassing Mistakes
The Art of Making Your Feet Look Attractive
The Correct Walk in the Fox Trot
The Basic Principles in Waltzing
How to Waltz Backward
The Secret of Leading
The Chase in the Fox Trot
The Forward Waltz Step
How to Leave One Partner to Dance with Another
How to Learn and Also Teach Your Child to Dance
What the Attracted Teacher Should Know
How to Develop Your Sense of Rhythm
Etiquette of the Ballroom

How to Prove That Arthur Murray Can Teach You to Dance in an Evening

Arthur Murray has consented, for a limited time only, to send a special 16-lesson course to every one who signs and returns the coupon.

You may keep this course for five days and test it for yourself. It must prove to you that you can quickly learn to dance in your own home without music or partner through Arthur Murray's methods or the test will cost you nothing.



FIRST PART of the Forward Waltz Step

1. Begin with left foot and step directly forward, weight on left foot.
 2. Step diagonally forward to right, placing weight on right foot (see illustration).
 3. Draw left foot up to right foot, weight on left.
- That's all. Simply follow the numbers in the footprints. Master this part before going further.



Arthur Murray is America's foremost authority on social dancing. In fact, dancing teachers the world over have been instructed by him.

Through his new improved method of dancing by mail, Mr. Murray will give you the same high-class instruction in your own home that you would receive if you took private lessons in his studio and paid his regular fee of \$10.00 per lesson.

Send No Money—Not One Cent

Mr. Murray is eager to prove to you that he can quickly teach you to become a good dancer in your own home. Just fill in and mail the coupon—or a letter or postcard will do—and the special course will be promptly mailed to you. When your postman hands the special sixteen-lesson course to you, simply deposit only \$1.00 with him plus a few cents' postage, in full payment. Keep the course for five days. Practice all of the steps, learn everything these sixteen lessons can teach you and prove to your full satisfaction that you have found the quickest, easiest, and most delightful way to learn to dance. Then, within five days if you desire, you may return the course and the dollar will be promptly returned to you.

To take advantage of this offer you must send the coupon today—offer may be withdrawn without notice. So mail coupon NOW.

Arthur Murray, Studio 770, 290 Broadway, N. Y.

ARTHUR MURRAY, Studio 770, 290 Broadway, New York

To prove that I can learn to dance at home in one evening you may send me the sixteen-lesson course and when my postman hands it to me I will deposit with him only \$1.00, plus the few cents' postage, in full payment. If, within five days, I decide to do so I may return the course and you will refund my money without question.

Name

Address

City State

(Price Outside U. S., \$1.10 cash with order.)

How Walter Camp Put Joy Into Living

Famous Yale Coach Shows How to Keep Fit in Ten Minutes' Fun a Day—His "Daily Dozen" Exercises Now Set to Music on Phonograph Records



THOUSANDS of men and women—once flabby-muscled, low in endurance, easily fatigued by ordinary mental or physical exertion—are today facing their daily work with new ability and new energy. They are no longer nervous. Their bodies have been rebuilt; their endurance has been strengthened; their minds are clearer—all through *ten minutes' fun a day*.

Today, "that tired feeling" is something practically unknown to them, for they have built up a new supply of life. They have increased their efficiency, they eat better, sleep better, feel better, and have found a new pleasure in living.

These people owe their improved health to the fact that they devoted a short time each day to a new scientific system of physical development. And the remarkable part of it all is that while they were thus building up their bodies—they exulted in the

exercise. It was not drudgery, it was fun!

This remarkable system of body building was devised by Walter Camp, the famous Yale football coach. People who have used it say they think it is the best method they have found of keeping fit. According to physical culture experts who have studied it, this new method will often accomplish *in just ten minutes* more actual good than a half hour spent in strenuous gymnasium exercise.

Mr. Camp has embodied the complete system in twelve simple movements which are known as the "Daily Dozen."

The "Daily Dozen" were first used as a much needed substitute for the tiresome setting-up drills used in training camps during the war. Their immense value was quickly apparent and before long members of the Cabinet as well as other prominent men were relying on them as a guard against physical breakdown due to overwork.

Walter Camp

Originator of the

"Daily Dozen"

Since the war, the "Daily Dozen" have been making thousands of busy men and women fit and keeping them so. And now the exercises are proving more efficient than ever. For a wonderful improvement has been effected in the system. Here it is:

With Mr. Camp's special permission, the "Daily Dozen" exercises have been set to music on phonograph records that can be played on any disc machine.

A book is included—showing by actual photographs the exact movements to make for every one of the "commands"—which are given by a clear voice speaking on the record. The most inspiring music for each movement has been adopted. A fine, rousing tune, such as the great Sousa melody, "The Stars and Stripes Forever," has a wonderful effect. It is elating; and it adds spirit to an activity that was monotonous before this invention.

Another reason for the wonderful effectiveness of the "Daily Dozen" is because they are based on natural methods of body-development. Take the tiger in the zoo. He is caged in, removed from his natural way of living—just as we, through the centuries, have grown away from our natural way of living. Yet the tiger keeps himself in perfect physical condition—always. How?—by constantly stretching and turning and twisting *the trunk or body muscles*. And that is where Mr. Camp says we must look after ourselves! It is on just this principle that he has based his "Daily Dozen."

You cannot fully appreciate the real joy of doing the "Daily Dozen" to music until you try them. The exercises are *thorough* in every way—yet it's such good sport doing them to music that you actually *do not realize* that you're taking exercise!

Try the Complete System FREE—For Five Days

You cannot fully appreciate the real joy of doing the "Daily Dozen" to music until you try it. So we want to send you, absolutely free for five days, the "Daily Dozen" on phonograph records and the book which illustrates the movements. These full-size, ten-inch, double-disc records playable on any disc machine contain the complete Daily Dozen Exercises, and the 60 actual photo-

graphs in the book show clearly every movement that will put renewed vigor and glowing health into your body—with only ten minutes' fun a day. A beautiful record album comes free with the set.

No need to send any money. Simply mail the coupon below and get Walter Camp's "Daily Dozen" on phonograph records. Enjoy the records for five days, and if for any reason you are not satisfied, return them and you owe nothing. But if you decide to keep the records, you can pay for them at the easy rate of only \$2.00 down, and \$2 a month for four months until the sum of \$10.00 is paid. Thousands of people have paid \$15 for the same system but you can now get it for only \$10.00 if you act at once.

Simply mail the coupon and see for yourself, at our expense, the new, easy, pleasant way to keep fit. You'll feel better, look better, and have more endurance and "pep" than you ever had in years—and you'll find it's fun to exercise to music! Don't put off getting this remarkable System that will add years to your life and make you happier by keeping you in glowing health. Mail the coupon today. Address Health Builders, Dept. 446, Garden City, N. Y.

FIVE DAY TRIAL COUPON

Health Builders,
Dept. 446, Garden City, N. Y.

Please send me for five days' Free Trial at your expense the Complete Health Builder Series containing Walter Camp's entire Daily Dozen on five double disc ten-inch records; the book containing the 60 actual photographs; and the beautiful record-album. If for any reason I am not satisfied with the system, I may return it to you and will owe you nothing. But if I decide to keep it, I will send you \$2.00 in five days (as in the first payment) and agree to pay \$2 a month for four months until the total of \$10.00 is paid.

Name

(Please Print)

Address

City..... State.....

If you prefer to take advantage of our cash price send only \$10.00.

(Orders from outside the U. S. are payable cash in full with order).

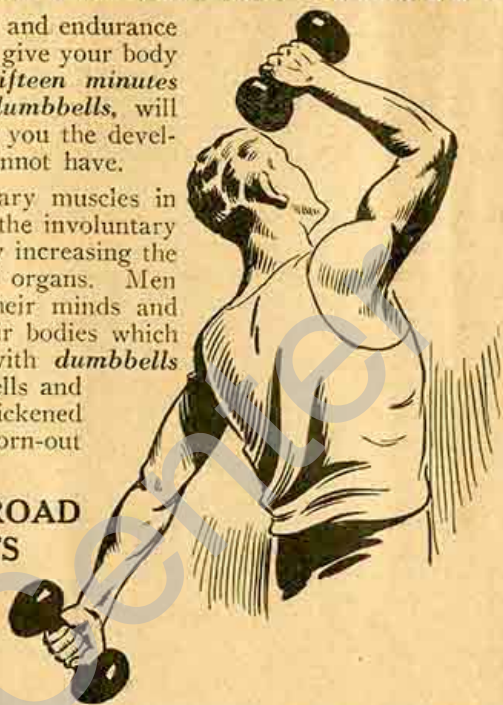
HAVE YOU HAD YOUR EXERCISE TODAY?

If your aim is to obtain unusual vitality and endurance coupled with remarkable agility, you *must* give your body a certain amount of daily exercise. *Fifteen minutes every day*, exercising with a pair of *dumbbells*, will keep you in good condition and will give you the development you so earnestly wish for and cannot have.

If you begin to strengthen the voluntary muscles in your body you will also be strengthening the involuntary muscles, such as your heart, lungs, etc., by increasing the circulation of the blood and respiratory organs. Men and women who are constantly using their minds and bodies are destroying certain cells in their bodies which *must* be replaced. Vigorous exercise with *dumbbells* will tear down the weak and worn-out cells and tissues, and the blood (its circulation quickened by the exercise) will quickly replace the worn-out cells.

FIRM, HEALTHY MUSCLES—BROAD SHOULDERS—DEEP CHESTS

If every man and woman would practice a few simple exercises with a pair of dumbbells suited to their own physical condition, for fifteen minutes each day, they would greatly improve their physical and mental condition. Every doctor will tell you that the condition of the nervous system and the brain depends entirely upon healthful muscular activity. If the body does not get this muscular activity it cannot perform its functions properly and, in consequence, the entire system becomes inefficient. Daily exercises with a pair of dumbbells will produce *firm healthy muscles, a solid body, broad shoulders and a deep chest*. You will keep your body toned up and strong enough to be free from danger either of incurring serious disease or any lighter ailments.



HEALTH GOES HAND IN HAND WITH SUCCESS AND THE COURAGE TO DO THINGS

The effect of dumbbells exercises on a tired-out system is remarkable. Do you hope to be successful when you are constantly tired and over-worked and when your body does not have proper attention? You cannot! Make it a habit to exercise every day and see how you will add life and energy to every muscle, every vital organ and every body cell—to your entire body. After all, your health is the most precious possession you have, and through it you either obtain or lose success and happiness.

WE MAKE THE BEST QUALITY DUMBBELLS

They are of the best workmanship and material, are evenly balanced throughout and are attractively finished in black enamel.

| | | |
|-------|--------------------------|--------|
| 5 lb. | Dumbbells, per pair..... | \$1.00 |
| 10 " | " " " " | 2.00 |
| 15 " | " " " " | 3.00 |

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FAIRMOUNT FOUNDRY CO.

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These 5 Men Learned a Marvelous Secret!

In a few short months they have proven what I have always claimed—that anyone can become Perfectly Healthy, Enormously Strong and Magnificently Developed thru the easy progressive methods which changed me from a weakling into the World's Strongest Physical Director!

HOW would you like to wake up in the morning feeling like a young colt—peppy—full of vim, vigor and vitality—confident that you could conquer the whole world if you wanted to? Suppose you were told of a wonderful new method that would make your body so powerful you could outdo anyone in feats of strength, that would mould you into a finer built athlete than even the ancient Greek Gods, that would make your friends admire, look-up to and respect you. Would you be interested?

These young fellows (young even though their ages range from 18 to 40) showed their interest by following my instructions for several months. Look at them to-day! Do you need any further proof that my marvelous new system *can* and *will* and *does* accomplish what I promise? Come on, fellows, demand *further* proof. Let me convince you ON YOUR OWN BODY.

What They Have Done, You Can Do!

I don't care what condition you are now in. What difference does it make—the more you need my help the quicker you get results! Or maybe you've already built up a pretty good body through the instructions of someone else. Then you should let me *finish* the job—you will appreciate my wonderful new methods all the more.

Just remember this—that my pupils range from children to old men, from school boys to mayors, from invalids to professional strong men. So no matter who you are, what you are or where you are, you have the advantage of my study, research and experience in similar cases and are assured of immediate and marvelous benefits.

I'll Make a REAL MAN of You in Just 90 Days!

The whole world acknowledges that I am far better developed than the Greek Gods. Yet, several years ago I was skinny and weak. What I have accomplished you can duplicate! I will help you make your body just what you want and will GUARANTEE results in LESS THAN 90 DAYS. All I ask is that you write me NOW so I can give you the necessary *personal* attention.

FREE! "Secrets of Muscular Power and Beauty"

Send for this beautiful, lavishly illustrated and instructive 64 page book *today*. It contains many large full page photographs of myself and my pupils and will inspire you to become the man you *should* be—and *can* be. Fill in the coupon right now—you'll not be obligated in any way. Let me PROVE how easy it is to become a *real* man thru my personal instructions—which you can follow in *your own home*.

CHARLES ATLAS

Dept. 105, 96 Fifth Avenue

New York City



Chas. Atlas First Prize Winner, World's Most Perfect Man Contests, 1921 and 1922

CHARLES ATLAS, Dept. 105
96 Fifth Ave., New York City

I want to become as strong and well developed as you. I am enclosing a dime (10c) to help pay postage, etc., on your wonderful book. Please send it at once, together with FREE PROOF that you can make me physically perfect.

Name

Address

City..... State.....

Please print or write plainly.

Str. 6-23

800,000 People Will Die This Year of Preventable Disease

BARRING accidents and suicides, only a small percentage of these 800,000 people should die. Every year more than ten thousand people die of bronchitis, sixty-four thousand die of pneumonia, seventy-five thousand die of kidney trouble, fifty thousand die of respiratory disease, one hundred and six thousand die of tuberculosis, approximately eighty-five thousand die of influenza, and more than ten thousand die of intestinal trouble.

It is a fact that only about one person out of three enjoys good health. And those who are physically a little "off" right now will more than likely be the ones to succumb to preventable diseases this year. And they are the ones who should not die.

That occasional headache, that tired, exhausted feeling, loss of appetite, the casual cold—all these are danger signals you should heed. Nature is warning you of impending sickness. Seemingly trivial symptoms tell

of serious troubles taking root in your body. And yet, ninety-nine people out of every hundred will absolutely ignore these danger signals. As long as they are not flat on their backs, they will fool themselves into believing that they are all right.

The Average Person Pays Thousands of Dollars in Doctor's Bills

You can rule your health as surely as you rule your actions. The person who does not understand Nature's method of preventing and curing sickness is ill an average of 21½ days each year. In fact, it is estimated that the average person in a lifetime spends \$4,100 on doctor and hospital bills, loss of time from business, medicine and other expenses due to illness. Thousands of people are living half-powered lives because they are

ignorant of the laws of Nature. Many of these people will fill an early grave, when they might easily have lived to enjoy a ripe old age.

Nature's Methods and Secrets of Perfect Health Revealed

Bernarr Macfadden is the world's outstanding exponent of physical culture. He has had more than thirty years' experience in guiding thousands of physical wrecks to glorious health and vigor. Out of that experience he built his Encyclopedia of Physical Culture.

This marvelous work tells you how to build rugged health, vitality and strength. It is for every member of the family. No matter how young the person may be or how old, the "natural methods" which this Encyclopedia teaches will be of inestimable benefit.

What would it be worth to you to be able to instantly identify in its earliest stages any sickness that might overtake you or any member of your family? What would it mean to you to have glorious health, almost complete freedom from sickness or disease, no doctor bills to meet, no hospital bills to pay, no days of suffering and worry, no lost salary? What would it mean to you to be able to give proper treatment while any illness is in its earliest and most easily controllable stage and so effect a prompt cure?

Neither Dull nor Technical

Macfadden's Encyclopedia of Physical Culture is neither dull nor technical. You can easily understand every page and every word. It is comprehensive and complete in every sense. It is the crowning effort of Mr. Macfadden's lifetime of experience and its worth cannot be over-estimated.



BERNARR MACFADDEN

World famous Physical Culturist—guiding health seekers successfully for more than 30 years has qualified him for preparing the wonderful Encyclopedia of Physical Culture—the most comprehensive, valuable general treatise on health ever given to the world.

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 hydropathy (heal by the use of water)
 apply all methods of drugless healing
 give first aid in emergencies
 apply home treatment for disease
 recognize diseases 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
 manure; care for the hair and feet
 cultivate the mind
 These are only a few of the matters explained in the Encyclopedia

READ THE DETAILS OF OUR AMAZING OFFER ON NEXT PAGE

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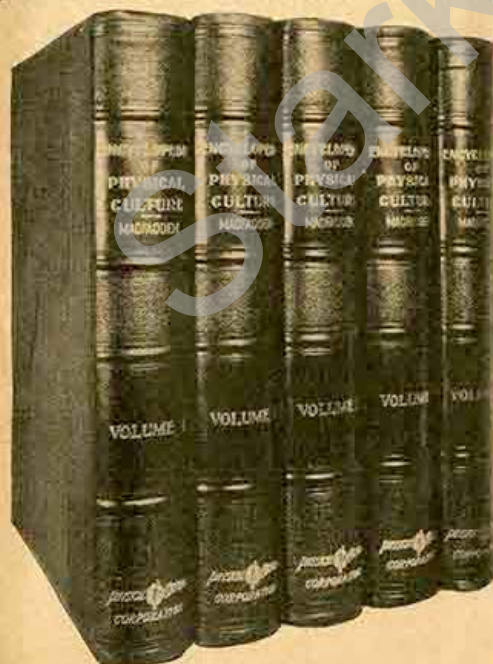
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The Cause of Stomach Acidity and Fermentation

How to Remove it in 48 Hours

By R. S. EDWARDS

IF I were asked to sound a health warning that would be of the greatest possible benefit to mankind, I should say emphatically—"Beware of acid stomach." For acid stomach is the cause of fermentation which, bad enough in itself, is the forerunner of a hundred ills that sap the energy and vitality of its victims. I venture to say that ninety per cent of all sickness starts with acid stomach. Yet the cause of stomach acidity can be removed in 48 hours!

Nature provides hydrochloric acid as one of the digestive fluids, but too much of this acid causes fermentation, hurries the food out of the stomach, and carries the acid all through the body. As a consequence, poisons (toxins) are formed which are absorbed into the blood causing auto-intoxication, nervousness, mental depression, and countless ills of which this is but the beginning.

Every one of the vital organs in time become affected—the heart, the liver, the kidneys, the intestines, the nerves and the brain all decline, for the stomach is the Power Plant of the body. Even the teeth are affected by acid stomach, for the gums recede and pyorrhea will be the result.

Stomach remedies only neutralize the acid because they are stronger than the acid. This ultimately ruins the lining of the stomach. The acid

being neutralized is absorbed into the blood only to come back to the stomach in greater quantities at the next meal.

How much more sensible would it be to attack this disorder at its source. Instead of attempting to neutralize the acid after it has formed, why not prevent it from forming in the first place?

Superacidity is caused by wrong eating, and the remedy must be found in the field of the cause—in eating correctly.

The individual sufferer from indigestion, acidity, fermentation, gas and such disorders has not carried his experiments with food very far. If he had he could easily cure himself, in 48 hours, as Eugene Christian, the famous food scientist, has proved beyond all doubt.

The reason which led Eugene Christian to take up the study of food in the first place was because he himself, as a young man, was a great sufferer from stomach and intestinal trouble.

So acute was his affliction that the best specialists of the day, after everything within their power had failed, gave him up to die. Educated for a doctor himself, Christian could get no help from his brother physicians.

Believing that wrong eating was the cause and that right eating was the only cure, he took up the study of foods and their relation to the human system. What he learned not only restored his own health in a remarkably short space of time, but has been the means of relieving some 25,000 other men and women for whom he has prescribed with almost invariable success even though most of them went to him as a last resort.

Christian says that all stomach and intestinal disorders, with their countless sympathetic ills, are caused by wrong selections and wrong combinations of food, and that right combinations of food will positively remove every stomach and intestinal disorder by removing its causes.

No one would think of putting salt into an open wound, and yet we do worse than that when we keep putting irritating acid-creating food combinations into our stomachs already surcharged with acid.

The word diet is one which has an unpleasant sound—it makes us think of giving up all the things we like for those we have no taste for. But Eugene Christian's method is entirely different—instead of asking his patients to give up the things they enjoy, he prescribes menus which are twice as enjoyable as those to which the patient is accustomed.

Christian believes in good foods deliciously cooked—the kind all of us like best and which may be obtained at any home, store, hotel, or restaurant. He says that most of the things we eat are all right—but that we don't know how to combine or balance them.

Often, one food which is good in itself, when combined with another equally good food, produces an acid reaction in the stomach; whereas either of the foods alone or eaten in combination with some other food would have been easily and perfectly digested.

Unfortunately, each food we eat at a meal is not digested separately. Instead, all of the foods we combine at the same meal are mixed and digested together. Consequently, if we eat two or more articles at the same meal which don't go well together, there is sure to be acidity, fermentation, gas, and all kinds of digestive trouble.

At Eugene Christian's New York office there is a constant stream of men and women who go to him for treatment after having tried everything else, and rarely are they disappointed in the outcome. Some of the results he has attained read like fairy tales. I know of a number of instances where his rich patrons have been so grateful for their restoration to health and energy that they have sent him checks for \$500.00 or \$1,000 in addition to the amount of the bill when paying it.

There have been so many inquiries from all parts of the United States from people

seeking the benefit of Eugene Christian's advice and whose cases he is unable to handle personally that he has written a course of little lessons which tells you exactly what to eat in order to overcome the ailment which is troubling you.

These lessons, there are 24 of them, contain actual menus for breakfast, luncheon and dinner, curative as well as corrective, covering all conditions of health and sickness, including stomach acidity, constipation, and all intestinal disorders from infancy to old age and all occupations, climates and seasons. They also tell you how to reduce and how to gain.

With these lessons at hand it is just as though you were in personal contact with the great food specialist, because every possible point is so thoroughly covered and clearly explained that you can scarcely think of a question which isn't answered. You can start eating the very things that will remove the causes of your disorder the day you receive the lessons and you will find that you secure results with the first meal. Many people who have suffered for years from acid stomach find that their ailment vanishes completely within 48 hours.

If you would like to examine these 24 Little Lessons in Corrective Eating, simply write THE CORRECTIVE EATING SOCIETY, INC., Dept. 856, 47 West 16th Street, New York City. It is not necessary to enclose any money with your request. Merely ask them to send the lessons to you with the understanding that you will pay the postman \$1.97 (plus a few cents postage). *If you prefer you may remit with the coupon but this is not necessary.* If you don't notice a great improvement within 5 days after starting, send the 24 lessons back and your money will be promptly refunded.

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MITTY AND TILLIO.

Mitty (above) and Tillio (below) in a pose which is infinitely more graceful, though much harder, than the usual supporting feat.

These Acrobatic Dancers

By Alan Calvert

WHEN, in the December, 1922, issue of this magazine, I wrote an article called "Dance and Be Shapely," some of my old weight lifting friends took me to task for putting such an article in *STRENGTH*.

Their argument was that the magazine was more or less committed to heavy athletics, and that dancing was light exercise and had no place in these pages. * * * To all such objections I gave the same answer, which was, "Go and do some of the things these dancers do in their 'acts.' That is, do them if you can! Then, if you still think that stage dancing is light exercise, write me again."

I recall a story in which one of the characters was an Evangelist, who had been born and raised in the Ozark Mountains. He went with a college professor on a trip in South America; the professor hunting minerals, and the evangelist hunting souls. An argument arose concerning the dancing of the natives, and the evangelist, forgetting his strict principles, became excited and demonstrated the dance steps of the western pioneers. The minister was a very powerfully built man, and as he went from one difficult feat to another, the professor realized that he was witnessing what was not merely dancing, but a display of terrific strength.

I have seen negro "buck dancers" crowd into five minutes dancing more vigorous exercise than one would get in an hour's uninterrupted wrestling, or in a whole football game.

There are many steps in fancy dancing that can be performed only by those who have tremendous strength in the back and legs. Take for example the favorite step in the Russian folk

dances. The performer folds his arms, bends the right leg and practically sits on his heel, while his left leg is stretched out straight in front of him.

He then quickly shifts, and shoots the right leg out and sits on the left heel, jumping forward as he makes the change.

There are many of you who will read this article who are proud if you can do the "deep knee bend" on one leg, and come again to a standing position; and while you are doing it, you have to spread your arms out to keep your balance. You think it is an indication of strength. Well, so it is, but it does not require one-quarter of the strength expended in doing this Russian "low-leg" step.

There are other steps in regular dancing that require more strength than does the Russian step. Single steps would not be much of a test, but when it comes to dancing or three minutes, changing from easy steps to hard steps, then to harder ones and still harder, you have a test of combined strength, agility and endurance that can be matched in few other forms of athletics.

In his article on "gymnastics," Mr. Wayne says that dancing, tumbling and acrobatics are forms of gymnastics rather than athletics. That may be; it is a choice of words. What I claim is that it takes an athlete—and a very strong athlete—to be a good exhibition dancer.

Some time ago I saw a "team" of two young fellows doing a turn that introduced tumbling and dancing, and wound up with an Apache dance in which the heavier of the two flung his partner around as though he was a straw man. I was in the wings and

saw them come off the stage, and they were perspiring and breathing as though they had run a two-mile steeplechase. The bigger man, an Italian, was a marvel of development, and was possessed of immense strength; another Massimo for build and power. But his dancing had taxed his strength as much as though he had been lifting huge weights.

