



\$9,000 First Year!
 "When I first saw your inspiring message I was a civil service employee. Now I have better than a \$9,000 position with lots of room to grow."

Ellis Sumner Cook,
Oak Park, Ill.



What This Amazing Book Did for These 8 Men

It would be just as easy to tell the same story about 20,000 men—even more—but what this book brought these eight men is typical. If you do not get a big salary increase after reading this message you have no one but yourself to blame. This amazing book is

NOW FREE



\$1,000 in 30 Days
 "After ten years in the railway mail service I decided to make a change. My earnings during the past thirty days were more than \$1,000."

W. Harile,
Chicago, Ill.

First Month \$1,000

"The very first month I earned \$1,000. I was formerly a farmhand."

Charles Berry,
Winterset, Iowa.



\$524 in 2 Weeks

"I have never earned more than \$60 a month. Last week I cleared \$306 and this week \$218."

Geo. W. Kearns,
Oklahoma City.

City Salesman

"I want to tell you that the N. S. T. A. helped me to a good selling position with the Shaw-Walker Company."

Wm. W. Johnstone, Jr.,
St. Minneapolis, Minn.



\$554.37 in One Week

"Last week my earnings amounted to \$554.37; this week will go over \$400."

F. Wynn,
Portland, Ore.

\$100 a Week in Only 3 Months

H. D. Miller, of Chicago, made \$100 a month as stenographer in July. In September, 3 months later, he was making \$100 a week as a salesman.

\$10,000 a Year

O. H. Malfroot, of Boston, Mass., stepped into a \$10,000 position as a SALES MANAGER—so thorough is this training.

IT seems such a simple thing—but the eight men on this page who did this simple thing were shown the way to quickly jump from dead, monotonous routine work and miserable earnings to incomes running anywhere from \$5,000 to \$10,000 a year.

They Sent for the Book, "Modern Salesmanship," That You Can Now Get—Free

Possibly it is just as hard for you at this moment to see quick success ahead as it was for Ellis Sumner Cook, 58 Superior St., Oak Park, Ill. When he was earning only \$25.00 a week the large sum of \$9,000 a year seemed a million miles away. But read what happened after he had read the book we want you to send for. Almost overnight, as far as time is concerned, he was making real money. The first year he made \$9,000.

There is nothing unusual about Mr. Cook, or about his success. Thousands after reading this book have duplicated what he did—Mr. Cook simply was willing to investigate.

The only question is—do you want to increase your earning power? If so—this book will quickly show you how to do it in an amazingly easy way.

Success Inside Twenty Weeks

There is no long, drawn-out wait after you have sent for this book before you begin to do as the men on this page did. Within twenty weeks you can be ready to forge ahead. This may sound remarkable—but after sixteen years of intensive investigation the National Demonstration Method has been perfected—and this means you can now step into a selling position in one-fourth the time it formerly took to prepare for this greatest of all money-making professions.

Men in every walk of life have made this change—farmers, mechanics, bookkeepers, ministers—and even physicians and lawyers have found that Salesmanship paid such large rewards and could be learned so quickly by this new method that they preferred to ignore the years they spent in reading law and studying medicine and have become Master Salesmen.

Simple as A B C

There is nothing remarkable about the success that men enjoy shortly after they take up this result-securing system of Salesmanship training. For there are certain ways to approach different types of prospects, certain ways to stimulate keen interest—certain ways to overcome objections, batter down prejudice, outwit competition and make the prospect act. Learn these secrets and brilliant success awaits you in the selling field.

Make This Free Test At Once

You don't need experience or a college education. And if you are not sure of yourself you can find out at once whether you can make big money as a Star Salesman. Simply send the coupon for this Free Book. Ask yourself the questions it contains. The answers you make will show you definitely whether a big success awaits you in this fascinating field. Then the road is clear before you. This amazing book will be a revelation to you. Send for it at once while this free offer is open.

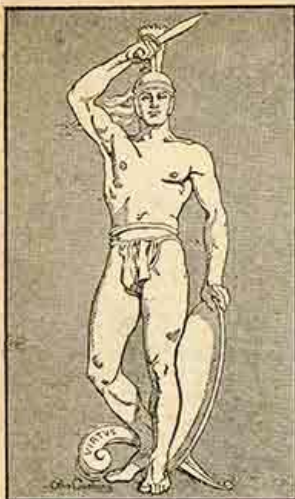


NATIONAL SALESMEN'S TRAINING ASSOCIATION
 Dept. 21-K

53 W. Jackson Blvd., CHICAGO, ILL.

National Salesmen's Training Ass'n,
 53 W. Jackson Blvd., Dept. 21-K, Chicago, Ill.
 Gentlemen: I will accept a copy of "Modern Salesmanship" with the understanding that it is sent me entirely free.

Name.....
 Address.....
 City..... State.....
 Age..... Occupation.....



Strength

Edited by
Carl Easton Williams

Vol. IX AUGUST, 1924 No. 6



CONTENTS

Cover, "Here We Go!" by Jay Weaver

Frontispiece, American Girl Swimmers	14
Wanted—a Robust Standard of Life	Editorials 15
Swimming in One Lesson	L. de B. Handley 16
<i>Illustrations</i>	
The Truth About Raw Foods	Alfred W. McCann 20
A Living Anatomical Chart	Alan Calvert 22
<i>Photographs of A. P. Mead</i>	
Fishing Gives Me Nerve-Strength	Harry Botsford 26
<i>Photographs by H. Armstrong Roberts</i>	
"Why I Am a Design"—Christine Norman Interview	Ada Patterson 29
<i>Photographs</i>	
Power of the Punch	T. Von Ziekursch 33
Test Your Strength on Your Friends	J. Leonard Mason 36
<i>Photographs</i>	
"Life Feels Like a Fight" Serial	Wilbur Hall 40
<i>Illustrations by Thomas Skinner</i>	
You, Too, Can Build Energy—and Endurance	Carl Easton Williams 46
<i>Photographs</i>	
An Iron Grip and Wrists of Steel	Alan Calvert 50
<i>Photographs</i>	
Every Woman Can Be Beautiful	Florence Whitney 54
<i>Poses by Irene Wilson</i>	
Have You Any Loose Screws—Bodily Speaking?	Irs W. Drew, M.D., D.O. 58
The Dinner Table—Planning Meals in Summer	Jane Randolph 60
A Few New Ones for Your Back Muscles	Charles MacMahon 62
<i>Photographs</i>	
Help for Hay Fever Sneezers	P. L. Clark, B.S., M.D. 66
"The Mat"—Analytical Comment on Body Building	Department 67
Don't Try to Be Double-jointed	
Wanted—Records in Chinning the Bar	
What Makes for Speed Pitching?	

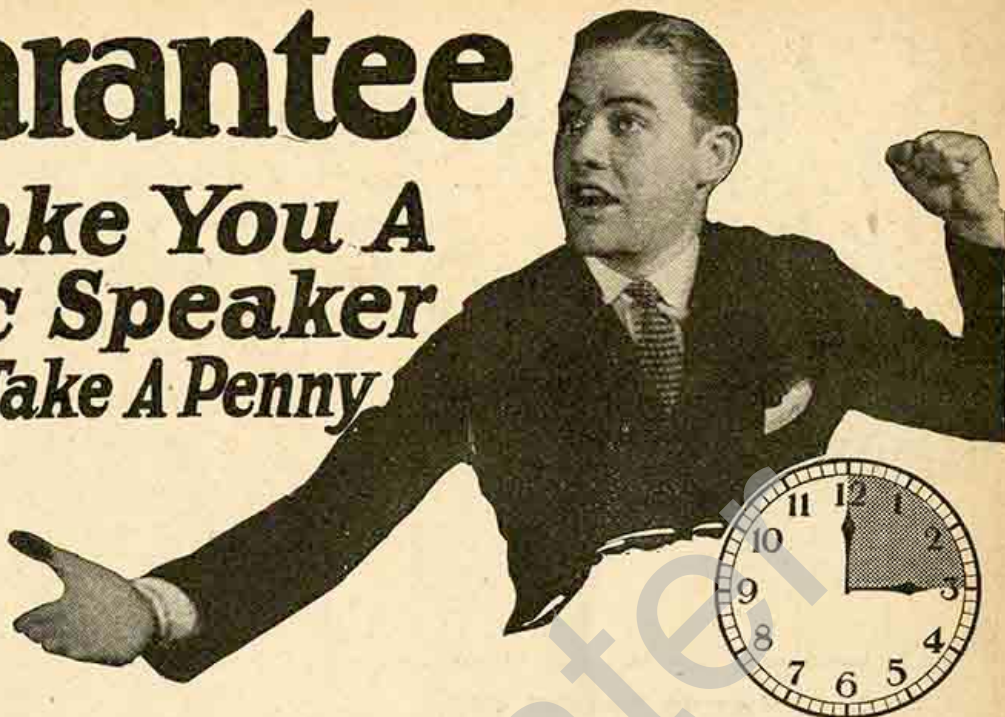
Published Monthly by THE MILO PUBLISHING CO.
 Entered as Second Class Matter at the Post Office at Philadelphia, Pa.
 November 20th, 1920, under the Act of Congress of March 3, 1879, additional entry applied for in New York, N. Y., and Brooklyn, N. Y., Post Offices
 D. G. REDMOND, Publisher. Publication and Subscription Offices, 2737 N. Palethorpe St., Philadelphia, Pa.
 Editorial and Advertising Offices, 104 Fifth Avenue, New York City, N. Y.
 R. L. HUNTER, Advertising Manager.
 Chicago Office: 168 North Michigan Blvd., J. A. HISEY, Manager.
 London Agents: The Atlas Publishing & Distributing Company, Ltd., 18 Bride Lane, Fleet Street, London, England.
 Subscriptions, \$2.50 per year. Canada, \$2.75. Foreign, \$3.00.
 RENEWALS.—When your subscription expires we will place a subscription blank in your final copy. Renewals should be sent in promptly
 in order to receive the next issue. Please use the subscription blank for this purpose so that we may extend your subscription in our files.
 Notice of change of address should be accompanied by the old address as well as the new.
 Copyright, 1924, by The Milo Publishing Co.

I Guarantee

To Make You A Public Speaker

or I Won't Take A Penny

I'll Show You How To Control One Man Or A Big Audience—How To Conquer Stage Fright—How To Increase Your Earnings—All By The Power Of Effective Speech



Give Me 15 Minutes a Day

That's all I want, 15 minutes a day, to prove to you beyond a shadow of a doubt that I can do for you what I have done for other men—increase your income, make you a leader, make you successful.

C. F. Bourgeois, President of Robischon and Peckham, says: "The lesson on 'How to Develop Personality' is alone worth the entire cost of the course. It has been of real practical help to me."

Walter O. Ford of the Ford Manufacturing Company writes: "Was always considerably flustered when called upon to speak. Now, thanks to your course, I feel perfectly at home and confident. Every man who wants a strong personality and the power of effective speech should take your course."

H. B. McNeal, President of the Telephony Publishing Company, says: "It should appeal to every man and especially to young men who are ambitious for rapid promotion."

Get Big Money Jobs

These men write as do hundreds of other successful men concerning this amazing new method of making you a forceful, fluent, convincing speaker. The world is at the feet of the man who can hold others by the sheer power of speech. Powerful speech shortens the road to success. Leadership depends on the ability to talk forcefully, fluently and convincingly. Why do salary increases and the big-pay jobs seem to just come naturally to one man when all about him are men of equal ability in other respects? Why in social life does one man have great influence and be the center of interest when others are ignored? The answer is obvious. The suc-

cessful man has the knack of making every word he says or writes count in his favor. He is never at a loss for the right word and he presents his proposition or views in clear, logical and forceful language—with the result that he gets what he goes after. He has the wonderful power to

Sway Others At Will

and he is welcomed everywhere—and listened to with deep respect. How many men can address a dignified board of directors and

What This Amazing Course Teaches You

- How to make after-dinner speeches.
- How to write better letters.
- How to sell more goods.
- How to have a good memory.
- How to enlarge your vocabulary.
- How to make political speeches.
- How to develop self-confidence.
- How to have a winning personality.
- How to be master of any situation.

have their plans and ideas approved? How many men can appear at a moment's notice before an audience and create enthusiastic notice? Not many. And yet there is no reason why any man should not be able to do these things just like successful men are capable of doing them. Powerful and convincing speech can be easily acquired.

Easy For Anyone

I don't care what line of business you are in. I don't care how embarrassed you now are when you are required to speak. I don't care what you think now. I can show you

how to rise quickly above the mass in business, how to step to promotion, how to be a leader, with poise and the assurance to plunge right into any subject and convince your hearers of your point of view. By this amazing new method, made possible by Professor R. E. Pattison Kline formerly dean of the Public Speaking Department of the Columbia College of Expression, being a powerful speaker is easy and simple.

Free Self-Test

To convince you fully that you can become a powerful and convincing speaker by giving me only fifteen minutes a day right in the privacy of your own home, I will send you a remarkable FREE self-test, and then you can judge for yourself. I want you to determine whether or not you wish to have this power of speech that men envy and women applaud. Also, because I know that you will be so delighted that you will tell others of this amazing method, I will send you a

Special Offer

if you fill in the coupon and mail at once. You like thousands of others can quickly and easily learn the secret of achievement both in position and salary and all this without leaving your present position and by devoting only a few minutes a day to the fascinating material I will send you. Just give me your name and address on the coupon.

NORTH AMERICAN INSTITUTE

Dept. 197-C, 3601 Michigan Ave., Chicago

North American Institute
Dept. 197-C, 3601 Michigan Ave., Chicago, Ill.

I am interested in your Course in Effective Speaking and your Free self-test and special offer. Please send me full particulars. This request places me, under no obligations of any kind.

Name

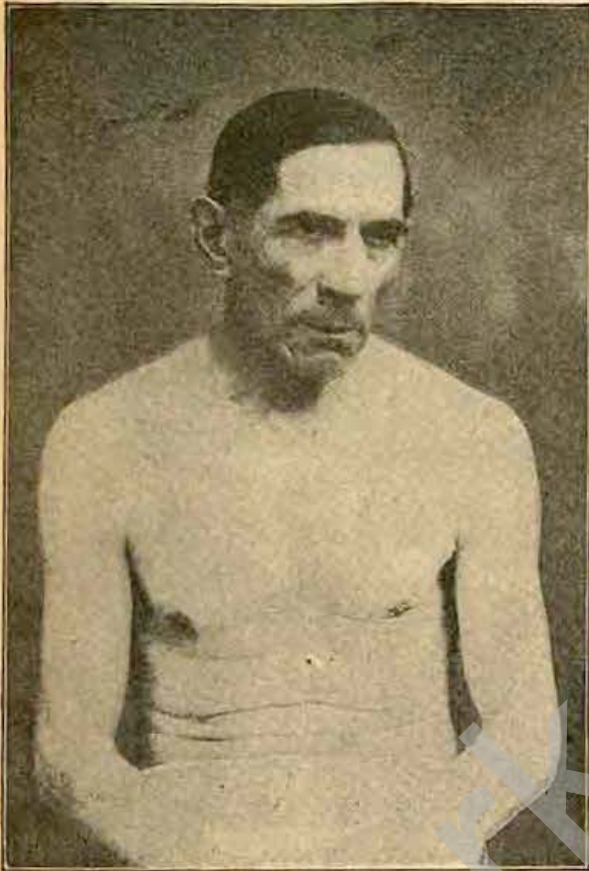
Address

City State

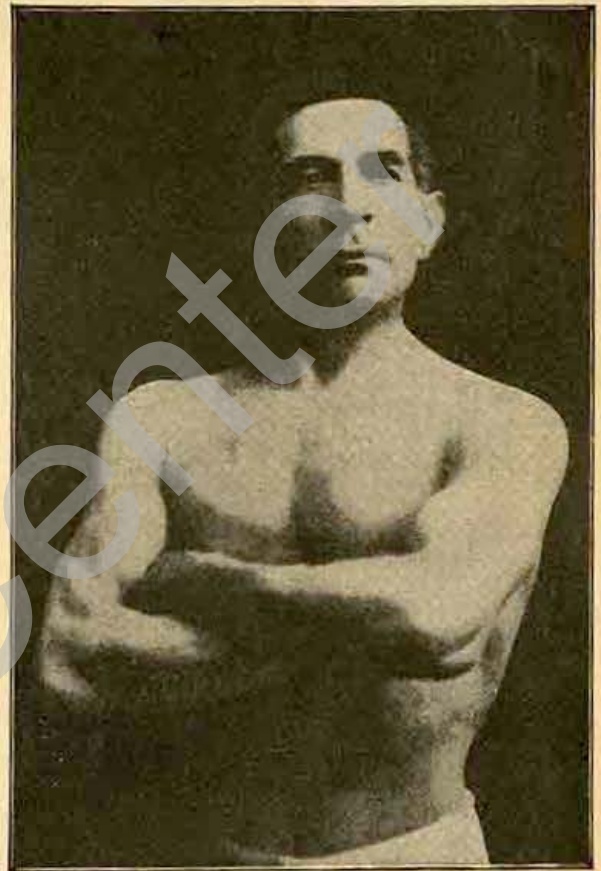
65 Years Young! RE-BORN AGAIN through


STRONGFORTISM

What about you fellows who think yourselves young?



 Mr. Salzer BEFORE



 Mr. Salzer AFTER

ANOTHER LIVING EXAMPLE OF THE RE-CREATIVE POWERS OF STRONGFORTISM

Lionel Strongfort, Dept. 1473, Newark, N. J., U. S. A.

I'll look over your world-famous body-book, "Promotion and Conservation of Health, Strength and Mental Energy." Send it postpaid and with no charge or obligation to me.

Name.....

Address.....

Clip Like Salzer Did

If I could accomplish such results with a man past sixty—what are your chances for big things in Muscle and Health improvement? Figure it out for yourself—then send coupon and ask me—send today!

Read This Grateful Pupil's Letter—

40 West 120th Street, New York, N. Y.
May 19, 1924

MY DEAR MR. STRONGFORT:

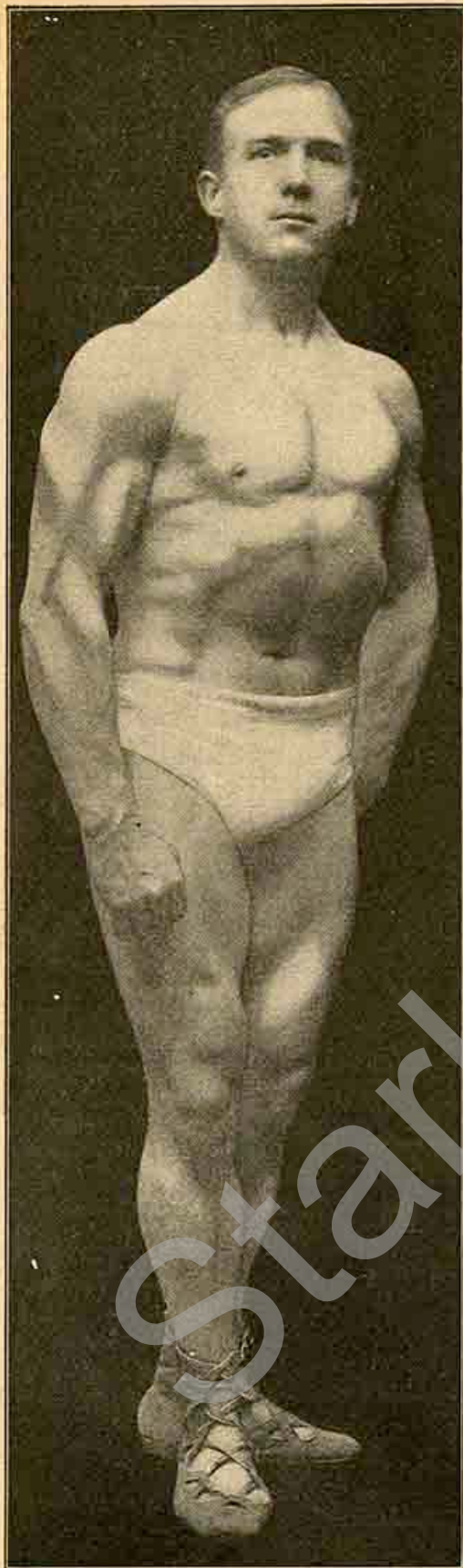
I have already written you a letter of appreciation of what Strongfortism has done for me. I am so much more than pleased with my condition and that this improvement I have gained stays with me, that I want to show my gratitude in a further way. Therefore, I am sending you some photographs with permission to use them in any way you see fit, to spread your gospel of Re-Creating suffering humanity. I am glad now that I had those photos made before I began or I should never have been able to realize the contrast so forcefully.

I feel it now a real duty to do whatever I can to convince any other man that he can get just as much improvement as I have, and I hope these photos will help you and thousands of people who need your help today, just as I once did. The many friends I have recommended to you is but another proof of my faith in your work.

When a man is in the last decade of his allotted three score and ten, and he can then make the physical changes I have accomplished, it is certainly very near being "born again." It is like doubling my life time.

With the hope that this may convince many a doubter and cause him to profit as I have done, by placing himself fully in your care at once, believe me,

Gratefully your pupil,
JOSEPH M. SALZER.



Here's a Reading Treat for You

"Do It With Muscle!"

By LIONEL STRONGFORT

The New Body-Book Sensation with a Body Blow in Every Picture, Paragraph and Page

Fresh! Frank!!

Fascinating!!! Free!!!!

HEALTH, Strength and Virility, Personality, Wealth and Romance . . . who can possess these treasures and be miserable? Who can lack a single one of them and enter into the kingdom of Happiness?

"Do It With Muscle!" pitilessly "shows up" the vegetable existence that most of you call life. In fresh, frank, fascinating style it tears away the shams of prudery and tells you in plain words why you have failed, and how and where. It takes apart the wheels of life and shows what's wrong with YOU in swift, crisp words that you can't help but understand.

Truth never told before leaps out of every page of "Do It With Muscle!" It absolutely proves that every living mortal must stand or fall, succeed or fail, rejoice or agonize in exact proportion to the strength, soundness and wholesomeness of his external and internal muscular performance. And reader, that means YOU!

"Do It With Muscle!" is a helpful plainly worded discussion of the methods by which the writer became the Physically Perfect Man and attained world-wide professional eminence, prosperity and family Happiness. Under this writer's guidance, thousands of men, youths and boys have achieved shining lives through the intelligent conquest of constipation, world-weariness, fear, debility, and the whole horde of ugly physical, mental and sexual disorders resulting from ignorance, neglect and folly. Lavishly illustrated with scores of heretofore unpublished superb camera studies of myself and pupils.

In presenting your complimentary copy of "Do It With Muscle!" I ask nothing in return, only that you read it with an open mind and do your duty by yourself in the light of your own conscience. No obligation, no charge, merely one dime (10c) as an evidence of your genuine interest and to help defray my mailing costs.

GUARANTEE

After faithfully following the individual Course in Strongfortism planned for you under my personal supervision, if you have not received real benefits in Health, Strength and Physical Development at the completion of the Course, I positively Guarantee to refund all money you have paid me.
(Signed)
Lionel Strongfort.

BANK REFERENCES

National City Bank, New York; Lloyds Bank, Ltd., London; Banco Alemã Transatlantico, Buenos Aires; National Newark & Essex Banking Co., Newark, N. J.; Member Newark (N. J.) Chamber of Commerce.

FREE The BOOK of HAPPINESS



Above Is the Book That Tells You How to Save the U-Machine

Strongfortism (the art of health, strength and virility with scientific muscularity) ends engine trouble in the body and makes the You-machine run smooth. It tones and energizes all the muscular structures that compose and support the vital internal organs and contro, their functioning. Through wholly natural means Strongfortism conquers constipation, perfects digestion and assimilation, strengthens the heart and lungs and purifies the blood. It invigorates every body and brain cell and incidentally covers you with a hardy coat of fighting muscle . . . for emergency, you know.

You Don't Dare to Cheat Yourself of This Chance—

Below Is the Coupon

ABSOLUTELY CONFIDENTIAL

—BOOK COUPON—

And Free Consultation Form

Mr. Lionel Strongfort,
Dept. 1473, Newark, N. J., U. S. A.

Send me your sensational new book "Do It With Muscle!" for which I enclose a dime (10c) to help defray your postage costs. Send me special information on subjects marked (X) below. This coupon does not obligate me.

- | | | |
|------------|-------------------|--------------------|
| Colds | Anemia | Dependancy |
| Catarrh | Debility | Gastritis |
| Hay Fever | Fear | Heart Weaknesses |
| Asthma | Neurasthenia | Poor Circulation |
| Obesity | Short Wind | Skin Disorders |
| Headache | Flat Feet | Falling Hair |
| Thinness | Constipation | Stomach Disorders |
| Rupture | Vitality Restored | Round Shoulders |
| Lumbago | Biliousness | Lung Troubles |
| Neuritis | Torpid Liver | Weak Back |
| Neuralgia | Indigestion | Drug Addiction |
| Flat Chest | Nervousness | Weakness (Specify) |
| Insomnia | Poor Memory | Muscular |
| Bad Breath | Rheumatism | Development |
| Bad Blood | Increased Height | Great Strength |
| Weak Eyes | | |

Name.....
Age..... Occupation.....
City..... State.....
Street.....

LIONEL STRONGFORT
Dr. Sargent, of Harvard, declared that "Strongfort is unquestionably the finest specimen of physical development ever seen."

LIONEL STRONGFORT
Physical and Health Specialist for 25 Years
Department 1473 Newark, N. J., U. S. A.

"Lose a Pound a Day" "Gain a Pound a Day"

THE CHOICE IS YOURS!

NOT so many years ago medicine and magic were apt to be mentioned in the same breath. Not so to-day; the enlightenment due to universal education has done away, to a great extent, with the "mystery of medicine" idea, although the old fashioned "Latin prescription" still remains as a reminder of days gone by.

To-day any honest doctor of whatever school will tell you that nine-tenths of all effective medical or curative practice consists purely and simply in helping nature and that very, very few drugs have any real value as curative agents. The most that can be hoped for from drugs is to temporarily stay the progress of the disease. If nature does not seize upon the respite to begin active operations in casting out the ailment, the treatment is a failure, with valuable time and good money wasted.

In the final analysis it is you who must supply nature with the necessary assistance and that assistance must come in the form of increased physical vitality.

And here it is that MILK—THE MASTER HEALER with vitality and energy building powers greater, probably, than any other substance in the world brings quick re-enforcement of red, tissue building, disease fighting blood that will give your system the very vital energy needed to overcome practically any ailment that has fastened itself upon you.

A few months ago PHYSICAL CULTURE Magazine printed an article on the Milk Diet that aroused universal interest and brought down upon us an avalanche of letters, urgently requesting further and more detailed information.

We knew of just one man who was qualified to supply this information in proper form for home treatment. That was Mr. Bernarr Macfadden himself, who has had the opportunity through his connection with The International Health Resort to personally study thousands of cases where the milk diet has been administered. He consented to write upon the subject and the result is a treatise that we are proud indeed to be able to supply as coming from the printing presses of The Macfadden Publications, Inc.

This treatise—The Miracle of Milk—is now available in the form of a six lesson course. Simply written, easily carried out, with a marvelous depth of wisdom born of the widest kind of experience, the instructions tell you just what to do, what not to do, what to watch out for, everything in fact that you could possibly need to know in order to get the last vestige of physical benefit from the exclusive, milk regimen.

Now we ask you fairly, if you are weak and run down, or in the grip of some chronic disease, or desire to lose or gain weight, or if in any way you are engaged in a struggle for health, can you afford to ignore such a treatment as this, where the benefits derived will far exceed the time and trifling expense devoted to it?

Of course, if you prefer you can go to an expensive sanitarium to have the milk diet administered, but if you can take it at home, amid familiar surroundings, without interfering with your business or home life in the slightest degree, is not that the sensible thing to do? And you can take it at home just as beneficially, and in many cases more beneficially than by going to a sanitarium amid strange surroundings. This matter is most certainly deserving of your serious consideration.

We want you to personally examine "The Miracle of Milk" and see for yourself the remarkable benefits you can derive from it. All that is necessary is to sign the coupon at the foot of this page, and mail it to us. You need not send us a single penny in order to have the course mailed to your address, and you incur no obligation to keep it after it reaches you, postage charges prepaid, unless you agree with us that the information it gives is worth many times the amount charged—\$2.00. If you do not wish to keep it, return it in good condition within five days after receipt and your money will be promptly refunded.

MACFADDEN PUBLICATIONS, INC.

Dept. S-8, Macfadden Bldg., 1926 Broadway, New York City

I am interested in "The Miracle of Milk." Please mail me a copy and I will pay the postman \$2.00 upon receipt of the course. It is fully understood, however, that if I do not feel that the book is worth much more than the price charged, I may return it in perfect condition within five days after I receive it and my money will be refunded immediately and without question.

As a special offer we will enter your name for a special six months subscription to PHYSICAL CULTURE MAGAZINE and send you "Miracle of Milk" for \$3.00. This special offer is a material saving. If you want "Miracle of Milk" with this subscription to PHYSICAL CULTURE be sure to check square above, otherwise book alone will be sent.

Canadian and foreign orders—Cash in advance.

Name.....
Street.....
City..... State.....



Bernarr Macfadden

"Father of Physical Culture"

Who probably has had more experience in administering the Milk Diet than any living man.

Every day we receive letters from men and women telling of the almost unbelievable relief that the exclusive milk diet has given them in the treatment of a multitude of ills. Their experience goes far to prove the truth of our contention that nine-tenths of the diseases to which the human body is heir begin in the stomach.

Some of these letters go into such complete detail regarding the success obtained in treating widely prevalent ailments that they cry out loud to be published for the benefit of the thousands similarly afflicted. The following is a typical case:

MR. BERNARR MACFADDEN,
c/o Macfadden Publications, Inc.,
New York City.

Dear Sir:

"The Miracle of Milk" is not simply an expression, but a fact of importance. My experience is, perhaps, worth telling you and may possibly have some value in your records.

For about thirty years I have taken cathartics, and of late every day, the dose gradually becoming greater. From bilious attacks I have gone on to what was described as acute indigestion, also frequent sick and dizzy spells, when Castor Oil and other remedies were prescribed and different doctors whom I consulted at such times would speak of my system being poisoned in some manner.

In a copy of PHYSICAL CULTURE which I picked up, and for which I later subscribed, I noticed an article on milk, and later in response to an advertisement sent for the milk lessons, but being from home so much did not make use of the treatment for some time, which however much interested me. Returning from New York in November last I had a nasty sick spell, and concluded it was time to look after my health.

I took the milk diet exactly as instructed, taking no cathartics and finally becoming regular. At the end of a month I had gained in weight seventeen pounds. I then started on ordinary food but did not relish it, going back to milk, three quarts a day with prunes, raisins, dates, which seemed to satisfy every demand of the appetite, my weight going back five pounds and then remaining constant.

About a month ago the desire for other food returned. The most curious thing is that, while I have always been fond of coffee, and have smoked for forty-five years, I have lost all desire for both, and have taken neither since November, but just a glass of milk at meals. I am wondering if wings will come; at any rate I have had no sick spells since and am hoping.

After ceasing the full milk diet constipation returned to some extent, when I sent for a copy of "Vitality Supreme," and am now quite regular.

Meeting my old doctor this morning, he remarked how well I was looking, and I told him I had discovered a fine new medicine. He asked what it was and I replied, milk. He said "Stick to that and you will add years to your life." Is there not somewhere the lament, "If I had only been told before."

Very sincerely yours,

The gentleman who wrote this letter requested that we do not mention his name in print. We have it on file, however, and will gladly furnish further information to anyone desiring it.

MILK

is rich in
the mysterious elements called

VITAMINES

that have been found so indispensable
to life and health.

ARE YOU REALLY A MAN OR MERELY A COAT-HANGER?

Clothes don't *MAKE* a REAL MAN, but they certainly *do* improve the others. Are you one of the "others" who are hiding behind a tailor's handiwork? If you are one of these, you ought to be ashamed of yourself. And I dare say you are ashamed, but the fact that you know your weak, frail or stout body is well hidden by your clothes, gives you a certain amount of misplaced confidence in yourself. You imagine you are a real man and think that others know no different so long as you keep under cover. Unfortunately, it is not Hallowe'en all the time so

Don't Be a Masquerader

Because the law compels you to wear a man's attire is no excuse for not being one. If you possess ailments, minor or major, that are holding you down below the **Real Man Class**, get started now to put yourself together. Waste no time in driving these deteriorating ailments from your system. It can be done. You can, with my personal and untiring aid, not only become healthy, but as strong, well developed and well proportioned, and full of pep and vitality as any real man.

If you are apparently free from all ailments, then so much the better is your start toward **Great Strength**, a **Splendid Physique** and the **Feeling of Satisfaction** in the knowledge that you are now worthy to wear a man's apparel.

What Is Wrong With My Physique?

Have you asked yourself that question lately? Have you looked yourself over in your mirror within the last year or two and noticed whether or not your chest is out and your abdomen in, as they should be? Your clothes will hide from you these slowly growing defects until, when you wake up, you will find yourself pretty far gone.

I find, from the measurements of hundreds of pupils, that, generally speaking, the chests and waists are the first to deteriorate on an otherwise good physique. The chests easily become flat and the abdomens full and round, in direct opposition to what they should be.

If this condition *has not* happened to you as yet, it *will* nevertheless, if you don't keep in good condition by practising the best of exercises. If, on the other hand, your chest *has* begun to flatten and your abdomen to swell, you can get back to perfect form by practising my methods. If, again, your chest was never anything else but sunken and your waist bulging, you need not despair or take it for granted, for you still can possess a perfectly shaped upper body, along with wonderful looking arms and legs. My Methods do not neglect any part of your physique. Every part in proportion, and every improvement possible is my aim with my pupils.

But You Must Get Started

You cannot get the wonderful all-around improvements that my course gives you if you are going to keep putting off the matter of starting. Just as soon as you commence practising my methods, you will begin to notice improvements. Immediately after commencing the exercises, you will experience a feeling of gradually increasing pep, which means improved health. Shortly after you notice the foregoing improvements, you will begin to develop and strengthen. And from then on you steadily and rapidly improve.

I am a firm believer in strenuous exercise as the only means of giving real physical improvements. But my lessons are so scientifically graded and the exercises so carefully selected, that you gradually, without danger of sprain or strain, become able to perform exercises that previously you thought were impossible for you. In other words, you always have something to work for with my methods. You can see yourself continually advancing, not only toward Perfect Health, Great Strength, Shape and Development, Speed, Suppleness, Agility and Endurance, but also in accomplishing actual feats that require these physical assets. Your request for my Booklet and Pamphlet is your initial step toward these priceless physical qualities.

They Are Absolutely FREE

The before mentioned Booklet, entitled "THE ROYAL ROAD TO HEALTH AND STRENGTH," and my Pamphlet called "YOUR MUSCLES—WHERE THEY ARE AND WHAT THEY DO," will be sent to you upon request. The Booklet contains many interesting poses showing my own development, and what I have done for my pupils. There is also included a detailed description of my methods, and a great amount of valuable information on tumbling, hand-balancing, muscle-control feats, etc. The Pamphlet gives you a working knowledge of your muscles, which is a great help in getting physical perfection.

Send for Them Both Right Away

CHARLES MACMAHON

Studio A-19, 2109 N. Orianna Street
PHILADELPHIA, PA.



CHARLES MacMAHON



CHARLES MacMAHON
In Muscular Pose

CHARLES
MacMAHON
Studio A-19,
2109 N. Orianna St.,
Philadelphia, Pa.

Please mail me a copy
of your valuable book,
"THE ROYAL ROAD TO
HEALTH AND STRENGTH,"
which you are to send me
without charge in accordance
with your special offer.

Name.....

Address.....

City and State.....



Muscles for Only

NOTHING makes a man "more a man" than a high-powered muscular body. Possibly you are already physically perfect—but whether your muscles are soft, weak and flabby or well-developed you can't afford to miss the live-wire articles that every issue of the new magazine, "Muscle Builder," is crowded with. Each contributor is a superman in the world of strength. Read their experiences—follow their instructions and you'll not only feel the results but you'll see them. If you have not already joined the big-muscled, two-fisted bunch—join NOW! Get the August issue of "Muscle Builder" at any newsstand or periodical store. The price is only 15c a copy—or only 2 cents a week on our Special Introductory Offer. Don't fail to get a copy of the August "Muscle Builder."

Is Dempsey Afraid of Wills?

Five years have elapsed since Wills camped on the trail of Jack Dempsey. Newspapers—sporting writers and fans all over the country proclaimed Wills the only logical contender for Dempsey's crown. Yet the two have never met in the ring. Why? Read the fairest answer to this all-important sport discussion

ever written. You will find it in the August issue of "Muscle Builder." And also learn how Wills, once a scrawny, skinny colored boy, became possessed of enormous steel-like muscles and a dynamic punch that even Dempsey respects to this day. Don't miss this article. It's a knockout.

Muscles in the Movies

By Rudolph Valentino

This is an article by Rudolph Valentino, the famous screen star, telling how he has kept fit for his pictures—all of which require a strong, agile, muscular body. No one ever doubles for Valentino in a movie fight. He has muscles enough to perform

any stunt the author calls for. You will have emergencies in real life requiring a vigorous and muscular make-up that no double can meet for you. Read this interesting, instructive article and follow the author's example. It's well worth while.

"I Can Stop Breathing for 4 Minutes"

By Niobe

This is an article by Mlle. Niobe, who has such a perfect chest development that she can eat, drink and sing under water and remain submerged nearly five minutes. When a girl aged sixteen, Niobe was anemic and tubercular, and weighed only eighty-six pounds. Through physical, muscle-building,

proper diet she transformed herself from a sick, weak girl to a strong woman radiating perfect health. Read her amazing life story in the August "Muscle Builder," where Niobe reveals all the secrets of her wonderful come-back and muscular development that enables her to stop breathing for four minutes at a time.



On Sale at All
Newsstands—
15c.

Muscle

Like Steel

15¢ a Month



Just read over the other features contained in the August issue of "Muscle Builder." Every article will appeal to all two-fisted men. Keeping one's muscles in constant fit condition prepares one for whatever sudden call may be made on him. So get the "Muscle Builder" every month. Read it through from cover to cover and learn how to develop a high-powered muscular body with plenty of "punch" and good, hard staying power.

Don't fail to take advantage of our special introductory offer, explained below.

Other Features in the August Issue—Don't Miss Them!

The Secret of Making All Your Muscles Alive

Famous body-building secrets by Edwin Gray, M. D.

Wrestle Your Way to Strength

By Nat Pendleton, who guarantees to overpower Jack Dempsey in a barehand rough and tumble in less than 10 minutes.

Could You Swim the English Channel?

By Dank Bruce, Society's Swimming Instructor at Palm Beach.

I Punched My Way to Health

By Jessie Franks, Champion Bag Puncher.

Clean Living Has Made Today's Fighting Champs

By Billy Gibson, who has developed several of the most sensational boxers.

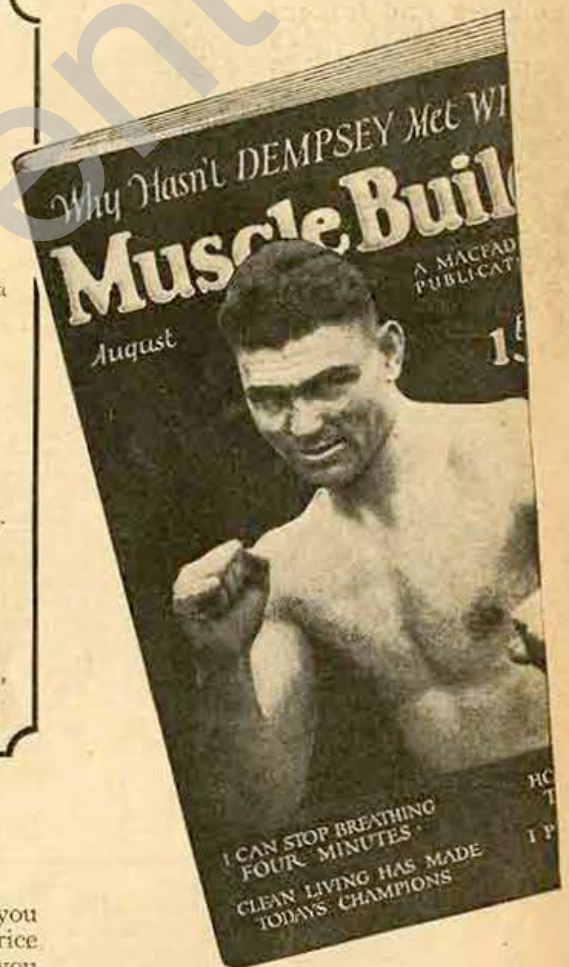
The Weakling Who Came Through

The story of the making of a man out of a mollycoddle.

Muscles That Move Fast

By Alexander Glidden, sensational acrobatic performer.

In addition to the above articles there are many full pages of "strong men" pictures. Don't miss them!



Special Introductory Offer

3 Months for Only 25c

On this special introductory offer, "Muscle Builder" will be sent you for 3 months for the amazingly low price of 25c. The regular price is 15c a copy. But by filling in and mailing the attached coupon you will make material savings. So act quickly. Mail the coupon today—NOW!

Macfadden Publications, Inc., Dept. S-8,
Macfadden Building, 1926 Broadway,
New York City

I am enclosing 25c. Please enter my name for a 3 months' introductory subscription to "Muscle Builder," beginning with your August Number.

Name.....

Address.....

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

Name of my newsdealer is.....

Builder

Stop putting "ashes" in your stomach!

The best furnace ever made won't give heat if it is stoked with ashes. Everybody knows that. Yet millions of people expect nourishment from "dead" foods—foods that stifle the fires of human life as surely as dead ashes kill the fire of a furnace.

It is amazing how little the average man or woman knows—or cares to know—about the food he eats. Every year 400,000 infants die because they are not fed properly! Over 75% of all school-children are suffering the evil effects of pernicious anemia and malnutrition! Yet how few mothers and fathers know that they are slowly starving their sons and daughters by giving them the wrong kind of foods. Reputable physicians stand aghast at the rapidly increasing spread of diabetes, constipation, chronic indigestion and the great host of other digestive diseases. They say that nearly every American is suffering from premature senility, and that most of us die years before we should!

What is the reason for this? Surely you realize that without food you cannot live. Surely you know that your health, your strength, your energy and virility are derived from the food you eat. Then learn for yourself what your food is doing to you and to your family. Find out if you are eating food as worthless to your body as dead ashes to a furnace. Learn for yourself if you are eating certain food combinations which react upon each other so they distill a deadly slow poison in your system.

Let Alfred W. McCann, the famous pure-food crusader, tell you the truth about food.



Alfred W. McCann

He says that millions of people are being victimized by the greatest food crime of all time. Mr. McCann is not an alarmist. He is not sensationalizing a few random cases. He gives positive proof that food frauds are being forced upon us. He gives you the most dramatic, yet convincing proofs that we are being compelled to eat devitalized foods—foods "refined" of all their nourishing, life-giving properties—foods that are robbing us of health, of strength, even of years of life.

The Madeira-Mamore Poison Squad

Does it seem incredible that conditions like these can be true? Does it seem incredible that, in this land of record-breaking crops and billion-dollar meat industries, a whole nation should be eating worthless foods. Alfred W. McCann shows you the terrible proofs of this alarming condition.

You have heard of experiments which proved that *white mice* have died through eating certain foods which form the greater part of our daily meals. But did you know that *men*—human beings—have gone insane, have suffered disease, have died, simply because their meals were limited to these same foods. It will seem almost unbelievable to you that this is possible. Yet in the pages of Mr. McCann's great book you can read the actual stories of eight of these "poison squads!"

One of the worst of these poison squads was the force of men employed by the Madeira-Mamore Railway Company. Although attempts were made to hide the tragic facts, Alfred W. McCann secured the diaries of two engineers which revealed that 4,000 men, of the 6,000 employed, died in less than fifteen months!

What was the reason for this wholesale death toll? Remember that these 6,000 men were "huskies"—sturdy, strong-bodied

men, specially selected because they were physically able to work in railway construction. From the diaries of the two engineers mentioned, it was proved that these 4,000 men were killed in 15 months by the food they ate!

Is Your Food Poison?

But what makes this fact even more startling—what makes the tragedy of these men even more important to you, is that these men ate food which most people call good and wholesome. They had bread and biscuits baked from patent white flour, coffee sweetened with refined sugar, dried beef, ham, pork and beans, sauerkraut, canned spinach, frankfurters, corn flakes, jam.

It doesn't seem possible that these foods, so nearly like those you eat every day, should cause such ravishing disease, untold misery, death! Yet if you knew the truth about many foods considered pure and wholesome, you would revolt at the thought of putting such deadly substances into your stomach.

Alfred McCann Shows How Right Foods Bring Health, Strength and Vitality

Let Alfred W. McCann show you the way to glorious new health, strength and youthful vitality through his revolutionary book, "The Science of Eating." Mr. McCann's methods are literally making men and women over. People who previously were constantly run down, tired out, listless, are astonished to find themselves bubbling over with new energy, vitality and strength. Those who had been thin, anemic, emaciated, put on new firm, solid flesh while those who suffered from excessive fat quickly reduced themselves to normal weight.

Proper foods eliminate a host of disorders arising from impure blood. Skin eruptions, sallow complexion, pimples vanish like magic. CONSTIPATION—the most common ailment in America—is ended, within twenty-four hours by Mr. McCann's methods. Other troubles of the digestive tract—indigestion, dyspepsia, diabetes, edema, acid stomach—can be eliminated in a brief time when you eat health-giving foods.

5 Days' Free Trial

Prove to yourself without risking a single penny, that Alfred W. McCann's amazing book is the one best investment in health you can possibly make. Send for a copy of this wonderful book and if you are not thoroughly convinced that it will literally make a new person of you, return it at the end of 5 days and your money will be refunded. At the same time we will send you, FREE, Elizabeth A. Monaghan's pure-food cook book, "What to Eat and How to Prepare It," which tells you how to put Mr. McCann's startling food revelations into daily use. But order your copy at once as we cannot long continue this unusual offer of two great books for the price of one.

EUGENICS PUBLISHING COMPANY, Inc.
Dept. S-328
1658 Broadway, New York City

Two Books for the Price of One!



The regular price of Alfred W. McCann's "The Science of Eating" has always been \$3.00. But even that low price becomes insignificant when you realize that through it you can learn the secret of glorious health, vitality and youth. Yet under this amazing, short-time opportunity you not only get this great work, but also, without an extra penny's cost, you get that remarkable new cook-book, "What to Eat and How to Prepare It," written by Miss Elizabeth A. Monaghan, so you can apply Mr. McCann's great food discoveries in your own home. Think of it! Two books—that mean health beyond measure—at the cost of one! Take advantage of this offer. Read the coupon for details.

The Science of Eating, by Alfred W. McCann \$3.00
What to Eat and How to Prepare It, by Elizabeth A. Monaghan 1.50
\$4.50

Special Offer to Strength Readers, \$3.00

Eugenics Publishing Co., Inc., Dept. S-328,
1658 Broadway, New York.

Please send me Alfred W. McCann's wonderful book, "The Science of Eating," also FREE Elizabeth A. Monaghan's pure-food cook-book, "What to Eat and How to Prepare It," for which I will pay the postman \$3.00, plus postage. It is understood that if I am not satisfied, I will return both books to you within 5 days, and you will refund my \$3.00.

Name.....
Address.....
City..... State.....

Orders from outside United States must be accompanied by money order for \$3.75.

But ONE Person in Three Enjoys Good Health

At least 60% of physical and mental misery is preventable and curable. In fact, the life of most persons would be prolonged 15 years if they knew how to rule their health as they do their actions.

FROM maturity to old age the breaking down or wearing out of vital organs is in process. But because there is no pain or noticeable symptom the victim ignores the little signals of warning which nature is constantly issuing until face to face with a dangerous disease.

When one is easily exhausted, even with a moderate amount of work—or suffers from a headache, loss of appetite, a cold in the head or on the chest, a dull ache across the back, spots before the eyes, ringing in the ears, these are all signals, the neglect of which may lead to serious—perhaps fatal—illness.

Yet the cause of degenerative changes are preventable if taken in time. In fact, you can rule your health as surely as you rule your actions. Bernarr Macfadden, the world's outstanding exponent of physical culture, has, perhaps, had more experience than any other one person in guiding thousands from physical weakness and ill health back to wonderful health and vigor. Out of this great experience he has built

The Encyclopedia of Physical Culture

This marvelous work gives invaluable information of fasting, diet, exercise, and hydropathy for both health and beauty building. It gives thorough and extensive treatment on the laws of sex, the attainment of virile manhood and womanhood, and happy, successful parenthood, together with details for correct diagnosis and treatment of all sexual diseases. It contains many handsome charts on anatomy and psychology.

It is neither dull nor technical, but is comprehensive and complete in every sense. It is the crowning effort of Bernarr Macfadden's rich, full experience in the science of health and physical culture. You haven't any idea how valuable it will be to you, or how many dollars it will help you save each year. What, for instance, would it be worth in actual dollars 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 doctors' bills to meet, no hospital bills to pay, no days of suffering or worry, no salary lost through absence from business?

"One of the best works on health ever published," says one writer

Thousands of letters have been written to Bernarr Macfadden commending his Encyclopedia of Physical Culture. One (name furnished upon request) says: "Permit me to thank you for the great work by Mr. Macfadden—The Encyclopedia of Physical Culture—which I got from you some time last month. I have read much of it already, and consider it to be one of the best books on health ever published. I wish to thank Mr. Macfadden for his great work. The Ency-

clopedia is going to be my best doctor now and always."

Another man writes: "I cannot express the wonderful value of these great books and feel they will lead me to a successful married life, as I have recently married. They are a plain, sensible and priceless guide to a perfect physical life."

Free Examination of Any One Volume

So sure are we that after a brief examination of these books you will appreciate how wonderfully they will unfold to you invaluable methods and secrets of perfect health that we will gladly send you any one of the five volumes for your own personal FREE examination, for five full days. The five volumes are:

- Vol. 1—Anatomy, physiology, diet, food preparation.
- Vol. 2—Physical training, gymnastics, corrective exercises, physical culture exercises for women, sports, athletics, beauty culture.
- Vol. 3—Fasting, hydrotherapy, first aid, spinal manipulation, mechanical diet and regimens.
- Vol. 4—Diagnosis and detailed treatment for individual diseases alphabetically listed.
- Vol. 5—Sex hygiene, physiology, motherhood, pregnancy, maternity, baby care, disorders of men and women.

You may have any one of these five volumes for your free five days' personal examination right in your own home and without sending one cent in advance.

Send No Money—not one cent

Just fill in and mail the coupon. Mention which volume you most desire for your free examination. After you have made the five days' free examination and have decided that you really want the full Encyclopedia, just send us a deposit of only \$2.00 and the other four volumes will be promptly mailed to you, all charges prepaid. Then additional payments may be made at the rate of only \$3.00 a month until you have paid the total cost of \$35. for the full five-volume set. But if you care to pay all cash you may do so by sending us only \$31.50.

This special offer is restricted to persons residing in the United States and Canada.

To all who decide to purchase the Encyclopedia, we will include a full year's subscription to PHYSICAL CULTURE—whether the cash or deferred payment plan of purchase is chosen.

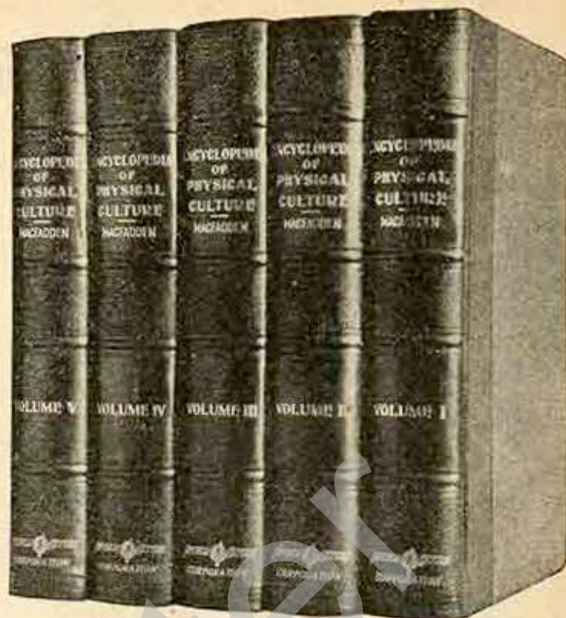
Remember, no money now—and you need not feel obligated to purchase if you don't want to do so after you have examined the volume selected by you and which we loan to you for five days free. We take all the risk—so satisfy your curiosity and mail coupon today.

MACFADDEN PUBLICATIONS, Inc.

Dept. S-8, Macfadden Bldg.,
1926 Broadway, New York City

London Agent

ATLAS PUBLISHING CO.,
18 Bride Lane, London, E. C.



A Complete Education in Physical Culture

THIS set of five volumes contains a complete education on Physical Culture and Natural Curative Methods—the equivalent of twenty comprehensive books on the following phases of health and vitality building:

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

MACFADDEN PUBLICATIONS, INC.,
Dept. S-8, Macfadden Bldg.,
1926 Broadway, New York City.

Send me for inspection Volume _____ of the Encyclopedia of Physical Culture. I agree to return the volume in five days or pay \$31.50 cash for the entire Encyclopedia, or \$35 on the easy terms mentioned in this offer. My acceptance of this offer includes a year's subscription to PHYSICAL CULTURE MAGAZINE.
Foreign orders—cash in advance.

Name.....
Occupation.....
Residence.....
Employed at.....

ROLANDOW, My Pupil, Again Challenges the World!



G. W. ROLANDOW

**Well-known Physical Culture Instructor,
the Strongest Man ever produced in
America. Proprietor of one of the finest
Gymnasiums in New York City, Located
at 2291 Broadway.**

Rolandow, America's Strongest all-around athlete, is noted throughout the world for his strength and agility. He is the only man Sandow ever refused to meet. Some of his feats of strength are almost unbelievable, but I have newspaper clippings, affidavits, etc., describing them. Rolandow has the most marvelous chest expansion ever known. His normal chest measurement is 48 inches, and at his best he has expanded to 63—an expansion of 15 inches! He has pressed up from his shoulder a tandem bicycle on which sat a man and a woman—a total weight of 300 pounds, very awkward to handle. He lifted an upright piano, together with an attached seat on which the male musician sat, and carried them around the room several times, keeping step to the music.

A favorite stunt of his is to jump over a table 31 inches high with a 75-pound dumbbell in each hand; or to turn a somersault in the air with the same bells in his hands; or to hold one 150-pound bar-bell in his hands and jump over it forward and backward. He has torn three packs of playing cards in two at once, and without removing the paper casing from one pack has torn it into halves, then one half into quarters, and one of the quarters into eighths. He once lifted on his shoulders 21 persons on a heavy platform, the whole weighing more than two tons!

He is Ready to Meet Sandow or Any Other Strong Man in Any Feat of Strength

G. W. ROLANDOW, the strongest man ever produced in America, again comes forward with his challenge to pit his strength against any man living, Sandow preferred, because Sandow is the only man who has refused to meet him. It is reported that Sandow will arrive in America shortly and when he does he will find my pupil ready to meet him at any test involving *real* Strength.

Rolandow is one of many of the world's greatest strong men who have attained their marvelous muscular development by means of the TITUS PROGRESSIVE SYSTEM and my Course of Instructions. I have many well-known record holders, among my list of pupils—such men as The Great Barnes, Arthur Saxon, William D. Waring, August Johnson and enough others to fill this page. All of these men attribute their remarkable strength to my System, which they used as the foundation for their training. The same *Apparatus* and the same *Course* which these men used is the one I offer you. I am convinced that you cannot build great muscles without the use of apparatus—the *right kind of apparatus*. I know that the Titus Progressive and Automatic Exerciser is the best because of the work it has done for so many thousands of satisfied pupils. That is why I do not conceal it from you until after you have bought my Course.

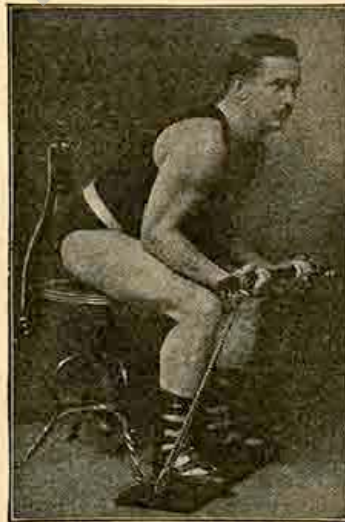
I Am the Only Instructor Who Shows You In Advance the Kind of Apparatus He Uses

I have nothing to hide from you. I show you right here on this page actual photographs of my Apparatus in use. You have but to glance at these illustrations to find out what I give you for your money. You should not buy a Physical Culture Course without knowing all about it in advance, any more than you should buy an automobile, a piano or a suit of clothes without seeing it first. *Make 'em show you before you spend your hard-earned money!*

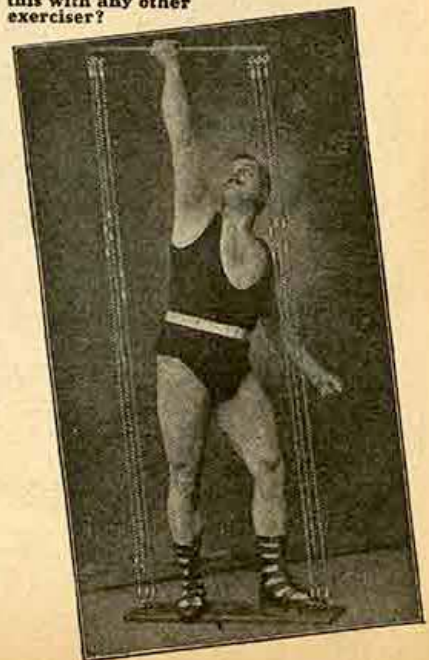
The Titus Progressive and Automatic Exerciser has been called by many a "complete home gymnasium," because with it you can exercise every part of your body and bring every muscle into action. It is built on the principle of Progressive Resistance, so that you can increase the resistance of each exercise as your muscles become stronger. The whole outfit can be set up instantly anywhere—nothing to fasten to the wall or floor—nothing to mar the woodwork. When not in use it takes up practically no room at all. It is made of the very finest materials and will last a lifetime.



Can you do
this with any other
exerciser?



These illustrations show you the TITUS PROGRESSIVE AND AUTOMATIC EXERCISER and how it is used. There is an exerciser for every part of the body. Notice how compact, yet complete, the whole outfit is. This provides the kind of exercise that not only builds Muscles, but heals and strengthens weak and ailing Vital Organs, improves Circulation, steadies the Nerves, Builds up and gives Tone to the Whole System, imparts Vigor, Snap, Enthusiasm, Joy and Ambition to young and old people alike.



Let the Man Who Has Personally Trained the Greatest Number of REAL Strong Men Train You

Why not follow the same Course that made Rolandow the Strongest man in America? Why not let the man who trained the Great Barnes train you? Can you do any better than select the same methods that Arthur Saxon and so many other noted strong men endorse? Certainly Not! These well-known strong men have seen every kind of Physical Culture Course and Apparatus, yet they all say that mine is the best they have ever used. You can read their letters of endorsement and see their pictures in my big New Book, "Building Better Bodies." Surely you can make no mistake by selecting the Course that has won the approval of so many of these world-renowned strong men. In all of my experience as a Physical Culture Instructor I do not remember having one dissatisfied pupil. On the other hand, I have thousands of letters from men who have used my system, in which they express their gratitude for the new bodies I have built for them.

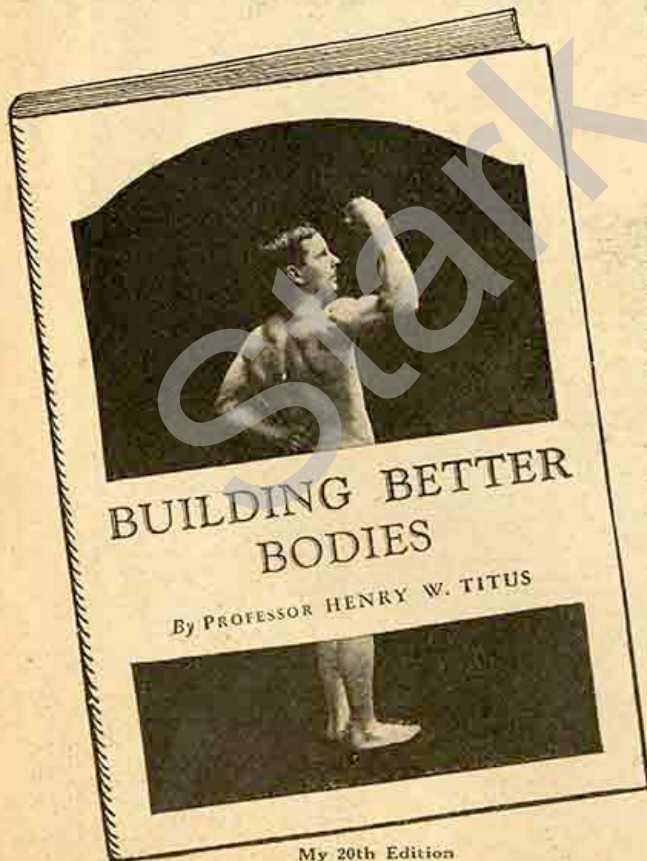
I Don't Care How Much of a Weakling You Are, I Will Make You a Physical Giant

And I don't care how strong you are—I will make you stronger! That's my guarantee. There is only one way you can fail, and that is by not taking my course. The longer you delay, the longer it will take to build that strong, manly body you have been dreaming about. On the other hand, if you begin now, in thirty days you will hardly know yourself. Stunts that you thought impossible will be easy for you. Your heart will begin to pump richer, purer, vitalizing blood; your circulation will improve immediately; you will feel better, and look better; your shoulders will broaden out surprisingly fast; your step will quicken; your muscles will grow to amazing proportions—in fact, your whole body will be so transformed in a few short months that your friends will look at you in wonder. And you need not stop there, either. There is no reason why you cannot become another Rolandow, or duplicate the marvelous feats of strength that made the Great Barnes so famous. The Titus Progressive and Automatic Exerciser and my Course is so complete and flexible that there is no limit to the development you can attain with it.



