

J. E. GREENSLADE
President National Salesmen's Training
Association



JACK WARD
Chicago

"I didn't want to work for small pay. Easily proved Mr. Greenslade was right. Made \$13,500 last year—over \$1,000 every month."



WARREN HARTLE
Chicago

"After 10 years in the railway mail service I decided to make a change. Earned more than \$1,000 the first 30 days."



F. WYNN
Portland

"Last week my earnings amounted to \$554.37; this week will go over \$400, thanks to N. S. T. A. training."



GEO. W. KEARNS
Oklahoma

"From \$60 a month working on a ranch, to \$524 in two weeks, is the step I took after this training."

You're Fooling Yourself

-if You Think These Big Pay Records Are Due to LUCK!

But don't take my word for it! When I tell you that you can quickly increase your earning power; I'll PROVE IT! FREE! I'll show you hundreds of men like yourself who have done it. And I'll show you how you can do it, too.

I'll come directly to the point. First you'll say, "I could never do it! These men were lucky." But remember the men whose pictures are shown above are only four out of thousands and if you think it's luck that has suddenly raised thousands of men into the big pay class *you're fooling yourself!*

Easy to Double Salary

But let's get down to your own case. You want more money. You want the good things in life, a comfortable home of your own where you can entertain, a snappy car, membership in a good club, good clothes, advantages for your loved ones, travel and a place of importance in your community. All this can be yours. And I'll prove it to you, FREE.

First of all get this one thing right; such achievement is not luck—it's KNOWING HOW! And KNOWING HOW in a field in which your opportunities and rewards are ten times greater than in other work. In short, I'll prove that I can make you a Master Salesman—and you know the incomes good salesmen make.

Every one of the four men shown above was sure that he could never SELL! They thought Salesmen were "born" and not "made"! When I said, "Enter the Selling Field where chances in your favor are ten to one," they said it couldn't be done. But I proved to them that this Association could take any man—regardless of his station in life, regardless of his present job, or lack of selling experience—and in a short time make a MASTER SALESMAN of him—make

him capable of earning anywhere from \$5,000 to \$10,000 a year. And that's what I'm willing to prove to you, FREE.

Simple as A. B. C.

You may think my promise remarkable. Yet there is nothing remarkable about it. Salesmanship is governed by rules and laws. There are certain ways of saying and doing things, certain ways of approaching a prospect to get his undivided attention, certain ways to overcome objections, batter down prejudices and outwit competition.

Just as you learned the alphabet, so you can learn salesmanship. And through the NATIONAL DEMONSTRATION METHOD—an exclusive feature of the N. S. T. A. System of Salesmanship Training—you gain the equivalent of actual experience while studying.

Years of Selling Experience In a Few Weeks

The N. S. T. A. System of Salesmanship Training and Employment Service will enable you to quickly step into the ranks of successful salesmen—will give you a big advantage over those who lack this training. It will enable you to jump from small pay to a real man's income.

Remarkable Book, "Modern Salesmanship" Sent FREE

With my compliments I want to send you a most remarkable book, "Modern Salesmanship."

It will show you how you can easily

become a Master Salesman—a big money-maker—how the N. S. T. A. System of Salesmanship Training will give you years of selling experience in a few weeks; how our FREE Employment Service will help select and secure a good selling position when you are qualified and ready. And it will give you success stories of former routine workers who are now earning amazing salaries as salesmen. Mail the coupon today. In every man's life there is one big moment when he makes the decision that robs him of success—or leads him on to fortune. This may be your turning point. You may be face to face with your BIG opportunity. Your decision right now is important. Send the attached coupon at once and you will have made the first long stride toward success.

NATIONAL SALESMEN'S TRAINING ASSOCIATION

Dept. 21-W, N. S. T. A. Buildings,
1139 N. Dearborn, Chicago, Ill.

National Salesmen's Training Association,
Dept. 21-W, N. S. T. A. Buildings,
1139 N. Dearborn, Chicago, Ill.

Send me free your book, "Modern Salesmanship," and Proof that I can become a MASTER SALESMAN.

Name

Address

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

Age..... Occupation.....



Strength



DECEMBER, 1924

Vol. IX.

No. 10

CONTENTS

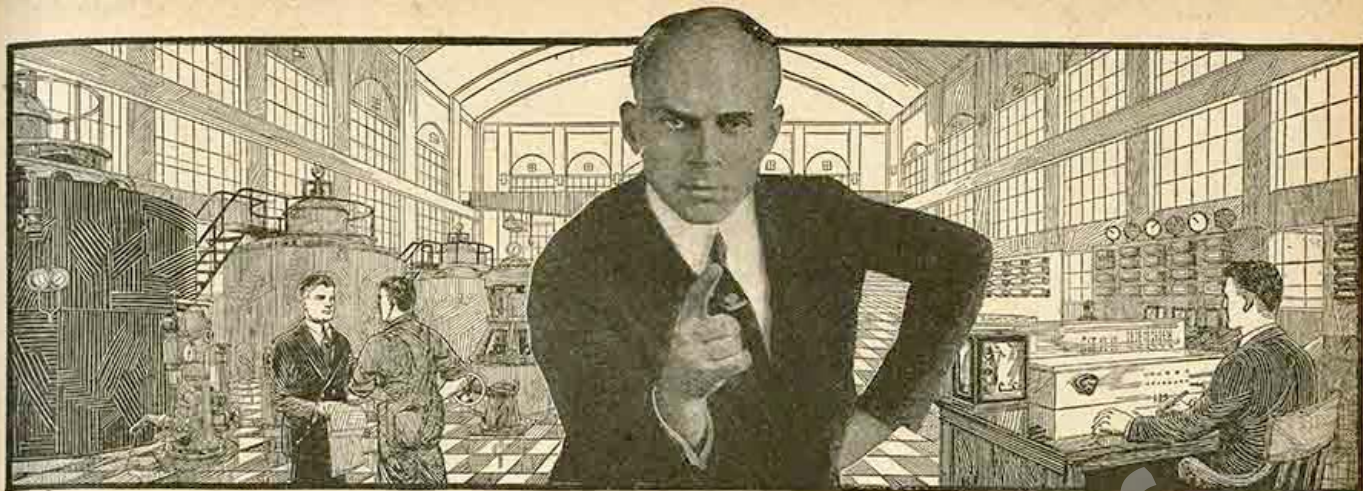
Cover, "Yuletide Greetings," by Jay Weaver

Do Your Habits Aid You?	Editorial	19
Beauty—Not Skin Deep, but Bone Deep	Florence Whitney	20
<i>Photographs</i>		
Vitamins—What We Know About Them and What We Do Not	Alfred W. McCann	24
The Breast and Abdominal Muscles	Alan Calvert	26
<i>Photographs</i>		
Do You Eat Too Much?	Carl Easton Williams	32
<i>Illustrations</i>		
Charm—and the Graceful Carriage.	Madeline Mulvey	36
<i>Photographs</i>		
American Continental Weight Lifters' Association.	John Bradford	39
How Much Truth Is There in This Gland Business?	Dr. Edwin F. Bowers	40
The Story of Frank Dennis	George F. Jowett	42
<i>Photographs</i>		
Sunshine—The Cure for T. B.	Ira W. Drew, M.D., D.O.	46
Fighting Methods—New and Old	T. Von Ziekursch	48
<i>Photographs</i>		
Strength Posing Competition	George F. Jowett	51
Can You Drive a Nail with Your Hands?	Chas. MacMahon	52
<i>Photographs</i>		
Are You a Physical Failure?	Jean West	55
<i>Photographs</i>		
Our Girls' Circle	Marjorie Heathcote	56
<i>Photographs</i>		
Ask the Doctor—Department	H. H. Rubin, M.D.	58
The Dinner Table—The Right Foods for Christmas	Jane Randolph	60
"The Mat"—Analytical Comment on Body Building	George F. Jowett	62
Does Bar-Bell Exercise Make One Slow and Muscle-Bound?		

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. Palethorp St., Philadelphia, Pa.
 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.



Electricity Needs You Now I Will Train You at Home

Stop right here. This is YOUR opportunity! Electricity is calling you, and the Electrical Business is in for a tremendous increase. But it needs more trained men—at big pay. By my Home Study Course in Practical Electricity I can train you for these positions.

FREE!

BIG ELECTRICAL OUTFIT

A fine outfit of Electrical Tools, Instruments, Materials, etc., absolutely FREE to every student. I will also send you FREE and fully prepaid—Proof Lessons to show you how easily you can learn Electricity and enter this splendid profession by my new, revised and original system of Training by Mail.

RADIO COURSE FREE

Special newly written wireless course worth \$45.00 given away free. Full particulars when you mail coupon below.

Earn Money While Learning

I give you something you can use now. Early in my Home Study Course I show you how to begin making money in Electricity, and help you get started. No need to wait until the whole course is completed. Hundreds of students have made several times the cost of their course in spare time work while learning.

Earn \$70 to \$200 a Week

You've always had a liking for Electricity and a hankering to do electrical jobs. Now is the time to develop that talent; there's big money in it. Even if you don't know anything at all about Electricity you can quickly grasp it by my up-to-date, practical method of teaching. You will find it intensely interesting and highly profitable. I've trained and started hundreds of men in the Electrical Business, men who have made big successes. YOU CAN ALSO

Be a Big Paid ELECTRICAL EXPERT

What are you doing to prepare yourself for a real success? At the rate you are going where will you be in ten years from now? Have you the specialized training that will put you on the road to success? Have you ambition enough to PREPARE for success, and get it?

You have the ambition and I will give you the training, so GET BUSY. I am offering you SUCCESS and all that goes with it. Will you take it? I'll make you an ELECTRICAL EXPERT. I will train you as you should be trained. I will give you the benefit of my advice and 20 years of engineering experience and help you in every way to the biggest, possible success.

VALUABLE BOOK FREE

My book, "How to Become an Electrical Expert," has started many a man on the way to fortune. I will send a copy, free and prepaid, to every person answering this advertisement.

ACT NOW! Good intentions never get you anywhere. It is action, alone, that counts. NOW IS THE TIME TO ACT.

L. L. COOKE, Chief Engineer

CHICAGO ENGINEERING WORKS

2150 Lawrence Avenue

Dept. 1199

CHICAGO, U. S. A.

CHIEF ENGINEER COOKE
Chicago Engineering Works
Dept. 1199. 2150 Lawrence Ave.
CHICAGO, ILL.

Dear Sir: You may send me entirely free and fully prepaid, a copy of your book, "How to Become an Electrical Expert," and particulars about your Home Study Course in Electricity.

Name.....

Address.....

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

The "Cooke" Trained Man is the "Big Pay" Man

A Beautiful Art Album of PERFECT MEN AND WOMEN

for Lovers of the Body Beautiful

All lovers of the body beautiful will be delighted with this beautiful ART ALBUM, containing 120 glorious pictures of perfect men and women physical culturists. All the beauties of muscular development in men and all the glory and grace of the perfect contours of the best known women physical culturists are illustrated in this Album. It is indeed an art masterpiece, and no lover of the glories of the human body will want to be without it.

The greatest men and women athletes and physical culturists have been chosen as subjects for this Album, so not only does it constitute a beautiful work of art, but also a gallery of athletic physical culture heroes and heroines.

George F. Jowett Says of The Art Album:—

"I feel that I should say a word about the Art Album. It is a fine piece of work, a departure from the old standard, and a creation that all lovers of art and the body beautiful should have in their collection. You have done the cause a favor by its inception.

This beautiful ART ALBUM is one you will never tire of looking through again and again. Each picture is an inspiration and a joy to behold.

If you have been making a collection of athletes and physical culturists, you will have all the favored ones here, all ready for you. You will be able to show it to your friends, and they will envy you the possession of it. **Only a few more copies are left**, and they will only last a short time, so if you wish to have a copy of this wonderful and beautiful Album for yourself, send your request at once.



The following is a list of the athletes, physical culturists and artists' models who posed for the pictures:

ATHLETIC CHAMPIONS	John M. Hercul.
Ethelda Bleibtrey (several poses).	A. P. Hedlund.
Charlotte Boyle.	Mrs. Hedlund (several poses).
Ida Schnall (several poses).	Rose Kinder.
George F. Jowett.	Polly Walker.
Bernard Bernard (several poses).	Doris Wilson.
Charlie Postl.	The Vanities.
Ray Johnson.	Ann Hyatt.
Marie Curtis.	ARTISTIC
Edward Aston.	Strength and Beauty.
George Dimbinski.	Les Syrenes.
Laura Bennett.	Salambo and Mattho.
Mary Jane Lowe.	A Study of the Nude.
Carrie Keeley.	The Slaves.
Marion Fletcher.	The Vine.
Nursie King.	The Sundial.
John G. Paine.	Ecstasy.
Charles Shaffer.	Consolation.
Al. Treloar.	Le Baiser.
Maurice Deriaz.	The Tempest.
Hilda Curtis.	Rising Woman.
Strangler Lewis.	Braccio Nuovo.
David Willoughby.	L'Aurore et Cephalic.
Al. Bevan.	Apollo.
Sam Clapham.	Energy in Repose.
Maxick.	Psycho Receives the
Walter Klee.	First Kiss of Love.
Stanislaus Zbyszko.	The March of Love.
Captain Johns (several poses).	Beauty and Development.
Ottley R. Coulter.	Climbing Up the Cliff.
Antone Matyssek.	Hail to Life.
Sybil Bauer.	Bacchante.
Send now for this Art Masterpiece. It will be your most treasured possession.	Pygmalion and Galatea.
	Devant La Mer.

This Album would make an excellent Christmas present.

Send No Money

Make sure of getting one of the few copies left by sending now—no money. Pay only on arrival the special price of \$2.75—no more. You will be pleased beyond expression, we are sure.

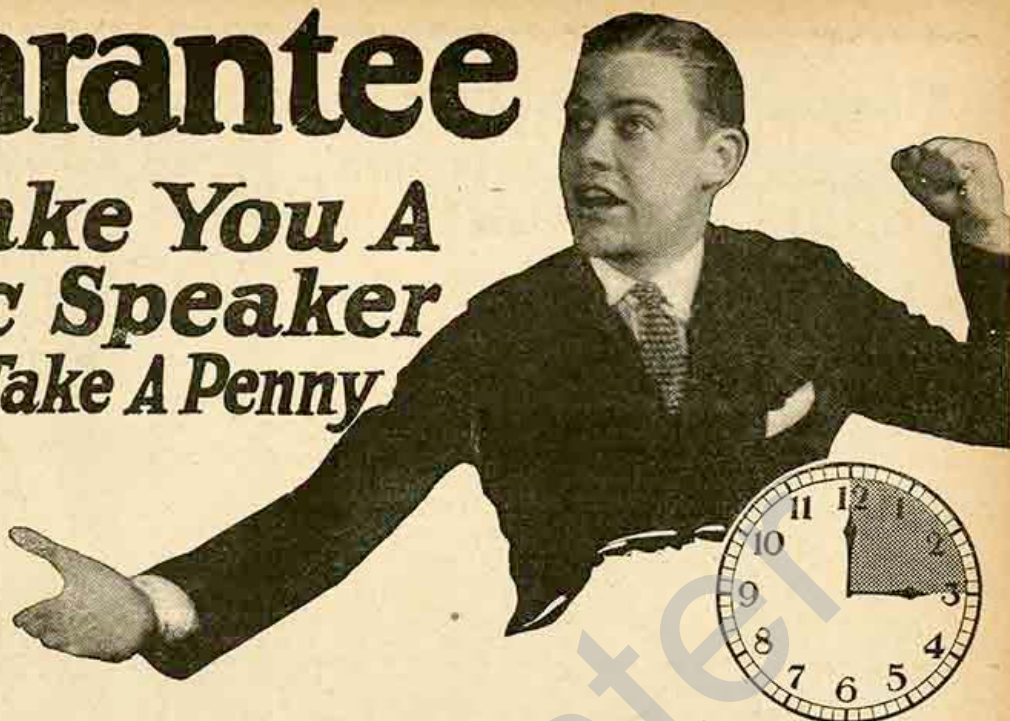
Health & Life Publications

Room 400, 508 So. Dearborn St., Chicago, Ill.

(As a special offer, a copy of the great "Health & Life" Magazine will be included.)

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

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. 1979 3601 Michigan Ave., Chicago

North American Institute
Dept. 1979 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

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

Special Combination Offer

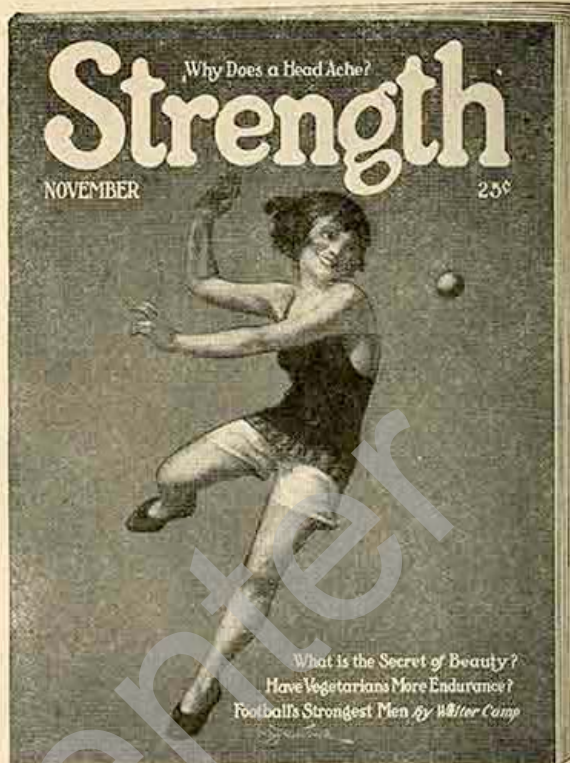
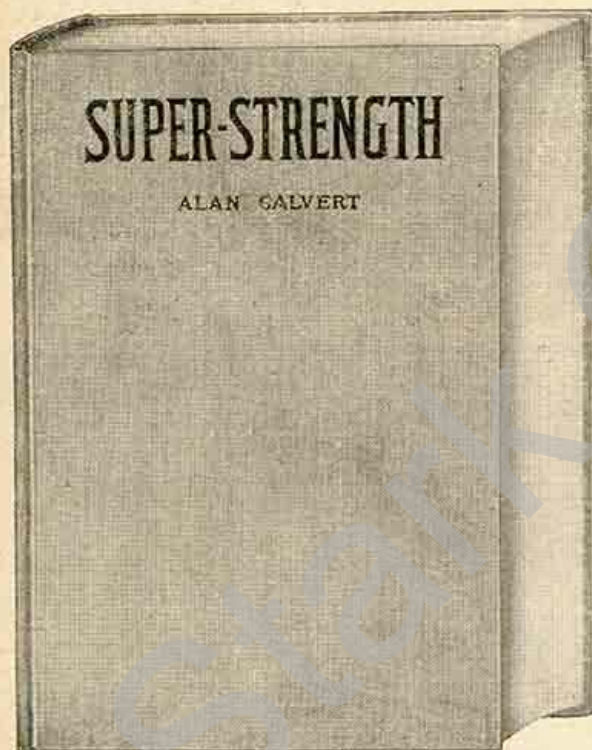
"Strength" and "SUPER-STRENGTH"

At a Reduced Price

The Milo Publishing Co. is now offering its patrons an unusual bargain. They are giving you a chance to get a year's subscription to the "Strength" Magazine, and a copy of Alan Calvert's book, "Super-Strength," both at a reduced price.