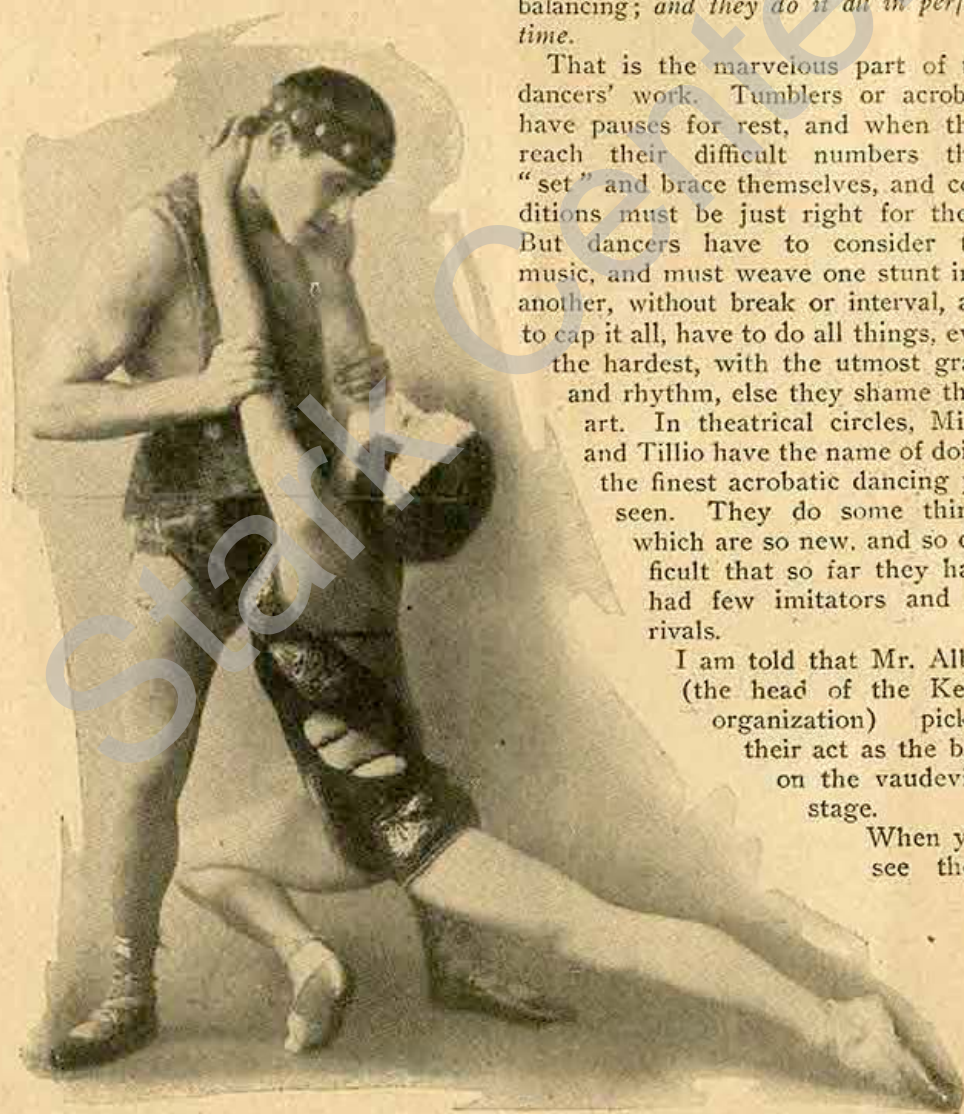
You may object that an Apache dance is as much acrobatic as it is dancing. That is granted, for most of the big vaudeville dancing acts intro-

duce many features of acrobatics. As a proof of my argument, I cite the act of Mitty and Tillio whose pictures accompany this article. These young people are athletes. They dance superbly, not only in the kind of dancing where you posture and slowly sway with easy grace, but also in the kind of dancing where you skip, and leap, and kick and prance with your utmost vigor and with the aid of every fiber in your being. On top of that, they introduce some of the most difficult feats usually seen in advanced tumbling; and hand balancing; and they do it all in perfect time.

That is the marvelous part of the dancers' work. Tumblers or acrobats have pauses for rest, and when they reach their difficult numbers they "set" and brace themselves, and conditions must be just right for them. But dancers have to consider the music, and must weave one stunt into another, without break or interval, and to cap it all, have to do all things, even the hardest, with the utmost grace and rhythm, else they shame their art. In theatrical circles, Mitty and Tillio have the name of doing the finest acrobatic dancing yet seen. They do some things which are so new, and so difficult that so far they have had few imitators and no rivals.

I am told that Mr. Albee (the head of the Keith organization) picked their act as the best on the vaudeville stage.

When you see them



dance you are impressed with the amazing strength of their rather slender bodies. Take the pose shown on page 14. That would be hard enough just as a pose. If performed by ordinarily strong athletes the strain of holding the body level would betray itself in quivering muscles on the part of the girl; and the man would

her body straight out sideways, much the same as in the pose on this page. Until Mitty did this feat, it had been considered impossible.

Again take the picture on page 14, where the man is holding the girl aloft. Usually the man does it with one hand under the small of the girl's back, while the left



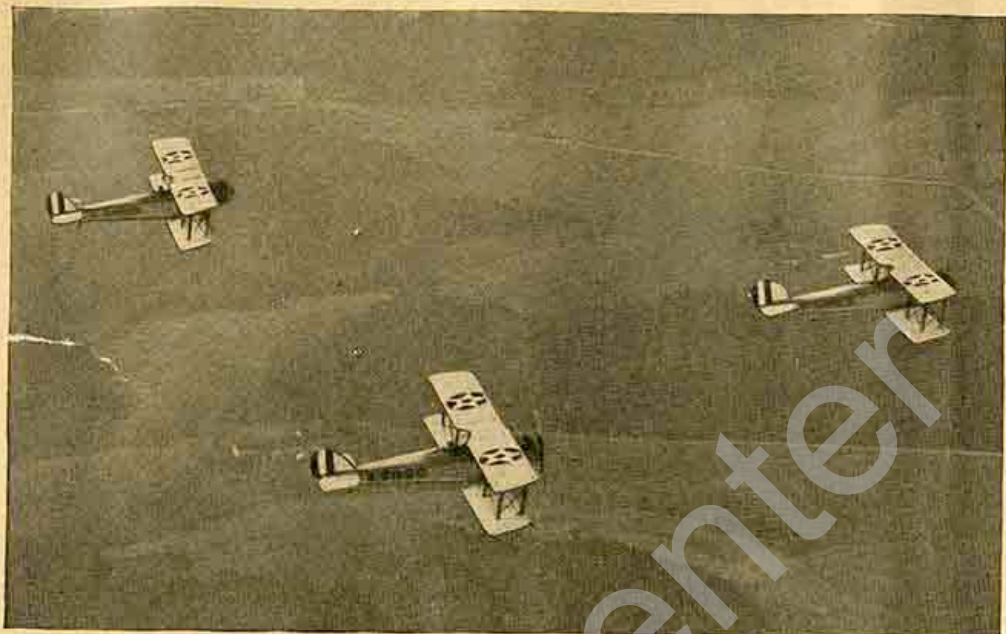
have to be braced. In the photograph you can see no tremor nor sign of exertion. The extraordinary thing is that in their act it is not a pose—it is an incidental feature of a dance, and the girl is not lifted to that position. She leaps into it, and her partner catches her in mid-air and holds her for a couple of beats of the music. She does another stunt never before seen either in acrobatics or dancing. She leaps into a "scissors"; that is, she leaps towards her partner, launching her body feet foremost, in a horizontal position, and then catches him around the body in a "scissors," holding with the legs; finishing by holding

hand grasps her ankle and keeps her from toppling. But this youth has intercepted the girl in the middle of a leap and has guided her aloft—where he

supports her as though she was the traditional feather.

It takes strength to do any hard feat easily. A fairly good performer will do a lot of hard stuff, but in every movement he betrays the fact that it is hard for him. He sometimes gets a hand for this very show of exertion, but in his heart he knows that he is not doing the stunt the way it should be done.

(Continued on page 84)



Squadron Formation.

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The Physical Qualifications of an Aviator

By R. L. Hunter

IT is a beautiful sight to watch a seaplane soaring through the clouds several thousand feet above the water. An unseen pilot working the controls causes the plane to spiral downward, and you see this great mechanical bird land upon the water with the grace of a sea gull. It was just such a sight that convinced me that I should enter the Naval Air Service during the war. At the time, the many, many months of training necessary to become a pilot did not occur to me. I wanted to fly.

People will nearly break their necks to look at an aviator doing stunts, or writing in the sky. You may hear someone say, "That fellow has his nerve with him, all right," but no thought is given to the long training period necessary before a man is equipped mentally and physically to

accomplish these feats in the air.

The Boston Institute of Technology was the principal "Ground School" for naval aviators during the war. The complete course of instruction called for a highly intensive training of ten weeks. A thorough physical examination must be successfully passed before one could qualify for admittance into the Ground School. Here are a few equilibrium tests for you to try:

With your eyes closed, place your left foot on your right knee and balance this way for one minute.

With your eyes closed try to take ten steps forward and then backward, keeping a straight course.

Again with your eyes closed hop around in a circle. Then reverse.

Next, standing, focus your vision on an object directly above you. Make ten complete turns of your body with-

out taking your eyes from the object. Then endeavor to walk through a doorway, pick up a coin and return with it.

These are a few of the preliminary obstacles.

Now let me quote a few words from the book published by the Naval Aviation War Book Committee, entitled: "Flying Officers of the U. S. N."—"At the Receiving Ship all men who reported from other stations for training were held from two to six weeks before assignment to the main school, serving meanwhile under instruction. It was there that the weeding-out process was conducted, no men being sent to the school who were not fully qualified, mentally, morally and physically.

"The discipline of the school was kept at all times at a high standard, and the secret of the success of the detachment was the development of the greatest degree of energy within the least possible time. Many young men who could not stand the tension dropped out, which only stimulated the remainder to greater effort. There was no let-up in the drills or the discipline from the date the school opened until hostilities ceased."

The War Department was well aware of its task. The numerous ground schools were efficient human foundries. Thousands of finely tempered bodies were turned out. The aviator should be a perfect piece of animate mechanism, or as near perfect



Changing planes in the air.

© International

as it is possible to be. The flier must be prepared at all times for an emergency requiring instant action. There is no time to figure out a situation. The action must be spontaneous and instinctive. Mind and body must be in accord.

An incident occurred at Pensacola which illustrates this point.

A student aviator was taking his "solo hop" in an HSI with the two "Burlap Sisters." The "Solo Hop" is the first flight alone, and the "Burlap Sisters" are bags of ballast. He made a poor attempt to land and "porpoised" up in the air nearly a hundred feet. The engine went "dead" so he knew a crash was inevitable. If he had remained in the cock-pit his head

would probably have been cut off when the light framework collapsed upon hitting the water. Just before the crash he instinctively perched himself up in front of the motor. The student was thrown in the water uninjured. The plane was a wreck.

Now let us return to the ground school at "Boston Tech" and spend a day there. At six A. M. all hands had



© International
Capt. Edward Rickenbacker, foremost American ace.

to report for thirty minutes of calisthenics—then a shower, a quick shave, a shine and breakfast formation. After "chow" the early morning inspection took place. Then there was reveille, after which, the various companies marched off to their class rooms. Between ten and eleven o'clock an hour was devoted to athletics. Expert athletic directors supervised the work. The exercise consisted of calisthenics, running, boxing and wrestling. The last two sports are great eye trainers and help to give one that rapid coordination of mind and body which is so necessary to an aviator.

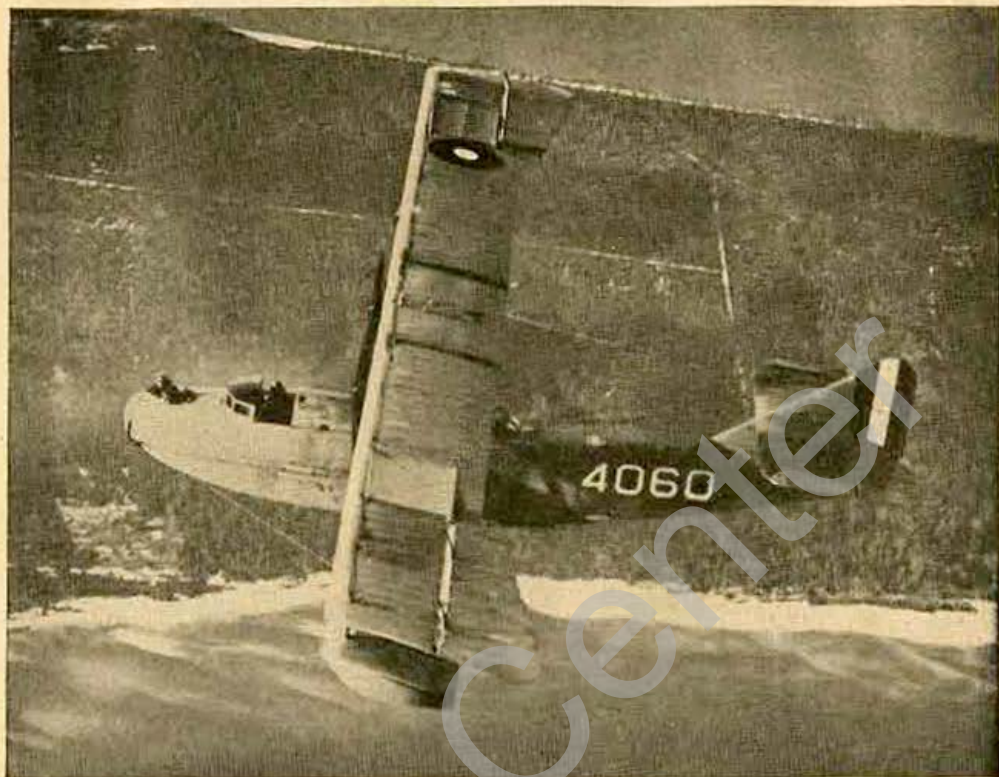
More class work followed this exercise, then "chow," mid-day inspection, and two hours of lectures. But the day isn't nearly over yet. For two long hours in the afternoon there was nothing to do but drill. Then came a recreation period until dinner. The students would then proceed to play baseball, basketball, tennis, or take a swim in the James River. Uncle Sam knew his business. He imbued these lads with the spirit of physical fitness. There was no flabbiness, no excess flesh, but strong, healthy, manly bodies, which were the results of this highly intensive training.

After two hours spent in the study rooms the student aviators turned into their bunks. Ten o'clock brought to a close, what you would term, a very strenuous day.

In the flying schools this training continued along similar lines. Most of the time, however, was devoted to flying.

It might be well to relate here a few mishaps which illustrate why it is so essential to adhere to such high physical standards during the education of a sky pilot.

A plane with three men on board was forced to land, on account of engine trouble, about twenty miles out from Pensacola, Florida, in the Gulf of Mexico. It was impossible to repair



© International

H-16 type of navy plane.

the broken part. Even if they could have fixed it, the sea was running too high to "take off." There was nothing to do but wait for help. Night came on. The constant pounding of the waves opened the seams in the frail hull and started a leak. They stuck bravely by the ship all night, fighting to keep her afloat. In the early morning, these three lads, suffering from exposure, and clinging to the floating remains of a seaplane, were picked up by a passing freighter. They rested up on board and when they were put ashore at Key West, where I heard their story, they seemed none the worse for their thrilling experience.

Another time a student flier, who had just qualified for solo work, was caught in an air pocket a few hundred feet above the water. In a flash he was in a tail spin. Being an inexperi-

enced pilot and not having sufficient altitude, he plunged head first into the bay. Fortunately for him, he had instinctively cut the motor off when the spin started. By some miracle he was not even so much as scratched. When the sea-sled reached him—there he was perched on top of the wreck, calmly smoking a cigarette.

The following happened to be my own experience on my first "Solo." I was quite proud of the fact that I had finally qualified, and was flying around the course in an N9 training plane, having a grand time without an instructor pestering the life out of me. Suddenly an HSI coming into the station from patrol duty, passed in front of me about a hundred and fifty yards off. My left wing dropped suddenly—I started to side slip. The nose of the plane pointed down and I almost

slipped into a spin. I was caught in the propeller blast of the other machine. How I ever landed safely was a mystery to me at the time. The solution now, however, is simple. I automatically cut my engine and worked my ailerons and rudder according to previous instructions. It was all spontaneous action. I couldn't have thought out what to do. I was too frightened.



© International

Lawrence B. Sperry—Note the special under-carriage of the plane for winter flying and also the leather outfit necessary to protect him from the cold.

These three concrete examples all reflect back to the earlier training. They illustrate the physical qualifications—endurance, nerve and instinctive action.

In looking back now to my period of service during the war I see a continuous chain of physical examinations. A perfect bill of health was the first requisite in order to enlist, and the last requirement for an honorable discharge.

You are thoroughly looked over before being transferred to another station, and when you reached your destination you must first pay your respects to the dispensary. I will remember an examination before leaving one station. The doctor had finished with the exception of testing my hearing. I stood at one end of the room facing the wall and holding one ear closed. He very lightly whispered, "A bottle of ale." I repeated it after him. It was a humid, hot summer's day in Key West, and I thoroughly agreed with the doctor.

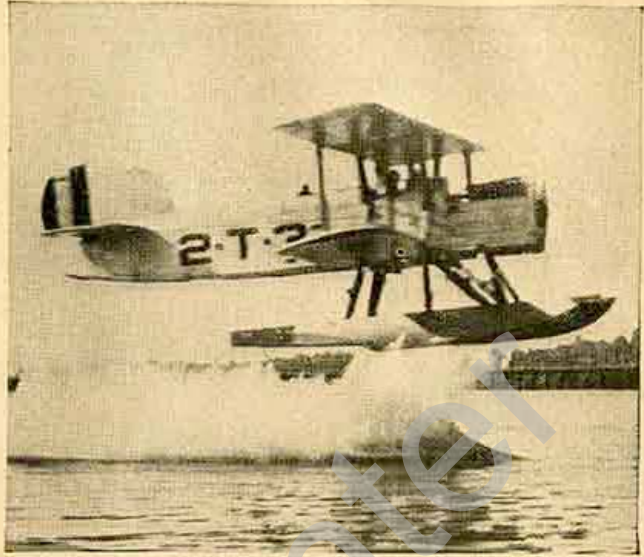
When a student aviator has qualified as a pilot he must then take the most severe physical examination of all, before he is finally commissioned. His entire body is inspected with utmost care. The revolving chair is used for equilibrium and eye tests. With eyes blind-folded he must walk a narrow plank two feet above the floor, and there were many other tests of a similar nature.

I know of one case where a student flier had passed absolutely every flying test. He had very poor eyes, but had successfully escaped the other doctors, partly through luck and partly because he had memorized the eye cards. On

his final eye test, his weakness was discovered. From that moment his flying days were over. He was made a ground officer. One cannot help but feel sorry for one who has the nerve to go through with a thing of this sort, but on the other hand it would be very wrong to entrust a bombing plane and crew with a pilot who has faulty vision.

It is not unusual for some people to become very fatigued from driving an automobile for five or six hours. The customary flight for patrol duty lasts about five hours. It is very unlike driving over a smooth concrete road with an occasional turn. The pilot has to be always on the alert for the unexpected. There are air pockets, bumps, air currents, storms and often engine trouble to contend with, to say nothing of watching his compass and keeping a straight course. In flying the larger types of planes such as the H-16 or F5L, the stronger one's arms and legs, the better. An aviator must possess great endurance. There is no time to rest. There is no let down.

Perfect circulation is another very important factor in the physical make-up of a flyer. In the air the temperature changes like the wind. The higher the altitude the colder it becomes. Did you ever swim in the ocean thinking the water nice and warm, and suddenly strike a cold spot? It is often like this in the air. The pilot is forced to contend with snow, hail and rain. It is not a laughing matter to fly through hail or rain. Have you ever been snapped with a wet towel? Imagine hundreds of these sharp stings while flying at a terrific speed. The men who made the



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Launching a torpedo from a sea-plane.

trans-Atlantic and trans-continental flights endured hardships which would have prostrated ordinary men.

Unquestionably there is a vast amount of glamour and romance to flying, but the great responsibility of an aviator must not be overlooked. The aeroplane played one of the most important parts in the World War. At the Front each pilot had his "ship." He shouldered the responsibility of this plane, as well as the life or lives of those who accompanied him. Very often, when he flew over the enemy lines, the fate of his own company depended upon his accurately spotting the enemies' location.

The same applies to commercial aviation. Each plane in Government Air Mail Service carries no doubt thousands of dollars' worth of important mail on each trip. One careless move and this may all be lost. Consider the passenger companies who make daily trips to various points. Several passengers along with baggage are carried on every flight. The pilot is a man entrusted to perform a sacred mission. Like the captain of a ship, he is respon-

sible for the lives of those travelling with him.

Put yourself in the place of an aviator who takes up passengers for short "hops" at Summer resorts or amusement parks. You, no doubt, think that his fee is excessive. But assuming that he takes up twenty-five or thirty people in the course of a day, and on each trip new lives are entrusted to his



© International
Lieut. R. L. Maughan, army flier who recently established a new world's speed record of 233.87 miles per hour.

care, one should hardly complain about the fee.

The possibilities of commercial aviation in this country are unlimited. Americans are born fliers. There isn't any question about it. The rapidity with which our boys adapted themselves to flying during the war should be sufficient to convince anyone of this fact. But why have we not reached a greater stage of advancement in commercial aviation? Why have we allowed the European countries to surpass us in this most important field of endeavor? The war ended four years ago. During this time the Government has established an Air Mail Service and is apparently devoting most of its aviation efforts along the lines of experimental work. There are a few commercial companies, most of which are struggling to keep from failing.

In France one can travel by air at a very nominal cost. They have definitely mapped out air routes, and the planes leave regularly on schedule time. They are equipped with very comfortable compartments for the passengers, and have facilities for carrying baggage. Transportation by air in France costs very little more than travelling by train.

The reason for this is because the French Government is subsidizing these commercial aviation companies. It is only just that a government should shoulder part of the expense until these companies get a firm foothold and are on a paying basis.

It would be greatly to the advantage of the American government to further promote the interests of aviation in this country by giving the few existing companies their financial support and helping in the organization of more airway transportation companies.

In this way the government is not only partly supporting and helping to develop the coming means of travel, as well as the freight-carrying possibili-

(Continued on page 88)

Those South Sea Islanders

Every traveler, author or artist who has been so fortunate as to visit the South Sea Islanders brings back glowing descriptions of the unapproachable beauty of those Polynesian Apollos and Venuses.

In this article Mr. Hale has described the living conditions, the climate, and the continuous physical activities, which have produced a race of people who equal the Ancient Greeks in bodily symmetry and perfection of form.

By Ralph Hale

IN THIS age of the tyranny of machinery and clothes, it is a relief for a convinced physical culturist to be able to turn back the hands of the clock, and study a people who are living in conditions that nearly reproduce the conditions of the Garden of Eden.

The inhabitants of the world have progressed in every way except their physical equipment. Inventions and conventions have done a lot towards lowering the health of the individual citizen.

Thanks to Cyrus McCormick with his farm machinery, and Mr. Ford with his tractors, the farmer has become an under-exercised man, and is forced to buy a mail order course in order to get the exercise necessary to correct a sluggish liver.

The present wave of sport and athletics is a sign of the national protest against artificial conditions of living, and the fetters of street clothes.

No daily or Sunday paper is complete without its pictorial pages, and the greatest attraction of those pages are the portraits of the youthful human animal in abbreviated sport clothes. It seems to me that the popularity of a sport can almost be measured by the degree in which the required costume differs from the clothes one ordinarily wears.

The ocean, the lakes, the rivers and the streams have been always with us, but it is the one-piece suit that has made swimming popular with the supposedly weaker sex. Not (as you naughtily



© International
One of the reasons why so many artists and tourists are heading for Tahiti.

think) because it enabled them to approximate the costume of Mother Eve, but because it enabled them to swim and dive as easily as Nature intended them to. Similarly the public sanction of knickerbockers and riding astride has multiplied the number of our equestriennes.

We recognize that clothes are a hindrance in athletics. The physicians tell us that superfluous clothes are a menace to the health. Enlightened teachers of curative gymnastics have long contended that clothes *prevent* physical development, and soon the general public will accept and concur in this fact.

Lately, we have had a flood of pictures and articles about the inhabitants of the so-called South Sea Islanders. Frederick O'Brien, and others, have written books that have had an immense sale. Since the middle of the nineteen hundreds well-read people have known that the South Sea Islands had almost ideal climate conditions, and that they were populated by a people of supreme physical beauty. Stevenson wrote about

them, but his book is known to comparatively few. You see, it had no pictures. It was written before the days of the films and the magazine of plates. Mr. O'Brien's text is fascinating, but it is the pictures that he shows that have made us realize that sheer physical attractiveness can, by itself, make a people famous.

For two generations artists and authors have been lured to these magic isles. Some of them have never returned. When they send on their writings or paintings, they introduce the landscape as a background (or excuse), but frankly rave about the Islanders. Those who return to civilization, torment us with alluring tales and sights, the while they are secretly planning for their next voyage.

We have no real knowledge of the personal appearance of Adam and Eve. Every artist draws to his own ideal. Most pictures show them as a supremely beautiful couple. It might be argued that since they lived an ideal life, had no worries about food or taxes, and



Organized athletics are unknown in the South Seas. Swimming, canoeing and community dancing are the chief physical activities.

enjoyed a climate that enabled them to dispense with clothing, they naturally could spend most of their time romping about. What else could they do?

I have never been in the South Seas, but from what I have read the Garden of Eden seems to be used as a model. Nature is kind in most ways. A balmy climate, an abundance of fruit, nuts and fish for the picking or catching, and a warm sea. The one thing they lack is a sufficiency of farm and pasture land.

Before the advent of the white man they were entirely dependent on the kindness of Nature. They reaped where they had not sowed. But, if Nature went back on them, if they had a poor season or a shortage of fish, they starved.

Since their land was limited, and their source of supply uncertain, they were obliged to restrict their numbers by killing off the superfluous infants. Under those conditions they survived for centuries, but since the advent of white men and their ways, these happy islanders are passing away as did the buffalo and the Indians of this country. They were strong enough to survive any calamity except civilization.

The ancient Greeks had their sculptors. The South Sea Islanders have the great American camera man. The kodak of the traveling author is being helped out by camera men from Hollywood.

A PLACE WHERE BEAUTY IS UNIVERSAL

I wonder if the pictures we see represent the run of the bin, or whether they are selected subjects. Is everyone in the islands a physical phenomenon or are we shown only the handsomest and fairest?

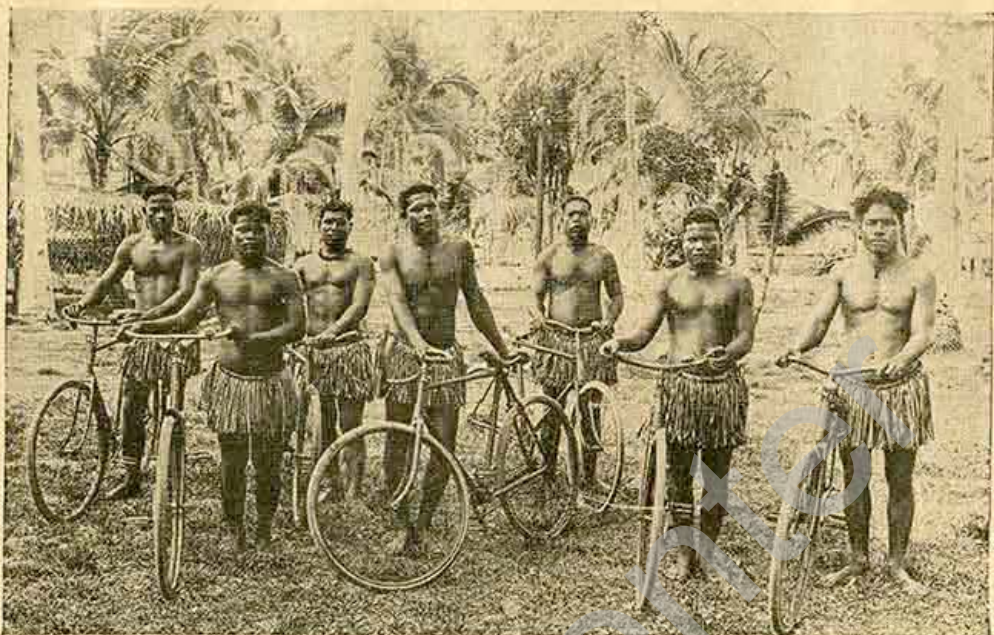
Apparently, the different island groups are inhabited by different races of peoples, who show different physical characteristics. The people of some archipelagos are no better looking, or better made, than the negroes of our



© International

A South Sea Hercules who looks as though he would be a star lifter or weight-thrower.

southern states. In other localities, notably Tahiti and Hawaii, the people resemble demigods. It is noticeable that



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A group of Melanesians who, while equally vigorous, fall far below the beauty of the Polynesians. Note the huge chest muscles characteristic of all the Islanders.

where living conditions are easiest, as in the larger islands, the physical standard is highest.