PROFESSOR HENRY W. TITUS

Pronounced by the medical faculty and professional athletes as the most symmetrically developed man in America. The holder of weight lifting records, winner of boxing and wrestling matches, even with men heavier than himself, and an all round athlete. Originator and patentee of the Titus Progressive and Automatic Exerciser and the Titus System of Physical Culture.



Get All of the Facts NOW Send for My Big New Book

It is a storehouse of information on body building. It is crammed full of photographs of strong men. It contains many things you should know about your body. It is an enlarged edition, just off the press. No matter who you are or what physical condition you are in, you will learn many valuable things by reading this book. It is the most helpful and instructive book of its kind you ever read.

Accept A Copy With My Compliments

I could reasonably charge a good price for this book and it would be worth it. But I will send you a copy FREE if you will mail me the coupon and only ten cents to cover actual mailing costs. Only a limited number have been printed, so send the coupon AT ONCE, before the supply has been exhausted. After reading my book you will know more about your body than you ever did before. It tells you how to get the most out of life—how to make your body what it was intended to be, and what it will be if you follow the advice contained in this book. Send for your copy now, TODAY.

PROF. HENRY W. TITUS
Dept. 31, 105 East 13th Street, New York City

Dear Sir: I enclose 10 cents, for which please send me at once your New Book, "Building Better Bodies." It is understood that there is no obligation on my part whatsoever.

Name.....

Street No.....

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

Prof. Henry W. Titus
105 E. 13th St., Dept. 31, New York City



Wide World Photos

The cream of American girl swimmers who participated in the Olympic Tryouts at Briarcliff, N. Y. Left to right (sitting), Caroline Smith; Alma Mann, of Panama; Florence Briscoe, of New York; Kathryn Brown, of New York; Carol Fletcher, of Los Angeles; Betty Beckner, of Atlantic City; Helen Meany, of New York; Aileen Riffin, of New York; Lillian Stoddard, of New York; (standing), Sybil Bauer, of Chicago; Ida Schultz, of Detroit; Ethel McGary, of New York; Doris O'Mara, of New York; Peggy Williamson, of Milwaukee; Minnie De Vray, of Chicago; Ethel Lackie, of Chicago; Gertrude Ederle, of New York; Frances Cowells Shrath, of San Francisco; Mariechen Wehselau, of New York; and Agnes Gerahaty, of New York.

Editorial

Wanted—a Robust Standard of Life

ALADY looking at some track and field games the other day expressed the opinion that some of the events must be too great a strain upon the athletes participating.

"Especially, running distances of a mile and upwards," she continued. "Surely, a two-mile run is too much of a strain for any one."

Of course, those familiar with track athletics know that a two-mile run is much less of a strain upon the runner than the half-mile, which of all distances makes the most exacting and heroic demands upon the athlete, taxing his vitality and stamina most severely. The quarter-mile sustained sprint is gruelling enough, perhaps next to the half the most arduous event on the track. The longer distances are less violent, depending none the less, however, on stamina and condition.

But to come back to the question of possible strain, raised by the comment of our disapproving lady friend. We ventured the reply that the question of strain was a matter depending entirely upon the condition of the athlete. Without proper training he should not undertake a given contest, but if he does he will be punished by his momentary distress due to his lack of endurance, usually with no harm done. On the other hand, if he is built for this type of contest and is in good training, properly prepared, then it is a perfectly normal activity, involving no strain.

It is as natural for the athletic boy to run as it is for the deer or the horse to run. We do not stop to wonder whether the geese migrating to the south in the fall or to the north in the spring, strain their hearts in their thousand-mile flight. We are not distressed at the thought of the long distance performances of the carrier pigeon or the long runs of the buffalo herd. Still less do we worry about the tree climbing episodes or the rough-and-tumble clawing matches of Tabby, the Tom-cat, when we put him out at night and lock the door on him. We thrill at the sight of a horse race without ever a thought as to whether or not the poor animals are going to strain themselves by running as fast as they can.

In the same way we need have no fear about

the beautifully muscled, stout-hearted and tough-lunged young man who finds delight in a contest of speed or strength. If he has the endurance to run a creditable two miles, then it is as natural for him to do it as for the fish to swim or the squirrel to leap from limb to limb in a forest of oak trees. The boxer does not overtax himself if he is trained to undergo a fifteen round match. If a man has acquired the strength by which he can lift two hundred and fifty pounds over his head, then that is a normal effort. He should not try it unless he is fit.

The trouble is that we take it for granted that birds will fly, that dogs will run and that porpoises will swim, but we forget that human beings are fit for anything more active than a pokey walk from the car to the arm chair. We see so much physical decrepitude, we are so well surrounded by those who are rusty and creaky that we sometimes lose sight of the standard of physical excellence that normally belongs to a healthy human being.

Wherefore, thank Heaven for the Olympic Games and all our sports. Thank Heaven for the robust, adventurous spirit of our young people, who do not know that they are likely to strain themselves, but who would not be deterred, again thank Heaven, even if they did know it, and who go into training for the most arduous of contests and thereby actually do not strain themselves when doing their utmost.

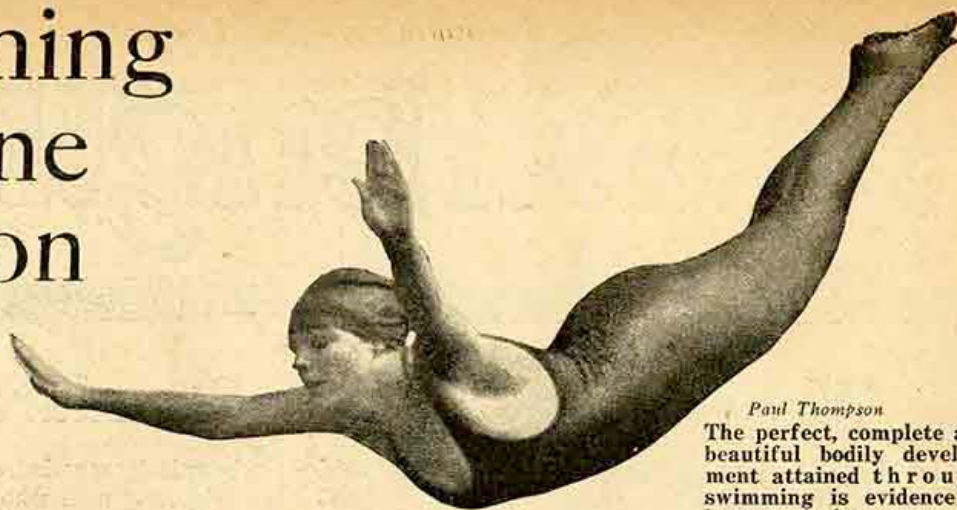
When our young people are no longer willing to tax their powers and to put themselves to the test of competition, a test that is mental and spiritual as well as physical, then it will be time to worry. The question of strain is a matter of relative unfitness as against condition. It is little Percy, "mother's precious," eternally cautioned not to run, who falls off a chair and breaks his arm. It is later this same untrained and unathletic Percy, in High School, who ruptures himself when he tries to move the bed or the bureau. It is still later this same Percy, engaged in a "white collar" job, who wrenches his back putting the big ledger on his high desk, and strains his heart when he volunteers to ring the church bell on a Sunday morning.

The athletic life is safer. A robust standard of life is vitally needed.

Swimming in One Lesson

By

L. de B. Handley



Paul Thompson

The perfect, complete and beautiful bodily development attained through swimming is evidence of its superiority as an all-around exercise.

SELF-CONFIDENCE is one of the greatest assets in learning to swim, and if you are a beginner you can go a long way toward gaining it by seeking favorable conditions for the early novitiate.

A pool which provides shallow water (about waist deep), at a temperature of seventy to eighty degrees, affords ideal conditions. Knowledge that bottom is within easy reach inspires a feeling of safety, and water free from chill not only increases the sense of security, but causes muscular relaxation, so that everything is favorable.

And do not underestimate the importance of these outward influences. Nearly all non-swimmers experience nervousness when in water beyond their depth, and cold intensifies the discomfort and tends to stiffen the muscles. As a result the mind does not readily concentrate on the work to be done, and the arms and legs are too rigid to easily perform the movements.

In the sum total you will greatly shorten your apprenticeship by taking the initial steps in a shallow, temperate pool, or in a bit of open water offering the same advantages.

If you are naturally timid, shy of the water, it will help greatly if you become accustomed to submerging the face before attempting to try to swim.

An excellent exercise, which will stand you in good stead later, is to practice swimming respiration as follows: Enter waist-deep water, bend forward until face is near surface, take a deep breath by mouth, close mouth, then duck the head and exhale slowly through the nose under water, trying to keep the eyes open the while. Repeat at intervals until free bubbling at the nostrils assures you that air is being exhaled without trouble.

This method of breathing—in by mouth above water and out through the nose under water—is used with all modern strokes, so your efforts in learning it will have the double gain of helping you to win confidence and prepare you for future activities in mastering the stroke.

Long experimentation with all methods devised for preliminary instruction in swimming has demonstrated beyond argument that the elementary crawl system is best; that the beginner who follows it learns the rudiments in the shortest time, develops ability far more rapidly, is better equipped for all purposes after gaining proficiency.

The crawl particularly recommends itself for the

schooling of the novice, because its movements conform with natural inclination and are performed readily after one has seen them illustrated.

It is worthy of mention in this respect that the crawl is not the product of scientific study, as so many seem to believe. It was introduced by an aborigine of the Samoan Islands, Alec Wickham, who migrated to Australia and displayed it there, whereupon Dick Cavill, of Sydney, credited with being the originator, copied it and first used it in standardized competition. But some years later, when Duke Kahanamoku, of Honolulu, began to break world's records with it, the fact was disclosed that Hawaiians had used the crawl from time immemorial.

One cannot question, therefore, that the crawl is a natural stroke, for certainly the South Sea Island natives who brought it into being followed inclination and were not burdened with technical theories and high-brow knowledge.

True, now we have studied the principles involved and learned to apply them scientifically, but this does not alter the fact that untutored peoples were responsible for the invention and development of the stroke.

One of the great advantages of the crawl for elementary instruction is that it does not require conscious co-ordination of arm and leg movements. Unlike other strokes, which make it necessary to devote long and painstaking effort to correct intertiming of the action, the crawl dispenses with this difficult problem altogether. Rhythm is developed unwittingly as progress is made.

For the rest, if one admits the superiority of the crawl over other strokes, one cannot but agree to the desirability of taking it up from the start, instead of wasting time and energy on some other stroke, which must be unlearned before the crawl can be mastered.

And the superiority of the crawl is established fully. To its credit stand all the world's swimming records for men and women; devotees of earlier strokes are outclassed in the competitive field these days.

Now let it be realized that no style of swimming could yield the combination of speed and endurance necessary to create records at all distances unless it enabled its exponents to exploit better than any other stroke their natural resources in strength and stamina. It follows, obviously, that the successful all-around stroke—the crawl in this instance—will afford the same advantages to those who swim for recreation, exercise, or necessity,

making it possible for them to swim faster for a given distance, or last longer in case of need on their natural supply of energy.

Moreover, men and women who would swim for physical improvement will find the crawl best adapted to their purpose, for its action brings about more complete and well-balanced development than any other stroke.

The crawl serves most adequately for self-protection and life saving, too. Its speed becomes an all-important factor when one in danger must fight strong currents to reach safety, or a rescuer is obliged to cover some distance in going to the assistance of a drowning person. The endurance it fosters proves of inestimable value when an accident occurs far from land and the prospect of aid is remote.

The crawl also is the most practical stroke for swimming in choppy or rough water. Virtually effortless when used correctly, it carries easily and without check through lumpy sea and waves. In recent years, indeed, a number of little girl devotees, quite a few of them youngsters eight to twelve years old, have taken part in long distance races for women and covered rough courses of several miles without displaying any sign of fatigue.

For every reason, then, those who seek efficiency in swimming should adopt the crawl and not approach it by a roundabout road, but learn it from the start.

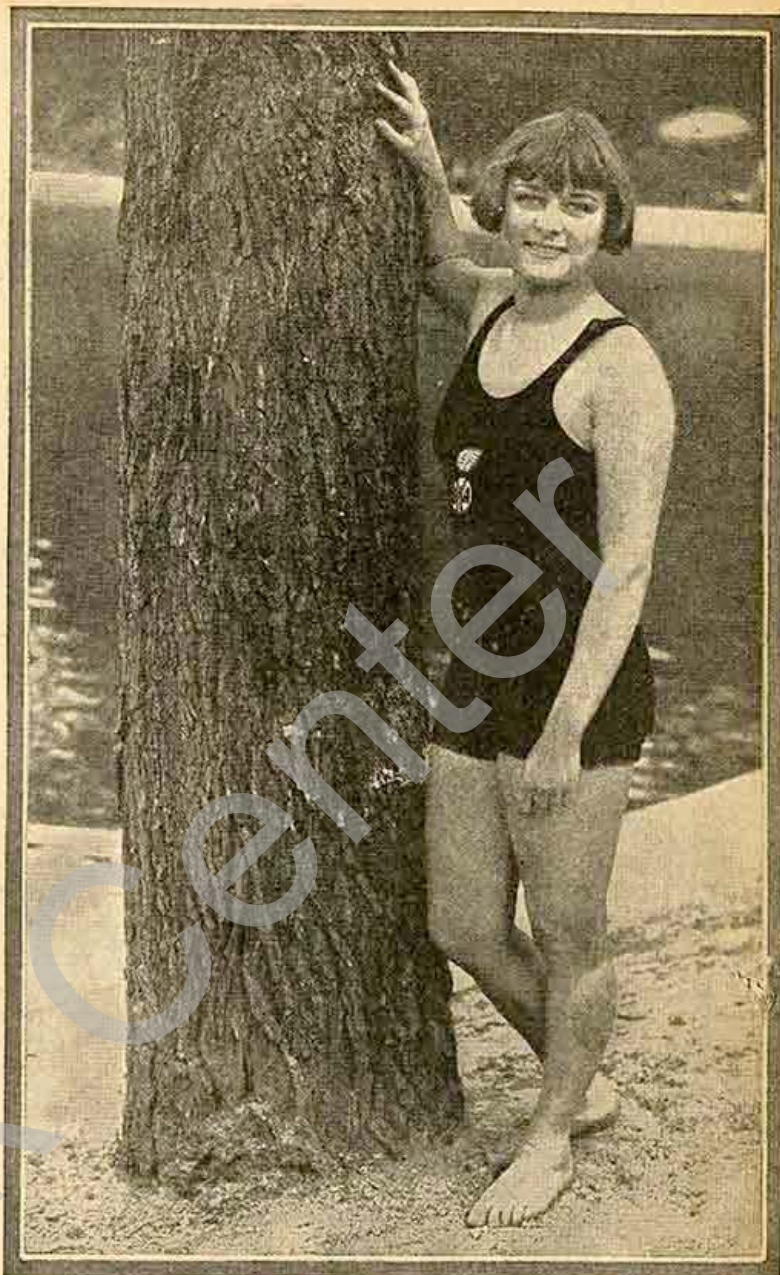
If you are gifted with average natural watermanship you can learn to swim a few yards in one lesson of half an hour or so by following the crawl method herein described. Also the method is so simple that you can use it successfully for self-instruction.

The first step prescribed is to glide motionless on the surface, in prone position, an exercise which has the double purpose of teaching you the correct position for swimming the crawl and giving you a practical demonstration of the buoyancy of the human body.

Even if you are not naturally buoyant—a very few lack floating capacity—you will be able to stay up and cover some distance in the gliding experiment, provided you follow instructions closely.



Figure 1. How to push off from wall in getting under way.



Aileen Riggins, in temperament, health and spirit, looks the part of the representative American girl swimmer. Photo taken at Briarcliff just previous to her sailing to take part in the Olympic Games.

Wide World Photos

Stand with back to pool side, or, if in open water, to any upright surface which affords resting place for one foot—such as a rock, wall, board, post, etc.—and bend one leg at the knee, resting foot on pool side or upright surface. Then stoop forward from the waist, head near surface, and thrust arms forward at water level, palms down, hands touching. Now take a deep breath and hold it, dip face between arms, push off vigorously with upraised foot and immediately stretch out full length, body forming a straight line from fingers to toes, face naturally submerged. Maintain this position as long as you can.

If you feel the need of air, or start to sink, and want to stand up, simultaneously lift the head, press downward with both arms and bend and lower one leg, just as if you were stepping forward. Don't lower both legs or you will probably lose your balance and flounder.

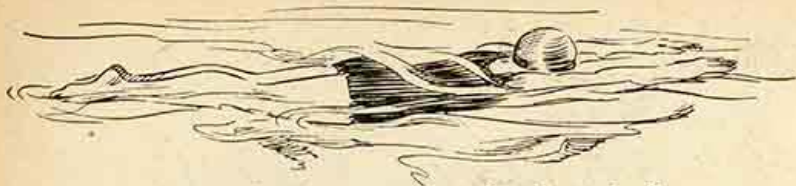


Figure 2. Position to assume after the push-off.

However, if your push-off has been energetic and you lie flat, you inevitably will glide several yards at the first trial. But repeat a few times, anyhow, and try to impress on your mind the "feel" of the position assumed, as it is the position you must seek for swimming the crawl.

And let it be mentioned here that throughout the novitiate you always should get under way from a push-off, even after gaining knowledge of the entire stroke, as the momentum thereby acquired brings the body to balance and makes it easier to start the movements in due form.

After a few motionless glides you may pass at once to the leg drive. Again pushing off and assuming prone, fully extended posture, face submerged, begin to move the legs up and down alternately, so that one rises as the other drops. Hold the legs fairly straight, but completely relaxed, thereby allowing a little play at knees and ankles. Keep the feet pointed and turned the least bit inward, pigeon-toed. Make the movements rather fast, but narrow—not more than eight inches between heels at full opening—and use very little energy, trying to give the thrash a quick, easy, smooth action. And don't allow the feet to lift above water.

Like in gliding, go as far as you can on a single



Figure 4. How to dispose arms and head to start practice of elementary crawl arm stroke, standing on bottom.

breath and refrain from raising the head, or the feet will sink and drag you down. This drive is so simple that you should be able to get it at once. Devote a few minutes to it, then proceed to arm stroke.

As correct intertiming of head and arm movements is essential to gain body balance in the crawl, the combined action should be given a brief trial standing on bottom before undertaking it in swimming position. Bend forward, extend right arm in front and left arm backward, hands touching the water, and turn the head to the left. Then, without moving head or shoulders, simultaneously sweep the right arm down and back, the left up and forward. See that the right presses directly down, grazing the thigh in passing; that the left circles high and strikes the surface close to where the right arm started. Hold the arm straight.

If you execute the double act simultaneously the right

arm will reach the surface back of you just as the left alights on the water in front. At this point turn the head and shift the shoulders to the right, repeating the movements in the opposite direction, left moving down and back, right up and forward. Continue the alternate, circling action, concentrating on keeping the head and shoulders turned to the left throughout the forward semi-circle of the left arm, to the right during the entire forward semi-circle of the right arm.

So soon as you can guide the head and shoulders with fair success, tackle the action in actual swimming. Start once more from a push-off, in the usual position, set the feet in motion, then press directly down and back with the left arm, keeping head and shoulders straight.



Figure 3. Showing the position of body and legs in performing the elementary crawl kick.

As this arm nears the thigh, press down and back with the right arm, at the same time twisting the head and rolling the entire body, feet and all, to the left, bringing the left arm out of water. Retain the position now assumed while the left arm sweeps forward above water and the right drives backward. Then, when the left arm hits the surface and starts to press down again, twist the head and roll the body to the right, keeping it so rolled throughout the forward motion of the right arm and the backward of the left.

Do not hurry the movements. Far from gaining anything from hasty action, it will tend to unbalance and sink you. Remember, instead, that the backward, under-water sweep of each arm is the propelling act, called drive or pull, while the forward, above surface swing of each arm is the negative act of resistance, known as recovery. Therefore, place your energy in the drive and seek to rest during the recovery by making it slowly, with muscles relaxed.

If you roll heavily to both sides and use the head as prescribed, you may rest assured that you will stay afloat and make headway until your breath gives out.

At all events, when you are able to take three or four double arm strokes without a break, proceed to intro-



Figure 5. Correct position of head and shoulder as each arm completes its up and forward semi-circle in the elementary crawl.

duce swimming respiration. You are quite ready to do so if you have practiced inhaling by mouth and exhaling through the nose, as suggested.

First, though, try a few more strokes and note on which side it is easier for you to roll, as that is your natural side for inhaling.

Following the customary procedure, push off, stretch out, set the legs to thrashing, then sweep down and back with the arm on the side you have chosen for inhaling. When this arm nears the thigh apply pressure with the other arm, immediately twisting the head and rolling the body toward the first arm, now emerging from the water. As the first arm moves forward above surface take a quick, deep breath. Then, as the second arm completes its drive, press down with first, twist the head back to normal position (no longer turn it to both sides), roll back flat, and exhale through the nostrils under-water, holding the head straight, while the second arm glides forward in recovery. To facilitate inhaling, direct your glance upward while rolled on the side; it will help to raise the mouth clear of the water.

The introduction of swimming respiration concludes the elementary schooling, and it may be mentioned that the average beginner will be able to cover the ground, learning the whole stroke in rudimentary form in one, or at most two half-hour sessions.

After that it is a case of gradually perfecting the action.

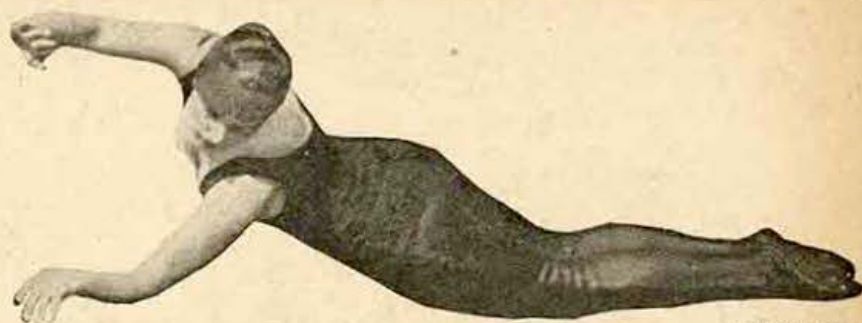
No doubt the thought has often come to you that you should learn to swim as a safeguard against the danger of drowning. Indeed, the value of swimming as the means of protecting and saving life is realized so universally nowadays that every one receives constant reminder of the importance of gaining knowledge of it.

But has it never occurred to you that ability in swimming, quite apart from serving you in emergencies, will afford you unending opportunities to enjoy pleasant recreation and at the same time gain and retain robust health, develop your body thoroughly and symmetrically, and improve yourself generally in appearance?

All this, and more, skill in swimming will do for you.

To one who has acquired proficiency the mere sensation of gliding easily and swiftly through the water, with a sense of complete mastery over the so-called treacherous element, is in itself a source of delight. But there is the further and greater advantage that expert watermanship opens the way to a wide variety of pastime and sport.

Children who can swim make the water a playground of which they never tire; boys and girls, men and women, find absorbing interest in racing activities, or the very many aquatic games, competitive and otherwise, which



Paul Thompson

Miss Elizabeth Becker, Ambassador Swimming Club, ten-foot diving champion, does a spectacular one.

have been evolved; the more mature, in particular, discover nothing more refreshing than a spin in pool or open water at the end of the day's work, a spin from which one emerges cleansed, invigorated, exhilarated. Best of all, the swimmer combines pleasure and physical benefit.

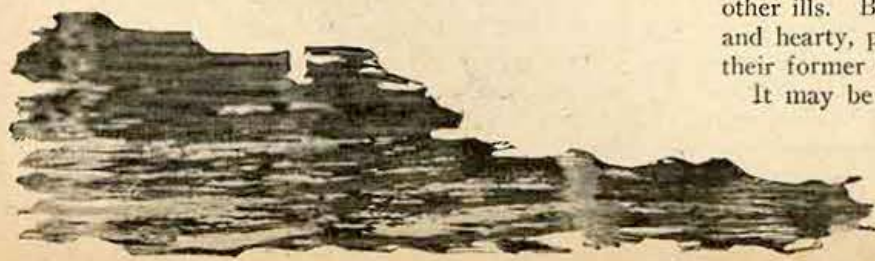
Of the value of swimming as an exercise volumes could be written. Every part of the body is brought into action, receiving its proportionate share of the labor and profit. The entire muscular system is developed evenly and effectively; the functional organs are activated and regulated; the heart and lungs grow sound and strong.

The muscles resulting are long and smooth, free from knottiness; the kind of muscles which form pleasing body outline and at the same time prove best for speed and endurance.

The position assumed in using the modern strokes leads to erect posture and makes for correct carriage on land, as well as in the water. The muscular play in the abdominal regions stirs the digestive apparatus and causes better assimilation of food. The deep breathing enforced not only builds strong protective lung tissue, but engenders thorough oxygenation of the blood, which results in complete elimination of toxin from the system and, among other things, clears the complexion. The heart is benefited by the all-around exercise, yet is in no danger of strain, for the up-to-date strokes require very little effort when used efficiently.

Regular swimming will cure many ailments and has been known to correct structural defects, even to actual deformities. One might cite, in fact, a number of young men and women, sickly weaklings or disfigured when they took up swimming, who not only were made healthy and sound, but who succeeded in developing the exceptional physical attributes necessary to become champions and record breakers in this field of sport. Among the noted watermen and mermaids who have reaped national or international laurels can be named quite a few who entered their novitiate afflicted with troubles of various kinds, including curvature of the spine, hip disease, weak lungs, nervous complaints, indigestion, rheumatism and other ills. But you never would guess it to-day. Hale and hearty, perfectly formed, they disclose no trace of their former infirmities.

It may be added that swimming has no age limitations. The sooner a child is taught to swim the better. But men and women who did not start their aquatic schooling until well beyond middle age have become good swimmers.



The Truth About Raw Food

What Foods Are Best Uncooked, and What Foods Must Be Cooked—Abuses of Heat—What Temperature Is Best for Satisfactory Cooking

By Alfred W. McCann

THE popularity of the so-called raw food movement in various parts of the country is based upon a wholly erroneous conception of the dangers of heat. Heat, properly applied to many of the commonest foods, is not only not dangerous to health, but actually becomes a blessing.

It is indeed true that as heat is applied in the average kitchen the changes effected by it are in many instances to be condemned. Too much heat is destructive, and doubtless upon the abuses which grow out of the average chef's ignorance of this truth the raw food idea has been developed.

It should be remembered that all pathogenic (disease-producing) bacteria are destroyed at a temperature of 158 degrees Fahrenheit, maintained for a period of one-half hour. Hence the necessity of cooking meat, even though the application of heat to animal tissues does decrease their digestibility. There is no longer any question of this.

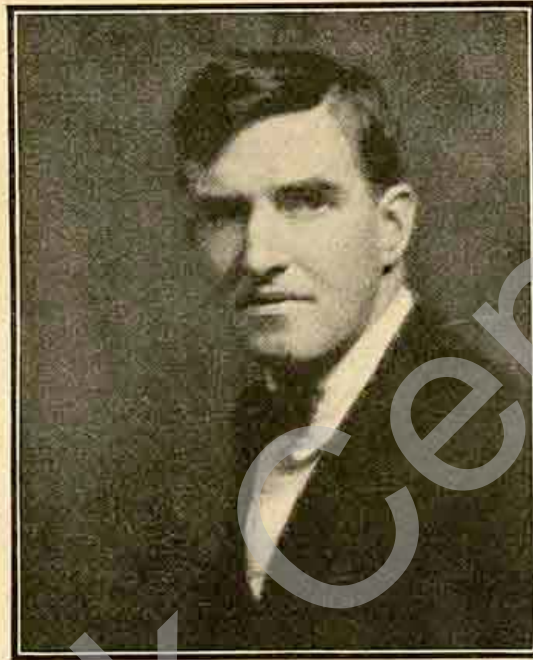
The effect of intense heat on animal proteins results in their coagulation. As a matter of fact both animal and vegetable proteins are coagulated if the temperature is raised to 170 degrees Fahrenheit. Ignorance of this fact results in all sorts of confusion.

A piece of meat cooked at the boiling point suffers a shrinking and toughening of its protein with consequent loss of digestibility. The boiling point is so unnecessary and so really harmful that long ago, to offset its disadvantages, the fireless cooker was invented.

Intelligently used, the fireless cooker, because it tends to reduce the temperature very much below the boiling point, is designed to render a far greater service to humanity than the living flame of gas, oil or live coals.

In connection with foods of vegetable origin, the abuses of heat are quite as serious as those which follow its excessive use in the cooking of meats. Nevertheless a proper application of heat is absolutely essential to the digestibility of many vegetable foods.

The starches of oats, barley, rye, wheat, corn, rice and potatoes require a moist heat if their cellulose envelopes are to be ruptured and the starch within them to be



Photograph by Nicholas Murray
Alfred W. McCann

gelatinized. These essential changes, absolutely indispensable to starch digestion, are effected much below the boiling point.

Old-fashioned cut oatmeal offers the greatest resistance to moist heat, yet at 185 degrees Fahrenheit, which is far below the boiling point of water (212 degrees Fahrenheit) the cellulose envelopes burst and the oat starch is made ready for digestion.

Barley, rye, wheat and rice break up their cellulose envelopes and gelatinize their starch at 176 degrees Fahrenheit. Corn requires but 167 degrees Fahrenheit. Potatoes are still less resistant, actually cooking at 149 degrees Fahrenheit. Hence the folly of keeping the pot boiling in connection with the cooking of these foods.

The very object of cooking them is to increase their digestibility. This object is attained, with none of the disadvantages of heat-abuse, at temperatures so much lower than those ordinarily applied in the average kitchen that the disciples of raw food, unless they actually look the facts squarely in the eye, which they rarely do, have a very impressive foundation of half-truths upon which to support their arguments against heat.

Unfortunately the propagandists of raw food do not seem to know that cellulose and raw starch cannot be digested by man. They admit that a green apple is too hard and woody to be consumed as food. They do not know that the cellulose structure of the green fruit is responsible for the admitted fact.

They do not know that while the fruit is ripening its acids, activated by the sun's heat, disintegrate this woody skeleton structure and render the cellulose fibers as soluble as they are found in the ripe fruit.

The sun's heat, plus the acids of the fruit, bring about this result slowly over a period of many days. Proper cooking at a low temperature does precisely in a half-hour or an hour what it takes the sun's rays weeks to accomplish. The results are the same, and many green fruits can be utilized in the cooked state for this reason, whereas in the raw state their use would be exceedingly dangerous.

Every farmer keeps a silo. He knows that even the cellulose of corn stalks, under the action of fermentative bacteria, moisture and heat, undergo a cellulose softening which makes the otherwise indigestible mass a valuable food for his cattle.

The production of sauerkraut from raw cabbage is merely another instance of the same thing, for which reason sauerkraut is very much more digestible than raw cabbage.

As a general rule, entirely free from more or less popular or unpopular superstition, foods of all kinds can be grouped into three classes: Those that may be consumed raw or cooked, as fancy dictates; those that should be consumed raw as ordinary instinct suggests; those that require cooking either to make them digestible or to sterilize them against the dangers of disease.

The apple obviously falls into the first class. It is just as good raw as when served as a baked apple, or in the form of sauce. So, too, the banana. Most people, of course, eat the banana raw, just as it leaves the peel. But if there is any question of its ripeness, baking certainly improves it. Baked bananas are not at all uncommon. The banana fritter, saturated with grease and practically destroyed by the intense heat to which it is subjected, is altogether too common.

Spinach and lettuce are two forms of grass, the first of which mankind has wisely decided to cook, and the second of which is always consumed raw. The cellulose structure of spinach is very much tougher than the cellulose structure of lettuce, hence the instinctive resort to cooking the former.

Here we have two forms of grass quite similar in chemical composition, but differing greatly in the structure of the leaf, one of them falling into the second group always consumed raw, and the other falling into the third group always consumed cooked.

Everybody eats raw tomatoes. Everybody eats stewed tomatoes. We have our own choice, depending wholly upon taste. Either cooked or raw this fruit, for it is a fruit, falls into the first group.

On the other hand, no one ever heard of anybody eating raw string beans or raw peas. So with navy beans, kidney beans and lentils. They simply must be cooked if they are not to act as irritants, loading the intestines with indigestible waste to be eliminated at the expense of the entire organism.

Regardless of our ideas one way or the other, we have no liberty of choice in connection with these foods which must be thrown into the third group, to be cooked or not consumed at all.

Whoever heard of anybody's eating stewed walnuts, baked hickory nuts, roasted pecans? Naturally they fall into the second group of foods to be consumed raw without argument or controversy. Yet on the other hand nobody ever eats a raw peanut. All peanuts are roasted. The application of heat is quite essential not only to their digestibility,

but to the development of their flavor. To a similar extent almonds are treated in the same way. Here we have a little cluster of nut foods which common sense itself separates into the second and third groups without raising any issue based upon a fad.

Two other forms of grasses are typical of the folly of carrying on a raw food propaganda. Celery and asparagus are not nearly as unlike as they appear to be on the surface, yet asparagus is always cooked, and celery, though occasionally it may be stewed, is invariably eaten just as it comes from the garden.

As a matter of fact the cellulose structure of the celery stalk is much tougher than the somewhat similar structure of the asparagus stalk, for which reason the housewife frequently resorts to the expediency of serving creamed rather than raw celery. As a rule, however, she does this only when the celery has lost its

Cooked or raw, the flavor of celery undergoes little brightness and has become somewhat rusty in color. change, whereas in the case of asparagus it is vastly improved by cooking. Doubtless the tender stalk of asparagus is just as digestible raw as the tender stalk of celery, but mankind, through centuries of experience, has decided to cook the one always, and to cook the other only under certain circumstances.

Whoever heard of a feast of raw Brussels sprouts, or raw cauliflower? The Brussels sprout may be loosely described as a little cabbage. Yet whereas cabbage is frequently consumed raw as cold slaw, the Brussels sprout is always stewed; likewise the cauliflower.

We grant the champion of raw foods that the fresh pineapple is never cooked. Like the orange, no one would think of stewing it, frying it, roasting it. Yet as a matter of fact the canned pineapple, which is almost as popular as the raw fruit, is a cooked product, and no one seems to be any the worse off for eating it.

Raspberries, strawberries and blackberries are commonly served raw, as they should be, either in the form of a dish of fruit or in a shortcake. Yet from the beginning of time the housewife has been cooking them. Jams and preserves are even commoner than molasses. We have our choice.

Desperate, indeed, would be the man who insisted on eating raw pork chops or raw, uncured ham. He would take fewer chances with raw beef or raw mutton. As a matter of fact he does eat at times hamburger sandwiches made of raw beef.

In the case of beef and mutton the adult takes few chances when he consumes the flesh of the sheep or ox in the raw state. The average sheep is a healthy animal. The condemnations of the sheep on the killing beds of the government-inspected slaughter-houses are very rare in connection with lamb or mutton. The condemnations in connection with beef are frequent indeed, although after the child has attained the age of ten the bovine tubercle bacillus, upon which most of the condemnations are based, is not dangerous. Under

(Continued on page 74)

How Much Do You Know About the Right Temperature for Cooking?

THIS article by Mr. McCann is illuminating not only because of what he says about that curious fad of eating raw foods exclusively, but also because he tells you so much of just the kind of thing that you want to know about the proper cooking of your food.

"To err is human," as the poet says. People make mistakes in cooking as in other things. But because there are abuses in cooking does not mean that one can eat raw lima beans. These and many other things that are unfit for food when raw are most valuable when cooked. Read this article and it will give you an adequate understanding of a very interesting subject.—The Editor

A Living Anatomical Chart

An Interpretation of the Powerful and Beautifully Harmonious Development of Mr. A. P. Mead

By Alan Calvert

I WROTE an article in this magazine in May, in which I stated that when I looked at pictures showing a man's development I generally could tell what method of exercise that man had used in developing himself. In the same article I said that I, or any other experienced man, could tell, by looking at a photograph, whether or not the subject's muscles were only partly developed or developed to their limit. Ever since then I have been overrun with correspondence. Dozens of STRENGTH readers have sent me their pictures and asked me to tell them what was wrong with their development, and how they could improve it. I take this opportunity to say that lack of time, rather than lack of inclination, has caused me to allow a lot of those letters to remain unanswered until this day.

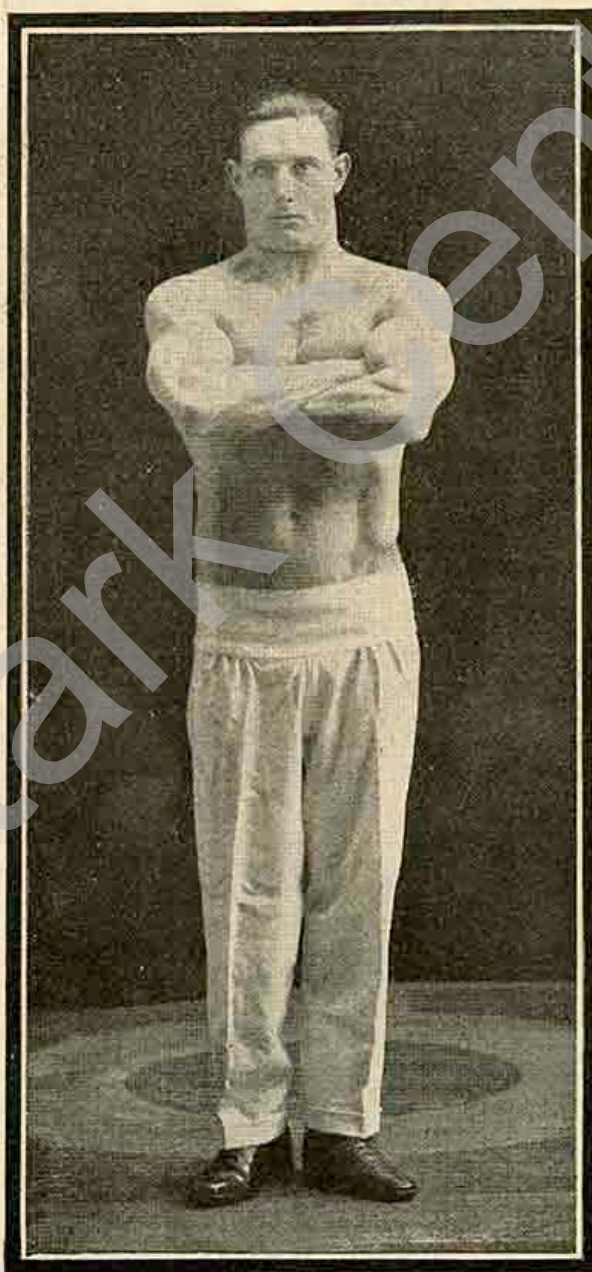
A month or so ago I received a letter from England, together with the wonderful set of pictures which illustrate this article. These poses show a muscular development so extraordinary that I think that all of us can profit by studying them. The writer is an English attorney at law, and very evidently an ex-soldier. He states that his right leg was blown off by an exploding shell, and that since the war he took up physical culture as a pastime and made an exhaustive study of the subject of muscular development. He invited me to look the pictures over, and then tell him, if I could, what method of exercise he had practiced, and kindly volunteered the information that he had followed no regular, or published, system, but a method of his own. I frankly confess that he has me puzzled. There are some

features about his development which would lead me to say that he must have used weights in order to develop muscles of such size and clear-cut outline. There are other details which make me believe that he has been a close student of muscle-control, and yet he has bigger muscles than I have ever seen created by that method.

I will explain what I mean.

I have seen many devotees of muscle-control who have quite unusual definition of the abdominal muscles, but I have never seen any of them get muscles at the sides of the waist such as Mr. Mead has. By practicing assiduously at muscle-control, one can burn away any surplus flesh in the upper arms in a way which reveals the outlines of the arm muscles. It is very difficult to get any great deltoid development through muscle-control, and since Mr. Mead has wonderful deltoids, it seems to me that he must have developed those muscles by exercising at pushing up weights, or by exercising the muscles while using the weight of his own body to create the necessary resistance. A man can get deltoids like these by pushing weights overhead. It is almost impossible to get them by doing the "floor dip," but they can be gotten by doing a "hand stand" and then raising and lowering the body by bending and straightening the arms. One thing that makes me believe that Mr. Mead has not used weights is that his trapezius muscles are not developed in proportion to their neighbors. But I intend to discuss these poses one by one, and I will take up those details later on.

In sending me the pictures Mr. Mead said, "I invite, not your praise, but your criticism;" but how can I do anything else but praise? I certainly am not going to waste



Mr. A. P. Mead, of England, is a living model of practically perfect development, inspiring Mr. Calvert to write a special article analyzing the many points of his most interesting physique.

my time in trying to pick flaws, where there is so much to praise, and practically nothing to find fault with. Mr. Mead's proportions are almost altogether admirable, and his development is superb. If other enthusiasts along this line can do as much as he has in the way of physical improvement, they should be happy. I am sure that Mr. Mead will not object to public discussion of these poses, since it can be used to disseminate information. So let's go.

In the front view pose (Figure 1) the shoulders look unusually square, there being an unbroken straight line from the side of the neck to the extreme points of the shoulders. When the arms are folded in this way, and the elbows lifted out to the front, it tends to flatten the upper lines of the shoulders, but in most cases the upper-edges of the trapezius muscles show slight convex curves, which are missing in this pose. Nevertheless, the general effect of the torso is impressive. It can be plainly seen that the pectoral muscles on the breast are developed all the way from the collar-bones down to their lower edges; whereas in many athletes only the lower edges are developed.

The very unusual thing about this picture is the sharp definition of the external-oblique muscle at the left side of the waist. You see a heavy shadow separating it from the rectus or straight abdominal muscles. If Mr. Mead allowed his arm to hang at the sides, you would see two lines starting right below the lower end of the breast bone. These lines run sideways and slightly downwards, and they join with the vertical lines formed by the front edges of the external-oblique muscles. You see exactly that thing on many of the old Greek statues even when the athlete represented is in a position of rest; but you very, very rarely see it in the modern athlete. When the average "strong man" wishes to call attention to his abdominal muscles, he flexes them vigorously and makes them assume what we call the "washboard" pattern. Those muscles should be so well developed that they are apparent when the body is held erect as in this pose, where they are shown in large flat bands.

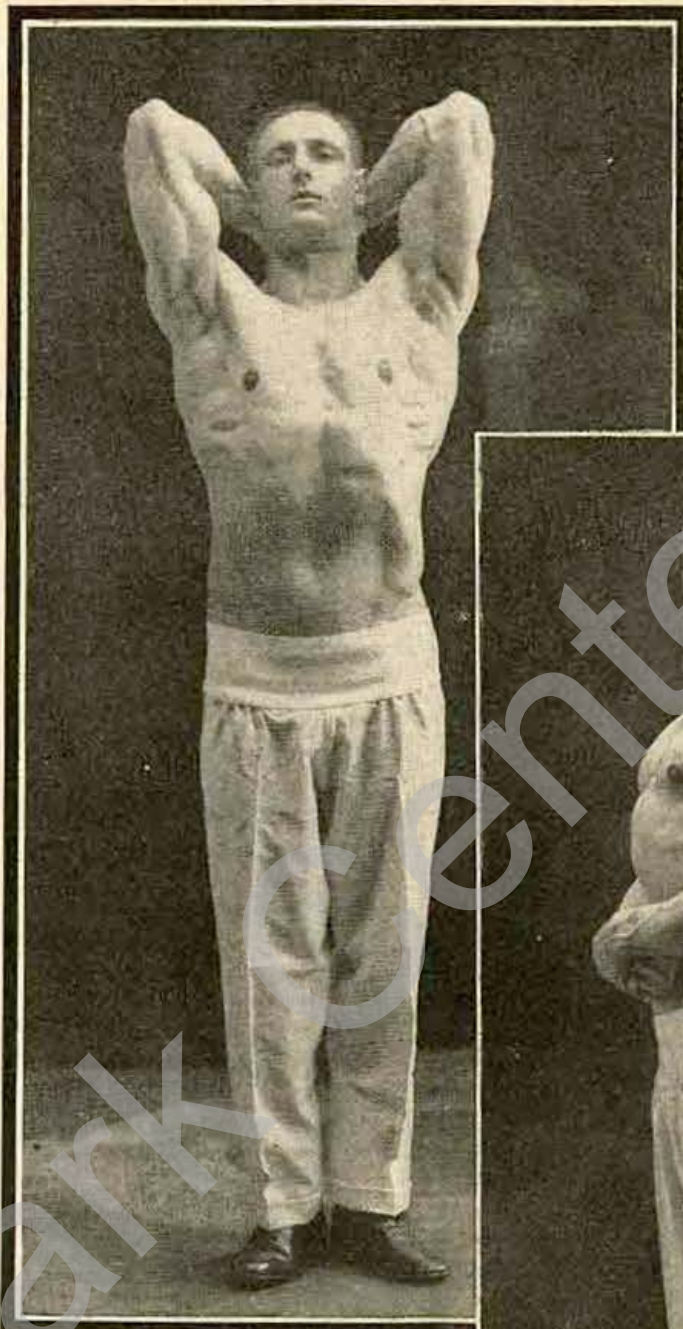


Figure 2. An extraordinary study of the arm and chest muscles. Note the serratus magnus, the pectoral muscles, the biceps, and even the points or attachments of the latissimus muscles.

The external-oblique on the right side of the body is not plainly noticeable for two reasons; first, that half of the body is in shadow; and second, it is Mr. Mead's right leg which was cut off below the knee. Consequently, he is carrying almost all his weight on his left leg, and the right hip

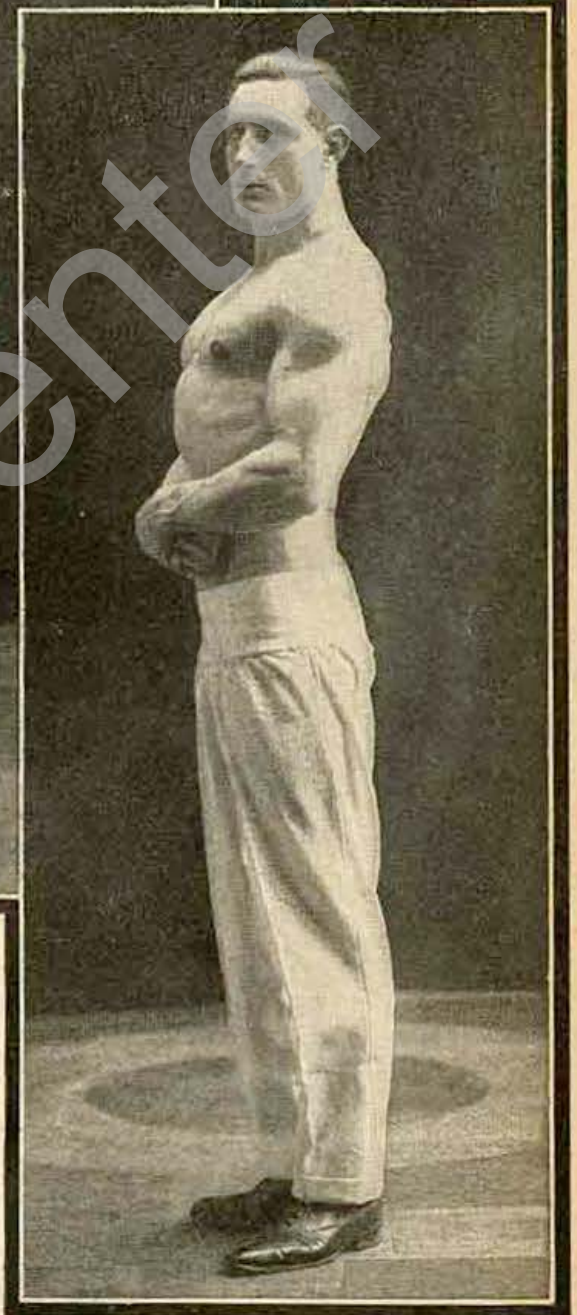
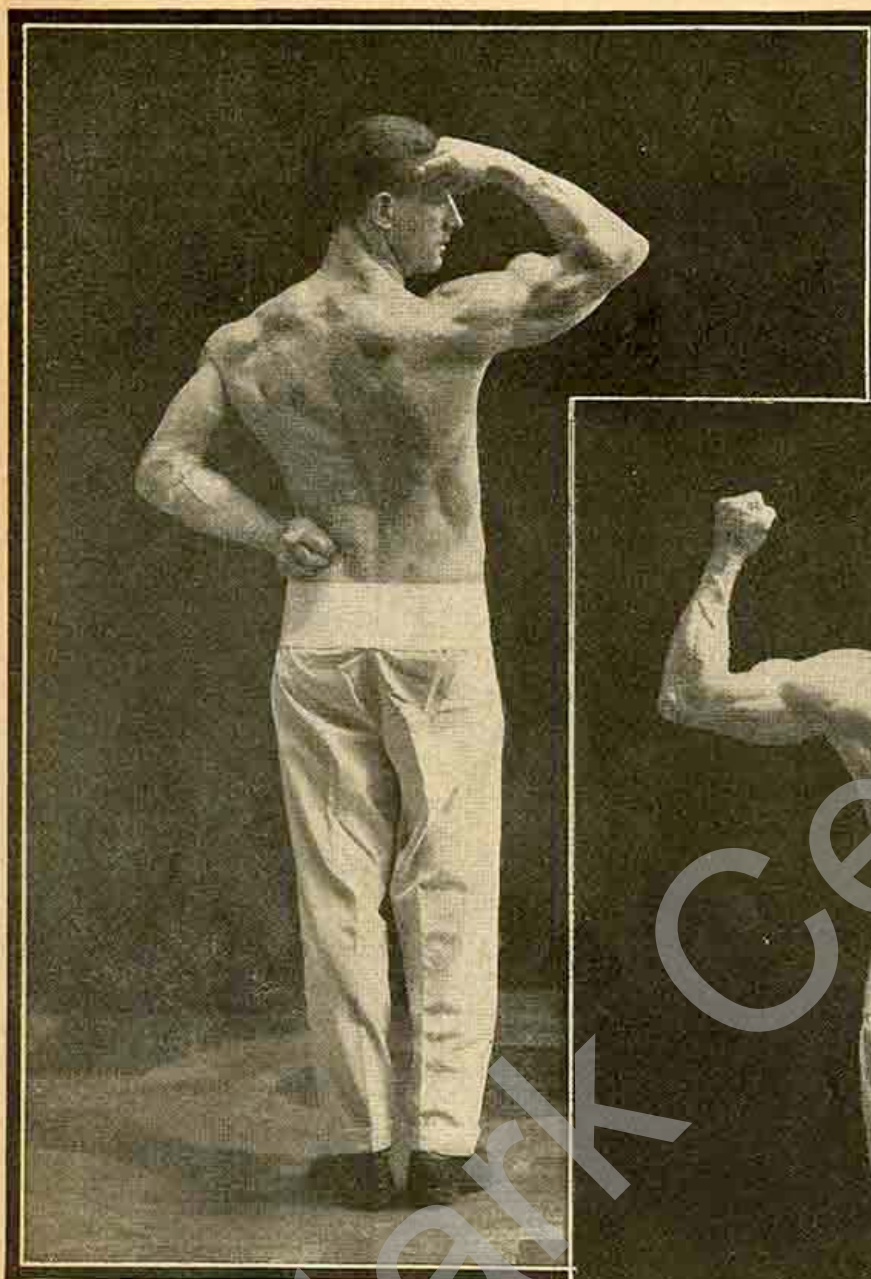
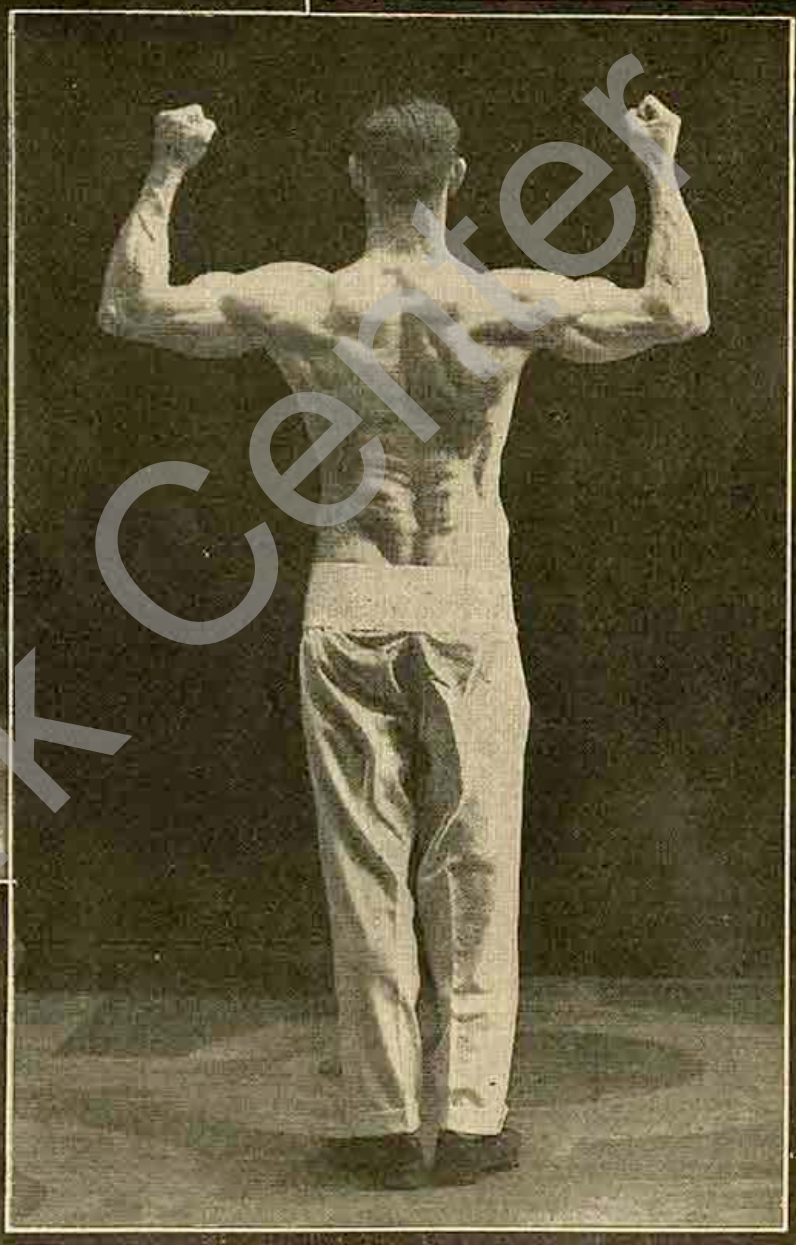


Figure 3. Mr. Calvert has estimated that the depth of Mr. Mead's chest, from front to back, is fifty per cent greater than the front-to-back depth at the waist line, which is remarkable. His normal chest measurement is 45 inches, deflated 42 inches and expanded 48 inches.



Figures 4 and 5 present an amazing display of arm and back muscles, the most remarkable of which are the biceps and deltoids. The latter are exceptionally powerful, as you will note in both photographs. Mr. Calvert has some particularly interesting comments and criticisms to offer respecting these two photographs.



has sagged slightly, throwing most of the job of holding the body erect on the muscle at the left side of the waist. This development of the side and abdominal muscles is one of the signs of the highest possible bodily condition, and if Mr. Mead had gotten nothing else from all his training, his side and abdominal development alone would have been worth all the trouble.

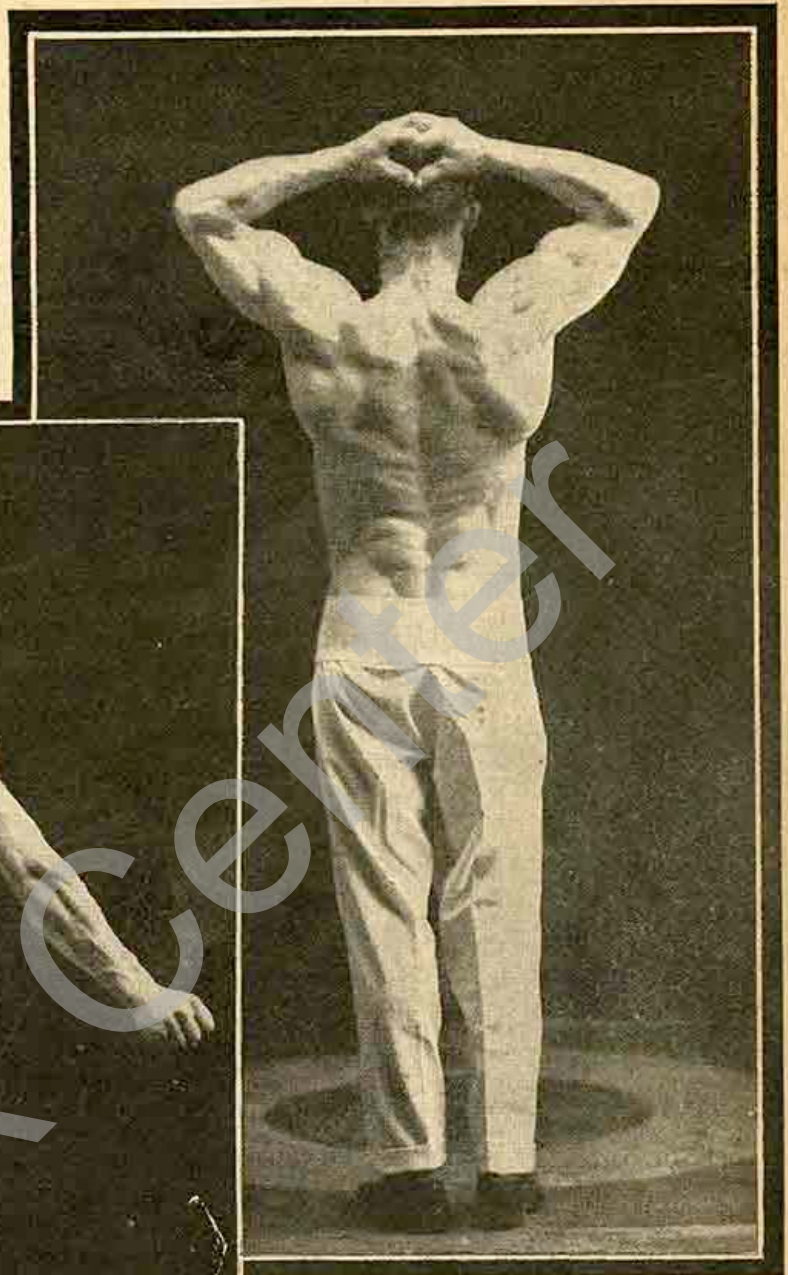
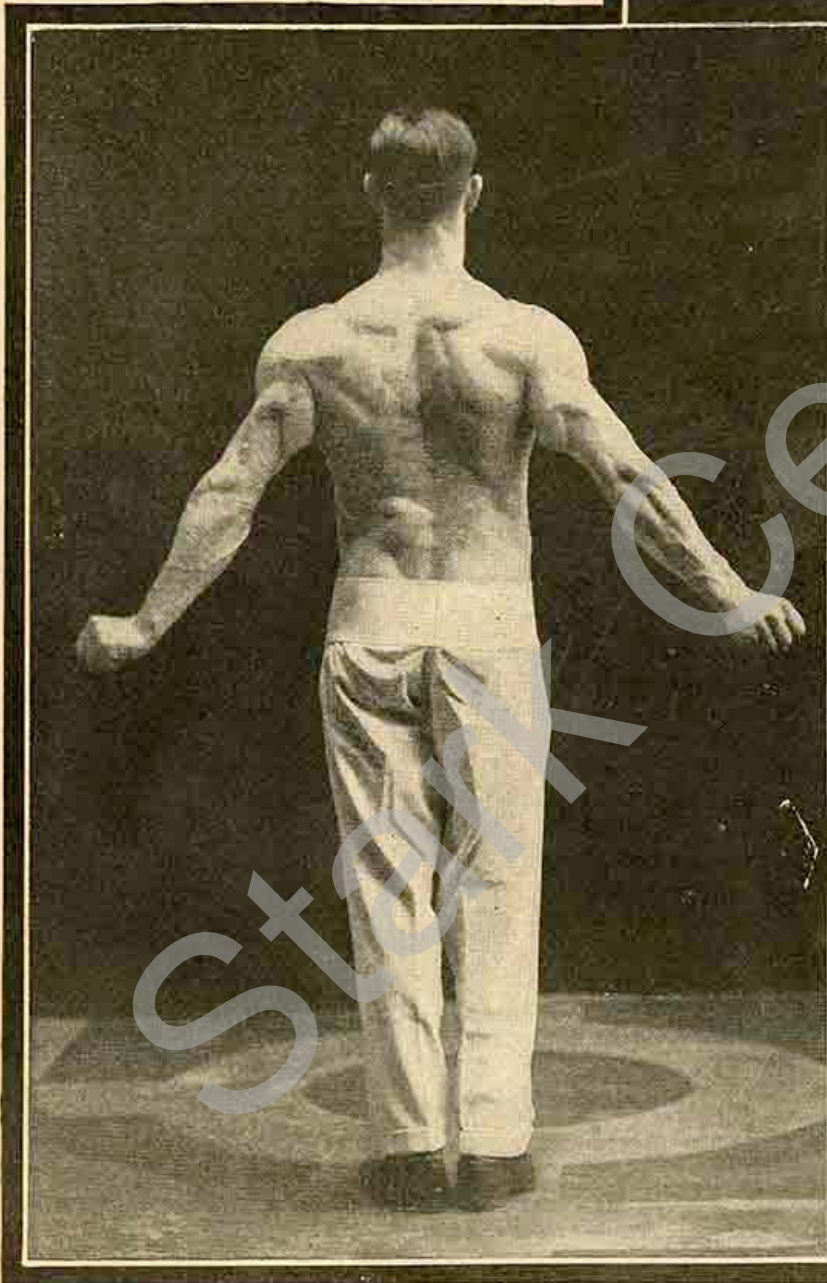
In the other front view pose (Figure 2) Mr. Mead shows another way of developing his upper body muscles, and incidently reveals a number which are not shown in Figure 1. Again you can see the muscle at the left side of the waist; and on either side of the body you can see this serratus magnus muscles; i. e., the "sawtooth" set of muscles which are attached to the ribs. These muscles are rarely evident except when the elbows are raised in this way.