(See details of offer at bottom of this page)

As a reader of the "Strength" Magazine, you are familiar with its steady growth in size, popularity, and influence. You can be assured that its editorial staff will continue to fill the pages of the magazine with helpful and inspiring articles, written by the highest authorities on BODY-BUILDING, WEIGHT REDUCING, AND CORRECTIVE EXERCISE—DIET AND FOOD PROGRAMS—GYMNASTICS—ATHLETICS—OUTDOOR SPORTS—OSTEOPATHIC TREATMENT and all other subjects connected with the preservation of health and the promotion of bodily vigor.



Few books have been as warmly welcomed as Alan Calvert's latest work on body-building and muscle-culture. Although the book is called "Super-Strength," any one reading it will quickly discover that its author is far more interested in the creation of perfectly proportioned and superbly built men, than even in the development of great strength. He holds the theory that one's strength is largely dependent on one's shape and symmetry, and so a great portion of the book is devoted to a detailed teaching that will help any one—no matter how weak and puny, or how fat and debilitated—to get a perfectly built body and the abounding health and incredible strength that go with it.

In "Super-Strength" the author gives most complete instruction for the remodeling—the making over—of the entire body. The chapter which tells how to permanently increase the size of the true chest (the rib-box) with its accompanying gain in shoulder-breadth and lung-room, is matched in interest only by that other chapter in which he deals with the method of increasing one's vitality and bodily strength by developing the small of the back and the loins.

Many of the exercises given in the book are now published for the first time. Some have heretofore been trade secrets of professional "Strong Men," and others, devised by Mr. Calvert himself, are included because of their proved value as agencies in remodeling the bodily framework and in covering it with shapely, supple and powerful muscle.

"Super-Strength" is handsomely bound in cloth. It contains 95 illustrated pages bearing 182 superb pictures, and 220 pages of closely printed text; about 75,000 words of instruction and information.

Special Offer

The Regular Yearly Subscription Price of the Strength Magazine is..... \$2.50

The Regular Price of the Book, "Super-Strength," is..... 3.50

Total \$6.00

If you order before December 24, 1924, you can get both for..... 4.50

Thus saving \$1.50

Use the coupon and mail your order to

The Milo Publishing Co.

2739 N. Palethorp St., Book Dept., Philadelphia, Pa.

S-12-34

Milo Publishing Co.
2739 N.
Palethorp St.
Philadelphia, Pa.

Gentlemen:

Enclosed ^{cash} check } for \$4.50
find money }
order

to pay for the book, "Super-Strength" and one year's subscription to the "Strength" Magazine.

Send book and magazine to

Name

Street

Town..... State.....

Izzy Schwartz Picked Strongfortism— And Now He Packs a Wallop!

Izzy picked STRONGFORTISM because he wanted something more than mere development. He wanted what everybody MUST HAVE in order to become a TOP-NOTCHER—internal strength and endurance—a solid foundation of pep and brawn INTERNALLY. He not only wanted to pack a wallop in either mitt, but he wanted to pack THE wallop that K.O.'s 'em all—meaning the internal force and stamina that gives "pep and go" to everyone who possesses it.

That's why Izzy picked STRONGFORTISM, and that's why he is a TOP-NOTCHER, ready to grab the flyweight title. His chance is coming, and when it does come—he will not fail, because he "has the goods!" So much for Izzy, but now

How About You?

Do you want to be a TOP-NOTCHER or a THIRD-RATER? You can have your pick! Do you want to be able to take all they've got and come back for more, or be all in after a few rounds; puffing like a horse with the heaves and swinging as wild as Firpo? It's up to you. Don't let 'em kid you, my friend, because your muscles might as well be mush, if you haven't got internal strength and endurance behind them. And besides, how can you ever expect to win, in the ring or the fight for success, if you are licked yourself with constipation, indigestion, etc. How can you ever hope to amount to anything if your blood is full of poisons; if your poor stomach is ready to throw the sponge; if your vitality is constantly being sapped? It can't be done!



LIONEL STRONGFORT

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

I Can Put You On Your Toes

Give me a few minutes a day and in a short time the gang won't know you. When they see you in action, they'll crane their necks and envy you from the bottom of their hearts. First I'll clean your house—rid you of your ailments and weaknesses. Then I'll put you through an internal course of training. After that I'll put an all-powerful sock behind your knuckles, and when I'm finished, you'll feel like muffling the bell and fighting 15 rounds without going near your corner!

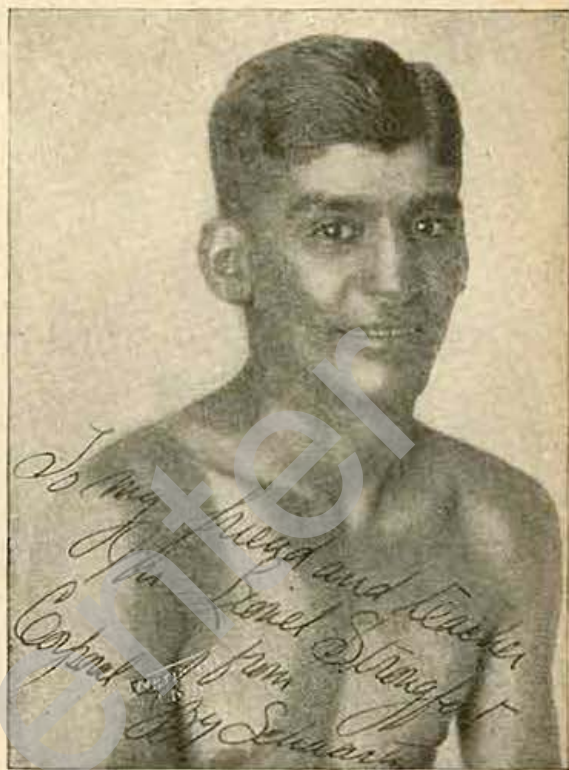
Strongfortism

The new Science of Health Promotion will guide you back to Health and Strength, and is thoroughly explained in my new book, "DO IT WITH MUSCLE!"—it's FREE! Write for YOUR copy NOW. It will tell you why your pep is leaving you; why you are only half enjoying life. It will tell you things you didn't know about yourself—startling things! and will show you how you can rid yourself of your ailments and troubles, becoming the strapping live-wire you should be. "DO IT WITH MUSCLE!" is a masterpiece. Send for a FREE copy TO-DAY.

Simply put an (X) before the subjects on the consultation coupon on which you want special information in a plain, sealed envelope and send with 10c (one dime) to help pay postage, etc. It's easy—too easy to put off. DO IT NOW!

LIONEL STRONGFORT

Physical and Health Specialist over 25 Years
Dept. 1678, Newark, New Jersey, U.S.A.



Read His Letter

648 E. 5th St., New York, N. Y.
July 2, 1924.

My dear Mr. Strongfort:

You no doubt have been following my ring career ever since I enrolled as one of your physical culture students. The few minutes I spend every day has benefited me greatly in building up my strength and developing a wallop.

I rank as one of the leading contenders for the fly-weight title, and will be pleased to have you as a spectator when I fight Pancho Villa for the crown.

Your friend and pupil,
(Signed) CORPORAL IZZY SCHWARTZ.

From "The Brooklyn Daily Times"
August 29, 1924

"Corporal Izzy Schwartz, of the East Side, punched his way to a decision over Frankie Ash, flyweight champion of England, in a ten-round scrap, which topped the flyweight elimination tourney, at the re-opening of the Rink Sporting Club last night. Izzy is now in line for a shot at the winner of the coming Villa-Genaro titular struggle."

FREE CONSULTATION COUPON

Mr. Linonel Strongfort, Dept. 1678, Newark, N. J. Please send me your book, "DO IT WITH MUSCLE," for postage on which I enclose a 10 cent piece (one dime). I have marked (X) before the subject in which I am interested.

- | | | |
|---------------|----------------------|---------------------|
| .. Colds | .. Weaknesses | .. Falling Hair |
| .. Catarrh | .. Increased Height | .. Weak Eyes |
| .. Asthma | .. Insomnia | .. Gastritis |
| .. Hay Fever | .. Short Wind | .. Heart Weakness |
| .. Obesity | .. Flat Feet | .. Poor Circulation |
| .. Headache | .. Stomach Disorders | .. Skin Disorders |
| .. Thinness | .. Constipation | .. Despondency |
| .. Rupture | .. Billousness | .. Round Shoulders |
| .. Lumbago | .. Torpid Liver | .. Lung Troubles |
| .. Neuritis | .. Indigestion | .. Stoop Shoulders |
| .. Neuralgia | .. Nervousness | .. Muscular |
| .. Flat Chest | .. Poor Memory | .. Development |
| .. Deformity | .. Rheumatism | .. Great Strength |

Name

Age..... Occupation.....

Street

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

If you have taken my "Regular" or "Advanced" Course, kindly indicate same by making a cross in box for this purpose below.

I have taken your "Advanced" Course

I have taken your "Regular" Course

I have received your book "Promotion and Conservation of Health, Strength and Mental Energy." Date.....

The Most Important Thing in the World

IS THE WAY YOU FEEL. Health means more than having just enough energy to get through your daily work. Real health means the possession of considerable muscular strength combined with great powers of endurance. It means that your internal organs are in first-class working order. It means that immunity from temporary sickness and chronic disease which shortens life.

The Next Most Important Thing

IS THE WAY YOU LOOK. Your personal appearance counts for a lot in these times. It is nice to look well in a bathing suit; but it is far more important to be able to create an impression when in your street clothes. To have people exclaim, "My, what a *finely built* chap!" after one glance at the broad shoulders, deep chest, trim waist, and beautiful proportions which are noticeable even when you are fully dressed.

Your aim in training should be, **NOT HEALTH ALONE, NOT APPEARANCE ALONE, NOT STRENGTH ALONE,** but that combination of all three which is the surest sign of real vigor.

I am looking for the man who wants to save time. The man who knows that he needs to improve his physical make-up who has very little time to exercise and who *must have results*.



CHARLES MacMAHON

I Have An Entirely New Training Method

which contains a time-saving element found in no other course of training. The principal muscles are exercised in groups. There are but few exercises in each lesson and after you have mastered these exercises, you drop them and substitute the more advanced exercises in the next lesson. Under my tuition you never have to practice more than a few minutes a day. The effect is so sure and rapid that:

- 1st. Weak beginners, who can't even chin themselves with both arms, soon find that they can easily chin the bar with one arm.
- 2nd. The stout beginners who cannot even reach their ankles can soon learn to bend over and put the palm of their hands on the ground, without bending their knees (and incidentally reducing their waist girth by eight to ten inches).
- 3rd. That scrawny beginners soon find themselves gaining weight and shapeliness as a result of their increased digestive powers.
- 4th. That undeveloped beginners soon find themselves taking pride in their unusually large and clean-cut muscles.
- 5th. That non-athletic beginners soon find that they are in possession of the speed and strength that makes them winners in sports and games.

ABSOLUTELY FREE

You will positively get more valuable information on physical culture **FREE** from my *sixty-four* page ART BOOK than you will get from any other book of this type. Besides many beautiful half-tone pictures of myself and a great number of my numerous and progressing pupils, there is included in its pages, a thorough description of my methods; several pages on actually how to learn muscle control, with illustrations; action pictures on tumbling and hand balancing; and also pages on what my pupils have to say about my course, reproduced exactly as sent to me and signed in their own handwriting.

YOU NEED THIS BOOK CHARLES MacMAHON

Studio A-23
180 W. SOMERSET ST., PHILADELPHIA, PA.

CHARLES
MacMAHON
Studio A-23
180 W. Somerset 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.



CHARLES MacMAHON
In Muscular Pose

IMPORTANT

My New Leaflet, "Your Muscles, What They Are and What They Do," will be sent with my Book and it is also free. Every person contemplating physical culture should get this Leaflet first. Then you will know what you are doing. Get both of them by return mail.

Name

Address

City and State

A Book to Read With Your Wife

If you haven't married yet—the most important book you possibly can read before you do—

NO questions avoided. No false modesty—a fearless disclosure of the baffling sex problems every man and woman must face sooner or later.

Do you think you are absolutely normal in your desires, your impulses, your physical make-up? Should your instincts be hidden or suppressed? Will you know how to keep love from faltering and drifting toward younger charms?

You owe it to your future happiness and to that of one other to find out from the highest authority.



The frankest and most authoritative book ever written on this all-important subject

The Sexual Life

Written by a Member of the American Medical Association

C. W. Malchow, M.D.

For Men and Women

"If you can tell the public what is really in this book," its readers say, "you won't be able to print enough copies."

Dr. Malchow's book is plain-spoken and straight-from-the-shoulder. It tells hundreds of things you urgently need to know, in plain, untechnical language that you can not fail to understand. You will read every page with intense interest—you will want to retain it for reference and guidance during the rest of your life.

The lifework of a great physician—it reveals the secrets of sexual life that have been locked up until now in medical classrooms and technical scientific treatises.

If every man and woman intending to marry were given the opportunity to read this outspoken revelation of sexual problems, it is safe to say the percentage of happy, permanent marriages would be vastly increased and divorce reduced to a minimum.

Much nonsense has been written on this subject, but—

there is comparatively little authentic literature upon sexual physiology. There are many books calculated to arouse and appeal to the passions, but very little that goes to the heart of the sexual relation and gives in detail the knowledge essential to health and happiness.

Intelligent men and women today recognize the need for knowledge about sex matters. The attitude of false modesty which in the past has cloaked this subject in secrecy has caused untold suffering and unhappiness. Moreover we are just beginning to realize how great a part sex plays in our lives.

Recent investigations by psychologists and the medical profession show that sex is at the bottom of many conditions not heretofore associated with it. Nervousness, melancholia, lack of energy, over-sensitiveness, self-consciousness, and many other conditions, both mental and physical, are now known to be caused by common misunderstandings about sex. No other single cause is responsible for so many unhappy marriages.

"The Sexual Life" gives just the information needed. It treats of the most delicate sexual relations in plain language, without evasion and without possibility of misunderstanding. While there is nothing in the book to shock any progressive person, it is intended solely for the guidance of mature men and women and we do not send it out to those under 18 years of age.

Here's Proof—

So certain are we that you will not part with this permanently valuable book, once you have found out for yourself how indispensable it is, we have decided to make the following unusual offer to the readers of this magazine:

Read the book through in five days. If you don't decide that you will need it permanently, send it back, and pay nothing!

Simply send us the coupon. We will send you by return mail a copy of this book in plain wrapper giving no indication of its contents. Deposit \$3.50, plus a few cents postage, with the postman who delivers the package. Then satisfy your curiosity about the book in the privacy of your home, for 5 days if you wish. If the volume does not exceed your expectations, send it back to us within that time and your money will be at once refunded.

But it is essential to send the coupon at once, as the demand is certain to exhaust this limited edition quickly. You take absolutely no risk. No money in advance. Requests will be filled in order received so mail your reservation.

Name
Address
City and State.....

Remittance to accompany Canadian and Foreign Orders. (Write in margin if more room is needed.)

Do You Know—

- Why women frequently lose their fondness for dancing after marriage?
- Why nervousness is often relieved by marriage.
- Why 15% of the feminine population of the world (1 woman out of every 7) is doomed to unhappiness?

Read These Chapter Heads

- | | |
|--------------------------|-----------------------------------|
| I—Sexual Sense. | VII—Sexual Habits in the Married. |
| II—Sexual Passion. | VIII—Hygienic Sexual Relations. |
| III—Female Sexual Sense. | IX—Sexual Inequality. |
| IV—Male Sexual Sense. | X—Copulation and Propagation. |
| V—Copulative Function. | |
| VI—Act of Copulation. | |

Personality Press
Suite 3412
2375 Broadway
New York, N. Y.

Send copy of Malchow's famous book to the following address in accordance with your lib-
eral offer. I will pay the postman \$3.50, plus postage (a few cents) on delivery.

Now is Your Chance to Join The American Continental Weight-Lifters Association



GEORGE F. JOWETT
Founder and President
of the A. C. W. L. A.

At last the clarion call has been sounded, and the big push begun to secure new members for the most worthy physical culture organization in this country. We are flooding the country with literature, running full page advertisements, and getting in touch with every bar-bell enthusiast in the country, and hope to band them all together in one happy brotherhood, whereby they can each help the other, and be helped in turn. Our aim and main object is first to get every enthusiast on our rolls, and we will then band them all together in their various localities, so that they can all meet in a happy family group, with one big family body; then each and all can decide on their particular line of endeavors in physical training and concentrate upon obtaining their own ends.

THE SPIRIT OF THE PIONEER

By this we hope to do several things; two outstanding objects will be to always spread the gospel of physical training under right instruction everywhere, and promote a better standard of health and physical attainment. We hope to secure every man or woman, boy or girl who is interested in health, hygiene, diet, physical analysis, posing, body development, and organization. This makes possible a field for all to work in accordance to their desires. Another important object is the stimulation of greater interest in bar-bell training, and also to make the lifting of weights a sport. By this we hope to bring out all the hidden talent, and latent power of our undeveloped physical manhood, and bring the American standard of man power well above the level of other nations. At present we are sadly behind, we could not successfully compete with any of them, as we can in other branches of sport, not because we have not the men or the ability to accomplish this, for we have loads of the right material. Our lifters just want developing and organizing. With such disjointed units as we now have, nothing can be done, but collectively all can be done. This organization has behind it the cleverest minds in America on all physical matters and methods of training, and especially on the scientific knowledge of weight lifting, that will all be supplied to our members in order to help them elevate the weight lifting standard to the point where it should be.

THE VALUE OF STATISTICS

We are fast compiling the most exhaustive list of records of this country, and every other nation, and classifying them in the order in which they belong. This is a very tedious job, and takes time, and lots of patience, but it will save you from working in the dark. Suppose you feel that it is within you to create a new record in your body-weight class. It does not matter whether it is for



your state, National, Continental or for a world's record, you will want to know what the best OFFICIAL record is. No matter what you hear others say it is, or what they may claim has been done, the whole thing is to find out what has been accepted as official, then you have something definite to work on. You write us, and we will tell you at once. We save you all that trouble, and then you go ahead. First you notify the local body of your intentions, and they do everything to help you, by preparing all so your feat will be official, and your work not in vain. You will then receive recognition for your record, and it becomes slated as such, and by this means you will be doing your part in supplying a higher standard of weight lifting records, that in the end will result in America being represented at all future Olympic Games, where we hope to wrest all the weight lifting honors from the other nations, who have held them so long. These European countries have held these titles so long that they look upon them as their natural heritage, but our indefatigable president and founder, George F. Jowett, tells us in his optimistic way, that time will tell. When the undaunted veteran of weight lifting tells us this, we know it must be so, for he is determined it will be so, and he is a very determined man. It is all up to us, so let us all get together, and get behind our leader, and he will not fail us.