A strange thing—this matter of physical development and physical beauty. A dietitian will claim that food is the big factor, while other physiologists claim that there can be no perfection of form except through exercise; whether that exercise be in the form of hunting, as our ancestors did, or in the bodily labor or athletic sports of the present day.

Now, here is a race of people that seems to have thriven on a restricted diet, plenty of exercise, unlimited bathing and a freedom from the restrictions of clothes.

The most remarkable fact is that physical beauty seems to be universal on the favored islands. Facial beauty is a matter of taste. Different peoples have different standards. Beauty of form is more standardized. A well-built man is recognized as such, no matter what is the cast of his features or the shade of his complexion. The beauty

of the feminine form is a matter of proportion and outline rather than of muscular development.

I have seen scores of pictures of these Islanders; those of small children and those of advanced age. The children are much the same as well-nourished young ones of any other country. The old people have incredibly wrinkled countenances and are more or less withered as to body, but they retain their upright carriage until late in life.

But the adolescents, the youth of both sexes, and the middle-aged are of unapproachable physical beauty. Taking them as a lot they come closer than any of the rest of us to the ancient Greek ideal.

We all know that in a warm climate people mature quickly. When the youths are eighteen and the girls sixteen, these Islanders are as far advanced physically as we Americans are at the respective age of twenty-one and twenty.

Our people hold the vigor of middle age into the fifties, and then the decline sets in. I imagine that these South Sea

folk commence to slip a bit sooner. Among most semi-civilized and savage races, a woman is counted as old when she becomes forty.

I wish you would give careful study to the pictures in this article. Then, if your interest holds, get some of the leading books dealing with the South Seas and study pictures they contain. In the *first* place, be sure you get pictures of Polynesians; the inhabitants of islands like Hawaii, Samoa and Tahiti. We are not considering the Melanesians, who are negroid in their characteristics and far inferior in racial and individual beauty. *Second*, leave out the children and the aged. Center your attention on the pictures of those men and women who are obviously between the ages of, say, fifteen and forty-five.

Now, see if you can by the most diligent hunting pick out one individual of either sex who is hollow-chested. Hunt for *one* with a scrawny neck. Find one who is spindle-shanked, or one who has the painfully thin arms that characterize so many of *our* men and women.

If you find such a case, you can be

sure that the individual is one of the few exceptions that prove the rule. Stout women you *will* find, especially among those approaching middle age.

Excessive thinness you will practically never see. If you spot an individual whose body falls short of almost perfect symmetry you will find that the malformation, or lack of proportion, was due to an accident.

In other countries it is not hard to pick out young and middle-aged men and women, who, while they have good health, show startling vagaries in the way of physique. On any of our crowded bathing beaches you see plenty of men who have the arms, shoulders and trunk of the blacksmith type surmounting a pair of legs so thin that they look as though they would break under the weight of the body. You see young women with narrow shoulders and arms that are almost fragile—and legs that would do credit to a fancy dancer.

But these Polynesians are almost the last word in symmetry. If a young man is of the slender type, he is Apollo from neck to heels. No part of him is under-



© International

These Islanders have strength to spare. A weaker man than this one would have tied the plants to a slender stick instead of to a young log.



© International
One of the noted Polynesian Venuses, whose style of beauty is far more
Caucasian than Negroid.

developed or overdeveloped. His legs are just what they should be to go with his arms, and vice versa; and his *body* matches his limbs. If, however, he is of the heavy type, he is Hercules throughout. Never among their men will you find the body and arms of a Jeffries coupled with the legs of a Fitzsimmons.

The girls are frequently slender Dinanas, but opulent Venuses are just as plenty. According to our standards, the grown women are a trifle too robust. One can be robust without being overfleshed, and roundness of figure is a long way from massiveness. When a Polynesian woman gets stout, she gets stout all over. The fact that she never wears clothes which restrict the waist prevents the formation of the unsightly pads of flesh on

hips and abdomen that disfigure so many civilized women. This seem to be a strong argument in favor of loose garments that are supported by the shoulders, instead of tight skirts that are supported at the waist by girdles or belts.

From the pictures I have seen I judge that no Polynesian woman ever has to worry about the projecting shoulder blades, the prominent collarbones or the flat chests that cause so much worry to the scrawny civilized woman who has to muffle her throat and shoulders in chiffon when she wears evening dress.

It must be remembered that Polynesians are not blacks. Authorities differ as to their origin, but it is believed that they are an offshoot of the Caucasian race, rather than of Mongol or Ethiopian stock. They vary in tint from a warm brown to almost white, with a prevalence of golden brown. Some of the men and many of the women have strikingly handsome faces, even when judged by the high Anglo-Saxon standard.

If we have any standards of bodily beauty they must be what we have learned from the statues left us by Greek sculptors, and the paintings of the great Italian masters. The northern European of a thousand years ago was a much more rugged type than the ancient Greek; that is, if we judge by the conception of artists. The Viking of Scandinavia, the warriors of the German forests, and the Goths, are always pictured as men of heavy mold; big-

boned, huge muscled, and with heroic chests and shoulders.

Well, I have seen pictures of Hawaiians, where, if you covered the head, one could swear that here was a Discobolus, an Apollo Belvedere, or a Flying Mercury. Absolutely perfect types. Also, I have seen pictures of Samoans, Hawaiians and Tahitians, who, when their heads are covered, are the equals of Siegfried or any of those Nibelungen gods whose statues you see in the sculpture halls of Copenhagen, Berlin and Munich.

We must have been an amazingly long time in the course of evolution. History cannot tell us when, or how, the Polynesians located in the South Pacific. Long enough, anyhow, to affect thin-skin pigmentation, but not long enough to cause any variation from the classic standards of form.

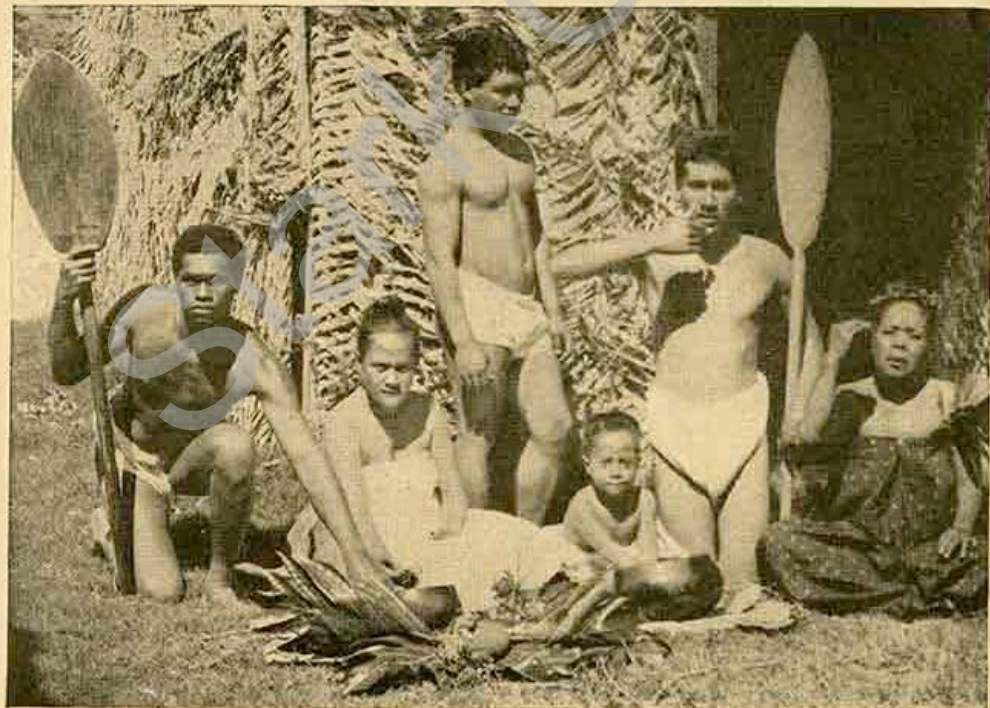
One difference we do see. The Polynesians (especially the men) are big-

ger-footed than Europeans; which can be explained by the fact that being beach-dwellers, and living in a warm climate, they have never had to wear foot covering. Their feet are useful to them in ways that we shoe wearers cannot understand. Constant use of any part of the body brings it to its full size.

THE POLYNESIAN IS A REPLICA OF THE ANCIENT GREEK ATHLETE

In assaying the build of the Island men, I find myself continually recurring to ancient Greek statues as a basis of comparison.

Most of these statues show but few lines of muscles. Almost always they do show an impressive pair of pectoral muscles on the upper chest. Usually, there is a pair of well-marked muscles at the sides of the waist; occasionally, they give faint outlines of the abdominal muscles. (Continued on page 78)



© International

A group of Polynesians, showing the smooth type of development noticeable in most of the youths.

Gymnastics and Body Building

A very interesting article on the benefits of gymnastics. The purpose of the article is to get the readers enthusiastic about gymnastics so that they will take it up, thus improving their bodies, bettering their health and gain reserve and self mastery.

By David Wayne

IT is not my intention to tell you how to do stunts on the gymnasium apparatus. That would be too difficult a task for me. Besides, in every gym-



© Keystone View

A college-girl demonstrating a feat that requires nerve and a sense of balance, as well as considerable strength.

nasium you will find a competent instructor who will be only too glad to furnish the necessary instruction if he sees that you are interested.

What I would like to do is to get you so enthusiastic about gymnastics that next winter you will find you hard at it in some "gym," improving your body, bettering your health, and gaining nerve and self-mastery by a time-honored and proven method.

Of course, you know that the word gymnastics came from the Greek word "Gymnos" meaning naked, and that it describes the bodily evolutions performed in the schools for the Greek youth.

There was a time when, if you said gymnastics, you included everything in the athletic category from swimming to fencing, and from jumping or fancy dancing to the manual of arms.

At the present time the word gymnastics is applied chiefly to work on certain kinds of apparatus.

You go to a gymnasium and play basketball or tumble, or join in the free-hand drill, but you are not considered a gymnast until you have mastered the art of putting your body through various evolutions on the bars, the rings, the ladders, the vaulting horse, etc.

Gymnastics is not "front page stuff," in fact it rarely lands even in the sporting page. Nevertheless you would be amazed at the figures if you started to figure up the number of young people who spend part of their time in gymnasiums.

In the pre-civil war days the number of first-class gymnasiums in the country



© Keystone View
A good gymnast is invariably shapely. No "fat" person can do apparatus work. Advanced gymnastics effectually banish surplus flesh.

could be counted on the fingers of both hands. There was a time when only the larger universities could boast of possessing a well equipped gym. Today practically every college and preparatory school has a gymnasium; and schools and colleges are in legion.

Private gymnasiums abound, and all city playgrounds are being equipped with gymnastic apparatus. You can estimate the number of baseball players or the number of football players. You would naturally think that those two sports would lead all other bodily activities until you started to count the gymnasts, and then you would be surprised, for practically every growing child in the country can be counted as a gymnast.

In an age where the sporting pages foster the idea that championships and records are the only things worth while, the public is being led into the idea of athletics, for the sake of athletics and fame. The true purpose of athletics is to create better citizens, fitted to do a

day's work or to bear arms in defense of the state.

In this connection it would be very interesting to trace the origin of the various pieces of apparatus used in gymnasium work.

Dumbbells and Indian clubs were not originally intended as health devices or as instruments to increase the size of the muscles. They were first used to train men to deliver harder blows with sword or fist.

A vaulting horse seems a purposeless affair until you are told that it was originally considered as a dummy horse on which cavalymen were trained to complicated evolutions which would teach them to keep their seats and to be able to keep on fighting in almost any position when in the thick of combat. The horizontal bar, and the inclined ladders undoubtedly came into being through value in teaching foot soldiers to surmount obstacles and scale walls. The flying rings

and trapeze were undoubtedly suggested by the daily work and needs of sailors.

So you see that the modern gymnastic apparatus all started with either a military or utilitarian purpose.

It is only a century since the majority of people were manual laborers (hard workers) and the work of nature was accomplished by the muscle of its citizens.

Athletics involve competition, that is combat, while gymnastics are the training or the preparation for the combat.

That explains why when you talk to a real gymnast or to a great teacher of gymnastics, you will find that he ignores muscle, as mere brawn, but places a high value in *the mastery of the body*. With him the question is not "What have you got?" but "What can you do?"

Get this straight—I have no desire to depreciate the value of competitive athletics, nor to decry the pursuit of health and strength through muscle culture. I just want you to realize that after all such things as agility, grace, co-ordination, and *nerve* are apt to be of more use to you than a sixteen-

inch biceps, and practically nothing else.

That is why I urge you to take advantage of any gymnastic training that comes your way.

If you attend a school or college that has a gym don't be so foolish as to miss your opportunities—you *can* go and fill in the prescribed hour by tugging at chest weights or joining in the drills. Instead of doing that, put yourself in the hands of the instructor and let him teach you apparatus work. Then you will be doing something for yourself. You will get exercise, you will get all the development you need, and what is more important, gain a control over your body which you will never lose. Strength gained by gymnastics stays by you. Like swimming, it is a question of once learned, never forgotten.

There is such a thing as muscular memory, and many middle-aged men will testify that they can still, after an absence of twenty years, re-enter a gym and do many of the tricks and stunts they learned in youth. That is the difference between bodies that are trained and bodies that are merely developed.

WHAT IS THE USE OF GYMNASTICS?

A young boy is prone to say, "Gymnastic stunts make me tired. What is the use of them? What do they get me? Why shouldn't I do the usual things? It's the fellows that make the varsity teams that get the letters, the applause, and the publicity."

I cannot argue with you on the publicity issue. I am talking not of athletic fame, but of your physical welfare. I admit that gymnastics will not bring you into the limelight.

I simply hold the somewhat unusual view that the



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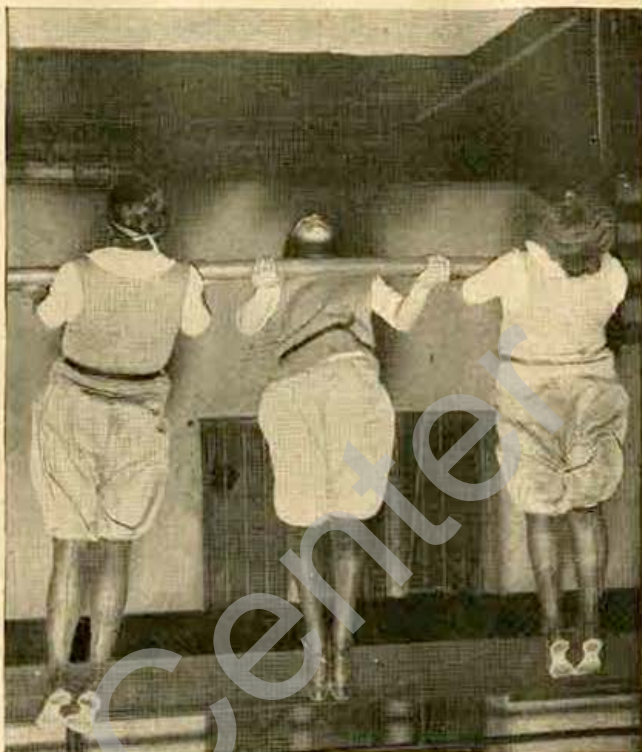
Gymnastics develops all parts of the body. The muscles of the waist and lower limbs get just as much work as the muscles of the arm.

trained gymnast retains his health and his figure long after the player of games has lost his; and that the gymnast who has learned to do difficult evolutions with his body is more sensible than the man who does monotonous and random exercises for his health's sake.

But I am getting away from my main point, which is, that the mastery of apparatus work will give you two things that you will never get from your dumbbells, your free-hand drills or your setting-up exercises. These things are co-ordination and ice-cold nerve.

We all admire the person who in grave emergency has the faculty of doing the right thing at the right time. It is not enough to know what to do unless you are able to do it, and to make yourself do it.

Gymnastics (including tumbling and acrobatics) is a succession of emergencies. Did you ever look at it in that way? Consider a gymnast doing evolutions on the flying rings or horizontal bar, or even on the vaulting horse. The body is swung from one position to another, and a loss of balance, an error in judgment or the failure of the muscle to work at exactly the proper instant will result in failure and, perhaps, bruises or injury. The gymnast does his stunts in cold blood, depending on his judgment of time and distance, his steady head, and his trained muscles to carry him safely through. Really an invaluable training of the will. "Why," you ask, "should I subject myself to such senseless risk?" Why live? Life is one continued risk. If it is foolish to exercise only for the sake of being able to attain bodily measurements, then it would be equally foolish to take up gymnastics for the sake of being able to win the



© Keystone View
Our women's colleges turn out more fine gymnasts than do our men's universities. When it comes to gymnastics there is no weaker sex.

judges' award for doing stunts in perfect style.

The value of gymnastics is not proven by the circus performers who jump from trapeze to trapeze at the very top of the tent. It is justified when a lithe, young fireman dashes up to the top of a vertical ladder, winds his legs through the rungs, leans sideways and lifts a fellow being from a flame-belching window.

At least one instructor of gymnastics has realized that aspect of the case.

The man in question was given charge of the gymnastic department of a medical college. Being of a highly original and practical turn of mind, he broke away from the usual routine. Gymnasium attendance was not compulsory at that institution, but he gathered together a fair-sized class.

From the very first day he ignored the customary class drills and gave them apparatus work, picking out stunts that did

not require great strength or unusual skill but did require nerve and judgment. For several weeks he trained them on those lines, making the stunts more and more difficult, and, as some objected, more and more hair-raising.

When the students had commenced to wonder what it was all about, he ordered them to meet him at the college door for a test, but refused to say what the test would be like. Of course, they came.

Instead of leading them to the gym, he took them out into the country. He made them walk on slender logs spanning deep streams. He made them climb tall trees. He made them climb up and down ladders while carrying a fellow student across the shoulders. He made them jump from high places landing in a certain way that avoided any jar, and finally he led them to an almost perpendicular

bank and made them climb it by grasping such small rock edges that projected from the face of the bank.

Not one student failed or balked at any of the tests.

When every member had successfully done every stunt, he told them he had trained them with the idea of creating the kind of muscles and nerve that would be of use in emergencies, and he congratulated them and himself on the result of his training.

You might think that such a "treat-em-rough" method would have made him highly unpopular. Exactly the opposite happened. By the end of the term the whole college was joyfully attending his classes.

GYMNASTICS AND MUSCULAR DEVELOPMENT

Apparatus work develops every muscle in the body from neck to knees. As your weight is for the most part resting on your hands and arms, there is little real work for the muscles of the calves of the legs. But even the calf-muscles get some work, especially when the lower limbs are properly "pointed." An examination of the illustrations will show you what I mean. In order to give finish to the poses the legs must be aligned with the heels and the feet held as though you were about to stand on tiptoe. This is not done merely for looks; it actually helps in the performance of the more difficult feats and evolutions.

Some teachers of muscle-culture claim that apparatus work (particularly Roman-Ring work), produces a top-heavy development and makes the gymnast's physique resemble that of a monkey rather than that of an athlete.

This seems to me to be a



© Keystone

"Once learned never forgotten." Strength and agility gained through gymnastics stay by you into your later years.



© Keystone View

Gymnastics teaches bodily control; the ability to do the right thing at the right instant.

rather far-fetched claim. It would be foolish for me to deny that there are professionals whose constant aerial work has developed their arms and shoulders out of all proportion to their legs.

But that criticism does not apply to the general run of gymnasts. The men who do "casting acts" actually get more work for their waist and thigh muscles than for their arms.

In all round, bodily development, the best appliances are the vaulting horse and the parallel bars. An infinite variety of feats and evolutions can be performed on these two pieces of apparatus; and the best part of it is that practically every evolution makes heavy demands in the muscles of the waist and hips.

Those muscles control the movements of the legs, just as the muscles of the shoulders and upper part of the trunk control the movements of the arms.

If you have the nerve to try any of the stunts which are being demonstrated by the young ladies in the illustrations, you will find that unless your nerve is reinforced by trained waist muscles, you will be unable to do even the simplest

tricks shown. And that goes for you even if you are a young man with fairly strong arms.

Gymnastic feats when performed by an expert, look extremely simple and easy, but they are not as easy as they look. They are possible only for the strong, the slender-waisted and the well-trained. If you happen to be stout, my advice to you is to lie yourself to the nearest gym and put yourself through a course of sprouts on the horizontal and parallel bars.

Take my word for it, you can leave your extra girth and extra pounds somewhere in that gymnasium. You can't figure out just how it happens, but your surplus flesh simply melts away.

A gymnast is rarely self-conscious about his muscles. His training leads him away from that point of view. A man doing a set of complicated tricks on the "horse" no more thinks of the successive contractions of the individual muscles, than a baseball catcher does when he whips the ball to second base to head off a runner.

That's the beauty of gymnastics.

There is something to be done, and you do it. Your muscles become your trained slaves rather than your masters.

You measure the value of a muscle by what you can make it do rather than by its bulk—or shape.

Gymnasts claim, and I agree with them, that individuals whose muscles are trained to co-ordinate with each other are superior to individuals whose muscles have been trained separately. It is like team work against individual play. The principle holds good in the matters of weight reduction, and muscular development just as much as it does in the creation of all round bodily strength.

For example, a fat man wishes to reduce. After reading up on the subject, he lies on his back and raises his legs, or his body, from the floor. He stands erect and solemnly bends the trunk forwards, and sideways, and backwards. If he does this for a *long* time each day, he can reduce, and he *can* get a barely noticeable amount of strength in the muscles used.

To an experienced gymnast all that sort of thing would be a mere waste of time.

If a stout young man (or girl) came to me and asked how to call a halt on the ever-increasing waist line, I would lead them to a trapeze, or a horizontal bar, and make him "skin the cat." If he could not do it at first trial, I would make him stick at it till he could. By the time he could "skin the cat" a dozen times in succession, all the fat would have disappeared. It might take him a week, or it might take him a month, but not longer. Besides getting rid of his fat he would have gained a control over the muscles of the trunk that he will never lose.

"Skinning the cat" sounds undignified and absurdly simple. Well! it is. But I know one gentleman of seventy-five, who every Sunday morning marches out into his garden, grabs the branch of a tree and solemnly "skins the cat" until he commences to perspire. He attributes his erect, lean figure and his freedom

from sickness to his weekly practice of this so-called childish pastime. He has fat, middle-aged sons who privately think that the old gentleman is daffy. *He* privately thinks that his sons will not last nearly as long as he has.

Now, if one simple stunt like that can preserve one's health and condition, think of the positive advancement in one's physical being possible through the occasional practice of more complicated maneuvers. "Skinning the cat" is the very beginning of the gymnastic alphabet. It requires but a little of the strength and agility necessary in the advanced feats and consequently yields only a fraction of the benefit which comes from the advanced work.

How many young people would take up music if they knew they would never get beyond the elementary stage, of five-finger exercises. Mighty few. No one would even begin unless he or she was sure they could gain a mastery of the instrument.

These people who advertise "easy and pleasant exercises" are on the wrong track; because everyone knows that easy work produces little in the way of results.

Convince a man that he can get results and he will not mind the work.

You will find that an adult is willing to work hard to maintain health and figure if he knows there is a chance.

The value of gymnastics—by which I mean apparatus work—is proven by the action of educational and civic authorities.

Gymnastics bring no gate receipts but nevertheless college trustees and city fathers know that there is no substitute for gymnastic apparatus; and prove their belief by investing large sums in erecting gymnasiums and buying equipment.

Among athletic activities "gymnastics" is the silent one of the family; the quiet chap that says little and attends to his business and brings home the bacon. He prospers without advertising or propaganda. Because he "Delivers the goods"

and he always finds customers and faithful followers.

WOMEN AND GYMNASTICS

A girl, or a young woman cannot compete with a man in any form of athletics which requires the maximum of speed and strength. The best woman runner, the best woman jumper, and the best woman lifter cannot equal a second-class male performer in those sports. Women can play baseball, but for their own sake they should be absolutely barred from participation in such sports as football, wrestling and boxing.

In the different forms of gymnastics, women are positively on a par with men. Fancy-dancing and figure-skating are gymnastics rather than athletics, and the best women dancers and skaters can do anything that men can do in that line, and often they can do it better. At the present time, the greatest gymnast in the world is Miss Lillian Leitzel, who was described by Mr. Paulinetti in the April number of *STRENGTH*. Miss Leitzel would not be able to lift nearly as much weight as can many men of her size, but when it comes to handling the weight of her own body, she can do evolutions and feats of strength that no man in the world can match.

The instructor in any college or preparatory-school gymnasium will tell you that girls have less trouble than boys in mastering the most difficult feats on the apparatus. A class of well-trained girl gymnasts, even though they may be amateurs, will show a grace of movement, a degree of agility, and a perfection of muscular control that can be equalled only by the best male professional gymnasts.

The general idea is that girls and women should avoid vigorous gymnastics on account of the liability of danger to their internal organs. I have heard of girls suffering bruises and strains, but I have yet to hear of any girl who prac-



© Keystone View
A practical variety of gymnastics used in army camps to teach nerve and balance.

ticed advanced apparatus work having suffered even the slightest injury to her heart, her lungs, or the various organs in the abdominal cavity.

Because girls are so uniformly successful in apparatus work, it is very easy to get them started at this form of exercise. Women in many ways are much more practical than men. You can often persuade a man to practice for months at free-hand calisthenics, if you will make him believe that it will benefit his health. You positively cannot make a girl or woman do that. They prefer to exercise along with a crowd of their friends, and what is more, their desire is to do something that can be seen and appreciated both by themselves and others. It is easier to interest fifty girls in apparatus work than it is to persuade one girl to do free-hand calisthenics by herself. When a girl takes up gymnastic work, she desires and expects definite results. Gymnastic work makes an appeal to her because she can see for herself the rounded arms, the smooth shoulders and lissom waists that other girls have acquired through practicing on the vaulting horse, the flying rings and the parallel bars.