To me, the extraordinary thing about this pose is the outline of the deltoids. Those two downward curves,

or lumps, starting at the arm-pits and running to the upper arm muscles, are evidently the posterior fibers of the deltoids. When the arms are raised in this way, the pectoral muscles on the breast are stretched, and therefore relaxed, so that it is almost impossible to detect their outlines. Mr. Mead's muscles are so clear-cut, and he has such power of flexing them, that you can see them almost from end to end. In this pose you can even detect in the arm-pits the upper ends or points of

Photo No. 6 (at the right) shows the arms in a different aspect, though emphasizing even more pointedly the very powerful development of Mr. Mead's deltoids.

Photo No. 7 (below) gives still a different view of the deltoids, but is most striking by reason of the very wonderful triceps display, the inner head of this next to the body being seldom developed to this extent. Let Mr. Calvert explain for you those cross-fiber muscles down the back.



details of muscular anatomy with these pictures almost as easily as though you had one of the models with movable parts, which are used in the schools of medicine and anatomy.

Figure 3 is the only side-view pose, and here Mr. Mead has made his chest deep from front to back by deliberately expanding his chest and stretching the lower ribs as far apart as possible. He says that his normal chest measurement is 45 inches, and when deflated it measures 42 inches, and when expanded

the latissimus muscles close to where they are attached to the bones of the upper arms. As I told you in a recent article on muscle-control, the biceps muscles are in a position of extreme contraction when the elbows are raised, and you should compare the size of the biceps in this pose with poses 4 and 5.

It is not often that one gets a chance to deliver an illustrated lecture like this one. You can discuss

48 inches. Certainly a 45-inch chest is far above the average, even for a man who stands 6 feet 1½ inches in height. But nevertheless, I believe that by spending some time at a modification of the two-arm "pull-over" and by practicing upper-chest breathing, Mr. Mead could get his normal chest measurement up to 48 inches, and this would be done not by further increasing the size of the exterior muscles, but by (Continued on page 72)

FISHING


Gives
Me

*Nerve-
Strength*

The Rod and Reel Route to
Health Proves to Be Salvation
of One Who Could Not Eat
or Sleep or Work

By Harry Botsford

DECORATIVE PHOTOGRAPHS
BY H. ARMSTRONG ROBERTS



I HAD reached a point in my work once upon a time where my nerves were ragged and frayed and where sleep came in fits and starts. The physical condition was the aftermath of a peculiar chain of circumstances where the writer's Army experience, general nervousness and long hours at confining and absorbing work had taken their toll. My physician was a sensible man of medicine. He gave me a close and careful examination, wrote out his prescription, accepted his fee and departed. I shuffled—no other word so well expresses it—down the street to my favorite drug store and tossed the prescription to the clerk and waited for him to fill it. In a minute he was by my side and returning the slip of paper with a grin: "Sorry, Mr. Botsford," he smiled, "but I'm afraid we can't fill that."

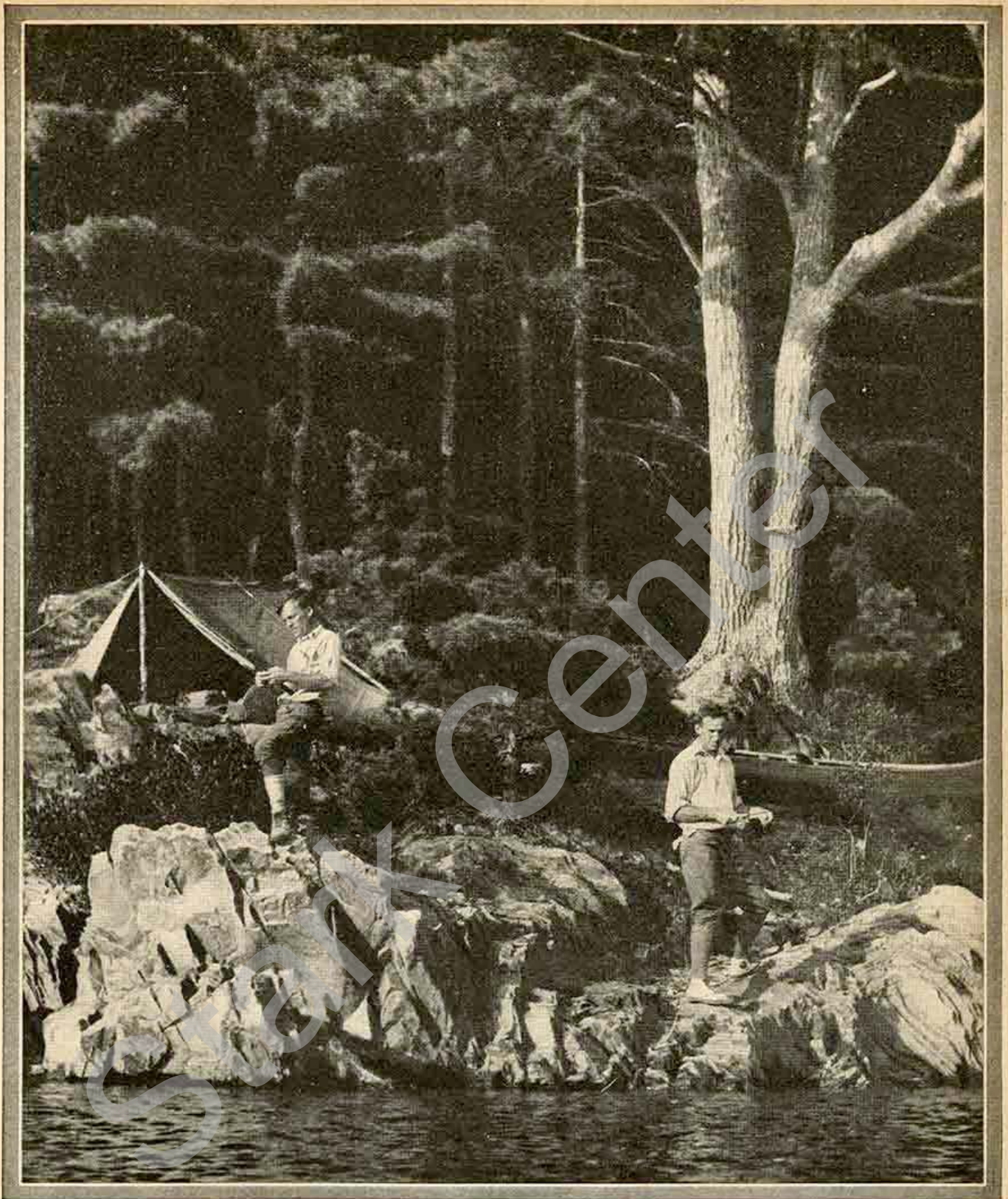
Puzzled, I examined the prescription, and then and there I found out why the drug store couldn't fill it. Tersely, it told me that I was to spend the equivalent of one day each week fishing—twelve whole hours.

That night I telephoned the doctor and explained to him that I didn't like the prescription. I had never fished in my life, and I had always considered it a foolish sport. I wasn't interested, and I wanted the fishing clause changed to golf or tennis.

"Nothing doing!" snapped the doctor. "You'll either do as I say or you'll take the consequences, which may involve a thorough nervous breakdown and a physical collapse."

Meekly I accepted the ultimatum. That very evening I called on a friend who is a keen and enthusiastic fisherman and told him of my sentence. He smiled when I told him, for many times in the past I had heartily derided his favorite sport. But he was helpful in outlining the type of rod, reel and baits and other material I should need for my first venture. He even offered to go out with me for trout the following evening after office hours.

The next night we started out. We drove about six



miles out in the country and found a nice little trout stream. Acting under instructions, I took my first lesson in fishing. Strangely enough I enjoyed it all; the green, cool country, the rough walking and climbing over rocks. We were constantly on the move. My friend was ahead, and suddenly he hooked a beautiful rainbow trout, and what a battle he had to get it landed. I watched him excitedly. At last it was safe in his creel—a beauty—about a foot in length.

I scrambled down a little ravine to the edge of the hurrying little creek. At this point the creek swung

around in a half-circle, dashed over some rocks in a white and silvery smother of foam and swirled into a deep pool around an old log. My friend motioned for me to swing my fly into the pool. In an awkward fashion I landed it. An inch from the water a pink mouth darted up from the water and there was a swirl in the pool.

“Strike!” yelled my friend.

And I struck, and all the gods of luck must have been with me, and I felt a tugging smash and pull on my line. What a fight! The odds were all against me, but I tried

to follow my friend's advice, and for fifteen minutes it was nip and tuck between my strength and lack of skill and the wisdom of that tricky old trout. By virtue of some physical convulsion or contortion I gave a great heave, broke my new rod, but landed the flopping trout up on the bank. Whereupon I rushed over and threw myself on the fish while my friend roared with indecent laughter at my method of fishing.

Presently we walked with tired and heavy feet back to our car. I had caught a fish—a real fighting trout that weighed over a pound! Proud? Rather! On the way back to town it was pleasant to lie back in cushions and feel the rush of clean air on one's face. I was tired, and inside of me there was a gnawing ache like the like of which I had not experienced for months. I was hungry! Actually hungry and anxious to eat. And when we reached the home of my friend we did eat—it was the first meal in months that I had eaten with zest—and it was the first meal I had eaten in months that failed to distress me after eating it.

And that night I slept—soundly and dreamlessly—

and in the morning I awoke refreshed and full of energy. It was then that I realized that I had forgotten for hours the absorbing work on which I was engaged, and as a result I was in excellent mental shape, and that morning I tackled my work with vigor and intelligence.

That one experience "sold" me on the merits of fishing. From that time on I have fished. When weather permits I fish at least one day a week. Often I have fished seven days a week, and I have yet to find that the sport palls on me. When I started fishing I was thin and spindling and my appetite was an unknown quantity, and I didn't sleep well and I didn't work any too well.

Today I sleep like a baby. I weigh a hundred and sixty pounds, and I'm the color of an old saddle—tanned and browned by exposure to all kinds of weather. My legs are hard and my appetite is alarming in its capacity. I can work harder and to better advantage than ever before.

I've fished for almost every kind of fish known. The one exception is surf casting, and I hope to try my hand at that sometime. I have had a great deal of pleasure and exercise in all forms of fishing. Trout fishing I find is especially active—one is moving all of the time over rough going, and eventually one gets hardened and elastic in the proper places. Playing a big trout while you are standing hip-deep in rushing swirling water gives one a good "stance" and develops some measure of grace and assurance.

Perch and blue-gill fishing are lazy ways of fishing, of course, for they are all still fishing. Yet, there is the rowing of the boat, and the sport takes one out in the open into the clean and fresh air and sunshine. And if you get enough of these one can't be very unhealthy.

Casting for bass, pike, pickerel or the husky musky is wonderful sport. And there's plenty of exercise connected with it, too! You must keep your boat moving all of the time. Every now and then you drop your oars and make your cast toward the lily-pads. In the course of a few hours' fishing you will make thousands of casts—and each one makes for strength and skill and control of muscle, carefully and accurately co-ordinated with careful judging of distance. And when you hook a big, healthy, battling bass, your
(Continued on page 78)



Why I Am a "DESIGN"

By
Christine Norman

Distinguished Beauty, Herself an Object Lesson in Womanly Loveliness, Presents the Magic-working Secrets of Her Grace and Charm

An Interview By
Ada Patterson

WHEN Neysa McMein, the talented artist who draws and paints pictures of women for the covers of magazines, gave out an interview for publication, in which she said that I am one of her chosen types of American womanhood because I am a design, I hid myself from the world for a week. I could not hide from my husband, but I was forced to listen to his elucidation of the term. "She means you are designing, my dear," he ungallantly said. "In some degree all women are. She means your designing is of a high degree." He being a lawyer, I made no attempt to reply. Why involve oneself in argument?

The next time I met Miss McMein she asked me to pose for her for a magazine cover. Since she is a fellow club member I agreed. "But on condition that you first tell me why you called me a design?" I protested.

Quite shameless at having driven me into hiding for most of a week, she answered: "Because you are the sort that an artist likes to draw in pen and ink. You make him independent of color. You are the kind who could be translated into stone without any loss," she explained.

"Thanks," I answered, with a hint of acid in my tone.

"You are as independent of color as you make your



Photo by White

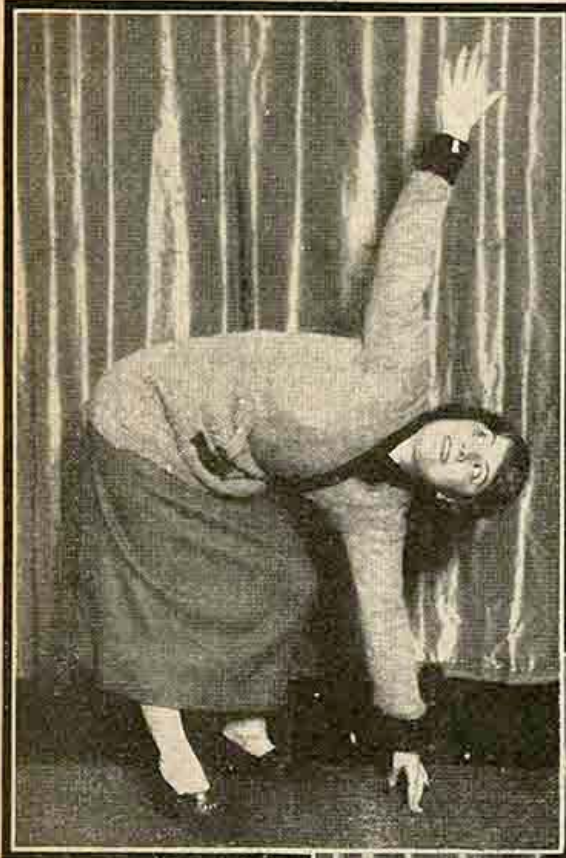
Christine Norman (Mrs. Enos Booth), whom Neysa McMein said was perfectly proportioned, and whose every line is flawless.

artists feel," she went on. "You might be blue or green from crown to sole, but an artist would want to draw you for your lines."

I had to be content or seem content. Artists are odd beings. They see beauty in what no one else does. What can one do but wonder?

Approached from a different angle, asked what shall be done to keep the figure properly proportioned, neither too fat nor too thin, I am not covered with confusion.

My experience proves that success in keeping the figure in correct proportion is one part psychological and nine parts physiological. To dispose quickly of the psychological phase of the subject, I lived for part of my girlhood in Europe. Five years of the most plastic period of my life were spent over there, most of those years in France and Italy. In both of those countries there is an admiration which approaches worship of beauty. Pictures of beauty that lived in reality, or in the painter's imagination, are accessible to every one.



One who lives in Rome or in Paris every day trips upon a statue, stumbles across a picture. Masterpieces both. Both concerned with the balance, which is beauty of form and feature. The women of those cities grow lovelier for the contemplation of such masterpieces of art. Subconsciously a model is set up. Imitated. Copied.

I believe that Lina Cavalieri, unquestionably one of the world's greatest beauties, is more beautiful because she was born and lived in Rome, where beauty is inescapable. Unconsciously she built her own form upon the lines of the slender women of past ages whose portraits she might see any day. Granted a model we become, gradually, like that model.

Then Cavalieri went to France. She saw examples of taste and exquisiteness in art and in women. She absorbed their lesson. So we see Lina Cavalieri, in her maturity, slender but not thin, and graceful beyond comparison. She has a beautiful walk.

What though it seems a bit studied? We should study perfection and try to imitate it.

In Europe women avoid awkwardness as they shun a crime. There are no Eva Tanguays in what may be termed the polite countries of that continent. There every woman cares for details of movement. She cares beyond measure for beauty of motion. Witnessing her infinite pains, perhaps an American girl growing through her own awkward age, may unconsciously absorb some of her standards. She learns to avoid a clumsy movement or posture. After a while she need not remember to avoid it. The avoidance has become habit. Her second nature. By the same means she knows that it is vulgar to be fat and pitiable to be lean. Fat speaks of self-indulgence. Thinness of poverty. She charts her course to sail between those rocks. The psychology of the well-proportioned body is simple. It is following a present and oft seen example.

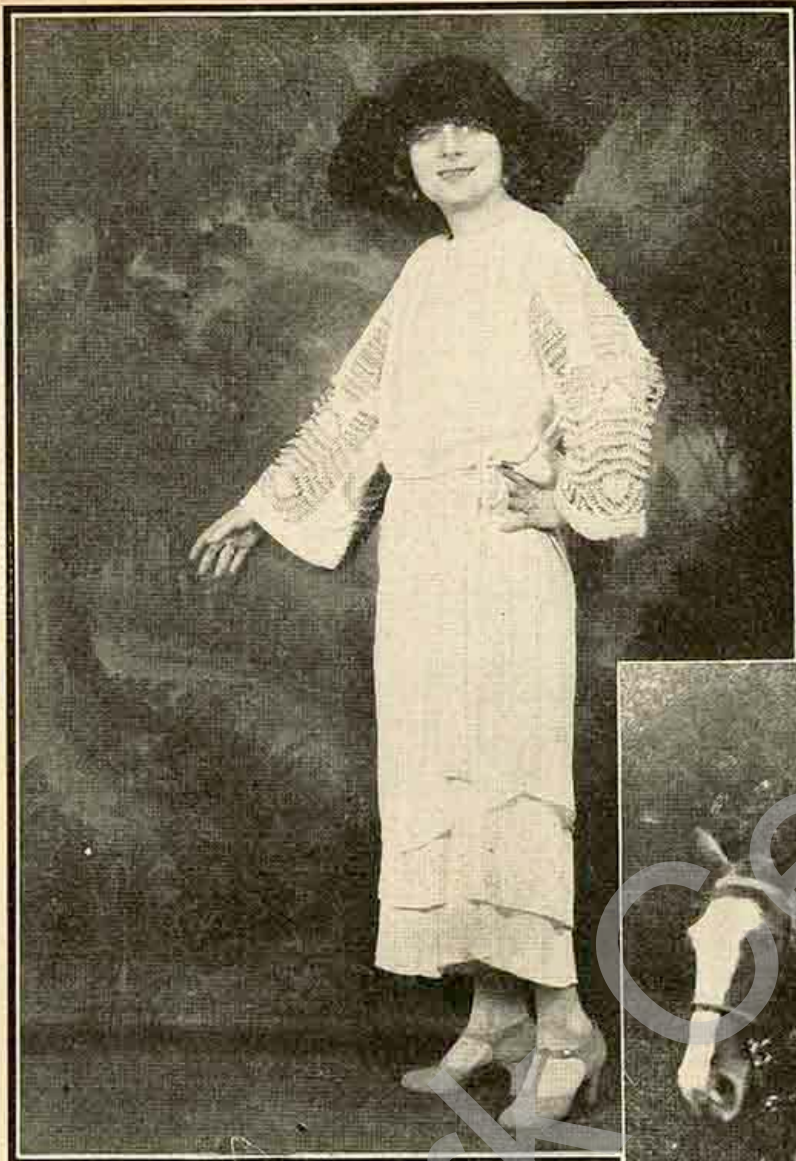
The physiology of the well-balanced figure presents more difficulties. There must be an iron will as an extra guest at the table. There must be exercise every day. No matter what the weather. No matter whether one is tired, indisposed or lazy. If you prefer I will say a prolonged and general disinclination to movement.

I rely upon four aids in keeping my figure at that balance to which Miss McMein gave the baffling word "design." Four pillars upon which I build the structure of physical well-being.

First, the stoic habit, gained through pangs of suffering, of sitting at a table where others eat what they want and all they want, while I eat "pickily" and always leave the table hungry. I long to slip away from my family and guests and bolt for the pantry. But I don't. No Indian ever stood at his funeral stake with more complete helplessness and resignation than I sit at the head of my table. I "flesh up" easily, and must set guard upon my ap-



Keystone
Posed expressly for **STRENGTH**. These and other of Miss Norman's beauty building exercises are described by her in this interview.



White

Miss Norman describes Lina Cavaleri as "slender but not thin, and graceful beyond comparison," but her own description of the other woman best suits herself. She is as graceful as ever on horseback, as you may see in the photo at the left.

petite. I eat no butter. I drink no milk. No bread for me. No potatoes. Not even though the bread be disguised as toast nor the potatoes conceal themselves in a mixed salad. I say "Thou shalt not" to myself oftener at mealtime than at any other time of my busy and varied day.

The subconscious adoption of beautiful models and the torment of my appetite for the good things of the table were as far as I had gone in the knowledge of physically making the best of myself when I married. It happened that I married an athlete. He is a strenuous outdoor liver.

My girlhood had been beset by nerves. My husband cured them, for he practically dragged me into the open. Before my marriage I had ignored the call of the great out of doors. Friends told me that air is the greatest tonic for the nerves. I agreed with them—and stayed at home. I had a delicate constitution. I thought I was too tired to walk. I went from my home to the

theatre. From the theatre home. In the afternoon perhaps a tea or a matinee. If I drove it was in a limousine, because a touring car "mussed my hair."

Mr. Booth was tactful. He would say, "Sorry to leave you, dear, but I must leg off five or six miles." He would kiss me and leave me to do his tramping, then come back glowing, the fragrance of fresh air about him, and go sniffing about the kitchen to ask whether dinner could not be hurried. So one day I put on my wraps and close-fitting hat and said, "I am going to walk with you." I don't pretend that I kept up with him. After a mile and a half I weakened. But that was better than the eight short blocks that had constituted my walking record. He took me home, then continued his walk. I feebly persisted. He encouraged me. Now I feel wretched unless I do at least three miles a day. That



Keystone

is my minimum. Often I walk five or six.

There are right and wrong ways of walking. It is not enough to just walk. If the eye is trained by having a model of walking it observes many ridiculous and pitiable pedestrian sights. They are afforded us by the average walker. He, or she, doesn't walk. The motion is a hobble or a series of short fussy steps. Some women walk with their knees rather than their feet. They walk as they did when the narrow skirt caused

them to hobble. The habit of short stepping and of raising the knees in walking is silly and ungraceful. My husband, through tramps in the north woods, in Canada and Alaska, had acquired the lithe walk of the Indian. He taught it to me.

"Forget you have knees. Walk from the hips," he said. "Let them do the work." It was not easy. In trying to learn it I found myself moving with undulations. As the Spanish dancers I had seen. That was wrong. This is a modern age. The modern woman is frank, boyish, companionable. The vamp has nearly gone, and with her the undulatory walk.

For a straight swing from the hips long steps are necessary. You can mince from the knees but not from the hips. That established, I had to learn to walk with feet turned straight ahead and parallel. The Indian habit. I learned to swing my arms. They give balance to the body. I am grateful for the art of walking. I had suffered from acute nervous indigestion. Walking cured it.

Walking is the best of outdoor exercise save riding. Mounted upon a horse, unaccustomed muscles are brought into play. When it is possible I ride three times a week in the park for an hour. Recently I have become a convert to riding astride. It is safer than the side posture, and it is a normal one. The side-saddle posture cramps the muscles. We deprecate sitting in that way at home. A wise mother reproves her child for it. She warns of round shoulders and curvature of the spine. When a woman flings away her side saddle she must once more learn to ride.

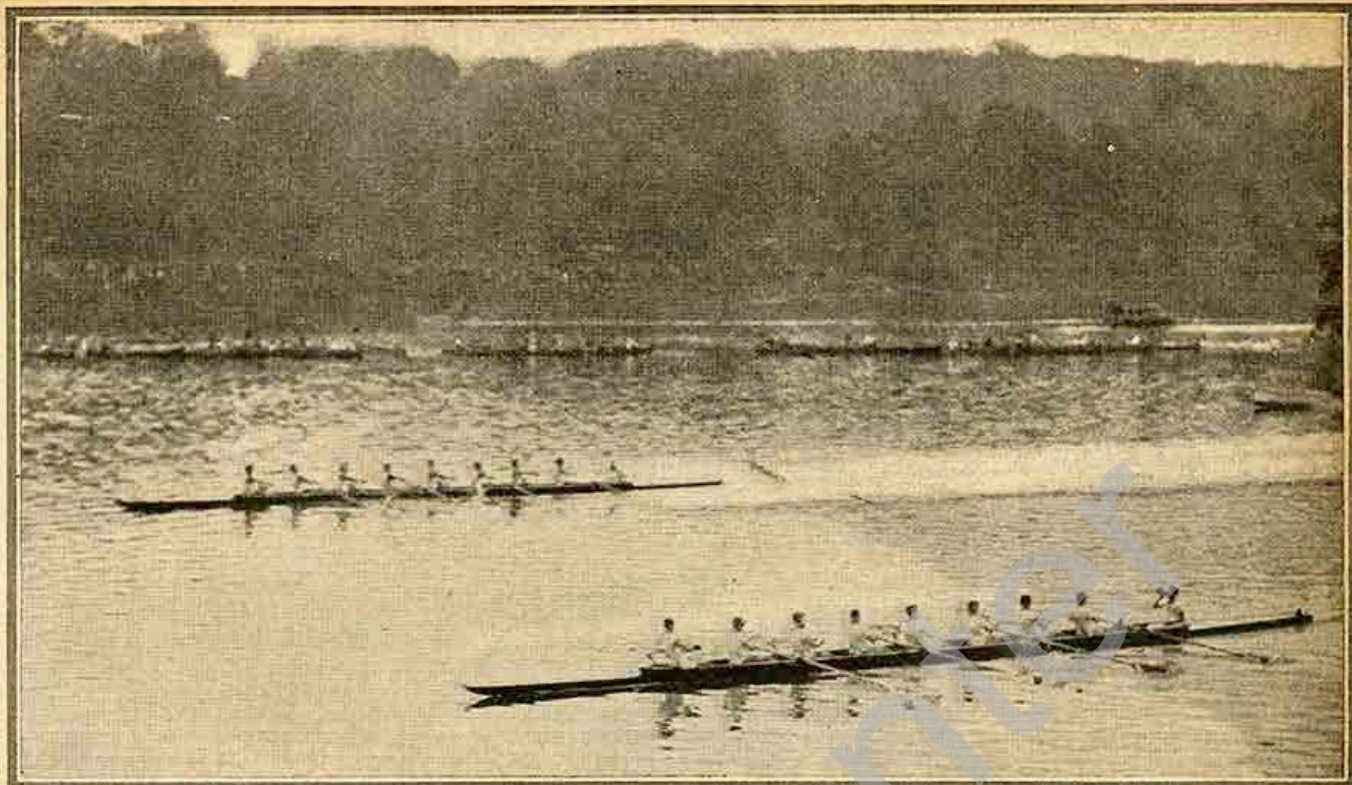
That is the reason I ride three times a week in the park. Otherwise I would ride from my husband's country club on Long Island.

(Cont. on page 74)



Miss Norman believes that trousers are the best garment for walking in the wilds, and she wears them when walking five or six miles every day when up on Booth Island, in Lake Bomeseen, Vermont, seen in this picture, and also in the picture at the bottom, in which Mr. and Mrs. Booth and friends are seen canoeing around their own island.





Perhaps the most remarkable boat race in the history of rowing was this heroic contest in which the Yale crew defeated the picked veterans of the Navy, for the honor of representing the United States at the Olympic Games this year. You will see from the author's account what a thriller it was.

Power of the Punch

Whence Comes the Climactic Force of that Heroic "Supreme Effort" that Sends One Over the Top?—Some Dramatic Instances

By *T. Von Ziekursch*

THERE is a time when strategy, when the cunning that comes with experience, when skill and knowledge of the game count for little, when all these things must be forgotten and left to function automatically. That is the time when the power of the punch alone can count.

Champions have saved their crowns by ability to out-think burly and swift challengers swooping close to wrest away the laurels; many a head wise in the craft of the ring has outgeneraled a better man in other ways, many a crafty veteran of the pitching peak with little besides gray matter and a creaking and ancient wing has outguessed the rampant three hundred hitters in a pinch. But soon or late comes the opening, when nothing counts but the explosive burst, the flaming brilliance of the drive, the irresistible power of the punch.

We're going to see a lot of it, and epics in the chronicles of sport will be written about it within the next few days and weeks, even before these paragraphs see the light of publication, as the flower of the world's athletes strive for the bay wreaths and olive branches at the Olympiad.

Over there, bearing the shield of the United States, are men who've got it, who can call upon this power of

the punch when everything else fails. But all the drama of it will not be there where the nations of the world are striving to drag America from the pinnacle of the sports' realm.

There was some of it here a little while back when those who sought to be defenders were going through the fire test to prove their mettle as fitting standard bearers.

Many of the Olympic events are over now, some new kings of speed and brawn have been crowned, but it was in the choosing of one of these on this side of the Atlantic that the punch reached its superlative heights.

Like time, the story of it goes backward to the days of 1920 when from the United States Naval Academy came an eight-oared shell, a shell manned by men who swept all before them in Intercollegiate competition and then won their way through to the Olympics to crush all opposition from the world's best. Heralded as the greatest crew that had ever manned a boat they disbanded and went on into their profession, as officers of the Navy. Then came the call that brought forth all the best this nation had to offer in athletic prowess and these same eight were gathered again from the corners of the world; Pop Glendon, the famous Navy

coach who had since retired, came back to coach them once more as he had coached them to world laurels before, and for months they groomed. Theirs was the skill, the cunning; they were veteran bladesmen whose sweeps had conquered everything they met, and they had power.

In a sense the racing of crews has its limits so far as a following is concerned. It is picturesque, yes, with all the color that could be desired; but this come-back of the veterans who had been supreme was even more so and drew upon the interest of many who would otherwise not have cared.

Came the big day and twenty-five thousand lined the mile and a quarter course along the Schuylkill River. They saw a race; they saw more. It was the drama of the punch, of power, and little else. From New Haven came a younger crew, eight wearers of the blue of Old Eli, coached by one who had won his spurs as a mentor of oarsmen on the Pacific Coast, Ed Leader, young enough to be the son of Pop Glendon, coach of those Navy veterans. There were other crews, but they did not matter. Yale was good, everybody knew it, but the old champions had been supreme, unbeatable four years ago.

Blades dipped at the starter's gun and the blue-tipped oars of Yale were to the fore. Then began a race to break the hearts of each. Together they came down that course and there was no jockeying for position, no lying back to test the other's power or pace. The three other crews were out of it from the start, almost from the first feathering of oars. Two mighty eights were unleashing their all, each seeking to kill off the other by sheer power and depending on that last ounce of stamina which all great athletes know in a crisis for the winning spurt, the last ebbing punch of victory.

Boat races are won by lengths, or by yards, at least. It is rare when a matter of a few scant feet decide the winner. Those on the banks knew what was going on, the inner drama of it, looked on in amazement as those two long shells sped down over the quiet waters, bow and bow almost equal, the blue of Yale always a little to the fore. And those who knew wondered.

At the half-way mark coxswains were calling for a stroke used only in the last desperate spurt. Half way through the race those sixteen men were sprinting. It was a miler on the cinder path running at the

clip a sprinter uses in the hundred yards dash.

Surely one or the other would give way; there would be a weak link somewhere that would break. Those veterans of other conquests were fighting to regain and hold the heights they'd known before. Probably they could have overwhelmed any other crew in the world that day, but not those men of Yale.

They sprinted to a faster stroke and oars bent under the pressure, but Yale met their best and held it. Now there was no time for strategy, it was grit and stamina, the power of the punch in its highest, and Yale won by that margin of a few scant feet they'd held over the entire route. A world's record fell, with fifteen and two-fifths seconds clipped off; the old kings were dethroned. Skill had played its part, but it was a subconscious part; the rowing ability of each man had functioned perfectly, but it was the power of the punch

that had won, the spectacular, crushing drive that rises supreme above all else. It was the thing Ted Meredith had that day at Stockholm in the Olympics of 1912; that Man O' War had when his one big test came that day he broke the oaken heart of John P. Grier at Aqueduct in the running of the Dwyer Stake.

Meredith himself has described the things that happened in that greatest of all his mighty feats that brought him enduring fame as the champion middle distance runner of all time better than anyone else could.

It was just another such race as that the oarsmen of Yale won over the veterans of the Navy except that it was run instead of rowed.

America had Mike Murphy, peer of all trainers, at that time, and Mike played strategy always. Also we

had Mel Sheppard, then the greatest middle distance runner in the world. Germany had Braun, and Murphy knew that Braun was almost the equal of Sheppard, who had reached the crest and was slipping backward. As always, the immortal Mike called strategy into play. On the American team was Meredith, the schoolboy from Mercersburg Academy, whose outstanding achievement up to that time had been the breaking of the world's scholastic half-mile record. Meredith was fast—Murphy knew that. But Sheppard was faster, the Peerless Mel was the man to win. He was the old champion, fading but still the best we had.

Murphy sent Meredith onto the track that day not to win but to break the heart of the German, Braun, to sprint from the start, hoping he'd follow and then run him into the ground by a heart-breaking pace. It worked. Meredith went off at the gun like a sprinter, and Braun followed, while Sheppard lay back waiting for Braun to crack under that terrific pace. Thus they



Keystone

Do animals have "temperament?" Here is a photograph of that wonder-horse Man O' War, which presents his racing psychology, his qualities of fire and energy being expressed clearly in his face. He had the "power of the punch" when he needed it.

came into the stretch, Meredith leading, Braun drooping, and then Sheppard made his bid. He passed Braun, went ahead of Meredith and sped for the tape and victory.

As Meredith has described it, he saw Sheppard pass him and his thoughts were, "there goes the champion; I can't beat him, but I've done my job and made it possible for him to win by killing off Braun."

He, too, was fading; that awful pace had taxed him beyond human limits and black curtains were drawing close. Then came something else. He heard the pounding of a runner close at his side. It was Braun. The great German had something left and was uncorking a last ditch sprint, a desperate quest for triumph. To Meredith then came another thought. He couldn't beat Sheppard but he could beat Braun and he'd do it. From somewhere came one ebbing burst of energy. He couldn't see nor hear.

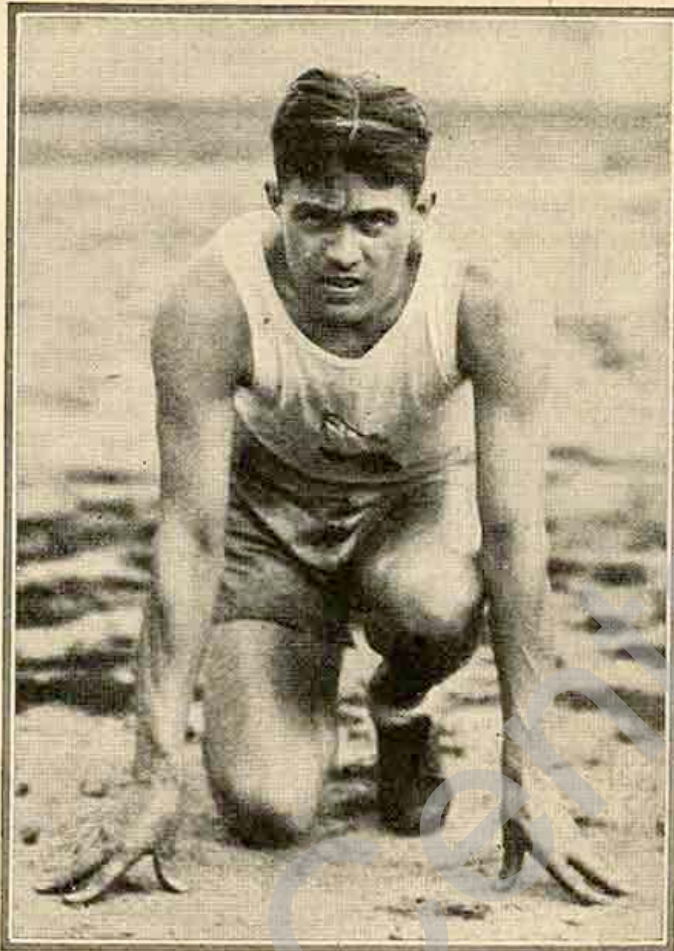
His legs moved faster. He could beat Braun and he'd do it. That was the dominating urge. He was beside Sheppard and Braun was inches back.

Three of them had broken the world's record, and Meredith had won, with Sheppard second. He ran that 800 meters in a minute, 51 and 9/10 seconds. And it was the power of the punch that brought him triumph.

It was the sprint that comes to champions when lesser men are fading. It was the thing that Man O' War had in greater degree than John P. Grier in that greatest horse race the writer ever saw, and which no one who looked on could ever forget.

The turf world knew this was to be the supreme test for this mightiest horse that ever stepped on a track. Veteran trainers swore also that Man O' War knew it. To those who saw it the picture must recur still. John P. Grier was a great horse, would have been a champion but for Man O' War. It was his misfortune to arrive on the scene at the same time that a phenomenal horse figuratively sat on the throne of the turf.

Their race was a Jeffries-Fitzsimmons fight all over again, translated into another medium. Once John P. Grier's head jutted to the fore as they were nearing the mile post, and the world's record fell for that distance. Then something happened. For the only time in his meteoric career Man O' War was allowed to run as he could run. With the possibility of defeat ahead the



Keystone

This picture of Ted Meredith brings back to mind his stupendous effort in the 800 Meters in the Stockholm Olympics of 1912, one of the greatest races of all time. You'll find the big kick in the author's thrilling review of that heroic event.

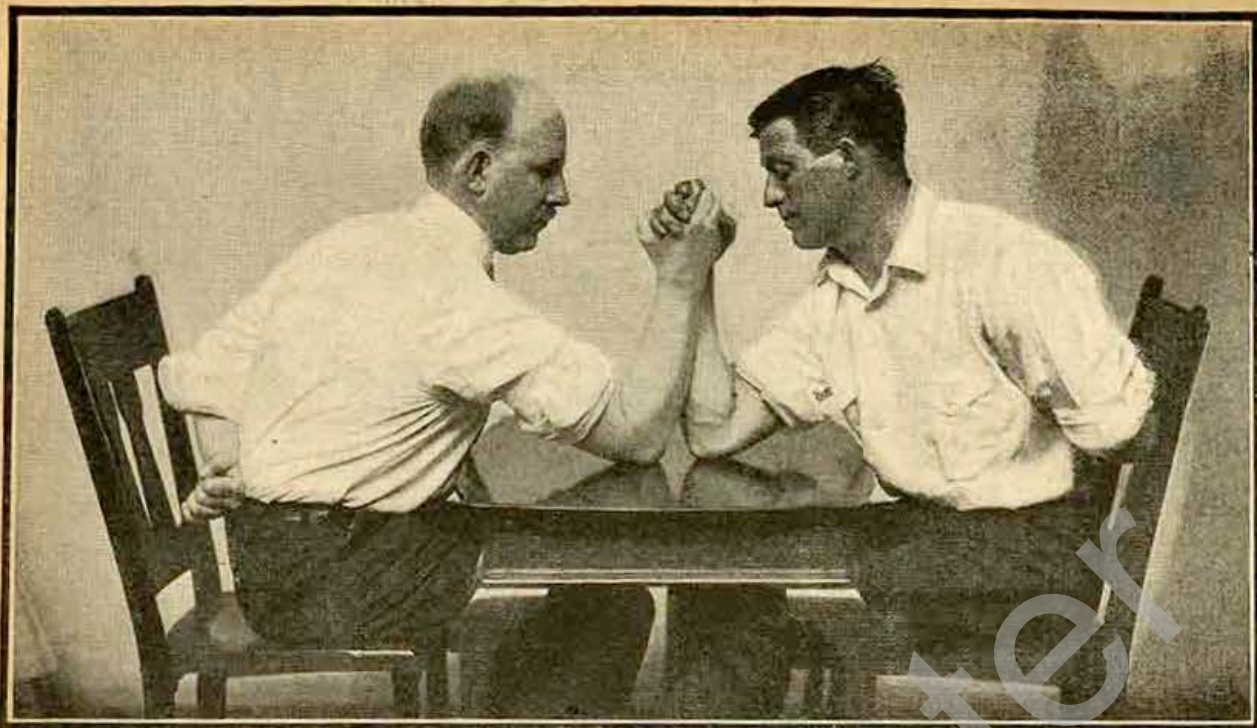
jockey let him have his head. That next eighth of a mile was a revelation of speed. John P. Grier gave his all and it was a race such as may never be seen again, but Man O' War had reached the heights. He seemed to be catapulted forward, a mad, red thing of flesh and blood, leaping like some giant kangaroo. He won, smashing world's records all the way, and John P. Grier staggered and floundered, gallantly died in his boots, fighting to the last. His heart was broken, actually, according to those who know the turf. That race was his finish. Before that race he was a faster horse than anything on the track with the exception of Man O' War. Afterwards he was never the same. The power of the punch had beaten him when the crisis came; not only beaten him but literally broken him as well.

It was the same old story. The time had come when skill, courage, the strategy of master jockeys, all were useless. One thing alone could bring

victory, the power of the punch, and Man O' War had it just as Jeffries had it, as Dempsey has it, as Meredith and that Yale crew had it, and nothing could stand before it.

When Arthur Duffey first ran a hundred yards in 9 3/4 seconds in the Intercollegiates at Berkeley Oval back in 1902, he found when half way down the stretch that fast as he was flying, his formidable old rival, Schick of Harvard, was out in front. Was he dismayed? Did he lose hope? Not he! For then the fighting Irish heart of Arthur Duffey rose to the occasion with such a burst of speed as he had never known before. Just so in the Olympic 100 meters four years ago, Morris Kirksey, a high-powered, perfect sprinting machine, was leading Charley Paddock at ninety meters. But the latter came through to win that race in the last ten meters because the California Comet had the prodigious power of the punch when he most needed it. In dozens of other races Paddock has snatched victory from defeat at the end of a race because he had the mighty heart with which to do it.

For the power of the punch is in large part the strength of the heart, which is the strength of the spirit, incapable of recognizing failure, and capable of making the supreme effort even when failure is in sight. Discouragement is a word unknown to such a spirit. There is no situation that is hopeless, if you have the heart.



For ages this contest of "forcing the hand down" has been a popular test of strength. Read carefully the author's suggestions of how best to accomplish it.

Test Your Strength On Your Friends

Interesting Stunts That Supply Vigorous Exercise As Well As the Incentive to the Cultivation of Greater Development

By J. Leonard Mason

I HAVE been asked to describe some simple tests of strength in which two people compete against each other in friendly combat. They are, in character, like games and do not require any apparatus or equipment.

Most everyone will recognize some of these tests. There is nothing new under the sun and the only "pity of it is" that we don't revive more of the good things of the past and really get more solid enjoyment out of life. So in spite of the fact that some of these games are "old timers" they will be found just as good as they used to be. And let me ask you, old friend, how long has it been since you tried a little tussle of this kind?

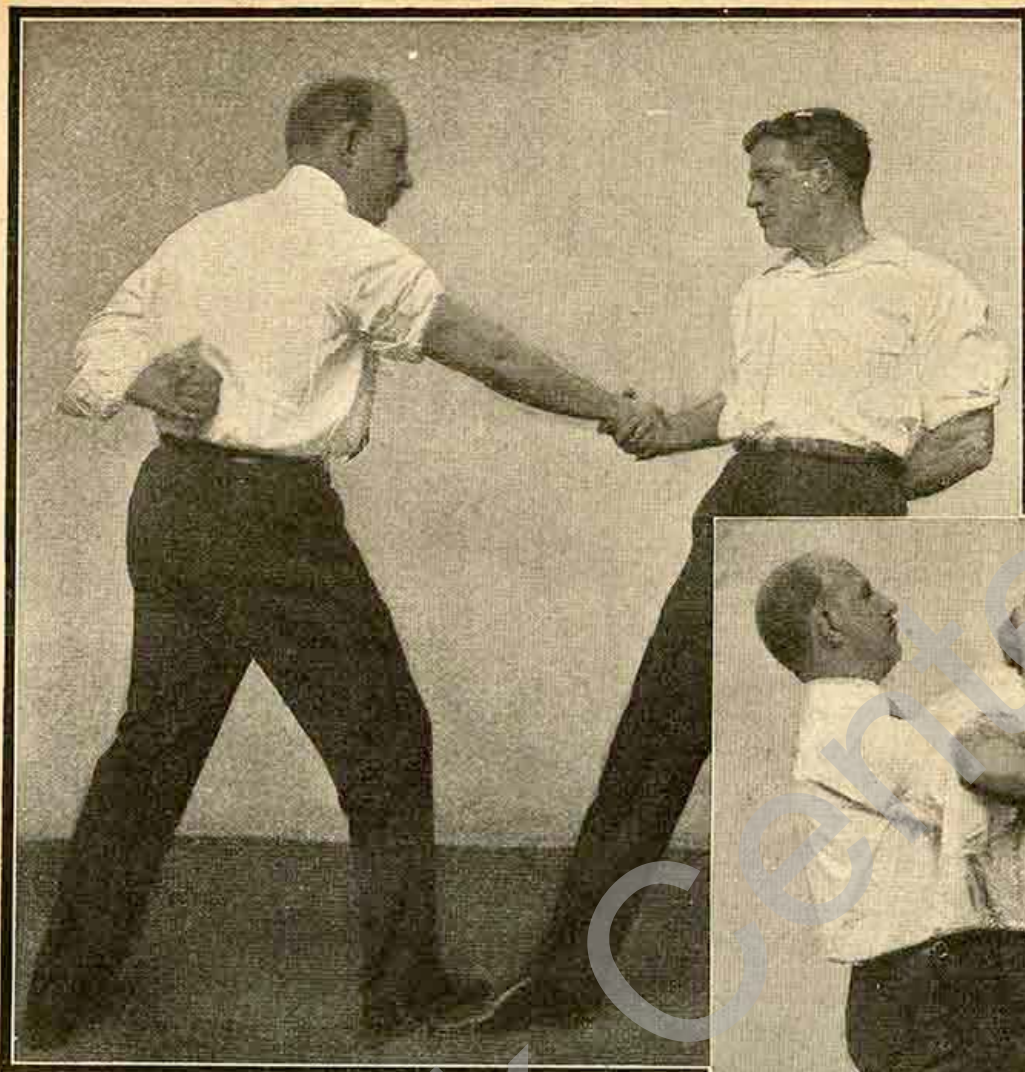
There is some valuable psychology in contests requiring physical contact. I have seen many men who would have made better friends, better neighbors and better citizens not to mention better fathers, if they had had some experience in contests requiring physical force to be used against, and received from, an opponent. A real man must learn to give and take with a smile, to hold no ill will against a worthy foe, to be a good loser and a generous victor.

A man's real character can not be determined in the drawing room or the banquet hall. But just a wee bit of a man-to-man contest will show just what sort of a person he is.

We acknowledge the superiority of mind over matter, else the beast of the jungle with his great strength would be master of us all. Yet man, if he is to survive at all, must place a proper value on physical strength and keep up his interest in manly sports and contests.

I always pity the poor fool who resents an imagined wrong when some one jostles his sacred person. What benefit he would derive by using the boxing gloves or wrestling every day for a few months with a good partner! Then there is the conceited one who because of some unimportant success puffs up his chest and, figuratively, defies the world to knock the chip off his shoulder. With life so short, how can they do it?

So I say that in contests of physical contact, be they for the world's championship or just a little game for fun, a man's real character is shown more clearly perhaps than in any other way. You can't keep a poker face long when someone is working on your anatomy with leather mits or arm locks.



Hand wrestling is partly a matter of skill and balance, gained by experience, but superior strength has much to do with the result. The other contest shown here, that of breaking a double Nelson hold, is one for those having strong necks as well as strong arms. There is a way to apply this hold, and also a way to resist and break it. Don't strain. Try it in the spirit of fun.



This is not a defense of our old friend "Slapper" who thought it a great joke to come up behind you unawares and greet you with a friendly(?) whack on the back just to impress you with the weight of his good right arm. Nor are we in sympathy with the funny fellow who delights to catch one off guard and, without warning, grips one's hand as if he were trying his strength on a little machine made especially for that purpose. Wouldn't it be great sport to have an "honest-to-goodness" trial of strength with these jokers and show them up as they deserve?

There are many times when "a little fun is relished by the best of men," and the simple contests here described can be suited to many occasions. I use the term *simple contests* to differentiate between these and those contests of strength, skill and endurance such as boxing, wrestling, fencing and races of all kinds for which the contestants are carefully trained and prepared.

Some years ago strength testing machines were generally used in the physical examination rooms at colleges and athletic clubs, but are not used as much at the present time. At some places of amusement you may test your strength for a penny by either lifting, hand twisting, punching a padded disc or "swatting" a peg with a sledge hammer. It is wise for the average man whose muscles are a bit soft not to try too hard to break the record, particularly in lifting, else something besides his suspender buttons will give way. But of

course these machines lack the human interest that a friendly partner affords.

Speaking of strength tests, here is an interesting fact which has always impressed me. Nature does some wonderful things for us short-sighted mortals. Did you ever think how our muscles are arranged in the order of their strength? For example, the muscles of our fingers are comparatively small, those of the forearm are larger and stronger, the upper arm stronger yet, while the muscles of the shoulder, chest and back are powerful groups.

This means that if we are to lift a heavy weight our hands must just be able to hold it. That is nature's protection against strains. Think if our hands were as strong as our shoulders and our shoulders only as strong as our hands, how many athletes would suffer from strained shoulders. Of course we sometimes fool well-intentioned nature and strain ourselves anyway. As to the stunts which I shall describe, there is little real danger of injury from strain to the average normal individual, but any one with organic weakness, hernia or very soft muscles from long disuse should not undertake any exercise requiring violent effort.

Now don't take these trials of strength too seriously. Get a little fun out of them as well as finding out how strong or how weak you are.

Force the Hand Down

This is a test which has aroused great interest in the taverns of the old country as well as our own for generations. Some boasting village strong man would announce in fearless language that the man had not been born who could force his arm to the table. Of course some one would accept the bold challenge, and the contest would be arranged.

Either seated at a table or facing each other across a counter the men would place their elbows together, join hands and try to force one another's hand down. I

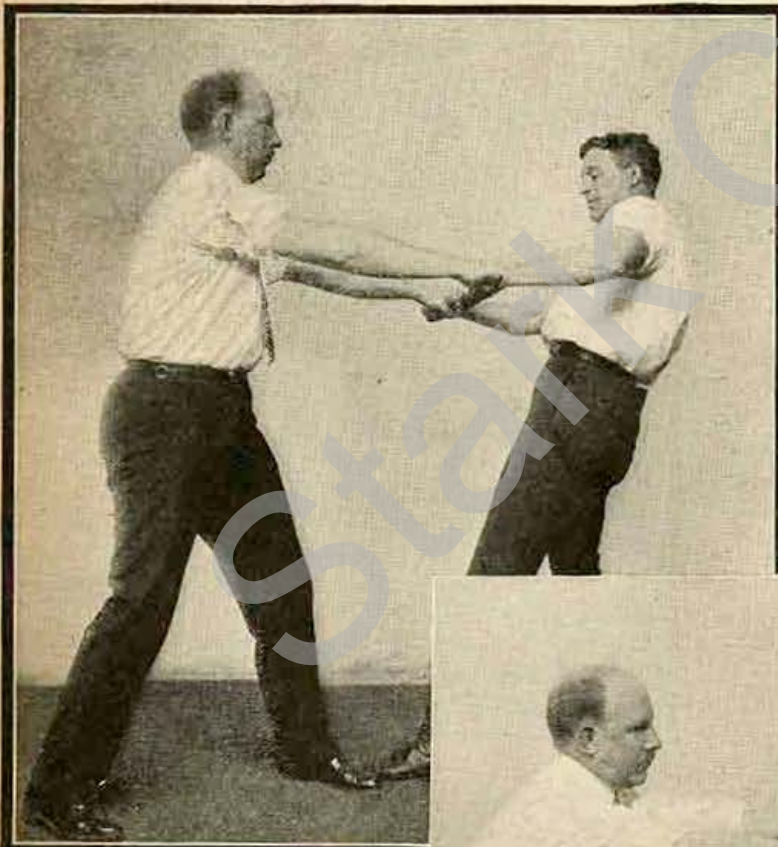
have seen such contests last for five or six minutes. Two strong men evenly matched will hold each other's hand almost motionless until one begins to weaken, and very gradually one or the other will force his opponent's arm down.

Here is the way you can try it. If you haven't got a narrow table handy, which brings you close enough together, arrange yourself and partner at the corner of any table. Put your elbows together on the table and clasp hands. Better not interlock the fingers, as they get numb. Take a fair start with forearm and hand perfectly straight. The referee allows both a little pressure while in this neutral position. Then the word "Go" is given, and the fight begins. You may bend your opponent's hand back if you can and set the muscles of your whole body, but the elbows must remain on the table and you must stay seated. Each man should keep his other arm behind his back so as not to take an unfair advantage by holding on to table or chair.

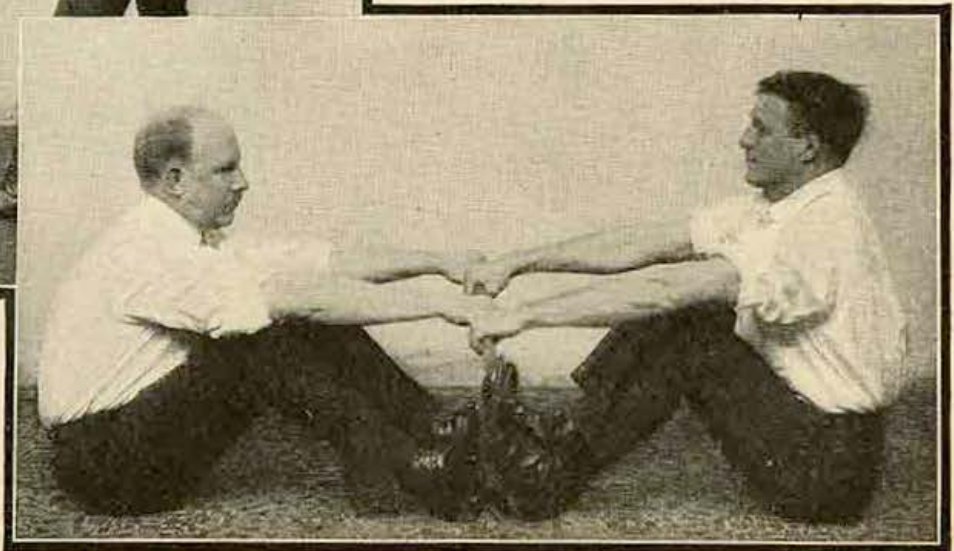
When you find your opponent is just as strong as you are, don't waste your strength trying to force his arm down quickly. Hold your first position without giving way. Then as he relaxes after his first effort, take advantage by a quick bend at the wrist. Hold this and let him fight again. When he relaxes once more, then start your downward pressure. He will hold you frequently, but you will probably win by this alternate holding and pressing method. This is an old principle which is applied in all contests of endurance: get your opponent to tire himself, break down his resistance, then go at him and win in real earnest. When you have tried this test with your right arm, reverse and try it with the left.

Pulling the Hands Apart

Did you ever let some one lock hands across his chest and then try to get his hands apart? Some interesting things develop when you try this. You will find it is largely a contest of chest muscles against back muscles. But the chest muscles have the advantage because the hands are clasped. Ah! that's the reason why it is so difficult to pull the hands apart. But just change your method of struggle. Take a hold firmly on each of your opponent's wrists and turn them sharply in opposite directions.

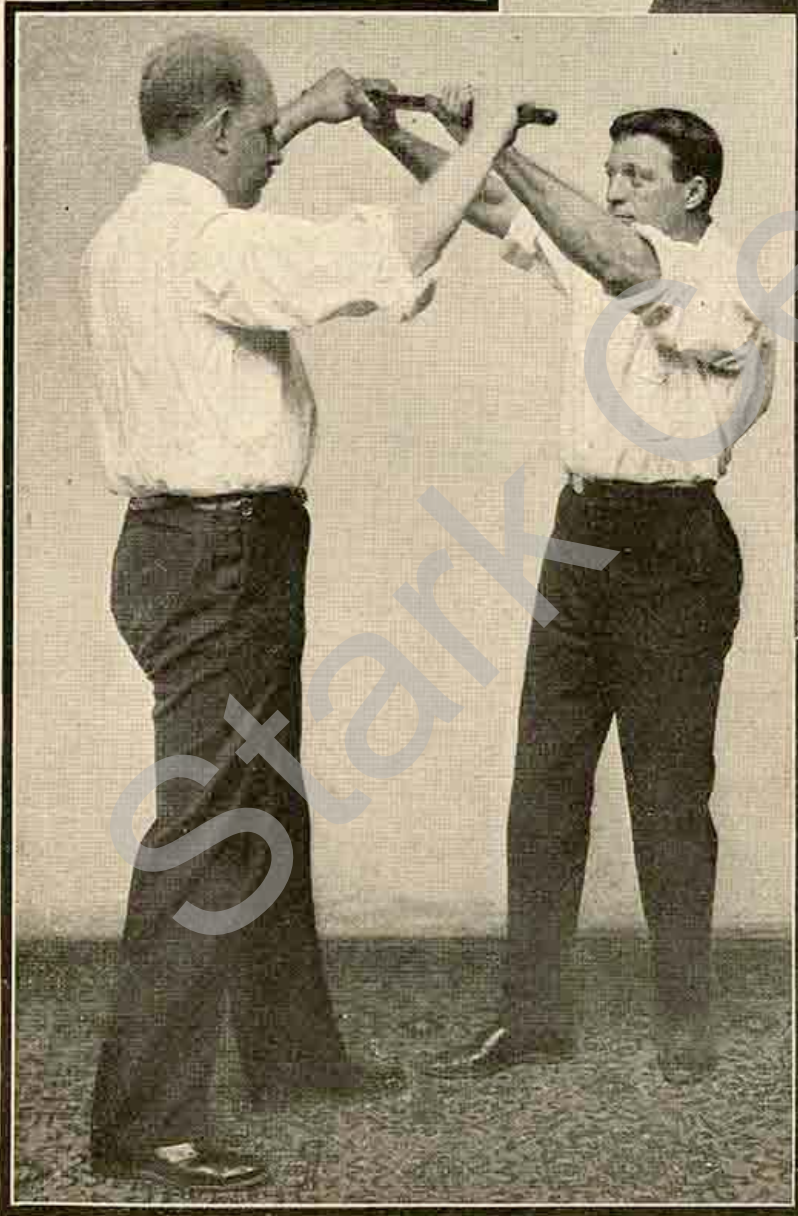
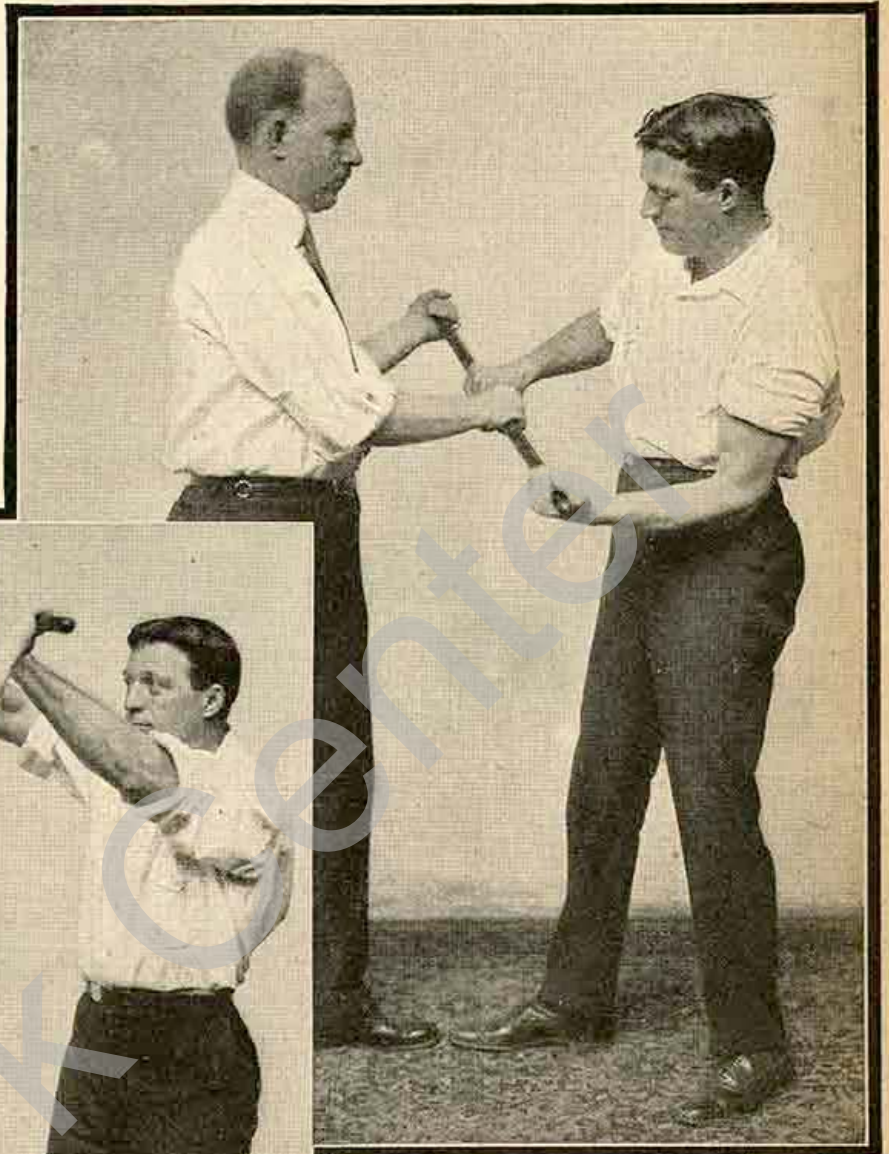


Pulling over the line (above) is an ancient pastime, a kind of individual tug-of-war, with no limit to the exercise afforded. The stick pull, sitting, popular with farmers and oarsmen, is chiefly a test of the small of the back.