The splendid offer made by the STRENGTH MAGAZINE has opened a long needed avenue, a short cut to "getting there." When you read the splendid appeal and offer in this magazine, I feel you will not hesitate to enlist.

Secure your lapel button, by which all will know the order to which you belong, it will be the means of supplying you and your friends with that "Hail fellow, well met" feeling in every town or city you go to.

We want to see branches of this order in every town, city or hamlet, wherever three or four of you can get together, you can make a branch possible in your locality, that will be governed by officers of your own selection.

YOUR SUGGESTIONS DESIRED

Send in all the suggestions you may have to help this movement, that will help to make it a national success, and we will help you.

First of all, BE SURE YOUR NAME IS ON THE ROLL. If it is not, do not waste any time in having it placed thereon. Now is your time, so let us get busy boys and do something.

Our California representative from Los Angeles and vice president, David P. Willoughby, has been down here for the last two weeks helping our president, George F. Jowett, and myself in the reconstruction of the association. We have all worked hard, and we are now looking for the results.

Vice President Coulter has been on the job as usual, and various other of our representatives are eager for the campaign to go ahead.

THE MEN BEHIND THE GUN

We are very fortunate in having such splendid men at the helm as we have. I doubt if there is any man living who knows any more about weight lifting, how to train for records, and how to build the body than President Jowett does. Better than all, he has been for many years a shining example of his own teachings. One of the strongest men the world ever produced at his weight, he is a man we are proud of. Vice President Coulter is a store house of information, and a great athlete himself. Vice President Willoughby is a man with high ideals, full of enthusiasm for a great cause, and our present amateur American heavyweight weight lifting champion, defeating all others in the Olympic tryouts to represent America, held this year at Los Angeles.

I do not know how a person could be other than enthused with such a splendid lot of men to work with as we have.

There is only one way to find out for yourself, and that is to enroll, which is to be convinced, and afterwards you will always say it was the best investment you ever made.

REMARKABLE OFFER BY STRENGTH

The regular initiation fee is \$2.50 to a new member, and a yearly subscription of \$5.00, a total of \$7.50. This entitles you to the lapel button insignia of this order, membership card for one year, and one year's subscription to STRENGTH MAGAZINE and all the big benefits that this splendid organization can give you.

ALL THIS IS OFFERED TO YOU FOR THE LOW FEE OF \$4.00.

This splendid offer is made possible by the STRENGTH MAGAZINE as their contribution to help a worthy cause, and help us to reach the quarter-million mark.

GEORGE F. JOWETT, President A. C. W. L. A.
c/o STRENGTH MAGAZINE,
2741 N. Palethorp St., Philadelphia, Pa.

Dear Mr. Jowett:

Allow me to take advantage of the STRENGTH offer, by enclosing \$4.00 which entitles me to one year's subscription to STRENGTH, the lapel insignia of the A. C. W. L. A. with membership card paid up for one year, and all its benefits. Kindly forward same at once.

Name

Address

Town..... State.....



Photograph by
Paul Thompson

I Can Teach You to Sing Like This!

—Eugene Feuchtinger

I do *not* mean I can make a Caruso out of every man—or a Mary Garden out of every woman,—but

I can teach you in a few short months a basic secret of voice development which Caruso discovered only after years of persistent effort.

HERE IS THE SECRET!

This is a picture of the human throat, showing the all important Hyo-Glossus muscle. Biographers of the great Caruso tell us of his wonderful tongue control. Caruso himself speaks of it in his own writings, as the basic secret of vocal power and beauty. But tongue control depends entirely on the development of your Hyo-Glossus muscle.



The Hyo-Glossus in your throat can be strengthened just as surely as you can strengthen the muscles of your arm—by exercise.

Professor Eugene Feuchtinger, noted vocal scientist, famous in Europe before coming to America, was the first man to isolate and teach a method of developing the Hyo-Glossus.

If you are ambitious to sing or speak, or merely improve your voice for social or business purposes, here is your opportunity. If you suffer from stammering, stuttering or other vocal defect, here is a sound, scientific method of relief. Under the guidance of Prof. Feuchtinger himself, you can practice these wonderful silent exercises in the

privacy of your own home. For this method of training is ideally adapted to instruction by correspondence.

100% Improvement Guaranteed

Thousands of men and women have already received the benefits of the "Perfect Voice" method. If you will practice faithfully, your entire satisfaction is guaranteed. In fact, if your voice is not doubled in power and beauty, your money will be refunded. You alone are to be the judge.

Free Book

Send today for the Professor's book, "Enter Your World." It will open your eyes to the possibilities of your own voice. It will indeed be a revelation to you. Get it without fail. Mail the coupon now.

Perfect Voice Institute 1922 Sunnyside Avenue, Studio 57-79 Chicago, Ill.

Perfect Voice Institute 1922 Sunnyside Ave., Studio 57-79 Chicago

Please send me FREE, Professor Feuchtinger's book, "Enter Your World." I have put X opposite the subject that interests me most. I assume no obligations whatever.

Singing Speaking Stammering Weak Voice

Name.....

Address.....

Age.....

We Can Make You the Man You Would Like to Be

OUR pupils can be roughly divided into the three following classes: *First:* the scrawny, undeveloped men and boys whose one great ambition is to get a beautifully proportioned, and well-muscled body together with the abounding health which naturally goes with such a body. *Second:* The stout, middle-aged men, who have become debilitated through lack of exercise, and who wish to regain the figure and the muscular and vital powers of their youth. *Third:* the group of men and boys, of all ages, who are already fairly strong, and who come to us to be shown how to get the great strength, and the magnificent physique which they failed to get through other kinds of exercise.

Every Pupil is Important to Us

We take more solid satisfaction in making a weak man strong, or in restoring the sickly man to perfect health, than we do in coaching a husky young athlete in record-breaking stunts.

Body-Building is Our Specialty

We have pupils as young as fifteen years, and as old as sixty years. We train farmers, lawyers, mechanics, bank-presidents, college students, merchants, and physicians. The case of every pupil is studied individually, and the work prescribed for that pupil is in exact accordance with his needs. Our system of instructions is as readily adjustable in character as the bar-bells we manufacture are adjustable in size and weight.

The weak and undeveloped beginner is not expected to tug and strain with immensely heavy weights. On the contrary, such a pupil is always made to start each exercise with weights that he can easily handle, and the amount of weight varies in accordance to the strength of the muscle, or group of muscles used in the different exercises. A man might be so weak that 15 lbs. would be plenty for him to start with, in single-arm exercises; and yet he could handle with perfect ease 59 to 75 lbs. in the exercises which bring into play the powerful muscles of the leg and back.

The stout, middle-aged man is put at conditioning and reducing work before he is allowed to even attempt any of the vigorous exercises which really tax the muscles.

The case of *the husky young athlete* is studied, and then he is started with the apparatus adjusted to weights that will put sufficient developing tax on his muscles, which will not be heavy enough to make him overwork, and yet will not waste his time by putting him on a par with the weak beginner.

What One Man Got by Practicing Milo Methods

The illustration on this page is a picture of Mr. Edward W. Goodman, an attorney at law, who lives in Los Angeles. He took up our system when he was about thirty years old. When he started, he was just average in size and strength. A few months' practice at the Milo system converted him into the Hercules you see in this picture. He started out with the idea that he would be satisfied if he improved just a little in development and vigor, but results came so fast that after a few months of systematic training with a Milo bar-bell, he became one of the most famous amateur "Strong Men" of the day. What we did for him, we can do for you.

We Make Adjustable Bar-Bells of All Kinds, Sizes and Prices

We issue a big booklet which gives a complete description of our training methods, and which is illustrated with pictures of many of our magnificently-built pupils. If you are interested in making *the greatest possible improvement in the shortest possible time*, we advise you to send for the booklet

"Health, Strength and Development and How to Obtain Them"

and the special pamphlet

"How Much Can I Improve at 20—at 30—at 40 years?"

Both free on request

MILO BAR-BELL COMPANY

2739 N. PALETHORPE ST.

DEPT. 24

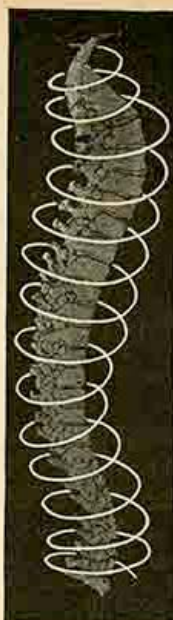
PHILADELPHIA, PA.



E. W. GOODMAN



BEFORE
taking Bradstreet's Spine Motion



AFTER
the same man after taking Spine-Motion just 5 weeks!

Feel like a New Man in Two Minutes

Amazing Restoration in SPINE-MOTION



HOBART BRADSTREET
65 YEARS YOUNG

meant activity. You'd be a superman compared to what you are. But, vital as it is, you pay no attention to your spine. What are the consequences? A word about the spine will explain.

The spine is a series of small bones placed one above the other. Between each pair of bones (vertebrae) is a cartilage which acts as a cushion or shock absorber, taking up the weight and shocks thrown on the spinal column as we stand or walk. Since nothing in the ordinary activities of us humans stretches the spine, these pads are flattened down, become thin and hard. One's spine then does not absorb the shocks sustained but transmits them straight to the base of the brain. Then come headaches — backaches — "nerves" — insomnia — habitual tiredness. We have not one-half the force and "pep" we should have. We do not get the joy out of work or play we should. We are only about 50 per cent efficient.

When the cartilage is worn down to a certain point, nerve impingement may result. That is, two of the vertebrae may curve so close together as to "pinch" or press upon a nerve leading from the spinal column to an organ which the nerve controls. Then there is trouble. If the impinged nerve has to do with the liver, then liver trouble. If with the stomach, stomach trouble. If with the bowels, constipation. And so on. Chiropractic has awakened us to the number of grave ailments directly due to nothing else than impinged nerves.

YOU never give a thought to that spine of yours; do you? If you did you would be another man altogether. You'd have twice the energy you have — twice the strength and stamina. You'd pitch into your work with the avidity of a boy for play. You'd revel in anything that

Why the Spine Needs Stretching

The spine needs the peculiar motion, the flexing, the laxation it would get if we lived as man primeval did. This in order to loosen up the spine—to "elongate" it—to take the burden off the cartilage and the pressure off the nerves. No amount of violent exercise will do the trick, we know from experience, for often the most inveterate gymnast is a striking case of sub-laxation of the spine. As for walking or golfing, the spine only settles down a bit firmer with each step.

From my 25-year experience with spinal mechanics, I have evolved a method of SPINE-MOTION which seems to be the answer to the problem. My method of "laxating" the spine is a simple, boiled-down formula of just five movements. Neither takes more than one minute, so the whole process means but five minutes a day. But those movements, simple as they are, bring a wonderful change—almost instantly.

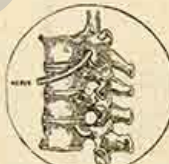
I have had many people come to me saying they were in perfect health and wanted to try my motion just out of curiosity, only to be amazed with the feeling of new exhilaration experienced in one execution of my spinal-motions. Only the other day a prominent Chicago business man, known as a human dynamo, remarked to me after a few days of my system, "I didn't realize until now that I was only 50 per cent alive."

I have seen my spinal motions put sick people on their feet in a few days. I have seen many a chronic case of headache, nervousness, stomach trouble and constipation completely relieved in a matter of weeks. Speaking of constipation, I have one motion—a peculiar, writhing and twisting movement—that will, in fifteen minutes, in nine cases out of ten, bring a complete evacuation.

Why You Must Keep Your Spine "ELONGATED"



How bones close in on the delicate nerves when the spine "settles," striveling the nerves and draining vitality.



How "elongating" the spine keeps the bones apart and the nerves full free to perform their functions.

I Promise You Startling Results

I know that there is something in my method for everyone, and I invite everyone to try it. I invite the young and the apparently "vigorous" to see what difference spine motion will make in their energies and capacities. I invite the ailing to see the direct relation between spinal mechanics and health. I invite men who are ageing prematurely to put to test my statement that a man's powers (in every sense) by nature, should continue full flush up to the age of 60, being only a matter of a sound nerve-mechanism.

No "apparatus" is required with my method.

What SPINE MOTION Is Doing for Others

"Feel like a new person since taking SPINE-MOTION. By the end of the first week was completely relieved of a long-standing case of constipation." L. A. K. Evanson, Ill.

"For years I was troubled with headaches over the eyes. At times I thought the pain would drive me mad. I have no doubt that it was due to pressure on some nerve relating to the eyes. I have had no headache since I began working my spine." J. A. B., New York.

"Your SPINE MOTION is just wonderful for office workers. I have new 'pep' since taking it up. Five members of our office force are now devotees of your art." P. A. K., Kansas City.

"You tell 'em, Mr. Bradstreet, 'elongating' your spine does make a difference. Am 60 years old and since going through the motions for the last two months, feel like a youngster of thirty." H. P. P., Los Angeles.

"Stomach trouble has been my affliction for years, but I'm licking it with SPINE-MOTION. No more doping for me." A. C., Des Moines.

"Wish I could take you by the hand. Hadn't a sound night's sleep for 10 years until I took up SPINE MOTION." P. L., Dallas.

Just my few simple instructions made doubly clear by my photograph poses of the five positions.

Send No Money

The small fee of \$3—a bare fraction of what I have been accustomed to receiving in my private practice—pays in full for my method. But I do not ask you to send the \$3 in advance nor to make any payment or deposit whatever on delivery. I give you 5 days' free trial wholly at my risk. See the results you get in 5 days. If you do not experience something striking in the way of new health, new appetite, new desires and new capacities, just return the material and you won't owe me a penny. If you do see and feel the most wonderful benefits and wish to continue with the method, remit \$3 in 5 days and every thing is yours to keep. Mail the coupon today and get my method for 5 days' free trial.

HOBART BRADSTREET

Suite 6094

630 So. Wabash Ave., Chicago, Illinois

HOBART BRADSTREET, Suite 6094
630 So. Wabash Ave., Chicago, Ill.

I will try your SPINE-MOTION without risk if you will provide necessary instructions. Send everything postpaid, without any charge or obligation, and I will try it five days. If I find SPINE-MOTION highly beneficial I can remit just \$3 in full payment; otherwise I will return the material and will owe you nothing.

Name.....

Address.....

800,000 People Will Die This Year of Preventable Disease

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

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

That occasional headache, that tired, exhausted feeling, loss of appetite, the casual cold—all these are danger signals you should heed. Nature is warning you of impending sickness. Seemingly trivial symptoms tell of serious troubles taking root in your body. And yet, ninety-nine people out of every hundred will absolutely ignore these danger signals. As long as they are not flat on their backs, they will fool themselves into believing that they are all right.



BERNARR MACFADDEN

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

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

Nature is merciless. If you do not understand her laws and her methods of preventing and curing sickness, you suffer. She knows no excuses—she accepts no apologies. Animals instinctively know what to eat and how to exercise to avoid sickness. And even if through close confinement or when wrongly fed they become ill, they quickly recover their health when allowed to eat and exercise as their intuition guides them.

How To—

possess exhilarating health every day in the year

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

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

Nature's Methods and Secrets of Perfect Health Revealed

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

This marvelous work tells you how to build rugged health, vitality and strength. It is for every member of the family. No matter how young the person may be or how old, the great "natural methods" which this Encyclopedia teaches will be of inestimable benefit. It gives invaluable information on fasting, diet, exercise and hydrotherapy for health and beauty building. A thorough and extensive treatment is given of the laws of sex, the attainment of virile manhood and womanhood, and happy, successful parenthood, together with details for the diagnosis and treatment of all sexual diseases. Handsomely illustrated charts on anatomy and physiology are scattered throughout the book.

At 70 He Brought Himself Back to 50

Sanford Bennett was seventy years old before he learned Nature's secrets, yet in spite of his advanced age, he was able by applying the principles laid down in Mr. Macfadden's great work to restore the energy, vitality and vigor of fifty. Recently he wrote, "For the first time in the history of the world, what I regard as a complete presentation of the true curative measures in relation to all kinds of disease is to be found in this set of five most remarkable books."

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

Neither Dull nor Technical

Macfadden's Encyclopedia of Physical Culture is neither dull nor technical. You can easily understand every page and every word. It is comprehensive and complete in every sense. It is the crowning effort of Mr. Macfadden's lifetime of experience and its worth cannot be overestimated. You haven't any idea how valuable it can be to you or how many dollars it will help you save each year. It may even be the means of saving your life. Be sure and read the complete contents of this wonderful set of books on the following page.

READ THE DETAILS OF OUR AMAZING OFFER ON NEXT PAGE

An Amazing 10 Days' Free Offer!

There is now no excuse for any man or woman to be ignorant of Nature's laws regarding health. Bernarr Macfadden has authorized us to send to anyone requesting it, on a 10 days' free examination, any one of the five beautiful volumes of his Encyclopedia of Physical Culture. And the request does not in any way carry an obligation to buy.

Mr. Macfadden believes this work is the crowning achievement of his lifetime of experience in guiding thousands to renewed health. He believes there is a need for this tremendously helpful work in every home.

One man writes (name furnished upon request): "This will acknowledge receipt of the five volumes of Bernarr Macfadden's Encyclopedia of Physical Culture which I ordered from you. 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."

Calls the Encyclopedia His Best Doctor

Thousands of letters like this literally pour in on Mr. Macfadden from thankful owners of his marvelous work. The sick have been restored to health—the well have been able to retain their health—the mother has been able to protect her own health and the health of her children.

Another grateful owner has written: "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 Encyclopedia is going to be my best doctor now and always." (Name furnished on request.)

If you are not enjoying the perfect health which is your birthright, you haven't employed the methods provided by Nature to keep you well. These methods and secrets of perfect health are now unfolded to you in these five marvelous books.

Send No Money—Not One Cent

You can have these five books for your own personal examination for ten full days FREE. We don't want you to send one cent now—we do not want one single penny from you unless you feel positive that these five books will be of wonderful help to you in building and sustaining your health.

After you have made the ten days' free examination, if you decide that you want the Encyclopedia, just send us \$2.00 and then \$3.00 a month until you have paid the total cost of \$35, for the entire five volumes.

If you care to pay cash, then remit only \$31.50.

It is not necessary, however, to pay all cash—we gladly accept orders on the \$3.00 per month payment plan.

But, remember, the ten days' examination is free and if after your careful examination of the volumes you decide that you do not want the Encyclopedia, if you feel that you can afford to be without them, simply return the volumes and you will not owe us one cent nor be under any obligation.

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.

Free Examination of All Five Volumes

The general contents of each of the five volumes are:

Vol. I—Anatomy, physiology, diet, food preparation.

Vol. II—Physical training, gymnastics, corrective exercises, physical culture exercises for women, sports, athletics, beauty culture.