Again, she likes the excitement of it, and she gets almost as much pleasure out of doing difficult tricks on the parallel

(Continued on page 94)

Does Weight Lifting Make You Muscle Bound?

By Harry Glick

We have been having so much discussion lately as to whether weight lifting makes one muscle bound, that we have asked Mr. Glick to write an article about this. We hope this article will settle our readers' doubts.



Mr. Glick in a pose showing his control over every muscle in his body.

I AM still laughing at the fellow I met the other day who told me that the reason he does not lift weights is because he is afraid of becoming muscle bound. He asked me how I got my development, and I told him that it came from using bar-bells. He was a little runt of a chap, and when I asked him what kind of exercise he took, he admitted that he had never taken any. He looked it. Just the same, he felt qualified to advise me about exercises, because he heard another man say that the use of weights was sure to cause a muscle-bound condition. Repeat a thing often enough and most people will come to believe it, even if it is not true. There are thousands of health seekers who condemn bar-bell exercise and weight lifting, but who have never even seen a bar-bell much less tried to use one.

There is no use talking; there is nothing like graded bar-bell exercises to give a man strength and development. Being a weight lifter myself, and knowing hundreds of other lifters, I can assure my readers that this muscle-bound idea is a myth.

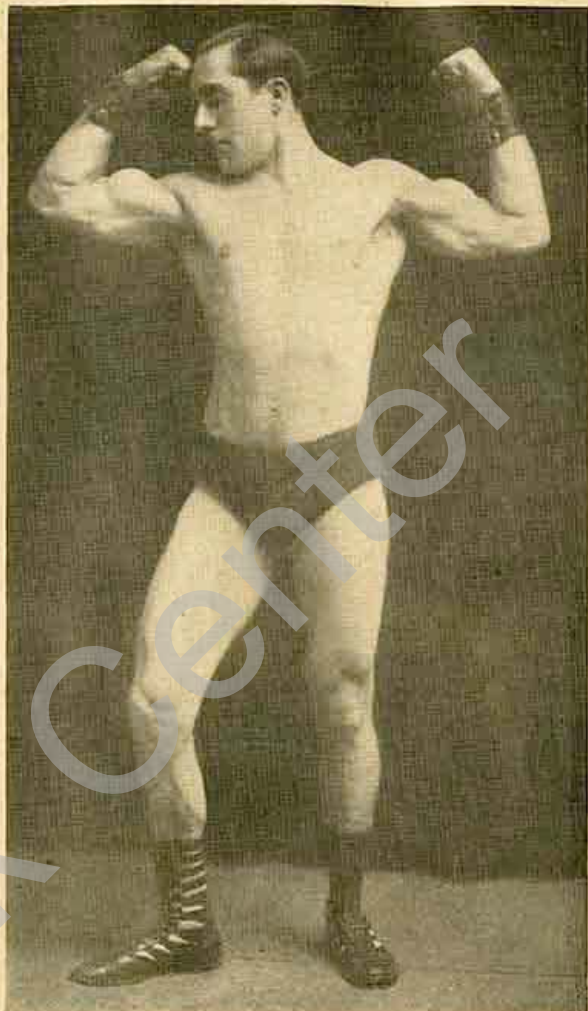
If you are foolish enough to exercise too long at one time with a very heavy bar-bell, your muscles will naturally stiffen up a bit, just the same as they would if you pushed a heavy wheelbarrow for several hours, or wrestled for an hour, or chopped wood for the same length of time; but that stiffness passes away in a few hours, if you are in condition.

I remember a man whose great ambition was to acquire a 16-inch biceps. He had been told that heavy bells were dangerous, and so he got a ten-pound dumbbell, and for two hours every

night he would curl it and curl it, and by the time he was ready to go to bed, he could scarcely move his arms. After several months of such work he got his biceps up to 14 inches, but he had lost all speed of movement. He was disgusted and quit. Later I induced him to take up bar-bell work, and in a few weeks he did get his biceps to 16 inches, and today he is one of our leading strong men.

I have now been lifting for several years and still I am not muscle bound, because I have never worried about it. Today I am faster than I ever was. Faster on my feet, and faster with my hands. You do not have to take my word for that. Three days a week you can find me at Bothner's gymnasium in New York, where I take my workouts. I practice for a while with my weights, then I wrestle with the 225-pound giant professionals who make Bothner's their headquarters, and when I am through wrestling, I box with any of the professionals who will put on the gloves with me. I do not claim to be a champion at either sports, but I have yet to hear any professional criticize me on the ground that I was slow.

The same people who tell you that weightlifting makes you muscle bound, also tell you that every weight lifter dies young. Another case of ignorance. I am well acquainted with Professor Attila, who has just passed his eightieth birthday, and who is still lifting. Attila trained Sandow, and Sandow is fifty-six and looks as though he was good for fifty-six years more. In New York City and Philadelphia alone there are many former lifters who are now past the half-century mark and who still retain their



Mr. Glick has marvelous arms for a man of his height and weight.

strength, and who enjoy perfect health.

There is still another class of critics who claim that no "made" strong man can possibly compete with a "natural" strong man. That may or may not be so. I have yet to meet the "natural" strong man of my weight who can lift my bar-bells. After all, is it not better to be a made strong man than to be a naturally weak man, and that is what I was originally. The use of bar-bells has brought me health as well as given me strength, and creating my development. Until

my twentieth birthday I was thin and frail. I suffered from rheumatism, and my doctor told me that I was headed straight for the coffin. When I asked him what I could do about it, he told me there was nothing to do. A friend interested me in bar-bell work, and told me it would make me healthy. I took it up for that reason. I had not the least idea that I would ever become even as strong as the average. At first my progress was very slow, but once I got fairly started I gained by leaps and bounds. One day I met the friend who had started me at the game, and he suggested that we have a little competition. To the surprise of both of us, it turned out that I had become very much stronger than

he was. Up to that time I had looked on him as being unusually strong. When I found that I was stronger than he was, I practiced harder than ever. People commenced to talk about me, and I was invited to give exhibitions at various entertainments. At those exhibitions I have met thousands of young men whom I never could have met in any other way.

People always want to know what makes a "strong man" strong. Since I have made my reputation, I have received hundreds of letters asking me for advice about exercise. Most of these letters come from young fellows who are either undecided about what method of exercise to take up, or from beginners at bar-bell work. One man wrote me that he had been exercising for a month, and that his muscles had not gained very much in size. It turned out that he was a fat man, and I wrote and told him that before his muscles would stand out plainly, he had to remove the fat that covered them. That is true of all stout beginners. Another man wrote me that he was a very thin type, and that his progress was very slow. I told him a fact I have often noticed, which is, that an emaciated man will hardly gain at all at bar-bell work until he has been exercising for several weeks. During that time a change in the constitution takes place. I have known thin men to gain twenty pounds by bar-bell exercise in the first two months' practice, and yet they did not show any muscle nor did they gain very much in measurements. Along about the fourth or fifth month, the gain in development becomes very rapid.

Some of these beginners actually measure themselves every

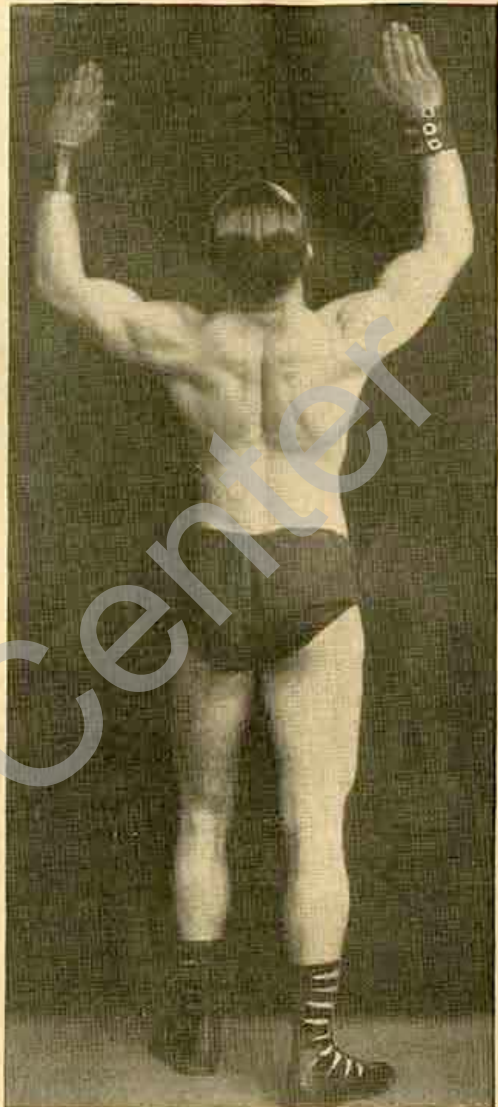


Your arms are not really well developed unless they look almost as big when held straight as when bent. Mr. Glick does not have to "make a biceps" in order to show the size of his arm.

day. I remember one chap who measured himself night and morning, and he actually expected to see an increase every time he used the tape. I used to measure myself once every three months, but then I was not in as much of a hurry as some people are. When I started I was so weak and thin that any kind of a gain pleased me.

One man wrote me and said that he had no appetite, that he was unable to sleep, and that although he exercised, his condition was steadily getting worse. I asked him what kind of exercise he took, and he told me that he walked ten to fifteen miles every night after supper. I soon convinced him that he was over-exercising, that he was sapping his energy, and that no one could build up under those conditions. I persuaded him to take up bar-bell work, but when he started he was so weak that he had to adjust his bell to the low limit. In some of the exercises a fifteen-pound bar-bell was all that he could handle; but he stuck to it, and today he is the picture of health, enjoys his three meals a day, and sleeps like a top. He never does any real lifting, and he uses his bar-bells only two hours a week; whereas his walking used to take him three or four hours a day.

Weight lifting itself is an art, and not everyone can become a champion lifter any more than everyone who takes up boxing can get in the championship class. When I use my bar-bells (which is about three times a week), I spend the first fifteen minutes at developing exercises with moderate weights. Then after five minutes' rest I load up my bells and practice real lifting. I specialize on the quick lifts, because they teach coördination and create speed; and speed and coördination are the twin secrets of success in any sport you can name. If the weights had made me slow or clumsy, I would have quit them long ago. If



No matter how big your muscles are you need never be afraid of becoming slow, so long as your waist is noticeably smaller than your chest and hips

they had affected my endurance, I would not have stayed with them a month. I expect to use bar-bells for many years to come, and I certainly hope to keep on the way I am going; and that is to steadily gain in speed and endurance as well as in pure strength.

The trouble with most people is that they quit too easily. They decide on a system of training, and they never give

(Continued on page 90)



© International

Wellesley College Senior Crew.

The Oarswoman

By T. Von Ziekursch

IF there are any limits to the possibilities of women in sports the world had better call for time out and gaze around in quest of them.

Whether the gentler gender will ever attain the popularly termed Amazonian state in which they will compete with man on an equal handicap basis in the broad realm of athletics we hesitate to say. It is all so new and all that sort of thing. But, before you cast your vote remember that only recently a girl went out and busted the world's long distance dancing record, wearing six partners into wilted submission en route.

That was a matter of endurance, not of strength, you may argue.

Well, so is rowing, and that is what we wish to discuss for the next few paragraphs.

There is little doubt that the time is near when the banners of old Vassar will wave in frenzied loyalty high on the lambent breeze as unfurled defiance

to those of Smith and vice versa. If not these two, then others. They are mentioned simply because they represent the pioneers of feminine rowing activity.

We have seen the girl track athlete blaze a broad path down the cindered stretch and come within a second or so of equalling the marks established by the fleetest of men in the shorter events. The Pennsylvania Railroad boasts a feminine basketball team that is undoubtedly a marvel, with better team play than nine out of ten masculine quintets; a team in fact that could beat a great many of the fives who have to shave. The girl's school and college and the big industrial house without a girl's cage team is rare. In billiards, trapshooting, swimming, baseball, and even boxing and wrestling, Mary has taken her place and earned the respect and admiration of the masculine athlete by her performances.

This is to be an article on the oars-

woman, as mentioned above, and written from a masculine point of view after considerable contact with the game and much effort to draw out the opinions of some of the most noted coaches and oarsmen.

Briefly summed up, much of the success of the oarswoman, now that she has definitely arrived, will depend on the type of coaching she receives and injury or benefit will result as she is developed and taught properly or otherwise.

Undoubtedly within the next few seasons the woman rowing coach will arrive on the scene. She will come from the first crop of those who are trained and taught to row by the male experts of the game.

Even now the first step in that direction is under way. For a few seasons past a couple of women's colleges have had crews, but they were mainly in line with the general athletic policy of those institutions. Then along came a couple of New England centers of rowing and one on the Great Lakes where oarswomen reached that stage in which they sought competition.

At Worcester, Mass., women single scullers were launched on their careers in addition to the crews, and just to prove that they meant it, challenges were sent out in quest of opposition. That is always the start of something, and it did not fail this time.

Jack Kelly, who won the world's championship and the Olympic title, and who certainly is one of the greatest oarsmen the world has ever known, lifted his ears, figuratively speaking, and began to make plans to develop a feminine protege of his own.

Jack, like the hackneyed but well known Alexander, had galloped off with all the little worlds there were to conquer and won championships with such ridiculous ease every time he picked up an oar, that it bored him so he retired. When there was nobody

for him to whip at singles he took up doubles and won the world's championship with Paul Costello. Now the prospect of finding some real competition in mixed doubles has lured him back and he took the old oar down off the wall, stuck it in his pocket and went out hunting trouble with the announcement that he was going to find a girl who wanted to row, teach her



© International
Three fair members of the Wellesley Senior Crew. The Misses Brenigan, coxswain; M. Durant, stroke; and H. Rathburn.

how and then win the world's title with her.

That gave additional impetus to the game and from various parts of the country has come word that many other noted scullers are aiming to give Jack all the competition he wants as soon as they have groomed ladies for the task. It may be that we shall see the first results shortly.

And a further step opens up. It involves international competition.

All this is nothing new abroad. In several parts of Europe, mainly in England, women's rowing is several short jumps ahead.

The Thames has witnessed the oarswoman in action for several seasons. If not the Thames then some one of those creeks that are just about wide enough for two shells. The international aspect may be a couple of seasons off but it will come.

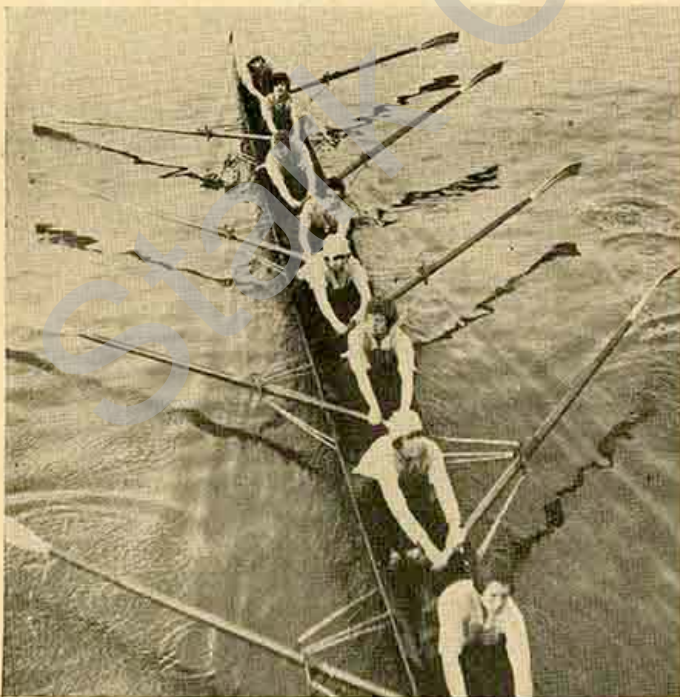
Although very little attention was

paid to it at the time, there was a regatta for feminine wielders of the sculls last summer on the Lake Quinsigamond at Worcester, and a Miss Cort won what was equivalent to the national championship. The reason that so little attention was paid was because the sports world refused to believe that women had reached that stage of development where they really could row a race. They have, and the writer was recently informed that in at least one of the regattas to be held this year on the Schuylkill River at Philadelphia, which is a leading center of rowing, there is almost sure to be one and very likely several races of women and mixed crews. In fact, it has gone so far that the discussion now is not whether these races shall be held but whether the regularly accepted Henley distance of more than a mile shall be the only event or whether a quarter and half-mile races shall be included.

And there is more than that although it has not been mentioned in print. There is even a plan under way to build a club exclusively for the women.

This is not all merely meant for the girls who are still in their teens. At Worcester there were two women in one of the crews who had been married for some years.

All of which answers any doubts of the interest among women in rowing and brings us back to the question of whether it is sport in which the fair sex should indulge since rowing has always been regarded as one of the most terrific strains in the athletic



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Members of the Cecil Ladies' Rowing Club in training.



Two sturdy and happy oarswomen. Evidently they do not think rowing is too strenuous for them.

realm. And that returns us to the question of proper coaching and why it is necessary.

Three parts of the body are subjected to the real strain of rowing—the shoulders, stomach and legs. The real oarsman does the large share of the work with his legs and there need be little fear of injuring or straining them, because the effort is merely in the drive that shoves the movable seat in the shell backwards.

Probably the most serious thing to be contended with in teaching anyone to row is the tendency to overreach the stroke. We are not talking of the technique or form that the professional coach seeks to instill in his candidates for crowns, but of the things that can bring exhaustion and thus do the oarswoman more harm than good. In the novice that tendency to get as long a stroke as is humanly possible is almost always present. Of course it is an ineffective stroke when you have overreached for then the power is lost and the harm of it lies in the strain it puts on the stomach muscles. But this dan-

ger can undoubtedly be discounted right at the start, for it is hardly likely that any woman is going to get into a racing shell without a competent instructor who would know after about the first or second stroke whether she was overreaching.

As for the possibility of a woman rowing in a race until she was so exhausted that it taxed her heart, that is a mere bugaboo. Her muscular power would give out long before her heart could be affected.

That discounts the possible harm right at the start and brings up the benefits that rowing can offer. We all know that the person who rows for exercise continually cannot hope to remain fat. It is one form of exercise that brings into play every part of the body just as horseback riding does, and in a more strenuous fashion. The toes, the feet, the lower and upper legs, the hips and abdominal muscles are all used in the recover which brings the rower forward after each stroke and then all these in addition to the back and shoulder muscles are thrown into

the stroke again. It is a rhythmic, steady play of practically every muscle of the body that tends to marvelously graceful development. There is not one set of muscles being developed more than another. All are being built at the same time and in much the same way.

If you have ever seen an oarsman in a bathing suit or gymnasium togs you can understand. Kelly, Hoover, Belyea, Costello, Rooney, Dibble—here are six champions of widely different physical types and yet all of them are magnificently graceful, alert, smoothly muscled, as so many great cats of the jungle. At least two of them were rather puny when they took up rowing, and one was inclined to be of the short, dumpy, fat type.



Rowing is one form of exercise that brings into play every part of the body.

Read on to learn what Jack Kelly has to say about it, and Jack is one of the most level headed, sensible men, possible to imagine, more set on putting himself over successfully in business than in rowing.

"Why shouldn't women row?" was his surprised reply to a question about it. "You'll admit tennis is a pretty strenuous game and I know a lot of girls who could beat many men of my acquaintance at the nets. You'd hardly call basketball a dainty pastime, and I have been very much surprised at the energetic way they are playing it. The only real drawbacks I see to the development of women scullers and sweep swingers are the same as confront the men—the expense of the shells and the lack of the right kind of water in most parts of the country.

"But they could and will get around the matter of expense in the same way we men have by building clubs and buying the boats through them. At that it is only a matter of a few hundred dollars. As for the water, well, you would hardly expect either men or women to take up rowing on the Texas Plains.

"I personally expect to coach at least one girl this year, and I know a lot of other oarsmen who are either doing the same thing or planning it. It will be good sport for the girls and add a great deal of interest to the regattas to have events for girls and mixed events in which a man and woman could row together in the same doubles boat against other similar boats.

"I don't mean to say that I think the women will reach that stage of development in which they will be equal to the men. There is the question of sheer physical strength. in-



Wellesley College Soph. crew.

volved, but the oarswoman is with us and will make good. It is not a fad. The interest in it is already too great for that. As for the effect on women physically, why should it be any different than it is on men? Have you ever known an oarsman who was not a pretty fine specimen? Rowing will bring development, not of the bunched heavy muscle type but of a graceful, supple kind.

"It is all a matter of proper coaching and you may surely expect to see intercollegiate races for women in the very near future just as you do for men now. You may even see the club regatta general throughout this country and England in a year or two. There is nothing surprising about it. Practically all of us who have gone through the schooling of the oarsman are ready to give whatever help we can, and as the girls could not possibly take up the sport without proper coaching, and proper coaching would never permit anything injurious, there cannot be the slightest question that rowing for them would be mighty beneficial instead of injurious."

All the way through this we have intimated at muscular development and all that sort of thing. When you achieve perfection of muscular development what else is it apt to bring to a woman than a lithe, supple and well moulded figure? The Diana of the oarlocks and the racing shell can hardly hope to avoid having some large measure of the physical attributes of Venus.

Again we pause to mention that in the action of the body rowing has very much the same effects as horseback riding. Each little bundle of muscle fibres is involved and made to do some share of the total work, an almost equal share at that. What is the result? What could it be other than limbs with graceful strength, well rounded shoulders and a full chest in which there is no chance of sunken spots or collar bones showing. The girl who has pulled a scull or sweep for a few months will never need to be afraid of wearing décolleté or being self-conscious about a scrawny neck.

So much for the constructive effects. Rowing is one of the sports that brings
(Continued on page 89)

Tumbling Into Health

In response to many requests we are giving you the first of a series of articles by Charles MacMahon.

The pictures illustrating the difficult feats were literally "caught in the air." In almost every one you will see many of the muscles in a state of high tension; which is the best possible proof of the author's claim that the practice of tumbling exercises develops every muscle from neck to heels.

The following articles in the series will be on "Hand-Balancing" and "Advanced Tumbling," and will be accompanied by similar action pictures.

By Charles MacMahon

AS a matter of fact, almost everyone, at some time in life, has done tumbling in its simplest forms. I might go even further than this and say that *everyone* has, for there is not a person living who has never tumbled into bed.

But what I really meant by the first assertion was, that almost all of us, when

we were kids, did at least the simplest tumbling stunt, or somersault, as it is generally called, but which is really only a roll over. If you have not done this, or any other tumbling, since you were a kid, you better put pride aside and start right there and learn to do it in good form; that is, if you want to learn tumbling at all.



Fig. No. 1. In this illustration of the CART WHEEL the performer is moving from left to right as you see. Note how straight and far apart the limbs are.

Good tumbling, let it be understood before we go too far, is not the mere doing of a certain stunt, but really the doing of it in perfect form. By this, I mean that they should be done in an orderly manner, and with plenty of snap.

If you are positive you can do this or that one, as they are described in the following paragraphs, then, of course, you can start where you please. To the novice, I say, commence at the beginning and take two or three stunts as they come (for I will try to give them according to their increasing difficulty) and practice these until you have them perfected. In taking two or three stunts instead of one, you get a variety that does away with the monotony of practicing only one at a time.

And you will also note as you go along, that they are closely related, and that one teaches you knacks that you need in another.

As I said before, the first and most common of the tumbling stunts is the *front roll over*.

This is done, as everyone knows, by putting the hands on the mat at either side of the head and then by a slight push with the feet you roll over onto your back. Simple enough. Yes, but how awkward, for, after the roll is finished you get back to your feet like an old cow. Or perhaps you flopped over, and got such a jar that your wits left you for an instant, in which time you thought sure you were in a Ford. What was the trouble? Why, you kept your back straight instead of doubling up from the back of your head to the soles of your feet, forming, as it were, a circle. Now, try it again, and see how free from jarring it can really be done.

But even all this is not all there is to this seemingly simple stunt, for to make a really neat, graceful finish, it must be done faster, and, as the hands leave the floor, quickly clasp them on both shins and draw the feet up tight onto the thighs. If enough momentum is acquired, it will carry you over onto your feet again, and you will stand up in an easy manner. Later you will be able to do this without the help of the hands at any time, starting right from the back of the head alone. So, you see, when done in form it is not as easy as it seems.

Next would be to do it *backwards*. That is, stand up as you did at the finish of the backward roll, then sit right down, roll over your head, and, placing your hands on the floor as you go, push up and come to a standing position again,

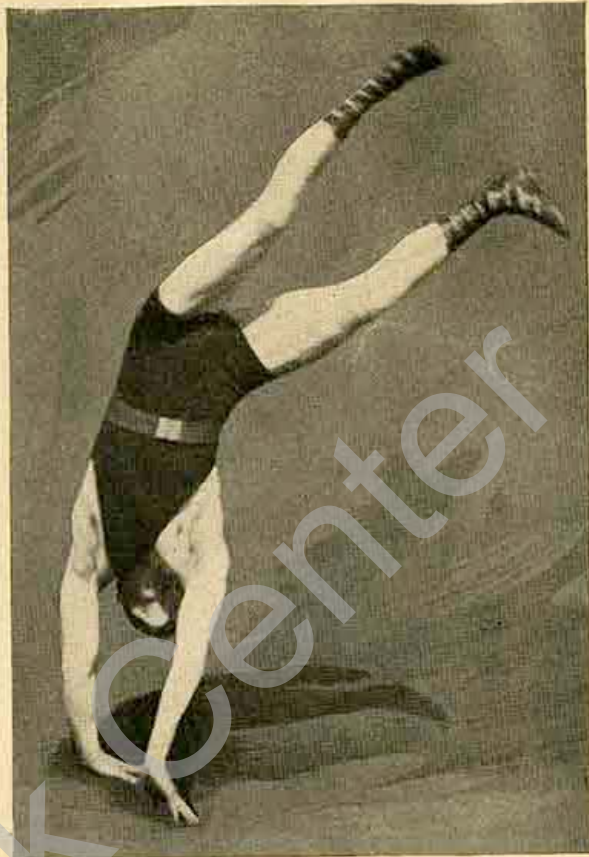


Fig. No. 2. The **ROUND OFF** a little more than half finished. Here you see the twist of the body necessary in order to land on both feet at once and facing the opposite direction

with the knees slightly bent. You will find this one is a little harder than the first.

The next, more difficult one, as I found it, is the *CART WHEEL*. This, like the foregoing, is done by most small boys, but to keep the body and legs in a straight and perpendicular manner in relation to the hands and arms is not to be scorned, when you are upside down. This trick should be done with an even and continuous roll; that is, not both hands on the floor at the same time and close together, with feet hitting the mat also at the same time, but the arms and legs should support the body, as spokes would support the hub on a rimless wheel. The hub, so to speak, would be the center of your body at about the

crotch. The hands and feet should be spaced equally apart, as near as possible, on the floor. Many repetitions of this can be done, but you should work to eliminate all tendency toward jerky movements first.