If successful you will break the hold and force the hands apart.

There is another form of this game in which your partner places the tips of his fingers together in front of his chest instead of clasping hands. You try to get his hands apart by a straight side pull while your partner tries to keep the tips of his fingers touching. Grasp his wrists as before and strongly contract the muscles of your upper back and shoulders. You cannot get your partner's fingers far apart, but if they come apart at all you score a win. Reverse the performance and see if you can successfully hold your finger tips together.



Don't use too small a stick for this grip-testing, stick-twisting contest. Start high overhead, then bring it down. Either your grip or your opponent's will slip, by the time the stick reaches the level of your hips. The other is a "turn over" contest, each trying to raise his end of the stick up and over. This is a full arm and upper body exercise, requiring all the strength you have. The other is a "grip" contest purely.

Breaking the Double Nelson

The double Nelson hold is one used by professional wrestlers. It is most effective when both men are on hands and knees on the wrestling mat. But as a strength test we shall use it with both contestants standing. I have heard one man say to another, "I'll bet you can't hold a double Nelson on me; I can break the hold." Then the challenger allows some one to step behind him and put both arms under his own and clasp hands on the back of his neck. Then the hold is tightened and gotten securely. The man with the hold tries to keep his hands clasped, and if possible force his opponent's head down, then bend him all the way down. The other man tries to break the hold, and he may do it in this way if he is a strong fellow. Make the neck as short as possible by drawing in the chin hard. Then force the head back as far as you can; at the same time force the elbows down to the

(Continued on page 90)



"Brant was stuck alongside of me in the hospital, and I was there when he died. Brant just wanted to get it off'n his mind before he cashed in."

"Life Feels Like a Fight"

By *Wilbur Hall*

ILLUSTRATIONS BY THOMAS SKINNER

The Dramatic Climax

IT is not the mere plot, but the spirit of the story that makes it big. This month brings us to the stirring end of one of the most stimulating stories that we have ever read, a story with a big idea.

Craig Gantry was a long time finding out just what stuff he was made of, though Mary Clyde knew it long before he did. He had a bad start in life as a rich man's son, self-indulgent, cynical, with weak impulses. He never learned that "Life feels like a fight," in a big sense, until after he had been deprived of his fortune, bumped the bumps, and finally taken upon his own shoulders the troubles of Mary Clyde and her blind father, after they had rescued him from death in a Sierra mountain blizzard. Finding them under obligations to Sill Thurston, timber baron, Gantry has undertaken to cut down, saw up and market the timber on their land, and in so doing comes in conflict with Thurston and all the powers behind him. There are obstructions of every kind, the burning down of the sawmill, a mysterious and doubly fatal accident among the logging crew, raised freight rates and other financial difficulties without number.

A ray of hope enters the situation finally with the offer of a contract to supply pine box shook to the fruit growers of California, who have been robbed for years by Thurston, monopolizing the box-shook supply. Gantry faces the problem as to how to finance the building of a mill to manufacture box shook, and enlist the co-operation of other independent makers. Meanwhile Defoe Brant, suspected to be the tool of Thurston, but employed as boss of the sawmill, recovers from a drunken orgy and returns to work in time to meet his ancient enemy, Noel Thomas, boss of the log cutters. In the confusion of the fight that follows, an unexpected strain upon the machinery results in the breaking of a giant band saw, which like a huge steel whip lashes the prostrate Brant, who has been knocked down.

And now let us see how it all turns out.

CHAPTER XVII

I

The success of Craig Gantry's scheme for the smashing of Thurston's monopoly on the box-shook business of California depended partly on getting his own factory

to running by the earliest possible days of Spring, but mainly on securing the co-operation of some six or eight small, independent producers of the shook in the enterprise. He and Michaelson divided the work, but in the end it was usually Gantry who closed with the independents. He worked literally night and day—and threw on the work.

He was a new man—grown up. The project he had developed, beginning with the vision of its scope in the offices of the Pine-box Distributors, and crystallizing in that moment of inspiration in the room of Mellette Robin, was big enough to stir his blood and make him forget himself and his own sense of uselessness. Little Mellette, gutter-born and street bred, had suddenly showed him what strength may grow in a slender reed of human flesh; it was Mellette who had whipped up his pride and made him ashamed of his own pettiness and cowardice. His weak days lay behind him. He had conquered himself in his final enlistment in the fight that he saw Life to be!

Mary Clyde, watching him keenly, knew that something had occurred to regenerate him. And she had moments when she gave way to tears because she thought that someone else had succeeded where she had failed. For Mary had stumbled on Craig Gantry's own signed confession of weakness, and though she had hidden the discovery in her heart, she had kept the evidence in the belief that it would some day be useful to Craig.

It was the letter he had written her after the closing of the mill in the fall, when his desertion of the enterprise had only been prevented by the death of her father. Mary had found the letter in the jacket Craig had loaned her; now that she saw him busy, determined, dauntless and standing up to the fight without a moment's wavering or a sign of fear, it seemed to her that he had only stayed on to aid her, out of sympathy for her, and that it was not she, but someone else, who had given him the new lease of life.

This was her cup of bitterness. But, characteristically, she drank it alone, and turned a smiling face on him!

II

With few exceptions—for it was an open winter in the mountains—those were days crowded with movement, activity, building, expanding, and development from Lassen to Castlemont, and from Granger to Booker. Not a mountain man was idle that season; on the contrary hundreds of men poured in from the Coast and the closed mines of Nevada and found ready jobs at good wages. For Mellette Robin had been a true prophetess, and a great electric power corporation was rushing work on a tremendous development of water-power.

Their site, below Castlemont, was inaccessible from every direction save the east; every sack of cement and foot of steel and piece of timber would have to come in down the cañon. That was the purpose of the narrow-gauge railroad they had projected; Parker Forbes, keen-eyed and long-sighted, had induced his own people of the Pacific Western to join hands with the hydro-electric corporation and the gauge of the road had been changed, before a pick touched ground, to standard width, and Forbes was to operate it with standard equipment. It meant the life of the lumber industry all through that

section; it meant certain and sure success for Craig Gantry's project if he could get it running in time to participate in the shook war to be waged on Goodsill Thurston.

So hammers rang on steel, and powder-blasts reverberated in the cañons, and cut and fill grew daily, and shining rails began to reach out from Lassen and from Booker, and the river was spanned by bridges, and the mountain country prospered in its new-found exploitation, and the winter passed.

Spring brought the crisis and the climax to Craig Gantry; he was straight and strong and smiling to receive it, though the way to victory was becoming tangled with complexities.

III

Henry Langnickel, president of the Lumbermen's Bank in Lassen, sent for Gantry early in March; when the young man came in the banker greeted him anxiously.

"I've got bad news, my boy," he said. "Better sit down, and you won't fall so far."

"I can take it standing," Craig said, smiling. "But if it will ease your mind I'll have a chair. Shoot!"

"You're about at the end of your financial rope."

"That's not news."

"Well, I see there's no breaking things gently to you. You're clear at the end of your rope, and a couple of men who would gladly pay your funeral expenses for the pleasure of seeing you hanged are about to kick the box out from under your feet."

"Meaning Sill Thurston, of course—and who else?"

"That easterner, Broadhead. I think you told me you'd known Broadhead in the east?"

"Yes. His father helped put the skids under my father and got control of the Gantry Mill Machinery Company. That was about three years ago. Jere is manager of the outfit now, I believe, and he has no reason to love me. But I didn't know he was interested enough to help Thurston in his fight."

"When you step on the short end of a crooked stick," Langnickel chuckled, "you never can tell how far up it will go before it comes down and hits you, my boy. Broadhead and Thurston are in together on this deal. They've begun to cramp my style and my directors are objecting to my loaning you any more cash. In fact—ahem!—they've stopped me."

"I've only about another month to go before I'll be getting in considerable amounts of money for shook and heavy timbers again," Craig said. "But a month is quite a time to go without capital."

"I've known a lot of fellows to go broke in thirty-six hours," Langnickel observed.

"Forbes had made me some advances on his contract for bridge and tunnel timbers. I might ask him—"

"It would be as much as his job is worth—even his—to put up another smooth dime before delivery, Craig. With the new construction the road is carrying all it can."

"You think I'm hamstrung, then?"

"Well, I wouldn't say hamstrung, my boy, because you're a hustler and a fighter. But I'd say you were awfully short-hobbled, and the pasture very low where you are."

Craig laughed.

"I'll either have to kick the hobbles off or else jump

a fence with them on, then. Thanks, Mr. Langnickel! You've played my game for me to the limit—now I'm not going to let you down. I'll beat Thurston yet!"

He made a hurried trip to San Francisco, but found Michaelson unable to help him. Their scheme, he said, was working out perfectly.

"If you can see it through for another thirty days, Gantry——"

"I'll see it through somehow," Gantry said, stoutly.

"The fruit and vegetable business of the state is in your hands. I've prevented them finding that out, so far, but the day will come when they have to know it. So it isn't your own skin that's in jeopardy."

"That's what makes the fight worth while!" Gantry exclaimed. "You keep the home fires burning and I'll tend to my own furnace, Andy!"

But six days later he faced a pay-day with eighteen dollars as his sole capital. He owed upwards of seventeen thousand dollars immediately on current bills, with some of his creditors pressing him.

He had exhausted all his resources, and there was no way out that he could see.

On his way out from Lassen that night he passed Goodsill Thurston going in. The lumber king broke into loud laughter, that had a ring of menace and a note of triumph in it!

IV

When Mary Clyde came to the door of her house to welcome him that evening he waved to her and would have gone on to his own cabin on the hill. But she ran out, protesting.

"Supper is all ready and Mrs. Bannister made an apple pie especially for you!" she cried. "You must stop."

"I got a bite on the way up," he said, evasively.

"Nonsense! Your bites are not enough to feed a canary. Besides, I want you to come."

There was something unusual in her manner; even in his worried and harassed mood he sensed it.

"All right, Mary," he said. "What's up? Has anything happened?"

"Supper will happen as soon as you wash up," she returned. "Run, now!"

He spluttered and splashed for five minutes in the "washroom" in an angle of the house, and went in.

Kathleen Maynard rose to meet him.

"Well, Craig," she said, as though they had parted a few hours before, instead of almost two years; "I'm glad to see you."

Gantry crossed, his hand extended.

"I can scarcely believe my senses! You, 'way up here? When did you come? Where is your mother?" His voice changed a little. "Kathleen!" he cried, holding her firm, smooth hand closely; "I didn't know how much I'd missed you!"

She laughed—dropped down into her big chair.

"I don't know whether that's flattering or not," she said. "But Miss Clyde says that you aren't given to making pretty speeches these later days, and I presume I'll have to interpret the doubtful remark literally."

"I'm afraid I've lost most of the arts of polite circles," he said. "I don't believe I'm sorry, though. Folks talk straight up here."

"Even your Mr. Thurston?"

"Well, yes, even Thurston. You see, he lies ninety per cent of the time, so that if you discount that percentage you know exactly what to believe. In other words, he is consistent."

"Meaning that we in the East aren't?"

"Oh, I can't fence, Kathleen. Tell me about yourself and your mother."

The girl was tall, striking, poised, gentle. Craig thought the years had treated her kindly, for he could see no change in her. Everything about her was aristocratic. She was unmistakably well-bred. He felt suddenly awkward, illy dressed, and shambling. She told him about her mother's health, their trip west, their sojourns in Los Angeles, Santa Barbara, Del Monte and San Francisco, and he scarcely heard her. It seemed to him incredible that once he could have had this splendid, clear-eyed, clean-thinking, right-minded gentlewoman for his wife if he had but asked for her. He seemed to have become a hobble-de-hoy—and he thought she saw he had.

Then Mary Clyde came in.

Mary was tanned, strong, agile, simple dressed, with her thick hair caught up in a shining mop atop her head, and moving always as smoothly as a panther. He knew that she, too, would appear rough and homespun in contrast with the city girl; it came to him in a flash that he no longer felt out of place—contrasted himself with Kathleen Maynard. Because he had become Mary's kind of people! And he was warmed with pride that it was so.

"You two will have a long evening," Mary said, heartily. "So I'm not going to let you delay supper any longer. Come in."

Craig was surprised to find that Mary and the eastern girl were like old friends; indeed they were, for, it developed, Kathleen had arrived before noon, unheralded, but welcome when she told of being an old friend of his. The two women had spent the day somehow. Gantry wondered how much Mary had told of the affairs that engrossed and now distracted him.

It was Kathleen Maynard who answered his unspoken question. He had said something about his hope that he would yet make the Clyde timber piece pay Mary a generous endowment for life.

"Craig," the eastern girl said, abruptly, "how are your finances? I don't mean your own, of course. The money affairs of your logging and box enterprise."

"They might be better," he said. "Let's change the subject."

"I opened it," Kathleen said. "I'm quite capable of changing it when I choose. The fact is, Craig, that you are in difficulties? Isn't that so?"

"I don't see how Mary knew——"

"I don't know, Craig!" Mary interrupted. "Miss Maynard told me."

"How did you know, Kathleen?"

"When a stupid man makes love he boasts."

Craig frowned. "That is an interesting observation on the technique of courtship, perhaps," he said, half laughing. "But as a white light on the subject in hand it seems to me to leave something to be desired."

"I'm afraid you've lost some of your subtlety, Craig," Kathleen remarked, smiling. "I like you better for it, though."

"Meantime, I wonder if my new rating with you will be hurt if I confess that I begin to see what you were driving at! You mean Jere Broadhead."



"Kathleen," he cried, "I didn't know how much I'd missed you."

"I am disappointed in you. That is correct."
 "I may as well own up, then. I'm practically bankrupt at this identical and exact minute."
 "Not that bad, Craig!" Mary Clyde cried.
 "Yes, Mary, just that bad."
 "Yes, I think that's a fair statement of the case," Kathleen said. "And Broadhead, before I sent him packing day before yesterday in San Francisco, told me that he was proud to have been one of the agents in your undoing."
 "I hope that he gets the satisfaction he deserves," Craig Gantry said, cheerfully. "I'm glad to make somebody happy."
 Mary was the only one of them to notice that there was not a touch of bitterness in his voice. It was, to her, the final touch of triumph in his regeneration. That gained, she thought, and his old cynicism conquered, nothing could be lost that mattered.
 But meantime Kathleen Maynard leaned forward and touched Craig's arm.

Kathleen was grave.
 "Oh, Craig!" she cried, "isn't this sheer obstinacy? Don't you owe it to yourself and the fight Mary has been telling me about for good and right things—don't they demand that you forget your own personal feelings?"
 "Kathleen," he said, "I can't argue it with you. I don't know how to thank you. But you see, my dears I've got to win this myself. Allies and friends are all right, but what you are offering to do is to take the fight off my hands. There are reasons for saying no, some of which must be obvious, but this is my first reason."
 "All right, Craig," Kathleen Maynard said, abruptly. "I wanted to make the offer. Now let's change the subject."
 They talked together, the three of them, until midnight, and never once did Craig Gantry let them guess that in all those hours his heart kept saying: "Accept her offer! If you don't, tomorrow is your Waterloo!" and in all those hours his spirit answered steadfastly: "Never!"

"Old fellow," she said, soberly, "I know how independent and self-sufficient you have been all through this struggle, with its ups and downs, because Mary has been telling me that. I know that you used to be proud and intolerant. I think you are still determined to go your own way and to ask neither quarter from your enemies nor help from your friends. But I am going to help you."
 He straightened.
 "Thanks, Kathleen!" he cried. "You were always a splendid friend and a true sportswoman. But this is my fight."
 "I want you to take, as a loan, if you like, as much money as you need to see yourself through."
 "I can't do it, Kathleen."
 "Not even when you remember that you owe it to Mary Clyde to make this thing a success?"
 "Mary is protected. Sill Thurston will give her more for her timber-piece—"
 "I wouldn't touch a penny of Mr. Thurston's money with a stick!" Mary cried, indignantly.
 "All right," Gantry said. "Hartzell or the Walkers or the Lockhart Lumber and Milling Outfit will buy the timber—tomorrow. What I'm saying is that Mary can't lose very much. My conscience is clear on that score."

Disaster might have been staved off for a day or so, but it was now inevitable. Gantry realized this more fully than ever on the morning following his visit with Kathleen Maynard. He had hoped against hope until then that Michaelson would be able to arrange an advance from his growers, but they were paying their shook bills to the Pine Shook Distributors with difficulty, and if the enterprise against Thurston was to be carried on, no money could be loaned to Gantry, important as he was to the scheme. For, with or without him, the shook war would be carried to conclusion now. His own failure would only weaken, and not defeat, their cause.

It was a trifle that started the landslide.

A wholesale grocer had sent an agent up to make a collection on a moderate sized bill and Gantry had successfully staved him off. But a few minutes later a local grocer—Manning, of Castlemont, with a two-by-four establishment and a forty dollar bill—called and became abusive. Gantry knew instantly that Thurston had sent the man; without any hesitation he cut in on the merchant's diatribe sharply.

"Look here, Manning," he said, "you're wasting your breath. You're too old to be kicked out of here, and you're too short-winded to go on at this rate much longer without strangling yourself. So I might as well save you words by telling you that I doubt that your bill can be paid."

The merchant's chin-whiskers fell to his chest. His eyes bulged.

"You mean that you're busted, Gantry?"

"That's about the size of it."

"Oh, my land!" Manning cried. "I won't get my forty dollars?"

"You'll get it in time, because I'll pay all the bills if it takes the rest of my life. But right now I am afraid I'm a bankrupt."

"You're a damned rascal!" Manning squealed and ran for the door.

Two hours later the agent of the wholesale grocery returned with two other men, drummers for San Francisco houses, with Wag Forcythe, cashier of the First State Bank of Booker, and with a lawyer. They filed into Gantry's office solemnly.

"These gentlemen have asked me to represent them," Gantz, the lawyer, said, nervously. "On their wires to San Francisco and Reno I have also been authorized to act for the Wholesalers Board of Trade of those two places and for the State Bank. Several other accounts—er—are also—er—coming in." He raised his voice a little, as though he were addressing a jury. "Mr. Gantry," he said, "in the name of these—er—clients I demand payment of their accounts in full."

"I can't pay."

"We would—er—consent to a settlement, perhaps."

"Thus beating the other creditors to it?" Gantry inquired, pleasantly. "Oh, no, you don't!"

"It then—er—devolves upon me, Mr. Gantry, to serve you with formal notice that we are this day applying to the courts for a judgment in bankruptcy against you."

"All right," Craig said. "There's no way to stop you."

"And I warn you that any attempt on your part to sequester or—er—get away with any of the—er—funds—or properties—"

"Oh, shucks, Gantz," Craig said, laughing. "I'm not going to sequester a fourteen-ton band-saw or carry away any of the logs in a suit-case! I'll be here when you want me."

"You take it pretty coolly, Gantry," Forcythe, the banker, said sharply. "But we don't propose to stand for any of your little jokes in the receivership."

"Speaking for your relative, Sill Thurston, Mr. Forcythe, eh?" Gantry turned on him. "There will be no tricks, my friend, unless Sill Thurston comes in here and tries to lord it over me. Then there will be a fight that I have been itching for for two years. You may tell your blessed brother-in-law that for me."

They filed out. Gantry knew that inside of an hour they would be back with some sort of court order telegraphed from San Francisco. He was down. The end of the game was in sight.

What hurt him worst was that he could not pay the men in the mill and the yards. He dreaded facing them. The more he thought of it now, with all hope gone, the more sick he became over it. But he would not run away. They would come filing in to the bookkeeper's office at four-thirty. He nerved himself to tell them his story.

At a few minutes past four he saw the dusty old grey car of Goodwill Thurston drive into the mill yard. With him were four burly men, carrying revolvers rather



Mary, tanned, strong, agile, simply dressed, and moving always as smoothly as a panther, would appear rough and homespun in contrast with the city girl.

CHAPTER XVIII

I

prominently displayed and decorated with large stars. Thurston gave them directions and started toward the office, two of the stalwarts following him.

Gantry laughed. He took off his coat and hung it up behind him. He pushed his desk aside and shoved the chair under it. Then he leaned against a wall and lighted a cigarette, as casually as though he had been awaiting a friendly and purely social visit from an old friend.

Before Thurston and his two bodyguards reached the office, however, Gantry heard the scream of an automobile siren and saw a car dash into the yard, come to a skidding stop and fairly catapult two passengers to the ground. One of them was Bill Handley, the sheriff of the county—the other Mary Clyde.

"Just a minute, Thurston!" the officer cried. "If you've got an attachment to serve, or court orders to deliver, I'll take them off your hands."

Gantry, leaning forward, floundered for a moment in puzzlement. The first of the mill hands were stringing across toward the office, pulling on their coats and lighting up pipes or cigarettes, their work done and their pay-day arrived. Gantry saw all the figures hazily. He was trying to concentrate on the problem presented by the presence and the words of Sheriff Handley.

Then Mary Clyde burst into the room.

"Craig!" she cried, "you're safe! Everything's all right. Don't ask any questions—just leave it to me. Kathleen Maynard wouldn't take your refusal! She's put thirty thousand dollars to your credit—and the sheriff and I have brought the pay-roll with us!"



Everything about Kathleen was aristocratic. She was unmistakably well-bred—a splendid, clear-eyed, clear-thinking, right-minded gentlewoman.

May is a month of re-birth in the Sierras; the high, clean world was sparkling and singing as Craig Gantry dropped down the hill in a heavy, powerful car, turned into the mill yard at what had once been Fack's, and ran up the steps of the new two-story building which held the general store he had opened, the offices, a club for the employes and (upstairs) a small auditorium for moving pictures, dances, lodge meetings and the like. Painters were just finishing their work on the building; Gantry paused to speak to the contractor, and then, with the man dismissed, stood a minute breathing deeply of the good air and contemplating the busy scene around him.

A quarter of a mile away great logs, "donkeyed" to the head of the slide he and Mary had discovered that day of her father's funeral, shot down the long chute with a rumbling roar, screamed through a slow turn at the bottom and went into the pool in Samson's Creek. From there they moved down the stream in orderly fashion to the log pond; the work that five or six men had been needed for before and that had required a fleet of motor trucks, was now done by one man with a pike-pole—and gravity!

Turning he listened to the roar of the lumber mill and the shrill screaming of the shook factory. Both were running at full blast; a crew of men was engaged in building another unit of the shook mill that would almost double its capacity by the middle of June, when the demand for shook throughout the state would begin to approach the peak. Gantry smiled a little. The settlement with Goodsill Thurston was coming soon.

He went inside. Noel Thomas, formerly woods boss, but now superintendent of the whole enterprise on Samson Creek, met the young manager in the corridor.

"Spud Killiam is out of the hospital, chief," he said. "He's in my office and wants to see you."

"Bring him into my room," Gantry said. "I'll be glad to put him to work, if that's what he wants."

"I beat you to that," Thomas said, with a grin. "But Spud has something else on his mind."

A smart, alert, steady-eyed girl came forward. "Morning, chief," she said. "Two telegrams, and the San Joaquin Producers' League wants you on the long distance 'phone. They are asking for five carloads of lug-box shook by the first."

"Thanks, Mellette," Gantry said. It was the girl whom he had known when he was in the gutter—now she was his right hand in the office, and developing rapidly into what he laughingly called "the best man on the job." "You can take the shook order up with Garrett and Noel Thomas. What do you hear from Michaelson?"

"Read your telegrams," Mellette smiled. "I'm trying to install a new bookkeeping system and I haven't time to read your personal wires but once."

"You're not my secretary, then?"

"I should say not. (Continued on page 84)



Keystone

Reserve energy is the dominating factor in the ability to take the last hurdle in a quarter-mile hurdle race. The photographs show Charles R. Brookins, University of Iowa, at the left, and G. Taylor of Grinnell College, both of whom broke the former world's record for 400 meters in the final Olympic try-outs at Boston. This race was won in 53 seconds flat. How did these men acquire the accumulated energy for such a marvelous performance?

You, Too, Can Build Energy —and Endurance

Is Your Energy Tank Empty?—Is It Possible to Accumulate a Reserve Fund?—The Problem of a "Used-Up" Accountant

By Carl Easton Williams

CAN you increase your fund of energy? Can you transform a one-cylinder man into a six-cylinder man? It is being done every day by those who cultivate strength and increase their muscular power. But can it be accomplished in conjunction with vital power?

Energy means more than strength, where endurance is concerned.

Energy is the motive power, the gas, the driving force with which we work. Some of us have more than others. Some of us have very little. In that case, can we increase the supply? Can we fill the tank with it, and then enlarge the tank and still keep it full?

This is the most vital personal problem with which

many people are concerned. Take, for instance, the following letter:

I am an accountant, thirty-seven years of age, who has worked and worried long hours over detail. I have reached the point where I have lost my punch. I took up physical culture a year ago with great expectations, but do not feel that they have been fulfilled or justified. I devote a good half hour to exercise every day, and am sure exhausted the next day if I do more than that, as I do on Sunday. Then on Monday I have no ambition left.

I am of a temperamental and nervous disposition and perhaps somewhat neurotic. But surely there must be something that I can do to regain and retain a considerably greater stock of vitality than I now possess.

E. W. W.

The first thing our friend wishes to know is, can he

increase his energy and endurance? Secondly, he wants to know how?

Certainly one can increase his fund of energy if it is below normal, provided his organs are sound. This increase of energy is the purpose of all athletic training. It is being done all the time. It is the commonest thing in the world among athletes.

Energy can be increased just as strength can be increased, and that is, primarily, by such activity as will place upon nature a demand either for more strength or for more energy. Nature responds to this demand by so toning up and building up your organism as to supply the need. That is the one great underlying principle of all training. It brings us back to our old "philosophy of effort," which is the basis of all worth while living.

You build strength by exerting strength, although this must be accomplished in a manner more or less in accordance with the laws of physical training. If you don't use your strength you gradually lose it. If you live an easy, physically stagnant life you gradually become soft and ultimately find that you no longer have the power of exertion. It is much the same with energy. The sedentary man who takes no exercise over a long period of years ultimately finds that he has no endurance. And of course endurance is the real test of energy.

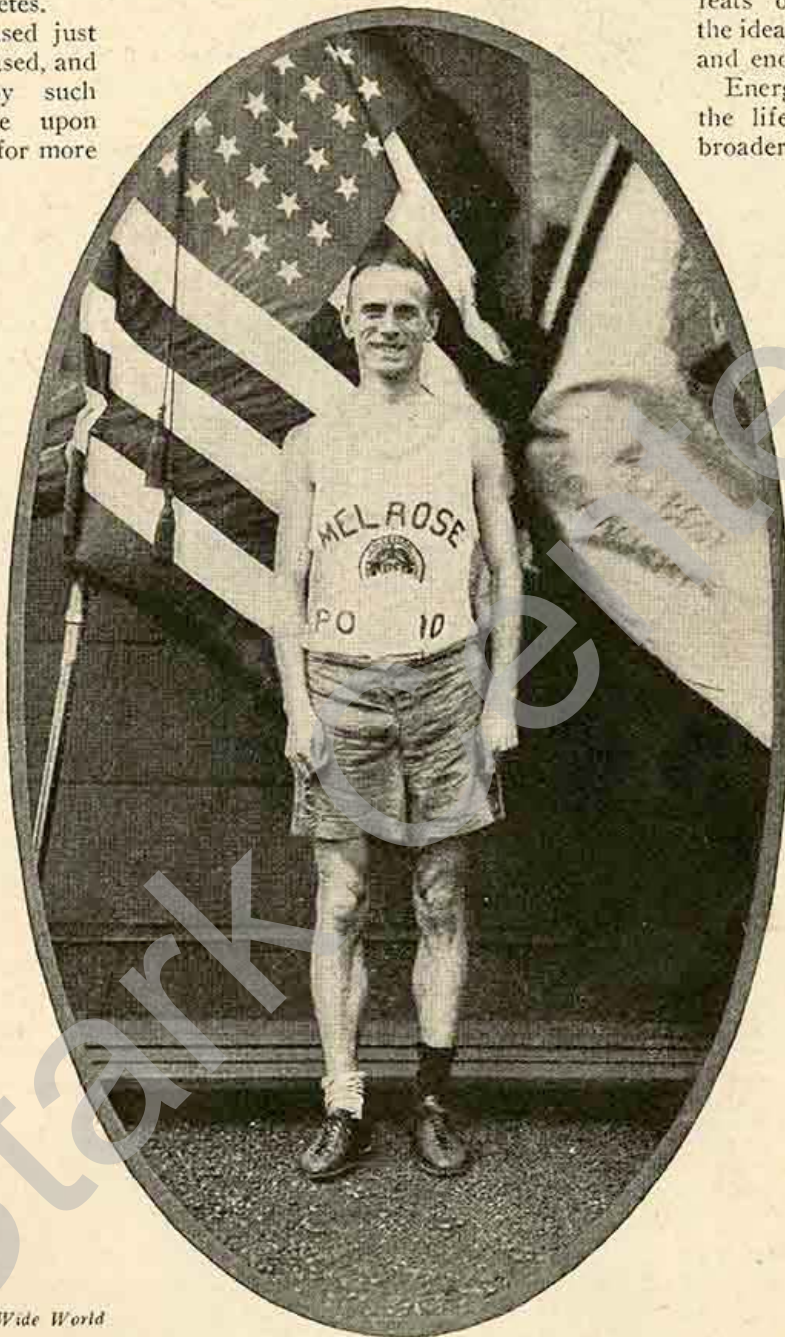
We are likely to think of "strength" as representing muscular effort. Muscular strength in the nature of things means energy. But energy is the thing that we are concerned with in endurance even more than in strength. One possessing a good muscular machine might make a tremendous effort once or twice even though he had a limited reserve stock of energy in his system. That would be like a big six-cylinder automobile letting out a burst of speed or

going up a hill with great power with only a tablespoonful of gasoline. It can be done. That would be strength. But your motor would not have endurance unless there was a tank full of gasoline to draw upon. It is in that sense that feats of endurance are a better proof of reserve energy than immediate or momentary feats of strength. Of course the ideal athlete has both strength and endurance.

Energy may be regarded as the life that is in you. In a broader sense energy is the strength that is in you—reserve strength. Muscular strength is energy expressed in that way, through the channel of a more or less perfect muscular mechanism; but the energy itself is in the nerves and blood and tissues of the body, partly in the muscular tissue itself. Energy may be expressed, on the other hand, in mental effort, through vigorous thinking or through emotional channels. Indeed, energy is often wasted, sometimes exhausted, through unbridled emotional storms. The point is that energy is something constitutional, something stored up in nerve-cells, some power inherent in our tissues that may be released, something that lies back of strength in that sense in which we think of strength as representing muscular effort.

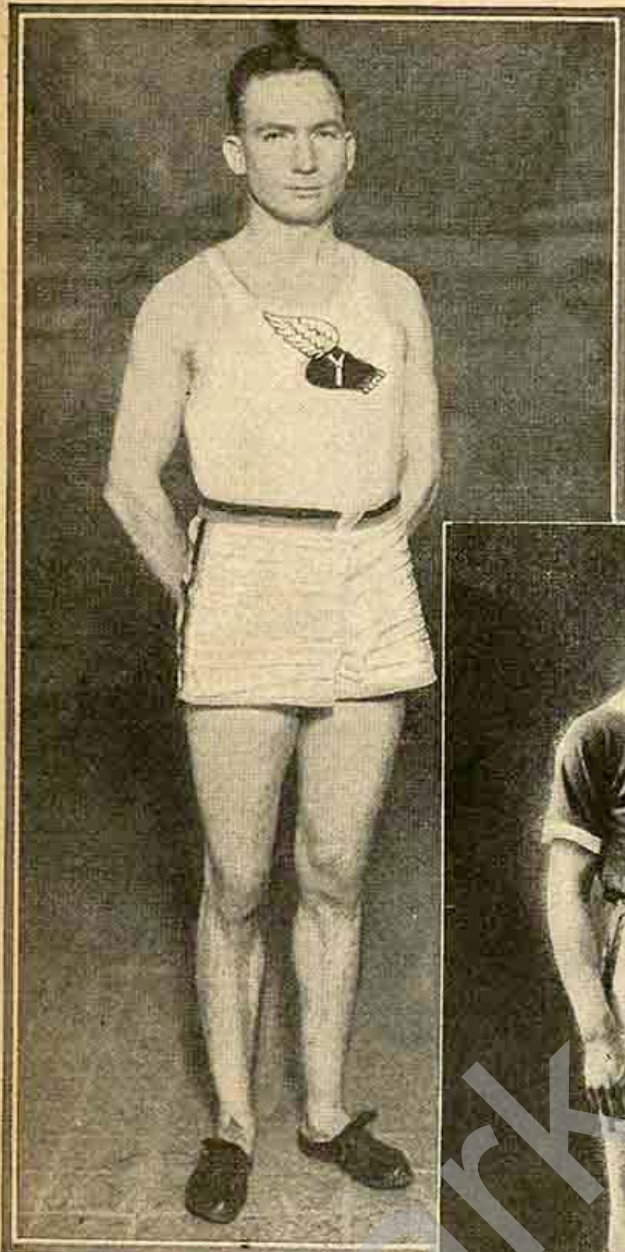
In the matter of our problem of increasing energy, the most practical examples are found in the field of athletic training, and we will cite some instances of this kind. But these are paralleled in the world of everyday

work. A city boy, for instance, gets a job on the farm. He thinks he is strong, but two or three hours of pitching hay finds him all tired out. He is wilted and ready to drop. It is agony for him to drag his feet around the field and stick it out to the end of the first day. If he has grit enough to stick, or if necessity compels him to,



Wide World

If Greek Olympic winners were entitled to be honored by statues erected to commemorate them, Clarence De Mar deserves some such recognition. He has won the Boston Marathon three years in succession, after having been out of competition for ten years, and this year, at the age of thirty-six, broke the world's record by running the distance, twenty-six miles, 385 yards, in less than two hours and a half. How did this athletic "has been" acquire the energy to "come back" and accomplish this superhuman feat? You, too, can build energy by similar methods, as explained here.



Here's Jackson Scholz, who this year supplied the second classic and never-to-be-forgotten example of a "come back." After dropping out of competition for two years, he won a place on the American Olympic team by twice breaking the world's record for 200 meters, doing it in 20 9/10 seconds. At the right is Paavo Nurmi, the world beater from Finland, with a record of 4 minutes 10 2/5 seconds for one mile.



can work all day with only normal fatigue. It is the same with the lumber jack, swinging an axe in the north woods. The situation is paralleled by attempting any form of work calling for more energy than one has been accustomed to expend.

What we are now getting at is the fundamental principle. We will take up its application in the case of E. W. W. a little later.

Clarence De Mar might have lived the easy going life of the average clerk or office man, and in doing so would have had no more energy than the average clerk or office man. But somehow Clarence De Mar has built up in his system a reserve fund of energy which recently enabled him, at the age of thirty-six, to run the full Marathon distance of 26 miles, 385 yards, faster than it was ever run before. Of course Clarence De Mar has grit and moral stamina in the highest sense. Spiritually, he is made of the stuff that heroes are made of. But he never could have run twenty-six and one-fifth miles in less than two hours and a half without having a perfectly tremendous stock of energy stored up in his system. He did not get it from the oxygen in the air. That was used simply as a chemical means of releasing it. De Mar had this energy because over a period of years he had formed in his system that physiological habit of generating and storing it up to prepare for long drawn-out efforts of this character.

The whole sporting world, always debating the question as to whether or not an athlete can "come back," is still excited over this amazing achievement of Clarence De Mar, which is one of the most dramatic chapters in athletic history. Back in 1910 and '12 De Mar was one of our well-known Marathon runners. Then he disappeared from competitive sport. Three or four years ago he reappeared, and for three consecutive years won the great Boston Marathon, the chief event of the kind in this country. This year he broke the world's record. It seems an extraordinary "come back," particularly at his present age of thirty-six years. The fact develops on investigation, how-

ever, that De Mar has been accustomed during the intervening years to run back and forth to and from his work at Melrose, Mass. I do not know the distance; it might have been only two or three miles. But it means that over a period of years De Mar had been habitually creating this demand for reserve energy and that his system had supplied it. He had established the organic habit of generating energy.

From long distance running to sprinting is quite a jump, figuratively speaking, and yet the quality of endurance involved in running one hundred yards is a matter calling for tremendous energy. Did you ever

he finds at the end of the week that he stands the work a little better and is not quite so exhausted. At the end of three weeks he finds that he can work the whole day through along with the hired men on the farm, and although tired in a healthy way he no longer suffers the complete exhaustion of the first two or three days. He has readjusted his system to the new demands upon it. He has formed the physiological habit of generating energy in an increased quantity to supply that demand.

Or, a man accustomed to office work gets a job piling bricks. The work is pure torture the first few days, because of the unusual strain. Later he finds that he



P. & Photo

Here's another type of effort calling for unlimited reserves of energy, demanding practically the maximum of effort to be sustained throughout a four mile race. This happens to be the Oxford University crew on the Thames, selected partly for the unusual beauty of this particular photograph.

try, out of condition, to sprint at top speed even for one hundred yards? Sprinting involves all of the muscles of the body and the greatest possible concentration of effort. Sprinting a hundred yards, as champions run it, is indeed the supreme type of human effort. In your untrained condition you may have a limited or unsatisfactory top speed, but you can apply that only for thirty or forty yards. After you have passed the fifty yard mark you will find yourself wobbling. It takes a period of training and conditioning to enable one to run even a hundred yards properly. It takes even more energy and a still better physical condition to run 220 yards, one-eighth of a mile, in top sprinting form.

All of which makes the recent successful "come back" of Jackson Scholz a fitting parallel to the achievement of Clarence De Mar. Scholz, who won third place in the Olympic 100 meters four years ago, dropped out of competition for a couple of years, came back into training and competition this past winter, and then on June 13 and 14, in the final Olympic try-outs at the Harvard Stadium, twice broke the world's record for 200 meters, finally running this distance in 20-9/10 seconds. This was the fruit of training. Scholz had not only strengthened his muscular system and his heart, but in the process had built up that tremendous reserve of energy which enabled him to accomplish his wonder-
feat.

Two other athletes in the Olympic try-outs ran 400 meters, roughly a quarter of a mile, in 48-1/10 seconds.

This represents a sustained sprint at the speed at which one runs a hundred yards in eleven seconds, kept up for about 438 yards. The particular factor of "condition" which enabled these athletes to accomplish this was reserve energy. Had they lived the stagnant life of the ordinary citizen they would never have had the energy to do it. They "built" it by training.

Now, applying the principle of the thing to the needs of our friend E. W. W., it will appear that ten to fifteen minutes of daily dozen exercise, or even a half-hour of exercise in his bedroom, may not be sufficient to enable him to build up the capacity to work all day with unflagging energy. Ten minutes of exercise will tone up the body and stimulate functional processes; it will keep him from getting soft; but it takes more than that to build a material fund of reserve energy.

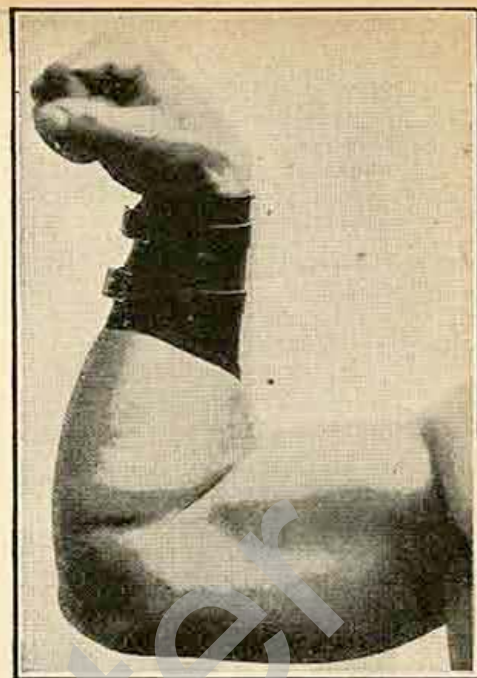
It is not our purpose to recommend Marathon running in the case of E. W. W., nor quarter mile sprinting. The progress of training for energy and endurance should be gradual and progressive, just as in the case of training for strength. Perhaps Mr. E. W. W. with his half-hour of exercise each day has exhausted too much of his present limited strength.

Remember that there are two factors in training and conditioning. The first law, already mentioned, is the expenditure of strength or energy. The second law, equally vital, is recuperation. It is the building up process after the effort that enables one, later, to make a still greater effort. (Continued on page 89)

An Iron Grip and Wrists of Steel

How to Develop Them—Building a Perfect Forearm—What Are Your Possibilities in the Way of Strength of Those Parts Which Form Your First Point of Contact With Other People and Practically All Objects?

By *Alan Calvert*



This is Nordquest's arm in the "goose-neck" position, in which it is possible to contract the hand-flexors to the limit. Try it. Bend your hand down with all muscles contracted hard, and note the effect.

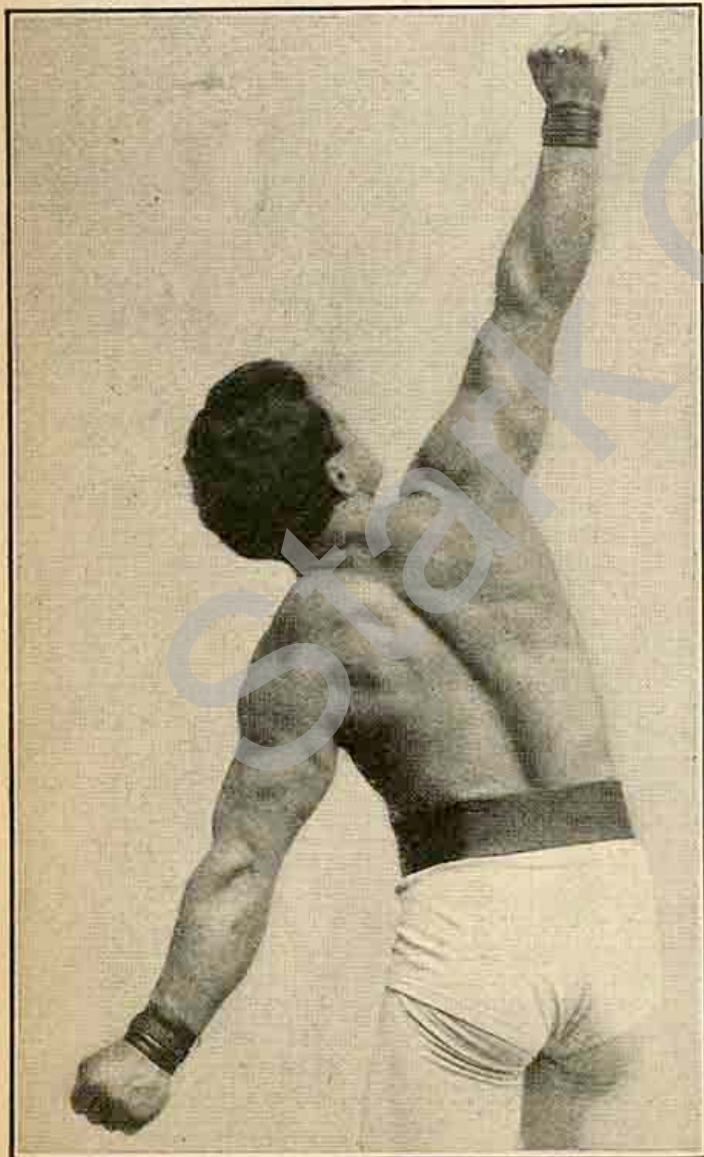


Figure 2, showing unusual development of the muscles which "rotate" the forearms. Mr. Calvert describes one effective exercise especially for these.

IN his book on "Physical Education," Dr. Felix Oswald says that the custom of shaking hands undoubtedly came from the desire of the primitive man to get a chance to estimate the wrist-strength, and the consequent wrestling power, of the stranger whom he was meeting for the first time.

The hand-shake of today is nothing more than a meaningless formality. Most people sensibly consider it as such, and are content with touching and barely clasping. If it had any significance, it is long since lost, although there are still a small number of people who insist on making a ceremony out of it, and who go around advising their acquaintances to "Shake hands as though you meant it, old chap!"

Once in a while you meet one of these intense individuals, who, on being introduced, looks you piercingly in the eye, grabs your hand, and squeezes it with all his strength. He is one of those unfortunates who suffers from an "inferiority complex," and that is his effort to impress you with his superiority. All you can do is to lay for him, and if you meet him again, just cup your hand, and beat him to it. If you have the hand-strength you should have, it is likely that you will cure him once and for all.

Sometimes you shake hands with a total stranger, and although his grasp is almost gentle, you can tell by the sense of touch that here is a hand of rare power. There is something so compact, sinewy, firm, and yet resilient about the mere feel of his hand, that you instinctively realize that it is possessed of terrific crushing power. If you ever exchanged hand-clasps with a real "Strong Man" you undoubtedly know what I mean.

The explanation is in part because without great gripping power one could not be very strong. But mere finger-strength accounts for only part of the strength of the grip; a "hand of iron" and a "wrist of steel" almost always go together. The strength of the wrist reinforces the strength of the hand; but

backing up the wrist there must be in turn strength in the elbow, then in the shoulder, the back, and so on down to the very firmness with which the feet grip the ground.

For example. A young man was making himself noisily obnoxious to the other diners in a restaurant. When finally his remarks became insulting, a burly, middle-aged man rose from a nearby table, reached out with thumb and fore-finger, gripped the offender by the lobe of an ear, raised him from his seat, and marched him out of the place. The victim did not even struggle. His face evinced not pain, but intense surprise. His ear was not being violently pinched, but it was quite evident that he realized that behind those fingers that held him so firmly there was an arm sufficiently powerful to annihilate him. If he had struggled he would have been short an ear.—and well he knew it!

Sometimes you read the description of a personal combat in which it is said that one contestant was so strong that "the other man was helpless in his grasp." That is no exaggeration. There are men of such terrific hand, wrist, and arm power, that if they grab you, say around the upper arm, the effect of their grip is almost paralyzing. You are not merely unable to "break away" but feel that you cannot even make the first move towards doing so. The most noted example of this sort was the famous "Cyclops" Bienkowski, who was not allowed to enter the European wrestling tournaments unless he agreed to abstain from using the full power of his

vice-like, prodigiously gripping hands in certain holds.

On first consideration, it would seem that the only thing necessary to create a strong grip would be to practice gripping exercises; that is, just to bind the fingers and close the hand forcibly. Some strength can be gained in that way, but only in a limited amount. "Grip machines" are of restricted value because their resistance is so adjusted that they can be forced together many times in succession. Prof. Schmidt's suggestion is to crumple up two full sheets of newspaper, to hold one ball of paper in each hand, and then to squeeze as hard as you can. Beautifully simple, and surprisingly efficient, because as you squeeze, the ball of paper fits

Figure 3. This is the position in which the forearm appears to the greatest advantage when the arm is hanging at the side.

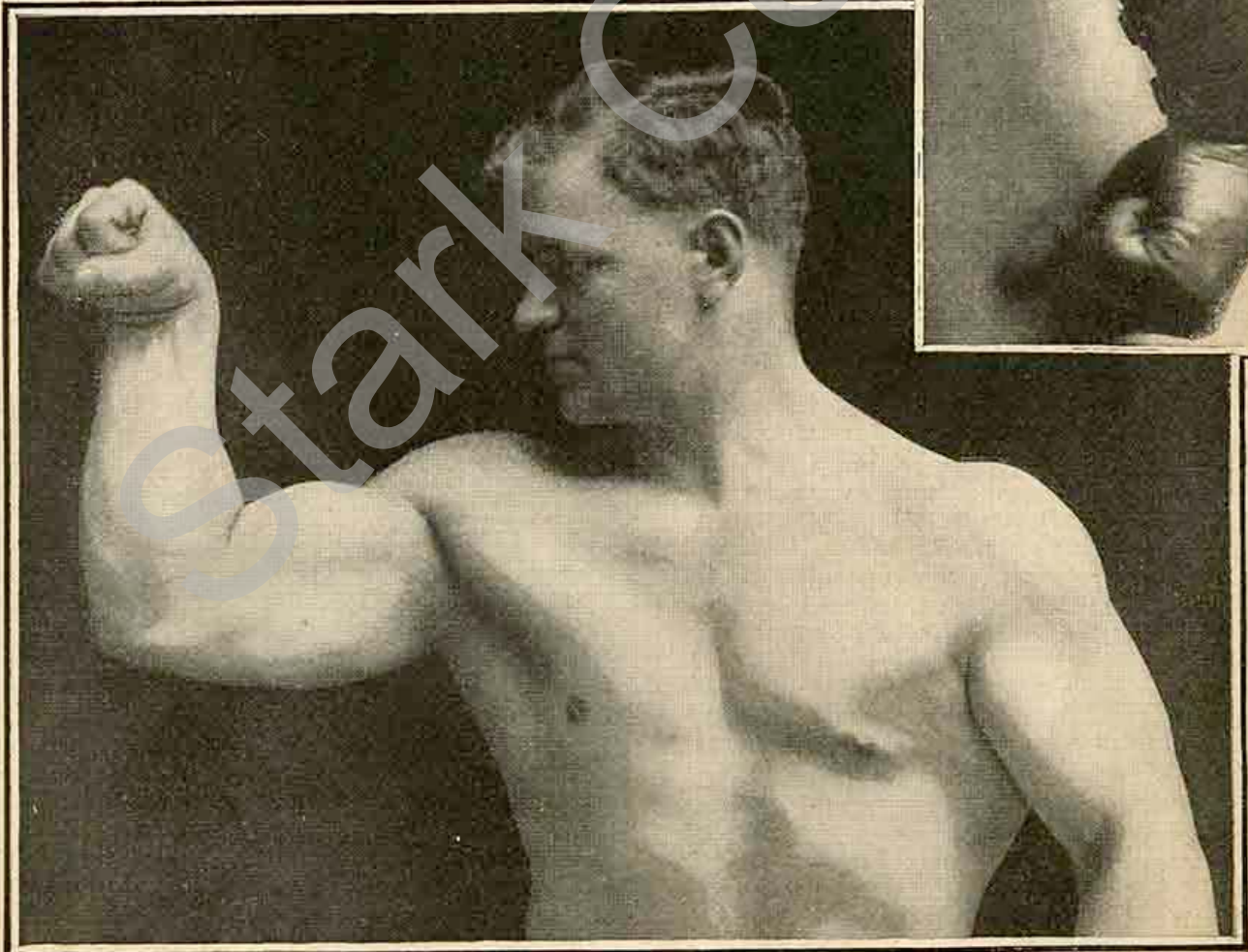


Figure 4. Joe Nordquest shows a modification of the "goose-neck" position, a pose generally pleasing, although his forearm in particular would have appeared to still better advantage if he had twisted his hand still farther around, as in Figure 1.

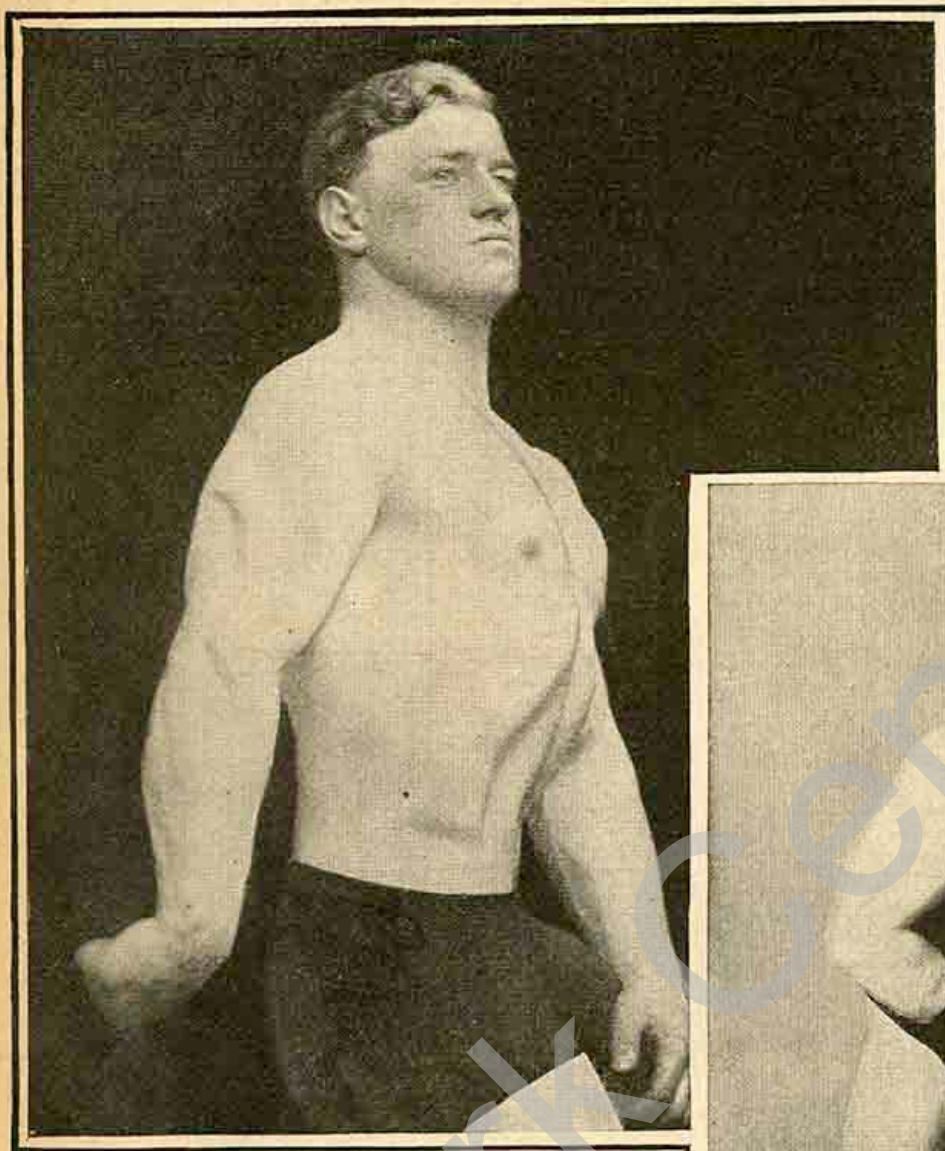
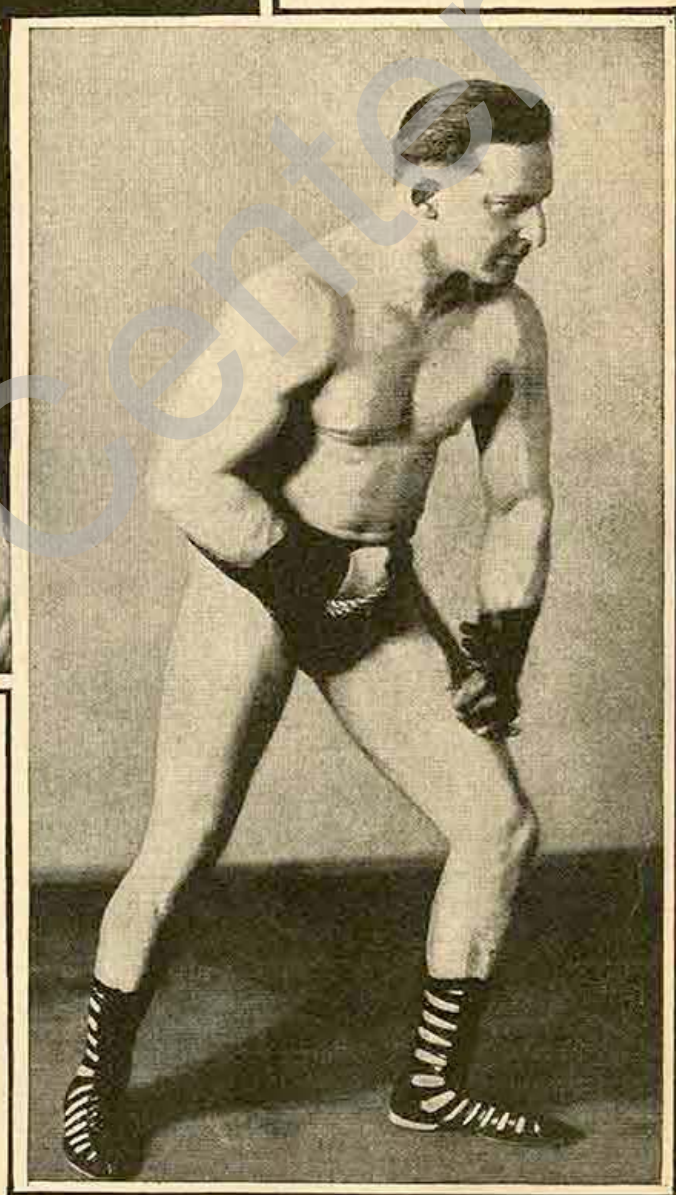


Figure 5. The great size of Nordquest's forearm is again apparent in this pose, which also is one that advantageously shows it off. It is because there are two bones in the forearm that it shows up better from certain views.

Figure 6 (below). A pose by Mr. Goodman, illustrating the proper proportion between upper arm and forearm.



itself to the shape of your hand, and permits you to exert the full strength of all your fingers *and* your thumbs in a way that is not possible with a "grip machine" made with springs and steel or wooden handles.

Unquestionably the easiest and quickest way to get great hand and wrist strength is to use weights. When one uses bar-bells, it is possible to get direct action with a marked economy of time and effort. There are comparatively few who are fortunate enough to have access to a bar-bell, so this article is written to explain some simple exercises, which can be practiced with such rough-and-ready apparatus as is available.

While assiduous practice of gripping exercises will give you the power to close the hand with great force, it will not bring the fingers to their full power. The finger-joints must be tightly knit, and the fingers themselves should not be too slender. The force which bends the fingers comes from the contraction of muscles in the forearm, and it is quite possible to increase the size and bulk of those muscles without adding much to the inherent strength of the fingers themselves. It seems almost paradoxical to say that a man can have a fairly strong grip and weak fingers, yet such is sometimes the case. The fingers can be rendered more firm in structure by doing exercise, or work, in which the power is

applied through the finger tips. If, when doing the "floor dip," you support yourself on the tips of the fingers and thumbs (instead of on the palms of the hands) your fingers will become much more capable, and the whole hand will take on increased power.