Vol. III—Fasting, hydrotherapy, first aid, spinal manipulation, mechanical diet and regimens.

Vol. IV—Diagnosis and detailed treatment for individual diseases alphabetically listed.

Vol. V—Sex hygiene, physiology, motherhood, pregnancy, maternity, baby care, disorders of men and women.

We will send you the entire set for ten days' free examination. All you need to do is to fill in and mail the coupon to us—or a letter will do—and we will immediately send the books to you. Remember this examination carries no obligation—if you are not entirely satisfied, you simply return the volumes.

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

If you want to enjoy glorious health—if you want to drop years from your age—if you want to radiate joy and happiness—if you want to have greater success-winning energy, power and vitality than ever before, you must live according to Nature's laws—which are clearly shown you in this wonderful work—The Encyclopedia of Physical Culture.

MACFADDEN PUBLICATIONS INC.

Dept. S-12
Macfadden Bldg.
1926 Broadway
New York City

London Agent:
Atlas Publishing Co.
18 Bride Lane
London, E. C.

Macfadden Publication Inc.

Dept. S-12
Macfadden Bldg.,
1926 Broadway
New York City.

Send me for inspection the five Volumes of the Encyclopedia of Physical Culture. I agree to return the set in ten 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.

A Complete Education in PHYSICAL CULTURE

This set of five volumes contains a complete education in 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 Exercises**—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 physcultopathic 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 Treatments 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**.

5 Beautiful Volumes Bound in Leather and Cloth

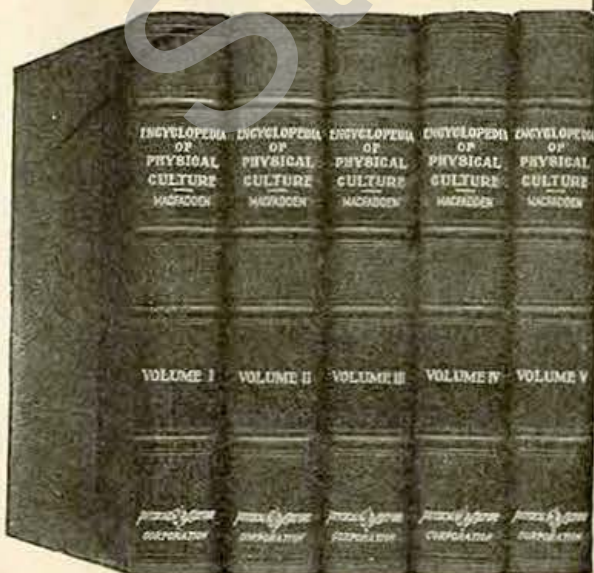
Name

Occupation

Residence

Employed at

Business Address



Send No Money --- Just this Coupon ---

How a bald-headed barber helped to save my hair!

I had long been a slave to hair tonics. I fell for everything the barber recommended. But the more I tried to do for my hair the worse it got. One day I went into a strange barber shop and then—well here's the story.

FOR months my barber had been commenting upon the way my hair was thinning out. But I used to smile and let it go at that. It was part of his game to sell hair tonics and I didn't intend to fall for it.

Even when my wife said, "Bert, I believe you are losing your hair," I gave a little laugh and passed it off with a jesting remark. But when my business associates began to comment on my hair I got worried. I was just as full of pep and vim as I had ever been, yet I worried for fear my associates would think I was headed for the "has been class."

I decided to save my hair if it could be saved. I began to try every kind of shampoo that I heard of—every tonic on the market found its way eventually to my head. But my hair kept getting thinner and thinner.

One day I went into a strange shop.

When the barber had finished cutting my hair he said, "Tonic, sir? Finest thing in the world for making hair grow!" Mechanically I said "yes." Then I looked up at the barber. He was absolutely bald. "Here," I said to myself, "if tonics actually grew hair, or even prevented its falling out, there wouldn't be such a thing as a bald-headed barber in the world."

I cancelled the tonic order and left swearing that never again would I use a tonic on my hair.

And I haven't. I decided to do what I should have done in the first place—learn something about the hair.

A friend recommended Hair Culture by Bernarr Macfadden. I got a copy. I put into practice the simple, easy-to-apply methods outlined by the noted physical culturist and almost immediately I began to see an improvement. Now my hair is a marvel to all who see it and my friends say I look ten years younger.

Albert Woodruff.

The Truth About Hair

There is a way that will absolutely prevent loss of hair and that will even make it grow healthfully! It was discovered, by purest accident, by Bernarr Macfadden, admittedly America's foremost physical

culture exponent. Thirty years ago his hair began to come out by handfuls, and obsessed by the fear of completely losing it, he began at once to find some way to save what hair he had.

At first he tried one of the patent preparations then popular. After a few applications, without any appreciable benefit, he threw the bottle away and determined to find out just why hair falls out; for, he said, if he knew what caused hair troubles he would then know how to prevent and remedy them.

So he began to make a study of hair. He examined it under the microscope, made an analysis of it in chemicals, obtained the help of physicians to learn the nature of scalp diseases and what causes them. Among many other things, he learned that hair lives—that it must have food to nourish it, that it must have air to grow and develop.

And that if it were deprived of its food and its air, like every other living thing, it would decay and die.

Your Hair

What do you know about it?

What are the most scientific preventatives of baldness?
Should a wire brush ever be used on the hair?
When should the hair be forced to fall out?
Of what benefit to the hair is singeing?
How often should the hair be washed or dampened?
Which is the one great cause of dry scalp and hair?
What is the best soap for oily hair?
What are the three causes of baldness?
What is a dry shampoo and how does it affect the hair?
What is the strongest stimulant that can be used on the scalp?
What one thing is most important to luxurious growth of the hair?
Why does hair fall out after sickness?
What causes gray hair?
Is dandruff contagious?
What has diet to do with dandruff?
What is the best way to kill the dandruff germ?
How can the eyebrows and eyelashes be strengthened?
How often should a baby's scalp be washed?
What is the best kind of brush to use?
How often, and with what, should a baby's scalp be oiled?

So remarkable are the results obtained through Bernarr Macfadden's new easy hair culture methods that they may seem unbelievable to some who have tried the usual kind of "Hair-growers" without benefit. Yet thousands upon thousands of men and women have already used these remarkable Macfadden methods, with uniformly satisfactory results.

Stops Falling Hair—Ends Dandruff—Makes Hair Grow

So sure is Mr. Macfadden that his methods can help anyone who is troubled with dandruff, gray



hair, baldness, split hair, and all other hair ailments, that he has instructed his publishers to send his remarkable new book *Hair Culture* to everyone requesting it, for five days' examination. It makes no difference how many remedies you have tried without success, it makes no difference how stubborn your case may be, nor how long it has existed, Mr. Macfadden is sure that you will obtain the results you want through the simple methods which he has discovered, and which are fully and completely explained in his book.

Send No Money

You need not send a single penny now. Merely mail the coupon, and the book *Hair Culture* will be sent to you by mail, prepaid. When the book arrives deposit only \$2.00 with the postman. Then examine it for five days. Find out exactly what causes dandruff, what makes your hair lose its color, what makes it fall out. Then see how quickly Mr. Macfadden's simple methods can remedy your troubles, at no cost, and in only a few minutes each day. If you are not absolutely satisfied that you will get all the results you hope for, return the book and your money will be refunded at once. At any rate you take no risk, you have nothing whatever to lose, so send the coupon now.



MACFADDEN PUBLICATIONS, INC.
Macfadden Building
Dept. S-12, 1926 Broadway, New York

Please send me by mail prepaid, Bernarr Macfadden's new book *Hair Culture* explaining his simple methods for naturally preserving and beautifying the hair. When the book arrives I will deposit \$2.00 with the postman. It is understood that if for any reason I return the book within five days after its receipt my money will be refunded.

As a special offer we will enter your name for a six-months' subscription to *Strength 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.

Name

Street

City

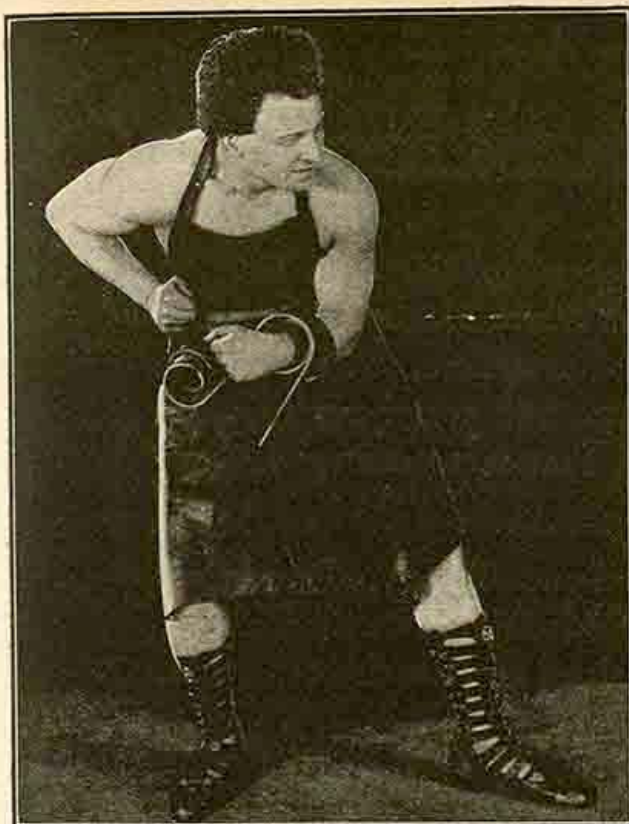
State

Macfadden Publications, Inc.

1926 Broadway

(Dept. S-12)

New York



Mighty Muscle Pulsing Power Super Strength

Assured By This Wonderful New Method

Of course you want strength. It is the glory of life. You want the power to accomplish that which comes with muscle. Everyone admires the athlete, the man who has muscular arms and shoulders. Who would glance a second time at the thin, wizened, pale weakling who seems afraid of his own shadow? Who gets the prizes of life? Why, the healthy, husky, broad-shouldered, deep-chested fellow who looks a success, who breathes vitality, whose action is vigorous, whose muscles are solid and bulging, whose strength is supreme. I know I can give you these things for I have devoted my life to that purpose. Don't wait when real muscle and a mighty power are guaranteed to you.

Follow This New Modern System That Has Already Broken All Records for Results

H EALTH is strength—strength is health. The two belong together; they cannot be separated. For years I have been studying; patiently learning the secrets—the fundamentals of strength and health because it has been a part of my life. People say I have become the world's strongest man. I have acquired more strength than I can use. This terrific muscular power enables me to do publicly dozens of feats of strength that never before have been attempted. Ripping heavy chains apart—bending steel bars—lifting and supporting enormous weights—they are all child's play. I enjoy doing them, it's fun, there's a real thrill in knowing that my muscles will respond to my bidding. And it's because I know you want this same thrill in health, strength and power that I have been induced to part with my secrets.

I Offer You the Secret of Strength

I was once weak, thin, nervous and sickly. Are you? I have learned how to acquire strength and health. I have spent my life finding out the secrets of power. I have read or seen all of the courses on strength building published. They are much alike. My method is so different, so unique, so interesting, so sure, that it cannot be confused with any which have been offered.

Do You Want Rugged Strength and Health?

If you have a drop of red blood in your veins or an ounce of pep or ambition you need what I can give you. I don't care where you are, what you are doing or what your condition is; I'll give you the life thrill—the power, the build, the muscle that will draw forth the envy of men and the admiration of women. I wish I could show you the letters I have from men who came to me ashamed of their weaknesses—but who now go about with heads erect—broad-shouldered—health and vitality gleaming from their eyes. Man, you owe it to yourself to write me. Would you starve yourself to death with food within reach? Then don't let the only body you'll ever have decay on your feet while this result-providing method is just within your grasp. A few minutes a day now may make the difference of years at the other end of your life.

Send for This Thrilling Book

A 64-page booklet showing startling feats of strength by Breitbart—the Superman of the Ages, unparalleled in the world's history. This book will give you a real thrill of inspiration—just to look at its wonderful illustrations—to read its astonishing descriptions—will give you the call to power. It shows my

pupils—it describes my methods—published now for the first time. Send only a dime to cover the cost of mailing and publishing.

FREE Here is Something You'll Want

Breitbart's Muscle Meter. If you send for my book at once, I will send you free one of my famous muscle meters to test your muscular capacity. This device measures strength in a new way. It is so simple you will wonder no one thought of it sooner—and yet it tells you whether you are as muscular as you should be. Write at once—they are free while they last. Clip the coupon now—don't delay—the first step to power is decision. Act! Send the coupon—before you turn the page!

CLIP-MAIL



Sigmund
Breitbart
Dept. D3
Gotham Bank Bldg.
New York City

I want to become muscular and powerful by your new, better method. Send me your new 64 page book. I enclose a DIME to help pay for distribution. I also want your MUSCLE METER which is FREE.

Name _____

Street _____

City _____ State _____

BREITBART

1819 BROADWAY NEW YORK CITY
GOTHAM BANK BUILDING

What would you give to avoid tuberculosis?

YOU would give everything you have to avoid the Great White Plague. The germs of tuberculosis are everywhere. There is only one sure way for you and everybody to avoid consumption, and that is to stamp out the disease entirely.

It can be stamped out. Today only one person dies of tuberculosis where two died before. Christmas Seals helped to save the other life.

The war against tuberculosis, waged by the Tuberculosis Associations, is financed by the annual sale of Christmas Seals. Remember, when you buy Christmas Seals you not only help to save others, but you protect yourself as well. Buy Christmas Seals—and buy as many as you can.



STAMP OUT
TUBERCULOSIS
WITH
CHRISTMAS
SEALS



A group of children taking the sun cure to avoid tuberculosis

Strength

Editorial

Do Your Habits Aid You?

WHEN we realize that nine hundred and ninety-nine cases of overweight out of every thousand are caused by lack of sufficient exercise and an over-sufficient amount of food, we have to recognize the importance of habit in shaping our physical make-up. Very few people become too heavy in a short length of time and even fewer people lose weight over night.

The ease with which we put off the evil moment when we will have to change our diet and do more work, is absolutely characteristic of the ease with which we always tend to let our physical welfare slide. And the ease with which we go from bad habits to worse is only more easily recognized in this field because of the obvious results. When we go from 160 to 180, if we happen to be 5 feet 10, or thereabouts, we always do a little work and diet occasionally and intend to really get down to business shortly. But how often are our good intentions allowed to slide?

We once knew a wrestler of considerable fame who always liked to get in shape, after he had allowed himself to get fat, because he felt so much better when he could feel his old cheekbones. It is about ten years since we have seen him, but it is our guess that he doesn't have that pleasure any more because even then he used to enjoy letting himself slip, just as much as he enjoyed getting back into form.

So far as women are concerned we believe that the desire for health and beauty is becoming wider and wider and we believe that the knowledge of how to attain them is becoming widely diffused. Of course it is our function to help you and you should feel free to call upon any of our departments for any information you may need.

Incidentally, one common fallacy which has come to our attention lately is the notion that a person trying to reduce must give up milk. As a matter of fact, nothing is farther from the truth. If most people, light or heavy, drank twice their normal supply of milk and ate half their normal rations of meat, they would be better off. Also we do not believe in fasting except under the care of a physician.

Skipping an occasional meal, by a person in normal health is occasionally beneficial, but

starting in a ten-day and upward, fast may be a very dangerous thing.

There is no doubt that an excess of protein leaves behind a large portion of incombustible waste which may poison the system, but this condition can be remedied as readily by a change in diet as by fasting; and this with no danger at all.

The A. C. W. L. A. Will Hold Lifting Contests

When we used to be on Olive Street, Mr. Calvert gave weight lifting exhibitions at more or less regular intervals, and now that we again have room to do this, the A. C. W. L. A. expects to have several weight lifting exhibitions this winter.

We expect Steinborn Milo to break at least one more world's record before the winter is over and we are going to bring the two remarkable French Canadian lifters, Marineau and Fernier. Besides these men we expect to have many amateurs and professionals from the Eastern states competing.

Hand balancing and gymnastics, as well as posing contests, will be held at the same time, and although the backbone of the program will be lifting, these specialties should offer some diversion. We are expecting a new group of world's records to come from the growth of the A. C. W. L. A. And we hope that the first of these records will be made at the Philadelphia A. C. W. L. A.'s first lifting exhibition. For full particulars you can write Mr. Jowett, the President of the Association, care of STRENGTH Magazine, Philadelphia, Pa.

That Steinborn is the strongest man in America today is our belief and we feel confident that he will set up some records under authentic conditions which will be something for all the strong men to shoot at. There is always the possibility that some one we have never heard of may come in and defeat him and overturn his marks, however.

There are many good smaller men around and we would hate to guess the name of the best lightweight, but we are convinced that Henry has all the heavies stopped and we would advise you to drop everything and get to see him any time he may be in your neighborhood.

Beauty— Not Skin Deep but Bone Deep

The Six Points of Beauty
—The Possibilities of
Beauty for All Women

By
Florence Whitney



Jacqueline Logan and
Leatrice Joy, both illus-
trate the theory that bone
formation is the under-
lying factor of beauty.

A comprehensive
recipe for
beauty!

That is what I have been asked to present. Only that! I am not sure that the word, "recipe," is quite the right one, since it makes one think of mixing liquid and powdery and sticky and greasy ingredients, as though one were trying to produce some kind of a beauty paste or cream, something that could be rubbed on the outside of the body and which then, through some form of magic, would make it beautiful. Many

women would like something of the kind, for obtaining beauty that way, if it could be done, would be as convenient as getting health out of a bottle. This is not to say, however, that all skin preparations are worthless. A dry skin, for instance, the victim of harsh, strong soap, may need some local help of the kind.

But in a broader sense, a recipe for beauty would include the various factors or ingredients that enter into it, the fundamental things. Surface treatments are "local," as we just said. To survey these fundamental ingredients of beauty will



The reason why there is no other woman in the world who looks like Lois Wilson is because there is no other with exactly the same bones.

At the right—One of the most unique personalities of the screen world, Nita Naldi, whose unusual character of beauty is based upon her facial bones.

take a series of at least four articles.

There are various ways in which one may classify the elements of beauty. There is an old saying that "all good things come in threes." And if one narrows it down to three one may say that beauty consists of form, color and texture. But of course that is limited to physical beauty alone. Beauty means more than that. Or, still holding to a basis of threes, one may say that the elements of beauty are found in skin, shape and psychology.



But each of these depends upon other fundamentals. The matter of shape, for instance, depends upon three different structures or tissues of the body, the bones, the muscles and fatty tissue. And even that is not all, for finally the matter of posture or carriage has a great deal to do with the appearance of the body, the shape that it presents. And carriage or posture, again, is largely a matter of psychology. The matter of psychology is influenced, on the other hand, by factors of strength, cleanliness, sound nerves or shaky, fatigue or freedom from fatigue, good digestion, normal elimination and gland health. The beauty of the skin involves both texture and color, and these depend upon both internal and external influences, but primarily upon the general health, which is another name for the condition of the blood, which again depends upon many things, including food and the vigor of the organs and glands of the body.