The *ROUND OFF*, although not as generally known or practiced as the front handspring, is, nevertheless, easier to perform. Therefore, I am placing it ahead. This stunt, like learning the handspring, is easier done by using a short run of a few steps after you get the idea of the details.

After taking the several running steps, the hands are then placed on the mat, similar to the position in the cart wheel, and the momentum thus gained helps to carry the feet up over the head. But, instead of continuing over, as in the handspring, when the feet start to descend they are twisted, along with the body, so that when you land you face back toward the starting position.

Sounds hard, I suppose, but really isn't. Of course, you should land with both feet at once, and come up with a snap. It can also be done with the hand in the position of the front handspring; that is, both on a line instead of one ahead of the other. This way necessitates a greater twist of the body. This stunt will be used in the more advanced work to follow as a start of a row of back springs and back somersaults (all the way over from feet to feet without touching hands on mat). In all these stunts in which you finish standing up, come to your feet with legs almost straight, with just enough bend to make your land springy.

Assuming that you have accomplished the foregoing stunts, you are now ready for the *HANDSPRING*. I'm sure I need not go into detail about this one, so I will only say that the way it is usually done by novices, i. e., landing in a sitting position is not correct, although it will



Fig. No. 3. Here the *HAND SPRING* is shown with the performer's feet about to land. You can readily see that nothing but momentum can bring the young lady to a standing position

go for a start. You must learn to push up with your hands at the right time and form an arc with the back and legs, coming to the standing position with very little bend at the knees. A row (many repetitions) of this can be done, making sure not to hesitate between each spring; keeping them going in a continuous manner. A handspring should be done with a walking start and finish. After you have mastered this handspring, you will find it an advantage to learn to do it with one hand only. This will teach you to get over with less help from the floor, and leads up to the front or back somersault, as the case may be.

The *TINSICA* is little known, at least by name, outside of the theatrical profession. It is used mostly in acrobatic dancing. However, I am positive you will remember having seen it done on the stage after you try it once or twice.

In describing the *TINSICA*, I would say that it is a cross between a handspring and a cart wheel. As in the cart wheel, neither of the hands or feet hit the floor at the same time. But in the *TINSICA*, the left hand does not follow the left foot, nor the right foot the right hand, as in the cart wheel.

If you start with the left foot, or, in other words, if the left foot is the last to leave the floor, then the right hand must be the next to follow. The right hand then is followed, six or eight inches further on by the left hand. The left hand being last to leave the floor the right foot must come next, with the left following.

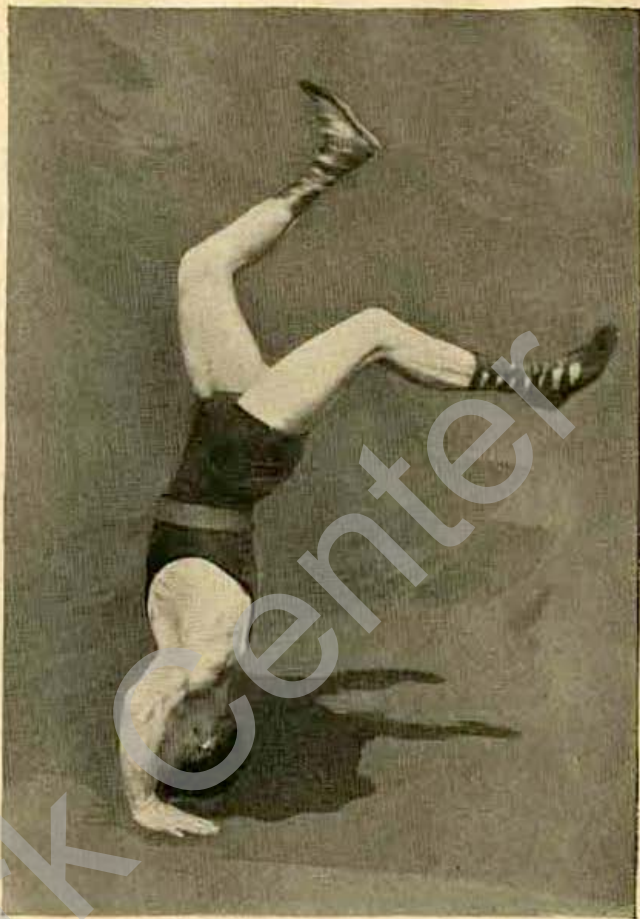


Fig. No. 4. In the HEAD SPRING you will note the head upon the ground. As the feet drop over a strong push up with the arms will help to bring you upon your feet.

When you finish you are facing as you do in the handspring. It gives a peculiar twist to the waist and is done with a smooth movement without any snap or jerk. This smoothness of motion gives it an easy and graceful appearance which accounts for its being used so extensively in stage dancing.

The *HEADSPRING* needs very little description, for it is simply a modification of the front handspring, the only difference being that the head is let down between the hands upon the mat, and the spring is made from there. It is more difficult than the handspring because your body is lower, and, consequently, takes more spring to land in a

good position, upon the feet. It can also be done with the head alone, but I would not advise trying it until you are far enough advanced to perform the head stand.

Having mastered the front hand spring, we will next take the *BACKWARD ROLL OVER* as before mentioned. But instead of coming to your feet, arch the back and legs (as in the hand spring) immediately when your weight is directly over your head, so as you commence to descend, you will roll along your chest, abdomen, thighs, knees and toes respectively. Finally you will be able to come to your feet in this manner, by acquiring enough momentum to carry your body up to the standing position. For the beginner it is not easy, and one should be careful to avoid flopping over flatly upon the stomach. The results of which, while nothing serious, you can well imagine.

The *SNAP-UP* is a neat little trick and as I find it, is next in line. Lie on your back and raise your feet over your head as far back as possible in order to

give them a better start. Now place the hands on the mat beside your ears. Get yourself set, and simultaneously push with hands and throw the feet up and forward with all your might, (help a little with the head also). As the feet go up arch the back as before mentioned, and quickly grab the shins with your hands about midway down from the knee, and pull the feet up close to the back of the thighs. That is the snap-up as it is first learned. If you have any knack at all for tumbling, (a thing that some people don't possess, and cannot seem to acquire) you will find that your feet hit the mat before your shoulders fall back upon it. This is as it should be in the beginning, and as you improve you will get the feet more under your weight until you hit the spot of equilibrium and remain balanced upon your toes. Sometimes you will overdo it and land with so much speed ahead that you will fall forward upon your hands. This is a good sign, for the way you are doing the snap-up at present is not to be desired nor proud of.

So you must use this additional force that you have generated in another direction; that is, in throwing the feet higher up and describing a large enough arch to enable you to land almost stiff legged and minus the use of the hands and the shins. When you get this down you have a very pretty stunt.

The snap-up can also be performed without the help of the hands upon the mat, and it has been done with the feet raised only about eighteen inches from the floor.

Now we will take up the *BACK HAND SPRING*. This is the name by which amateurs know it, but professionally it is known as a *FLIP* and I can assure you from experience, there is nothing more thrilling and interesting to perform in the art



Fig. No. 5. Here is shown the finish of a *SNAP-UP* as you will first learn it. Note the sitting position which enables you to get your feet well under your weight



Fig. No. 6. This shows the start of the FLIP or BACK HAND SPRING. The toes are just about to leave the ground

of tumbling than this one and the back or front somersaults.

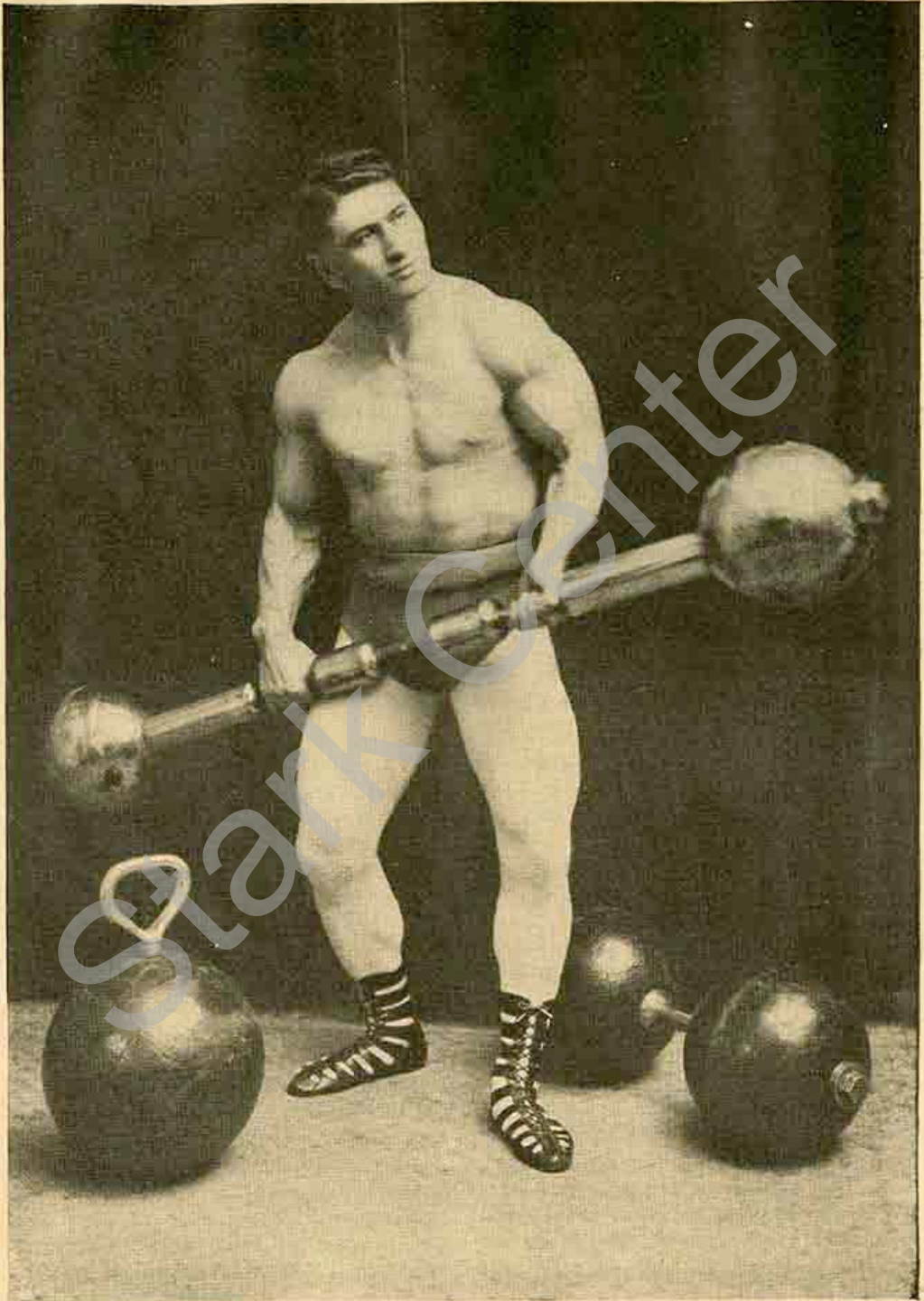
First: Do not attempt this one except on a very soft or springy surface. If you have access to a gym, put at least two mats together, that is two mats thick. If you cannot go to a gymnasium, an old bed mattress is alright, if in good condition. One of the best ways to get the feel, or in other words be at home with the flip, is to practice the back dive and the somersaults from a springing board. In this way you become accustomed to landing upon your hands or feet as the case may be, and run no chances of feeling lost or losing your nerve when half way over.

Let me impress this last point upon you. It is not the performing of the flip that is dangerous, but rather the half doing of it. I mean by this, do not stand in the position for a back hand spring and make a start, and then lose your

nerve and stop. For this is not only making it harder to learn, but you will make a real start sooner or later, and lose your nerve as before; but maybe a little too late this time, and you will find yourself seeing stars by landing on your head. Let me repeat this rule: Once your feet leave the floor, keep going—never change your mind. The best way to strengthen your will in this particular case is to keep away from the position until you are positively ready, and then step into it and go, without any further thoughts, except of getting a good spring.

As to actually doing the FLIP, you should stand with the feet about a foot or so apart. Then sink at the knees and throw the hands back the same as you would for a broad jump, but instead of jumping forward, jump almost straight upward and slightly backwards,

(Continued on page 86)



Tony Massimo, whose magnificent shoulders were developed by lifting and by other heavy exercises.

The Shoulders and How to Develop Them

By B. H. B. Lange

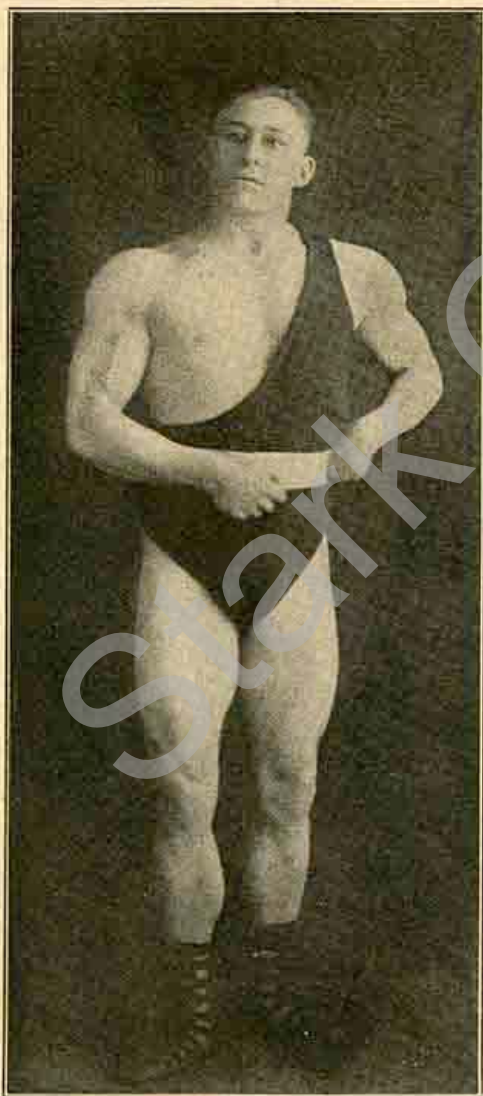
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IF there is any one particular feature of a man's physique that is noticed more than any other, it is the shoulders. The man with broad shoulders is always prominent. People stop for a second to look at him. It makes no difference what the styles decree—broad shoulders are BROAD SHOULDERS; and even when it was the style for everybody to have broad shoulders, the most expert tailor could not build up a pair of cotton and wool shoulders that would compare, even in looks, to the *real* shoulders built out of muscle. The man with thin, muscleless shoulders, or poorly developed shoulders, cannot hide that fact even though he has a very good tailor. Moreover, a man does not and cannot always be wearing his coat. There are times when a man IS without his coat. In fact, the times when he is WITHOUT it are more frequent than the times when he IS WEARING it. Even in the most pretentious, the most exactingly formal and most scrupulously particular walks of society, a man often removes his coat. But because of his very meagre, very spare, very thin shoulders, many a man has refused the invitation to "please take off your coat, and be comfortable." He feels more comfortable with it on, because it hides his poor shoulders. On the other hand, the young man, or the middle-aged man, or ANY-AGED man possessing a fine broad pair of muscular shoulders is always glad when the opportunity presents itself, to remove his coat; and why should he

not? Any man having a perfectly developed pair of shoulders should be proud of them, and be equally proud to show them. People like to see well-developed shoulders. It makes no difference what type or class of human-kind the people are—men and women; even boys and girls as a class, or as individuals; ALL of them are equally pleased at the sight of a good pair of shoulders, and all of them secretly, or openly, are envious of the man who possesses strong, healthy, and well-developed shoulders. Something or other, some circumstance or other, has inculcated, has drilled into, and has impressed the idea in the mind of man that wide, well-rounded shoulders mean strength, power, vigor and health. And THAT idea is ABSOLUTELY correct! Shoulders that ARE symmetrically built and well-rounded possess all the attributes just named. But there is still one more very important attribute or quality such shoulders possess and that is—beauty. Were it necessary to prove the above allegations, all that is needed in the way of proof is to spend a few minutes some afternoon at one of the popular beaches. Which is the better to look at? Which pleases the eye more? Which is the more admired, the pair of shoulders that look like hooks in a clothes closet, or the pair of shoulders that are so beautifully rounded that their owner could, with fitting pride, pose as a model for one of Michael Angelo's masterpieces? No one exclaims in admiration at the sight

of anything *un*beautiful, but BEAUTY, no matter what form it takes, is always provocative of open admiration.

Women as a class are far superior to men in the matter of beauty of shoulders. That fact alone should be enough to stir every young man out of his lethargic indolence, and make him resolve to own an inspirational looking pair of shoulders. There is no reason why men should not have shoulders that are beautiful just as well



ARCHIE GILLESPIE.

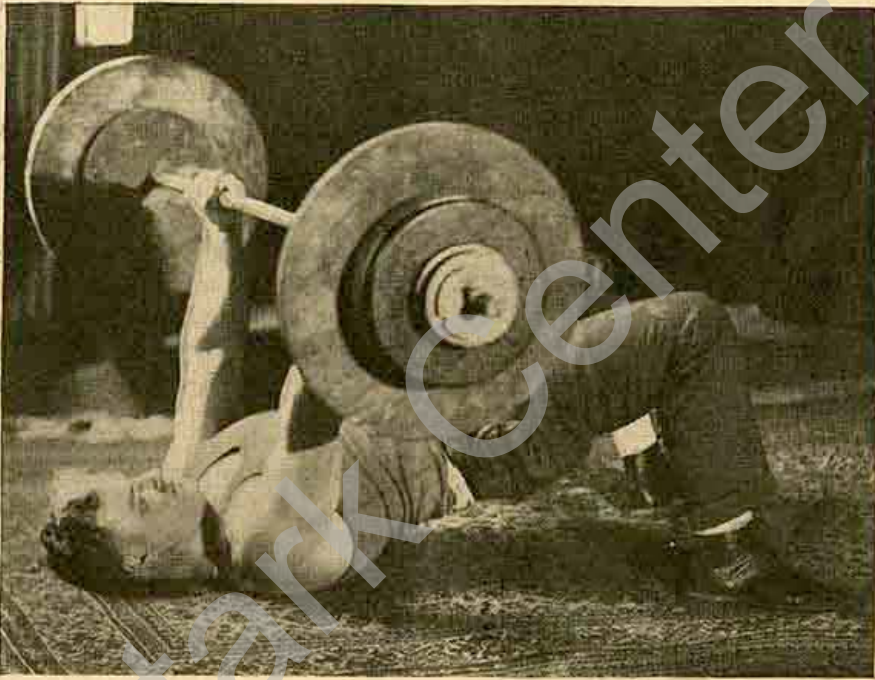
as women. Centuries past, beauty was an attribute belonging to both sexes. The ancient Macedonians, Carthaginians, Spartans, Greeks and Romans practically and universally idolized beauty whether possessed by man or by woman; and those masterpieces of sculpture that have come down to us from ancient days all pronouncedly emphasize beauty of shoulder development. The reader is asked to notice that fact the next opportunity he gets to visit an art gallery; especially that section of the gallery devoted to sculptured art. There it will be very noticeable that the old masters seemed to specialize upon the shoulders.

Take for example the following sculptural masterpieces, and you will be impressed by the great beauty of the shoulder development. The "Discobolos", or discus thrower; the "Laocoon Group," especially the middle figure of the group, and the seated statue of the ancient god "Mars" are beautiful examples of real virile and forceful shoulder development. The figure of Mars in its entirety is most distinctly a masterpiece in every way. It represents real physical strength and beauty more strikingly and more effectively than does that other so-called model of male perfection, of physique, the Apollo Belvedere. The only feature in the entire physical make up of Apollo Belvedere, that is distinctly masculine, is that of the shoulders; everything else is decidedly feminine. Whereas in looking at "Mars Seated" one is immediately struck by the intensely masculine and the masterly manliness of the entire physique. The more remarkable is this because Mars has assumed a perfectly "at rest" position. None of his muscles are tensed, yet there is force, strength, and power radiating from the whole figure. The shoulders are remarkably broad but not conspicuously so; which is the case in some of the figures handed down to us. Real physical beauty should al-

ways be harmonious. Some one has said that BEAUTY IS HARMONY; and that statement is true, because the instant any inharmonious element enters into anything, at once, whatever beauty there may have been vanishes. Perfect balance—harmony—is the true mark of beauty, and both of these attributes are found in that masterpiece, "Mars Seated," not only in regard to his shoul-

sculptural masterpieces, copies of which may be seen in the art galleries of all our largest cities and pictures of which may be had from any firm dealing in prints.

However, there are many men today possessing shoulders just as magnificent, just as beautiful and just as broad as that possessed by the marble masterpieces bequeathed to us by Macedonia, Carthage, Sparta, Greece and Rome.



Joe Nordquest breaking a world's record in the "Shoulder-Bridge" lift. This is one of the exercises recommended by Mr. Lange.

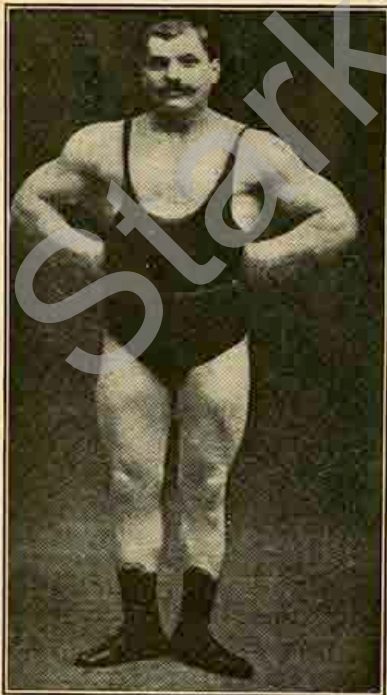
ders, but in regard to his entire physique. The statue known as "Spartacus" portrays great breadth of shoulders. The "Hercules" of Tyrian, which represents Hercules carrying away the apples of the Hesperides, depicts wonderful deltoid development. The statue representing a "Gladiator"—original in the Louvre, Paris—is a striking example of real beauty and strength of shoulders. Michael Angelo's colossal statue of "David" (the original of which is in Florence), is another fine example of deltoid development. There are many other famous

There is no marble masterpiece existing with shoulders that excel those of the great physical marvel Eugene Sandow. Sandow's entire physique is a model of perfect beauty, but his shoulders are the essence of symmetry itself. The deltoids, those muscles that give that rounded appearance to the outer edge of the shoulders, are neither too little nor too much developed. They blend and merge themselves so gradually and so beautifully with the other adjacent groups of muscles that, although much larger than the deltoids of other strong men, this

largeness is unnoticed. Arthur Saxon, the man who holds the world's record in the bent-press (a one arm lift) has a most REMARKABLE pair of shoulders. Personally, the writer is of the opinion that Arthur Saxon's deltoids are in a class by themselves. For Herculean shoulders, both as regards size and strength, while yet at the same time presenting massive beauty, one needs but to take a look at the shoulders of Joseph Nordquest, holder of the world's record in the shoulder-bridge position press with two arms, in which Nordquest did 388 pounds, beating the former record held by Arthur Saxon of 386 pounds. In this lift the performer MUST have extremely strong and powerful shoulders if he expects to lift such an immense weight to arms' length. The lift is accomplished in the following manner. The performer lies down at full length upon his back, while the bar bell weighted

to the weight he intends to use, is placed just to the rear of the lifter's head. Then the lifter does a "shoulder bridge," that is, he arches his body, his back so that his head and shoulders at one end and his feet at the other, are alone touching the mat or floor. It is better to have nothing but a piece of carpet under oneself in performing this lift because it is best to have a solid foundation. Next he reaches back, grasps the bar bell with both hands and draws it forward and across his face. Then, still keeping the body arched, he slowly pushes, or presses, the weight to arms' length above his chest. That is all there is to the technique of the lift itself, but when practiced with a moderately heavy bell, of about eighty or more pounds (depending upon the individual's strength), and pressed up several times in succession, it becomes a most effective exercise for helping to develop the shoulder muscles; especially the front half of the deltoid muscles of the shoulders. A good look at Joe Nordquest's shoulders will immediately convince, even the most skeptical, of the truth of the above words.