As I suggested in a recent article, you can develop the power of the individual fingers by "chinning the bar," using the fingers in pairs instead of by gripping the bar with the full hand. That, however, should not

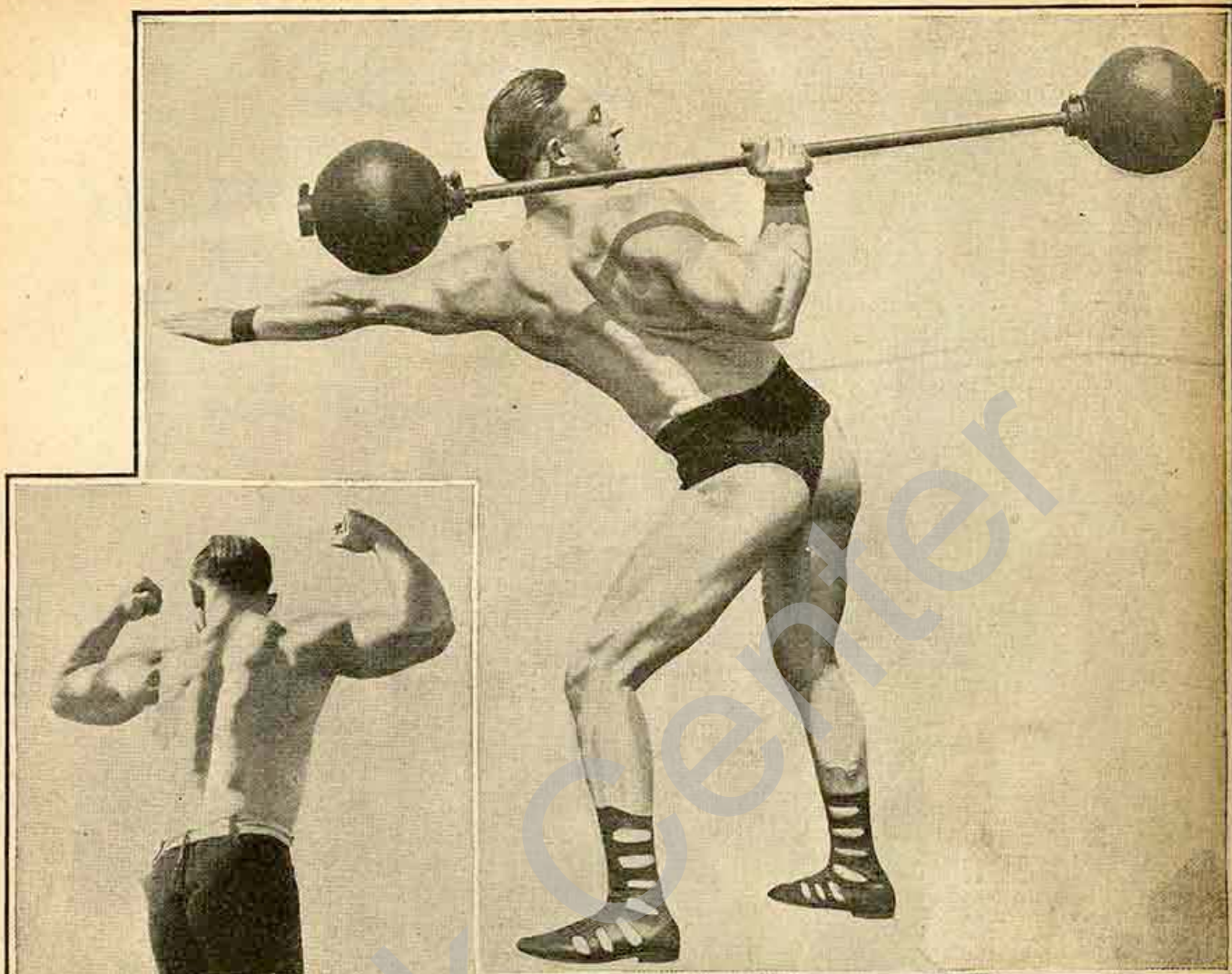


Figure 7. There is a powerful contraction of all forearm muscles in the act of supporting a weight, as seen in this pose by Mr. Goodman.

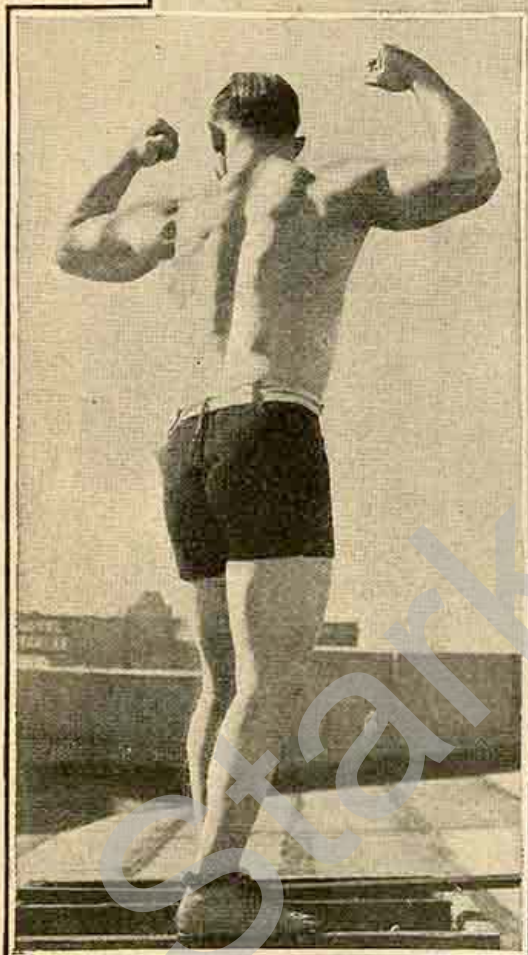


Figure 8 (at the left). A pose in which the forearm appears to be as big as the upper arm.

be attempted by the beginner whose hands are soft and whose fingers are weak.

A muscle must work against resistance in order to increase in size and power. The most convenient resistance is in the form of weight, but in the case of hand-exercises, it is possible to compensate for lack of weight by increasing the size of the object used. Rope-climbing is great for creating hand strength. Most ropes used for the purpose are fairly thick, as a very slender rope would not afford sufficient gripping surface. When you go beyond a certain thickness, the work of climbing becomes much more arduous. If the rope is two and a half inches thick, the work of climbing (hands alone) becomes much more difficult than

when a one and three-quarter inch rope is used. So, if you are going to use rope climbing as your method of gaining hand strength, use the thickest rope you can mount.

Still more efficient as a grip developer is to use the climbing pole instead of the rope. This is just a round pole suspended at its upper end, and since its surface is perfectly smooth, the fingers have to pinch with more power than when you have the advantage of the rough surface of the rope. And, of course, the thicker the pole, the more gripping power you will develop.

The practice of picking up thin, but heavy, objects by the edge provides work for the thumbs. One of the most severe tests of hand strength is to reach up, grasp the lower edges of two floor beams, and suspend your weight. Harder still is to "chin" yourself while thus pinching two thick beams; and hardest of all is to "walk" with body hanging, as you do on the horizontal ladder in the gym. In this stunt your weight is supported by each hand in turn, and any one who has pinching power enough to hold his weight, even for one second, while grasping the lower edge of a two-inch beam, has gripping power sufficient to crush the bones in another man's hand.

Some men have finger-strength in a degree and of a kind which makes the ordinary man's hands seem by comparison as weak as those. (Continued on page 76)

Every Woman Can Be *Beautiful*

It Is a Part of a Woman's Business
in Life

By *Florence Whitney*

POSES BY IRENE WILSON



This is an exercise for developing grace and posture as illustrated by these two photographs. It consists of rising high on the toes of one foot while kicking upward with the other leg and at the same time swinging the arms up. Walk across the room in this manner, kicking up with the free leg with each step. Rising on the toes on one foot at a time is very much better exercise than doing it on two feet, as you will find. Try this exercise with music.



The reason that I mention the parallel of the trout or salmon is because one is reminded of them by the photographs of the beautiful girl divers seen flying through the air in the illustrations accompanying the article on swimming, on pages 16 and 19 of this number. These girls have the grace, strength, and completely developed figures that mark them as fair athletes of the finest type. In their diving they suggest not only leaping salmon or flying birds, but also a physical standard of life, which is

THE most obvious fact about human life, whether one is thinking about beauty or mentality or disposition, is that people are built after different patterns. Sarah Jones could not possibly look like Mary Pickford. Nor could Mary look like Leatrice Joy or Nita Naldi.

Each individual pattern is personality. Each pattern may, however, represent beauty according to its own type, providing the individual is at her best, which usually she is not. Let us draw some parallels in the animal world.

Did you ever see a salmon leaping out of the river? If not, perhaps you have seen his near relative, the brook trout, a speckled beauty of great attractiveness. The point is that you never saw a trout or a salmon that was not beautiful, with a completely developed body, strong, flexible, active, vigorously alive.



All upward stretching movements provide the best kind of posture exercises. Of these there is no better than that of swinging the arms up sideways and thus bringing the shoulders back as far as possible, until the arms are stretched high above the head, as in the photo on the opposite page. The movement is emphasized by rising on the toes to the very limit. The calf and shoulder exercise is incidental to the matter of improving bodily posture.

as good as the best in the animal kingdom. Swimming is an exercise that develops the entire body. If all women did enough swimming and diving, they would all be fully developed bodily, and they would all be beautiful, each after her own pattern.

Did you ever see a race horse that was not beautiful? Among the collie dogs or bull terriers or fox hounds or setters that you have known, has there been even one that was not beautiful? Perhaps you will say here that you have seen funny-nosed little dogs, kept for household pets, that did not look like much. Quite true. And that proves the point, because these pampered, lazy little lap-dogs are not dogs in any robust sense. Any dog that lives a real "dog's life," with plenty of activity, endless running and perhaps a little fighting, is strong and active, and shapely because he is strong.

Activity is the order of life. Stagnation, which tends to be the order of civilization, is abnormal, and it is the basis of that abnormality of appearance which constitutes ugliness. One may think that she is in good health, because she feels no actual pain and is able to get around, but yet may still be far from the standard of life and health of our champion girl swimmers and our circus ladies.

A famous circus man once declared that the glory of the circus was "pretty ladies and white horses!"



Practice this bending exercise for the sake of general flexibility as well as for the sake of employing the muscles of the trunk of the body. With feet well apart turn to one side, bending far backward over the rear leg and then forward, bending over the knee of the other leg as in the second photograph. Do not strain, but gradually bend farther and farther forward and backward. Reverse the position, bending forward over the left knee and backward over the right leg. Each ten times.



You never saw any other than pretty ladies in a circus. They are pretty ladies for the same reason as the white horses are shapely, because they are fully developed representatives of their types, strong and vigorously beautiful.

The circus woman can chin herself, climb up a rope with her hands, and do all the other things that human muscles were made to do.

The average woman cannot chin herself. She cannot even do the floor dip. She cannot run; she can neither high-jump nor broad-jump. It is true that there are also great numbers of men who cannot do these things. Yes, indeed! but what pitiful looking wrecks they are. A non-athletic man is a sight to make the angels weep, with his bony, skinny, hairy, angular surfaces, or his soft, fat shapelessness. But whoever expects much of a man's appearance, any way? A woman, however, naturally more dainty and refined, suffers seriously if she is not presentable. The average woman cannot run; she can only walk, with little grace. She can operate a typewriter and she can do needle work. And yet, she fondly imagines that she would like to possess a shapeliness that rivals that of the race horse or the leaping salmon.

Now, it is not to be expected that we can all be track team champions, circus women or swimming marvels. But we can all of us make our bodies strong and flexible and vigorous, and if we can do that

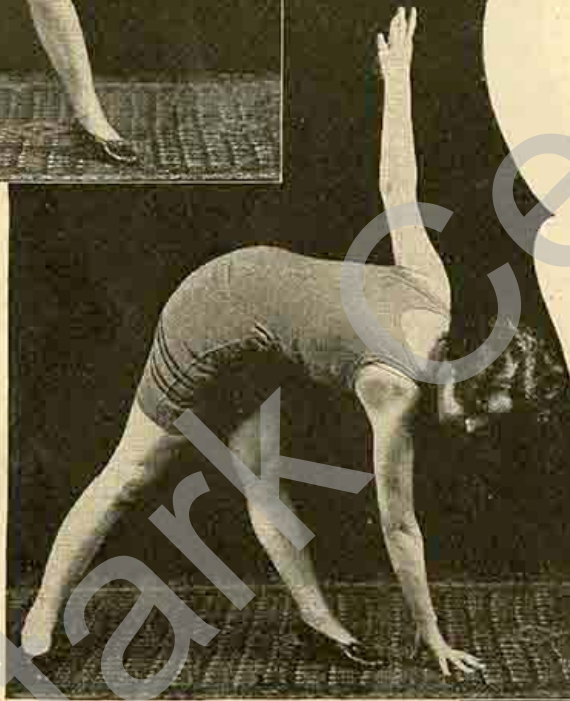


we can have beauty. We may not wish to be athletes for the sake of athletic effort, but we should wish to have that athletic standard of fitness which will make us presentable and which will, at the same time, keep us in the most vigorous kind of health. For to say that strength and beauty go together is the same as saying that health and beauty go together.

All kinds of exercise are of value in this connection, and the more thoroughly they employ all parts of the body, the better. There is, however, one particular phase of the subject in its relation to the cultivation of beauty that I would particularly emphasize, in conjunction with the exercises which illustrate this article, and which were posed by Miss Irene Wilson, a girl of athletic bringing up. Now, this point

has to do not so much with the building of muscular strength as with the attainment of that quality of beauty of movement which we call grace. This has to do with the posture or carriage of the body as well as with the habit of *moving with a sweep or swing*. Pigeons fly that way. The thoroughbred leaps over the bars in that way. The athlete throws the discus that way. The greyhound runs that way. In that way the primitive farmer sows his grain, and the reaper swings his scythe. Keep this in mind when doing the bending exercises illustrated. Open up your phonograph and do your exercises to music, if you can; but always do them with that swing or sweep which represents the graceful, musical way of doing it, instead of the stiff and awkward manner.

These exercises consist of bending and stretching movements intended primarily for tuning up and perfecting the trunk of the body, but also designed to correct your bodily posture and improve your general bearing. Stretching exercises in particular will strengthen those muscles by means of which you stand upright. Good posture in itself represents beauty. There is a suggestion of vitality in the very poise of the up-lifted head, in which the chest is expanded and the abdomen retracted. Whereas, just the opposite impression, that of slovenliness and to some extent of grossness and disregard of the finer things of life, is conveyed when the chest is contracted and the waist-line expanded. We do not need to go into any dissertation on the psychology of posture to elucidate this, for it is so very obvious that a child instinctively comprehends it as easily as a philosopher. You know perfectly well just what I mean. You will under-



Here is one of the most satisfying of all bending exercises, being a combination of bending and stretching. Starting with arms outstretched to the sides, swing your right arm upward, your left arm downward in a circle, finally bending far over as the right arm swings down until you can touch the floor beyond your left foot. In recovering, reverse the circular swing of the arms, continuing the movement to the other side until the left arm swings up, over and downward to touch the floor similarly beyond the right foot. Try as much as possible to let the arms swing in one plane.

As a variation in stretching exercises try this one, in which you stretch as high as you can first with the left arm and then with the right arm as on the opposite page, always striving to stretch above some imaginary mark that represents your previous best effort.



stand without any further explanations how and why these stretching exercises, which raise and expand your chest, straighten your spine and lift up your head, will give you poise and grace and freedom of movement, at the same time that they give you strength.

The only thing left is to see that you do them. There is not much of a list of exercises here, and if you find, as you probably will, that they are just about what you need, it would be a good plan to arrange some schedule for doing them twice a day, on getting up in the morning and on going to bed. You might arrange them as a part of the detail of dressing, for instance, at some definite point in your program of dressing or undressing, perhaps the first thing or the last thing, possibly before you do your hair or before you brush your teeth. Find some way of slipping them in as a matter of routine, so that you will do them automatically and thus will not neglect them.

Make your plan a rigid one, so that you will not permit yourself to put them off. The great trouble with the problem of persistence in exercises is that after one puts it off "just this once" she is likely to put it off again, because "just this once" won't make any special difference. And then, the first thing one knows, through this relaxation of the program, one finds it easier to "put it off" two or three times in succession. And that means, usually, that one never does actually get back into them. Making a fresh start is not nearly so good as keeping continually at it.

Perhaps, after all, the effort that one is willing to make toward her self-improvement is really the only measure of her desire for beauty and attractiveness. If one has only a listless desire, a sort of fanciful notion that she would like to be beautiful, if it were easy to become so, she may not be willing to take any vigorous

This exercise will tend to take the kinks out of the upper spine, and is even beneficial in cases of upper spinal curvature. Rise high on the toes with each effort and stretch upward to the very limit in each instance.



No system of exercise is complete without a movement for the twisting of the spine, but in this instance special interest is gained through the use of a tennis racket, with first the swing to the left as above in the fore-hand stroke and then, returning, the swing to the right, using the back-hand stroke. In each instance see that you "follow through" in such a way as to get the maximum swing of the body and the greatest possible twist to the spine. A ruler or any other object may be substituted for the tennis racket.

steps in the way of making something of herself physically, just as she is likely not to make anything of herself mentally. One normally wants beauty, not for the sake of vanity, but particularly for the sake of all-around self-improvement and general well-being. However, it is only when this desire for beauty is an eager, active impulse, supplying sufficient motive or driving power, that one gets down to a real program of training for beauty.

The whole matter is, in short, something in the nature of *the will to be beautiful*. It is said that many people who get rich do so because they think only of that one thing, concentrating all their efforts upon it, saving money and scheming until they accumulate a fortune. In the same way the woman who is determined to be beautiful will proceed and persist in her program for self-improvement until she is rewarded, at which time she will surely agree that she has been more than repaid for the amount of effort involved.

Have You Any Loose Screws —Bodily Speaking?

Health and Fitness Depend Partly Upon the Mechanism of
Your Bodily Structure Being Perfectly Adjusted, Tuned Up
and In Smooth Working Order

By *Ira W. Drew, M.D., D.O.*

THE plan that I have in mind in this series of articles for readers of *STRENGTH* is to show what constitutes physical weakness with its attendant lowered vitality, to illustrate how it may be overcome and strength developed, and to prove to the satisfaction of my readers that with a little co-operation they can achieve wonders not only in keeping well but in growing actually physically stronger from the standpoints of muscular and nerve force, sheer, vital power.

It is not theory that I am suggesting. Over a period of years I have worked it out along definite lines in my hospital clinics. Very frequently the question is put by some weakling or chronic sufferer, "Why am I not as strong as so-and-so? I live a clean life, eat enough food, get enough sleep, and look at the difference between us."

It resolves itself into a universal question. Thousands of us are asking it. Why are some bodies powerful, others weak? Why do some grow and become shapely, well moulded, while others are stunted and scrawny?

The answer used to be a knowing smile and advice to get more fresh air or exercise or food and sleep. Such advice is obsolete, out of date completely. So far as it goes it is all right, but it merely scratches the surface.

Let us go on a little further along this line.

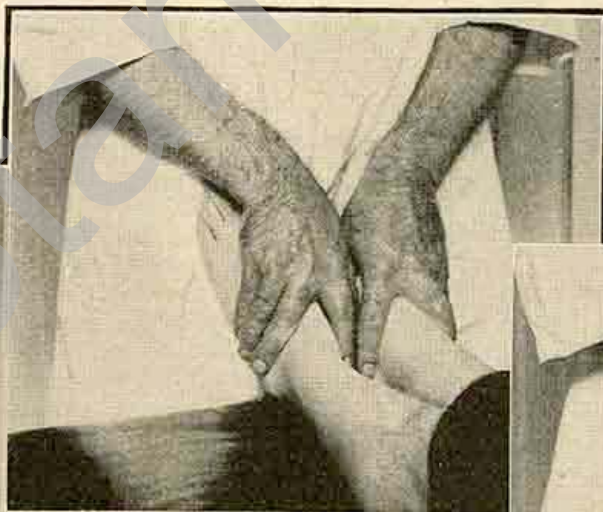
Why do exercises produce strength in some and utterly fail in others? That is a good basis from which to start, and we can branch out indefinitely to take in practically every cause of physical weakness and show how it may be overcome. As we go along we will take up one cause of weakness after another and show how they affect the body. In this way I hope to bring light upon the case of any reader who follows these articles.

First we are going to build the foundation, and we shall build that with eight "stones." To attain anything near perfection physically you must have all eight. They are:

1. A healthy, clean mentality.
2. The will to be strong.
3. Perfect bodily structure.
4. Proper work.
5. Proper play.
6. Proper sleep.
7. Proper food.
8. Proper habits.

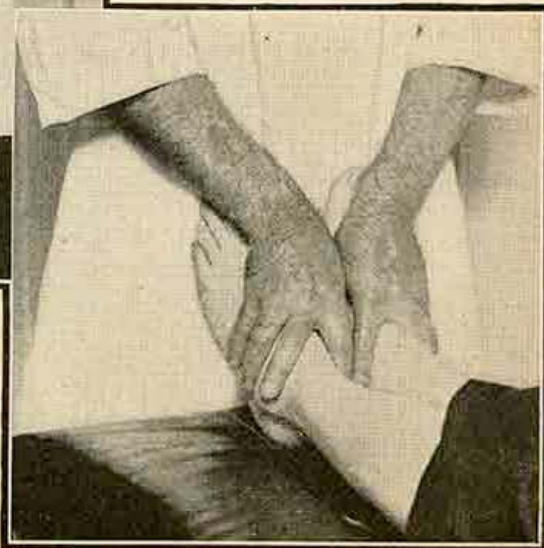
Now we can go ahead and show why each one of these plays its very active part in producing strength. Without going into any of the technical or the sordid details, modern science has proved to its absolute satis-

No. 1: Position to hold ankles preliminary to making test measurement.



No. 2: Position showing relative length of legs. Index finger of each hand must be in contact with upper border of bony prominence on each leg. This photograph shows the right leg shorter than the left as indicated by the position of the physician's fingers, and signifying pelvic maladjustments, possibly causing various troubles.

No. 3: Photograph showing how fingers meet when legs are same length. If there are any mysterious disturbances, nervous or functional, it may be well to have this test made upon your legs.

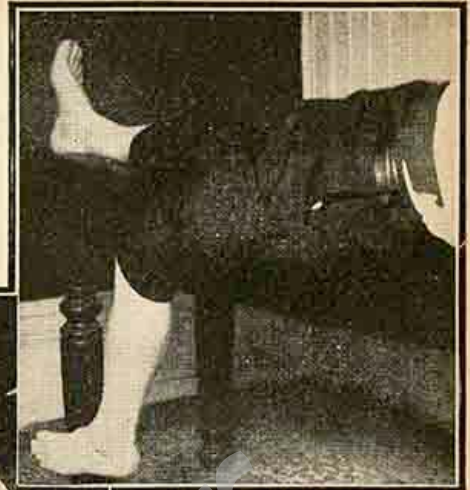
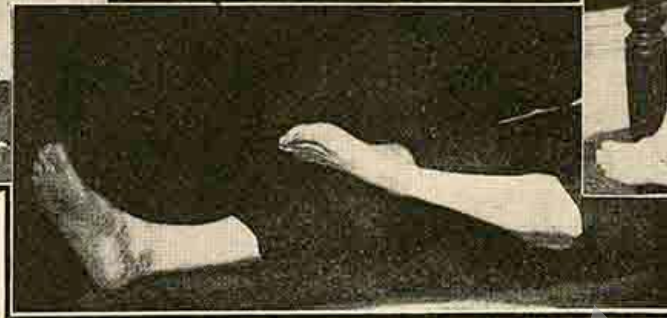




No. 4: First position of leg in effort to increase length of short leg.

No. 5: Final position of leg in making adjustment. Leg is allowed to drop suddenly from first position.

No. 6: Below another method by which adjustment may be made. When leg is flexed and foot is across opposite thigh a sudden thrust with the hand is applied to the flexed knee.



faction that unhealthy thoughts persisted in bringing a reaction on the body, a weakening reaction. For instance,

there was the recent case of an individual whose body should have been perfect but who suffered from one ailment after another. Close observation soon revealed that the patient was a sexual neurasthenic, one whose thoughts dwelt overmuch on sex. That was a case demanding osteopathic adjustments to increase the flow of fresh, clean blood to certain brain cells. Also the patient had to be shown what it was that was causing the trouble, and had to be encouraged to fight it. After many weeks of treatment there came an amazing physical response.

I cite this case merely to show that a healthy body can only exist where there is a healthy mind. Consider for a moment that every organ, gland and muscle is connected with the brain. If there is trouble at the switchboard of a power plant that trouble will manifest itself somewhere else in the power plant. One of the dynamos or motors will stop or not give its best, or the lights will go out. The trouble may manifest itself at some distant point, but you or one who knows his task can trace it back to the switchboard.

The sexual neurasthenic is common, but do not misunderstand this. Mere thoughts such as every normal individual has on sexual matters do not make you a neurasthenic. There is the happy medium in all things. Every healthy person, man or woman, has certain reactions, certain thoughts on this topic. That is entirely natural. The neurasthenic is one who dwells so much on it as to become obsessed—it may even be in the form of an aversion to sex, anything that is not normal, in fact. Mental balance, a healthy, clean mind is absolutely essential as a starter toward health.

Given that, we can begin our building process.

The second one of our foundation stones we can pass over with little comment.

The will to be strong does not mean a flaming blaze that is apt to burn itself out in a week. Rather, it is a cool determination not to be swerved from your course. If you have that you are ready to go ahead with us.

In taking up perfect bodily structure I am on the subject that I shall come back to most often through these articles, and show from time to time why the smallest thing out of alignment might have made Hackenschmidt

a weakling instead of a colossus of power. Furthermore, I hope to point out how it may be some slight defect in

structure that is keeping many of you from attaining the physical and even the mental development of which you are capable. Your body structure must be normal if you are to build strength. Let us take a mechanical example.

The Broadway Limited is one of the finest and fastest trains in the world, a famous express between New York and Chicago. The locomotive that hauls it is a monstrous thing, the embodiment of power. For purposes of illustration we will say that it is speeding along at a tremendous rate, mechanical perfection, and then a tiny valve slips a sixteenth of an inch out of alignment. The fire in the fire box is just as hot, the water in the boiler is furnishing terrific steam pressure, everything but that tiny valve is functioning perfectly—and the Broadway Limited begins to slow up. One of its "glands" is out of order, and the power that it is generating instead of going to perform its allotted tasks is being wasted.

There you have a concrete example of what happens in the human body. That little valve is not doing its job. Perhaps the fireman strives for increased heat, more steam to overcome the defect. The boiler is taxed beyond its capacity. It explodes—and an unthinking person or one who could not trace the cause would blame the boiler.

The same thing happens in the human body. One or both of the kidneys become sluggish. In order for them to function, the whole rest of the body tries to lend some of its power or is thrown out because the kidney is not doing the things the body depends upon it for. Waste matters they should take care of have to be handled by other organs in addition to their own jobs. Weakness grows upon the individual and upon those overtaxed organs.

However, there is this to be said for the human body. Within certain limits it can repair itself when properly directed. But in citing this example my purpose was to point out that when one part of the bodily machine is wrong it makes the whole machine wrong, and strength cannot be attained. If the stomach and liver and lungs are using all their extra power to handle the job that belongs to the kidneys they have nothing left with which to build muscular strength. (Continued on page 78)

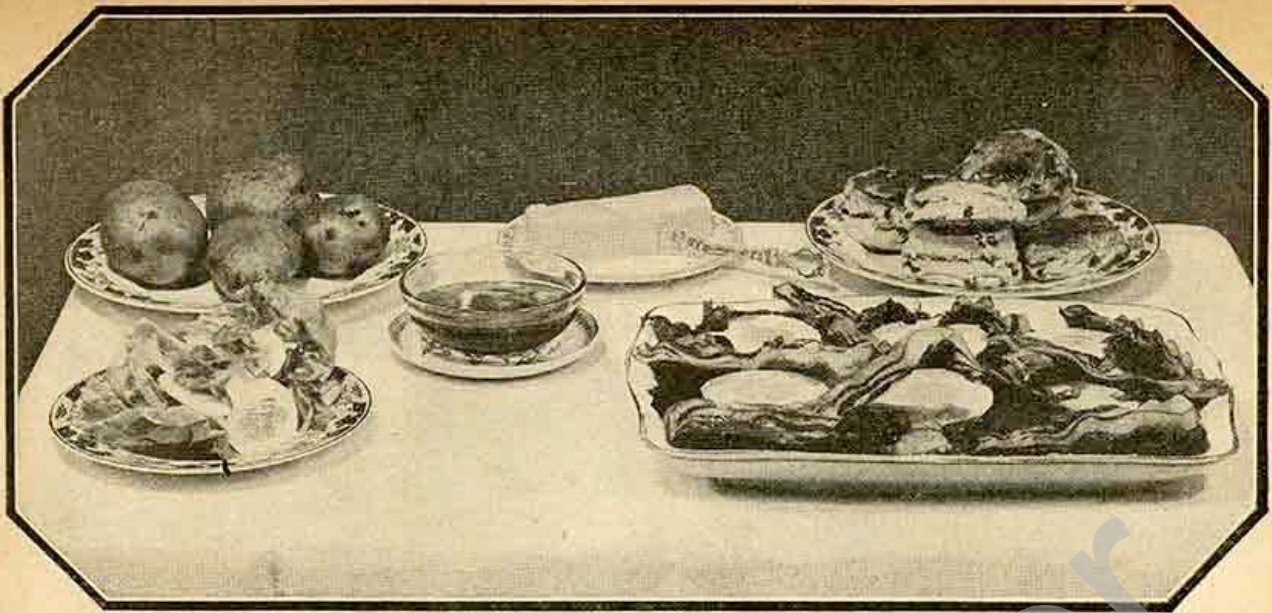


Photo by Wm. H. Trippe

The best way to plan a summer menu is do it on general principles. Plan your meals like this dinner to include the first four essential food substances in abundance, and the all important vitamins, as well as the cellulose so necessary to elimination, will be included.

Protein—Eggs, Bacon.

Mineral salts—Spinach and salad of greens.

Carbohydrates—Baked potatoes.

Fat—Butter.

The dessert of whole wheat blueberry muffins with honey contains all of the food essentials.

The Dinner Table

Conducted by Jane Randolph

Dear Mrs. Randolph:—

I wonder if you have any leaflets containing menus for daily meals. I rack my mind each day for variety.

M. P. C.

Dear Mrs. Randolph:—

After reading your article in Strength Magazine on vegetables, dinner, etc., I would be very pleased if you would send me a booklet on dinner combinations, dinner vegetables, etc.

Mrs. K. H.

THE best way to plan the summer menu is to do it on general principles. Details can be adjusted to fit the time, circumstances, and resources of the cook; decorations, accessories, appetizers and the like may be added as you choose; but the real, and in fact the only important, question for consideration in this matter of menus is the question of food, real food, and that in variety and abundance.

Foods are made up of six different kinds of material. The scientist calls them proteins, carbohydrates, mineral salts, fats, vitamins, and cellulose. But I find myself taking a mental short cut and thinking of them rather in terms of the kitchen and the market, as (1) meat or substitutes for meat, (2) starchy cereals and vegetable roots like rice and potatoes, (3) the green leafy vegetables, and (4) butter or other fats like lard, fat meat and vegetable oils. If you keep in mind these first four different kinds of nutriment, and then remember which foods contain them, you will have an effective key to the balanced diet. In saying this I do not mean that the other two remaining substances, the cellulose

and the vitamins, are not important. On the contrary, they are absolutely necessary. Cellulose provides the mass and bulk to the food. It is not assimilated, but serves to move the food rapidly through the digestive tract. If the first four food essentials are provided in abundance, plenty of cellulose will be included, and there will be no need to provide especially for it. The same is true of the vitamins. We are only just beginning to understand these mysterious substances, but we know how important they are to life and growth. They must be present in the food every day, but they appear in almost every natural food, so that if you make sure to serve plenty of the first four classes of food cooked in such a way as to preserve their food value, you can be sure of the vitamins too, and your family will be abundantly and adequately fed.

The shank of the day is dinner, and the most important day of the week with most of us is Sunday. So I have begun my menus with Sunday dinner. If you are one of those sensible persons who have quit cooking a big Sunday dinner and go to church instead, you can just name this first menu Monday or any other day you choose and then proceed as usual.

In any case it is wise to begin the plan with the most elaborate meal first in order to plan the other meals in relation to it, and to use what is left to the best advantage. If you plan for the dinner first, the other meals can be made much simpler and served with much less effort.

The four essential foods should be included in the dinner, and it is much easier to make sure that they are all there if you plan for them in regular order. So let

us begin with the protein, which the cook usually classifies as meat or some substitute. The meat question is the first thing to settle—whether you will have it or not—if so what meat and how to cook it. If not what other protein food to provide in its place. The rest of the meal should be regulated by this decision, because meat and the whites of eggs tend to putrify in the intestines if they remain there too long, while other protein animal foods like milk and cream cheese only ferment. It is important, therefore, to provide the bulky vegetable foods with a great deal of cellulose or roughage in even greater abundance when meat or eggs are used.

This brings us to the question of vegetables. They naturally fall into two classes, those containing in the main carbohydrates and those which furnish the

mineral salts. Our main source of starch is in the cereals and roots, good examples of which would be natural brown rice for the first, and potatoes for the second. Cereals and roots are included in most meals, and there is little need to warn anybody about the danger of omitting them. They contain both starch and mineral salts.

Next come the green vegetables, the source, chiefly, of the invaluable mineral salts and vitamins. These, together with fruit, form a protective part of the diet. They are impor-

tant, not only as food but as an aid to the assimilation of other foods as well as the elimination of waste. Without them the other foods are reduced in value, and may actually produce harmful rather than beneficent results. The real importance of the green vegetable has been appreciated only of late years, (Continued on page 82)

DINNER		MENU I	
Chicken the way you like it best. Baked potatoes, plain or stuffed. Beet greens, Lettuce salad, Blackberry roll.		Sunday	LUNCH or SUPPER
Green string beans with Strips of bacon, Baked sweet potato, Salad of cabbage, onions, carrot and pepper, Cocoanut custard.		Sliced beets on lettuce, French dressing, Whole wheat with raisin pudding, Whole milk.	
Minced chicken, } Brown rice in } heaps, } Spinach, } Salad of lettuce, cucumbers, tomatoes, Rhubarb pudding made like brown betty with whole wheat bread.		Monday	Chicken and vegetable soup, Apricot short cake, Iced cocoa made with milk.
Meat loaf on platter, surrounded by Hominy and covered with Stewed tomatoes, Salad of lettuce and peppers, Berries or peaches, plain or in short- cake.		Tuesday	Cole slaw, Whole wheat pancakes with Maple syrup or honey, Whole milk.
Corn on the cob, Baked or steamed potatoes, Salad of lettuce and tomatoes, Baked custard and whole wheat cake.		Wednesday	Salad of beans, potatoes, onions, cu- cumbers and cabbage, Milk shake, Blueberry muffins.
Baked fish, Potatoes steamed in jackets and skinned, Stewed tomatoes, Salad of lettuce with endive, water cress, and pepper, Prune whip.		Thursday	Vegetable soup containing any left- over, Meat loaf cut fine, Fruit salad, Whole wheat crackers and honey.
Beef and vegetable stew including po- tatoes and green vegetables, Salad of sliced tomatoes and onions, Peach cobbler or any fruit.		Friday	Summer squash steamed and baked with Whole wheat cream sauce, Stewed rhubarb, Whole wheat nut bread, Whole milk.
		Saturday	Cream of spinach soup, Whole wheat croutons, Apple sauce, Whole wheat cake.

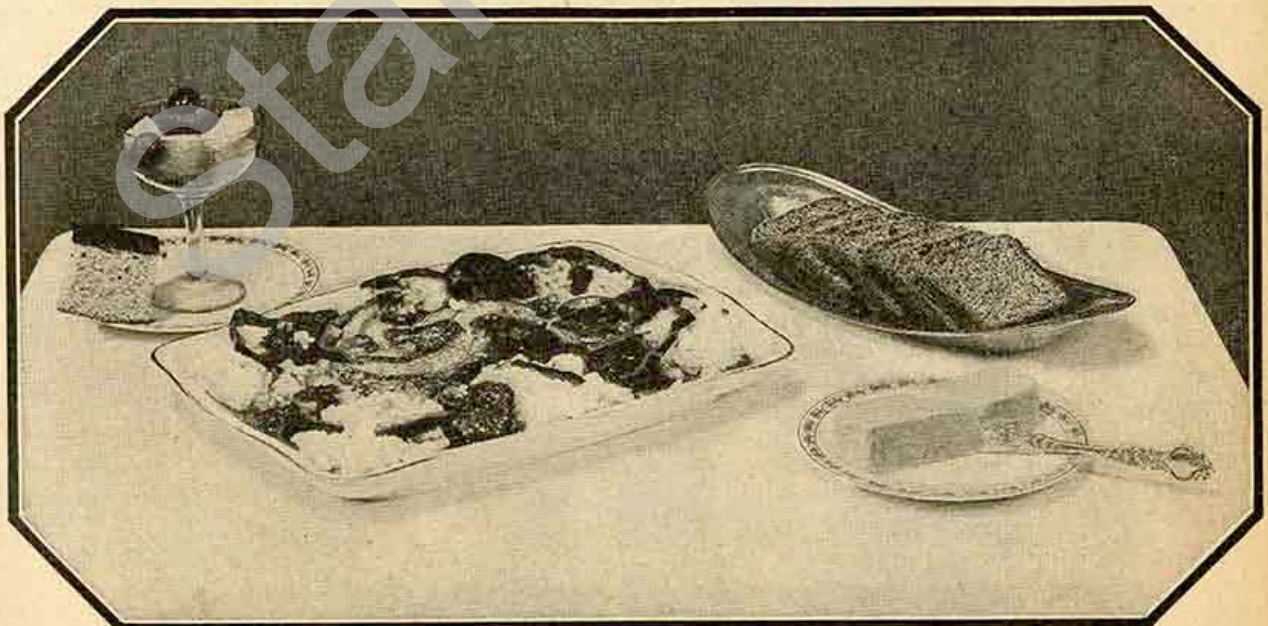


Photo by Wm. H. Trippe

A complete meal that is easy to serve. Tomato omelet with rings of green peppers and small heaps of rice and Swiss chard all served on one platter, fruit salad, sponge cake, whole wheat bread and butter.

A Few New Ones for Your Back Muscles

By Charles MacMahon

THE purpose of this article is to give you exceptionally good exercises for those parts of your body which you have been exercising in a more or less indirect manner.

If you have ever exercised at all, you know what it means to tire your muscles. You have—to put it differently—felt the delightful effects of strenuous exercises for the arms, legs and back. Probably you have been a thorough physical culturist, and I suppose you would therefore say without a moment's hesitation that you have exercised every muscle you own, completely, and consequently experienced the feeling that comes from exercising in a direct manner.

But are you positive you have fatigued every muscle or group of muscles to such a point where you could feel it distinctly? I don't believe you have. Your finger and hand muscles you have exhausted, I know, with certain exercises. Your forearms have ached most likely from the same exercises that exhausted your grip. Your biceps and triceps (or upper arms) have felt as though they would burst—so hard have you worked them with difficult exercises. You have, I am further certain, experienced that even more peculiar feeling which comes from thoroughly exercised abdominal muscles. The small of your back has also sent forth its cry of "enough." You have also learned from experience the great amount of energy that strenuous leg efforts demand, and felt that sharp pain which comes from a deltoid (shoulder muscle) sufficiently exercised. In all of these parts of your body I know you have felt the effects of real exercise.

But I am almost positive you have never noticed the slightest semblance of fatigue in the muscles of the upper back, or in other words, those which lie between, on and around the shoulder blades. Think it over and see if you can remember ever feeling it directly in these muscles.

The nearest you have come to actually fatiguing these muscles around the shoulder blades are the back of the neck, the tops of the trapezius between the shoulder joints and sides of the neck, the backs of the deltoids, and the lower ends of the trapezius and latissimus muscles which form the before mentioned small of the back.

If you know the location of these muscles outlined in the foregoing paragraph, you can see that you have hit all around the shoulder blade muscles but not on them.

My purpose is to give you an exercise that will affect or fatigue this set of muscles directly. If you put your mind on this movement (and your concentration you certainly must use if you hope to get the effects) so as to get it exact, you will certainly feel it in the muscles of your upper back, just as you feel it in your calves when you raise on your toes a few times in the correct manner.

This exercise may or may not be a vague proposition. It depends on your experience with exercises. I am afraid the beginner and those who have not up to this time gone further into physical culture than to exercise their eyes reading about it, will find my movements for the broad of the back a little deep. However, I am sure you will "get it" if you think while you read the description, and think while you are trying it. The illustrations, too, will aid you greatly in grasping the idea.

At first glance the movements will seem simple enough. You lean forward at the waist considerably, but not quite at right angles with your legs. Then you drop your arms to about forty-five degrees (half-way) between your shoulder level and the position directly in front of your chest where your hands would touch. The arms may or may not be held rigidly straight. I have found that if you keep them bent slightly at the elbows there is less chance of tiring the deltoids before the muscles we are after. But whether you have your arms bent or straight, they must remain rigid throughout the exercise; and what bending there is to be done must be accomplished at the shoulder joints only, and shoulder blades must follow the arm movement as though the two were a fixed proposition.

Any position or movement that tires any other muscle or set of muscles before it is felt in the muscles of the upper back is defeating our purpose. This means that the movements should be performed with as much ease to other muscles and as much direct exertion on the back muscles as possible. Illustration No. 1 will show the correct positions: Notice how the back is spread by the shoulder blades in the position at the left.

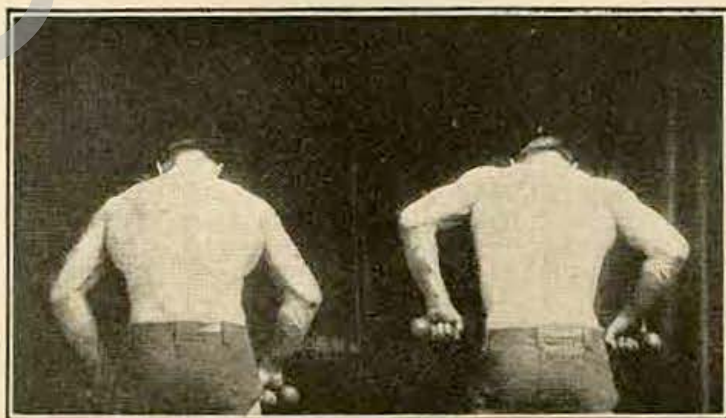


Figure 1. Illustrating a special movement which, if executed with technical exactness, as carefully described by the author, will thoroughly develop certain muscles of the back that ordinarily are neglected.

The muscles that are called into play by this exercise are the trapezius, infraspinatus, teres major, rhomboideus major, and teres minor.

If you are fairly strong you can use as much as five or ten pounds, rarely more. Now for the movements themselves.

They consist of bringing the arms back or up as far as possible, and lowering them again to first position. But that is not all. The shoulder blades must move with the arms. If they don't, then you get a deltoid exercise pure and simple. The shoulder blades must be as close together as possible when the arms are up or back; and spread as far apart as possible when the arms are down.

This exercise should be practiced slowly, and the concentration must be on the shoulder blades and the muscles surrounding them. If you try this exercise (and I hope you will, if for no other reason than to grasp my idea more firmly) and do not feel it in the muscles intended, you have not done it correctly. There are no two ways about this. You will feel it either in the shoulders or upper back. If you have the feeling decidedly in the back (not the small of the back) when you straighten up, you have done it correctly. If you feel it only in the shoulders, it has been done incorrectly. Don't forget the shoulder blades must move to their fullest extent, and concentration is the only thing that will move them in unison with the arms.

Here is another good one for your trapezius muscles. Your upper trapezius muscles have been exercised directly only by shrugging your shoulders

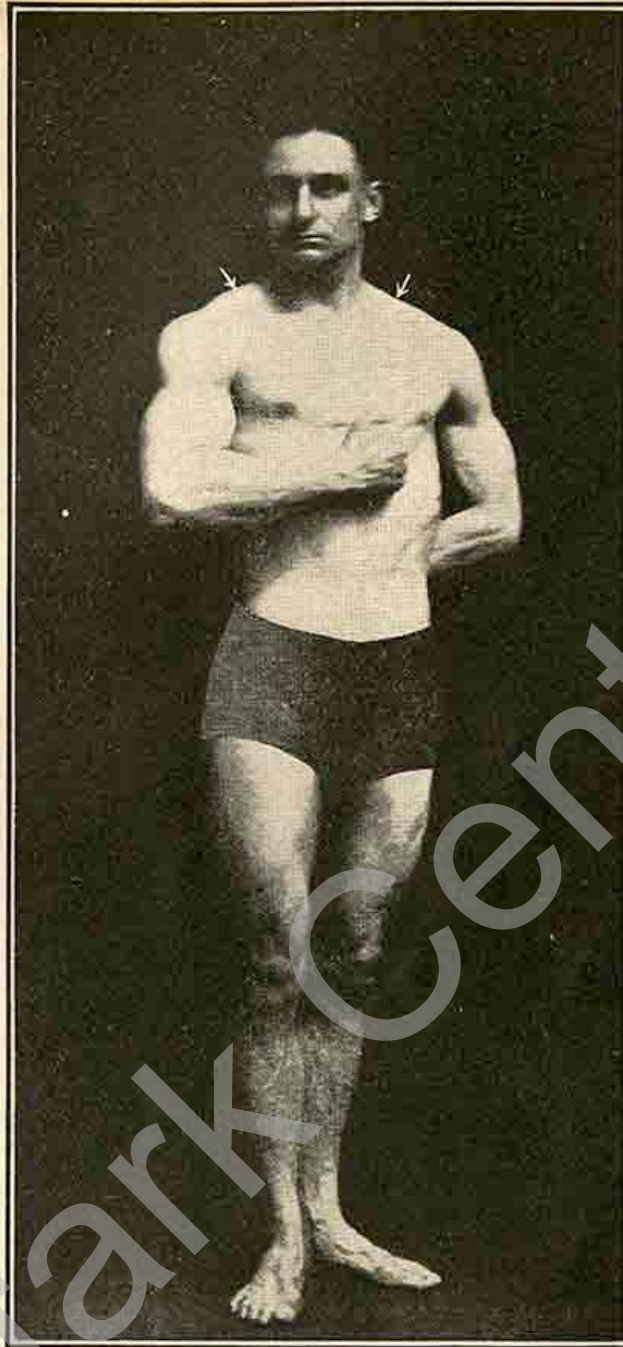


Figure 2. The little arrows above the shoulders indicate the tops of the trapezius muscles, concerned in the exercise shown below.

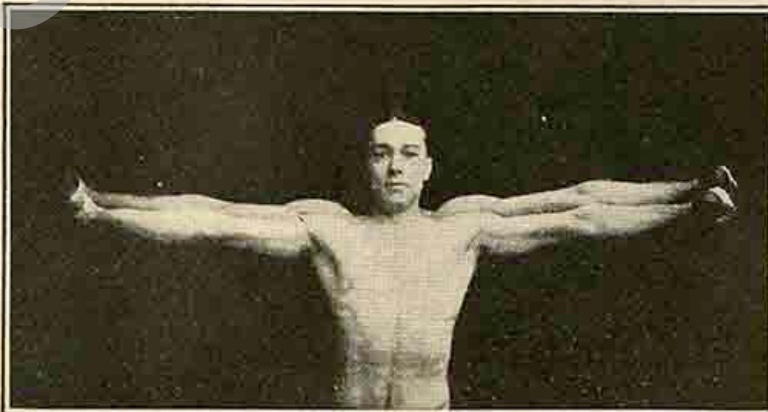


Figure 3. Showing a movement by which the trapezius muscles are far more thoroughly employed than in ordinary shoulder raising movements.

with your arms hanging at your sides. The tops of the muscles in question are shown in illustration No. 2. This exercise is good as far as it goes, but it does not contract your trapezius muscles to their fullest extent. Therefore, if you hold your arms straight out to the sides and at shoulder level, you contract the muscles in question about fifty per cent.

Now, while you keep your arms out to your sides, raise your shoulders as high as possible. But this exercise is not very efficient if you do not make the shoulders raise your arms and hands to the same height. You can easily see that if you raise your shoulders and let your hands stay at the height they were, you do not put the greatest amount of weight and work on the trapezius muscles. The double exposure, illustration No. 3, shows the correct movement.

You can go even further with this exercise by raising your arms directly over your head. This position contracts this part of the trapezius to its fullest extent, especially when the shoulders are shrugged with the arms in this position. Illustration No. 4 gives a clear idea of this movement. If the head is tilted somewhat backward in these two exercises, you will find them more strenuous on the trapezius muscles, and particularly the parts of the muscles that run up the side of the neck to the back and base of the skull. Five or ten pounds in each hand will also add greatly to the strenuousness of these exercises.

Here is still another new one for your latissimus muscles. In illustration No. 5 you will see an arrow pointing to the latissimus muscle. The

well-defined ridge is the edge of this muscle. The greater part of it runs back to the spine, with a narrow strip connecting to the upper arm bone just below the shoulder joint.

The exercise that affects this muscle more directly than all others is a very distant form of two-hand chinning. You grasp a chinning bar with the over-hand grip (knuckles toward you) and pull up slightly by bending your arms at the elbows. You keep the arms in this position throughout the number of repetitions you make of the movement. Then keeping the body and legs rigid and straight, you lift them to as near a horizontal position as you possibly can, and then let your legs and body come back slowly to the original hanging position. Repeat this as many times as you can, which you can rest assured will not be fifty

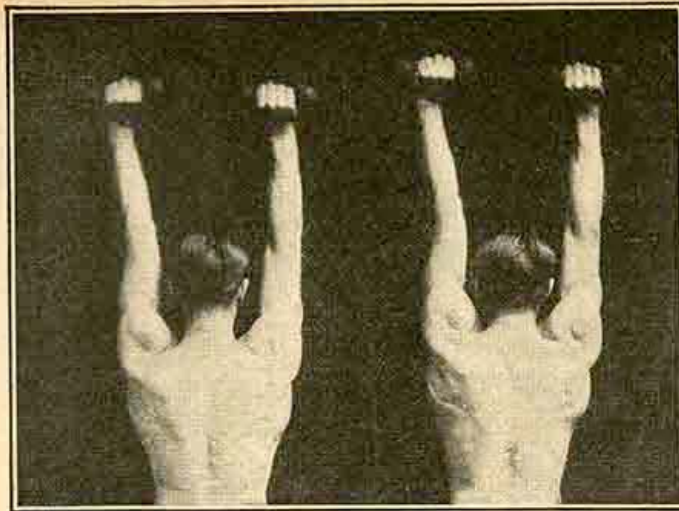


Figure 4. This is another way in which to get effective results with the trapezius muscles. Read the author's analysis of the exercise carefully.

case by arching the back as shown. When you have performed this exercise as often as you can, if you do not feel it for a few minutes in the latissimus muscles under the arms and along the sides of the body, you simply have not done it correctly.

A different one for the small of your back. Mostly every one who has practiced physical training, either in earnest or indifferently, has tried the exercise of touching the toes with the fingers and bending backward as far as possible all in one motion. But in this one for the small of the back you do not bend forward at all.

Stand erect with feet together or apart, as you like, and raise the arms over your head. A little weight in each hand is advisable, and ten pounds in each hand will be plenty even for the strong. Three or five pounds in each hand is best for a novice. Now from the erect position you bend back at the waist, and at the same time let the hands with the weights go back as far as they will. As you bend back let the hips go forward. This aids you in keeping your balance. Use caution in this exercise, for a moderate backward bend is sufficient—you don't need to try to bend the crab in doing this one. Come back to the erect position and repeat until you feel it in the muscles along the spine between the lower edge of the shoulder blades and the base of the spine. Illustration No. 7 will show both positions. You can see by the position on the right how the back muscles are contracted to their fullest extent. You can also vary this one by first going back and to one side slightly, and then to the other side. Or you can hold the bent position and do a moderate side to side motion.

If you will stand so that you can see part of your back, at least, in a mirror, you will notice how the backward position and the backward pull of the weights and arms bring out the muscles (latissimus)

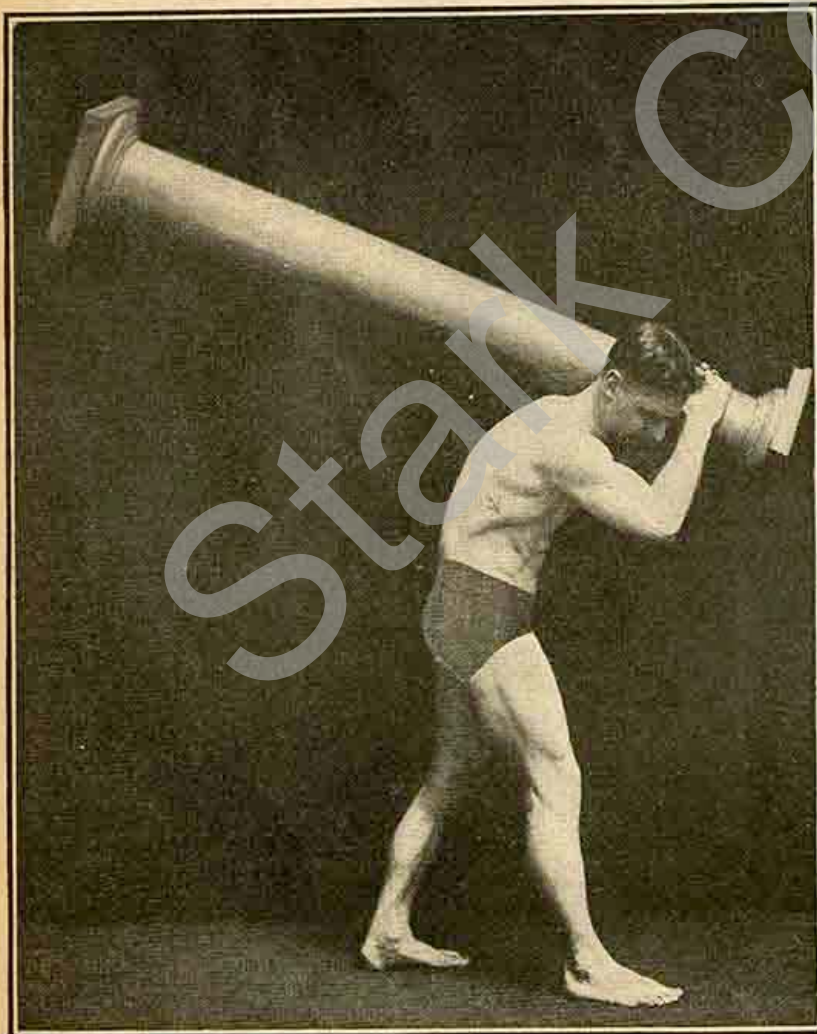


Figure 5. The small arrow indicates the latissimus muscles, which run back to the spine, connecting with the upper arm bone.

along the lower spine. These muscles work hard against the weight in your hands. Care should be used so as not to strain any of the muscles of the abdomen and groin.

The foregoing exercise also affects the serratus muscles (those rippling ones on the ribs just in front of the latissimus). But I would better add that it does not tire this set of muscles directly. The average physical culturist has never experienced real fatigue in the serratus muscles. I am inclined to believe they cannot be as noticeably fatigued as most muscles can. The reasons that prove this are that they are capable of very little movement themselves, and being almost wholly dependent on bones and other muscles for means of motion, the other muscles tire long before the serratus muscles do.

One of the most direct and, therefore, one of the best exercises for the serratus muscles is performed by taking the floor dipping position, that is, supporting the body on the hands with arms straight and vertical, and on the toes with legs straight and almost parallel with the floor. This movement, which is accomplished entirely by the muscles of the upper back, upper sides and chest, is made without any motion of the arms whatsoever. The exercise is practiced by first raising the part of the back between the shoulder-points as high as possible. In other words, hump the back by the power of the back, chest and side muscles only. Then force the back and chest to fall as low as they will go. Repeat this movement thoroughly until you feel the effects in the serratus muscles.

You will find, if you do this exercise correctly, that the serratus muscles will feel fatigued for several minutes after you finish the exercise and get to your feet. It is better to keep the head back, and be sure to breathe freely and deeply while going through this exercise.

Be especially sure that you do not hold your breath longer than a second or two. At first it may seem to you that the foregoing exercise does not affect the serratus muscles, but by persisting in the exercise you will soon see that it does fatigue this set of muscles. The reason the serratus muscles are difficult to tire is mainly because they are attached to the upper eight ribs about mid-way between the front and sides of the

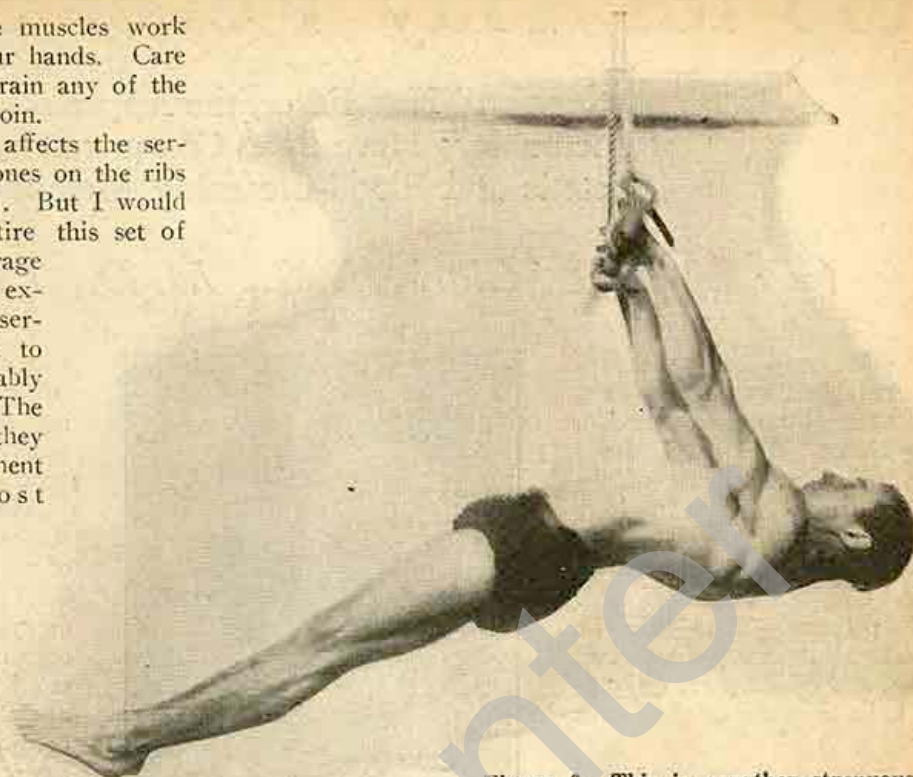


Figure 6. This is a rather strenuous exercise, but one particularly effective in building tremendous strength in the latissimus muscles, and in developing them. Described in detail in this article.

chest. As the ribs are capable of no movement except that which is caused by breathing, the serratus muscles can get practically no exercise from them.

The serratus muscles taper from the ribs back to one point and fasten along the inside, lower edge (toward spine) of the scapula or shoulder-blade. The shoulder-blades, as you know, are far from possessing the wide and varied range of movement that the arms and legs have. But they do move to a greater extent than the ribs. Consequently the serratus muscles get most of their exercise from the movements of the shoulder-blades. This means they do not get much direct exercise even in the person of a full-fledged physical culturist. In the case of a person who gets practically no exercise except walking, the serratus muscles are hardly moved at all, let alone exercised.

If you possess visible serratus muscles you will notice that when you put your hand at the back of your head, elbows directly front, these muscles show up the best. This is because the lower ends of the shoulder-blades are brought farther around to the sides than their normal positions, thereby contracting and making the serratus muscles more prominent. It is a good plan to learn control of the shoulder-blades.

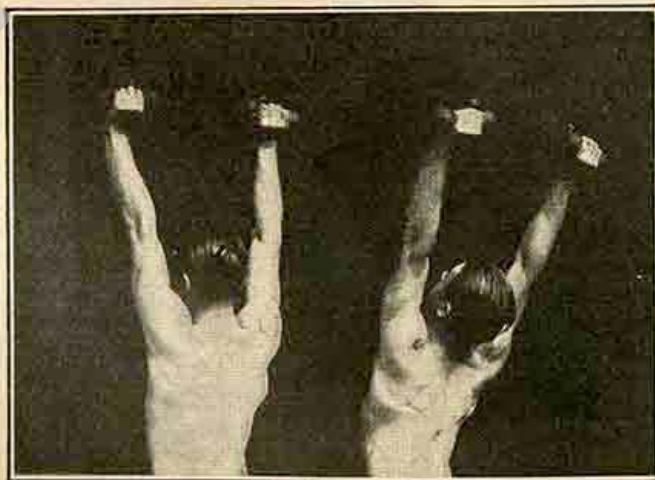


Figure 7. This is an unusual version of the usual exercise for the small of the back. It must be done just right, and is made more vigorous in conjunction with small weights, as the author prescribes.

Help for Hay Fever Sneezers

Asthma and Hay Fever, the Apparently "Incurable," Have Been Conquered by Dietetic and Blood-Cleansing Methods

By P. L. Clark, B. S., M. D., Ph. Sa.