So that, as you will see, there is no one secret of beauty. It is a composite matter, and an analysis of its ingredients will prove worth while. From the standpoint of the bodily make-up one might say that the six factors concerned are the blood, the bones, the muscles, fat, skin and nerves. The classification of

nerves includes the mental or psychological phase of the subject, with reference to whatever emotional or spiritual qualities may be dominant or habitual. These qualities, as you must have observed for yourself, have most to do with personality. And it is personality that colors—figuratively speaking—the purely physical aspects of beauty.

One finds that many ingredients of beauty are dovetailed one into the other. There are considerations that ap-



Photo by Russell Ball

May Allison is a striking example of the manner in which beautiful bones dominate the facial contour. There are other factors in beauty. One may not have striking bones and yet possess great beauty due to health, skin color or texture and the desirable psychological factors, but if one has beautiful bones, then she has something to start with. After that spiritual loveliness gives a woman "beauty plus."

ply to several of them. For instance, trying to narrow the whole thing down as much as possible, one would say that the two supreme requirements of beauty are cleanliness and strength. We will constantly find ourselves coming back to these two fundamentals. Beauty depends not only upon cleanliness of skin, but upon cleanliness of blood, organic cleanliness, and cleanliness of mind. For there is loveliness in purity, and most women have that quality in very large measure. Again the basic quality of strength is needed in the bones, in the muscles, in the organs, in the nerves and in the mind. Strength of mind means both intelligence and character, both factors that lend dignity to the presence of a beautiful woman, and without which she is only a pretty doll.

You will have gathered by now that our aim is to enable you to make an analysis of your assets and liabilities

from the standpoint of personal beauty, so that you will recognize just where your shortcomings, if any, may be found, to the end that you may make an intelligent effort toward self-improvement in that respect. For all women have some points of beauty, some many points of beauty, and some apparently enjoy the highest rating on all points. But an intelligent study of the subject is desirable even for those who naturally possess great beauty, for it is a prize that is to be retained, as well as gained.

Now, all that any woman can hope to do is to make the most of what Nature has endowed her with. She may admire a high-bridged nose, which when daintily fashioned may be the mark of a certain aristocratic beauty, depending much upon the face and the mentality that goes with it, but if Nature has given one just a cute little button of a nose, it will be wise to make the



Dorothy and Lillian Gish are examples of unusual beauty in spite of the lack of any striking facial bone conformation.

Photo by Charles Albin

The Gish girls particularly illustrate the psychological factor in beauty, both representing exceptional intelligence and personality.



Charming Mabel Ballin could not possibly look any different than she does with her own skull, except that her native mental and spiritual qualities are naturally manifested, as with all other women.



Photo by Nicholas Muray

Frances Howard, playing the lead in "The Swan," (Paramount Picture) is another example of striking beauty due to distinctive bones. Such women "screen" well and photograph well, as a rule.

best of it. One cannot make blue eyes brown, or brown eyes blue. One must accept the blonde hair, black hair or red hair, the ivory skin, the olive skin, the peachskin skin or the thin pink and freckly skin that was handed

to her as a birthday present from some haphazard selection of ancestors. But these very limitations are the things that one must study to make the most of. They provide variety of types, (Continued on page 84)

Vitamins— *What We Know About Them and What We Do Not*

By *Alfred W. McCann*

FOR five years scientific men have been attaching more and more importance to the vitamin theory. Each year witnesses a consistent and progressive increase in the quantity of literature contributed to the so-called sum total of "information" now available on the subject.

Not only is there a very definite and specific body of evidence at hand to "establish" the authority, dignity and orthodoxy of the vitamin theory, but there is a very definite and specific body of evidence to "support" the differentiation and identification of the so-called vitamins so that they may be "recognized" and "classified" in accordance with what scientific men generally believe to be the specific functions performed by each.

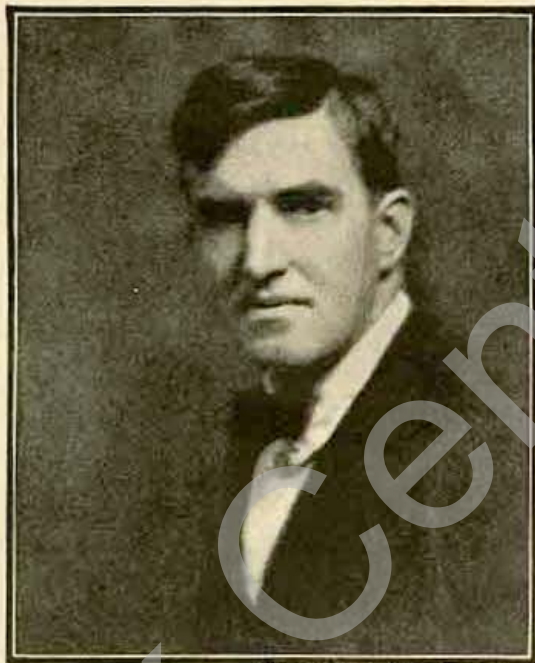
We now know all about the fat soluble vitamin A, the water soluble vitamin B, the water soluble vitamin C, and we know something about vitamins D and E. There also appears to be a vitamin F in the offing, and doubtless vitamins G, H, I and J will subsequently materialize.

In connection with the rapidly increasing information which has been piling up in the clarification of the minds of the physiologists and biologists we must not ignore the new comet which comes out of the West labelled vitamin X.

All the information concerning the vitamins was originally inferential, based upon deductions which were so enticing to the deductors that they rapidly assumed the character of stateliness and substantiality before which the enthusiastic scientists on the side line bowed in awe and veneration.

Following the procedure made famous by the sheriff in Sir Walter Scott's really glorious tale of "Guy Mannering," a sheriff, who, by the way, was the original of all the great detective stories ever written, even though Conan Doyle, creating a Sherlock Holmes, gives no credit to the model set up by Sir Walter, it might have been expected that the inferences which now push vitamin X to the front would be forthcoming.

The discoverers of vitamin X believe that it is the vitamin which controls all the reproductive functions, and it's just as essential to the metabolism of an adult animal as vitamins A, B and C are essential to the growth, de-



Photograph by Nicholas Murray

Alfred W. McCann

velopment and maintenance of body weight of young animals.

For five years I have watched the parade of vitamin erudition, and have marvelled over the readiness of really eminent men in the scientific world to kowtow in humility at the feet of the vitamin band-master.

I have watched, now with amusement and now with indignation, the extraordinary emphasis given to this and that interpretation of the significance of this and that vitamin.

I have watched the elaboration of an orthodox creed established on the vitamin foundation, and with wonder and amazement have observed the erection of an edifice resembling a Greek temple wherein the vitamin gods have continued to attract new groups of worshippers.

An odd phenomenon in connection with the scientific ceremonies by which the vitamins are now being honored, is witnessed by all who dare to peep beyond the sacred portals into the gloriously illuminated sanctum within. None of the high priests of the new religion has ever seen a vitamin. None has ever tasted a vitamin. None has ever smelt a vitamin. None has ever isolated a vitamin.

Here we have a scientific religion which lacks isolation of the object worshipped, identification of the object worshipped, analysis of the object worshipped, and last of all synthesis of the object worshipped.

These four processes constitute the very first steps taken by any scientific procedure in the direction of any chemical entity. The bass drums are beaten furiously. The cymbals clang raucously. Great trumpets are blown to the accompaniment of minor pieces of brass, setting up a din which by sheer dint of uproar deafens the voices of all decent protestants, and makes them inarticulate in the presence of the great scientific jamboree now threatening to misdirect the whole course of true science and throw its most important development back into the so-called dark ages.

So overwhelming has been the acclamation of the vitamins that already, though they are mere names to conjure with and not definitely known substances, millions of dollars have been spent in exploiting their alleged virtues.

Bread charged with vitamins has appeared upon the market with nearly two million dollars behind it, and in six short months has disappeared even as ruddy Mars, not to return again for another hundred years, vanishes into the interstellar spaces.

Patent medicines in the form of concoctions, pellets and pills have been sold in carload quantities to young girls seeking to beautify themselves by swallowing the quintessence of health, strength and comeliness. The most profitable successes thus far recorded to the extravagant career of the vitamins are no longer to be found on the market.

One institution whose sales amounted to \$750,000 in a single month is no longer a factor in the business of the druggist, though only a year ago young ladies had to form in line and take their turn in approaching the counter over which the vitamins were dispensed.

New vitamin corporations, believing that they have found the flaw in the old and have discovered the secret of making a success where others have reported failures, are even now in the making.

A celebrated yeast cake spent hundreds of thousands of dollars to convince the public that it was the episcopal residence not only of the grand knight of the vitamin clan, but that all the minor dignitaries of the grand knight's household dwelt within the six sides of the little cube. Now not even the word "vitamin" is ever mentioned in connection with the advertising of the yeast cake, which has ceased to be a purveyor of vitamins and has become a food—and a good one!

Perhaps a rose by any other name would smell as sweet. But in falsely attributing to the unknown, virtues which actually belong to the known, vitamin scientists have gone far afield in a movement that not only threatens to obscure truth where truth clamors for recognition, but which actually substitutes for truth the one thing against which true science tilts all its lances—error.

For years I have been urging scientific men to put the soft pedal on their inordinate enthusiasm, and to focus their energies upon the known while pursuing the unknown. I have suggested to them repeatedly the wisdom of assuming among all their other assumptions that not the vitamins themselves, if there are any such things, but the ensemble, the sum total of all the factors now known to be indispensable in the development and maintenance of life in the animal kingdom, is responsible for the various phenomena witnessed in the research laboratories where white mice, albino rats, guinea pigs, chickens, monkeys and even human beings are being fed, to no other end than that something tangible may be seized upon with which to bolster up and support the vitamin theory.

All scientific men worthy of the name working in the field of metabolism are familiar with the really competent and profound researches of Dr. Carl P. Sherwin, in isolating, identifying, analyz-

ing and synthesizing the amino acids, of which eighteen are now well known. The amino acids are the building stones of hundreds of different kinds of protein. There can be no protein without amino acids.

Physiologists are not unaware of the fact that these eighteen amino acids establish themselves in two groups, one as absolutely indispensable and the other as exceedingly important.

Among the essential amino acids can be named lysine, tryptophane, cystine and proline. Nearly forty monographs have been published by Dr. Sherwin during the past ten years on this question, and as a result of his research science knows, or should know, that lysine, which is not obscured by any indefiniteness, vagueness or precarious standing, is absolutely essential not only to the growth of all young animals, but also to the detoxicating mechanism whereby they pull the teeth out of the poisons elaborated in their own bodies by the daily wear and tear of life.

Dr. Sherwin has also fully established the fact that tryptophane is absolutely essential to the maintenance of body weight, that cystine is essential not only to the normal growth and development of the young, but equally essential to the normal metabolism of the adult, and that proline, though it may have nothing to do with the growth curves of the young animal, is essential to its ability to hold its own against destruction and loss of tissue.

Dr. Sherwin has also fully established the fact that tyrosine and phenylalanine play a dual role in the organisms of the animal, so that either one or the other is essential to its health, and that in the absence of one the other yields itself to some mysterious process whereby the missing twin is synthesized within the body in order that both may go on working even though only one has been provided in the food consumed.

Dr. Sherwin has also established the fact that arginine and histidine are essential to health, though it is still doubtful which of the two is the more important, and also doubtful whether the body in case of need can manufacture one from the other as in the case of tyrosine and phenylalanine.

Dr. Sherwin has also definitely established the fact that glycocholic acid, also known as glycine, glutamine, glutamic acid and ornithine can be synthesized in the body in case of need, from substances which would otherwise have been thrown off as waste products, thus illustrating the wonderful capacity of the body over a long period of time when deprived of normal nourishment, to use its own sewage products in replacing essentials necessary to the maintenance of life.

In my own laboratory it has been noted that animals subjected to the precarious vicissitudes of a deficient diet will actually consume their excrement with beneficial results, although when adequately fed there is no human power that will force them to any such extraordinary procedure.

Dr. Sherwin has also es-

(Continued on page 87)

Has Science Really Been Sidetracked?

VITAMINS are mere names, not definitely known substances. Yet for years a tremendous amount of time and money has been wasted, in an effort to bring them before the public.

Their values are constantly being exploited, but many of the preparations reputed to contain their life-giving substance, have already outlived their popularity and are fast fading from public notice.

Throughout all the "vitamin craze," Alfred W. McCann has remained staunch in his belief that it is not the vitamin alone (if there is any such thing) but the sum total of all the factors which are *known* to be indispensable to health, that are worthy of attention.

And he further points out that in his laboratory, although they ignore the vitamin issue entirely, they are having phenomenal success in governing the health, even the life and death of the animals upon which they experiment.

The Breast and Abdominal Muscles

Can They Be Overdeveloped? Are They Prominent on a Well Proportioned Man? Here Are Some Straight Facts Concerning Them and How to Develop Them

By Alan Calvert

YOU may recall that, a few months ago, I wrote an article about a wonderfully developed English athlete by the name of A. P. Mead. To refresh your memories, I will remind you that Mr. Mead, having lost a leg in the Great War, subsequently determined to stage a physical "come-back" and by diligent exercise succeeded in acquiring a most remarkably shaped and muscled body. Particularly noticeable was the size and evident power of the muscles on the lower part of the trunk, the waist line.

I recently received a letter from Mr. Mead, in which he discusses many interesting details in connection with the up-building of a powerful body. On some points I agree with him, and on others we differ, but his letter suggested to me several things which may be made helpful through an informal public discussion like this.

Among other things he mentions his special exercises for developing the muscles on the abdomen, and the breast (pectorals).

Any one who sees as many hundreds of "muscle-poses" as I do, can not help recognizing the fact that there is at present a cult, or fad, for extraordinary development of those muscles, the ones just named, which lie along the front of the body.

It is something which I can understand, but of which I do not wholly approve. One of the reasons, as I have said many times, is that when posing before a mirror, it is easy to see the muscles on the front of the body and hard to see those on the back. Hence nine out of ten enthusiasts, through doing the most convenient poses,

get an unequal development of the body; they get more muscle on the front than on the back of the body; which is all wrong. However, I have no desire to force my views upon you, and since so many of you seem to be vitally interested in the development of the abdominal muscles, a few hints may help you to get results quicker than you otherwise would.

The best known exercise for bringing out the development of the abdominal muscles is the one where you lie flat on the back, and then raise the body to a sitting position. It is very much easier to do the exercise if the feet are held against the floor by some artificial means. If you belong to a well-equipped gymnasium, you will find there various pieces of apparatus which permit you to do abdominal exercises with ease and comfort. But the fact is that nine out of ten muscle-culturists have to take their exercise at home; usually in the confines of their own bedroom. The directions accompanying many courses tell you that all you have to do in order to keep the legs down while raising the body, is to slip the feet under the foot-board of your bed, or under the front edge of your bureau or dresser; which sounds practicable until you try it. In most beds the bottom edge of the foot-board, or the lower rail of a metal foot-piece, is nine or ten inches from the floor, so that when you put your feet under the bed, you get a hold only with your toes. Consequently, you have but little purchase, and, furthermore, at the beginning of the movement, when you start to raise your body, the feet will rise an inch or so from the floor. If you attempt to use your dresser as an anchorage, you find that its bottom edge is so close to the floor that is hard to get the feet under, and that when you do so, the sharp edge will scrape your ankles at each

repetition of the sitting up movement; also that, if you are a heavy man, that you continually tip, or even move the piece of furniture.

Either of the above

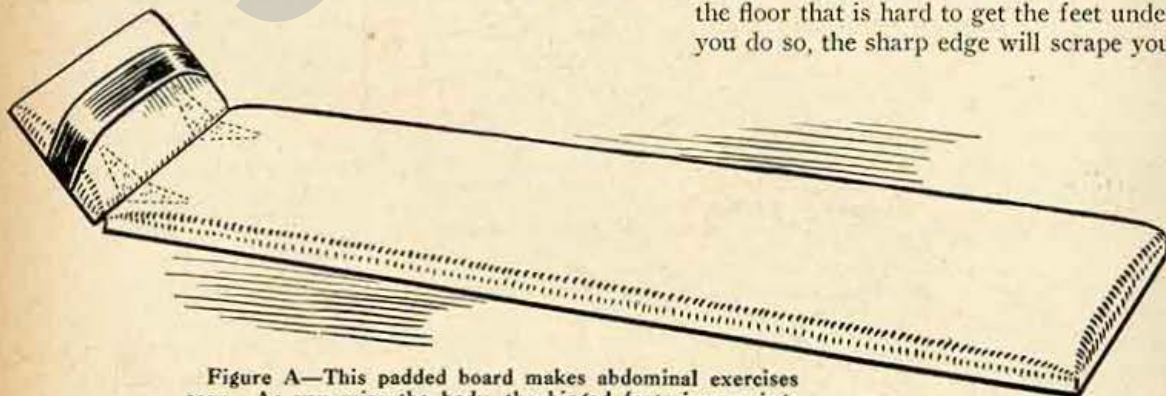


Figure A—This padded board makes abdominal exercises easy. As you raise the body, the hinged foot-piece swings slightly down, exactly accommodating itself to the natural forward push of the foot.

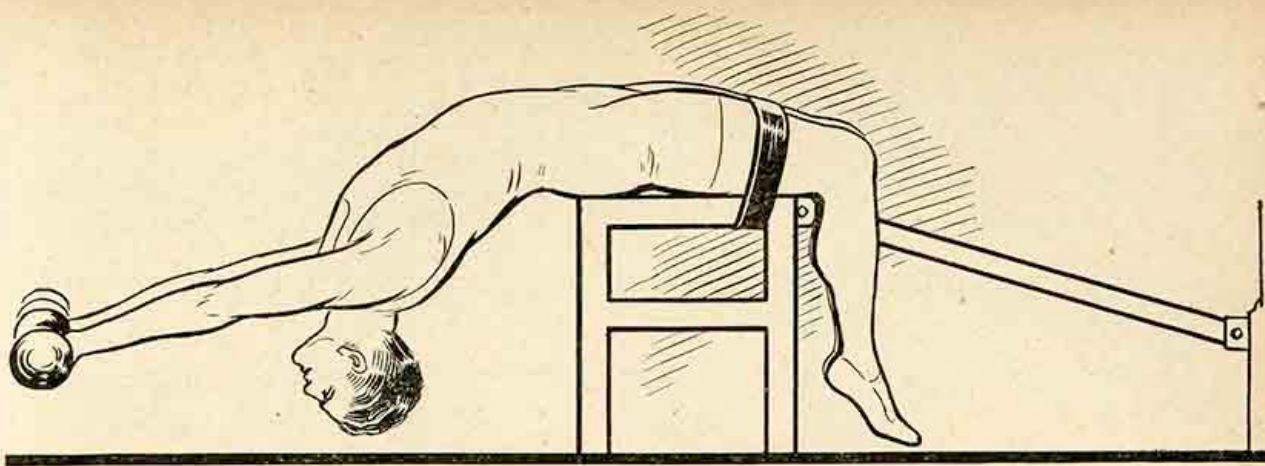


Figure B—In doing this exercise which is about twice as difficult as the straight body raising movement, the author explains how the stool can be "stayed" to prevent it from toppling over backwards.

schemes is practical, but darn uncomfortable. It is really important to keep the feet firmly held to the floor, and the most sensible way to do it is by a fastening over the ankles. If you happen to own a heavy bar-bell, it is feasible to place it so that its handle comes across your ankles. But even that does not work unless the ends of the bell are of such a size that it makes the handle come at a convenient height that will hold the ankles down without pressing on them.