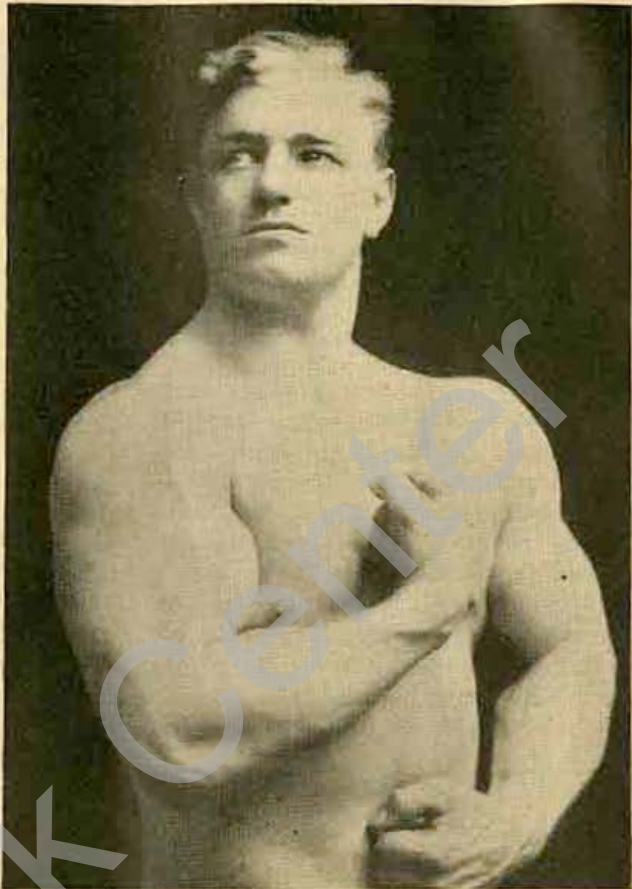
One of the greatest athletes of ultra-modern times, George Lurich by name, holds the present record of 266 pounds in the ONE ARM jerk. True, the "jerk" is both a scientific and a strength lift, and furthermore, it is a lift wherein the leg muscles play a most important part. Taking all these elements into serious consideration, the fact remains that a man must have very, VERY powerful shoulders to support even for a brief moment that amount of weight, 266 pounds, held with one hand. The one arm jerk is performed as follows. For the novice, that is, the beginner, the best weight to use is, obviously, a light weight, one that he can handle without danger of strains and one that he can manipulate with com-



LOUIS CYR.
Arthur Saxon

fort. A bar bell is better than a dumb-bell. Use a bar bell of about sixty-five pounds weight. The bell is on the floor in front of the lifter. If he is going to make the lift with the right arm, he stoops over, grasps the bar exactly in the middle, with the knuckles of the right hand facing down towards the floor, and with the left hand he grasps the right hand—that is, he places the left hand over the right hand and helps to lift the bar bell to the right shoulder. This done his next duty is to place his feet properly. When jerking with the right arm, the right foot is a little to the rear of the left foot and also a little to one side. Do not try to perform this lift with the feet too far apart either laterally, or with one foot too far behind the other. The lifter must use his judgment in regulating the distance he should separate his feet. The next

move is the important one. Holding the weight NEAR the right shoulder, that is, a little from the side and a little to the front (NOT hugging the shoulder), the left arm being held straight out in front of the left shoulder, the lifter suddenly drops down, that is, quickly bends the knees and even more quickly, straightens them again. This should be done VERY, very quickly, and at the SAME TIME the arm holding the bar bell should just as quickly push, or "jerk," the weight up, till it is at full arm's length above the head. The jerk, therefore, is a lift that requires strength, and also speed, quickness, agility and co-ordination, because the legs and arms must work in complete unison with the will. As the



Joseph Nordquest, leading American Hercules, whose shoulders are of heroic proportions.

mind sends its order to move quickly to the legs it also sends a command to the lifting arm, and unless legs and arms both act together immediately upon receiving the order to move, the lifter cannot and will not be able to perform the lift. In practicing this lift using a light weight—about sixty-five pounds or a little more; that is, a comfortable weight, and jerking it aloft three or four times in succession, first with the right, then with the left arm, a young man will develop beautiful shoulders, triceps, fore-arms, and thighs. Robert Snyder of Hagerstown, Maryland, is, for a man of his weight, one of the best exponents of the jerk, and the one-arm-snatch in the history

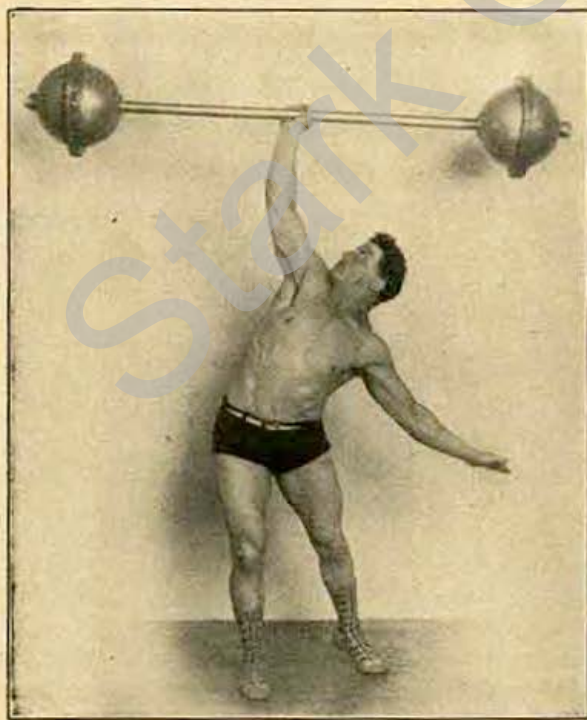
or the science and art of lifting. His shoulders are visible proof of the effectiveness of practicing the one arm jerk. Edward W. Goodman of Los Angeles, California, is without a doubt one of the very best lifters in the light-heavy-weight division. His shoulder development is more than just wonderful, it is astounding! Goodman has done some extremely remarkable lifting for a man of his weight. He weighs around one hundred and seventy-five pounds, and is especially good at pressing a bar bell while lying on his back, and also while in the wrestler's bridge position. In the former he has done 253 pounds four times, and in the latter he has done 262 pounds once. A man able to achieve such a lift must have powerful shoulders. Of course, in the wrestler's bridge press (which was described in the treatise on neck development) he must possess a truly strong, firm and yet pliable set of neck muscles.

One of the liveliest and most inspir-

ing enthusiasts in the weight-lifting world is George F. Jowett, a little man, as far as stature is concerned, being only about five feet four and a half inches in height, but what he lacks in altitude he more than compensates in the magnitude of his phenomenal strength. To prove that little men can have remarkable strength, one has but to recall that Jowett, small as he is, has accomplished a two-arm military press of 230 pounds. That means just this; that in performing a two-arm military press the lifter must stand as the name of the lift implies, strictly in a military position, namely, he stands with his heels together, toes out and back held rigidly erect, and while pushing or pressing the bar bell above his head he must not bend his back forwards or backwards. The lifter "puts up" or presses the weight above his head by the strength of the arm and shoulder; primarily, by the strength of the deltoid group of muscles. True, there are

various other muscle groups taking part in performing of the military press; the latissimus dorsi, the triceps of the upper arm, the pectoralis of the chest, the trapezius and even the flexors of the forearm are greatly called into service. But the REAL work is done by the deltoids, or the shoulder muscles.

Keeping the foregoing points in mind, any youth can develop a beautiful and strong pair of shoulders. He should use a bar bell weighing sixty pounds or a little more, depending upon his size and initial or natural strength, and using both hands he should press or push it upwards slowly (not, however, too slowly), then lower it till the handle of the bar bell touches, or about touches, the

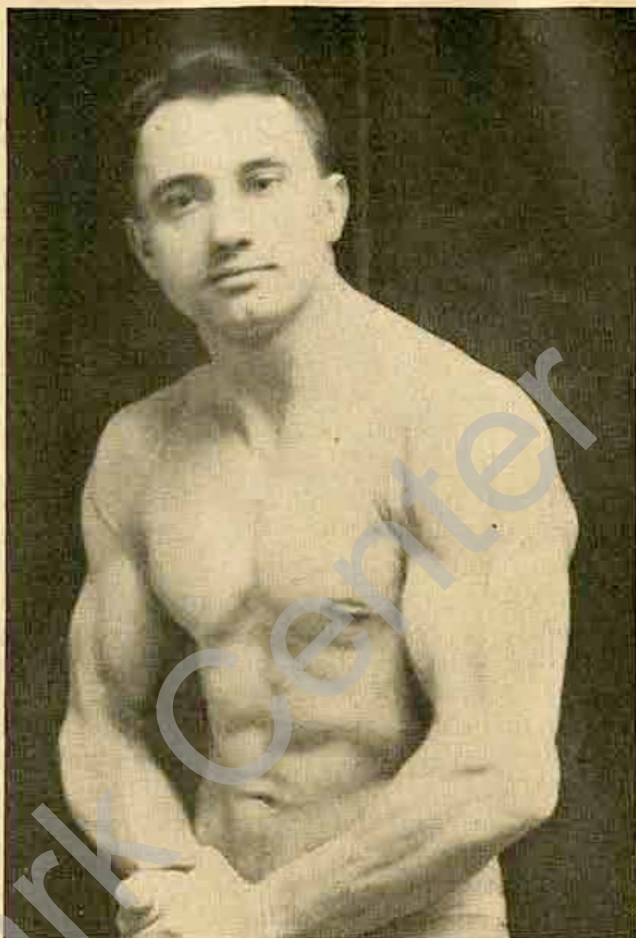


Anton Matysek performing one of Mr. Lange's favored exercises.

chest; then slowly press it up to arms' length again, repeating this maneuver about six times to begin with. Later, as his strength increases, he should repeat the movement eight times; still later, ten times, and so on until he is able to press the sixty pounds aloft about twenty times, then he adds ten pounds to his bar bell and begins again at the minimum number of repetitions—that is, starts again with six repetitions and works up until he is able to do twenty, and so on. Never try to rush the number of repetitions or add too much weight at a time. Coax the muscles, but NEVER force them. They will respond to the former just as surely as they will rebel against the latter treatment. Be careful always. Men like Snyder, Goodman, Jowett, Lurich, Sandow, Saxon, Nordquest, and many others, attained their superb shoulders and their remarkable physiques by

SLOW, CAREFUL training. They did not acquire those physiques spontaneously.

Tony Massimo is an athlete famous for the great breadth of his shoulders. Massimo is very good at all types and styles of lifting, and it is due to this fact that he possesses such an evenly developed physique. Maurice Deriaz, a man with a physique that is noteworthy because it is distinctively massive, has a pair of shoulders that are exceedingly beautiful even though very large. Deriaz has a record in the one arm jerk of about 255 pounds. That means, as has already been said above,



Anton Matysek, a light heavyweight whose well rounded shoulders are a result of practicing the exercises favored by Mr. Lange.

that he must have shoulder strength as well as leg strength.

Archie Gillespie, a young man living in the invigorating air of our northern neighbor, Canada, affords us a most interestingly clear picture of well developed deltoids. His shoulders are very broad and very powerful as well. Gillespie attained his great strength and magnificently turned shoulders, in large part, by the faithful practice of the shoulder press, the one arm snatch, the one arm military press, and the two arm military press. In the one arm military press he has done 100

(Continued on page 92)

OUR DAILY FOOD

Although STRENGTH has always advocated exercise as the one great health producer, its editors recognize the influence of proper diet as an upbuilding or reducing agent.

It is our desire to give you really authoritative information about diet, and so we are pleased to tell you that the authors of this article are connected with the Bio-Chemical Laboratory of Columbia University, and that they are recognized as authorities both by the members of their own profession and by the editors of our leading magazines.

Their knowledge of dietetics is the results of scientific experiment and observation.

Casimir Funk and Benjamin Harrow

LET us tell you what, in our opinion, the daily food should include, and then we shall tell you *why*.

Your daily diet should include from one pint to one quart of milk (partly in the form of coffee, cocoa, or tea, if preferred), some fruit, some vegetables (fresh rather than canned, if possible), bread and butter (three thin slices with very little butter, if you are overweight, and twice and three times as much bread, with plenty of butter, if you are underweight), and a food particularly rich in protein. The food rich in protein is usually taken in the form of meat, but fish, cheese and eggs are excellent substitutes for meat. In fact, there is good reason for believing that the general health of the public would be much improved if they would eat meat not more than perhaps twice a week, chicken once a week, fish once a week, and cheese or egg combinations on other days. Three to four tumblers of water should be emptied during the day.

What we have said applies to adults—to people who have stopped growing. Children, as might be anticipated, need more food. They can seldom be given too much, though they are so often given too much of the wrong kind of food. The anemic look and the

sluggish intestine may often be traced, in children and in adults, to excessive consumption of "sweets" and ice cream and pies and cakes—to the eating of sugary, creamy varieties of food.

We, of course, do not overlook the fact that food alone is not the entire story. Good health is dependent upon other factors, such as bodily exercise and fresh air, but the question of proper food is a very important factor, and one that is most frequently disregarded, usually because of ignorance.

What about the need for vitamins? Have not the ads. in newspapers and on Main Street warned you that life without vitamins is impossible? So it is; but our advertising friends very deliberately omit to tell you that all the vitamins one needs are to be found in the foods we eat, provided these foods are properly selected, provided the diet includes milk, fruits and vegetables. If these food advertisers ever annoy you with their talk about the indispensability of yeast tablets and similar vitamin preparations, just ask them how people lived prior to 1911, prior to the time when vitamins were known? Of course the answer is obvious: we have been eating vitamins (as part of our food) since time immemorial, but

we have not been aware of the fact.

How are we to distribute our food during the course of the day? What, for example, would be considered a model breakfast? For an adult who has stopped growing, who is neither too fat nor too lean, who does not want to lose weight and certainly does want to gain weight, the day may commence with an orange or some other fresh fruit, or stewed or canned fruit if the fresh is not available, a soft boiled egg and a slice of bread and butter, and a glass of milk, or its equivalent in the form of coffee or cocoa. Nothing but the very lightest type of lunch should be indulged in. Here is where so many of our countrymen—and it is even worse in some other countries—fail miserably. They eat not lunches but elaborate dinners, as if their stomachs were made of concrete; and so much of what they eat is unwholesome. A model lunch need consist of nothing more elaborate than a glass of milk, a salad, and bread and butter. This will make you feel elastic rather than "heavy", and will give you just the appetite needed to enjoy your supper in the evening. The supper may consist of some form of soup in the winter, to be omitted in the summer, meat or fish or eggs or cheese, as already suggested previously, salad, bread and butter, milk or coffee containing more than one-half milk, and fruit. Plenty of water at every meal and in between meals.

We do not want to be narrow or rigid, nor is it necessary to be. There are occasions—weddings, supper parties, and what not—when the dietitian forgets his dietetics, and there is no reason why his pupils should be any more conscientious. * Every rule is made to be broken on occasion, and what we advise may be looked upon as even a little more flexible than the ordinary rule.

People who are underweight should eat egg and milk combinations not only between meals, but they should try to eat extra portions of certain foods, such as butter, bread, potatoes. We are not oblivious of the fact that certain people eat and eat and never put on a pound, even though they are not suffering from any disease. Why that should be so we cannot say.

The men with a considerable girdle can usually lose weight by eating less. Omitting the rare instances in which an excess of fat is due to some disease, we are certain that a decreased consumption of food, and—this is important—more exercise, will soon reduce the waist line. To be somewhat more concrete, the diet of an adult who weighs nearly 200 pounds when he should weigh about 160, should consist of something like the following: breakfast, a glass of milk or its equivalent in the form of cocoa or coffee, a soft boiled egg (or egg in some other form), a thin slice of bread with very little butter. (Start the day with some fruit.) For lunch, salad, milk, and a thin slice of bread and butter; for supper, the kind of food the man is usually accustomed to eating, but let him avoid the starchy and the fatty portions, and let him deny himself generous portions or "second helps."

A few years ago people interested in the science of nutrition still based all their calculations on calories, and even at the present time there are still some restaurants that make a specialty of proclaiming the number of calories their various dishes represent. The calorie is rapidly growing out of fashion, not because it is not important, but because it represents but a small fraction of the story. Let us tell you why.

First you must know that the calorie is a heat unit, just as the yard is a unit

of length and the pound a unit of weight. To get an idea of what the heat unit is, we may ask you to imagine the following experiment: you take a quart of water and you heat it until it boils. A very definite amount of heat is necessary in order to heat the water from the temperature of the room to that of boiling water. The amount of heat necessary in our example is called 100 calories.


When coal is burnt heat is evolved; when food is "burnt" in the body heat is evolved. In both cases we measure the heat in terms of calories. Now many experiments on human beings have shown that the amount of heat that is liberated by the "average" man during the course of 24 hours is in the neighborhood of 3,000 calories. This means that he must eat sufficient food during that time so that when such food is "burnt" in the body, it will liberate heat equivalent to 3,000 calories. Here then we have a rough method of determining the amount of food the "average" man needs.

But this information does not get us very far. For just consider the following: we are told that large percentages of every kind of food we eat is "burnt" in the body. In fact, unless a food can undergo certain changes in the body, it cannot be considered a food. Let us take the case of apples. The apple is a food. A large part of it is "burnt" in the body and utilized. In burning, heat is evolved, so that an apple represents a certain number of calories. Were calories the all-important factor in food, there would be no good reason why we should not confine our daily food intake to the eating of enough apples a day to yield the necessary 3,000 calories. But the reader who knows nothing about calories and the science of nutrition knows just as well

as the food expert what would happen to any individual whose sole diet would be several dozens of apples a day.

We need variety in our food, we are told. We need fats, proteins, carbohydrates, mineral salts, vitamins, water. And the experience of mankind through the course of many centuries has given us an idea of how much of each of these we need. But the more recent developments in the field of nutrition deal not only with the *quantities* of the various foodstuffs needed, but with the *kind* of foodstuffs. This in a way was also not unknown to the layman long before food experts began to emphasize the fact. For example, milk has been a much prized food for centuries. Doctors and laymen have sung its praises. What is there in milk that makes it so valuable? Surely not protein, for we have proteins in other foods. And we can say the same of its fats and carbohydrates. There are other foods that contain these substances. What has been shown, and this quite recently, is that the particular protein in milk is high in the biological scale; which is another way of saying that milk protein is particularly adapted to the needs of man—and of all animals, for that matter.

Another important contribution of the modern school of dietitians deals with the discovery that our ordinary foodstuffs contain a number of substances in small amounts that are, nevertheless, very important for our well being. These substances are present in such small amounts, that for a long time we were quite ignorant of their presence. Improved methods of chemical analysis have enabled us to stumble on them. The substances we refer to are, of course, the now celebrated vitamins.



BOXING

Prepared by William J. Herrmann

of Herrmann's Institute of Physical Training, Boxing, Fencing, Wrestling and Self-defense, of Philadelphia

DODGING AND DUCKING

IN lieu of guarding, blocking or otherwise deflecting with your hands or arms blows aimed at your head, you can instead avoid an attack on that important member of your body by a slight yet timely shift of your head either to the side of, or entirely under, the attacking blow of your opponent.

Ducking and dodging have the additional advantage of leaving the defender's hands free with which to hit. They also tend to throw your opponent more or less off his balance due to striking space, besides, it brings your man somewhat nearer to you to more effectively receive your punch. They also increase your versatility. You are not obliged to repeatedly resort to purely defensive measures with your arms in order to nullify or avoid a punch.

So, learn to defend yourself against blows at the face by a timely shift of the head in preference to always blocking or guarding with your arms, punches coming your way. Against blows aimed at the face, it, as a general rule, is oftentimes more desirable to use your head instead of your arms as a means of defense. As far as defense is concerned, the best use of the hands at times is not to use them at all. Skillful use of the feet and head are of more importance than any block or parry made with the arms.

There is no denying the primary value of a good guard—it is a first essential, nevertheless, nowadays the superiority of the "duck and counter" over the guard

and counter is readily apparent. Repeatedly stopping heavy blows must eventually result in bruised muscles and arm weariness. The impact of a heavy blow may even at times temporarily partially cripple the guarding arm long enough to handicap one's effort if only for a few seconds. It obviously is better to hit than to guard with your arms.

The two methods of defense in which blows at your head are avoided by a timely shift of that important member of your body are termed dodging and ducking. Although to a certain extent they are similar in that they both depend on a shifting of the head in order to get it safely out of danger, they nevertheless, are really two different modes of defense, each performed in their own particular form, style and manner.

In dodging you merely slip your head to one side so as to allow the attacking blow to pass harmlessly over your shoulder, past the side of your ear. Whereas in ducking, the head and body is lowered under the attacking blow of your opponent in such a manner that the punch intended for your face passes harmlessly over your head, not past the side of your ear as it does in dodging.

Dodging is also termed head slipping. In other words, a "head slip" to the right and a dodge to the right both refer to the same form of defense. "Head slipping and dodging" are synonymous terms in boxing.

Dodging to the right side allows the blow aimed at your head to pass harmlessly by the left ear. Dodging to the

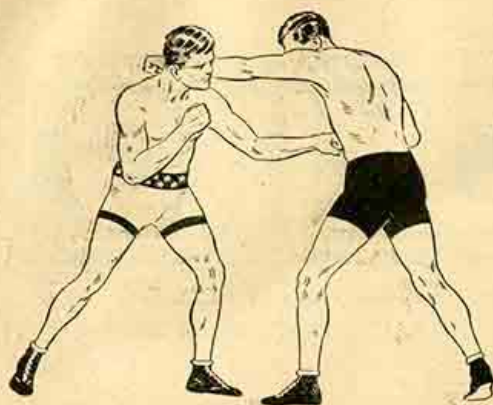


Fig. 1—Head slip to right and outside of straight left lead at face and countering left to body.

left allows a blow aimed at your head to pass harmlessly by your right ear.

Bear in mind that when dodging to your right side, it is advisable to hit at the same time with your left fist and counter like, when dodging to the left side, it is best to dodge and to hit at the same time with your right hand. Observing this rule enables you to dodge in the easiest and most effective manner, besides enables you to put your weight to your punches to the best advantage.

To thoroughly master the art of dodging and ducking effectively, it is advisable to first learn how to properly dodge, because dodging is a little easier to properly do than ducking.

A beginner, "in position" with his left foot and left hand forward finds it more difficult to dodge to his left side than to his right. For this reason the dodge or head slip to the right is usually taught first. Besides, it is well to remember that in a general way when avoiding a straight left lead at face it is also safer to dodge to your right side than to your left, because your head is shifted away from, not towards your opponent's right hand. Of course, it is understood, the opposite rule holds good if facing a southpaw dodging outside of a punch is always safer than dodging inside of a punch, nevertheless, be sure you learn to dodge to your left side as well as to your right with equal facility, in order to en-

able you to effectively dodge to either side as combat conditions for the moment may warrant. This rule of practicing dodging to both the right and the left sides applies equally as well to ducking. Besides, it is good exercise for the neck muscles, as can be readily seen by watching the play of well developed neck muscles of a boxer well up in this branch of the art.

As a general rule, the dodge is mostly used to avoid straight punches and the duck to escape either a hook or a swing.

In dodging to avoid a straight left lead at your face, shift your head to the right side in order to allow the blow to pass harmlessly over your shoulder past your left ear.

In ducking to avoid a left swing at your head, lower your head under the attacking blow and follow up the advantage it gives you by delivering a telling counter to your opponent's body.

In ducking the head is lowered, while at the same time the knees are slightly bent and the body lowered slightly forward in order that the attacking blow will pass harmlessly over your head and shoulders. Using your body as well as your head is one of the distinguishing features between a duck in comparison to a dodge and also the fact that in ducking your head passes under whereas in dodging the head passes aside of the attacking blow.

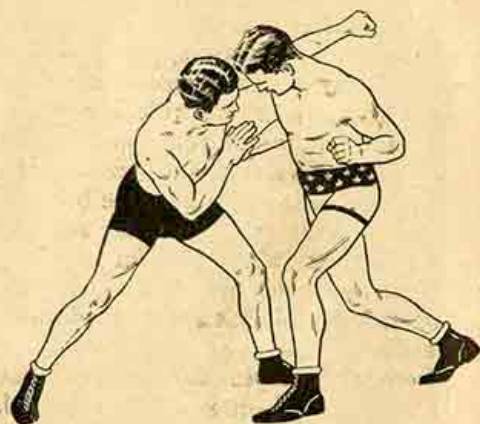


Fig. 2—Head slip to left and inside of straight left lead at face and countering right to body.

Never show your intentions by moving your head too soon or your opponent may divine your intentions and by quickly changing the direction of his punch he can easily score a clean hit in his favor at the expense of your error.

Dodging and ducking to be successful must be timed to the fraction of a second. Dodging too wide prevents you from properly putting your weight to your counter. Don't duck too low or dodge too wide. In ducking if you lower your head too much you will be hit ere you recover to a safe position. Also be careful you don't bend your knee too deep or lower your body to the extent that you are well nigh sitting on your haunches. Ducking too low or bending your knees too deep exposes you to a stiff upper-cut that may lift up your head and straighten you out in a most unpleasant manner.

Also be careful you don't rush in blindly, head foremost, under the impression that you are ducking, for by doing so you bring your head within reach of a well placed upper-cut that may decisively end all further hostilities.

In ducking the head is lowered as well as shifted to the side. Do not duck in straight forward towards your man. Let your head go under the blow and away from it to the side. This prevents your opponent from landing an upper-cut.

Whenever ducking or dodging do not get out of position; be ever ready to instantly be able to deliver a blow with-

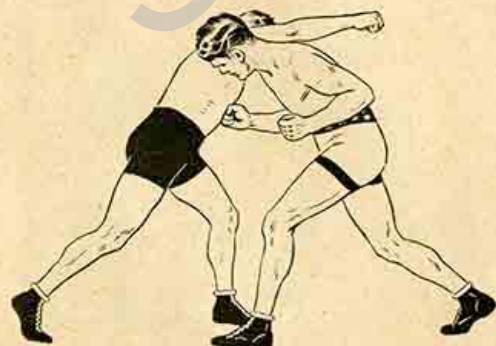


Fig. 3—Slipping outside of straight right lead and countering right to body.

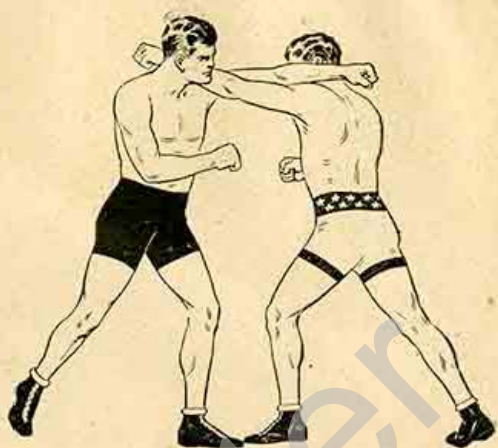


Fig. 4—Both dodging each other's straight left to face.

out any additional useless change of position.

Don't be discouraged if on your first attempts to duck or to dodge, you misjudge your opponent's punch or mistime your own duck or dodge and in consequence run full tilt into the very punch you intended to avoid. Avoiding a punch at your head by a clever dodge is one thing, ducking or running face foremost into a stiff upper-cut is another. It takes a good man to successfully get away with it.

You cannot expect to become an expert in dodging or ducking in a day. It takes time and persistent practice to perform these maneuvers properly, safely and adroitly. However, all time and attention given to the perfecting of this branch of defense, will pay good returns. It surely will improve your cleverness.

This is because ducking and dodging always affords a good opportunity to deliver at the same time a telling hit with either hand. This is due to the fact that the successful duck, or a well timed dodge leaves both your hands free with which to attack. In consequence, make it a general rule never to duck or to dodge without at the same time hitting. This rule cannot be strictly lived up to the letter as there are moments in a well contested bout in which you may be satisfied to get away with a safe dodge or a

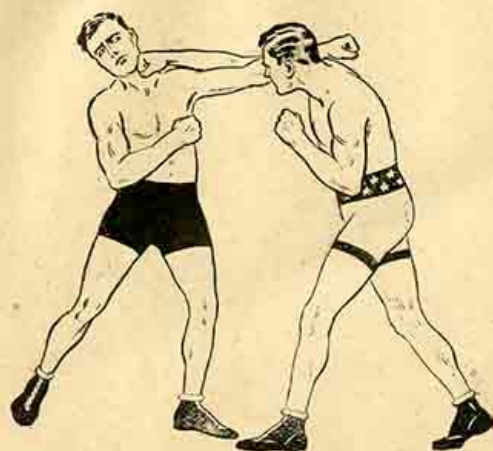


Fig. 5—Dodge and right hand cross counter against straight left lead to face.

duck without combining a punch with it, but nevertheless, try to observe the rule as much as you can—you will be able to do more effective and evasive head work for it. The boxer who can use his head as well as his hands and feet usually plans to deliver a telling blow at the same time as he avoids one. Ducking and dodging without hitting at the same time is but a half finished job. Let dodging and ducking as much as possible be effective offensive—defensive not merely defensive measures.

It is difficult to hit a man who is clever at effective ducking and dodging, besides it, to a certain extent, bewilders and discourages an opponent to find his blows constantly hitting space instead of your head which never is where it was when your opponent struck at it. It is tantalizing to an opponent to constantly hit nothing but air. Besides, it is likely to make him lose his temper and thereby becomes an easier victim to your wiles.