ASTHMA and hay fever are curable, though such is not their general reputation. Hence the hay fever societies, constituted chiefly of the well-to-do people who still have money left to travel after the doctors have tried everything, reached their wits' end, and exhausted their patient's patience. Then those hardened face-savers say the disease is climatic, and collect a fee for prescribing Lake Superior or the North Woods.

In speaking of hay fever and asthma in this article, the reader should first realize that asthma is a similar but more advanced stage of hay fever. They are both of a catarrhal origin. When one has learned what he must do for asthma, he can surely treat his hay fever successfully.

Mrs. M. Shenk, formerly of Chicago, now of Danville, Illinois, will be glad to verify this story. Asthma in acute form seized her in March, 1921. The family doctor promised "relief" in three weeks. As he made no impression on the disease, the patient's sufferings even increasing, she consented to calling in a well-known Chicago specialist. The latter agreed in the diagnosis of bronchial asthma, and said the case was incurable. Nevertheless, iodides, "smokes," adrenalin injections and the like continued to be "tried." The iodides affected the thyroid gland, and exophthalmic goitre developed, adding the torture of nervousness to the agony of choking with the asthma, while the latter increased so she could scarcely sleep, walk, or talk. One must see such a case measurably to appreciate the frightful suffering.

In the ninth week, the patient was taken to a hospital. There her special physician said that if he could find the cause he knew he could cure her. She was given the protein tests and the particular serum treatment based on its findings, with no beneficial results. But the doctors never once relaxed in the administration of iodides



Dr. Clark has had a unique success in the treatment and cure of those most stubborn of all complaints, hay fever and asthma, which he holds are practically identical in character, and both of a catarrhal nature. Dr. Clark is the founder of the Health School in Chicago and author of "How to Eat and Live for Health."

You will see that Dr. Clark lays great stress on eliminative or cleansing treatment, together with corrective diet. He holds that it is most important to overcome acidosis of the blood and tissues by means of a diet that will restore the normal alkalinity of the system. This means a low protein or more or less meatless diet, freedom from excesses of starch and sugar and a superabundance in the diet of green leafy salads, vegetables and fruits. Note his particular reference to the value of fresh vegetable soups, which does not mean a soup made of heavy meat stock containing a few vegetables. If you have followed Mr. McCann's articles on diet and the means of combating acidosis, you will understand clearly the meaning of Dr. Clark's suggestions.

In brief, if you are a hay fever victim, stop eating meat and eggs, but eat plentifully of fruit, salads and vegetables, supplying your tissues liberally with organic mineral salts and vitamins.—The Editor.

and other poisons, and assured the sufferer their medicines were relieving her asthma. The goitre they totally ignored, though it was steadily growing worse.

After some weeks in the hospital, she was sent, in July, to the woods of northern Michigan. There for a brief time, by keeping very quiet, she escaped the spasms of asthma. As soon as she walked, however, or exerted herself slightly, they came on again. Continuing the iodides according to instructions, the goitre symptoms grew worse, eyes bulged, pulse went to 110 and 115, while the increasing nervous condition, added to the asthma, nearly drove her insane.

The middle of August found the distracted woman back in Chicago, all her sufferings more intense, and the last desperate resort of a surgical operation for the goitre determined on.

At this point I was called in. After a thorough examination, I was able to promise her relief and even complete recovery, conditioned only on her own full co-operation. In the foregoing history, which was obtained from Mrs. Shenk later, I have sufficiently indicated her condition, except to say that she was sixty-five pounds overweight, tipping the scales at two hundred and five pounds.

Within a week the asthma had gone, ability to sleep soon came back, and though she complained of a heavy feeling for a time, to her physician's eye her progress was steady from the first.

Owing to the medical superstition that the asthma would come back when March came round again, Mrs. Shenk made no boasts, and perhaps herself felt uncertain of the permanence of her cure, so incredible did it seem, until the end of April, 1922. Then she wrote:

"I now find myself sixty-five pounds lighter in weight, down to a normal one hundred and forty, my goitre gone, my asthma gone. I have to pinch myself to see if this is really I who am walking about, upstairs, downstairs, downtown shop- (Continued on page 91)

THE MAT

Analytical Comment on Subjects Connected with Body-building, Muscular Development, etc.

Don't Try to Be Double-Jointed

EDITOR OF *The Mat*.

RICHMOND, INDIANA.

Dear Sir:

Will you kindly explain just what is meant by a person being "double-jointed?"

Quite often, when speaking of a contortionist, some one makes the remark, "Oh, he is double-jointed."

It strikes me that if such a condition did exist, it would have the opposite effect on one's body. By that I mean it looks like a person could not even bend a joint if such were the case.

I would be very grateful if you will explain this condition.

Sincerely yours,

E. B. WILLIAMS.

A JOINT in the human body is quite a simple affair. The joints at the shoulders and hips are of the type called "ball-and-socket" joints, whereas at the elbow and knee joints are "hinge" joints, and the ankles and wrists are modifications of the "ball-and-socket" principle.

A joint is located at any point where two bones come together. Some of the joints are immovable, such as the saw-tooth joining of the bones which form the skull. When the ends of two *movable* bones come together, and form a joint, the bones are held together by structures called "ligaments," which are bands of fibrous tissue completely surrounding the joint.

In the "ball-and-socket" joint at the shoulder, the socket is formed by the bones which comprise the shoulder girdle, and the movement of these bones is limited. At the end of the upper arm bone is the ball which fits into the cup or socket formed by the shoulder bones. Since the ball can move freely in the socket, the upper arm bone can be moved in almost any direction. The bone of the thigh has far less freedom of movement than the upper arm bone. The ankles and wrist joints are modifications of the ball-and-socket principle. When the bones of the forearms or calves of the legs are held in one fixed position, the hand or foot, as the case may be, can be bent forward or backwards, sideways, or in certain combinations of these movements.

In the "hinge" joints of the elbows and knees, the movement is in only one direction. You can bend your whole arm and bring the forearm close to the front of the upper arm, but it is impossible for you to bring the forearm close to the back of the upper arm. The range

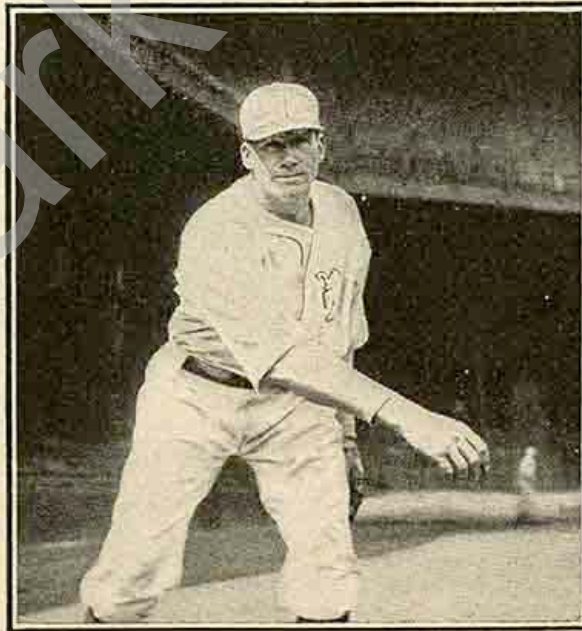
of movement in a hinge joint is limited not only by the flexibility of the surrounding ligaments and the neighboring muscles, but also by the fact that in some positions the bones interlock. The spine is composed of a number of small sections, each of which has a limited possibility of movement in relation to the two neighboring sections.

It appears that some people actually believe that there are individuals who have two joints where most of us have only one. The term "double-jointed" merely means an unusual, and in some cases abnormal, range of movement. Most of these so-called "double-jointed" contortionists are individuals whose joints are rather loosely bound together, and who have, by constant practice, cultivated their ability to move the bones beyond the normal stopping point.

As a rule, the joints of women are much more flexible than those of men, and this applies even to the hinge joints. Very few men can bend the arm back of a straight line, but many women are able to hold their arm out in a way that makes it actually bend backwards at the elbows. When a man straightens out his fingers, they are in one line, but there are lots of women who can extend their fingers, and actually bend them in a backwards curve. I imagine that the first man who used the term "double-jointed" had this in mind, and meant that the joints could be bent in either direction. So far as I can see, there is no particular virtue or advantage in being loose jointed, because any abnormal flexibility in the joints of the body is usually accompanied by an abnormal weakness. I mean that if a person has very unusual freedom of movement in the wrists, elbows, ankles, or knees, these joints are liable to become sprained from causes which would not affect the tightly knitted joints of the average individual.

A man can be very supple without having any abnormal looseness of the joints, but his suppleness comes from great elasticity of muscle. A male contortionist is usually a very slender individual; if he were fat, the extra flesh would interfere with the movement of the limbs. This is not applied to women, because there are some first-class women contortionists who are quite plump. A powerfully muscled man can learn to high-kick, but he has to cultivate the accomplishments, whereas many sturdily-built young women can do high kicking without practice and without the least exertion.

As I said before, each sec-



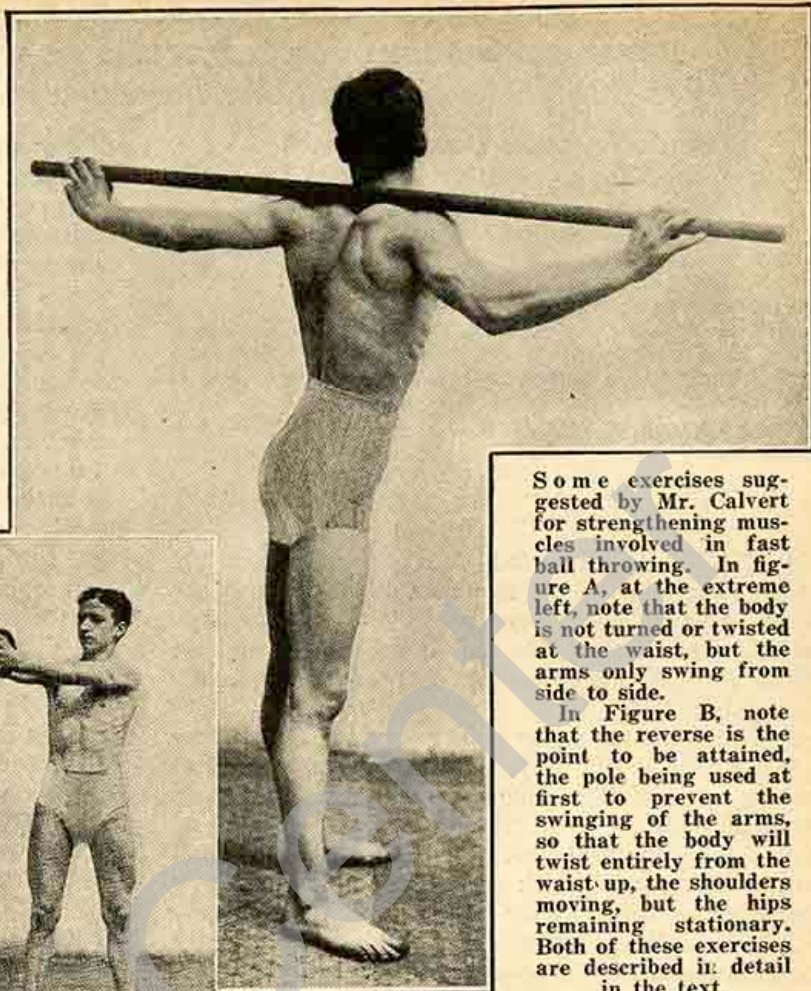
Illustrated the "follow through" after pitching a fast ball. The author tells what muscles are concerned in bringing the arm down in such a way as to get speed when throwing the ball, and what special exercises are of greatest value in strengthening these muscles and attaining speed in pitching.

tion of the spine can be bent at only a slight angle to its neighboring sections, but since there are twenty-four of these movable sections, it is possible, by practice, to greatly increase the flexibility of the spine. If the practice is started in childhood, many boys and most girls can acquire the power to stand erect with straight legs and to lean forward and touch the ground with their elbows, or to sit on the floor with straight legs, and lean the body forward, and put the forehead against the shin bones. In the other direction, they are able to bend over so far back that they can drink water from a tumbler which has been placed between the feet. It is hard to attain this freedom of movement if practice is started after the age of fifteen. A girl who has been trained in this way will retain her flexibility and her power to bend until she is middle-aged. Most boys lose this unusual flexibility as they grow into husky young manhood, as their muscles increase in size and strength, and as the joints become more firmly knitted.

Most of us look upon contortion feats in the light of freak stunts. It might be kinder to call them a specialty. While almost every one is interested in becoming as supple and as flexible as possible, there seem to be very few who have any ambition to acquire the power to wrap their legs about their neck, or to bend their bodies into other strange and grotesque postures.

There is a class of showmen who are known as "dislocationists," and these individuals can do even more than the average contortionist. By a combination of muscular control and the looseness of joint-structure, they are actually able to dislocate the joint, and then snap it back in place. This seems a strange accomplishment, and it is very hard for the normal person to see the use of it.

Most of the contortion feats you see on the vaudeville stage are possible because the performer has cultivated the flexibility of his spine and has very loosely bound shoulder and hip joints. It is undoubtedly an advantage to keep your joints in good working order, and this can be done by an occasional practice of bending movements. You need not be afraid that by cultivating your muscles to the natural limit of their development you will hamper the action of the joints, or become either muscle-bound or stiff-jointed. Sandow, whose muscular development has come to be a tradition, was extremely supple, and my friend Tony Massimo, who is even more powerfully built than Sandow, can bend and twist himself to a degree beyond the power of the average thin and undeveloped man. I saw Massimo stand on the left foot with the left leg rigidly straight, and lean over and touch his forehead against



Some exercises suggested by Mr. Calvert for strengthening muscles involved in fast ball throwing. In figure A, at the extreme left, note that the body is not turned or twisted at the waist, but the arms only swing from side to side.

In Figure B, note that the reverse is the point to be attained, the pole being used at first to prevent the swinging of the arms, so that the body will twist entirely from the waist up, the shoulders moving, but the hips remaining stationary. Both of these exercises are described in detail in the text.

the left shin. If you think this is easy, try it. Even if you are naturally loose-jointed, it will take you several weeks to get the power to lean that far. Massimo stands about five feet nine inches, and weighs nearly 200 pounds. His chest and thighs are of immense size, but he is trim-waisted. Any one who does extreme bending stunts has to be trim-waisted. A fat person cannot bend far in any direction, and it goes without saying that by cultivating the power to bend your body, you can eliminate the surplus flesh.

In conclusion, I would say that double-jointedness is not a thing to be sought for, although no one should fail to cultivate the flexibility of his joints to their full normal extent, and to keep his muscles as elastic as possible.

Wanted—Records in Chinning the Bar

Undoubtedly, the stunt known as "chinning the bar" is a very much more popular and more widely practiced test of strength than the companion stunt of "dipping" on the parallel bars. If we were to dig back into the past, I suppose we would find that the reason is that we have inherited a liking or a predilection for biceps stunts from our ape-like and tree-climbing ancestors. Certainly for every man who has practiced the triceps developing exercise of "dipping" on the parallel bars, there are a hundred who have practiced the biceps exercise of "chinning" themselves on the horizontal bar or a pair of rings. A concern (Continued on page 92)

NERVE EXHAUSTION

How Nerve Abuse Wrecks Health

by PAUL von BOECKMANN

Lecturer and Author of numerous books and treatises on Mental and Physical Energy, Respiration, Psychology and Nerve Culture

THERE is but one malady more terrible than Nerve Exhaustion, and that is its kin, Insanity. Only those who have passed through a siege of Nerve Exhaustion can understand the true meaning of this statement. It is HELL; no other word can express it. At first, the victim is afraid he will die, and as it grips him deeper, he is afraid he will not die; so great is his mental torture. He becomes panic-stricken and irresolute. A sickening sensation of weakness and helplessness overcomes him. He becomes obsessed with the thought of self-destruction.

Nerve Exhaustion is brought about through nerve strain. There is no other cause. Men strain their nerves through mental concentration and business worries; often too, through excesses and vices. Women strain their nerves mainly through their emotions, especially those involved in their domestic affairs. Indeed, we are in the midst of nerve strain everywhere due to the mile-a-minute life we are leading. And no man or woman is so strong as to be immune to this strain.

Nerve Exhaustion is not a malady that comes suddenly, yet its symptoms are unmistakable. It does not manifest itself, as many think, in twitching muscles and trembling hands.

The majority of sufferers from nerves seem strong and healthy, and may have not a tremor in their body, yet inwardly their nerves are in a turmoil and are undermining the entire bodily organism.

The symptoms of Nerve Exhaustion vary according to individual characteristics, but the development is usually as follows: First Stage: lack of energy and endurance; that "tired feeling." Second Stage: Nervousness; restlessness; sleeplessness; irritability; decline in sex force; loss of hair, nervous indigestion; sour stomach; gas in bowels; constipation; irregular heart; poor memory; lack of mental endurance;

dizziness; headache; backache; neuritis, rheumatism, and other pains. Third Stage: Serious mental disturbances; fear, undue worry; melancholia; dangerous organic disturbances; suicidal tendencies; and in extreme cases, insanity.

If only a few of the symptoms mentioned apply to you, especially those indicating mental turmoil, you may be sure that your nerves are at fault—that you have exhausted your Nerve Force.

Perhaps you have chased from doctor to doctor seeking relief for a mysterious "something the matter with you." Each doctor tells you that there is nothing the matter with you; that every organ is perfect. But you know there is something the matter. You feel it; and you act it. You are tired, dizzy, cannot sleep, cannot digest your food and you have pains here and there. You are told you are "run down," and need a rest. Your doctor may prescribe a drug—a nerve stimulant or sedative. Leave nerve tonics alone. It is like making a tired horse run by towing him behind an automobile.

And don't be deceived into believing that some magic system of physical exercise can restore the nerves. It may develop your muscle but it does so at the expense of the nerves, as thousands of athletes have learned through bitter experience.

The cure of weak and deranged nerves must have for its basis an understanding of how the nerves are affected by various abuses and strains. It demands an understanding of certain simple laws in mental and physical hygiene, mental control, relaxation, and how to develop immunity to the many strains of everyday life. Through the application of this knowledge, the most advanced case of Nerve Exhaustion can be corrected.

I have made a life study of the mental and physical characteristics of nervous people, having treated more cases of "Nerves" during the past 25 years than any other man in the world (over 100,000 cases).

The result of this vast experience is embodied in a 64-page book, entitled "Nerve Force," a book that is essentially intended

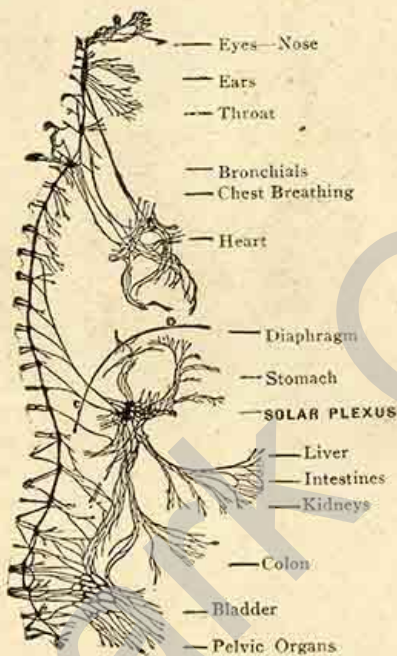


Diagram showing how the Solar Plexus, known as the "abdominal brain," is the great center of the Sympathetic (Internal) Nervous System. Mental strains, specially grief, fear, worry and anxiety, paralyze the Solar Plexus, which in turn causes poor blood circulation, shallow breathing, indigestion, constipation, etc. This in turn clogs the blood with poisons that weaken and irritate the nerves. Thus Mental strain starts a circle of evils that cause endless misery, aches, pains, illness, weaknesses and generally lower mental and physical efficiency.



PAUL VON BOECKMANN

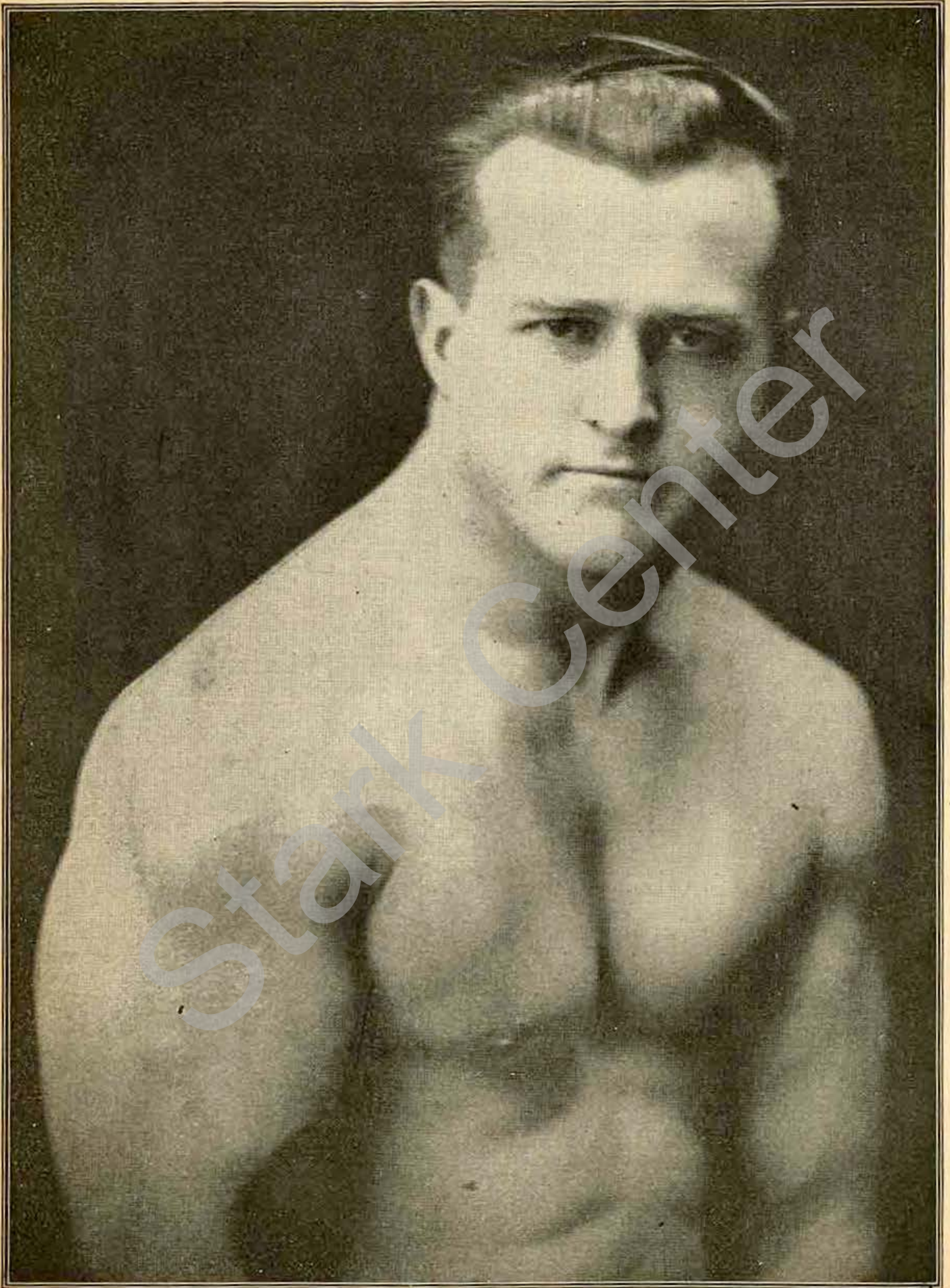
Author of *Nerve Force* and various other books on Health, Psychology, Breathing, Hygiene and kindred subjects, many of which have been translated into foreign languages.

Prof. von Boeckmann is the scientist who explained the nature of the mysterious Psychophysical Force involved in the Coulton-Abbott Feats, a problem that had baffled the leading scientists of America and Europe for more than thirty years, and a full account of which was published in *Physical Culture Magazine* and many newspapers.

to teach how to care for the nerves and how to apply simple methods for their restoration. It includes important information on the application of deep breathing as a remedial agent. The cost of the book is only 25 cents, coin or stamps. Address me—Paul von Boeckmann, Studio 462, 110 West 40 St., New York City.

This book will enable you to diagnose your troubles understandingly. The facts presented will prove a revelation to you and the advice will be of incalculable value whether you have had trouble with your nerves or not. Your nerves are the most precious possession you have. Through them you experience all that makes life worth living, for to be dull-nerved means to be dull-brained, insensible to the higher phases of life—love, moral courage, ambition, and temperament. The finer your brain is, the finer and more delicate is your nervous system, and the more imperative it is that you care for your nerves.

"Nerve Force" is not an advertisement of any treatment I may have to offer. This is proved by the fact that large corporations have bought and are buying this book from me by the hundreds and thousands for circulation among their employees—Efficiency. Physicians recommend the book to their patients—Health. Ministers recommend it from the pulpit—Nerve Control, Happiness. Never before has so great a mass of valuable information been presented in so few words. It will enable you to understand your Nerves, your Mind, your Emotions, and your Body. Over a million copies have been sold during the past fifteen years.



EARLE E. LIEDERMAN
The Muscle Builder

IF YOU HAD A FACE LIKE A MONKEY

you would try to change it. But just because you wear a pair of pants and a coat to cover the rest of your body you don't seem to care a rap what you look like from the neck down. Come on out of it, fellows. Get wise. Don't you know you can't keep this up? It's only a few years and ZOWIE it's too late. Your body is clogging up with all kinds of poisons. The only way to get rid of these poisons is to drive them out. Exercise wears off the worthless tissue, the blood carries it to the surface and then you sweat it out through your pores. That's simple enough. But if you don't—your blood will absorb all this poison and soon you're nothing but a human wreck.

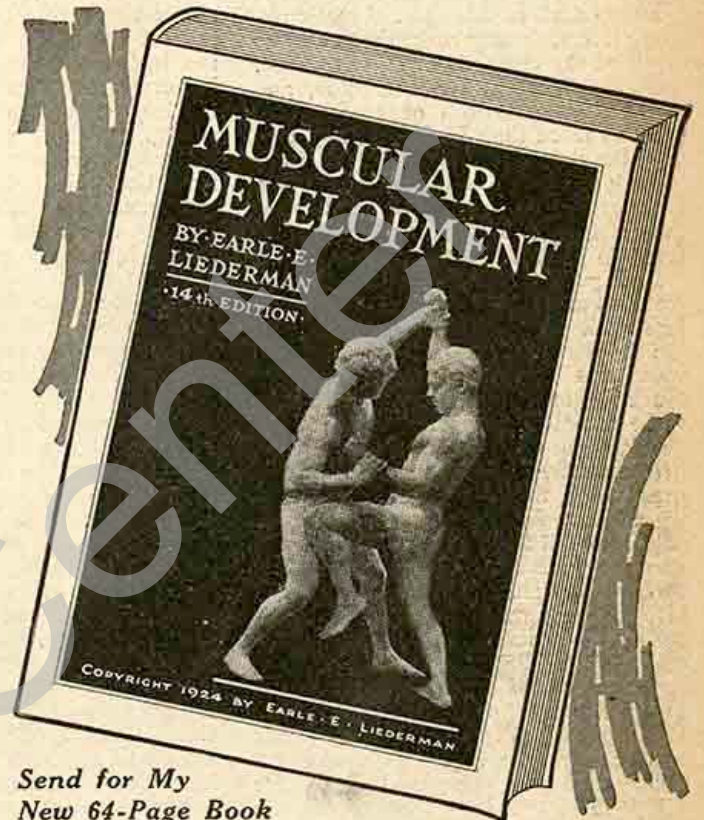
I Make Strong Men

No one likes to look at a narrow-shouldered, flat-chested dyspeptic. Such a man is no good to himself or anyone else. It's the strong, robust, energetic man who gets ahead. He is admired and sought after in both the business and social world. No matter where you find such a man, he is the whole works.

Come on then—snap into it. Right now—this minute. This is your day. This message was meant for you or you wouldn't be reading it. I'm all set and waiting for you, and, Oh boy! what I do to you will sure open your eyes. I'm going to push out that chest of yours, broaden your shoulders and put a pair of arms on you that will carry the kick of a mule. I'm going to build up your whole body with good, solid muscle. I'm going to strengthen every vital organ and shoot a quiver up your old spine that will make you feel like a jack rabbit.

I Can Do It

Just because a man is built like an ox doesn't mean he can show you how to be the same way. There are plenty of strong men today who couldn't tell you how they ever did it. I made my reputation teaching and building others. And my biggest achievements have been made during the past year—not ten years ago. My instructions are modern and up-to-date. When you come to me your success is assured. I don't promise strength—I guarantee it. Are you ready? Let's go.



Send for My
New 64-Page Book

“Muscular Development” IT IS FREE

It contains forty-three full page photographs of myself and some of the many prize-winning pupils I have trained. Many of these are leaders in their business professions today. I have not only given them a body to be proud of, but made them better doctors, lawyers, merchants, etc. 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. This will not cost you one penny. **I want you to have it with my compliments.** It is yours to keep. This will not obligate you at all, but for the sake of your future happiness and health, do not put it off. Send today—right now before you turn this page.

EARLE E. LIEDERMAN

Dept. 708

305 Broadway, New York City

It Is F R E E	DON'T	EARLE E. LIEDERMAN
	SEND ONE	Dept. 708, 305 Broadway, New York City
	PENNY	Dear Sir: Please send me absolutely free and without any obligation on my part whatever, a copy of your latest book, "Muscular Development."
	YOUR	Name
	NAME AND	Street
	ADDRESS	City State
ON A	(Please write or print plainly)	
POSTAL		
WILL DO		

A Living Anatomical Chart

(Continued from page 25)

altering the position and inclination of the upper ribs. (I am not sure that he wants a bigger chest, but I feel that he could get one.)

The act of raising the ribs causes the front of the abdomen to sag inward. Some athletes accentuate this inward curve by pressing the abdomen in with their hands, although I do not think it has been done in this case. I measured the picture, comparing the extreme depth of the chest, from front to back, with the depth at the waist-line, and found that the depth of Mr. Mead's chest is more than 50 per cent greater than the depth of the body from front to back at the line of the waist. This is noteworthy, because in many athletes the chest is but 25 per cent deeper from front to back than is the lower body.

In Figure 4 Mr. Mead's evident object was to display the right arm, which he has done in the most unusual way. He has flexed his biceps with such vigor that it stands up in a lump not much bigger than a baseball, and seems to be completely dwarfed by the great development of the triceps on the back of the arm. It is hard to show the triceps when the elbows are raised so high. Now, for a moment, look at Figure 5, in which the arms are horizontal, and the biceps appear even smaller; then go back to Figure 2, where the biceps appear many times as large. Of course, those comparatively small lumps of biceps in Figures 4 and 5 do not represent *all* of the muscle, and they assume that shape because they have been contracted to the limit. It seems almost incredible that a man who can show the long, smooth line of the biceps in Figure 3 can force the muscle to contract itself into the shape shown in the top of the upper arm in Figure 4. In both Figures 4 and 5 you can see the great size of the deltoids on the points of the shoulders. Many misguided physical-culturists pay but little attention to those muscles, and spend all their energy towards increasing the size of the upper arm muscles. In Figure 4 the right deltoid seems to be as large in itself as a good-sized coconut, and its bulk is almost equal to the total bulk of the upper-arm. Unusual points in this picture are the contraction of the upper ends of the supinator longus, which is apparent as a bump of muscle half-way across the right elbow; and the contraction of the posterior fibers of the left deltoid.

In Figure 5 there is almost a network of muscles across the upper back, and Mr. Mead has accentuated that effect by pushing the shoulder blades together. It is a pose that I have never particularly liked, because in most athletes it makes the back too narrow. I am willing to admit that the objection doesn't hold in this case. In regard to the upper arm, what Mr. Mead has lost in biceps display, he has more than made up in triceps display. Witness the big convex curves on the lower edge of the upper arms caused by the

contraction of the triceps muscles. The muscular outlines in this picture are so clearly defined, that you can pick out almost every fiber.

It is very rarely that you see those cross shadows in the lower part of the back. They are caused by a vigorous contraction of the latissimus dorsi muscles. In that part of those muscles, where they are attached to the lower part of the spine, the muscular fibers run horizontally in rather thin bands. Underneath the latissimus muscles are the long erector spine muscles which run up and down on either side of the spine. By leaning slightly backwards from the waist, these erector muscles are flexed in a way that causes a deep shadow down the line of the spine itself; but the cross lines show the fibers of the latissimus which overlay the erector spine muscles.

Altogether, I think that No. 4 is a more impressive pose than No. 5, and this introduces my one criticism. I feel that the trapezius muscles on the upper part of the back, just below the base of the neck, are not nearly as well developed as are the other muscles on the back, or the deltoid muscles. This makes the neck look a trifle too long. In some pictures of other athletes in a pose similar to Figure 5, the trapezius muscles show up as a huge basin of muscles, which add to the appearance of power at the point where the neck joins the body.

In Figure 4 Mr. Mead seems to have slightly relaxed the muscles in the right side of the lower back, because the horizontal shadows appear only on the left side; but altogether, he is standing in an easier position, and to me at least, he looks more impressive than in Figure 5, because his back is broader at the line of the arm-pits, and because it gives no impression that the back-muscles are being squeezed together as in Figure 5.

One reason why I doubt that Mr. Mead is a devotee of muscle-control is provided by the appearance of the shoulder blade in Figure 6. If he had practiced "muscle-control," he would have made the shoulder blades protrude much further to the sides. It is true that he has "control," and, by flexing certain muscles, has pulled the lower points of the shoulder blades towards the side and upwards. The tension of the upper-arm muscles is not as great as in some of the other poses but, to my mind, the arms look more shapely than in Figure 5. This pose shows the immense size of the deltoid muscle better than any of the other positions; and that, of course, is due to the fact that the function of the deltoid muscle is to lift the arm.

It is interesting to see the different shapes which the trapezius muscles assume as the position of the arms is altered. The outline of the trapezius muscles is quite different in No. 6 than in No. 5, and in No. 7 there is an even greater alteration. Once more it seems

to me that the development of the deltoids in No. 7 completely over-shadows the development of the trapezius muscles, and yet there has been more effort to display the latter than the former; but perhaps I am captious, so I will say that the deltoids are simply magnificent, and that my one regret is that Mr. Mead has so far failed to bring the trapezius muscles to the bulk which they should have properly to balance those simply wonderful deltoids.

In regard to pose 7, most of you will be principally interested in the very unusual display of the triceps muscles on the back of the upper arm. Many of you have the development of the outer side of this muscle, but I doubt whether more than one or two of you have as much development on the inner edge of the arm, where you see those two masses of muscle just where the arms are touching the sides. In order to flex those parts of the triceps to the fullest extent, the arms must first be straightened, and then you must reach backwards with the hands. Those fibers in the triceps move the arm backwards as well as helping to straighten the arm.

Mr. Mead says that his weight is "twelve stone seven pounds," which I will interpret for you as being 175 lbs. I have already given his chest measurement. His neck measures 16½ inches, his waist 32 inches, hips 38 inches, flexed upper arm 16¼ inches, forearm 13¼ inches, wrist 7½ inches, thighs 23 inches, calf 16¼ inches, and ankle 9¼ inches. According to the old canons of proportion, the neck, the flexed upper arm, and the calf of the leg should be of exactly the same size. Mr. Mead comes very close to equaling this standard. He says that when the arm is held straight with the muscles relaxed, the measurement of the upper arm is 13 inches; when he keeps the arms straight, and flexes the triceps, as in Figure 7, the upper arm measurement is 14½ inches; and that when he flexes all the muscles of the upper arm, as in Figure 4, the measurement is then 16¼ inches.

Mr. Mead's extraordinary muscular development has contributed to his superb shapeliness, but such development by itself is not sufficient to account for his proportions. In order to have a shape like his, one must have a good underlying bony framework. There must be a certain breadth of the shoulders, and a corresponding size of the rib-box. The great spread of the shoulders can be best seen in poses 1 and 4; the depth of the chest in pose 3, and the width of the chest in pose 2. I have, in my collection, pictures of many athletes whose upper body muscles are just as big as those of Mr. Mead, but those other men do not look as well as he does, because their chests are not as large, nor their shoulders as broad, as his. It is when the bony framework is disproportionately small that big muscles make one look over-developed.

Save Your Hair as I Did Mine!

Every Woman Can

By Alice Wakefield

TWO years ago my hair began to fall out. This occurred right after a serious illness. From babyhood I was blessed with a wonderful head of hair—the pride of my family and the envy of my friends. And I only gave it the usual natural sanitary attention. Imagine, therefore, my state of mind when I began to realize that I was fast losing this wonderful feminine asset—for what woman does not take pride in her hair, especially if it is beautiful and abundant?

I immediately decided to visit a hair specialist and after six weeks of lotions, tonics, shampoos, electrical treatments and what not, my hair showed no improvement—on the contrary, its condition was more discouraging. I was told that my illness had probably robbed my scalp and hair roots of their vitality and what I might eventually expect was told me in the most sympathetic manner.

Here indeed was a crisis. I was beside myself with fear and worry. I, a young girl, with my life before me, to have to face the loss of my hair, with perhaps baldness and the necessity of wigs, etc., added? It was unthinkable. And so, like many others, I became a slave to hair tonics and shampoos. Each new one that I read about, or that my friends recommended, I tried but with no benefit. I was bracing myself for the inevitable that my specialist had so sympathetically advised me that I might expect.

And then it happened. I bless the day I picked up a copy of Physical Culture Magazine and read that Mr. Macfadden had written a book called "Hair Culture." I had always thought of Mr. Macfadden as a builder of muscles and brawn, but his natural methods struck me so forcibly that I recognized at once that here, if ever, was my chance to save my hair. Besides, before my illness, had not my wonderful hair grown that way just by natural methods and ordinary care? Well, I sent for the book and it was a revelation to me. I wish every woman in the land had one. In a very short time the dead feeling in my scalp disappeared and from then on the hair began to grow thicker and more glossy, until to-day I have back that which a specialist told me I had lost forever.—Alice Wakefield.

Luxuriant Hair

Nature's Gift to all women is the crowning beauty of luxuriant hair. Millions throw away this gift because they do not know the simple natural laws upon the observance of which a luxuriant growth depends.

No other attribute of woman's beauty is so easily cared for or responds so quickly and generously to simple treatment, yet it is amazing to learn how little really authoritative information has been written about the proper care of the hair and scalp.



"Only a short while ago my hair was falling out by combings, yet today I have fine, thick hair, with not the slightest trace of baldness or dandruff."
—Albert Woodruff.

The answer, perhaps, lies in the exploitation of the extravagant claims made by a certain class of hair tonics and shampoos, the kind that will have none of nature's simple laws but have delegated to themselves the supreme power of Saviour of the Hair, yet do not save. "Just rub it in or pour it on and watch the hair grow"—and yet every time you comb it, your hair tells the same old story.

Hair Culture

Bernarr Macfadden, the World's Greatest Physical Culturist, has prepared a treatise on hair culture that will be of priceless value to you. He says: "For years I have studied the subject of hair culture from every conceivable angle. I have personally investigated or have caused investigations to be made into the claims of treatments that have been advocated for the hygiene of the scalp or the preservation of the hair. As a result of this study and investigation I am convinced that there is more quackery rampant in connection with the hair and scalp care—both by the medical profession and by drug and lotion manufacturers—than there is in any other specialty ever devised for the exploitation of ailing humans."

Bernarr Macfadden's Secrets of Hair Culture

These chapter titles will give you an idea of the scope and value of this remarkable book.



Bernarr Macfadden
Note his thick, luxuriant, healthy hair

Hair as an attribute to beauty. Facts everyone should know about hair. Care of healthy hair. How to care for baby's scalp. Fact about soaps and shampoos. The cause of hair troubles. Dandruff. Dry Hair, Oily Hair, Split Hair. Falling Hair. Baldness. Gray Hair. Hair Dressing. Superfluous Hair. Hair Tonics. Eyebrows and Eye-lashes.

"Several years previous to the writing of my book on "Hair Culture" my hair began to fall out at an alarming rate. I was in such a desperate frame of mind that I even bought a bottle of hair remedy that was well advertised at that time, but after one application I threw it away and began to use my intelligence to the solution of the problem. The method that I finally evolved forms the basis of this book and is gone into with painstaking detail. All the means I employed to conserve and restore my own hair are incorporated in its pages. For the proof whether or not I have been successful I need only to point to my photograph on this page and to remind the many hundreds of thousands of people who have listened to my lectures that my hair is today in about the same condition it was twenty years ago."



Women! Keep Your Hair Youthful

If your hair is graying prematurely you have every reason to hope that it can be stopped and that much can be done toward restoring it to its original youthful and becoming color.

If it is losing its luxuriant quality and glossy sheen the few simple rules taught by Bernarr Macfadden in his new book, "Hair Culture," will enable you to bring about an almost unbelievable improvement. Why spend time and money at the hair-dresser's when you can give your hair a better home treatment in only a few minutes a day by the new method? You can easily have hair that is wonderfully silky in texture and your scalp can be cleansed of every trace of dandruff or scurf.

Send No Money

If you would like to take Miss Wakefield's advice we will gladly let you examine "Hair Culture" for yourself, without obligation, and see how easily you can follow the methods that should bring new life, new lustre and luxuriance to your hair. Don't send one cent in advance—just fill in and return the coupon and the book will come to you by return mail. When the postman hands it to you, deposit only \$2.00 with him. Then after you have kept "Hair Culture" for 5 days—after you have tested the methods—if you are not absolutely satisfied return the book to us and your money will be promptly refunded. If, however, you decide to keep this remarkable book, as you surely will, there are no further payments of any kind to be made—the book becomes your property for the one sum of \$2.00 which you deposited with the postman.

MACFADDEN PUBLICATIONS, INC.

Dept. S-8

MACFADDEN BLDG. 1926 BROADWAY
NEW YORK CITY

MACFADDEN PUBLICATIONS, INC.

Dept. S-8
Macfadden Bldg., 1926 Broadway
New York City

Without obligation on my part, please send me a copy of Bernarr Macfadden's Book, giving me all of Nature's simple methods for preserving and beautifying the hair. I will pay the postman \$2.00 on arrival, but I also have the privilege of returning the book within five days if I desire and you will refund my deposit.

As a special offer we will enter your name for a six-months' subscription to PHYSICAL CULTURE MAGAZINE and send you "Hair Culture" for \$3.00. If you want "Hair Culture" alone cross out this reference to subscription and pay the postman \$2.00. Canadian and foreign orders cash in advance.

Name.....

Address.....

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

The Truth About Raw Food

(Continued from page 21)

ten years of age bovine tuberculosis is indeed transmissible to the child, and tuberculosis of the glands and joints among young children is variously attributed to infection through raw milk, pot-cheese, or undercooked meats at from 10 to 40 per cent.

Thorough cooking destroys the tubercle bacillus. It must be remembered, however, that in the roasting of a large piece of beef which resists heat except at the surface, the core of the meat may still contain the living organisms if they were present when the meat was put into the oven. For this reason very slow cooking over a longer period at a much lower heat is far preferable to rapid roasting, which chars the outer surface, still leaving the heart of the meat a source of danger to the child.

In connection with pork the dangers of trichinosis are not to be lightly ignored. There is no way of telling from any superficial examination whether the hog was suffering from this disease or not at the time of slaughter. Hence if heat is applied to meat too rapidly it merely results in overcooking the exterior, leaving the interior a possible source of danger.

Experiments conducted by Wolffhügel and Hüppe showed that after boiling a piece of meat weighing nine pounds for four hours, the interior was still 12 degrees below the boiling

point of water. The interior of a roast of beef of the same weight roasted for four hours at the average roasting temperature in an oven (very close to 400 degrees Fahrenheit) varied from 160 to 180 degrees Fahrenheit. The temperature close to the bone of a leg of mutton boiled or roasted for several hours never rose above 185 degrees Fahrenheit.

These facts call specific attention to the advantages of the fireless cooker.

In the wholesale poultry markets the cheapest chicken that can be bought is known as "O. C." O. C. stands for "old cock," the tough, hardened grandfather of the barnyard. The chief consumers of the "old cock" are hotels, through which channels they are found useful in the making of chicken soups and salads.

I have experimented with "old cocks" in a fireless cooker. If brought to a boil in sufficient water to cover them and allowed to simmer for a few minutes in order to coagulate the proteins on the surface, thus sealing up the juices of the bird, and if in this condition it is put into the fireless cooker on a hot plate previously heated and allowed to stand in the conserved heat overnight and all of the following morning until noon, a period of about eighteen hours, it will be found to be not only remarkably flavorful, even delicious, but the meat will be as tender

as the tenderest of broilers, actually falling from the bone.

Here you have the phenomenon of a low temperature maintained over a long period, and you become an eye-witness of the superiority of this form of cooking. Not only do you save fuel, but you also save the food value of the bird, and reclaim from an almost inedible condition a very fine food. If allowed to cool before serving, it will come to the table as the tenderest of chicken salads, or can be sliced down as a worth-while peace offering to the most fervent of the raw food enthusiasts.

Summing up, we can come to these conclusions: If there is any danger of infected food, a proper application of heat will remove the danger. This is why we are blessed by pasteurized milk. Pasteurized milk does not salvage dirty milk. It is no substitute for cleanliness or common decency. It does serve to make unsafe milk safe, and its effect upon infant mortality has been indeed remarkable. Pasteurized milk and pasteurized butter for these reasons can never be too highly praised.

In connection with other foods which require heat for their own sake we must use heat regardless of any raw food prejudices entertained sentimentally but unscientifically against the use of heat.

Why I Am a "Design"

(Continued from page 32)

where one can ride longer and harder. I say hard in referring to both riding and walking. I know no benefit that accrues from riding a horse at a walk. A canter is better. A fast trot or gallop is much better. I would as lief loll in an easy chair on a porch as to stroll. A slow walk is another form of lolling. When I began walking the best I could do was a mile in twenty-five minutes. Now it is fifteen. It irks me to walk in slower time and wearies me. The faster one walks the less tired he is when the walk is over.

Exercises? Yes. The stretching of the feline animals in the Zoo is part of a perfect system of keeping fit. The caged creatures keep well by their rapid round-the-cage tramps and by stretching. While we yawn we are sleepy. While we are sleepy we relax. Therefore it is well to raise the arms above the head, stretch and yawn many times a day.

A favorite exercise of mine, taken either in the morning or at night, is what I call "the inhale-exhale game." Hold the arms straight out from the shoulders at the side and on a plane with the shoulders. I raise them slowly to an angle of forty-five degrees, slowly and deeply taking in the air. I let my arms fall slowly to my sides,

exhaling fully until my finger tips are at rest. This I do eight to twelve times. To repeat it oftener might make one dizzy.

Another favorite of mine is to raise say, the right arm, and let the left arm relax at the side. Then let the left go slowly down to the knee and the right will wind about the head till the fingers touch the left side of the neck. Then reverse.

To keep the knees and the muscles of the leg flexible I lie on my back and gradually raise the limbs together until they are at right angles with the torso. It is a hard exercise and is soon abandoned by the slothful. There is no better indoor exercise for flexibility of the body. It makes firm the muscles of the abdomen. Those muscles are the natural and only needed corset. I have worn no other for ten years.

Another effectual exercise is what I have given the name the wheel. It reminds me of the turning and churning of a huge wheel at sea. I begin by raising the right arm. I watch the tips of the fingers of the right hand until they reach the floor. While the right arm is descending the left is ascending. Then the motion is reversed. The action of a propeller of a boat is the model for this exercise.

Another, which my husband taught me, is to place a foot on either side of a small rug. "Don't wiggle your heels," he recommended. Nevertheless, he required me to draw my feet together, the wrinkling and reluctant rug between them, strengthening the knees.

By these means, I contrive to keep neither fat nor thin and to win the approval of the famous woman artist.

I dance. But I had danced before my evolution into out-of-door life. I wish we could devise a system of ventilation that would approximate the freshness of out doors. That accomplished, dancing would be far more beneficial.

My husband, in his bachelor days, bought an island in Lake Bomeseen, in Vermont. He built a house and there we go for occasional week-ends. Miss McMein and others have joined us and, for convenience, we have organized into the Island Club. The house awaits any of us who can leave the city for two days or for the summer. I have worn a path round the island by my daily walks. I swim a little, play tennis and golf a little, row a little, but for keeping generally fit I rely upon walking wherever I am, and riding where horses are procurable and roads are long and wide and not too curving.

WHEN YOU BUY

Sportlife

THE NATIONAL MAGAZINE OF SPORTS AND RECREATION

YOU GET THE BEST THAT THERE IS IN SPORTS



From the start we have kept uppermost in our mind in forming the policy of this publication the essential that to achieve the success that the effort warrants and to attract the better class of readers in the wide field of general publications we must produce something exceptional in the line of sports publications—a periodical that is clean, wholesome, instructive and has a vital reason for existence aside from the mere publication of something interesting that has happened; that is inspirational and that the reader will lay down feeling better for having read it—not the conventional style of sports publication which considers sports sufficient unto themselves, that leads nowhere in particular beyond the sporting field itself.

**OUR CREED IS BETTER MEN RATHER
THAN GREATER ATHLETES**

The policy adopted by this publication has been that unless sports lead somewhere beyond the sporting field itself, unless the qualities developed therein are applied to a better and higher purpose, then the best that there is in sports is passing you by and indulgence in sports becomes a vice. Our contention has been that the most praiseworthy view of sports is that view that has been almost wholly submerged in existing sports publications by the preponderance of attention that is paid to the winners—the view that looks to the development of qualities that make MEN, not CHAMPIONS. Our religion has been the religion of FAIR PLAY—which, after all, is simply the Golden Rule boiled down, a shorter and plainer way of saying “do unto others as you would have them do unto you.” And in this we mean a spirit of FAIR PLAY that has only its birth on the field of sports, and that moves out into the business world, into the homes, into the church, where it lives and has its being to the betterment of mankind in general. The gospel we preach is the gospel of better MEN, not greater ATHLETES—that the development of manly qualities is a greater triumph than the winning of a championship, that the greatest good to be gained from sports is to take from them the best that they have to give and apply it to a higher purpose in the Game of Life.

READ THE MAGAZINE THAT EVERY-
BODY IS TALKING ABOUT

BUY SPORTLIFE ON THE NEWS
STANDS AT 10 CENTS
OR
SUBSCRIBE AT \$1.00 A YEAR



SPORTING LIFE CO., INC.
3 NORTH 10th ST. PHILADELPHIA, PA.

An Iron Grip and Wrists of Steel

(Continued from page 53)

of infants. Once, I saw a "Strong Man" reach out and catch another man's finger between two of his own, and then gently pull that man toward him. The other man pulled with all his power, but he could never get his finger loose nor keep from moving forward. It was an odd sight; not a scrap, but just a friendly tussle. Mind you, the "Strong Man" did not take hold of his opponent's finger, he simply imprisoned it between his own first and second fingers, and held it there by squeezing them together. Then he just drew back his arm, and the other fellow came sliding along the floor.

Try this Exercise for Hand and Wrist

When you climb a rope or pole, you develop wrist strength and finger strength at the same time. The hand must, of necessity, grip the rope tightly, and as the body ascends, the hand continually changes its angle in relation to the wrist and forearm, and that means that you become able to grip hard with the hand in any position.

You can get the same sort of power through a very simple exercise with a cane or straight stick. Grasp the cane at the heavy end, holding it tightly with all four fingers, with the thumb of the hand laid along the shaft. Hold your arm straight out in front of you, and then draw "figure eights" with the free end of the cane. The "eights" you draw will be horizontal; that is, as though the numeral was lying on its side. The cane *must* be gripped very tightly, and it is absolutely essential to keep the arm straight, because if you bend the elbow you take some of the work away from the wrist. This sounds dead easy, and so it is, if you repeat only a few times. But if you draw say fifty "figure eights" in rapid succession, without bending the arm at the elbow, and without relaxing your grip, you will find that your forearm will not only look larger and rounder, but will actually have gained a fraction of an inch in girth. The increase in size is because the active use of the forearm muscles (and almost all of them were called into play) has caused them to be flushed with blood. After a few minutes the arm will resume its former size. If you do this daily, then every day some of the gain will stick. You might possibly make your forearm half an inch bigger in a couple of months, if you kept on using the same cane. But why not get the benefit of the "progressive" principle?

When you get so far along that it takes a great many twists with the first cane properly to tire the muscles, all you have to do is to use another and heavier cane. And after that a piece of hard-wood about the thickness of a shade-roller, and finally a two-inch thick stick of firewood. All your work will be a waste of time if you fail to grip the stick firmly. It is easy to draw the pattern, even with the thickest stick, if you grasp it loosely. Remem-

ber you are doing the work, not in order to see how many times you can repeat, but with the definite purpose of making your hands, wrists and forearms stronger. Unless you follow the rules, gripping the stick hard, the results will be disappointing.

Here is another. Take a stick three feet long, and fairly thick. Hold it firmly by the middle. Stretch your arm out straight in front, with knuckles up. Rotate your forearm until the palm is up, which makes each end of the stick travel through a half-circle. Rotate the arm back again to original position (palm down) and repeat *rapidly* as many times as you can. This exercise develops the muscles which rotate the forearm on its own axis. You can see them plainly in Figure 2, on the outside of the elbow, just where the forearm and upper arm join.

Make the exercise harder by gradually shifting the grip nearer to one end of the stick instead of holding it in the middle (the greater length on the thumb side). This increases the leverage, and taxes the muscles more. You must grip tightly, and rotate the arm rapidly. Part of the benefit comes from arresting the momentum of the rapidly twisting stick and starting it on its return journey.

After trying it you may object that this makes the muscles ache. Of course it does! And so will any exercise which yields big results. You cannot get real hands and wrists by playing pat-a-cake. The real reason why so many exercise devotees fail to get results is because they quit cold the instant they feel a real pull in their muscles. It is unwise in a developing exercise to use a weight so heavy or a resistance so great that it causes the whole body to strain; but in localized exercises, it is necessary that the work be really felt by the muscles employed.

As, for instance; some one may tell you that you can get all the wrist strength necessary by first clinching the hand and then bending it forwards and backwards. Many try it, and find it futile. Try it this way. Raise the arm as in Figure 1, clinch your fist tightly, and then bend the hand over as shown, in what we call the "goose-neck" position. As the palm descends, the fingers will try to relax, but clinch them firmly and bend the wrist as far over as you can. This causes a full contraction of the muscles on the front (or palm-side) of the forearm, and they will feel as though they were being tied in knots. But grit your teeth and stick to it. Then raise the hand, straighten the fingers, and relax for a moment, and then "goose-neck" again with all your force.

The reason the forearm looks so big in Figure 1 is because in addition to contracting the hand-flexors the athlete has tensed one of the muscles (on the opposite side of the forearm) whose function is to help bend the arm at the elbow.

The hand-extensors which are on the

back (or knuckle-side) of the forearm cannot be properly tensed in the "goose-neck" pose, but if you straighten the arm, and hold it behind you (like the left arm in Figure 2), and then bend the wrists backward *hard*, you can soon make those muscles "say Uncle."

The Hardest Exercises Are the Ones You Need Most

All of us like to work along the line of the least resistance, and most of us are prone to try to accentuate our good points rather than to correct our failings. In developing work this is a fatal mistake. Many a time have I noticed that a man with fine arms and poor legs will, if left to himself, spend his time in making his arms still bigger, instead of trying to get a respectable pair of legs.

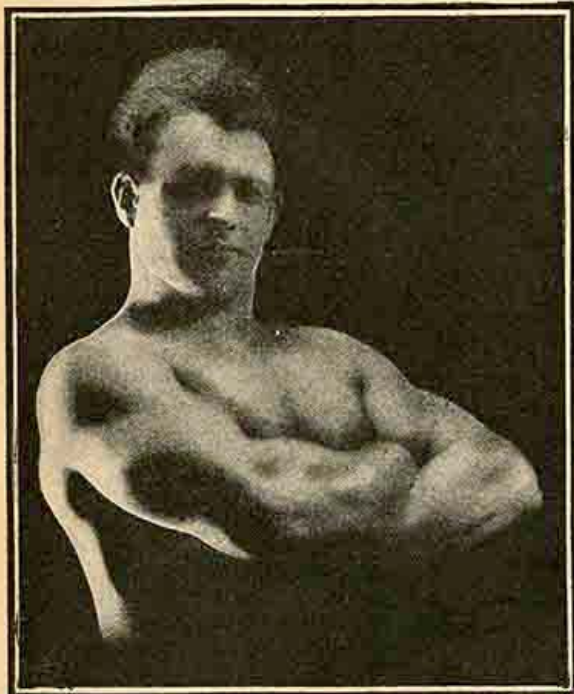
In the subject under discussion, you will find that it is much less trouble to develop the hand extensors, if only because there is usually more room for improvement in these. The flexors are so much the bigger and stronger of the two sets that you instinctively use them whenever you can. Remember how when you "chin the bar" you instinctively grip with the palms toward you, because it is easier that way. Chinning develops the forearms almost as much as it does the biceps, but your forearm will get more benefit if, part of the time, you chin with knuckles towards you, instead of always with the usual grip.

When a man's wrist is weak, it is because he has neglected the muscles on the back of his forearm. If you are an adept at fencing, you know how necessary is wrist strength, and you can tell others that it is just as important to be able to force your opponent's foil in one direction as in another. Many fencers make a habit of practicing the first cane-exercise with the object of acquiring the ability to bend the wrist fully in any direction.

I will now invite inspection of the forearms displayed in the accompanying pictures, which have been picked out with the object of showing the proper proportion above and below the elbow in a properly developed arm. In the picture of Mr. Goodman, where he is breaking a rope, it is observable that the forearm seems fully as large and round as the upper arm, even though the former is viewed from an unfavorable angle. There are two bones in the forearm, and the relative position of these bones is shifted as the arm is rotated, hence you can make a great difference in the appearance of the forearm according to the way you hold it, and according to which side is presented to the camera or observer.

There are a couple more valuable hand and wrist exercises, which I will describe in another article. Along with those exercises I will describe some of the sensational stunts of hand strength, such as card-tearing, grip-lifts, levering billiard-cues, and so on.

No Longer a Secret Every Man Can Have It!



SIEGMUND BREITBART "THE SUPERMAN OF THE AGES"

The secret is out! Breitbart himself, acknowledged the World's strongest man, will reveal his innermost secrets of strength that have astonished millions.

Most people think I was born strong, in fact they remark "It was born in him." Let me tell you I was not. From the time I was born I was the same as any other human being—normal. My talents were always directed toward physical development. I liked to lift, pull, perform feats of strength and secretly to exhibit a huge, monstrous muscle. Sort of natural for a boy, isn't it? As I grew older, I gave more time, thought and study to the scientific development of super-human strength.

I've Tried Them All!

I can spare you many a wearisome hour. I tried all manner of courses and none came up to my expectations. Naturally I could only resort to my own initiative and resources for the development of a practical scientific course which would satisfy myself. I learned by actually performing the ideas which I created. Thus I am able to offer a course which is fundamentally sound, tried and true. I don't ask you to accept something that isn't practical.

Breitbart Reveals It All

In originating these ideas and methods of training, I often worked behind closed doors. In secret because I wanted none to equal me. I have succeeded. Countless thousands have written me. I am unable to resist the human appeal of mankind any longer.

You Can Grow Strong as I Did

You can acquire strength and power as I did, by simply following the methods I outline to you. And in a remarkably short time! Then you too will say "I didn't think it possible."

What Breitbart Does

I want you to realize that I am talking from the bottom of my heart. I am telling you only the plain truth. I bend one-half inch iron bands around my arm as you would a piece of ribbon. Bend horseshoes with my hands more easily than your village Blacksmith does with his anvil and hammer. Drive nails thru oak planks and metal. Support four thousand pounds of Vermont granite on my chest while six husky men slug away at it with heavy sledge hammers. Is it beyond reason that I am continually referred to as "The Super-man of the Ages?"

Do You Want Strength?

Ask for it—say "Breitbart, I want health, vitality, and pep." I will build a body possessing the super power to bend, break or crush at the instant the mind so commands. That feeling of security in the knowledge that within those two arms of yours there is untold power—is yours, if you will follow me in my instruction. Nothing is impossible. I have tried them—I am your guarantee, personally and unqualifiedly. My course is simpler, easier, quicker and more positive in its results, than any other. Of course you want strength. There isn't a red-blooded man today who doesn't. Write now.

Don't Wait—I want You to Have this Book Before the Edition is Exhausted

The demand for it has so far exceeded my expectations, that I have already twice increased the print order, since it first went to press. It is the most remarkable and finished book on strength ever published. Illustrated with my photographs showing me performing those unique feats of strength, which have caused countless prominent people to attest their genuineness. Take this book, turn to page 37. An actual photograph of me driving steel nails thru oak planks and metal. Now page 21. Biting a steel chain in half with my teeth is illustrated. On page 39, there I am supporting a moving merry-go-round mounted with six men, on my chest. Again on page 44, I demonstrate that I actually hold 4000 pounds of granite on my chest, while several husky men

pound it with sledge hammers or on pages 32 and 33 the motor cycle race while I support the motor-drome on my chest. These are instances enumerated to picture vividly in your mind that I possess that which I teach. If you want a new start in life, ask for my book, "Muscular Power." It is yours. Don't hesitate—All I ask is that you enclose 10 cents to cover postage and mailing.