A strap fastened loosely to the floor is both simple and effective, but unfortunately, neither your mother, your wife, nor your landlady will consent to such an arrangement. It is a most extraordinary thing, but no woman will acknowledge that any convenience for exercise justifies the disfiguring of a room. You may explain at length the unique value of your arrangement, and all the reply you will get is that "it looks queer, and they won't have it." So the next thing that suggests itself is to get a board about six feet long and twelve inches wide and fasten a strap near one end of it. Lots of fellows do that, and when the board is not in use, they stand it in the closet or shove it under the bed.

After you have practiced the exercise a few days, you will notice that as you raise the body to the perpendicular, your feet will slide an inch or two forwards. Therefore the strap at the bottom of the board will seem to be always sliding up towards your shins, and impeding the circulation. In gymnasiums they have a board on which you lie, and the feet are fastened to another board which slides in and out under the first board.

The best arrangement for home use I ever saw was made for me by a man who was a clever mechanic, and who had a comprehensive knowledge of most kinds of exercise. I ordered the board for a fat man who wished to reduce his waist-line; and since, like most stout men, his flesh was very tender, the upper side of the board had to be well padded. The simplicity of its construction is shown

in Figure "A." One inch plank was used, and at the end of the six foot piece there was a hinged foot-piece. The outer end of this foot-piece was fitted with a broad leather strap. When you spread yourself on the long board, you stuck the front of your feet under the leather strap, which was so broad that it reached up over the insteps. When lying flat, your feet pointed directly upwards, but as you raised the body, the hinged foot-piece would swing slightly downwards, exactly accommodating itself to the natural forward push of the feet. If you want a board for home use, I advise you to copy this pattern. You will find it a most comfortable arrangement, and one that firmly braces your feet and so allows you to make powerful contractions of the abdominal muscles.

Most of the regular readers of *STRENGTH* are aware that the abdominal muscles can be given harder work, if instead of lying flat on the floor, you sit on a stool or chair, and bend backwards until the head touches the floor, and then raise the body to an upright position. In this advanced work, which should be practiced only by those whose abdominal muscles are already strong and in good condition, it is necessary that both the supporting chair and the athlete be firmly braced, so as to prevent any disastrous slipping.

Mr. Mead is an advocate of this advanced work, and presents a valuable suggestion for its safe accomplishment. He says:

He says:

"Take, for instance, the abdominal exercise of lying on the floor, with the feet under a weight, and raising the body upright. This exercise, in my

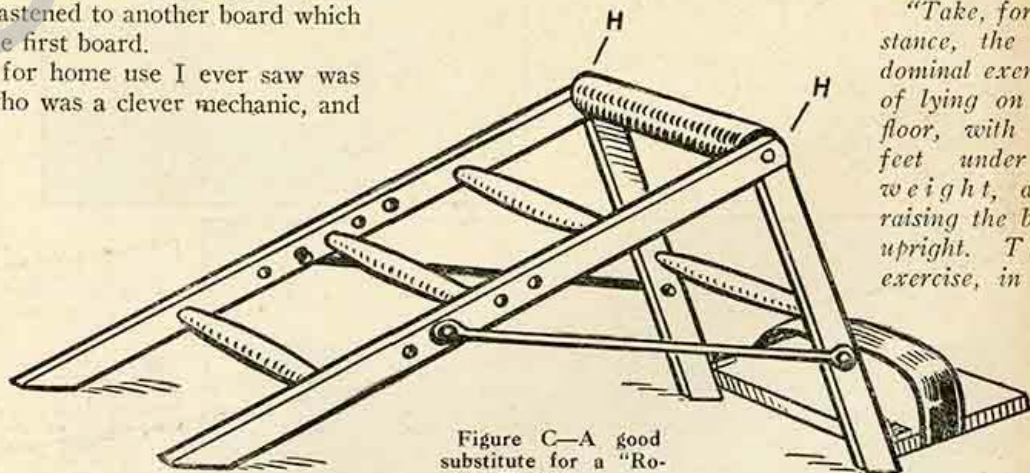


Figure C—A good substitute for a "Roman Chair."

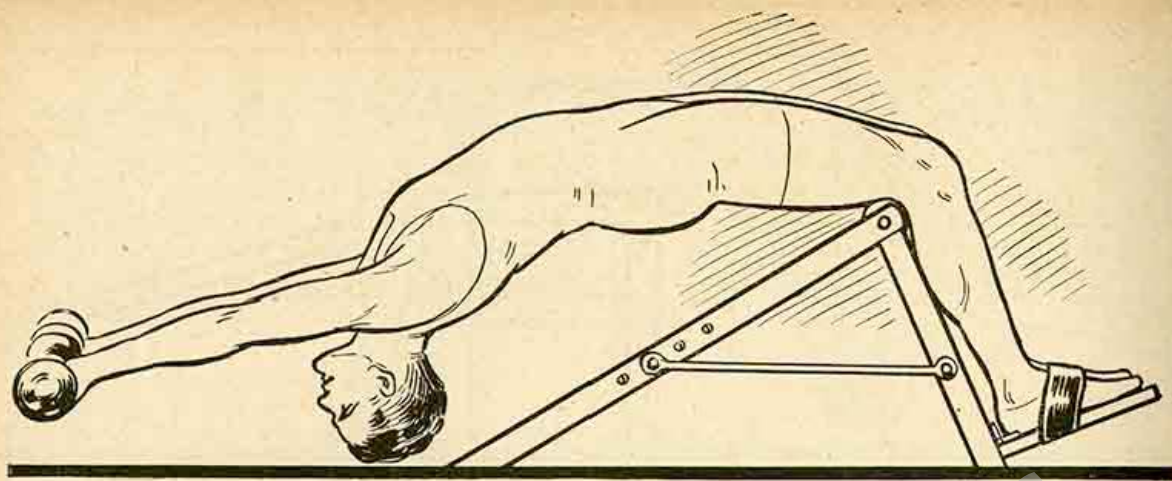


Figure D—How the Roman Chair work can be done with the apparatus shown in Figure C.

opinion, only gives work to the abdominals through about two-thirds, or less, of their full range. If the same exercise is performed sitting on a stool about 24 inches high, so that the trunk can be bent right till the head touches the ground, the work given to the abdominals is about doubled, and the exercise made much more effective. Of course, the stool has to be "stayed" to prevent it toppling over backwards; and the simplest way to retain position on the stool is by a strap (fastened down to the stool) passing over the thighs just above the knees. By twisting movements in this position, you can also get a good exercise by using the weight of the trunk for resistance, and this can be increased, after a little practice, by a weight held in the extended arms."

Figure "B" is an elaboration of a sketch sent by Mr. Mead. He gave me no particulars as to the character of the "stay." He may have used a length of rope, but it seems to me that it would be more satisfactory to use a length of hard wood, say one-half inch thick, and two inches wide. This could be fastened to the edge of the stool, and to the baseboard by wooden pegs or iron pins, and would prevent the stool from tipping either forwards or backwards.

You may object that these things cannot be bought, and that it costs time and money to make them, or have them made. Quite so! But neither the board in Figure "A" nor the stool in Figure "B" should cost you more than five or six dollars, and probably not half that. If it does cost six dollars, and you get a year's use out of it, it means less than two cents a day and, after all, six dollars is not much to pay for anything that

makes your exercise more easy of accomplishment. Any one of you would gladly pay ten times that sum if you could buy a set of magnificent abdominal muscles ready-made to fit you; but you can't buy muscle, you have to earn it by hard work.

All of the foregoing advice is for those who are EARNESTLY working for a reduction of their waistlines, or for an extraordinary development of the abdominal muscles. It will have no appeal to those others who consider exercise as a sort of mixture of duty and a curse, and who never get results because they never take the work seriously.

Here is one more suggestion. The most advanced of all abdominal exercises are the so-called "Roman Chair" and "Roman Column" stunts, in which the weight of the athlete is supported, not at the hips, but at or below the knee-joints. Once, after having written an article on such work, I was deluged with letters asking where to obtain the apparatus. Although I tried, I was unable to find anyone who would manufacture "Chairs" or "Columns." I recall that a long time ago, I saw an advertisement of a very good substitute for a Roman Chair, but whether the "ad" appeared in an English or an American magazine, I fail to remember.

Figure "C" will give you an idea of what it was like. Apparently it was a folding arrangement, being hinged at "H." It was something like two ladders, of which the shorter was just long enough to reach from the heel to the inner bend of the knee. An iron "stay" ran from each side of

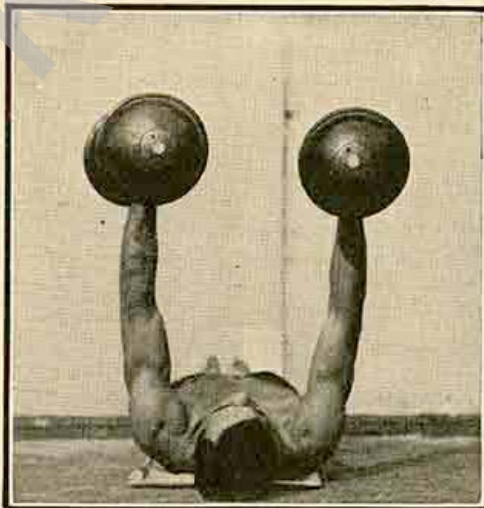


Figure E (At the left)—The position of a barbell exercise for developing strong pectoral muscles.

Figure F (Above)—The second position of the same exercise. How these muscles would be developed by the use of springs, is shown on page 29.





Figures G & H—Illustrating how the exercise for developing the pectoral muscles shown on the preceding page can be done with springs instead of weights.



the short ladder to the side of the long ladder, so that it could be adjusted to different heights. (I call them "ladders" because I can think of no better word.) Where the two sections or ladders were hinged together, there must have been a heavy roll of felt, or leather-covered padding.

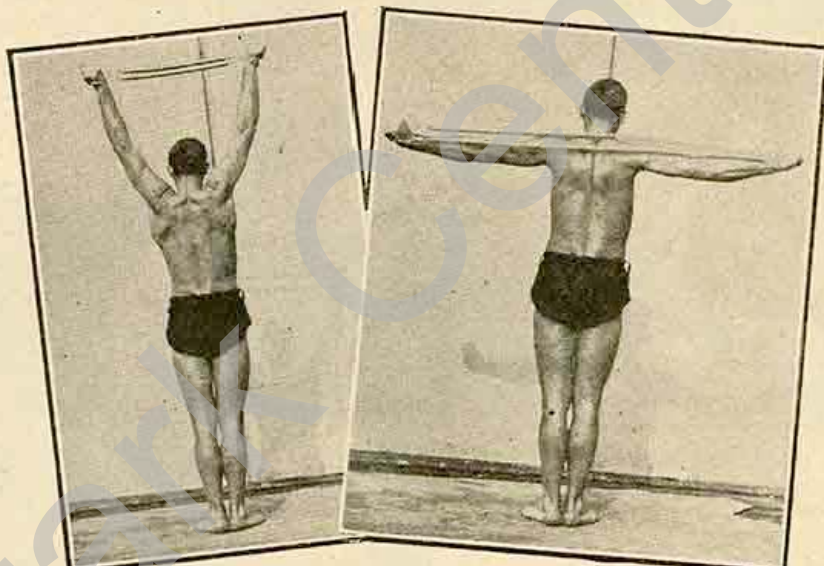
At the base of the short ladder was a foot-piece with a strap that passed over the athlete's insteps. Figure "D" shows the apparatus in use. When your weight is supported at the knee-joints, and you bend backward, the abdominal muscles are given the hardest kind of work, and in addition you get a degree of strength in the hips, small of the back, and upper-thighs that you will never get from working on the floor, or when the hips are supported on a chair or stool. This kind of work is positively not for beginners; only for those highly trained individuals who are seeking the limit of strength and development.

So, if you are after clearly outlined and well shaped abdominal muscles, there are three pieces of apparatus (all of which might be made at small expense), which will aid you in getting that development. But after you do get such development, let me caution you against posing to show those muscles until after you have them so under control that you can display them without rounding the back and compressing the abdomen. There are athletes, such as Sandow, Siegmund Klein, Otto Arco, and Mr. Mead himself, whose abdominal muscles are so wonderfully and properly developed that those muscles show plainly when the body is in an up-

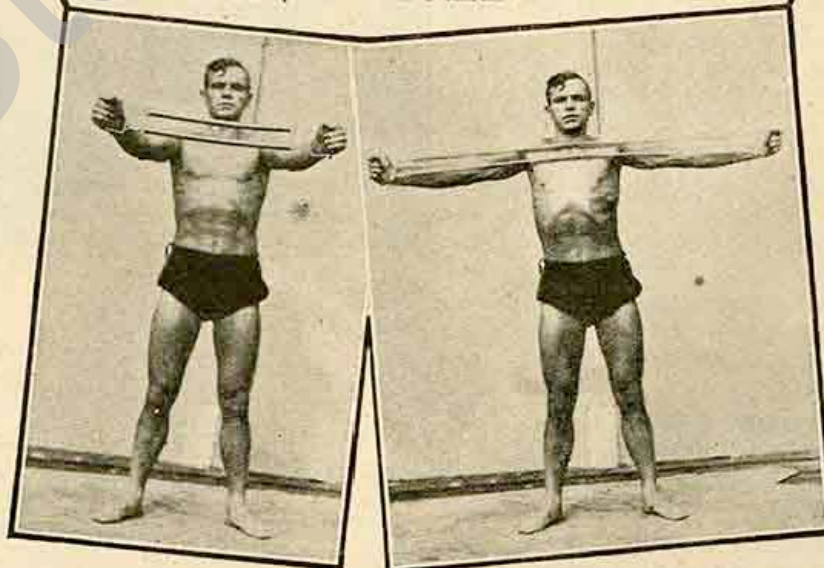
right position, just as a properly developed arm will show a magnificent low curve of the biceps when the arm is hanging straight by the side. The majority of athletes, when they wish to display the abdominal muscles, have to lean the shoulders forward, compress the abdomen, and then tense the muscles. The position is not only unsightly, but it absolutely kills the pleasing effect of a well developed figure.

Recently I had at hand some pictures of a remarkably shaped and well-developed young lifter. As in most well-proportioned strong men, the hips were as wide as

the chest from arm-pit to arm-pit. This man had very fair abdominal muscles, but over-emphasized their importance; so that in his effort to display them he was continually distorting his figure. In the lot of pictures there were several which showed him standing naturally erect, and others in which one or both arms were raised overhead, and in all those pictures he presented a magnificent appearance, his big swelling chest lending an appearance of strength to the whole figure. In one



Figures J and K (Above)—In this spring exercise, the same muscles are used as in the two arm "pull-over" with a barbell.



Figures L and M—The muscles used in this exercise can be developed with a barbell as shown in Figure N.

pose he was determined to show his abdominal muscles; so he clasped his hands in front of him at the level of his hips, and bent himself slightly forward. I admit that the muscles on the front of the abdomen showed up finely, and so did the muscles at the sides of the waist; BUT in the act of displaying those muscles, he had so cramped his chest and abdomen, as to make his body look ridiculously small in comparison to his broad shoulders, his big arms and his powerful hips and thighs. In fact, it made his trunk look so small that it appeared as though the legs and arms of a giant had been hitched on to the body of a much smaller man. As a display of abdominal muscles it may have been good, but as an athletic pose it not only had no value, but also gave, to any one who saw only this one picture, an entirely wrong and very unfavorable impression of the athlete's proportions.



This figure shows the well known isolation (separate display) of the abdominal muscles, a pose which was originated by Mr. Arco.

Figure 5—Here Arco besides displaying the great trapezius muscle between his shoulders and neck, the huge deltoid and various other muscles also show his control over the diaphragm. It is interesting to note in both of these photos the complete absence of overly thick pectoral muscles. It is the author's belief that when these muscles are too remarkable they are made so, not because of over-development but rather because of lack of development in other muscles.

So I caution you against posing to feature the abdominal muscles. Show them in a general pose (if you are skillful enough) but never subordinate the whole effort of the body to them.

The same thing applies (in my opinion) to the pectorals, those two great slabs of muscle on the breast. The instant you "feature" those particular muscles in a pose, you destroy the masculine appearance of the body. This is particularly true when the pectorals are disproportionately developed. Many people, enthusiasts and the reverse, have fought with me over the point

where a muscle ceases to be fully developed, and becomes "over-developed." Often I have stoutly maintained that there was no such thing as over-development. Nature attends to that, refusing to support over-development. No individual, no matter how big his muscles may be, looks to be over-developed if ALL his muscles are proportionately developed. It is only when some muscles are fully developed, and others partly developed, that the first named appear to be abnormally large. Sandow's figure and development commanded the admiration of every one, physical culturists and non-physical culturists alike. His muscles were far and away above the average in size, but you never heard any one say that he was over-developed. He was so superbly symmetrical that every part of his body seemed to be just right, and what it should be. Hackenschmidt was a much heavier-muscled man than Sandow, but nobody claimed that HE was over-developed, for they instinctively recognized that his sturdy frame and massive bones justified his huge muscles.

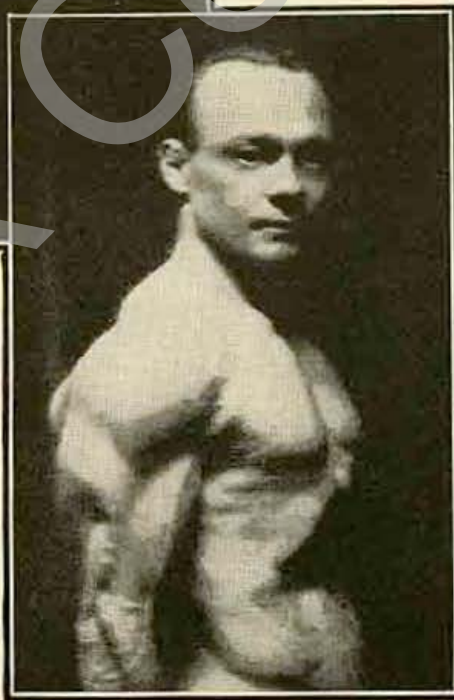
On the other side of the matter, I have seen gymnasts whose arms and chests were smaller than Sandow's, and who appeared to be over-developed in their upper-bodies because their hips and legs were so puny; and I have seen "six-day" bicyclists and walkers whose legs appeared to be over-developed, but only because their arms and shoulders were slender.