Although dodging and ducking is spectacular work and always enjoyed by boxing show patrons, don't duck or dodge uselessly merely to try and make your opponent look like a novice. Uselessly bobbing your head up and down, right and left is likely to be tiring. In consequence, don't unnecessarily waste your energy in this manner merely to "show

off" your skill and ability in this particular line of defense as you might be hit. Besides, it does not pay to repeat any move too often or your opponent is likely to get wise to your tactics.

Ducking is an especially effective means of defense in competition against a taller opponent. It gives good opportunities to deliver effective body punches that soon help bring a taller opponent down to your own size. Besides, effective deliveries of stiff right and left-hand body blows against an aggressive opponent's leads, will soon make him more cautious in leading in order to save his body from further punishment.

PRACTICAL LESSONS IN DODGING OR HEAD SLIPPING

Practice the following lessons in dodging and ducking with your sparring partner. Let your partner and yourself alternate in taking the lead. Of course, it is naturally understood between both of you that in practice with your partner when he leads, he aims at your head where your head was just before he led and not to anticipate your move and unfairly hit at the point where he knows in advance your head is going to shift to. In actual combat he would not know for a certainty whether you intended to dodge, duck, guard, shift, slip or side-

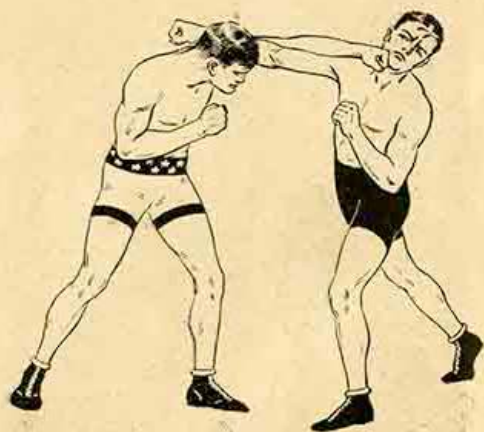


Fig. 6—Dodge and left hand cross counter against straight right lead to face.

step nor to which side, nor with which hand you intend to hit with.

Of course, the one who leads should learn to protect himself from the counters used against him. Good practice for the one who leads will be to attempt to palm the counters, protecting himself by catching the counter blow in the palm of his glove.

As your sparring partner leads a straight left at your head, slip outside his hitting arm by dodging to your right side while delivering a punch with your left to the pit of his stomach.

On your sparring partner's straight left lead to your face slip inside his hitting arm by dodging your head to your left while delivering a blow over the heart with your right hand.

On your sparring partner's straight left lead at your face slip outside his hitting arm by dodging your head to your right side while delivering a telling punch with your left fist to his face.

On your sparring partner's straight left lead at your face, slip your head to your left side and deliver your right fist to his jaw, your right arm crossing his left arm as you deliver the hit. This blow is the famous right hand "cross counter," so called because in delivering this punch you cross your opponent's left arm with your right arm.

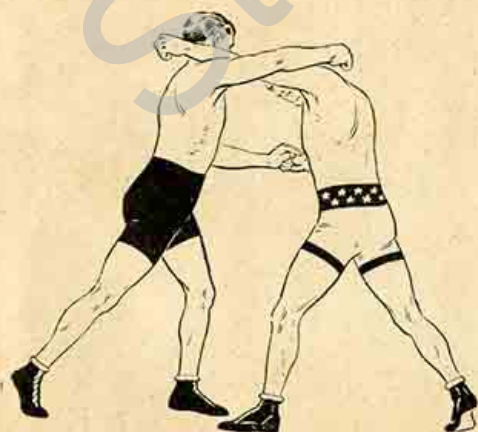


Fig. 7—Head slipping a right hand cross counter.



Fig. 8—Ducking under left swing to face and countering left to body.

DODGING RIGHT HAND LEADS

Of course, it is understood that in a general way under combat condition it is not safe to lead with your right hand unless preceded by a successful feint that opened a way for it. It is used here merely as a practice lesson in order to give your partner and yourself a chance to learn how to dodge and counter it. In consequence, in this particular lesson it is understood that the one who leads will first feint with the left and then deliver right lead to face.

On your sparring partner's straight right lead to your face slip inside his hitting arm by dodging your head to your right side as you deliver your left fist to his body.

On the sparring partner's straight right lead at your face, slip outside his hitting arm as you dodge your head to your left side and deliver your right fist to his body. A good counter when facing a southpaw but otherwise dangerous because you might dodge into his punch instead of aside from it.

On your sparring partner's straight left lead at your head slip inside his hitting arm and deliver a left-hand cross counter by dodging your head to your right side while shooting your left arm over his right arm to the jaw.

(Continued in next issue)

THE MAT

I SEEM to have no trouble in stirring the "Strong Man" enthusiasts to action. In a previous issue I said that I must have at least one hundred requests before I would write the article on Sandow. That issue had hardly gotten on the news stands before the requests came in—first they came singly, then by dozens, and then by shoals. There were so many that I could not even acknowledge them. You probably saw the article in the May issue.

I had a hard time getting pictures for the article. Those in my collection had disappeared. I have friends in Philadelphia who I thought could supply me, but their pictures had also disappeared. I finally had to send to New York and borrow some from Professor Attila. Mr. Coulter, of Pittsburgh, supplied some more. Just after the article had been sent to the printer, a local man phoned me that he had several dozen Sandow photographs. That is the way it happens—sometimes—but I wish I had been better prepared.

Up to date I have had a good many responses to my suggestion about an article on Arthur Saxon. Some of you have been kind enough to send me magazines, letters and other data which will be very helpful in making up the article.

But I have no pictures and the article would be flat without illustrations.

Some of you must have pictures of the celebrated Arthur. Will you loan them to us for the benefit of your fellow readers? We cannot use reproductions clipped from papers or magazines. In order to make half-tone plates we must have the photographs themselves.

If you have one or more photographs of Arthur Saxon (or of the Saxon

Trio) send them to me, first marking on the back in ink, the words "loaned by," and your name and address. I will guarantee their safe return and will publish the names of those of you who have supplied the pictures.

* * * * *

ON MAKING YOUR OWN COSTUMES

A lot of you have written to the Readers' Service Department asking where to obtain the Leotards which are worn by most lifters. Here is a letter that will help you, and you can see the results of its author's scheme in the pictures for the tumbling article.

Philadelphia, Pa.

Dear Sir:

You may remember that after I sent you the manuscript for the article on tumbling you telephoned me and told me I had better pose for the pictures. Although I did not tell you so at the time, I was rather stumped. I had a pair of sandals, but no Leotard, and no time to order one. Now I like a half-Leotard, especially for picture work. I remembered that I had a good sleeveless jersey and I adapted that. First I sewed together the middle of the bottom edges, so as to make leg-holes. Then I carefully took out the stitches in the right shoulder-strap. I folded the loose ends inside the jersey and fastened them with a few stitches. As a result I had a pretty nifty looking half-Leotard. If I want to use it again as the north end of a bathing suit, all I have to do is to take out my temporary stitching and sew the shoulder strap together. You never think of these things until you have to.

CHARLES MACMAHON.

* * * * *

CORRECTIVE AND CURATIVE EXERCISES

The weight lifters write me and say that I do not give them enough development and "strong arm" articles; and track athletes, the "great outdoor" men, and the health seekers write and object to any articles except about their own hobbies. I don't mind that—if you have a preference, a hobby or a set of decided opinions, for goodness sake, stand up for what you think.

If any particular group of readers kick hard enough and often enough they are bound to force the kind of

USELESS AS A RABBIT'S TAIL

The best thing a rabbit can do with his tail is to sit on it. And that's about as much use as some men make of their bodies. There are so many flat-chested, weak-kneed specimens walking the streets these days that a real live man is a curiosity. The average man of today has about as much ambition for exercise as a jelly-fish. If he runs 50 yards, he puffs like a steam engine, sits down and feels as though he were ready to die. And, take it from me, he isn't far from it.

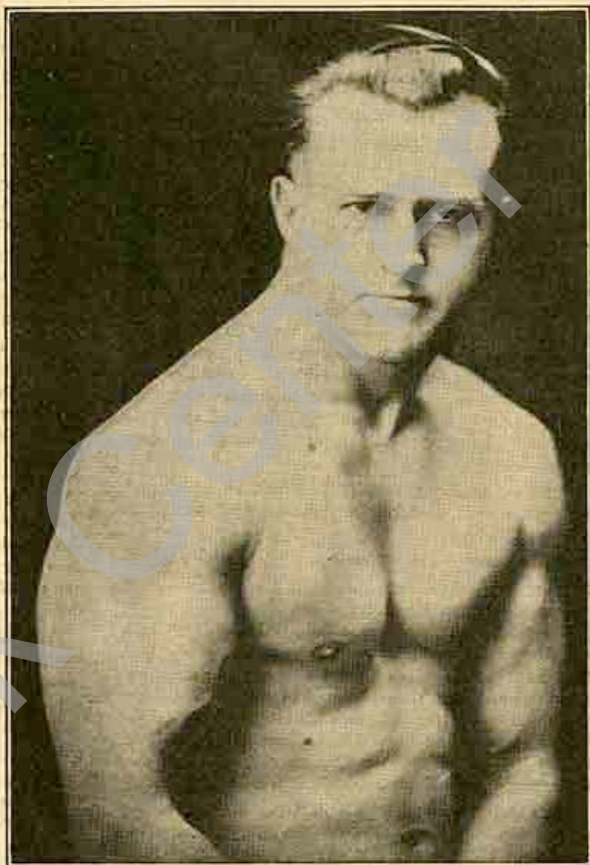
Cut it out fellows. Don't be a cake-eater. If you ever knew the joys of a real healthy body, you would start this minute to get one. And that is just what you are going to do. The undertaker has his eye on you, but give him the laugh and say: "Not yet, old boy."

The Gateway to Health

It is open to you. Come on in and get busy. Yes, it means work, but Oh boy! what it brings to you. In just 30 days I am going to put one full inch on your biceps; yes, and two inches on your chest. But that is only the start. Now comes the real works.

I am going to broaden your shoulders, fill out your chest and give you a pair of arms that carry a wallop. Meanwhile I work on your inner muscles surrounding your vital organs. Every breath you take brings a deep inhale of oxygen into your lungs, purifying your blood, so that your whole body will fairly tingle with new life. You will feel real pep in your old backbone.

This is no idle talk. My treatment has stood the test of years and is now endorsed by experts as absolutely the shortest and only sure route to Health and Strength. I don't promise results—I guarantee them. Come on now and make me prove it.



EARLE E. LIEDERMAN as he is to-day

Send for My New 64-Page Book

"MUSCULAR DEVELOPMENT"

It contains forty-three full-page photographs of myself and some of the many prize-winning pupils I have trained. Some of these came to me as pitiful weaklings, imploring me to help them. Look them over now and you will marvel at their present physiques. This book will prove an impetus and a real inspiration to you. It will thrill you through and through. All I ask is 10 cents to cover the cost of wrapping and mailing and it is yours to keep. This will not obligate you at all, but for the sake of your future health and happiness, do not put it off. Send today—right now, before you turn this page.

EARLE E. LIEDERMAN

Dept 706, 309 Broadway

New York City

EARLE E. LIEDERMAN

Dept. 706, 309 Broadway, New York City
Dear Sir:—I enclose herewith 10 cents, for which you are to send me, without any obligation on my part whatever, a copy of your latest book, "Muscular Development." (Please write or print plainly.)

Name

Street

City State

articles they want. We are not mind-readers and we welcome all letters whether they contain praise or criticism.

We would like to so divide the layout of the magazine that we would satisfy every demand.

There is a rapidly growing group that are asking for articles helpful to those who suffer from physical defects. Here is a sample letter. Its author said I could publish it but wants his name withheld.

Providence, R. I.

DEAR EDITOR:

I am one of your newest subscribers. I never heard of your magazine until a short time ago. I am on the road for a cigar concern, and, like many other salesmen, I often make small purchases in stores where I am trying to land new accounts. Early in February I was in a small stationery store, trying to get the proprietor to put in my line of smokes. I looked around for something to buy and just at haphazard picked up your February issue. I paid the price and stuck the magazine in my pocket, never expecting to even look at it.

I boarded an interurban trolley, had no newspaper, and in sheer desperation opened the pages of STRENGTH.

Just by luck I lighted on Leonard Mason's article on "Fallen Arches."

I am middle-aged and fat and I have to be on my feet most of the day. I was bothered with callouses, and for years I was never unconscious of my feet. They hurt me so much that I couldn't forget them. So, of course, that article interested me. When I got out of the car I tried Mason's idea of walking on the outside edges of the feet. I have been doing that ever since. My callouses have disappeared, my feet are better shaped and I have comfort instead of pain.

I felt grateful enough to you folks to send in my subscription. Having noticed "The Mat," I am going to have my little say.

When your magazine arrives I look it over, but I never read more than one or two of the articles. Why? Because they do not interest me. I am too old for athletics. I have no desire to "put-up" a 100-pound dumb-bell. I couldn't if I wanted to. Even if I could, my wife wouldn't let me. If six months ago you had asked me what a "bar-bell" was I would have probably said that it was a gong you thumped when you wanted a drink and the bar-keep was out of sight. Now that I have learned what a bar-bell really is, I wouldn't have one if you gave it to me.

There are a lot of folks like me. Men and women who have commenced to break up. People who need help and sensible advice about taking care of themselves and maintaining their health and physical comfort. You have a great field there, but you are not cultivating it. You are giving too much space to those who are already strong and healthy, and they already have their gymnasiums, their athletic coaches and countless magazines devoted to their interests.

There are thousands upon thousands of sedentary workers, clerks and salesmen who, like myself, have no use or fancy for muscle.

We know we need exercise, but we dread the very thought of it. If we must take it, we prefer the very mildest kind. We go to the doctor's when we are actually sick, but the M. D.'s can't do much for fallen arches, weak backs, failing eyesight or bulging stomachs.

Give us articles on these lines. Tell us what to do to help us keep ourselves young and supple. Do that, and I'll recommend your publication to my friends, most of whom are past the athletic age.

Take your March number. Of course I first read Mr. Mason's article on the chest and shoulders, because he was the man who had given me a new pair of feet. I have no lung trouble, and while my shoulders might not satisfy you, they are good enough for me. However, I am trying to straighten myself up and get a flatter back. Mr. Mason is your right-bower so far as I am concerned.

Nothing else in the March issue interested me except the one on keeping down flesh, and, while the exercises were intended for women, some of them were too strenuous for me.

Some of the articles in your April number were quite entertaining, but there was nothing really helpful except the continuation of the woman's article, and your own on "Ridding Yourself of a Big Waistline." I read that because, as I have said, I am fat. If I had only seen the pictures I would not have read it, but the title of the article drew it to my attention. The first part of your stuff was good enough, but do you suppose any "fat man" would even start to read the article after looking at those pictures? I weigh over 200 pounds and I would sooner weigh 300 than hang upside down the way that chap in the pictures is doing.

Why didn't you give us some pictures showing the exercises possible for the real fat man—besides those pictures which appeal only to circus performers?

I am not going to cancel my subscription or anything like that. I will continue to buy even if I do get only one article a month that suits my case.

I am grateful for the help I have gotten from your pages, even if this letter does sound like a knock. And, remember, you asked for it, so take your medicine.

W— M, L—

All of which makes me wonder how many of you are in the same boat with Mr. L. That some of you are, I happen to know; because when I said in this department that I could give you advice on how to straighten a crooked back (meaning that I would publish an article giving that advice) I got a lot of personal letters from men and boys who are so unlucky as to suffer from some deformity of the spine. In fact, I got so many that I have asked Mr. Mason to prepare an article on the subject.

Now, Mr. L., I'll put it right up to



The Invisible Menace

—Is Its Hand On Your Shoulder?

EVERY day in the year men and women apparently in good health are suddenly stricken with a fatal disease. Men and women who thought themselves in perfect condition are finding that Bright's disease, Diabetes or some other dreaded malady has gained a running start in their bodies before a single symptom was noticed. Some of these victims live for years—broken in health and spirit. Others die quickly. You are shocked at the suddenness of their passing.

Why is this tragedy so common? Why may it soon be true in your case? Simply because these diseases are as insidious and deadly as murder in the night. They approach secretly, stealthily. There are no evident symptoms—no outward signs. By the time noticeable symptoms develop it is too late; nothing can prevent a fatal ending.

And the pity of it all is that ninety per cent of these cases could be prevented. Medical science has perfected a simple yet infallible test. A test that shows the very first tendency to Bright's Disease or Diabetes. A test that shows their presence long before any outward symptoms are felt. A test that enables you to win the fight because you know the facts in ample time.

How To Learn The Facts

Urine is the barometer of your health. It forecasts Bright's Disease and Diabetes many months before any outward symptoms are visible. It proves the strength or weakness of each organ. Urine analysis is employed by hundreds of America's ablest executives—men who consider the facts about their health just as vital as the facts about their business.

The Biological Department of The Louis G. Robinson Laboratories makes a specialty of analyzing urine. For years it has been giving this service to the medical profession in Ohio and Kentucky and now you yourself can secure this same service.

When you become a subscriber to the Robinson Health Service you will receive a complete chemical and microscopical examination of your urine every ninety days. These analyses give you the real hidden facts about your body and tell you exactly what to do about it. The work is done by expert chemists and biologists working under the supervision of a medical specialist.

If your case is serious you will be advised to take the report to your physician, and from the analysis he

will know exactly how to treat you. If the trouble is minor the report itself will tell you what to do.

In addition, every report will carry with it suggestions as to simple modifications of diet—modifications that will not only prevent disease, but noticeably improve your general health and feelings.

What It Means To You

Bright's Disease is second only to Consumption in the yearly number of victims. Yet the first indications are shown *only* by urine analysis.

Good health is absolutely necessary for your business success. Knowing the real facts and knowing them in time is the secret of good health. That is exactly what you get in the Robinson Health Service.

Perhaps you are as healthy as you feel. *Perhaps you are not.* However, you want to know—guessing is gambling against Death with your life as the stake.

Free Trial Offer

You can know exactly how you stand. Simply fill out the coupon below and we will send, without any obligation to you, full information about our service, together with details of our Free Trial Offer.

Don't gamble with the Invisible Menace. Mail the coupon now.

THE LOUIS G. ROBINSON LABORATORIES
7 Harrison Bldg. Cincinnati, Ohio

Mail For Free Test

The Louis G. Robinson Laboratories,
7 Harrison Bldg., Cincinnati, Ohio

Please send, without any obligation to me, full particulars about your confidential health service, together with details of your free test offer.

Name

Address

.....

you. Propose exactly the article you need, and I will submit your suggestion in these columns and ask for seconds.

If you get enough backers, your motion will be carried and the article written and published.

The followers of track athletes are commencing to make their voices heard. For example:

Caldwell, Ohio.

DEAR EDITOR:

Since the annual recurrence of that old sport, "track," is about to begin, let's have an article or two on the subject. Of course STRENGTH is more or less of the type of magazine dealing with body building and there may not be any other readers desiring such articles, but I just thought I'd let you know what one reader likes.

I am attending a small college and, unlike the larger educational institutions, we do not have a regular coach, so the information that we do pick up is not very comprehensive. I myself am particularly interested in the mile. Generally any article which one reads has something to say about how to do the running itself, but I have yet to see a treatise giving hints on last-minute training.

Yours in a spirit of thanks for the high quality of the magazine.

GEORGE GOULD.

Here is another appeal.

Halifax, N. S.

DEAR EDITOR:

I am taking advantage of the section of your magazine STRENGTH called "The Mat," and would remind you that we are anxiously waiting for that article on shot-putting which you promised over a year ago. Do you not remember, you promised through the Question Department that you would publish an article last spring, and I also wrote you a letter? Our club supports STRENGTH to a man, and last month there were twenty-three (23) copies bought by club members. Everybody has been watching for that shot-putting article for a year now, and it was suggested that I write you this letter and see if there is any chance of seeing it next month.

W. M. AHERN.

In the past eighteen months we have run a number of articles on track athletics, and they have been mostly in the line of stories, recounting what has happened, and giving interesting information about the performances of the past and present stars. I judge by the foregoing letters that some of you desire a change in policy. You want articles about track sports, but those articles should tell you exactly how to train for running, how to pick out the distances for which you are best suited,

or how to excel at jumping or weight throwing.

This seems to me to be a good idea. A story about the record makers is interesting and inspiring, but its weakness is that it does not give any real instruction to one aspiring for fame. How many of you want articles of the kind requested by Messrs. Gould and Ahern?

I am more or less committed to the shot-putting article, and I have written to a man who has won championship honors in the shot-putting and throwing the discus. In addition, he is one of the finest built men in the world. I have asked him to write an article giving practical hints and suggestions to the weight throwers who read this magazine.

* * * * *

ANOTHER DEFENDER OF THE SHORT-LIMBED ATHLETE

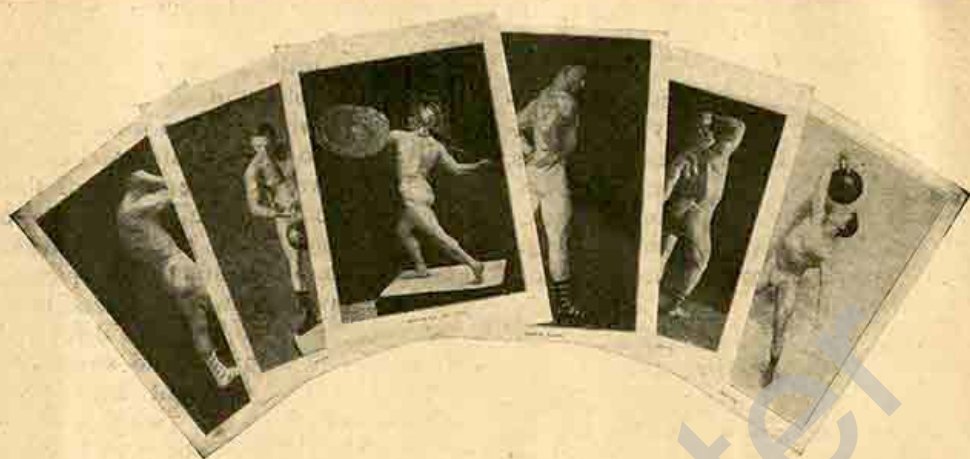
New York City.

DEAR EDITOR:

I hope I am not too late to answer Mr. Bodine's letter which appeared in your March issue. I have not had as much experience in athletics as Mr. Bodine very evidently has had. I am not even prepared to say that the short-limbed man can equal the long-limbed man in the sports which Mr. Bodine specifies. I have always been interested in feats of strength and strength tests of all kinds, and it is my experience and observation that the short-limbed man has an immense advantage in any feat that requires the immediate application of power. While in college I was personally acquainted with men who won the strength tests in their respective institutes. The first was the celebrated Mike Dorizas. He won the strength test at the University of Pennsylvania, and in addition to that, he was acknowledged to be the strongest college man of his day. He did not make any records at shot-putting, but on the strength-testing machines and in wrestling he outclassed all competitors. The second man was a Mr. Ward, who won the strength test at Brown. The other men were Mr. See and Mr. Downer, who won the strength tests at Amherst. All four of these men were distinctly of the short-limbed type, and each and every one of them could deliver more power at a given instant than any one of the men with whom they happened to come in competition in other college tests.

It would be very interesting to me if some of your readers who have a wider knowledge than my own would write in and tell us the physical characteristics of the men who win the strength tests at all the colleges. If we could get particulars about the build of the men who win the 1923 strength tests in all the colleges throughout the country, we would then have some real figures that would be of more value than mere expressions of opinion like my own.

Yours truly, CHARLES J. JESSOP.



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At the request of many of our old readers we are republishing a very famous set of 25 pictures of "Strong men," lifters, artists, models, etc.

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Those South Sea Islanders

(Continued from page 31)

When the modern American or European athlete strips, he may show well-marked muscles on the back, shoulders, arms and limbs, but he rarely shows much in the way of pectoral muscles, and can show his abdominal muscles only when he leans forward and contracts them.

Your study of the accompanying pictures will show you that even if these Polynesians do not show much muscle elsewhere, they always have pectoral muscles that were so noticeable a feature of the Greek type. In one of the pictures you can see that sign of supreme physical condition; abdominal muscles that are easily seen even when their owner is at rest.

Other savage races show great development of the pectoral muscles. The Zulus of South Africa are just as well furnished in that respect as are the Tahitians; but where the Zulu has a lean leg, and a perfectly smooth abdomen, the South Sea Islanders have the rounded thighs, the powerful calves and the waist muscles of the Greek type.

You can gauge a man's shape from his photograph, but you cannot estimate either his size or his strength. It is a source of regret to me that none of these travelers have taken the trouble to slip a tape around the chests and limbs of these mighty men of the South Pacific. With such figures at hand, we might arrive at some new canons of physical proportion.

I gather that in some of the islands a large proportion of the men are six-footers, and, if so, they must weigh anywhere from 175 to 225 pounds, accordingly, as they are of the slender or heavy type.

In describing these people, the word "slender" has only a relative meaning. What is slender for a Tahitian would be an unattainable ideal of perfection for the sedentary American business man.

I find but little reliable data regarding the physical strength of these people. The writers who describe them have so much to say of their beauty and charm, that they have no space to tell of their athletic accomplishments — outside of their swimming. The late Jack London gave us some interesting word pictures of some Hawaiian swimmers; and in his "Atolls of the Sea," Mr. O'Brien tells us of a young woman who swam continuously for forty-eight hours. He shows a picture of her (which we dare not reproduce)—a smoothly built young woman, and a fit mate for Hercules.

The principal sport of the Melanesians is war. The Polynesians are a peaceful, happy folk, whose sports can hardly be separated from their work. Swimming, diving and paddling canoes are as much a part of their daily existence as tending the furnace and walking to the office is a part of our activities.

They climb trees to gather the fruit; indulge in rather sketchy cultivation of the soil, and if they hunt, it is only for those pigs who have relapsed into a wild state. Mountain-climbing with them takes the place of stair-climbing with us. We occasionally hear of their taking part in wrestling bouts, but the only thing we would class as a national sport is their ceremonial dancing, and such dancing is really an athletic activity of the most vigorous kind.

Up to very recent times their diet has been selected for them by Nature. They furnish better arguments for those who promote the balanced ration than for the advocates of vegetarianism or the milk diet.

Their fare is bread, fruit, yams, cocoanut, and the meat of fish, fowl, pigs and dogs.

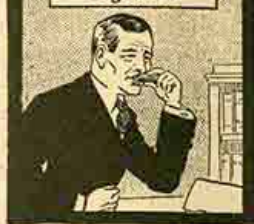
In a good season everything is abundant except meat. The fish, cocoanut and yams are nearly always available, but that they are not sufficient in them-

(Continued on page 80)

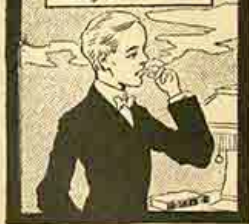
Tobacco Tells on Nervous System



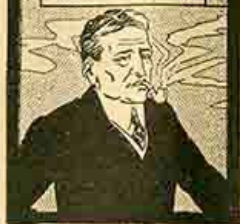
Tobacco Ruins Digestion



Tobacco Stunts Boy's Growth



Tobacco Robs Man of Vitality



Tobacco - a Man's Delusion

Thousands of men are under the delusion that they actually need tobacco! They think they couldn't possibly get along without it. But can any man honestly say that tobacco has ever done him the slightest good? How can it, then, be in any sense regarded as a necessity?