FREE Do You Know the Measure of Your Own Strength?

Something new—unique. Breitbart's famous Muscle Meter! Shows the size of my muscle. Compare yours with mine. See the difference. Use it three months later and see it then. Be a HE MAN. Send for it. Yours is waiting.

Here It Is!



Clip and Mail this Coupon Now!

Siegmund Breitbart, Inc.
Dept. T3
Gotham Bank Building
New York City

I am enclosing a dime for your new 64 page book Muscular Power. Together with your FREE muscle meter.

BREITBART INC.

1819 BROADWAY NEW YORK CITY
GOTHAM BANK BUILDING

Name _____
Address _____
Post Office _____ State _____

Fishing Gives Me Nerve-Strength

(Continued from page 28)

hands are full and you will find that it requires real ability of muscle to land him in the proper manner.

Or—if you get about thirty pounds of fighting musky on the end of your line you will get a shock when you realize the strength of the slim, maddened battler who used strategy, wisdom and pure cunning to escape. Hook a thirty pound musky and if you land him safely in three-quarters of an hour—well, my hat is off to you. And when you do land him you will be surprised to find how tired you are—the exertion, the mental strain and thrill and the suspense will sap—for the time being—all of your energy. Then you will sit there in your boat and rest and soak in sunshine and fresh air and in a very few minutes you will feel vitality and energy flowing back into your tired

body once more. Then—you start fishing again.

I suppose in the four years I have been fishing for pleasure and health I have met and known hundreds of fishermen. Their ages range from five years to ninety years. The oldster lives at Sugar Lake not far from my home and when the season permits he spends about eight hours a day in fishing. He is a husky old bird, supple, erect, keen of vision and mentally alert.

I commend fishing to anyone. Especially do I commend it to those who are mentally tired. Tiredness of this kind must, I believe, come of physical flabbiness. Fishing will remove the cause. Fresh air, new scenes, the lure of a new stream, sunrises and songs of birds, will renew the mental freshness of one's mind and make him

fit to tackle any big job and to complete that job efficiently and in jig time.

Fishing is the most democratic of all sports. This democracy is due, largely, to the fact that fishing grounds are convenient to almost every place in the United States. Fishing equipment may be simple or intricate and expensive. The cost of equipment, however, is not a factor in the enjoyment of the sport. A ten cent rod and a five cent line may give you the finest and the most satisfying sport in the world—and your neighbor with a lance-wood rod and an imported reel and silken line may not catch a single fish.

Even at that he may get as much from the hour's sport as you do! And that is one of the fine things about this sport which I now gladly call "mine."

Have You Any Loose Screws—Bodily Speaking?

(Continued from page 59)

From time to time I shall take up individual cases, show how they react and what should be done to attain a normal condition. For the remainder of this article I shall dwell on proper bodily structure and take up those other "foundation stones" at another time.

We have seen how one of the kidneys can prevent the individual from becoming strong. It seems like a far jump from glands to feet, or to proper length of the legs, but the same evils can result from faults there.

Let us take a case for illustration. For years the man in question had been suffering from constipation. Lumbago had developed and he was in a generally weakened condition, open to any ailment that came along. A friend had suggested that as the usual treatments had failed over a period of years he go to an osteopathic clinic; which he did. Examination revealed that his body should have been a strong body and there were no organic weaknesses evident, only indications that all the organs were severely overtaxed. In making the examination I suspected that his pelvis was slightly tilted and that led to further experiment that solved it. I felt sure that one of his legs was longer than the other and that it was throwing his whole body out of alignment with disastrous effects. There is an infallible way to find out and I used it, placing him flat on his back on the table and grasping his feet with my thumbs at the internal malleolus (the bony protuberance inside the ankle). The procedure then is to place the thumbs just above that bony protuberance, holding the legs straight, and then bring the legs together. If the thumbs do not meet one leg is longer than the other. The patient was slightly short in one leg, too slight

to be noticed in walking, but over the years that difference had an insidious effect on his whole life. It had not only prevented the fine muscular development his frame called for, but had begun to affect him organically.

Any of you who are athletes, golfers, baseball players, may be surprised to learn that a defect of this kind will materially affect your driving or batting, or your general athletic ability.

Also, it is conducive to muscular exhaustion in the ordinary worker. It is one of the most important structural defects and one of the least known. It is often responsible for pains in the back for which kidney trouble is blamed. It produces soreness and stiffness of the muscles, also aches in various parts of the body that are frequently most noticeable on arising in the morning. If neglected over a long period of time it produces organic ailments which cannot be cured by simply treating them. In order to overcome them it is necessary to first conquer the thing that has caused them.

This defect is rarely natural. It is caused in many ways—by throwing out the thigh bone or the sacrum or the lower bones of the spine. It is often suffered in jumping off a trolley car or coming down too hard on the heels as the result of a misstep. Golfers frequently have it as the consequence of

a jerky, incompleting shot instead of a rhythmic "follow through."

A great many of those who are taking treatments for kidney ailments would find remarkable improvement from proper adjustments for this defect, and few of them ever suspect that there is any such thing wrong.

And it can be readily overcome. With the aid of a friend or, preferably, an osteopath you can readily ascertain whether you are thus affected. The method of finding out has been described. The treatments are equally simple. Of course, it is always best to have an expert make the adjustments, but you can do them yourself and most of the treatment you will have to give yourself.

The whole treatment is this:

Lie flat on your back on the edge of a table so that the division of the hips is right on the edge. The table should be as long as the body so that the head and feet are both on it. Now, with the crease of the hips right on the edge drop the leg that is known to be short over the edge of the table so that it falls with a slight jerk. This will often throw the defective part back into its normal condition.

The second part of the treatment is to lie on your back on the table or the floor and lift one leg slowly, keeping it stiff, until the leg is pointing straight up at a right angle to the body. This should be done as though the foot is a weight which you are endeavoring to lift. Do this first with one leg, then with the other, then with both.

In handling the case of the patient mentioned above some remarkable results were attained. First the constipation was overcome, then the lumbago, the muscles of the calves strengthened, and in five weeks he had increased twelve pounds in weight.

The above presents merely one structural weakness. In a second article the author will take up structural defects of the spine, to show how one condition which can be readily overcome causes a scrawny, weakened body and another excess fat and general flabbiness.

The Joys and Thrills of a Good Swim!

Don't miss them any longer. America's Greatest Swimming Coach will teach you how to swim—all the strokes—all the tricks—from beginning to end—for less than 10c a lesson.

SUMMER and swimming. Two words and things that can't be separated. What could be better than a good, cool, exhilarating swim on a hot, stuffy day? What can compare with the thrill of being able to swim just as well or better than anyone else at the beach? Think of the admiration a good swimmer always gets. You can't help but be extremely popular. And all these things are not impossibilities—they are not even hard to achieve. You'll be surprised at the ease and rapidity with which you learn under the direction of

A Teacher With a Wonderful Record

The best teacher of anything is the person who has made the most enviable record in that particular line and yet possesses the ability to pass that information along to someone else so that it can be easily and quickly understood. Such a man is Mr. Louis deB. Handley who wrote this remarkable self-teaching course. His record—judge for yourself. He is the world-famous coach of the New York Athletic Club and New York Women's Swimming Association, the man who developed Miss Ethelda Bleibtrey, double Olympic Champion; Miss Aileen Riggan and Miss Helen Wainwright, world's record holders; and Miss Gertrude Ederle, greatest of all women swimmers, and a dozen other stars and world champions, to say nothing of having captained and coached the New York Athletic Club's water polo sextette which held the national championship for more than ten years.

So Very Easy—You Begin Swimming at Once

Imagine the cost of strictly personal lessons direct from Mr. Handley! Yet this entire course has been written in such an easy, understandable and personal way that you really have Mr. Handley with you, coaching and directing you at all times. No time or space has been spared to make everything very plain, yet Mr. Handley has discovered the secret of conciseness so that you can grasp each thought and idea at once. The course is so lucidly written and each feature of the many strokes so plainly illustrated that your mind retains every thought—there is no forgetting. And you learn to actually swim so quickly it is really amazing. We don't mean to just paddle and puff aimlessly around. We mean to really and truly swim. That's only the beginning of this course.

Harry Lewis, third in the National Championships, a new swimming star coached by Mr. Handley.



Strength Will Show You

not only how to become healthy, but how to increase in health, strength and physical proportions until you have become a perfect physical specimen.

Dr. Ira Walter Drew, Alan Calvert, Walter Camp and many other authorities on health, strength and body building, will teach you not only the general principles of right living, but actual, concrete, result-producing methods of attaining the sort of a body that every one should have.

The Complete Course Will Make An Expert of YOU!

The course doesn't stop when you begin to swim. The instilling of confidence in yourself and the ability to get started is only the beginning. There are thirty complete lessons, packed full of real information on how to swim that will surprise the expert as well as the beginner. There are from three to six lessons each on such popular strokes as the crawl, back stroke, breast stroke and trudgeon. Also how to float, how to tread water, how to save life, the times to swim, how to train for competition and so much more real "dope" on swimming that we haven't the space to write about it. You are bound to be pleasantly surprised.

Get in the Swim and Speed Away!

Show your friends and the whole crowd at the beach some real swimming. We must make special mention of the five-lesson section of the course devoted to speed swimming. Mr. Handley has developed more world and national swimming champions than any other coach in the history of swimming, and he is in the best position to show you every trick, every stunt, every new wrinkle for getting extra speed. We have so much confidence in this course and we feel so sure that you will be delighted with it that we will gladly send it to you on approval.



L. deB. HANDLEY
Swimming Coach New York A. C., New York
Women's Swimming Assn. and Coach American
Women's Olympic Swimming Team.

Money Back If You Are Not Absolutely Satisfied

We want you to see this course—to study this method by which thousands of others have learned to swim—to try it out and satisfy yourself that you, too, can quickly learn to swim—not just paddle around—but really swim. Then, if you like it, keep the thirty lessons and go on developing into an expert, or you can return the course to us and your money will be immediately refunded.

We believe STRENGTH MAGAZINE will especially appeal to readers interested in Mr. Handley's wonderful swimming course. We are, therefore, including a six months' subscription to STRENGTH ABSOLUTELY FREE. STRENGTH is pre-eminently the magazine for the physical culturist and health seeker. Every issue contains dozens of articles on exercise, sports and the great out-doors for both men and women. Riches cannot buy health, but if you read and follow the articles in STRENGTH, health will come naturally and remain with you through years and years of happiness.

This is really and truly an opportunity. We can't emphasize it enough. Just imagine! thirty lessons in swimming by the best coach in America for less than 10c a lesson and six big 25c issues of STRENGTH, greatest of all health magazines, as a present.

Send no money, but make sure of getting your course by mailing the coupon below at once, as this may be our last offer of this kind. It will only take a minute to sign and mail the coupon. DO IT NOW—YOU'LL NEVER REGRET IT!

THE MILO PUBLISHING CO.
2741 N. Palethorpe St., Phila., Pa.
Publishers of STRENGTH Magazine

THE MILO PUBLISHING CO. S. 8-24
2741 N. Palethorpe St., Philadelphia, Pa.

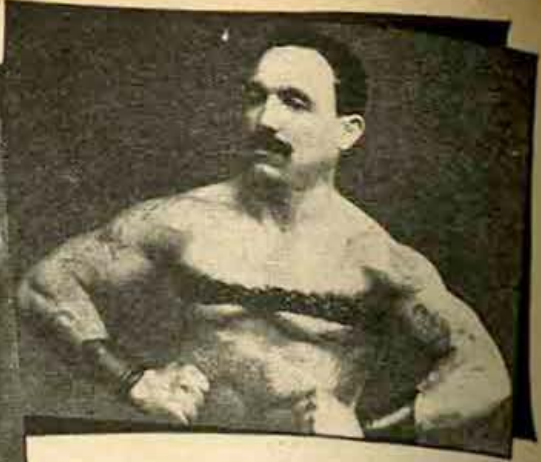
You may send me L. deB. Handley's complete course "Thirty Lessons in Swimming" and enter my subscription to STRENGTH Magazine for six months. Upon receipt of the course I will deposit \$2.85 (plus actual postage) with the postman in full payment for both the course and the magazine with the understanding that if at the end of 10 days I am not entirely satisfied I may return the course and have my money immediately refunded.
(Please write plainly)

Name.....

Address.....

City.....

Canadian (\$3.10) and foreign (\$3.35) orders must be accompanied by cash (U.S. funds) subject to money back guarantee if not entirely satisfied.



A BOOK WRITTEN WITH ONE SUPER-STRENGTH

Read what the author says:

"The publishers have asked me to say a few words to explain my plans and aims in the preparation of my new book 'SUPER-STRENGTH.'

"It was my correspondence with the readers of this magazine which first convinced me of the necessity of a book of this character; for the magazine goes to thousands of men and boys whose hobby is physical improvement. After the publication of each and every article I write for this magazine, I get letters by the score from 'STRENGTH' readers; and each letter is in itself a proof of its writer's desire for information, or help—advice, or instruction.

"My correspondents can be divided into four classes, and in writing the book, I kept in mind the requirements and ambitions of each class.

"*First:* There seems to be thousands of young men who are keenly interested in the records, measurements, and pictures of the leading 'Strong Men.' Those men ought to be satisfied with 'SUPER-STRENGTH' because I have included the pictures of many of the world's leading strength-athletes. I have described all the different 'standard lifts,' which have become accepted as the final test of muscular strength and physical power. I conclude the description of each lift by giving the record; the name of the man who made the record; as well as the mention of those who come close to equalling the champion. However, the volume is not supposed to be just a text-book of lifting, although it contains several chapters devoted to that subject alone. Those interested in learning how to utilize their bodily strength will probably appreciate the explanation of the use of scientific body-leverages as applied to such a lift as 'One-Arm Bent Press,' which enables even such a slender man (as shown in two of the pictures at the left) to 'push-up' a bar-bell weighing over 200 pounds. Still more fascinating (to my mind) are the exercises which literally create great bodily-strength.

"A *second*, and even larger, class is made up of those who are interested in the physical development of their own bodies. Many of them have been striving for years to make their shoulders broader, to get a bigger chest, or to increase the development, and improve the shape of their arms and legs. My experience teaches me that in most of these cases the failure to get results is explained by the fact that those men have wasted months, and sometimes years, in practicing the wrong kind of exercise; and what is worse, they do not realize how important it is to do an exercise in the exactly correct way, and that great improvement cannot be made unless the exercise is done in that way. I am convinced that the chapter on 'Chest Development' will make many of you realize just why the small size of your chest has prevented your body from developing as it should. It seems to me that there is a perfect craving for detailed instruction; so in this book I have gone to the limit in my endeavor to make my instructions so plain that they cannot be misunderstood.

"The *third* class includes many thousands who are interested in bodily exercise from the standpoint of health. I fully realize that while almost every man is interested in heroic feats of strength, but few men have the desire to perform such feats themselves. It is rarely that a correspondent ever expresses a desire to become a professional 'Strong Man,' and yet it is evident that almost every man who writes me would give almost anything to have the abounding bodily

SPECIAL

Out of the first edition of "SUPER-STRENGTH," we have reserved several hundred copies, which are bound in limp-leather and autographed by Mr. Calvert. These special copies will be sold at \$5.00 each, and as their number is limited, you should place your order at once, if you wish to get an autographed volume.

MILO PUBLISHING CO., S-8-24
2739 N. Palothorpe St., Philadelphia, Pa.

Gentlemen:

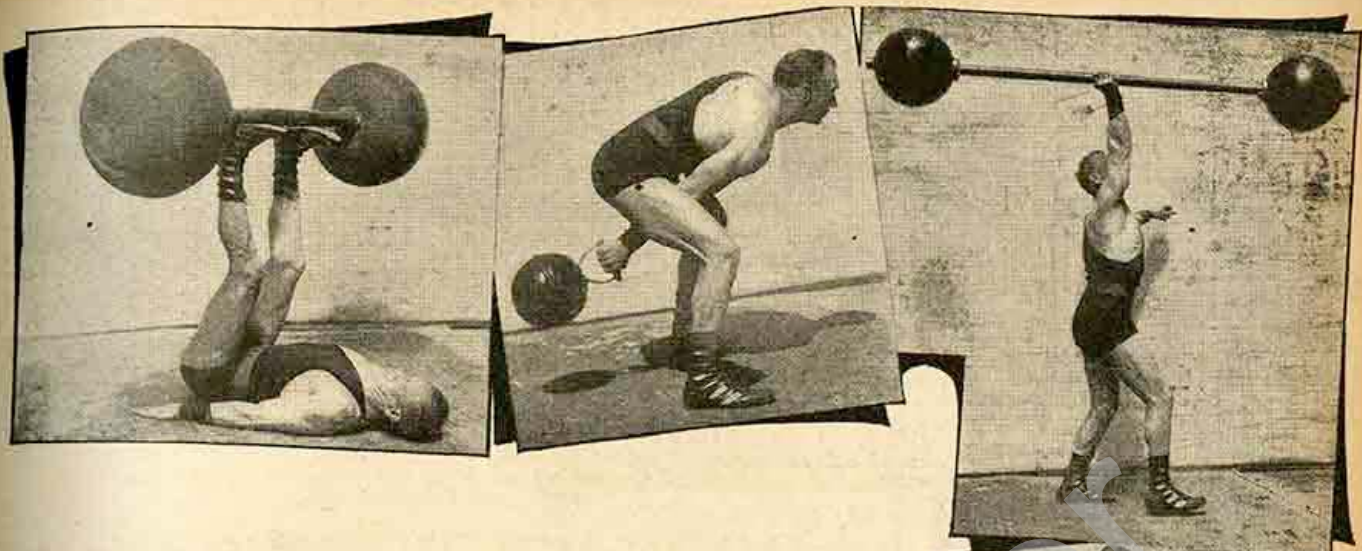
Enclosed please find { cash
check
money order

for \$5.00 for which please send me one of the special copies of "SUPER-STRENGTH," bound in limp-leather and autographed by Mr. Calvert himself.

NAME

STREET

TOWN STATE



AIM—TO HELP THE READER

By Alan Calvert

vigor and the magnificent physique possessed by the professional 'Strong Man.' In order to satisfy the desires of that group, I have gone to a lot of trouble in a sincere effort to explain the exercises which absolutely do enable them to gain for themselves a beautiful bodily form, and great physical power; and how such exercises are far more valuable and important to the average health seeker than are the record breaking stunts which appeal so strongly to the average vaudeville audience. The upbuilding of bodily vigor depends just as much on the perfect working of the internal organs as on the size and development of the external muscles. Those interested in the subject should read the chapters called 'Making Yourself Over,' and 'Where it all Comes From.'

"The fourth, and last, class (and the largest of all) included those of you who have faithfully read every number of the 'Strength Magazine' since I first started it in 1914. This is where I find the real enthusiasts—the ones who are seeking to raise themselves to the very pinnacle of physical accomplishment—who know that other men have succeeded in making themselves over—and who can see no reason why they should not do likewise. This class shows the most intense interest in all questions pertaining to muscular development, and in order to help them I have included pictures of dozens of magnificently proportioned and beautifully developed athletes, and have done my best to explain just how such development can be obtained.

"I often think that the average man is far more interested in looking at pictures than in reading any book. Bearing this in mind, I have deliberately crowded 'SUPER-STRENGTH' with pictures. There are over 180 in all. I had a wealth of material to select from, and I deliberately picked out the pictures which I thought were best. Even if you do not like what I write, I can guarantee that you will be pleased with the pictures; because every one of them shows a man of such bodily beauty, and superb symmetry, that his physique will be a constant inspiration to you in your endeavors to attain a like physical perfection.

"In conclusion, I would like to say that I have but little sympathy with the popular idea that the general public is interested only in training methods of the quick and easy variety. My experience is the exact opposite. Among the readers of this very magazine, there are hundreds of sincere, ambitious, and painstaking individuals, who fully realize that there is no way of tricking nature, and no method by which a man can, at one bound, reach the top of the ladder of success. Among that group there are hundreds, who have, for years past, lent me their support and encouragement, and to each and every one of them I unhesitatingly recommend this book, 'SUPER-STRENGTH'."

(Signed)

ALAN CALVERT.

Every reader of STRENGTH should get this fascinating book

Remember the name of the book is

"SUPER-STRENGTH," by Alan Calvert

320 Pages

Cloth Bound

Lavishly Illustrated

PRICE \$2.50 POSTPAID

Send Cash, Check or Money Order to

MILO PUBLISHING CO.

2739 N. Palethorpe St. Book Dept. Philadelphia, Pa.

MILO PUBLISHING CO., Book Dept.
2739 N. Palethorpe St., Philadelphia, Pa.

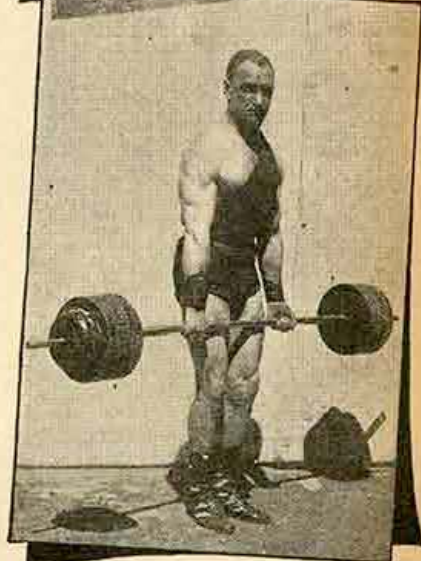
S-8-24

Gentlemen: Enclosed find { cash { for \$2.50, for which please
check { send me a copy of "SUPER-
money order { STRENGTH" by Alan
Calvert.

NAME.....

STREET.....

TOWN..... STATE.....



The Dinner Table

(Continued from page 61)

and its omission or lack of abundance is the most common mistake made in the planning of the home meals. Green vegetables should be served generously and in variety. If you can't think of a different one for today, try my plan. I keep a seed catalogue in my kitchen library along with my cook books and dietetics, and when I am at a loss for a new vegetable I just run through the list and look at the pictures.

This is a trick that works just as well with the uncooked greens of the salad, which is the next item on the dinner list to be considered. The salad should be planned in relation to the rest of the meal and made to harmonize with the other foods

served. It doesn't matter much what kind of a green leafy salad it is, but it does matter a great deal if it is left out. There should always be a green salad of some kind. That is one of the essential principles, and it must never be sacrificed to either whim or the question of resources. If you haven't the materials for a green salad in your pantry, then you ought to get them somehow, somewhere, and don't be satisfied until you have done so. Let lettuce and cabbage be your standbys here. The salad is not an accessory, nor a decoration, nor an appetizer. It is a dietetic cornerstone that must not be disregarded by the mother who expects to feed her family adequately. A dinner without it is not a square meal.

The fourth essential food material is not usually given a separate place on the menu except in the butter. Real butter should always be eaten in abundance with the real wholewheat bread that every family has a right to three times a day. There are fats in butter substitutes, in vegetable oils, and in the different varieties of meat as well as other foods. But pure butter is one of the most easily digested of all the fats, and besides is decidedly rich in the growth promoting, anti-rachitic vitamin called Fat Soluble A, which

DINNER		MENU II	
		Sunday	LUNCH or SUPPER
Roast leg of lamb,		Potato salad on lettuce and garnished with eggs,	
Baked potatoes,		Cocoa made with milk,	
Cauliflower,		Honey.	
Salad of lettuce and sliced cucumbers,			
Sliced fruit or fruit sherbert.			
		Monday	
Sliced lamb with onions and peppers in casserole,		Steamed kale garnished with egg,	
Hominy,		Whole wheat raisin bread,	
Tomato and lettuce salad,		Whole milk.	
Blueberries plain or in whole wheat pie.			
		Tuesday	
Minced lamb creamed and on toast,		Sliced tomatoes, French dressing,	
Baked sweet potatoes,		Cracked wheat served like rice as a vegetable with butter and salt,	
Steamed cabbage,		Whole milk,	
Salad of kale, onions, lettuce and carrots		Honey.	
Apricot whip.			
		Wednesday	
Spinach, poached eggs and slivers of bacon all served on one platter,		Whole corn meal mush,	
Baked potatoes,		Salad of greens,	
Lettuce and cucumber salad,		Cheese,	
Blueberry muffins with Honey.		Whole wheat wafers.	
		Thursday	
Spinach and tomato soup,		Turnip greens garnished with Eggs,	
Beefsteak smothered in onions,		Whole wheat muffins,	
Potatoes steamed in jackets and skinned,		Honey,	
Lettuce with French dressing,		Whole milk.	
Grape fruit.			
		Friday	
Tomato omelet with green peppers and rice heaps with Swiss chard all served in one platter,		Diced beets with Whole wheat cream sauce,	
Fruit salad,		Whole wheat toast,	
Sponge cake.		Apple, celery and nut salad.	
		Saturday	
Macaroni and cheese,		Vegetable soup,	
Creamed asparagus, whole wheat toast,		Whole wheat pudding made with prunes and nuts,	
Salad of greens, tomatoes and cucumbers,		Whole milk.	
Watermelon.			

You can make these menus last for a month or even more if you like them and are willing to use them a second time. Cut the pages on which they are printed right out of the magazine and paste them on a piece of cardboard. After you have used them for two weeks, cut the separate days apart, and you will have a pack of little cards each containing a dinner and a lunch. Shuffle the cards, or if you are not a good gambler, rearrange them to suit your taste. You can now use them all over again. Your family will probably not recognize the same combinations of foods if they are not offered to them a second time on the same day of the week. Personally, I hate always having fish on Friday and chicken on Sunday. But most of us rather like to have them once every week or so as long as they are served as an unexpected pleasure.

is particularly necessary to children.

Last comes the dessert, which is the least important part of the menu. Or at least it may be made so, if the essential foods have all been abundantly provided for before the dessert is reached. This often happens in my

own family, and a dessert offered after a complete meal will often be refused because enough has already been eaten. If you can manage it this way it will save an enormous amount of trouble, for you won't have to make any dessert at all.

But after all there is another way out of it. You can have fruit either fresh or cooked. This is a very good way to solve the problem, because fruit, like green vegetables, is a protective food, and should be used abundantly on all occasions, especially at such times as when meat is eaten. Sometimes, for this reason, it is a good idea to make the dessert one of the main parts of the meal, and depend on it to furnish the

most of one of the food essentials. Whole wheat pudding made with raisins and served with whole milk is enough for any one to eat at any one meal, provided they are given enough of it. Or the dessert may take the form of a fruit salad, and so take the place of the green vegetable salad or perhaps ice cream, if it is homemade.

The lunch does not need to be either as abundant or even as complete as the dinner if the dinner is adequate. If anything, the emphasis should be laid on the protective foods, and the proteins other than meat are preferable. In cases where extreme economy of effort is necessary, the two meals can be combined to fulfill all the requirements of a balanced diet. This is not particularly desirable, and I should not recommend it except in emergencies.

With all of these menus I take it for granted that you will serve real wholewheat bread. Without it they may seem less abundant, less filling than the usual meals. But they will be abundant, they will be more than enough, if the wholewheat bread is amply provided. Wholewheat bread can be regarded as a sort of an allowance for the margin of error. It comes nearer furnishing all the essential food materials than any other single food except milk.

PSYCHOLOGY

Health · Happiness · Success

The Greatest Inspirational Magazine Ever Published
Edited by Henry Knight Miller

PSYCHOLOGY throbs with human interest. It delves into every problem affecting health, happiness and achievement. It is a clarion call to hope; it reveals to you your latent powers; it points the way to attainment of Life's richest blessings.

POPULAR, yet scholarly, articles deal with such all-important subjects as:

FEAR and WORRY—How to Overcome Them.

HEALTH—How to Get It and Keep It.

SEX—The Normal Sex Life.

HAPPINESS—How to be Always Happy.

SUGGESTION—How to Influence Others; How to Build a Supreme, a Commanding Personality; How to Get What You Want.

AUTOSUGGESTION—How to Awaken the Giant Within.

SUCCESS—How to Achieve the Truest Success.

PSYCHOANALYSIS—How to Overcome Complexes; How to Analyze Yourself.

IN PSYCHOLOGY you will find inspirational articles that banish the blues; scientific articles on diet—what to eat, how to eat and when to eat for health and efficiency; breathing for health; exercises for reduction, for flesh-building, for enrichment of the blood, for overcoming colds and other negative conditions.

PSYCHOLOGY will unveil to you the possibilities of a triumphant, exuberant, dominant, commanding, full-orbed life.

You will enjoy the departments on the Drama, World Movements, Book Reviews, Humor, Personal Problems, etc.

What Some of Our Readers Say:

"Worth a Million Dollars to me."
 "PSYCHOLOGY Magazine is my best friend."

"I have found happiness."
 "Sold more goods the week after reading than six weeks preceding."

"Most helpful magazine ever published."

"Saved me from suicide."
 "Has helped me more than words can express."

H. G. WELLS, says:

The coming hundred years or so will be, I believe, essentially a century of Applied Psychology.

It will mark a revolution in human affairs altogether more profound and more intimate than that merely material revolution of which our great grandparents saw the early beginnings, and amidst whose achievements we live.

In this present twilight of human division and insecurity, amidst oppressions and strikes, shortages of goods and slumps in welfare, irreconcilable hatreds and the rumors of fresh wars, it is still possible for those who have faith and vision to foretell a new release of human life to a secure and world-wide peace, to a sufficient and happy production to satisfy all normal human needs, to a common life of generous activities and kindness and lively interests and enterprise and hope.

And it is along the line of a sedulous pursuit and a vigorous application of psychological science that this release is attainable and will be attained.

"PSYCHOLOGY Magazine should be in every home in America."

"PSYCHOLOGY Magazine has shown me the way to health."

300,000 Readers in Twelve Months

Thousands of readers are added monthly. You cannot afford to miss this virtual gold mine of precious thoughts. Subscribe TODAY. The yearly subscription price is only Three Dollars (\$3.00). Read two issues. Your money will be cheerfully refunded if you do not agree that each issue is worth more than the yearly subscription price. What PSYCHOLOGY has done for others it can do for you. It will remake your life. A single article may transform your home and change the life of yourself, your children, your loved ones, from mediocrity to success, from misery to transcendent happiness, from sickness to health. You cannot afford to miss a single issue.

Science's Newest and Strangest Wonder

In order to introduce PSYCHOLOGY

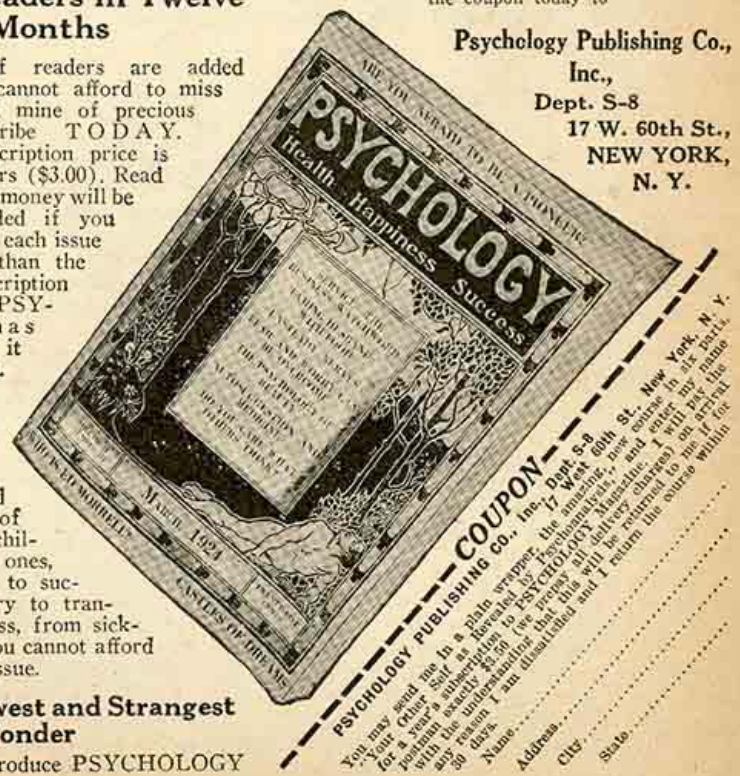
Magazine to new readers, the publishers have arranged for a special edition of an amazing new six-lesson course in psychoanalysis which you can secure in connection with a year's subscription for only \$3.50. This course will enable you to lay bare your mysterious and astonishing "Hidden Self." By its aid you can psychoanalyze yourself and come face to face with your startling, undreamed of, subconscious being. Did you ever wake from a dream—startled—and wondering why you dreamt? Do you know that the ability to psychoanalyze these dreams will bring to light hidden secrets of your innermost self—secrets that show you how to turn failure into success? All this and much more you will learn from this amazing course which is called Your Other Self, as revealed by psychoanalysis.

SEND NO MONEY

It is not necessary for you to send a single penny in advance in order for you to receive your first copy of PSYCHOLOGY Magazine and this wonderful course in psychoanalysis. Simply sign and mail the coupon below and the magazine and the course will be sent to you by return mail. Then when the postman delivers the course, simply hand him exactly \$3.50 (we prepay all delivery charges), and then study the course for thirty days and if you are not fully satisfied with it at the end of that time you may return it and your money will be refunded in full and without question.

As this special offer is good for a limited time only, sign and mail the coupon today to

Psychology Publishing Co.,
 Inc.,
 Dept. S-8
 17 W. 60th St.,
 NEW YORK,
 N. Y.



PSYCHOLOGY PUBLISHING CO., INC. 17 West 60th St. New York, N. Y.

Name _____
 Address _____
 City _____
 State _____

"Life Feels Like a Fight"

(Continued from page 45)

I'm sending for one for you today, if I get to it. Unless you'd rather pick your own."

"I'll trust your taste," Gantry smiled. "So long as she isn't carrot-headed or a relative of Sill Thurston's."

He went into his office. On top of his letters were the telegrams. He read them hastily:

Arrive Booker noon. Ready to spring trap on old bear if you are. Suggest you provide orchestra to play slow music. Everything fat here. Four million feet orders with me for grape people and more coming hourly. Congratulations. Andy Michaelson.

The second wire was briefer.

Reach Granger last of month to scold you for repaying that loan so fast. Please let it work for you until you are entirely out of the woods.

Kathleen Maynard.

Gantry's face softened. He had not seen Kathleen since that evening at Mary's when she had made the offer he had so stubbornly rejected; with all his heart he was glad now that she had overborne his objections and loaned the much-needed money in his crisis, and he felt less and less that he had compromised himself by finally accepting her help, so generously and persistently proffered. It warmed him to think of the splendor of the womanhood he knew—he who had once been so cynical about women. Kathleen, Mary Clyde—even little Mellette Robin, had all contributed unselfishly and loyally to the fight he had been making. It humbled him a little to consider their allegiance to him, for all three of them had seen his weakness and ignored it, gambling a good deal, as he now realized, on what they saw in him of strength.

Spud Killiam entered. The donkey-tender, injured when the faulty spar-tree broke in the woods the fall before, was now well and strong. He would always be a little bent, and there was a big scar across his face, but he was, he asserted, as good as ever for any sort of job they'd give him.

"We're all glad to hear that, Spud," Gantry said. "Thomas tells me you have something on your chest. What is it?"

The youngster looked around and lowered his voice.

"It's about old Brant, the mill boss, chief," he said. "He was stuck alongside of me in the hospital, and I was there when he died. There was a priest and a nurse, too, and they heard him and would testify to it, I guess. It wasn't a confession, y' understand. Brant just wanted to get it off'n his mind before he cashed in."

"What was it, Spud?"

The boy leaned closer. His story was circumstantial, exact, clear. There was little in it that was new to Craig. What he had not been told, as Thomas had finally told him of his surprise of the mill boss in Mary Clyde's room, he had suspected for a long time. But here was something tangible for use,

if it were needed. He let Killiam finish his recital.

"You haven't told this to anyone else, have you?" Gantry asked, then.

"I told Thomas. He's my boss yet."

"That's correct. Don't tell anyone else though—not for now. If we need to use your information we'll let you know. I rather think our man is licked enough without bringing up old sores, but you can't tell. Go to work now, boy, and take care of yourself. You feel all right, but weak backs are tricky, and we don't want you laid up again."

II

Parker Forbes came in, and with him, to Craig's surprise, was Clifton Neal, the young San Francisco millionaire with whom both Gantry and Forbes had gone to school.

"Well, young Mr. Weyerhaeuser!" Forbes cried, heartily, "how's the pine monopoly of the world coming on?"

Gantry grinned.

"We're doing as well as could be expected of amateurs," he said. "Hello, Cliff! What brings you up here so far from the flesh-pots of the Pacific Union Club?"

Neal was embarrassed.

"Why, I'll tell you the truth, Craigie, I've come to say I'm ashamed of myself. I fell down on you three times when you needed money, and I did it because I was stringing with the lowest-lived crook and scoundrel unprung in California."

"I'm glad your eyes have been opened, Neal," Craig said. "I told you he was a dog that needed a beating, and this happens to be the day when he's going to get it. What can I do for you in the meantime?"

"Use some of my money."

"Really?"

"As much as you need."

"I'm not entirely on my feet yet. It's a gamble for you, Neal."

"I'll gamble on a stake-horse like you with everything I've got," Neal retorted stoutly. "Your hook-up with Forbes and Pacific Western and the power people and the shook game—why, you are a damned Carnegie, Craig! And we used to think you'd never make anything of yourself but a lounge-warmer and a gentleman cynic!"

"I was all of that," Craig replied, sobering a little, "until an old friend of mine taught me to see that life feels like a fight—is a fight, and that we are in for something more than our own poor little selves. It took two years to pound the moral into my head, but it's there now, and I've enlisted for life."

"I wish I could get that slant on the game," Neal said, mournfully. "I'm not much use the way it is."

"You can get in," Craig said. "But not into a game, because it's no game. It's an everlasting fight, from the first gong to the last one, and the minute it stops being a fight it's lost—and you with it. We'll talk it over—maybe I can put you into the way of spending

some of your filthy millions in a good cause before many weeks have passed." He shifted his ground. "What happened to put Goodsill Thurston in bad with you, if it isn't too personal a question?"

Neal replied in a growl.

"You know that dad left mother a lot of California ranch and orchard property, perhaps. Well, it's been a bad year for us, with supplies and labor so high and prices shot to pieces in the market; so when the box-shook prices were raised thirty per cent. it put all our orchard properties in the red. It didn't take me long to find out that Thurston was the boy who was behind the squeeze, but I couldn't get him to consider lowering his prices, even for his friends. What he wanted to do was to choke the heart out of the fruit and vegetable business—"

Gantry laughed aloud.

"I know the rest, Neal!" he said. "Three cheers for crime! It's poetic justice, my son; and if the thing didn't involve a million or so poor devils who can't stand the gaff I'd like to see Thurston go on and flatten you, just to give you a lesson. As it is I can only say: Keep your head up and your shirt on for a few days, because shook prices are coming down, with a refund of some of the high prices you paid last year as a bonus."

Forbes, for his railroad, had some negotiations to conduct and Garrett, the mill superintendent, was called in. Clifton Neal wandered out to see the new plant in operation. Lunch time came before Craig Gantry was aware of it. He drove Forbes and Neal over to Booker in order to show them from the highway the line of the new standard gauge railroad, and reached the little town where Goodsill Thurston, the lumber king, had his headquarters, just in time to meet Andy Michaelson. The four lunched together, but Michaelson and Gantry kept the secret of their impending interview with Thurston. They wanted nothing to take the edge from it.

III

The lumber king and box-shook dictator was worried, almost for the first time in his career.

There was something wrong with the shook business, but he couldn't determine just what it was. In the first place, the fruit and vegetable people of the state, who had squealed like pigs under a gate when he had raised the price on them the fall before, had come back to him and for months he had been delivering them shook in tremendous quantities. So far all was well—the pinch was that they weren't paying for their shook.

As Michaelson had explained to Craig Gantry shook and shook lumber are sold on ninety days' time, because it takes at least that long for California producers to get their money out of their crops. Thurston was accustomed

(Continued on page 86)

Your Body Will Develop Itself— IF You Give It a Chance

If you know how to go about it, you can make the most amazing improvement in your personal appearance, your bodily proportions, your muscular development, and your stock of health and energy, without the necessity of "doing exercises."

Your "Muscular Habits" Make, or Mar, Your Figure

Mr. Edwin Checkley made a more thorough study of the effect of habits, than any other man during, or since, his time. His picture appears on this page. It was taken at the age of 55. He died of an accident at the age of 75, and up to the time of his death, maintained his almost perfect figure and his tremendous strength.

His chest was of tremendous size. The muscles on the outside of the chest were not abnormally large; but his lung-capacity was phenomenal. Although his arms and legs were not loaded with muscle, he could perform the most surprising feats of strength, and he ascribed his unique power largely to the vigor he derived from his exceptional lung-development.

The curious thing about Checkley was that he never took exercise. He depended on his muscular habits to keep himself in shape. As a young man, he was weak and sickly, but brought himself to perfect health and acquired an enviable physique through the adoption of these muscular habits.

The Checkley Principle

He claims that muscles are developed by continual use and that if you learn and adopt certain habits of walking, standing, bending, and breathing, your body will practically develop itself. He claimed that practising deep breathing for five minutes a day, would produce no noticeable effect, and he was very much opposed to "forced deep breathing." He claimed, and proved, that if a man would learn to breathe correctly (that is, with the upper part of the lungs), and make a habit of breathing that way, his chest would become larger automatically; that is to say, the chest would have to get bigger to accommodate the growing lungs. He also proved that as the rib-box (which contains the lungs) gets larger, the shoulders readjust themselves, and that a gain of 6 inches in chest measurement should be accompanied with a gain of at least 2 inches in shoulder-breadth.

Checkley applied these principles to everything he did. If you will look at his picture, you will see that on the front of his abdomen, he had a set of muscles just as prominently developed as the abdominal muscles of Eugene Sandow, or any of the professional "Strong Men." These other men developed those muscles by practising the hardest kind of bending exercises. Checkley's abdominal muscles were created by the way he carried his body. In his book, he tells how to carry the body in a certain way that causes a slight, but continual, tension in the muscles along the front of the abdomen, and along the lower part of the spine. He calls this the "balanced hip position." He further states that this method of bodily carriage absolutely prevents the accumulation of fat on the front of the abdomen, and in the abdominal cavity itself. Furthermore, he says that any stout man can rid himself of his "bay window," simply by adopting this position, without the necessity of doing any tiring exercises, or the adopting of a distasteful diet.

Checkley's legs and back were so strong that even when he was 70, he could take a weight of 450 pounds on his shoulders and trot with it for 100 yards. This strength was created by the way he walked. In his book, he describes a certain method of walking which develops not only the calves of the legs, but the upper part of the thighs, and which gives enormous strength to the loins.



Edwin Checkley

Your "Daily Exercise" Is Waste Effort If Your "Muscular Habits" Are Faulty

You have to admit the logic of his theory. After all, what is the use of practising strenuous bending exercises for five minutes a day, in the effort to get rid of a big waist-line; if, for fifteen hours a day, you stand, sit and walk with your body held in a way that forces the accumulation of abdominal fat? What is the use of doing five minutes' "corrective" exercises to cure broken arches in your feet, if you nullify the effect of that exercise by walking and standing in a manner that helps to break down the arches? What is the use of doing "squatting" exercises to develop big thighs, if, when you walk, you use only a few of the leg muscles? If you learn to use as many muscles as possible, and to use them correctly, your new muscular habits will absolutely mold your body to that degree of perfection of which every human being is capable.

His book is the only one of its kind and should be in the hands of every man and every woman who is interested in acquiring a beautifully shaped, well proportioned, highly developed body. His teachings are most fascinating, and the beauty of it is that he shows you a method whereby you can get perfect health and a beautiful figure as you go about your daily work. In his book, there is one paragraph of ten lines which contains the whole secret of perfect bodily proportions. If you buy one of his books, it will be interesting to see whether you can identify that paragraph.

This is not a course of instruction, but a book, and the name of the volume is

"Checkley's Natural Method of Physical Training"

Over 200 pages - - - Fully illustrated - - - Cloth bound

Price \$2⁰⁰ Postpaid

If You Want a Copy send Cash, Check, or Money Order to

THE CHECKLEY BUREAU

114 North Ninth Street

Dept. H

Philadelphia, Pa.



Do you want to be a Good Boxer?

Do you want to be able to put the gloves on with any of your pals, and more than hold your own? Do you want to know how to defend yourself if attacked? Do you want to be able to use the blows and guards developed by the top-notchers of the ring?—the Benny Leonard Triple Blow, the Jack Dempsey Triple, the Mike Donovan Leverage Guard, etc. In short, do you want to be a good boxer in a very short time and at very little cost?

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

After you've mastered the fundamentals, you next learn every good blow and guard used in the ring—how to land the blow, where to land it, and how to guard against your opponent's counter. Then we teach you Shadow Boxing—take you through three lively rounds for daily practice; this develops your speed and wind.

To develop you physically, we give you a complete set of muscle-building and breathing exercises. And to complete your knowledge of self-defense we teach you 15 jiu-jitsu holds and 14 wrestling holds—how to disarm an opponent, how to break a strangle hold, etc.

The course includes a "History of Famous Boxers with their pictures"—from famous Mike Donovan to the latest champions.

Complete Course \$1.67

This famous course originally sold for \$5.00. Now you can have it on trial for \$1.67—6 volumes of 36 complete lessons and over 200 illustrations.

**10-DAY TRIAL
SEND NO MONEY**

Plus Actual Postage **\$5.00**

Simply fill in and mail the coupon for a 10-day trial. When you have the course in your hands, deposit \$1.67, plus actual postage, with the postman. Then use the course for 10 days. We're sure you'll go on with it, and there'll be nothing more to pay. But if for any reason you are not entirely satisfied, return the course and get your deposit back at once. **THE STILLMAN ASSOCIATION, Dept. 1724-H, 247 Park Avenue, New York.**

COUPON
THE STILLMAN ASSOCIATION
Dept. 1724-H, 247 Park Avenue, New York

Send me on approval the Stillman Course. When I have the course in my hands, I will deposit \$1.67 (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 deposit will be instantly refunded. If I keep the course there is to be nothing further to pay.

Name.....

Address.....

Canadian and foreign orders must be accompanied by cash (\$1.67 U. S. funds) subject to money back guarantee if not entirely satisfactory.

(Continued from page 84)

to carrying them for that period, and when the first bills began to fall due he was not unduly alarmed that they were not immediately paid. At the end of another month, however, he was beginning to be angry and a little distressed. He had probably three-quarters of a million dollars owing him for box shook, and not a cent of cash appearing.

This was not all. His letters inquiring into the reason for the delay in payment of shook bills had been ignored or answered evasively by the fruit people themselves and by the Pine-shook Distributors, the intermediary corporation organized to handle the growers' box lumber dealings. Angered at last Thurston had become more peremptory, and then they had laughed at him. He had threatened to discontinue shipments and they had coolly told him to go ahead.

Within a week now the worst of the situation had come to light. Thurston had ordered that shipments of shook from his mills and those of the independents he controlled should be stopped entirely; instead of prayers and pleadings from the fruit people and the payment of some of their bills, now long overdue, he had heard nothing and, to make matters worse, he thought, a perfect flood of shook was suddenly appearing, out of a clear sky, to fill their orders.

This last discovery had shaken Thurston severely. His investigation had convinced him that some strong and well-organized outfit was undercutting his prices and taking the market away from him; who it was he could not discover. To be sure there was Gantry, with his thrice-damned enterprise at Castlemont, but Gantry could not supply one-seventh of the shook that was now being rushed to the fruit-distributing centers.

Sullen and perplexed, therefore, the "old bear" in Booker was boiling with rage when Andy Michaelson, of the fruit producers' box-shook company, and Craig Gantry walked in on him.

"Well?" he roared, facing them belligerently, "have you brought me some money for box-shook?"

"That's what we came to see you about," Michaelson replied.

"Money talks. I don't want five words with either one of you whipper-snappers unless it's in cash."

"I'll take my five first, then," Michaelson said, chuckling. "Our organization has about two hundred carloads of box shook to return to you."

"Has—what?"

"And mine," Gantry broke in, smilingly, "are that you aren't the box-shook king any longer. You're the court fool!"

"You damned, snickering wild-catters!" Thurston stormed, "what the devil do you mean by coming in here with such talk? I've delivered now more than three hundred carloads, and haven't had a cent for any of it. And if you think your two-by-twice junk pile at Fack's can supply the shook of this state—"

"You'll burst a blood vessel, Thurs-

ton," Gantry interrupted, dropping to a chair and taking out a cigarette coolly. "You'd better restrain yourself for the bad news ahead!"

Thurston looked from one to the other of them, slowly comprehending that they believed—at least—that they held the whip hand. He sat down.

"Go on with your foolishness," he said heavily.

"All right," Michaelson said, taking up the running; "I'll make it short and sweet."

"For ten years, Thurston, you've been hogging the box-shook business of California and working yourself into what you thought was a strategic position to put on the screws. You turned them part way down last fall, and your plan was to tighten them up this year, as your advance price sheets show. It meant ruin for half a million producers in California, and you knew it."

"Wait—I'm not through. When we found that you didn't have a bowel of compassion in your whole alimentary track, we began to figure a way out from under. Mr. Gantry, here is the man who saw how the trick could be turned. You tell him that part, Craig."

Gantry blew out a cloud of smoke.

"I had personal and private, as well as business, reasons for wishing you all the bad luck in the world, Thurston," he said, evenly. "And it occurred to me that, as you didn't get your box-shook money for ninety days, someone ought to be using that money in that time to help put a crimp in you. What we did, to be brief, was to take the money owing you as it came in from the growers, or borrow on the growers' shook holdings, and invest it in shook plants. With mine and Rave-son's and the half a dozen other independents you hadn't quite got a strangle hold on, we managed to build up a shook production that will keep the growers supplied until we can increase our output."

"In other words, we've taken the liberty of using the money owed you to put you out of business."

"But, by the lord, you owe me that money still!" Thurston roared. "And I'll collect it from you if I have—"

"Oh, no, you won't, Thurston," Michaelson put in. "Because, as I've already told you, we're returning most of your shook to you. It may not all of it be yours, because we had to use a lot of it, but we'll give you shook that's just as good, that our own mills have turned out, and if you can think of any way of identifying your shook and proving a substitution in court before a jury of California men, after this story comes out, you have our permission to hop to it."

"But my contract with you—that is, my arrangement—"

"Arrangement is a better word," Michaelson said, suavely. "In fact, the right description of the thing is that we took what you gave us, without the scratch of a pen to bind either side. That was what made it easy for you to raise prices on us; it's the same thing that is going to make it hard for you to come back at us. We've looked at your side of the case pretty carefully,

Mr. Highway Robber, and we don't think it has a leg to stand on.

Thurston rose, purple and swelling. He turned on Craig Gantry with a snarl.

"This is all your work, you infernal sharper!" he cried. "I'm not through with you yet! I'll find a way out, but if I don't, I've got enough money left to ruin you and I'll do it—"

"Wait a minute!" Gantry was up, too, not excited nor ruffled, but cool, collected, poised. "Mr. Goodsill Thurston," he said, distinctly and slowly, "you've shown ever since I've been here, that you are a scoundrel and a dog in business and in your private life. I have no more compunctions about scotching you than I would have with a snake!

"You are through in these mountains. I know now who tried to balk me at every step, and how and why. I know who wanted to use a woman in the fight, and who burned down Fack's mill, with his own hand, to checkmate me, and I know who hired men to break down my machinery and trucks, and I know who cut a spar-tree half through and killed two men and terribly injured half a dozen more. I have the whole story from your tool and hired man, and if you want a fight, you're going to get it."

Thurston wet his lips—sank again into his chair.

"Somebody's been lying," he muttered. "Who started these stories?"

"You ought to know well enough," Gantry said, severely, "for you must have learned by now that a sneak and a coward will turn on his friends in the end. Every word of what I have told you, and a good deal I haven't, comes from the death-bed confession of your man Friday, Defoe Brant!"

"In confessional! To a priest!" Thurston cried, grasping at straws.

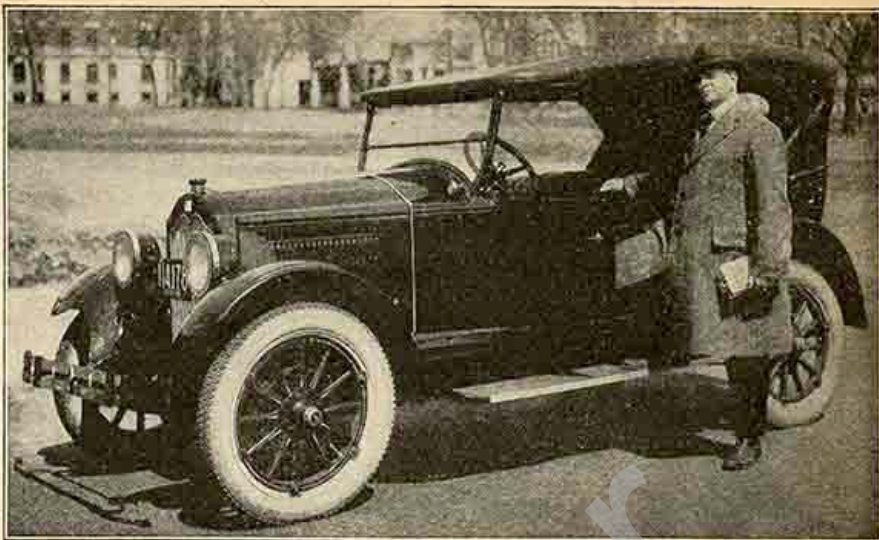
"There was a priest there," Gantry said. "But it was not under the rites of the church. There are two other witnesses, and one of them, by a mere coincidence, happened to be a boy who for months lay close to death because you had tampered with the spar-tree that fell and crushed him. Things like that, Sill Thurston!" Gantry exclaimed, raising his voice, "ought to make you realize that there is a God in Heaven, after all!"

IV

It was June, the month of wild roses, late flowers, cleared streams, rich grass, warmth, languorous afternoons and crystalline nights in the Sierra; it was the month of lovers.

Craig Gantry was in love. It had taken him a long time to read his own heart, for he had been busy with many things. And now that the time had come when he was sure, obstacles rose in his way that made it seem to him that he had blundered again into one of those old bafflements that had once discouraged him so easily and that had so often checked and thrown him back when he should have been driving on to some triumph.

First, there was Kathleen Maynard. He knew, without egotism and without



I Made \$945 in One Month

*If YOU Aren't Satisfied With Your Present Earnings
Read How R. A. Prentiss Made \$945 in One Month*

"If anyone had tried to tell me a year ago that *today* I would be my own boss, own a flourishing business, drive my own automobile—and that I could make \$945 in a single month—I would have laughed at them. Yet all of those things have come to me in a brief span of fifteen months. And what I have done, you can duplicate.

A Wage Earner For Fifteen Years

"My name is R. A. Prentiss. I live in a small New England town where I was reared. My first job was that of a ticket taker. Next I became a conductor. Then I got a job in a retail shoe store. After several years of working for someone else I decided to work for myself and opened a small shoe store. But high rents, keen competition, heavy overhead soon ate up my meager capital and I failed. I went back into a factory, back to long hours and a small weekly pay envelope. After fifteen years of hard work I was discouraged and without a future.

I Answered An Unusual Advertisement

"One night my uncle handed me an advertisement he had cut from a magazine. It stated that I could own a business of my own without investing a penny, be my own boss—and that, without any experience or training, I could make from \$100 to \$200 a week. It told of other men, just like me, who were making that much and more. I couldn't believe that it was possible for me to make \$100 a week but the advertiser offered to prove his statements. I was desperate so I mailed the coupon for the facts. And that simple step changed my whole life.

Then Success— \$945 In One Month

"In a few days the information came. The proposition looked good. I decided to give it a trial in my spare time. The first month I made \$254. Another month I cleared \$262. I knew I had the proposition I had wanted all my life. I quit my job and devoted all of my time to this work. My income grew bigger and bigger until one month I made \$945.

Easy Work—Big Profits

"I am the local representative for The Comer Manufacturing Company, one of the largest manufacturers of high-grade top-coats and

raincoats in the country. The coats are wonderful values. They are made from the finest fabrics and are tailored into up-to-the-minute styles. They are cold-proof and wind-proof as well as water-proof. And because they are such big values people order them on sight. I just take orders. I don't have to collect or deliver, the company does that. I get my profits the minute I take an order. And for doing this easy, pleasant work I have made as much as \$945 in a month.

My Future Was Never So Bright

"Just recently The Comer Manufacturing Company gave me a Buick Touring Car as a bonus up and above my large earnings. I'm my own boss now. I own my own business. I don't have to worry about money because every minute of my time puts money in my pocket. I'm fixed for life. And everything I have I owe to the time when I answered that advertisement. If I hadn't done that I would still be a dissatisfied wage earner."

You Have The Same Chance

If you would like to have a business of your own, without investing a penny; if you would like to have a chance to get a Buick, if you would like to have a chance to make \$200 a week—then mail the coupon. I will send you full particulars of the proposition that has enabled R. A. Prentiss to become a successful business man, with an income that makes him financially independent. Mail the coupon at once and I will send this information, without cost or obligation.

C. E. COMER, The Comer Mfg. Co.
Dept. 43-PB Dayton, Ohio

MAIL THIS NOW!

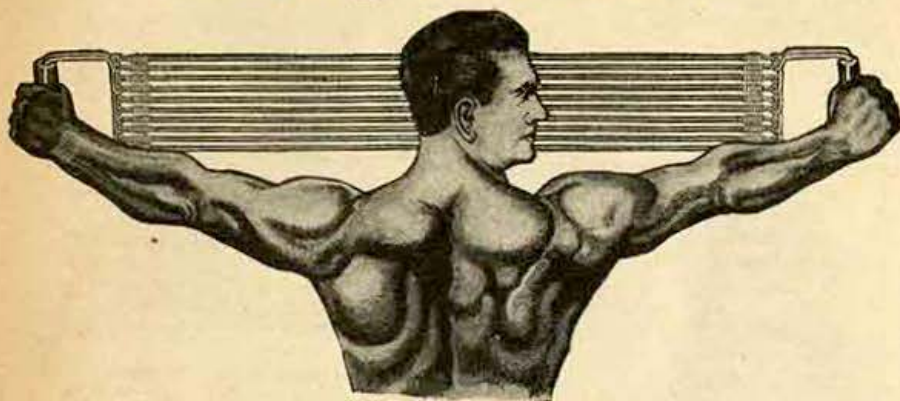
THE COMER MANUFACTURING CO.
Dept. 43-PB, Dayton, Ohio

Gentlemen: Please send me full particulars of the proposition that has enabled R. A. Prentiss to make \$945 in a single month and get a Buick Touring Car. This does not obligate me in any way.

Name.....

Address.....

You too Can Have Muscles Bulging with Power



Every Muscle in Your Body Can Be Brought to the Highest Pitch of Development by My Methods and Apparatus—A New Invention

THINK what it would mean to you to be five or ten times as strong as the average man—to have many times his pep, energy and vitality—to have muscles like steel cables all over your body—to enjoy the keen satisfaction of knowing that you could perform incredible feats of strength with the ease and sureness of the professional strong man. Nature gave you the frame and the muscles. Now you need only the *right kind* of regular daily exercise to develop them to their fullest capacity. And remember that as you grow in strength you also grow in confidence and the ability to handle yourself in any emergency that calls for the courage and power of a *real man*.

The McFadden Patented 10 Cable Progressive Exerciser

will positively give you strength like that. It will add inch upon inch to your arms, legs, neck and chest, greatly increase your heart

and lung room, vastly improve your blood circulation, and make you stronger, healthier and more vital in every way.

This Exerciser Has a Resistance of from 10 to 200 Pounds

With the patented handles, which are a part of this apparatus, you actually have two 5 cable Progressive Exercisers that can be instantly converted into a 10 Cable Progressive Exerciser. The safety snap hooks can be

quickly adjusted, giving you as many cables and as much or little resistance as you want. The progressive feature allows you to increase the resistance as your muscles become stronger.

My New Patented Stirrup Builds Legs of Steel

That's where most of the big fellows are weak—in the legs. But the ingenious new stirrup that I have added to my 10 Cable Progressive Exerciser will build your calves and thighs to marvelous proportions. It is made of one piece steel and stands a resistance of from 50

to 1,000 pounds. It can be attached to any 10 Cable Progressive Exerciser. Strong, muscular legs are a vital necessity to anyone who goes in for any form of athletics. This device is the only one designed to develop the leg muscles.

My Adjustable, Patented HEAD-GEAR Increases Your Neck One Inch in 30 to 90 Days

No man can claim to be a *strong man*, unless the muscles of his neck are fully developed. The McFadden Patented Head Gear will positively increase the size of your neck **ONE FULL INCH** in a few weeks. This apparatus

is simplicity itself. It is adjustable, and will fit any man or boy. By using it in connection with my Progressive Exerciser, there is no reason why you can't be just as strong as you want to be.

SEE WHAT YOU GET—

My Complete \$30 Outfit for the Introductory Price of Only \$8, Including My Incomparable 12 Weeks' Instruction Course.