What I am driving at is, if you make the mistake of thinking that pectorals (breast muscles) are altogether admirable of themselves and develop them while you neglect the neighboring muscles, you will give your body a womanish instead of a manly appearance. I am not urging you to neglect the pectorals, for big, powerful, shapely pectorals are to be desired, IF, and only if, they fit into the general muscular scheme. You see, absolute symmetry is getting to be my pet and particular hobby.

To get back to Mr. Mead and his letter. When he sent me his

first pictures he asked me to guess what method of exercise he had used to get his development. I gave, as my opinion, that he had practiced a combination of muscle-control and bar-bell exercise (graded weights). He now tells me that he did practice intensively the Maxick system of muscle-control, and that he further used weights; and has in addition devoted a lot of time to the use of the parallel bars, horizontal bars, the rings, and to rope-climbing.

In regard to muscle-control, he agrees with me that it is not in itself a developer of muscle, because as he says,



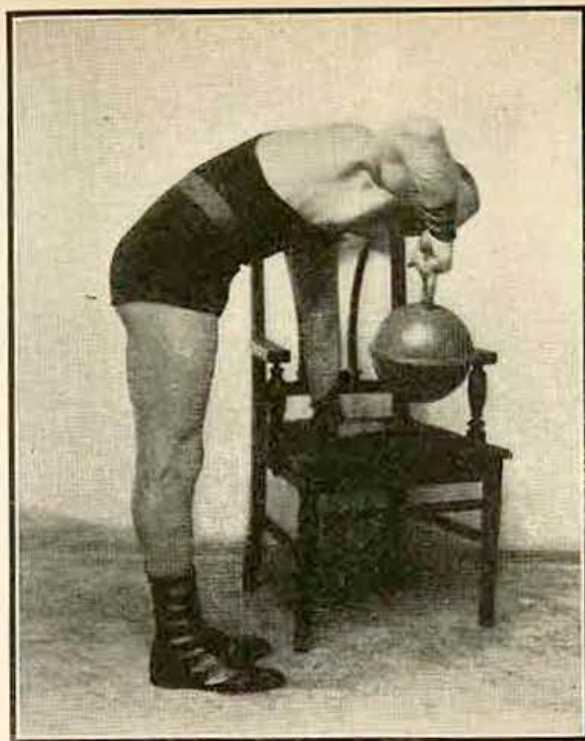


Figure N—The muscles used in the exercise shown in figure M can be developed by using weights as shown above.

"It is useless to try and control muscle which is not there." In further explanation of his present extraordinary development, he says that while his interest in muscle-building dates back only to his release from the hospital, that he always was in pre-war days considerably above the average both in build and development. He obviously considers that he had a very good foundation on which to build, and does not claim to have gotten ALL his present development from his last four years of training. In one paragraph he says:

"I know that you are an enthusiast over the progressive weight exercise system, and I agree with you to a certain extent that weights are unbeatable for securing development, but it seems to me that certain parts of the body can be better and more easily developed by the use of powerful springs. With weights the resistance in relation to the position of the body is always the same, i. e., downwards; with a spring the direction of the resistance in relation to the position of the body can be varied either by changing the position of the body or the position of the point of anchorage of the spring."

He gives as an illustration an exercise for developing the pectoral muscles. When a pair of dumb-bells is used, it is customary to lie as in Figure "E" with arms outstretched and while keeping arms rigidly straight to raise the bells to the position shown in Figure "F." (I recommended that exercise in my book, *Super-Strength*.) When a pair of springs is used, they are fastened at points some distance out to the sides, and the arms are raised in the same way, as in Figures "G" and "H."

To quote Mr. Mead again, *"When the exercise is done with weights, the greatest resistance is experienced right at the beginning of the exercise, and the resistance gradually DECREASES until at the finish of the lift, the whole weight is taken through the BONES of the locked arms, and the pull on the pectoral muscles is ZERO.*

When the same exercise is done with powerful springs, the resistance is slight at the beginning of the exercise, gradually increasing to a maximum at the finish, exactly the opposite effect to when weights are used. By using both exercises, I think you will obtain a very much better development than by using only one of the exercises, as the muscles will be worked throughout THE WHOLE RANGE of the contraction."

I hope no one thinks that, because I have been an ardent advocate of weights, I am not cognizant of the value of other forms of exercise. Mr. Mead's contention is worthy of consideration, as would be the opinion of any other man who had brought his own development to such a high state. However, in his case, I can only come back at him with his own words, and say that I agree with him to a certain extent.

It was nearly twenty years ago, I think, that Paul Von Boekmann first stated his theory of the limited value of weights because the resistance was always in the line of gravity, and that consequently those muscles, which worked in opposition to the line of gravity, would be left undeveloped. As a remedy, he suggested what he called a "leverage bar-bell;" a rod with a weight on one end only, and gave exercises with it which *did* bring into play muscles which are obviously left idle in SOME of the best known bar-bell exercises. He paid but little attention to the subject, although several others have since worked the same ideas, without giving any credit to Mr. Von Boekmann, who originated it. It was soon discovered that any bar-bell of the adjustable pattern could be used as a "leverage bar-bell," for all one had to do was to put the weights (spheres or plates) on one end of the handlebar, leaving the other end free. Furthermore, as the use of ordinary bar-bell became more extensive, it was discovered that there was a way of developing practically every muscle, whether or not it normally worked against gravity or in line with it. The only thing necessary was just reverse what Mr. Mead suggests in the use of springs; that is, instead of altering the position of the anchorage of the *spring* in relation to the position of the body, one alters the position of the *body* in relation to the line of the gravity pull of the weight.

It was once claimed that with weights one could not develop those muscles which pull the arm downwards and backwards (as for the example, the arm is pulled against the body in chinning the bar with one arm.) As every one knows, the hardest part of a "one-arm chin" is the start. Not one man in (Continued on page 80)

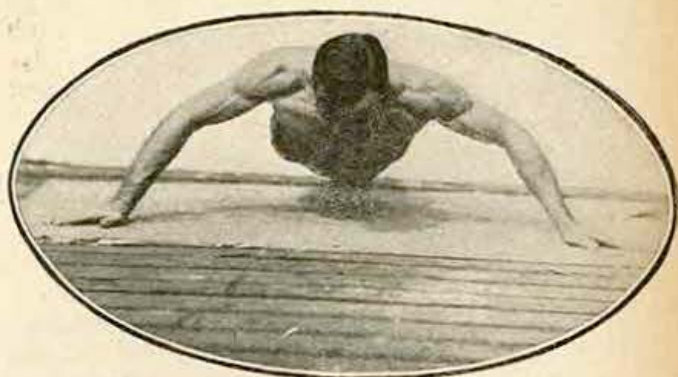


Figure O—This form of dipping is extremely difficult and creates much greater pectoral muscles than dipping done with the arms closer together.



Do You Eat Too Much?

If So, Why? Just How Much Is Enough?
A Survey of Our Most Popular Dissipation

By Carl Easton Williams

DO most of us eat too much? Thomas Edison says that we do. But Edison also says that we all sleep too much. We are doubtful about that, and any way we do ourselves no harm with a little extra sleep. But there may be truth even in that, since there is evidence that correct eating enables one to be perfectly rested with less sleep.

However, why do we eat too much? If we could find that out we might the more easily reform.

And how much too much do we eat? Just how much is enough?

Do we eat too much of the right foods? Or do we eat too much of the wrong foods? Can one eat too much of the right foods?

You can see at once that there is food for thought in this interesting topic. It is a subject that will stand a great deal of chewing over.

Food reformers have always railed at the "crime of over-eating." Cornaro's famous book about living a hundred years was essentially a preachment on abstemious living, for he found health and longevity by living on almost nothing. Our common sense tells us that most people eat too much, though we don't know how much too much. Only the doctors encourage self-indulgence, but doctors as a class are about the last people

from whom one expects to learn anything about eating. "Eat plenty of good nourishing food," says the doctor, and so you go on with your gluttony, continuing the same mistakes in eating that brought about the occasion of your contact with him.

And how are you to know that you are eating too much? If you are overweight, and gradually gaining, that's easy. Any fat person may know, from the very fact of his or her being fat, that he or she is eating too much. Your best athletic weight at the age of twenty-five should represent your best weight later in life as well. The much published "tables of average weights" show that people on the average gain weight between twenty-five and fifty, but that does not mean that such a gain is normal, or that all people grow fat to that extent. It only means that one person out of four gains far too much, and thus brings up the average. The majority of people remain lean, some of them underweight. Of course some of our "overweight" people are those of heavy bony framework, with an unusually powerful muscular development, which brings them above the average without any excess of fatty tissue, in which case they are actually not overweight at all, but quite normal.

But if you are not inclined to get fat, and especially if your chest measurement exceeds your waist line by

a good margin, it is not so easy to know whether you are eating too much. And certainly the fact that you are underweight does not mean that you are not eating enough. Emaciation may even more likely mean that you are stuffing. Of course if one actually does eat too little he will lose weight, and it may be that in some cases the thin man or woman is under-eating, but it is not so likely. In more cases, as the old saying goes, "he eats so much that it makes him thin to carry it around." Which is pretty close to the literal truth.

In short, within limits the quantity of food eaten bears no necessary relation to bodily weight, except among those who naturally grow stout. I once heard a famous food authority, testifying in court, declare that if a thin person would eat more food he would gain in weight, and that according to the amount of food by which he increased his diet. He probably did not think what he was saying, for he was side-stepping some other point in cross-examination. Any way, what he said is not necessarily true, for one might eat more and weigh even less. However, I have before me as I write some instructions for gaining weight prepared by a prominent and reputable medical institute in which the same inference is made, suggesting that an abundant supply of starches, sweets and fats will enable the thin man to make a desired gain in weight.

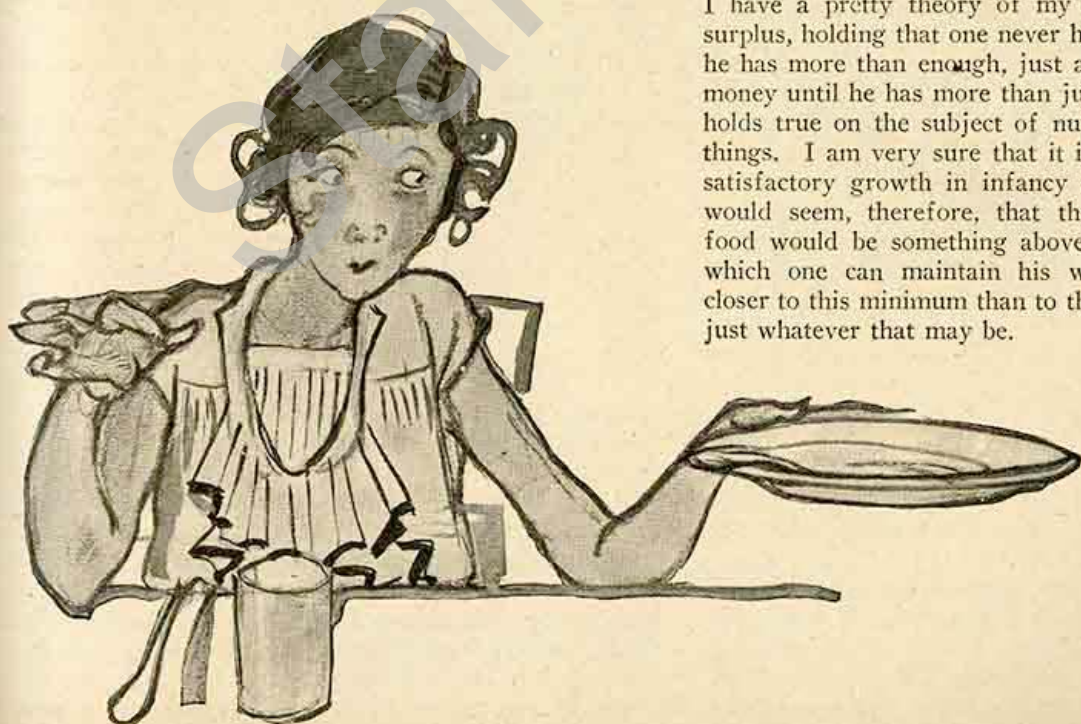
The truth is that most of us are naturally limited as to weight up to a certain level, that is, we possess some mysterious quality of inhibition, probably associated with some factor of gland control, which prevents us from growing heavier, just as a similar inhibition prevents us from growing any taller after we have reached our intended stature. Your barber does not cut your eyebrows or eyelashes. And why don't your eyebrows keep on growing, as does your hair or your beard? There's an "inhibition" there somewhere. And there is some such inscrutable reason why some of us *do not* gain weight just by eating more.

As a matter of fact, you would very likely find that you could eat either two meals or four meals a day,

instead of the three that you are used to, and still weigh just about the same, speaking of meals of about the same average size. If there would be any change, it would more likely be a loss of weight—through impaired health—on the four meals. Let us suppose that there is a fixed minimum which represents your absolute food needs, and which is just exactly enough to keep you at your weight. The point is that you can eat either that exact amount or perhaps half as much again, without affecting your weight if you are one of the lean kind, and possibly without affecting your health until you reach some fixed maximum, beyond which excesses of food become such a burden as to overtax your system and hurt you. Just where that maximum lies is often a puzzling question. But the amount of food that we eat may vary between this minimum and this maximum, and as a matter of everyday life it does actually vary between these points of more or less food, either of which may be consistent with our welfare. In short, if we are too busy to eat, or if circumstances place a limit upon the diet, as in war or travel or exploration, we find that we can get along with less—down to our so-called minimum. Or, under other circumstances of a happy nature, we can eat considerably more food—up to this theoretical and indefinite maximum—and get away with it nicely. The range of this variation between minimum and maximum is uncertain, and doubtless varies with different individuals, but it is probably considerable.

Now, there is also a theoretical "optimum" or best point, which presumably represents the amount of food which is perfectly and ideally in accord with one's needs. On a basis of strict physiological economy, one might assume that the minimum and the optimum are identical, on the ground that even the slightest excess of food is a burden. But it is doubtful if it quite works out that way, on the whole, for the reason that an absolute balance of food elements perfectly to fit the needs of the body is almost too much to expect, though one comes close to that in such foods as milk and whole wheat. I have a pretty theory of my own on this matter of surplus, holding that one never has enough strength until he has more than enough, just as one never has enough money until he has more than just enough. I think that holds true on the subject of nutrition as in most other things. I am very sure that it is true with reference to satisfactory growth in infancy and childhood. And it would seem, therefore, that the optimum quantity of food would be something above the strict minimum at which one can maintain his weight, though probably closer to this minimum than to the maximum referred to, just whatever that may be.

The question of actual overeating, then, is not simply a matter of eating beyond the rigid minimum of our barest food needs, but rather of eating considerably beyond our optimum, or perhaps even beyond that maximum that represents materially more than we need, but which does not hurt



Is your best food supply your maximum or your minimum?

us. It is safe to say that many persons eat either this maximum or considerably beyond it. The best evidence of this is found in the improved physical condition which often follows a reduction in the food intake, as when, for instance, one tries out the two meal per day plan. There is probably no special magic in the mere fact of eating twice instead of three times per day, although of course the theory is that a rested stomach works better; the improvement is doubtless a matter of reduced quantity, ridding the system of a burden that it has had to carry. It is true that it is possible by stuffing to eat as much in two meals as in three, but as a practical matter one generally does not.

Experiences in food deprivations in Europe during the World War proved many things, piling up proof on a gigantic scale. Reduced rations in Germany brought about some pronounced benefits, but Denmark was the country having the best records of the results of a restricted dietary. Indeed, the population of Denmark was practically resolved into one gigantic "diet squad" of three million persons. Since there clearly was not food enough for both humans and animals, the hogs and cattle were killed off, and the people lived upon a diet almost exclusively of whole grain war bread, potatoes and cabbage. The result was a reduction of about one-third in the general death rate. There were probably two factors contributing to this astounding benefit growing out of what seemed a hardship. First, the reduction of the proportion of protein in the diet doubtless had much to do with it; and, second, there was the simple factor of a diminished total quantity of food eaten, for people are not so likely to eat in excess of this simple fare, even if they can get plenty of it, as they are of the savory and more stimulating meat combinations.

The matter of occupation naturally has everything to do with the quantity of food required. A man who shovels coal all day needs more fuel to keep him going than the man at a desk who uses nothing heavier than a pen or a pencil, just as an automobile uses more gasoline when travelling up and down hill at high speed all

day than when travelling only a few miles, slowly, on level ground. You cannot get energy out of nothing; hard work requires fuel food. But the trouble is that the bookkeeper sits down to three square meals a day and eats like the hired man on a farm. The desk man has no occasion to eat heartily unless he has a system of keeping fit by intense athletic effort. At that, it takes a lot of severe athletic training, such as professional boxers undergo, to equal the expenditure of energy of a lumberjack at work or a farmer pitching hay, for the reason that the man at work is at it all day long, while the athlete's efforts, though more intense, are limited in duration. But when the desk man takes little or no exercise he needs a stomach crammed full of food no more than an idle motor car needs a tank full of gasoline. Brain work may be exhausting to the nerve cells, but there is little fuel consumption involved, and a man working his brain at high speed seems to require no more food for the purpose than a man who is doing nothing at all. It is muscular effort, expending motor energy and producing bodily heat, that uses up food.

Recognition of these facts long ago led scientists to explore this phase of the subject, and to devise a form of measurement by which to estimate the energy value of different foods, since in their varying character one cannot compare them by the pound or by any form of linear measure. Hence, the calorie. We cannot even discuss this subject without getting into calories any more than we can discuss distances except in terms of yards or miles, or meters and kilometers.

In short, foods, according to this system, are measured by the thermometer, calories expressing units of

heat, which means the same as energy. One finds out how much energy is contained in a food by burning it, and noting by the thermometer how much heat it gives off. But it is burned by electricity in an apparatus or instrument called "calorimeter," which is an affair constructed on the vacuum bottle principle, so that external heat does not enter into the experiments. The food to be tested is placed in a container in the center, called the "bomb," where it is ignited and burned by electricity, giving off



Your barber doesn't cut your eyebrows or eye lashes. And why don't they keep on growing?

heat. Around the bomb is a definite quantity of water, containing a sensitive thermometer, so that the rise in temperature of this water can be noted, thus measuring the heat given off by the food burned. A calorie is the amount of heat that will raise the temperature of one gram of water (which is twenty drops) one degree centigrade. Ten calories would raise ten grams one degree. A hundred calories (slice of bread) would raise ten grams ten degrees. Translated into work, one calorie in a steam engine, or in a man, presumably, represents enough energy to lift one pound three feet from the ground, or three pounds one foot—three foot-pounds.