No, the use of tobacco is an utterly useless habit. And think of the expense. Count the nickles, dimes, quarters and dollars you spend for

cigars, cigarettes, pipe or chewing tobacco or snuff—by the day, week, month and in years. Even a dime a day is \$36.50 a year; a quarter a day makes \$91.25 a year; a dollar a day \$365.00 a year—the interest at 6% on \$6083.33 CASH CAPITAL you'd have to save to have your wasteful tobacco bill earned and paid for. And you haven't a single thing to show for it—except poorer health!

After all is said and done that is the real reason you should quit tobacco—because of the effect it is having on your health. Even if you can easily afford the extravagant money waste, the physical, mental and nervous effects of tobacco are bound to tell. Leading authorities agree that tobacco is damaging to the heart, that it impairs normal brain activity, and deadens a man's vitality. Any doctor will tell you these are facts. No tobacco user can dodge them. Some day he must pay the penalty. Every smoker, every chewer, every snuff taker is taking into his system a deadly poison that slowly but surely undermines his health. Think this over, you tobacco users. You're paying too big a price both in money and the lowering of your vital forces and general efficiency for a mere habit that you have come to regard as a necessity—but which isn't. Quit tobacco and you'll eat better, sleep better, feel a hundred per cent better in every way. You'll think clearer, have more energy, be more efficient in every thing you do. Here's an easy way for you to quit. Read our remarkable offer.

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Those South Sea Islanders

(Continued from page 78)

selves is proven by the fact that when pork is scarce, dogs are eaten with relish. The craving for meat is such that a strange dog goes in peril of his life.

If regular bathing promotes health, it is no wonder these people are healthy. Their daily immersions must be a great aid in stimulating the function of the skin as an eliminator of waste products.

A life such as they lead is not conducive either to habits of industry, mental development or moral restraint. With the advent of the white man, the native eagerly adopted all his vices, and ignored his virtues. Rum and whiskey have collected a tremendous toll, as is natural in a land where no disgrace attaches to drunkenness. One would think that their known physical endurance, their vigorous bodies, and their simple diet, would render them immune to disease. The opposite is the fact. They cannot resist any imported epidemic. A visitation, like the "flu" of 1918, which carried off one or two per cent of the inhabitants of American and European countries, caused as high as ten per cent of fatalities in many places in the South Seas.

Vigorous, fancy dancing will reduce the weight of almost any fat individual. Mountain-climbing will add size to the legs of a thin man. Continual swimming produces a particularly symmetrical kind of development.

UNDER SIMILAR CONDITIONS YOU WOULD GROW BEAUTIFUL

Now, just suppose that you were suddenly transplanted from our changeable climate to an island where the temperature never fell below sixty degrees or went above ninety. Suppose you wore, night and day, an extremely skimpy bathing suit. Imagine all the physical advantages of Southern California minus the restrictions of convention.

Suppose the water of the ocean was always warm enough to invite you. Suppose that instead of reporting to

DID YOU EVER DIET FOR MONTHS and lose a few pounds by semi-starvation and self-denial—and then get back all your fat as soon as you started eating the things you really like? **DID YOU EVER GET BIG MUSCLES BY "EXERCISING"** and then see those muscles fade away, or go to seed, as soon as you stopped your daily grind of exercises?

DOES DIETING FAIL TO REDUCE and **DOES EXERCISING FAIL TO DEVELOP YOU?**

If so, we have a book that will help you, because it explains those fundamental principles of muscular activity which create shapeliness and strength.

Your muscular habits have more effect in forming your figure than any amount of "daily exercise." For example,—if a man knows how to manage his feet while walking, he will automatically develop the muscles of his calves, and he will acquire, *without exertion*, a well-rounded, good-sized, finely-shaped pair of calves. Why? Because with each step he takes he uses the muscles as nature intended him to. He does not need to walk either fast or far; it is the way he walks that produces strength and shapeliness in the lower leg.

YOU can do more to increase the size and shape of your legs in one month of correct walking than by a year of "rising on the toes" and doing other exercises. That is known to most people, and so Checkley wastes no time on that subject in his book. He specializes on the things that very few people know.

Do you know that by holding your pelvis (hip-bones) at a certain angle you can both reduce a big waist-line and absolutely prevent the accumulation of abdominal fat? That is one effect—a *negative* effect—of that particular posture; the *positive* effect is that the same posture which banishes fat, also causes a most extraordinary development of all the muscles of the waist region.

YOU can get abdominal muscles like Sandow's or Checkley's, and powerful loins and back *without doing bending exercises*; in fact without any exercise except that which the waist muscles get automatically through holding the hips in the correct balanced position.

Checkley says "there is a reflex action from correct habits of sitting and standing that will bring added strength and health without conscious exertion. It is like having money out at interest. The income does not seem to be worked for."

HOW CHECKLEY'S BOOK WILL HELP YOU

It teaches you how to avoid the incorrect carriage of the pelvis which tilts the abdominal contents against the front wall, and which by stretching and weakening the abdominal muscles makes you fatter and fatter no matter how much you diet and exercise.

It teaches you how to breathe, *not* "breathing exercises"—but an easy way to breathe, day in and day out, which will give you a high-arched chest and the tremendous vigor that goes with big lungs.

It teaches you the posture that "puts starch in your back"; the stride that produces beautiful thighs, and—most fascinating of all—it teaches you about that mysterious "general strength" of the whole body which increases out of all proportion to the increased size of the individual muscles. (That, by the way, is the reason why some slender persons who never "take exercises" are so much stronger than bigger individuals who train unendingly.

It is not very hard to acquire these muscular habits. It is something like learning to ride a bicycle—you struggle for a few days and then the trick comes to you suddenly. Once acquired, these muscular habits are worth a thousand times the trouble it takes to learn them; for by their means you can, without diet, and without "exercises," get the physical beauty and the phenomenal bodily strength which are the outward signs of supreme vitality.

This book is not for the worshippers of muscle. It is written for those thousands of men and women who earnestly desire perfection of bodily form and a large measure of organic vigor, but who have no time or use for the usual exhausting exercises.

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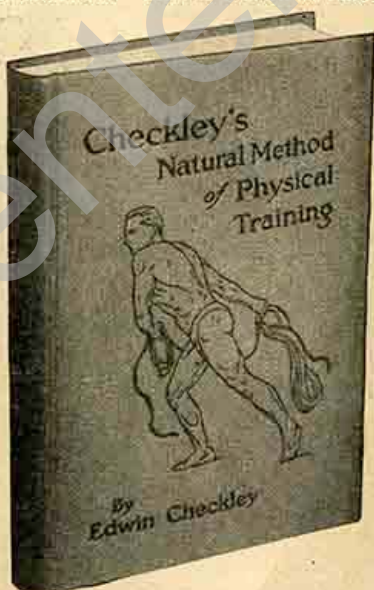
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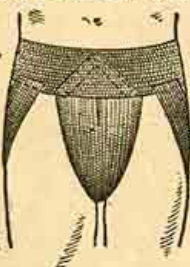
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home or hotel at the regular meal hours, you had the inestimable privilege of eating only when you were hungry.

Provide yourself in imagination with a canoe of your own, and plenty of companions who liked paddling. If you are a fisherman, just imagine a place where you could go fishing every day in the year and get to the fishing grounds in five minutes.

Also, and this is important, imagine a society where your success was due, not to your 1923 model car, the number and cut of your suits or dresses, or the amount of money you had to spend, but to your physical personality. Wouldn't all these things be a help and unconscious stimulus to the upbuilding of a better-shaped body? In a community where the strength of the men and the beauty of the women is the secret of success and popularity, that community may not be progressive mentally, but it *will* produce men and women that are nearly perfect physically. Natural selection attends to that.

For my part, I am quite sure that environment, occupation and climate are more potent factors than diet in the creation of the supreme physical type. I feel that if a colony of our people were transplanted to Tahiti or Samoa, and compelled to live as the Polynesians did before the advent of the white man, then the second generation of those colonists would be possessed of just as magnificent physical proportions as the natives who are shown in the accompanying pictures.

It is a pity that there is no way to give these natives a tryout under the conditions which prevail in our organized athletics. We know that as swimmers and divers they are absolutely first class.

Duke Kanamohoku, the champion of Hawaii, was good enough to swim away from the champions of the rest of the world in his Olympic match.

Swimming is a fine athletic test; but not the only one. I have seen pictures of Polynesian men and youth who *look*

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as though they would be world-beaters at running or jumping. I have seen others who had every physical requisite that makes a great shot-putter or discus-thrower. I have seen still other pictures of men who look as though they would be fine oarsmen.

I am willing to give them tribute without reservations, for their remarkable beauty, but I would certainly like to know how they would show up in the athletic tests in which the youthful athletes of our own country have shown their supremacy.

These Acrobatic Dancers

(Continued from page 17)

A star will do the same stunts, and do them so easily that he seems to be floating in the air. An artist shows no effort. It is a matter of natural aptitude, constant practice and controlled strength. Star acrobats, star tumblers, and star dancers do stuff that the other members of the profession cannot do on account of their lack of strength.

It takes strength to clear the bar at six feet in a high jump. It takes strength to run a 120 yard hurdle race in less than sixteen seconds, and it takes just as much strength, and far more endurance, to go through the modern high-class acrobatic dance act.

The possession of such strength is remarkable enough for a well developed man dancer, but it is almost startling in the case of some of these young women, who apparently have the resilience and strength of a coiled steel spring.



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The Wonderful Mission of the Internal Bath—

By C. G. Percival, M. D.

DO YOU KNOW that over three hundred thousand Americans are at the present time seeking freedom from small, as well as serious ailments, by the practice of Internal Bathing?

Do you know that hosts of enlightened physicians all over the country, as well as osteopaths, physical culturists, etc., etc., are recommending and recognizing this practice as the most likely way now known to secure and preserve perfect health?

There are the best of logical reasons for this practice and these opinions and these reasons will be very interesting to everyone.

In the first place, every physician realizes and agrees that ninety-five per cent. of human illness is caused directly or indirectly by accumulated waste in the colon; this is bound to accumulate, because we of today neither eat the kind of food nor take the amount of exercise which Nature demands in order that she may thoroughly eliminate the waste unaided—

That's the reason when you are ill the physician always gives you something to remove this accumulation of waste, before commencing to treat your specific trouble.

It's ten to one that no specific trouble would have developed if there were no accumulation of waste in the colon—

And that's the reason that the famous Professor Metchnikoff, one of the world's greatest scientists, has boldly and specifically stated that if our colons were taken away in infancy, the length of our lives would be increased to probably 150 years.

You see, this waste is extremely poisonous, and as the blood flows through the walls of the colon it absorbs the poisons and carries them through the circulation—that's what causes auto-intoxication, with all its perniciously enervating and weakening results. These pull down our powers of resistance and render us subject to almost any serious complaint which may be prevalent at the time—and the worst feature of it is that there are few of us who know when we are auto-intoxicated.

But you never can be auto-intoxicated if you periodically use the proper kind of an Internal Bath—that is sure.

It is Nature's own relief and corrector—just warm water, which used in the right way, cleanses the colon thoroughly its entire length and makes and keeps it sweet, clean and pure as Nature demands it shall be for the entire system to work properly.

You undoubtedly know from your own personal experience, how dull and unfit to work or think properly, biliousness and many other apparently simple troubles make you feel. And you probably know, too, that these irregularities, all directly traceable to accumulated waste, make you really sick if permitted to continue.

You also probably know that the old-fashioned method of drugging for these complaints is at best only partially effective; the doses must be increased if continued, and finally they cease to be effective at all.

It is true that more drugs are probably used for this than all other human ills combined, which simply goes to prove how universal the trouble caused by accumulated waste really is—but there is not a doubt that drugs are being dropped as Internal Bathing is becoming better known—

For it is not possible to conceive, until you have had the experience yourself, what a wonderful bracer an Internal Bath really is; taken at night, you awake in the morning with a feeling of lightness and buoyancy that cannot be described—you are absolutely clean, everything is working in perfect accord, your appetite is better, your brain is clearer, and you feel full of vim and confidence for the day's duties.

There is nothing new about Internal Baths except the way of administering them. Some years ago Dr. Chas. A. Tyrrell, of New York, was so miraculously benefited by faithfully using the method then in vogue that he made Internal Baths his special study and improved materially in administering the Bath and in getting the result desired.

This perfected Bath he called the "J. B. L. Cascade," and it is the one which has so quickly popularized and recommended itself that hundreds of thousands are today using it.

Dr. Tyrrell in his practice and researches, discovered many unique and interesting facts in connection with this subject; these he has collected in a little book, "The What, the Why, the Way of Internal Bathing," which will be sent free on request if you address Tyrrell's Hygienic Inst., 152 West 65th Street, New York City, and mention having read this in STRENGTH.

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Some of you apparently have the idea that fancy dancing requires about as much strength as is expended in doing five minutes free-hand calisthenics. If you still hold that theory, try the following—all without pause. Skip a rope vigorously for a full minute; turn a row of flip-flops or hand-springs; intersperse a few difficult balancing feats; go at full speed over half a dozen high hurdles; do some high kicking with first one leg and then the other, and finish up by doing the Russian low-leg stuff. That will give you some idea of the strength required to do an acrobatic dancing act.

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You may object that you have the strength to do all these things separately, but that you have not the "wind" to keep them up one after another. Well, a dancer can. He has strength enough to keep on doing them (and doing them in style) even after his breath has commenced to fail.

A dancer has to be strong outside and inside. Dancing tests heart and lungs even more than it tests the muscles. The strength that counts is strength throughout the whole body. Not only the strength of every muscle on the outside of the body from tip to toe, but also the inner strength that drives those muscles. And as long as dancers display that kind of strength, it is proper to feature them in a magazine which frankly glorifies strength.

Tumbling Into Health

(Continued from page 55)

high above the head, to assist in the leap. Puts lots of rigidity in them so that when your weight lands on them they will not give way. Getting this far is the only part that is really difficult, but the coming from the hands to the feet again should be done with the same old snap.

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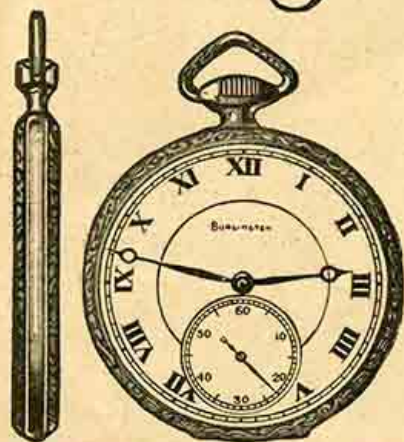
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(which is really what you want at first, the form coming afterwards), is to stand on something solid about six inches higher than the place or mat upon which your hands will land. This way does not require such a high jump, giving the lower part of the body more time to get around before your hands hit. You will find this an advantage in all flips and somersaults.

The Physical Qualifications of an Aviator

(Continued from page 24)

ties, but is automatically retaining a state of air preparedness. This point is not to be considered lightly. Other countries are capitalizing it, why shouldn't we? None of us are looking forward anticipating the glory of future combats. War and highly civilized people should never revolve in the same cycle. Every precaution should be used to prevent another such horrible catastrophe. We do not know what the future will bring forth, but most of us, I believe, hope that a satisfying League of Nations will be established. I firmly believe that to be prepared for trouble, without going out and looking for it, will act as a preventative of future turmoils. The fact that the aeroplane played such an important role in the last war indicates that should there ever be another world conflict, the conqueror will be the one who excels in aerial warfare.

In conclusion, let me emphasize the importance of keeping in condition. This, of course, applies to any walk of life, but more so to the business of flying. Those of you who belong to the younger generation, and who some day hope to become pilots, should take advantage of every opportunity to keep physically fit. You should actively participate in all athletic sports which demand the instant coördination of mind and muscle, and remember that "Anything Which Spoils Condition Kills Endurance."

The Oarswoman

(Continued from page 49)

development. Let it go at that and believe it, for it has been proved by a great many.

Now for the purely sporting element of it. At Wellesley, at Smith, and other American women's colleges, there have not only been crews developed for the past few seasons, but the squads reporting as candidates have rivalled those of many men's universities with vastly larger enrollments. In England, as suggested above, the college girls have gone much further than they have in this country with the regular scheduled races as keenly fought as those between Oxford and Cambridge. Several crews of women recruited from industrial establishments have also become familiar sights on English waters, and in Paris there are at least two feminine crews that could give worthy battle to many of the other sex.

The game has its very definite appeal from the standpoint of the genuine sport that is to be found in it. Reports from several girls' colleges indicate that it rivals in interest any other sport.

And therein, according to several prominent oarsmen who are planning to coach girls as partners this season, lies the need for proper tutoring. They are unanimous in what sort of training the oarswoman should have. Briefly it amounts to this—she must start with the conviction that she is going to get a lot of fun out of it, and the determination to concede that it is a strenuous game, requiring some sacrifices in the way of training. This goes for the girl who will do most if not all of her work on the rowing machines in a gymnasium.

To sum up what her training should be, they all agree that for the first week or ten days she should not work over two or three minutes on the machines. This may be extended during



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the second week to five minutes, gradually lengthening out to about ten minutes. The third week she may work fifteen minutes on the machines and by that time may be ready for a trip on the water. The first two or three weeks in the shell and actually rowing should be devoted to short spins and by that time her heart and lungs will have reached the stage where they are accustomed to the tax put on them. Then she is ready for a row of perhaps a half mile.

All this is done not so much to build up the muscles, although that must be taken into account, but to gradually accustom the heart and lungs to the greatly accelerated action necessary in rowing.

And there is probably nothing that can aid so much as a careful, wholesome diet in which beef, mutton and green vegetables predominate with only light pudding desserts. Add to this ample sleep.

With all this there is just one more word to be spoken and that is a passing description of the stroke as the American girl will learn it—a long swing forward and back of the torso from the waist up, a long, extended drive of the legs, rhythmic, smooth, easy—that tells it, and the girl who really learns it will not only be strong and healthy but also cannot help developing a really well rounded and attractive form.

Does Weight Lifting Make You Muscle Bound?

(Continued from page 43)

it a fair chance. Almost any system will help you. Some bring results quicker than others. Adjustable barbells give results quicker than any other method I have ever come across.

Some physical culturists seem to think that we can all reach exactly the same stage of development, which is not the case. Old John L. Sullivan had a 16½ biceps, and for years after his time it was the fashion for all

heavyweight fighters to claim that their biceps measured the same as John L.'s. Some beginners seem to think that it is useless to start exercising at all unless they can exactly duplicate all of Sandow's measurements. Those fellows will miss all the fun of exercising. Instead of trying to make the most of their own physical possibilities, they foolishly try to reach one particular standard. If they hear of a strong man who has a 48-inch chest, then they also must have 48-inch chests, overlooking the fact that their model is a big-boned giant, whereas they themselves are small-boned. It is all right to shoot at a high mark, but do not set it too high. If you start out with a 32-inch chest and increase it to 42 inches, you have done a whole lot for your appearance, your health, and your vitality, even if you have not matched the 48-inch chest of Hackenschmidt.

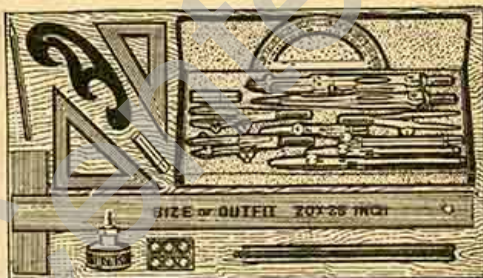
The longer I use bar-bells the better I like them, and the more I talk about them. I am proud of my lifts, and I am prouder of the fact that I have helped to persuade at least one hundred men to take up bar-bell exercise, and that not one of my friends has failed to make great improvement. I have a nineteen-year-old brother who weighs only 128 pounds. I have started him at bar-bell work, and I know that he is going to develop into a wonder. He will be better than I am, because when I started I suffered from the handicap of poor health, whereas he has always enjoyed good health and will, therefore, gain much quicker than I did.

I hope I have dispelled some of the myths about the effects of heavy exercise. If I had more space, I would like to tell you about feats of agility I have seen performed by these so-called muscle-bound strong men. I will tell you about *one* of them. That man was, and is, a vaudeville artist. His specialty is juggling and sleight-of-hand work. At twenty-five he was one of the puniest men I have ever seen.

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These vaudeville artists go around the country in companies, and one season he worked with a crowd which had a strong man as one of its members. The two performers became great pals. They used to kid each other about their lines of work, and one day just for the fun of it, they tried to burlesque each other's acts. The queer thing was that the strong man could do many of the juggler's feats after a very little practice, whereas the juggler could not even start any of the strong man's feats. This made the juggler dissatisfied and he put himself under the instructions of the strong man. Today he has a wonderful development, and all his lifting has never interfered in the least with his quickness of movement. If there had been anything at all in the claim that lifting makes one muscle bound, that chap would have gone out of business inside of a month.

The Shoulders and How to Develop Them

(Continued from page 63)

pounds, and that means very great deltoid, or shoulder strength. Antone Matysek is an athlete who has acquired remarkable shoulders through the practice of weight lifting. Matysek is especially good at all quick lifts, and also at the famous bent-press, the lift made famous by Sandow and Arthur Saxon. Saxon's official record is 336 pounds, and he is even unofficially credited with more than that weight. Matysek has done 280 pounds, which is remarkable when it is remembered that he is not a very heavy man, weighing in the neighborhood of 180 pounds.

Thomas Inch, the great English lifter, is one of the world's most enthusiastic devotees of physical culture as exemplified by weight lifting, and his physique and the lifts he has made are but one more proof of the efficacy of weights as instruments that really develop. Inch has a pair of shoulders that are unbeatable. He has actually raised as much as 200 pounds in the

side press, a lift that also requires very strong shoulders, as well as strong side muscles and arms. To give the reader an idea of the technique of the side-press he is asked to carefully read the next few sentences. In this lift the bar bell is raised to the shoulder with two hands. That is, the performer goes through the same preliminary steps as described in the paragraph on the one arm jerk. Then once the lifter has the bar bell at shoulder height, he proceeds as follows. When pressing up with the right arm the left arm is held straight out at the side from the left shoulder. The left foot is placed a little to the side and to the rear of the right foot. The legs are kept stiff. The body is slowly bent at the waist line towards the left and the right arm simultaneously presses or pushes the weight aloft. If the weight refuses to go upward, bend still more to the left. When the lifting arm is finally straightened out the lifter straightens his body also, and the lift is completed. The writer has practiced the movement or lift starting with a light weight. For about the first four months he used an adjustable dumb-bell beginning with only thirty pounds. This was gradually increased until it weighed seventy-five pounds. The movement was repeated only four times with each arm respectively, until he could press up the thirty pounds twenty times with each arm. Then the weight was increased five pounds and the repetitions were again cut down to four, and after having performed the exercise with that weight four times for four days, the repetitions were increased two more for four exercise days, and so on until the maximum number, twenty repetitions, was again reached. After several months of practice according to the above scheme, a bar bell of about seventy-five pounds weight was used in place of the dumb-bell. The side-press was practiced three times in succession with each arm at seventy-five pounds

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Mr. Anton Hromatka, City Infirmary, St. Louis, Mo., sends records of his results, which he

secured with my machine and instructions in four months.

| Strength of | First Record | Second Record | Strength Gained |
|--------------------|--------------|---------------|-----------------|
| Thighs | 754 lbs. | 2,000 lbs. | 1,246 lbs. |
| Knees | 754 lbs. | 1,800 lbs. | 1,046 lbs. |
| Calves and Ankles | 410 lbs. | 892 lbs. | 482 lbs. |
| Back | 508 lbs. | 1,382 lbs. | 874 lbs. |
| Shoulders and Arms | 356 lbs. | 611 lbs. | 285 lbs. |
| Neck | 185 lbs. | 375 lbs. | 190 lbs. |
| Biceps | 87 lbs. | 280 lbs. | 193 lbs. |

His Fingers show an average gain in strength of 100%.

If you want to double your strength and consequently acquire a SUPERIOR DEGREE OF HEALTH send for my 32-page booklet

Life's Backbone

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PROF. ADRIAN P. SCHMIDT

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for about a month, at the end of which time the number of repetitions had in the meanwhile increased to eight with each arm. Then the weight was increased to ninety pounds and tried three times with each arm, until it was possible to repeat the press eight times again, and so on. After being able to side-press a certain weight about eight times with each arm, the weight is increased ten or fifteen pounds and three repetitions are tried with the bigger weight and the repetitions increased till it is possible to side-press a fairly heavy bell eight or ten times in succession with either arm. Of course, there will come a time when the bell has reached a heavy limit; when one performance or press at anywhere from 150 to 180 pounds is very, very good! It must be remembered that Thomas Inch has side-pressed the enormous weight of 200 pounds, a feat which no less a personage than that prince of lifters, Arthur Saxon, had himself always thought to be impossible. But, as has been said above, Inch has magnificent shoulders and knew how to use every fiber that composed them.

(To be continued)

Gymnastics and Body Building

(Continued from page 39)

bars as she does in either dancing or swimming. I have seen girls successfully carry out various risky evolutions without the slightest hesitation, where a crowd of boys would have to be coaxed to even try them. Gymnastics and tumbling have the same appeal to a woman as has fancy diving. If you have

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a swimming club composed of one hundred men and twenty-five women, you will find that there are more good divers among the women than among the men. The same thing is true of gymnastics. The gymnasium of a comparatively small women's college will turn out more first-class gymnasts than the gymnasium of many a large men's university.

If you have any doubt about the effects or possibilities of gymnastics as a body builder, or if you have any doubt about the fitness of gymnastics as an exercise for women, I invite your attention to the pictures of the college girls which appear on these pages.

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If you want any baseball, football, golf, tennis, soccer, basketball, skating track or other sporting equipment and do not know either where to obtain it or how much it will cost, get in touch with STRENGTH and we will send you full information at the earliest possible moment.

If you would like a sweater, jersey, leotard, pair of Roman sandals, trunks or any similar athletic clothing, we can obtain prices and full information for you.

If you want Indian-clubs, chest-weights, rings, parallel bars or any gymnastic equipment, let us know.

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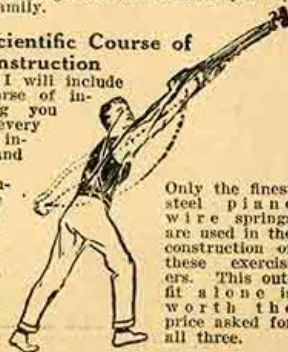
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