After you have used my apparatus a few weeks, you'll be the first to admit that it's the greatest eight dollars' worth of sheer value you ever received. It has changed many a man from a thin, puny, undersized weakling to a prodigy of physical strength and rugged health.

Here is what you get—a complete outfit for developing every muscle in your body.

Any of the above can be purchased separately at the price shown.

10 Cable Progressive Exerciser, worth	\$8.00
Patented Progressive Handles with 1,000 pounds resistance, worth	2.00
Patented Progressive Stirrup with 1,000 pounds resistance, worth	1.00
Patented Progressive Head-Gear, the only one of its kind, progressive resistance and adjustable to any size head and neck, worth	3.00
12 weeks' Home Instruction course, the most wonderful ever written—the kind you cannot get elsewhere, worth	15.00
The Michael McFadden Encyclopaedia, worth	1.00
	\$30.00

TOTAL WORTH, \$30.00; COSTS YOU ONLY \$8.00

You cannot buy a similar outfit anywhere else at three times this price. In fact, you cannot buy an outfit as complete as this with such a course as I give you, at *any* price. Thousands of the world's greatest strong men have endorsed my course of instruction and the McFadden 10 Cable Progressive Exerciser. Remember I guarantee to increase your biceps **ONE FULL INCH** in from 30 to 90 days, and

all other parts of your body in proportion. Think what this means. In a few short weeks you are a new person—well on your way to be a professional strong man if you wish. If you are not fully satisfied, your money will be refunded without quibble or question. Start today along the royal road to health and strength—send **NOW** for this great body-building outfit before you forget it.

My Guarantee Is Backed by a \$10,000 Challenge

MICHAEL McFADDEN Dept. 60, 103 E. 13th Street
New York City

false modesty, that she had always loved him and that he had once cared more for her than he had realized at the time. Now he was under heavy obligations to her. She had come up, without invitation, after he had treated her very shabbily, and had saved him from financial ruin and the distress and black mood that might have followed defeat. There was one way in which he could thank her. But he shrank from taking that way, even if his heart had been free. Though he was general manager of an enterprise that would, in time, pay him a generous salary, he was no longer the rich young heir to the Gantry Mill Machinery Company. Broadhead and others had seen to that! And Kathleen was very rich. It was a bar more young men have encountered in life than in fiction—it was a very real bar to Gantry.

Finally there were all his failures and blunderings—the weakness Mary had fought, for his sake, in him, but which, he believed, no woman could altogether condone. He had been held back from deserting her, after throwing her into a mealstrom of financial difficulties with the timber-piece; that he had finally brought her out to the place where her property was a valuable one was due more to the efforts of others and to good fortune than to his own fidelity and good management. Whenever he reviewed the history of his life at the Clydes' he was whipped by recollection of the times when he had all but surrendered the fight, first for life, then for a purpose.

He loved Mary Clyde with every talent and strength and fine quality he possessed, but he could offer her nothing!

V

Kathleen Maynard looked at him gravely.

"Craig," she said, slowly, "I don't want you to ask me that question."

They sat on the porch of the Clyde house, where many times Craig had heard old Francis Clyde talk of the life that Henry James saw as a struggle for God and the universe, and a young June moon cast its spell on them so that the girl spoke with difficulty. But she spoke straightly, as always.

"I'm not the woman, dear."

"I have to be the judge of that," he said. "I have told you that I have had a fight with my own pride to bring you up to this point, Kathleen. But if you want me, knowing me as well as you do, and with full knowledge of my limited means—"

"Craig!"

"Of course. That wouldn't count with you!"

"If you were that bad pot-boy back at Madame Radinovich's, of which you have told me, it would be the same to me."

"I know that, Kathleen. I ought to have believed that."

"Believe it now, Craig. Money has nothing to do with you and me. But there is someone else."

"For you?"

"No, Craig, for you."

He turned away from her.

"You mean Mary? But Mary knows better than you do what a poor stick I can be when I'm whipped. She knows that, if I were whipped now, or in the future, I'd quit."

"Would you, Craig?"

"I always have."

"Would you now?"

"I—I couldn't be sure, could I?"

Kathleen leaned down, holding in her hand for him to see a bit of paper, on which were hastily written words. He stared at it.

"What is that?"

"Do you remember the notes you wrote to Thomas, your young foreman, and to Mary, the night her father died?"

He started.

"After the mill was closed down by Brant? Yes! I wrote them after I was packed to leave—desert!"

"Yes, Mary found them in a coat you loaned her. She has kept them ever since, and no one else has seen them until she showed them to me."

"I wonder why she showed them to you?"

"Because, to try her, I professed to doubt you. She wanted to prove to me that you never entirely quit—that only your impulses were sometimes weak. 'But in every pinch,' she said, 'Craig Gantry sticks!'"

Suddenly Craig rose. He stood straight and clean and splendid beside the gentle, courageous, loyal eastern girl, and his voice shook a little when he spoke.

"Kathleen," he said, "whatever my deserts I have had three of the finest women on earth to help save me from myself and my old inertia. You're right, Kathleen, as you always have been. I wish I could say it some other way—I wish it might be different—but you are not the woman."

She laughed a little.

"We can't have everything, Craig," she said, softly. "I would never have

accepted you, at any price, after seeing Mary. She proved to me today that she was yours for the asking."

Craig started.

"I'm not so sure of that!" he said, sharply. "She hasn't said so? She wouldn't! Did you know that she once saw me—"

"With your Miss Robin? Yes, she told me. And it was what she did today that showed me how her heart stood. She's brave and fine and true, Craig—the truest woman I've ever known!"

"But what happened today?"

"She asked Mellette about that incident in the road. And your little street-girl showed that she, also, can be big and splendid. She told Mary the whole story."

Gantry turned away. His eyes burned—it seemed to him that there were tears in them. The devotion of these three to himself—and the loyalty of the other two to Mary touched him more deeply than he had ever been touched in his life before.

Kathleen Maynard rose and put a hand across his shoulders.

"We all love you, Craig," she said, "but Mary would give her life for you. Go and find her."

So he went, walking straight, and searching for her with steady eyes.

When he found her, in the garden, she started, turned, hung just a moment poised, then ran to his arms.

There were no words between them. There were no words needed then. There were no words their lips could frame, for their hearts were bursting with joy.

The moon went softly down behind the ragged fringe of pines in the Clyde timber-piece and, faintly from the cañon beyond, came the hissing roar of escaping steam from the mill, where the night crews moved swiftly at their work.

THE END.

You, Too, Can Build Energy and Endurance

(Continued from page 49)

If Mr. E. W. W. were to do his half hour of vigorous exercise every other day, leaving forty-eight hours for recuperation, he might have a different story to tell. I would suggest that he try this plan. His heavy workout, if any, or his greatest effort should be scheduled for Saturday afternoon, leaving Sunday as a period of recuperation, so that on Monday he could return to his work fresh and strong instead of tired out. The Sunday outing leaves a great many people too tired for work on Monday, whereas if they would do this strenuous stuff on Saturday and then loaf on Sunday, it would not interfere with their working efficiency.

Road-work is the very backbone of all conditioning and endurance building in the routine of professional boxers. It will serve others just as well. However, instead of training by means of running, I would suggest in a case of low vitality, and for E. W. W.

in particular, a policy of outdoor life and the practice of long walks. If a long walk every day still leaves him tired, let him take his long walk three times a week, or even twice a week. For the building of endurance, one will accomplish more by a more prolonged effort followed by a longer period of recuperation than by a small effort each and every day. But even at that, in the case of E. W. W., or of any one suffering from low vitality, it would be well to make haste slowly. Follow the idea of *progressive* effort. Walk at first only two or three miles at a time, but walk briskly, with a swing and on your toes. Gradually increase this distance one mile each week. At the end of two or three months you will be walking ten miles at a time. When you have reached a condition such that you can walk a brisk ten miles without feeling tired, you will no longer suffer the lack of energy of which E. W. W. complains.

Make Money Taking PICTURES



Got \$100 for Flood Pictures

"I took pictures of a flood and sold them for \$100. I have been able to buy my house and lot from the sale of pictures."

C. M. COLE
Washington.

\$97 in Two Days!

"I made \$256 in December. Went out two days last week on home portraits. It work and made \$100."

A. G. HUGHES,
Kentucky.

Tremendous, big-paying opportunities are open for ambitious men in Modern Photography. This is the picture age. Magazine and newspaper publishers buy thousands of photographs each year. Every manufacturer sends out high priced pictures of his products. Every home wants portraits. Photography is a business running into millions of dollars each year. And there is a great shortage of trained photographers.

EARN \$3,000 TO \$10,000 A YEAR

Hundreds of men are earning big money and establishing their own businesses. Even during spare time, while training, you can make \$75 a week easily—no matter where you live!

Amazing New Easy Method

I show you, at home, how to do the kind of work turned out by the big studios in New York and Chicago! I show you how to make big money within 30 days! C. M. Cole bought a home with money he had made when only half way through his training. So well do I know what I can do for you that I guarantee under bond to return every cent of your tuition if you are not thoroughly satisfied.

Professional View Camera Free!

Write at once for Free Camera Offer—I give you, free, a splendid professional view camera. You will be astonished and delighted. This offer open for short time only—so act quick! No obligation.

INTERNATIONAL STUDIOS, Inc.
Dept. C-577
3601 Michigan Ave., Chicago, U.S.A.



Personal Magnetism

Personal magnetism, will power, nerve force, stamina—call it what you will—is the intangible power that controls human destiny. It is the key to all business and social success. If you come in contact with people, you cannot afford to be without this knowledge. It gives you an inestimable advantage over others. By our system you can develop your Personal Magnetism at your own home. We guarantee it. Intelligent people the world over are studying this wonderful force, and those who master it achieve increased success. FREE BOOK tells you how you can master it at home. Do not send any money for it. The book is absolutely free and is sent to advertise our institution.

THE FLINT COLLEGE CO.
Dept. 579 Cleveland, O.



HOTELS, restaurants, clubs, apartments, everywhere need trained men and women. Over 70,000 high-class positions paying up to \$10,000 a year are open each year in the hotels of the United States. The Hotel Business is America's First Largest Industry in new construction. Nearly a billion dollars' worth of NEW HOTELS AND RESTAURANTS built this year will need over 60,000 trained men and women. Hotels start you at salaries up to \$3,500 a year, with your living. At any time you can have your choice of over 1,000 hotel positions open.

You can have one of these high-class big-pay positions, with luxurious meals and apartment and fascinating work. No previous experience necessary. The Lewis Schools guarantee to give you the valuable knowledge that it has taken some of the most successful men years to obtain—men who are now making \$5,000 to \$50,000 a year. We train you by mail in your spare time at home with the Lewis Simplified Study Plan, and put you in touch with big opportunities. Our students employed, our methods endorsed by leading hotel men everywhere.

Send today for FREE BOOK, "Your Big Opportunity," showing how we can train you for one of these splendid positions in 20 weeks or less, and explaining our Money-Back Guarantee.

LEWIS HOTEL TRAINING SCHOOLS
Room E-3785 Clifford Lewis, Pres. Washington, D. C.

—FREE BOOK COUPON—
LEWIS HOTEL TRAINING SCHOOLS,
Room E-3785, Washington, D. C.

Send me without obligation the Free Book
"YOUR BIG OPPORTUNITY."

Name.....
Address..... (Please Print)
City..... State.....

Brain-Feast

Solvent fruit, such as grapefruit, berries, tomatoes UNDER PROPER CONDITIONS:

- (1) Dissolve or disintegrate tumors, goitres, gallstones, deposits of lime in joints.
- (2) Dissolve phlegm or mucus, remove the source of colds, catarrh and consumption.
- (3) Correct liver and kidney troubles; headaches.
- (4) Dissolve blood clots as in paralysis.
- (5) Dissolve the impurities which cause blemishes to the skin, as acne, eczema.



INTENSIVE FEEDING, JUICES, NO WATER

New rich blood builds healthy tissue, displacing diseased tissue. No diagnosis required, only activities. Write us for particulars of Government Bulletin, describing experiments on convicts, hens, cows, etc. Deficient feeding produced disease, whereas full nutrition cured, e. g., paralysis, blindness in hens, rats, etc.; pellagra, beriberi, skin affections, etc., in men.

The following extracts are from sworn statements of pupils:

PARALYSIS. Age 61. Right hand and leg helpless three years, restored in three weeks.

Another, age 65, bedridden, hemiplegia. Sensation restored in three days. Could walk two miles daily after six weeks.

ARTHRITIS. All joints swollen with lime deposits. Knees and wrists locked immovable for eight months. Blind for two years. Can now see, walk and do home work.

CATARH, HAY FEVER, RESULTING DEAFNESS decreased from the first meal.

GALLSTONES. Age 80. Bedridden, cholice every week for years, but not one attack since instruction over a year ago; now can do housework.

TUMORS. Age 40. Tumors weighing several pounds dissolved within a year.

GOITRE. Color reduced 17 to 15, normal size.

UTERINE HEMORRHAGE. Age 50. Three years in rolling chair; weak from constant discharges. Now does housework, including washing.

ECZEMA. Age 69. Eyebrows lost. Skin cracked and scaling. Normal in three months.

PYORRHOEA. Age 65. Pus ceased on 7th day.

PREGNANCY. Age 30. With last two children suffered no nausea, no swollen feet, nor constipation as previously. Delivery painless.

CONSTIPATION. Three Healthy Eliminations Daily.

BRAINY MEALS make mental work easy. Muscle nourishing meals build firm flesh. Sworn statements. Over 6,000 pupils. Educational book, 10 cents.

BRINKLER SCHOOL OF EATING

Dept. 20-J131 West 72nd Street New York

We Are Giving Away

100 Hundred-Lb. Plate Bells

You can become a regularly enrolled pupil of the Milo Bar Bell Co. (regular price \$15.00 f. o. b. Phila.), receive your plate bell and both courses of instructions, the course in Body Building and Muscle Developing Exercises and also the course in the Eight Standard lifts absolutely free of charge, anywhere in the United States.

To take advantage of this offer all that you will have to do is obtain for us 15 new subscribers to STRENGTH. The price of one year's subscription to STRENGTH is \$2.50.

You do not have to collect the subscription money.

You do not have to deliver the magazine. Simply write us, using the attached coupon.

With each subscription that you sell, simply let the subscriber forward us the blank. The subscription will be placed to your credit and as soon as the fifteen have been received the bell will be shipped to you at once. All charges in the United States will be prepaid.

The regular instruction blank will be sent you and your course will be laid out carefully and thoroughly.

Each subscription can be sent in as quickly as it is obtained and absolutely no delay will be caused the new subscriber. Immediately upon deciding to subscribe he will fill in the blank and send it to us. Upon receipt we will forward him his first copy, thus acknowledging receipt of his subscription.

Fill out the coupon to-day and start to obtain your bell now.

Milo Publishing Co.,
2737 N. Palethorpe St., Philadelphia, Pa.

Gentlemen: Send me the 15 subscription blanks to Strength. I want that plate bell as quickly as I can get it.

Name.....

Address.....

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

Test Your Strength on Your Friends

(Continued from page 39)

sides and forward. It will be difficult for anyone except a very strong man to retain a double Nelson hold if this break is strongly applied.

"Turn about is fair play," so if you have been the one who has been breaking or trying to break this hold, now try and see if you can hold the other fellow. Here's where I'll tell you a little trick which is after all a fundamental principle in wrestling. When you apply the hold don't keep your hands on your partner's neck, but take advantage of every bit of leverage you can get. So put your hands high up on the back of his head and place one hand over the other, not fingers intertwined, as you often see done. Now put all the pressure you can on your partner's head and his neck muscles will not so easily overcome your advantage of leverage, if at all. When a man hasn't a very strong neck it is unwise to apply this hold strongly even from a standing position. Only those with strong necks and arms should practice this contest.

Hand Wrestling

Various names have been given to this contest, but I am sure you will recognize it from its description, as it is quite familiar to most men and boys.

Clasp your partner's right hand and place your right foot forward against his; outside of feet together. (If you like toe to toe try it that way.) Take a firm standing position with legs well apart and carry the free arm either behind the back or freely as in fencing. The object of this test of skill and strength is to throw your opponent out of balance so he will be forced to move one or both of his feet. Sometimes he may be completely thrown on the floor. At the word "Go" you try pulling your partner forward or sidewise, even forcing him backward. Perhaps you will decide to hold him motionless but firmly for several moments, then suddenly jerk him one way or another. If this doesn't do the trick try a succession of strong pulls in all directions.

Pull Over the Line

Many persons have played this game without realizing how ancient the sport really is. I have heard that in the great banquet halls of the fierce Norsemen a more exciting variation of "Pull over the Line" was played. Two rival chieftains would each choose his strong man to represent his tribe or clan in the contest. A low burning fire glowed on the stone floor. A beast's skin was brought forth, and the two rivals grasped it. Then they walked to either side of the fire with the skin stretched between them over the fire. At a given signal each man tried to pull the other into the fire, which would of course force him to release his hold on the skin, while the victory went to the man retaining possession of it. After all, this is just an individual tug-of-war. You may play it

by making a line on the floor or ground and using a stick, rope or just the hands clasped to pull with. This will teach you to use your legs to advantage as well as your whole body. Vary this contest by marking a circle ten to twelve feet in diameter. Each man grasps his opponent's arm and shoulder and each tries to push or shove the other out of the ring. You will readily discover how these two contests bring into play different muscle groups.

The Stick Pull

Another old timer is the sitting Stick Pull. This was a famous contest among the New England farmers several generations ago. They generally used a hoe handle for the sport. Once a certain famous oarsman was looked upon as the undefeated champion in this event. He had a mighty pair of forearms and a grip like a steel vise. It is said that Ed Ten Eyke, then world's champion sculler, visited the club of which this giant was a member. Their comrades got them into a Pull the Stick contest. It was some fight, too! Ten Eyke was quite a young man and no one expected him to defeat his powerful adversary. But to the surprise of the spectators, slowly but surely Ed pulled the big fellow up and over while the muscles under his arms stood out like two great hams.

Just try the Stick Pull with a friend. Sit down facing each other with the knees drawn up part way. Put your feet squarely against your partner's and both of you take a well braced position. The stick should be grasped firmly and held directly over the feet to start. A fair grasp is for each to have one hand on the outside and one on the inside. At the word "Go" each man tries to pull the other over toward himself, to unseat him. If one man lets go his hold he loses that way. This is mostly a back test, but the arms and legs are also strongly brought into play.

Grip Tests

While you have the stick at hand try this one. Both men should be about the same height to make an even contest. Stand facing each other with the stick raised high over head between you. The hands should be dry so as not to slip too easily. Now bring the stick down slowly between you. Flex or bend the wrists forward if you can. The stick must turn or rotate one way or the other. The man with the best grip will force the stick to turn in the other fellow's hands and he is the winner.

Here's another one. Each man grasps the stick with one hand in the middle and the other hand at the end of the stick, palm up. Try to raise the end of the stick and turn it completely over. The stick must be a stout one and not too long.

Help for Hay Fever Sneezers

(Continued from page 66)

ping, visiting the dentist, etc. I am feeling so well, I am getting ready to go to Europe early in June."

More than two years have elapsed since those words were written. Nothing has happened to discount Mrs. Shenk's cure.

The latest theory of medicine as to the causes and cure of hay fever and asthma is labeled "Entry into the body of proteins."

There is this granule of truth in their theory—the putrefied protein from undigested food does gain "entry into the body" and helps induce an irritated mucous membrane, and the irritated mucous membrane will be sensitive to pollens and other atmospheric dust.

One hesitates to detail the procedure, for the reason that everything varies according to individual needs. In general, however, here is the outline:

Elimination comes first. The upper part of the alimentary tract is a digestive apparatus, and the lower part is the main sewer of the body. If the sufferer from hay fever or asthma could flush this sewer as might be done by placing a hose in the mouth and forcing water through the tract, thus washing out all the old acid mucous and putrid concretions, the blood would be able to rapidly cleanse itself by dumping into the sewer the acid poison with which it becomes saturated as it traverses the body. If this process could be repeated every six or eight hours, it would continually wash out these poisons poured into the sewer by the blood before they had time to be reabsorbed, and in a comparatively short time the flesh and blood would be cleansed. But since you cannot flush the alimentary canal this way from above downward, you must flush the colon as best you can by repeated enemas.

Too much emphasis cannot be given to the necessity of rest—physical, mental and physiological. Physical rest by staying in bed; mental rest by dismissing all worries; physiological rest—rest for the internal organs and the glandular system—through a proper regulation of the food intake.

A diet must be prescribed which will not prevent the continued elimination of the bodily poisons and which will also contain the necessary mineral salts.

The scum of the poisons of the body may be gotten rid of in from a week to ten days, just as you may quickly skim the cream off of milk, but according to the degree of toxic, acid poisoning existing in any particular body and the "come-back" which that body has, it will take from four to eight weeks to get the poison out of the marrow of the bones and to start life again with a clean body. When the body has become clean, the tongue will indicate it by being clean and clear of all coating, and have the healthful pink color to be seen on the tongue of a healthy baby.

Don't Struggle Blindly for Health!

Just Answer These Questions—and Learn the Truth About Yourself

- 1—What is your age? Height? Weight? Greatest weight at any time?
- 2—What is your particular ailment?
- 3—Please name specifically each food eaten on the average, in the past two years, for—
Breakfast
Mid-day Meal
Evening
- 4—Are you troubled with gas in the stomach? Heartburn? Headaches?
- 5—How often do your bowels move a day, usually? Married?
- 6—Is the coat on your tongue white, yellow, or brown? Have you bad breath?
- 7—Do you rest well at night? Tired in the morning?

Name
Address

(You assume absolutely no obligation in sending me your answer to these questions.)

TEAR OFF HERE AND MAIL TO: P. L. Clark, M. D., The Health School, 39 S. State St., Dept. C-577, Chicago

Mail Above Coupon, NOW!



P. L. Clark, M. D.

You will promptly receive, without cost, important advice based upon your particular personal needs. You will also learn of my great discovery—SANATOLOGY. After spending 31 years in the treatment of human ailments, I have discovered that, no matter how deep seated or chronic your disease may be, NATURE WILL RESTORE YOU TO HEALTH—provided you give nature a chance. BUT—you cannot give Nature the chance she demands by any one scheme or method or "fad," nor by drugs or "cure-alls." And it has been proven time and again that mere dieting, fasting, exercise, or so-called "elimination," cannot, when used alone, restore to health. The restoration

of health positively demands the scientific combination and co-operation of the SEVERAL essential methods of Sanatology.

I have no secrets. I do not ask for blind faith. I tell you what to do—and WHY. I appeal only to your common-sense and ask only that you judge by results.

Read below how the daughter of an ex-President was restored to health by my methods, after being repeatedly told by the best New York Specialists she could employ, that she could never recover! Read the stories of other remarkable cures. Then write me a frank answer to my questions, and I will show you the only sure road to health.

An Ex-President's Daughter Is Restored to Health

DEAR DOCTOR CLARK:—It gives me great pleasure to say to you that since you taught me how to live my catarrhal trouble has all but disappeared and that my general health is better than it has been since I was a young girl. In fact I feel perfectly well and at least sixteen years younger than when I went to you for help and instruction in May. I never have colds any more. My gratitude to you for giving me back my health is more than I can ever express. Sincerely yours, (Name will be furnished on request.)

Hay Fever

DEAR DOCTOR CLARK: I have been a sufferer from Hay Fever for fifteen years or more, and from Asthma for the last eight years of my life. During this time I have taken both the serum treatment and medicine in an effort to gain freedom from Asthma, but neither did much good. Last August I was advised to consult Dr. P. L. Clark of Chicago, in regard to my affliction, which I did. I immediately began taking treatments and soon the Asthma and Hay Fever disappeared.—(Signed)

ETHEL SHATTUCK
DeKalb, Ill.

Goitre and Asthma

I was very low when Dr. Clark came to see me, and in fact I was not expecting to get relief anymore from anybody. Dr. Clark told me that I could be relieved and even get well. We had results from Dr. Clark's treatment the first week. On the sixth day of the treatment the asthmatic paroxysms left me, but I still had heaviness for two months. Little by little I began to sleep, so that now I am getting from eight to nine hours sleep every night. Under Dr. Clark's treatment I reduced my weight from two hundred and five pounds to one hundred and forty pounds. My goitre is gone, my asthma is gone. Dr. Clark says that I will recover completely if I will keep up the right way of living. And I certainly will. My physicians told me that my asthma would come back to me in March, but they were certainly poor prophets, as March passed and also April, without any sign of it. In fact, I am feeling so well, that I am getting ready to go to Europe the first week in June. It is to me simply a miracle, and all thanks to Dr. Clark. Our gratefulness and indebtedness to him will never end.

MRS. M. SHENK, Chicago, Ill.

Diabetes

DEAR DR. CLARK:—If everyone who suffers with diabetes could only read and believe in this letter, it would save them all the trouble I have been through before I found your treatment. For three years I went to doctors of every kind. Some of them cured me temporarily, but as soon as the sugar was removed from the urine, they would all say: "Now you are all right, Mrs. Kriessman, just eat anything you want." And then right away it would come back. Well, in four weeks I was cured of the diabetes entirely and I now know how to keep well. I have no more fear now that as soon as I have finished treating with you that the sugar will return. Because I have learned the foods to eat to keep me well, and the cause of all the trouble.

MRS. RACHEL KRIESSMAN.

THE HEALTH SCHOOL, 39 So. State St., Dept. C-577, Chicago, Ill.

STAMMER

If you stammer attend no Institute till you get my large FREE book entitled "STAMMERING, Its Origin and the Advanced Natural Method of Treatment." Ask for special tuition rate and a FREE copy of "The Natural Speech Magazine." Largest and best school for stammers in the world. Write today, Millard Institute of Normal Speech, 2377 Millard Bldg., Milwaukee, Wis.

PIMPLY SKIN made WELL

When a few applications of this wonder-working lotion has cleared faces of pimples, blackheads, acne eruptions on the face or body, barber's itch, eczema, enlarged pores, oily or shiny skin, you can realize why CLEAR-TONE has been tested and approved in over 100,000 Test Cases. The simplicity of the treatment, and The Story of How I Cured Myself are all explained in my free booklet, "A Clear-Tone Skin." Write for your copy today and learn of the results gotten by thousands of men and women.



E. S. GIVENS, 206 Chemical Bldg., Kansas City, Mo.

Be Healthy and Strong

THRU THE MARVELOUS SCIENCE OF "ABDOMINAL CONTROL"

YOU CAN OVERCOME: Constipation, nervousness, indigestion, stomach disorders, flat chest, headaches, fatty tissue, insomnia, thinness, loss of vitality, tired feeling, round shoulders, weak back, vital depletion, fear, bad habits, colds, shortwindness.

DEVELOP: Great strength, perfect health, inexhaustible pep, beautifully proportioned body, manly power, mental keenness, vitality, endurance. BE A REAL MAN! I'll make one of you.

FOR POSITIVELY THE LAST TIME I am going to give absolutely free with each copy of "Abdominal Control" a regular \$1.00 book, entitled "Mucusless Diet," by Prof. Arnold Ehret, which contains the truth about human nourishment, and conquest of gluttony, a superior diet for health and economy, and very valuable information that will serve you well every day of your life.

DO NOT DELAY in sending for your copy of "Abdominal Control." It is fully illustrated and shows you how to accomplish all of the above. Nothing like it has ever been published. Anyone who wants to be healthy, strong and well built should write at once for a copy. Sent immediately for \$2.00, all charges prepaid. And a free copy of Dr. Ehret's book, "Mucusless Diet," if you act quickly.

JOHN M. HERNIC, Dept. 902
73 W. 49th St., N.Y.C.



Swear Off Tobacco

TOBACCO



Shatters Nerves



Hurts Digestion



Stunts Growth



Robs Man of Vitality



Denies Your Pleasures and Luxuries

Tobacco Habit Banished Let Us Help You—Quick Results

It doesn't make a particle of difference whether you have been a user of tobacco for a single month or for fifty years, or how much you use, or in what form you use it—cigars, cigarettes, pipe, chewing of plug or fine cut, or using of snuff—Tobacco Redeemer will positively remove all of your tobacco craving in a very few days. Your desire for tobacco will usually begin to decrease after the very first dose—there is no long waiting for results.

Not a Substitute

Tobacco Redeemer is a radical, efficient treatment. It is marvelously quick, scientific and thoroughly reliable. It contains no habit-forming drugs of any kind. After finishing the treatment you have absolutely no desire to use tobacco again or continue the use of the remedy. It helps to quiet the nerves and will make you feel better in every way. If you really want to quit the use of tobacco, here is your chance. It will so completely rid you of the habit that when you see others using it, it will not awaken the slightest desire in you to begin its use again.

Results Absolutely Guaranteed

A single trial will convince the most skeptical. Our legal, binding, money-back guarantee goes with each full treatment. If Tobacco Redeemer fails to banish the tobacco habit when taken according to the plain and easy directions, your money will be cheerfully refunded on demand.

Let Us Send You Convincing Proof

Mail the coupon below or send your name and address on a postal and receive our Free Booklet on the deadly effect of tobacco on the human system and positive proof that Tobacco Redeemer will quickly free you from the habit. If you are a slave of the tobacco habit you know that it is undermining your health and is a needless drain upon your pocketbook. Therefore you owe it to yourself and to your family to find out how easily, quickly and surely you can "quit for keeps" with the aid of Tobacco Redeemer. Mail the coupon or write us immediately. Don't delay. Send today!



**Newell
Pharmaceutical Co.**
Dept. 974
St. Louis, Mo.

NEWELL PHARMACAL COMPANY,
Dept. 974 St. Louis, Mo.

Send, without obligation to me in any way, proof that Tobacco Redeemer will positively free me from the tobacco habit or my money will be refunded.

Name.....
Street and No.....
Town..... State.....

You Can't Fail!

How can you fail when you do the right thing at the right time?
When you change the chemistry of your body to what it ought to be, you will start to think efficiently, and when you do this you will naturally get the same.

Commonsense Eating

will prove to you within 30 days that the secret of happiness, health and riches is a question of body chemistry. You know that you cannot dilute the gasoline that you put in your car. Why then will you expect to get results from your body when you ignore the quality of the "gas" you give it? Start now to raise your average so that you will enjoy life as you go along and, finally, toward the end you will have a sturdy old age.

Build Your Foundation Well!

A chain is no stronger than its weakest link. A building is no more substantial than its foundation. So it is with man.

Dr. McFerrin's Diet List

will show you how to obtain that splendid condition, mentally and physically, that you have always admired in the other fellow. If you think this question of living is really worth while, order this list now! You will start to count time from now on. It will mean the turning point in your career! Send for Questionnaire today, so that Dr. McFerrin may study your case.

Write Dr. Chas. B. McFerrin, Diet Expert,
(Editor McFerrin's Health Bulletin),
1313 Capitol Bldg., Chicago, Ill.

BE A RAPID-FIRE TRICK CARTOONIST
\$1
RUYS COMPLETE COURSE, including 40 Clever Cartoon Stunts, "How to Give a Performance," "How to Originate Ideas," "Samples Etc.," Modern Cartoon Service, Dept. D., 526 Bergen St., Brooklyn, N. Y.

Stop Using a Truss



STUART'S PLAPAO-PADS are different from the truss, being mechanic-chemical applicators made self-adhesive purposely to hold the distended muscles securely in place. No straps, buckles or spring attached—cannot slip, so cannot chafe or press against the public bone. Thousands have successfully treated themselves at home without hindrance from work—most obstinate cases conquered. Soft as velvet—easy to apply—inexpensive. Awarded Gold Medal and Grand Prix. Process of recovery is natural, so afterwards no further use for trusses. We prove it by sending **FREE** Trial of Plapao absolutely. Write name on Coupon and send **TODAY.**

Plapao Co., 610 Stuart Bldg., St. Louis, Mo.
Name.....
Address.....
Return mail will bring Free Trial Plapao.

The Mat

(Continued from page 68)

with which I am connected issues a measurement blank for the use of prospective pupils, and in order to get a line on those pupils' strength, we ask them to state how often they can chin the bar, and how often they can do the dip on the parallels. Practically every pupil who enrolls answers the first question in full, but when it comes to the second question, the vast majority of them say, "I do not know; I never tried it," and then they go on to say, "but I can do the 'floor dip' or 'push-up' so many times in succession." One of the two exercises is just as important as the other for developing purposes, but the first is practiced almost universally and the second but rarely. I suppose that, also, is an inheritance from our tree-dwelling forebears. In climbing a tree, a monkey or an ape needs to grasp but one branch in order to pull his body from below upwards, and I suppose it rarely happened that a tree dweller would take hold of two parallel branches (if he could find them) and pump his body up and down, the way a gymnast does on the parallels.

Can any one of you tell me the record for chinning the bar with two hands? I have a dim recollection that some gymnast did it one hundred times in succession, and I am quite sure that Prof. Cummings, at one time instructor of gymnastics at Swarthmore College, made a record of eighty successive chins. Perhaps some of you have done it oftener than this.

If I am to judge by the information given on the measurement blanks above referred to, I would say that the average strong young man can chin the bar anywhere from fifteen to thirty times in succession, according to his bodily weight. When I examine these blanks, almost the first thing I look for is the chinning record, and if it is as low as four or five repetitions, I then look to see how old the applicant is, and how much he weighs, because if a man can not chin more than five times he is either unusually weak, very heavy, or above the average age. Occasionally, I get a blank on which after the question "How many times can you chin the bar" are the words "none at all"; but this does not happen in one per cent of the cases. On the other hand, I am quite sure it has been several months since I saw the statement that an applicant could chin forty times in succession.

Continued practice of chinning the bar will give you great strength in the biceps muscles, some of the forearm muscles, and many of the muscles on the upper part of the back. It is an excellent all-round upper body exercise, and can be safely attempted by any male who is in even fair physical condition. In the public school "gyms" and in the playgrounds the instructors even urge the smallest kids to try it, so there can be nothing dangerous about it.

If any of you are extra good at this work, I wish you would be kind enough to send me your records. One day try to make a record with the hands in the usual position; that is, with the palms towards you. The next day try for a record with the hands in the reverse position; that is, with the palms away from you, and then, if possible, on the third day try to make a record on a pair of rings, holding the hands so that the palms are toward each other. This will give me a lot of valuable information about the strength which can be exerted in the three different hand positions. After each chin, lower yourself until the arms are almost straight. (The record would not count if you lowered yourself only part way.) Also, be sure and tell me how much you weigh, as then I will be able to compile a set of records for men of different weight classes. I do not want to discourage any of you, but if your record in chinning, with the palms toward you, is less than twenty times in succession, don't bother to send it in, because it would not be worth considering. I want to hear from the good ones.

What Makes for Speed Pitching
Columbus, Ohio.

Editor of "The Mat."
Dear Sir:

In the May issue of STRENGTH I noted an article by yourself where you discuss the maximum development of a muscle, in all its parts. The article was very interesting to me, and showed me your great knowledge of the muscular system, about which I wish to ask some advice.

Last July I purchased a bar-bell from the Milo Co., and against the advice of friends have used it. Being a baseball pitcher, I was told I would become muscle-bound and stiff, and thereby ruined. I decided to take a chance, and I find that I have improved at least ten to fifteen per cent. in my "stuff on the ball" all in a few short months, and am not muscle-bound either. Now, this is perhaps not so much, but it is encouraging, and if I can add just as much again it may put me in position to take a chance at the major leagues.

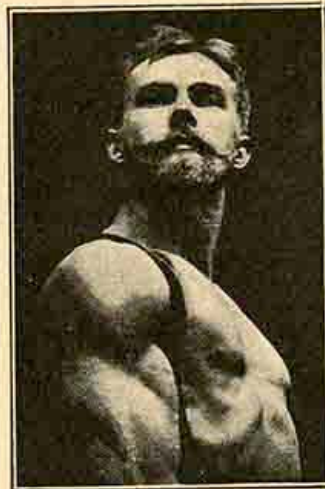
My point is, what is your experience as to what particular muscles are used in a pitcher's delivery, meaning those exclusive of waist-line, in the "follow through?" Also, what type of exercise for arm, shoulder, etc., would you advise me to follow in order to get my maximum speed and force in my delivery? If you would advise me on this question, I would feel very grateful to you, and would try hard to follow your advice.

W. E. C.

I am publishing this letter because it fits in very well with the foregoing discussion of chinning the bar. It happens that the muscles used in chinning are the same that you use in throwing a ball. At first glance it would seem that since the arm is straightened as a ball is thrown, that the work would be done by the triceps muscle on the back of the upper arm, and which straightens the arm; whereas the truth is that the biceps muscle, which bends the arm, has more to do in the act of throwing than does the triceps. That is because the biceps works in conjunction with the latissimus dorsi muscle on the broad of the back, and it is

**Treble Your Strength
Improve Your Health
and Lengthen Your Life**

THE SUCCESS OF YOUR LIFE depends upon YOUR HEALTH and STRENGTH.



Adrian P. Schmidt

The Nerve Centres in your Backbone supply the Energy for the Functions of Life.

The Strength Condition of your Back and Legs makes you feel tired — or — strong and powerful.

The strength of your Back and Legs should be from 8 to 12 times your own body weight — the combined strength of your Arms and Torso (Shoulders, Chest, Abdomen and Back) should be equal to from 3 to 5 times the weight of your body.

I GUARANTEE that with my Course of Lessons and my Automatic Strength and Developing Machine you can DOUBLE the strength and power of your Back and Legs in 30 days. This may seem impossible — but it is a proven fact. Many of my pupils have Trebled and even Quadrupled their strength in 60 days.

My machine measures the strength of every part of the body in pounds. It is the only Progressive Automatic Weight Changing and Increasing machine in existence. Supplies weights from 12 lbs. to 2,000 lbs. or more.

A Few Examples of SUPER STRENGTH Developed with my System and Machine.

- Harness Lift, with Back and Legs 2,450 lbs. **Dr. R. Beckman.**
- Two-Hand Bar Lift..... 800 lbs. **Capt. G. E. Littman.**
- One-Hand Grip Lift..... 410 lbs. **Mr. Wesley Williams.**
- Two-Hand Bicep Lift..... 280 lbs. **Mr. A. Hromatka.**

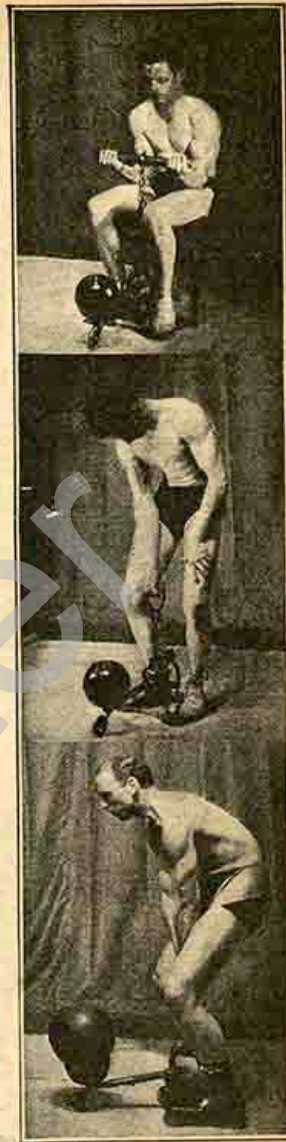
If you want to know the simplest and quickest way to build yourself up and develop real lasting strength — Strength which means Robust Health — which vitalizes every inch of your body — the Strength which produces a sense of ease, comfort and power — a feeling that all the money in the world cannot buy for you, send for my illustrated booklet,

Life's Backbone

which gives a full description of the Automatic Exercise, how it works, what it will do, etc. Don't invest in any course or apparatus before you have read my booklet. I will send it on receipt of 4c postage.

ADRIAN P. SCHMIDT

Suite 306-A, 1947 Broadway, New York City.



EARN MONEY AT HOME

YOU can earn \$1 to \$2 an hour in your spare time writing show cards. No canvassing or soliciting. We instruct you by our new simple Directograph System, supply you with work and pay you cash each week. Write today for full particulars and free booklet. WEST-ANGUS SHOW CARD SERVICE LIMITED Authorized Capital \$1,250,000.00 238 Colborne Building, Toronto, Can.

You too can make \$125⁰⁰ a week



"I had no experience in selling before going with GOODWEAR. Now I make \$125 a week regularly. I believe that any man who'll work can do the same and would advise every man who wants a fine paying job to write to GOODWEAR."
Peter Birdakis

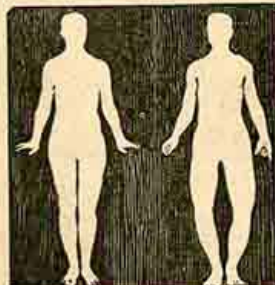
To earnest men everywhere we offer a wonderful opportunity taking orders for our fine, pure wool suits and overcoats, regular \$55 values, all at the one low price of \$31.75. Our values are so remarkable they sell on sight. You get your commissions in advance, simply take the orders, and we deliver and collect. Our salesmen are making \$50 to \$125 a week and even more.

No experience is needed and spare time will do. We teach and train you, supply the finest selling outfit in America, big 6x9 cloth samples and everything else you need, all packed in a beautiful carrying case. If you want to get into a high-class business, make big money, and be independent, write for full information today. Address Dept. 149

GOODWEAR Chicago, Inc.
West Adams St. at Peoria Chicago

Please send me complete information about your Line and the opportunity you offer. 149

Name.....
Address.....
Town..... State.....



PERSONAL Appearance

is how more than ever the key-note of success. Bow-Legged & Knock-Kneed men and women, both young and old, will be glad to hear that I have now ready for market my new appliance, which will successfully straighten, within a short time, bow-leggedness and knock-kneed legs, safely, quickly and permanently, without pain, operation or discomfort. Will not interfere with your daily work, being worn at night. My new "Limb-Straitner," Model 18, U. S. Patent, is easy to adjust; its result will save you soon from further humiliation, and improve your personal appearance 100 per cent. Write today for my free copyrighted physiological and anatomical book which tells you how to correct bow and knock-kneed legs without any obligation on your part. Enclose a dime for postage. M. TRILETY, SPECIALIST 895L, Ackerman Building, BINGHAMTON, N. Y.

A Business Opportunity

exists for the man who wishes to be his own boss and the owner of a permanent, ever-expanding, profitable merchandising service. It may start with \$100 capital, or \$10,000, but it cannot start without capital. The degree of success has no reasonable limit. It has attracted to it and has today engaged in it, men who are conspicuous successes and of long and wide experience in merchandising, with capital abundant for all their requirements; and the other extreme of men and women with limited business experience and qualifications, and very small capital.

No man is too big for the business. Men of strong professional standing with splendid incomes have given up these incomes and their professional work to engage in this service, with success.

The business is merchandising, but it entails a service that is unique, intensely interesting—productive of great enthusiasm, and broadly constructive. It makes you the greatest benefactor in your community, town, city, or district, and pays you a real profit for such benefaction.

Service is the foundation of all real success, and this service literally enables you to take time from eternity and put it into the life of man, and make legitimate profits in doing so.

Address Manufacturer,
care Motive Publishing House,
1902 Sunnyside Ave., Chicago, Ill.

(The above is not merchandising books
or magazines)

For Health and Strength

EAT

The Foods that go to build Health and Strength

Dr. Chas. B. McFerrin, Diet and Health Expert,
Editor of McFerrin's Health Bulletin, Author and
Lecturer, says:

"Fruit Sugar is assimilated almost immediately with no tax on the digestive system. That is just the reason that I never leave home without a box of Porter's Tru-food candy in my traveling bag. Two or three or at the most, four of these delicious candy bars, which are absolutely free from refined sugar, furnishes me with a complete meal. I have not found it necessary to eat in restaurants or diners with this complete food, Porter's Natur-Sweets, always so near at hand.

"Every school cafeteria should serve nothing but Porter's Natur-Sweets, eliminating the other catarrh-forming candies.

"Every workman's dinner pail should contain Porter's Natur-Sweets.

"Every dessert at home should contain Porter's Natur-Sweets."

A big 11-pound assorted box postpaid, anywhere in the United States, for only \$1.00. Money back if not satisfactory.

AGENTS WANTED. All or part time. Big profits. Write for Proposition.

PORTER'S TRUFOODS, INC.
159 No. State St., Dept. 15, Chicago, Ill.

You Can Have

STRONG SHAPELY LEGS

Are your legs skinny, too fat, or weak, and are you troubled with sciatica, rheumatic pains in the legs? Do you get tired when you walk upstairs? Do your legs get a cramp or become numb at times? The instructions in my book, "Strong Shapely Legs," will give you a strong pair of legs. Thick ankles, weak ankles, flat feet and other bad physical defects in the legs will be improved. The results are quick and permanent.

Every man and woman can have strong shapely legs.

Price 25c in coin postpaid.

PROF. A. BARKER, D. C.
Dept. 135,
865 Sixth Ave., New York City



TOBACCO HABIT

MAKE IT QUIT YOU

Not only is tobacco filthy and disgusting to your loved ones, but it contains a Deadly Poison which weakens heart, stomach, lowers vitality and invites diseases that may shorten your life. STOP! Regain Vigor, but don't shock your system by trying to quit unaided.

EASY TO QUIT

It makes no difference how long you have used tobacco, whether cigarettes, pipe, chewing or snuff. His-O-Time (Wonderful Eucalyptus treatment in new tablet form conquering thousands of worst cases) will free you from the craving quickly and for good. No more desire for tobacco. Harmless. Guaranteed. STOP! Postpaid. Small sum if cured. Not a cent if it fails. Sent On Trial

Write today for full remedy on trial.
PERKINS CHEMICAL CO., Dept. 63, Hastings, Nebr.

that muscle which pulls the arm downward at the finish of a throw.

In his article about speed pitching in the July issue of STRENGTH, Mr. Von Ziekursch said that the late "Rube" Waddell had as much speed as Walter Johnson. They used to say that Waddell could throw a ball so hard that when he stood fifty-five feet from a board fence he could crack a board in the fence. I believe he did this on more than one occasion, but I doubt whether the boards were more than one inch thick. Waddell was a curious individual, and one of the kind who would try anything once. On one occasion he visited an athletic field, and was induced to try putting the 16-pound shot. After several desperate attempts, he managed to make a "put" of 27 feet, which was miserable for a man of his size and no better than the average prep-school boy can do. In putting the shot, the deltoid muscle and the triceps muscle are the ones which push the hand out straight from the shoulder, and it is evident that Waddell had very little strength in those muscles. He was tall, rangy, and long-armed, and many of the speed pitchers are of that type of build.

Chinning the bar and rope climbing are much better training for the pitching muscles than are "floor dipping" or parallel bar work. In this department a few months ago I endeavored to explain how the big muscle on the broad of the back did a large part of the work when a man chinned the bar with one arm. It does just as much work in throwing a ball. Most of the speed pitchers use the over-hand delivery. They stand on the right foot, and lean backwards as they start, and then bring the arm around in a sweeping over-head curve, and as they do this, they shift their weight on to the left leg, and finish up with a body twist as the throwing arm comes down and across the front of the body.

If you happen to be out of training, and attempt to throw a baseball as far as you can, it is likely that you would use that same over-hand motion, and that after you finished the throw you would feel a sharp pain along the lower edge of the shoulder blade.

If you wish to get the ability to throw a ball a great distance, or to pitch with enormous speed, you must spend more time in developing the muscles on the point of the shoulder and across the broad of the back than in training the muscles of the upper arm, because it is the shoulder and back muscles which move the whole arm. Mr. W. E. C., who uses a bar-bell, can train those muscles by practicing the one-arm variation of the "pull-over," lying on the back, and bringing the weight from back of the head, up and over. Those of you who have no bar-bell to practice with can practice chinning the bar or rope climbing; or better still, if you have the chance, do some daily work at hauling up a hand-power freight elevator. There is one exercise with light dumb-bells which is an excellent one to train the muscles used in side arm pitching. In this exercise you take a 5-pound weight in

each hand, stand erect with the bells held out straight in front of you at the height of the shoulders. Keep your arms stiff and straight, and swing the dumb-bells as far as you can to the right, as in Figure "A," and then as far as you can to the left. The arms must be straight at all times, and must travel parallel to each other, and you must never let the hands which hold the dumb-bells drop below the level of the shoulders. Swing the bells from side to side vigorously, but not too violently, and repeat until you are no longer able to keep the bells at the level of the shoulders. After a moment's rest, go through the motions in pitching a ball or striking a blow, and you will be amazed to find how much energy you can put into the motion. In doing this exercise, the body should be held rigid, and should not be allowed to twist at the waist, because this exercise is intended to bring into play only the muscles which actuate the arms.

Here is another exercise which develops the muscles which rotate the trunk, and which will help you master the body swing, and give you the "follow through" at the end of the pitching motion which puts so much speed on the ball. You do not use any dumb-bells in this exercise. Stand erect with the arms held out horizontally at the sides. Now, keep the arms in one line and twist your upper body first to the right and then to the left. The accompanying picture shows the full twist, and you should note that the hips have not moved, that the arms are still in a line with each other, and that the shoulders are exactly at right angles to the hips. If you keep the body rigid, and swing only the arms, the exercise is no good whatever; neither is the exercise of any value if you allow the hips to twist as the shoulders are twisting. The best way to learn this exercise is to take a curtain pole or a light stick, and lay it across the shoulders with the hands resting as shown in Figure "B." Then, when you swing the arms, and twist the body, the shoulders have to move in unison with the arms. After you have mastered the principle, you can discard the stick. The whole object of the exercise is to develop the muscles which rotate the trunk on its own axis.

You cannot get great speed just by training the muscles of the shoulder, back, and waist, although such training will help. In order to get unusual speed on the ball, you have to use as many muscles as you possibly can, and in addition to that, you must learn to use your bodily weight. Strong legs are quite necessary. The stronger your legs and hips are, the more speed you will be able to put on the ball. A one-legged French soldier said, "Before my leg was cut off, I could deliver a terrific blow with my right hand." Naturally, a one-legged man could not hit a hard blow without overbalancing himself, and a one-legged man cannot throw a ball with any speed. When a skillful prize fighter puts all his power in a punch, he hits all the way from his heels. A fast-

ball pitcher would not think of keeping his body and legs in one position as he delivered the ball. If you do not believe it, try it for yourself. Stand erect in the pitcher's box facing the plate, keep your body and legs rigid, throw the ball just by moving the arm, and it will travel so slow that any one could hit it. Then, if you get the chance, watch a professional pitcher, who is noted for his speed, and notice how he takes advantage of a body swing.

Never be so proud of the strength of your arm that you disdain to call your other muscles to its assistance. You may have the greatest throwing arm there is, but if you depend on it alone, you will be outdone both in speed and distance throwing by many other ball players who have a cultivated pitching motion, or a throwing motion which calls the aid of the back and leg muscles to reinforce the strength of the arm.

When Matthewson, as a young man, first joined the New York team, he depended largely on his arm strength. Another pitcher on that team was the famous "Iron Man" McGinity, who, time and again, in the course of the season would pitch two winning games in one afternoon. His endurance was proverbial. After watching Matthewson working a few days, McGinity called him aside, and told him that unless he changed his style he would soon wear out his arm. Matthewson, who was willing to listen to advice, allowed McGinity to coach him in the proper use of the body swing. Consequently, he lasted for years. He had tremendous speed, but never used it unless he had to, and as the years went by he became known as an authority on the economy of bodily energy.

Here is a thing which I have never fully understood. At first glance it seems that the man who can throw a ball fastest should be able to throw it furthest. Some of my friends tell me that this is not so; that there are pitchers who have blinding speed, but who cannot make a distance throw of 300 feet; and that on the contrary there are outfielders who can throw a ball 330 feet, but who cannot show much speed when they attempt to pitch a ball across the plate. I know there is some difference in the style used in pitching and in distance throwing, but I can recall at least one man who was a star at both styles. Old Hans Wagner could throw a ball as far as any player of his time. Once, when he was with the Pittsburgh team, all the regular pitchers were temporarily out of commission. They put Wagner in the box and he held the other team helpless. The opposing players said that they had never seen such speed. So here is one man who could throw both fast and far. Some of you who read this department must be ball players, and I would like you to tell me whether there is any truth in the statement that speed pitchers are not always distance throwers, and vice versa. I am anxious to know why.

—A. C.

DOUBLE YOUR STRENGTH

THE ONE way to increase your strength is by muscle resistance—by pitting your available strength against the force of gravity. It is Nature's own way. As a demand is made by the muscles for more strength, new cells are added to the muscle fibres.

The Strength-Maker is interchangeable from a long bar bell to a short bar bell or to two kettle bells, as shown in the illustration. It can be made light enough to be handled with ease by the most delicate individual or can be loaded heavily enough to stagger the huskiest athlete. The weight can be adjusted up to 210 pounds.



INCREASE YOUR WEIGHT

With each outfit you receive a complete home course, so that you can double your strength and develop all parts of your body to perfect proportions.

OVER 50% OFF

To advertise my latest model, this month I am offering my "New Strength-Maker" bar bell outfit at more than 50% less than its list price. The regular price is \$35, but if you send in this order quickly, you will be able to secure the outfit for only \$17.00. This represents a clear saving of \$18.00, a chance you may never get again.



PROF. ANTHONY BARKER, D. C.
865 Sixth Avenue Studio A-4 New York City



TOBACCO

Habit Cured or No Pay

Any form, cigars, cigarettes, pipe, chewing or snuff Guaranteed. Harmless. Complete treatment sent on trial. Costs \$1.00 if it cures. Nothing if it fails. SUPERBA CO. L-18 BALTIMORE, MD.

HOW TO STAY YOUNG

Newly Discovered Laws of Human Life
Conserve Your Vitality, Vim, Vigor
If you are beginning to lose your Vitality and often experience a tired feeling YOU NEED THIS BOOK. Every new reader says: IT BEATS ALL. Particulars FREE. LIBERTY PUB. CO., Sta. D, Box 4062, Cleveland, O.

PIMPLES

CAN BE CURED. If you suffer from pimples, acne, blackheads, brown spots or eruptions I want to send you my simple home treatment under plain wrapper. It gave me a soft, velvety, smooth and radiant complexion, and cured thousands of men and women, after everything else failed. Simply send name for generous 10-day free trial offer of my secret home treatment. W. H. WARREN, 556 Gray Bldg., Kansas City, Mo.

How Would You Like To Grow Hair in a Month?

Getting bald, hair falling and fading? If you want to grow new healthy hair right away I will send you absolutely free a sample of the famous Alexander Glandhair. No cost, no obligation. Just send name to ALEXANDER LABORATORIES, 5156 Gateway Station, Kansas City, Mo.

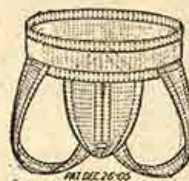
WANTED

RAILWAY MAIL CLERKS

\$1600 to \$2300 a Year
MEN—BOYS 18 OR OVER SHOULD WRITE IMMEDIATELY

Steady Work. No Layoffs. Paid Vacations
Travel on Pass—See Your Country
Common Education Sufficient
Mail coupon today—SURE

MIZPAH JOCK No. 44



Gives you a feeling of real comfort and the assurance of perfect protection while exercising or playing games of any kind. All elastic. Perfect fit. Will not chafe. Perfect pouch. Patented opening in front. May be boiled to cleanse.

TWO WEEKS' TRIAL If not satisfactory return and money will be refunded. Mailed on receipt of price, \$1.00. State waist measurement.

THE WALTER F. WARE COMPANY, Dept. J
1036 Spring Street (above Race) Philadelphia
For sale also at Sporting Goods and Drug Stores

Joy—STOMACH for SUFFERERS

I positively guarantee Macerated Wheat to relieve the worst cases of stomach trouble and banish constipation or it costs you nothing. Soothing to a weak stomach as a poultice to inflammation. Stays down and nourishes. Testimonials without number. My reputation of 25 years backs my guarantee. Write for proof. BYRON TYLER
130 GIBLARTAR BLDG. KANSAS CITY, MO.

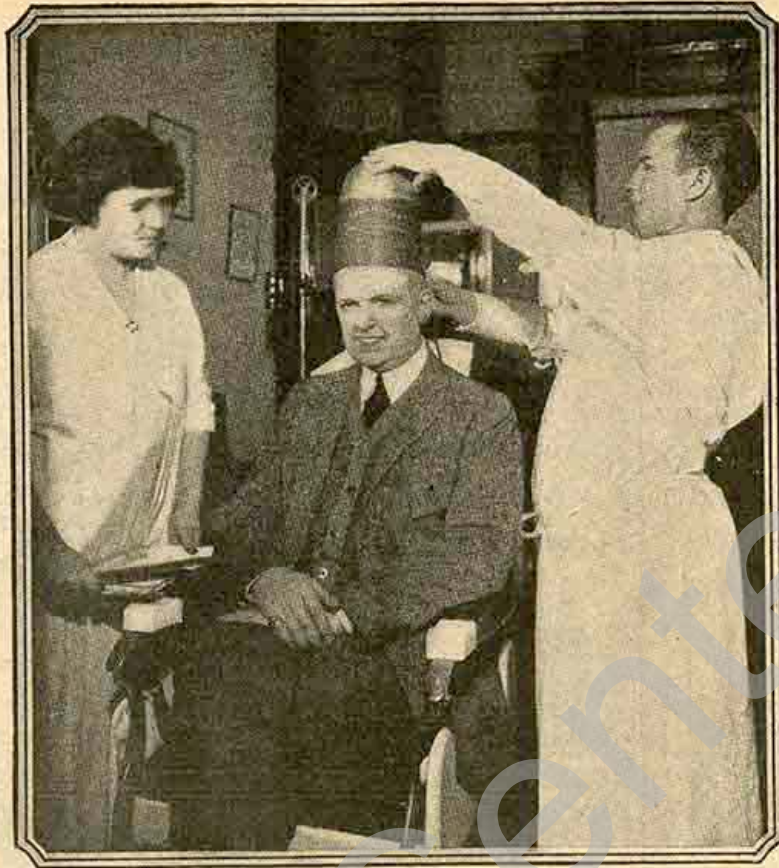
Wrestling Book FREE

Learn to be an expert wrestler. Know scientific wrestling, self-defense, and jiu-jitsu. Develop a splendid physique, and have perfect health. Join this popular school and learn by mail. The famous world's champions—the marceus
Frank Gotch and Farmer Burns offer you a wonderful opportunity. Wrestling is easily and quickly learned at home by mail. Men and boys write now for splendid free book. Learn all the science and tricks. Be able to handle big men with ease. Accept this wonderful offer NOW. Send for free book today, stating your age.
Farmer Burns School of Wrestling, C-345 Range Bldg., Omaha, Neb.



FRANKLIN INSTITUTE, Dept. M-183, ROCHESTER, N. Y.
Sirs: Send me without charge, (1) Sample Railway Mail Clerk Examination questions; (2) List of Government jobs obtainable; (3) Tell me how I can get a position.

Name.....
Address.....



Baldness Now Treated at Home!

No matter how thin your hair may be, this remarkable new scientific invention—now adapted for home use—is absolutely guaranteed to give you a new growth of hair in 30 days—or it costs you nothing

By ALOIS MERKE

Founder of Famous Merke Institute, Fifth Avenue, New York

A NEW invention—the result of many years' experience gained in treating baldness, is pictured above. It is an actual photograph taken at the Merke Institute, Fifth Avenue, New York, which I founded. Here stage and social celebrities have paid as high as \$500 for the results secured through personal treatments. Yet now, through my new invention, these results may be secured in any home where there is electricity—for just a few cents a day.

My invention is in the form of a new kind of hat. It is worn on the head just ten minutes a day. No unnecessary fuss of any kind. Just wear the hat ten minutes every day for a month. I don't care how thin your hair is or how many treatments you've tried without results. Unless my discovery actually produces a new growth of hair on your head in thirty days, there will be no charge whatsoever for the treatment.

How It Works

My invention proves that in a big percentage of hair troubles the hair roots are NOT dead but merely dormant! The reason ordinary measures fail to restore hair is because they merely treat the surface skin. My invention gets right at the CAUSE of most hair troubles—the starving dormant roots, and provides an efficient way of stimulating and giving them the nourishment they need to grow hair again.

I realize that my treatment will not grow hair for everybody. There are some extreme cases of baldness that nothing in the world can help. But give my new invention a fair

trial—wear it ten minutes every day for a month and if you are not more than delighted with the growth of hair produced you will not be out a cent.

Free Booklet Tells All

So many men and women who had long ago given up hope report that they have regained their hair through my treatment, that if you are at all bald, or if your hair shows signs of falling, be sure and fill in and mail the coupon below and I will gladly send you an interesting thirty-two page free Booklet, "The New Way To Make Hair Grow," describing my new invention in detail. This booklet contains much helpful information on the care of the hair—and shows what my treatment is doing for thousands of others.

Mail the coupon now and the booklet will be sent you by return mail. **Allied Merke Institutes, Inc., Dept. 558, 512 Fifth Avenue, New York City.**

Allied Merke Institutes, Inc.,
Dept. 558, 512 Fifth Avenue, New York City

Please send me, without cost or obligation on my part, a copy of the new booklet, "The New Way To Make Hair Grow," describing in full detail the Merke Institute Home Treatment.

Name.....
(State whether Mr., Mrs. or Miss)

Address.....

City.....

State.....