We are told that on this basis one can estimate the number of calories required to do a certain amount of mechanical work. Probably it works out that way in steam engines, where we know there is much loss or waste of energy anyway. But as to how it works out in the case of a human being, the writer has always been skeptical, for the reason that human effort seems far more economical, or more efficient or productive. On that basis of three foot-pounds per calorie, one slice of bread, or one hundred calories, would enable an athlete to lift one hundred pounds just three feet—once. He would use up two slices of bread to lift it over his head once. One meal of a thousand calories would enable him to lift a hundred pounds six feet high, barely over his head, only five times, and then he would have to eat another meal in order to lift some more. An ordinary moderate day's diet of three thousand calories would enable a man to lift a hundred pounds to the top of his head only fifteen times, or fifty pounds only thirty times, and then he would have nothing left to subsist on and keep life in his body. All of which is absurd. Of course any athlete knows that he can do an amount of work infinitely beyond that, on three meals, just as a farmer knows, from practical experience, that so much effort would be a trivial part of a day's work. Perhaps calories go much further, that is to say, energy goes much further in terms of animal life than in steam engines.

Nevertheless there is a practical relationship between amount of food and amount of work, though one cannot measure it quite so easily as testing out the heat value of food in a calorimeter. Various studies lead to the conclusion that our food needs vary from two thousand to five thousand calories per day. Two men sawing wood were found to require at least five thousand calories per day. An analysis of the diet of fifty lumbermen, chopping and handling logs, showed that they were eating over eight thousand calories a day, having good appetites; but whether they really needed quite that much remains a question. But men doing light work, such as tailors, have been found to need only 2,400 to 2,500 calories, metal workers and carpenters upwards of three thousand. Seamstresses have been found to need from 1,800 to 2,100 calories, and women doing housework from 2,300 to 2,900, or from 2,600 to 3,400 while doing the hard work of washing.

There are, however, occasions of emergency in which one does more work in one day than he can make up for by the amount of food that he can eat and digest in that particular day, as is probably the case in a Marathon race. The athlete usually rests two or three days before such a race, and one or two days after, if he is wise. Prof. Atwater carried on an experiment in which an athlete pedalled a stationary bicycle for sixteen hours, showing a metabolism equivalent to 9,300 calories, but



If you are overweight, you know that you are eating too much.

of course this was entirely abnormal. And yet on the basis of our three foot-pounds per calorie, this would be equal only to lifting a hundred pound bag of cement six feet high only forty-three and a half times, or a fifty pound bag of flour that high only ninety-three times, which as any farmer or freight handler can tell you is a ridiculously small day's work. Now, it may be that the scientist accurately measured the bicycle peddler's metabolism in terms of bodily heat, but the amount of work he accomplished in sixteen hours of constant peddling probably far exceeded the theoretical equivalent of 9,300 calories. Our common sense and practical experience suggest that there is something out of gear in these computations. Perhaps a calorie, which is a unit of heat, is equivalent to more than three foot-pounds of mechanical energy when expressed not through steam engines but through the more delicate and efficient channel of animal nerve impulses and muscular contractions.

Now, it is possible to count your calories, or measure your food in calories each day, if you have an extensive table of food values always on the dining table or in your pocket, or if you take a memory training course and commit them. But there are practical limitations, perhaps the limitations of human nature. No one ever does count calories, with the rare exception of some one grimly set on reducing fat. I could insert a table of calories here, but it would take up a lot of room and you would not use it anyway. It is probably sufficient here to note that a portion of one hundred calories represents, roughly, one slice of bread; two tablespoons of sugar, rice, flour, cocoa or cornstarch; one large apple or potato; one egg; two strips of (Continued on page 88)



Miss Marguerite Walz

Charm— and the Graceful Carriage

Some of the Secrets of the Dance and How
They Can be Applied to our Everyday Lives

*As told by Miss Marguerite Walz
to Madeline Mulvey*

WHEN we asked Miss Marguerite Walz, an accepted authority on all matters of social and ballroom etiquette, what she considered the greatest attribute of charm, she answered unhesitatingly:

"A graceful carriage. Upon entering a room, even before you have had time to speak, your carriage, your manner, your every movement has registered your personality. And no matter what your qualities may be it is not easy to live down a wrong first impression."

Remembering her reputation as a dancing teacher, we asked her whether dancing was not essential to a good carriage.

"Most certainly not!" she retorted. "On the contrary a good carriage is essential to graceful dancing. When my pupils come to me I first teach them how to carry themselves and then teach them how to dance. In fact, some of them have objected that they came here to learn how to dance and not how to sit, stand or walk."

"But all dancers have a graceful carriage," we insisted, "do they not?"

"Yes, they do not! On stage all of our dancers are graceful; off stage, some of them are. Why I have seen some of our foremost dancers "slouch" down the street in a manner that was painful to behold. They had not learned to apply the laws of harmony which they had learned in dancing, to their everyday lives, and they kept their graceful bearing for stage purposes only.

"Understand, I am not underestimating the value of dancing. It is the greatest art in the world. It is the very highest form of expression, and learning it would teach any woman how to be graceful at all times. But learning it is not all. She must also learn to apply its teachings to every thing she does. Grecian, ballet—even ballroom dancing is very healthful when done with the proper posture which alone makes it graceful. But the mere fact that she has not the opportunity to dance, is no excuse for any woman not knowing how to carry herself correctly."

Judging from Miss Walz's own charm of manner she may easily be accepted as an authority on the matter. Hers is a rare personality, one that has combined ease and charm with vigor and determination, and having seen her it is quite easy to understand why she is at the same time one of Philadelphia's best known dancing instructors and its only policewoman. The same predominant characteristics are evident throughout her work. She has studied the art of dancing in its highest form without once losing sight of its practical value when brought into our lives.

Carrying out our first impression of her, she began immediately giving us her opinions in a straightforward manner, the very reading of which must be helpful to every woman.

"There are certain rules in regard to sitting, standing and walking which are few and simple and which, if put into practice, should help every woman to avoid any awkwardness of manner. It isn't necessary to 'slump' when one sits down nor to 'slouch' when one walks. These are careless, vulgar habits into which most people have fallen and which soon become a part of their personality. Why some of the grotesque positions one sees in modern gatherings, even in the most fastidious of them, are impossible!"

Here we interrupted to find out whether she considered modern human beings any worse off in this respect than their great-grandfathers were. And she confirmed our fears.

"Very much worse. Take any painting and notice the grace of bearing that distinguished the men as well as the women in the days of Louis the Fourteenth. Just consider the grace of the minuet, or the plain, old fashioned bow or curtsy. Can you picture the modern man making that low, sweeping bow without appearing ridiculous?"

"But their grace was no gift of God; it was acquired. From boyhood up they were trained in the art of dancing with a view to its use in their bearing. They were

taught that motion is the language of the body and that their every move must be expressive of the superiority of their rank. Then one's bearing alone marked you as belonging to one class or the other. Today, although such rank is a thing of the past, it would pay us to consider whether our manner marks us as inferior, gracious or superior."

Still feeling that we should defend modern mannerisms a little, we inquired if we could not be excused on the head of being more natural today than our ancestors were. We wondered if we could not get some credit for being less affected.

"That is all a question," she told us, "of what we consider being affected. Is it 'affectation' to make the most of our natural ability? Is the trained voice to be condemned because it is less natural than the feeble, untrained one? I assure you correct habits of walking and standing and sitting soon become quite as natural as the ugly, vulgar ones.

"And for that matter, we are not really much more natural than we ever were. For instance, most of our young girls today 'ape' the fashion models by 'hipping' into a room. 'Hipping' means that slouching position considered so smart at the moment, in which the weight of the upper body is thrown upon the abdomen; and it is abominable both from the standpoint of health and of beauty.

"The question of health, it seems to me," continued Miss Walz, "should interest every practical woman quite as much as the question of beauty. For my part I consider correct posture for ten or twelve hours a day far

better for the health than a half-hour's jerky gymnastic work followed by ten or twelve hours of wrong sitting, standing or walking.

"However, as we began talking of charm we shall not wander into a discussion of health. I am not just a critic. I would like to help women to acquire that grace to which they all have a right. The thing they must remember is that the diaphragm is the center of balance, and that in a correct standing position the weight of the upper body is supported by the diaphragm and the neck is on a line with the heel of the supporting foot.

"The diaphragm is that stretch between the abdomen and the chest. When it is held firm the shoulders cannot slump and the abdomen cannot protrude. One of the greatest mistakes made by women who would carry themselves well, is stiffening their shoulders. The greatest beauty of form, as shown by all works of art, lies in the easy relaxation of the shoulders and arms with the muscles of the diaphragm held firm. Notice this particularly in all Grecian or oriental dancing poses—this sustained tension of the diaphragm with relaxed shoulders, and all motion seeming to flow from this center.

"There is no deep secret to it all. It is simply a matter of permitting the muscles of the diaphragm to do the work for which they were intended. And when these muscles are held firm it is not possible, as we said before, for the body to be off-line. The shoulders cannot round out, nor the chest hollow; neither can the abdomen protrude. Besides this, the weight of the upper body is carried into the air.



Posed by Miss Rosaleen McKenna

A perfect example of relaxation without slouching.



"This same rule of the firm diaphragm seems to have been the secret of the charm of the old school of which we were just speaking. It would be a good idea if we would study some of the moving pictures which show us how these people really conducted themselves. We would notice that when they bowed, they bent at the waist. They did not just crumple up at the center as we are inclined to do today. Their affability came from bending where they should bend and holding the upper body firm. When we sit down today we are inclined to just crumple up and 'let go.' And what pretty pictures we present slouching in this disorderly manner!

"But now to go back and explain what we mean by 'the neck being on a line with the heel of the supporting foot.' In standing, our weight is rarely divided evenly. One or the other leg is supporting the body, and over the supporting leg the line of the body should be. The neck should be always just above the heel of the supporting foot. If we support the weight of the body with one leg (that leg usually being held straight), and lean the body so that the neck is on a line with the other, we have that

awkward position where one hip extends and the other sinks in, and the body is all off balance.

"In walking, the weight of the body is transferred as the leg straightens. The carriage is easy, gliding, natural. You can learn a great deal by watching how your favorite dancers carry themselves on the stage. Notice the firmness of the diaphragm, with the line of the body always above the heel of the supporting foot.

"There is still another point to be watched by the woman who would be charming at all times. When seated she should not twist her feet at the ankles so as to display the soles of her shoes to the public. With the line of the instep clear and the soles invisible, she can rest assured that her feet are not appearing awkward.

"A woman need not be always conscious of her appearance in order to be charming," concluded Miss Walz. "When she knows that she is doing the right thing, she can well afford to overlook her feet, her hands and her carriage. But then and only then. Her mental poise cannot be acquired by overlooking defects, but rather by assuring herself that there are none.

"It is my experience, however, that incorrect posture is a matter of ignorance rather than of vulgarity, or even of carelessness. Once people learn to distinguish the correct from the incorrect way of doing things, the incorrect has lost its appeal."



Poses by Miss Margaret Cook

Both poses show the points accentuated by Miss Walz in her interview—diaphragm firm, neck on a line with the heel of the supporting foot.



American Continental Weight Lifters' Association Notes

WITH the opening of our big campaign to secure new members, we hope to obtain new material that will help soar our present existing records up to the high standard of our foreign friends. We are climbing steadily, and going over the records set up by our British cousins in many feats. This is very encouraging to all of us, particularly to our President, for we must consider that when the American Continental Weight Lifting Association was founded, it looked like a slim chance for us to even catch up with them. The only proof that we could ever do either was given by President Jowett, and we all know that if any man knows what he is talking about where weight lifting is concerned, he does. He supplied us with the first tangible means. Always willing to help, he threw his powerful shoulders to the wheel and explained to all through various channels the most scientific methods of training for weight lifting and the technical application of these lifts in operation. This was the corner stone, and gradually it began to balance the scales, until now, as I have already remarked, we have passed the British marks on many lifts.

Although there have always been pretty strong professional lifters among us, we have been far behind the Europeans. We will not be behind them, however, if every man does his bit, and gives his support by enrolling in this organization, and stimulating the interest in his own locality.

Now the cool weather is on us, and all the boys are crowding into the gymnasiums and their various clubs. What about you bar-bell enthusiasts? Now is the one big time to get together and commence your "Strength" clubs. Pull out all your bar-bells and dumbbells, round up all the lifting element, secure a club room, and become affiliated with the mother body. That will keep you posted on all that is going on, so you will not be working in the dark on a single thing. There is no other way to obtain material results. Appoint your own officers to control your branch club, and then go ahead, practicing body-building together. Plan for contests and competitions; think about creating new records on the various lifts that appeal to you; build a platform setting, with half a dozen pedestals on it, and have your posing contests for the most symmetrically developed body. Besides securing lots of fun out of it, you will all benefit considerably from these valuable, healthy practices.

The coast lifters are doing fine on the various lifts. Alfred Martin of the Los Angeles club has set up a new American Continental heavyweight amateur record in the one-hand "Military Press," accomplishing 106 pounds with the right hand. That record surpasses the existing British amateur heavyweight record very easily. This feat is one of pure strength as can readily be appreciated.

They certainly have two remarkable men for their ability to lift weight in the abdominal raise, Kingsbury and Goodman, who are able to perform respectively 114 and 109½ pounds in this difficult feat. The British record stands at 86½ pounds to the credit of J. H. Hatliff. Our President tells me he never saw, or even heard of any one doing anything near the performances of the Los Angeles boys, that readily acclaim Kingsbury's feat as a world's amateur record.

Vice President Willoughby, the leader of the Los Angeles outfit, and present U. S. A. amateur heavyweight champion still continues to excel in the quick lifts, just failing at 200 pounds in the two hand "snatch," his previous best being 197½ pounds. That surpasses the best British record by a little over 10 pounds.

The military press lifts and two hand "jerk" will stay with us a long time as no European ever equalled the feats of President Jowett as a middleweight. These poundages easily surpass anything the British professionals or amateurs ever did, even amongst the heavyweight classes.

We are anxious to secure the names of any experienced bar-bell enthusiast, or those willing to learn to become the state representatives in their home state, and look after the affairs of the American Continental Weight Lifters' Association in their particular state. We do not want any one who wants the office merely to wear the name. We want real live workers and enthusiasts. I surely would like to hear from anyone who feels that he has the sincerity and ambition necessary, so that we can get started. Let me hear from you boys.

How about you, dear reader? Have you joined up yet? If not, why? I know you are interested; so come in and be with the red blooded men of America. We want you.

JOHN BRADFORD,
Sec.-Treas. A. C. W. L. A.

How Much *Truth* Is There in This *Gland Business?*

What Science Does
and Does Not Know
About Glands

By Dr. Edwin F. Bowers

A PHYSICIAN friend of mine, who has cured more "incurable" patients than any man I ever met, and who knows glands and their functions like a mother knows her children, told me that on an average of six or seven dozen times a week some eager individual fastens him with his or her eye—or both of them—and asks "Doctor, how much truth is there in this gland business?"

"Well," said I, "when they ask you this question, what do you tell them?"

"I tell them," he said, "that there is more in glands than even the most wild-eyed visionary now deems possible. Also that some of these fine days gland stimulation by gentle, natural means will entirely supplant the taking of drugs and dope for the relief of disorders not caused specifically by infection.

"In other words, those diseases that come because the food is not converted into the proper form for assimilation; that develop because of a lack of certain substances in the glands needed for specific purposes in the body; or that are brought about by the poisons generated in the body by deficient gland action, can be cured by bringing about the normal functioning of the various glands of the body—and in no other way."

"But how," I persisted, "can a person tell whether or not his trouble is a gland trouble? Isn't this largely a matter of guesswork?"

"It's worse than guesswork with most people—including the great majority of doctors," said my physician friend. "In fact, it's really only those medical men who have studied glands and their functions who are qualified to pass judgment on the shortcomings of glands, or attempt to restore again their normal functioning power.

"Many of the conditions which their lack of functioning power brings about are most obscure. Others are as plain as a pike-staff—and a million times more common these days—affecting, as they do, a very considerable

number of people in all walks of life.

"For instance, in all probability, the most common ailment in the world is asthenia, or loss of strength, a definite gland trouble. It afflicts more than three out of five adults, and at least thirty per cent of all children.

"Practically everyone who is easily fatigued, whose resistance is lowered, and who requires more than seven hours sleep to thoroly refresh his subvital body, is asthenic. The so-called "fatigue syndrome," which affects everyone who tires easily and early, produces also a corresponding mental lethargy, manifested in a decreased mental capacity, and inability to concentrate on business or other problems, and a decided lack of 'punch.'

"The 'four o'clock in the afternoon let-down' of thousands upon thousands of business men, who are otherwise in excellent health, is a phase of asthenia. The irritability or the nervous instability, common among mothers who are responsible for the care of a large household is another symptom of this most common disorder.

"From a somewhat extended study of this condition I am convinced that it originates in what might be termed 'cellular intoxication.' The muscle cells, as well as the nerve and brain cells, are overwhelmed with toxins. These accumulate in the body, and impose upon the organs of elimination a greater burden than these organs are capable of performing.

"If the heart action is weak—as it is quite likely to be so in this class of cases—the circulatory tone is lowered. The toxin-laden blood is not brought in contact with the oxygen in the pulmonary cells, as it should be. Therefore, 'oxidation reduction' or the burning up of these poisons, is retarded. There is a still further increase of these dangerous substances in the blood stream, which exercise their depressing effect upon every one of the billions of cells that go to make up the body.

"This depression of the toxin-loaded blood still fur-

ther inhibits the normal functioning of the system, favoring thereby the development of more and more toxic material, until finally outraged Nature demands rest and relief from the burden.

"Now, every cell in the body—whether it is located in the highest centers of the brain, or in the innermost recesses of the most vital organs—has a life period, the same as has the body of which it is an infinitesimal, but highly important, part.

"Man begins to die as soon as he is born. If he doesn't get rid of his dead cells and of those morbid products of decay he is generating every instant of his life, he is in for serious trouble. And the first symptom of this trouble is asthenia.

"One of the earliest signs of asthenia is intestinal stasis, constipation and its resultant auto-intoxication. The toxemia resulting from this trouble is, in its turn, either a direct or a contributing cause of many other troubles, such as rheumatism, sciatica, lumbago, or arteriosclerosis. Even Bright's disease and diabetes have their frequent origin in asthenia, while practically every case of tuberculosis has a partial basis of cause in this insidious disorder.

"Now possibly you don't know that the principal cause of asthenia is imperfect functioning of the adrenal glands, perhaps the most vital and sensitive glands of all the endocrine chain. Even the smallest amounts of toxic matter absorbed from the alimentary canal, or introduced into the system in the form of tobacco or coffee, have, with certain sensitive individuals, an immediate effect upon the adrenals.

"The reason for this is that it is the duty and the function of the adrenals to respond instantly to these poisons. For if they fail in this response the increased circulation and the improved oxidation which their activities bring about, are conspicuous by their absence.

"The result is that the toxins accumulate in the system, lowering the resistance to 'colds' and to infections of every kind, predisposing to the tired, rundown, wornout condition that favors the development of nervous exhaustion, neurasthenia and lowered vital status in general.

"If your circulation is poor and you are troubled with cold hands or feet, or tire easily, or if there is low blood pressure and a feeble pulse stroke, if there is lack of ability to work or play with vim, you are probably suffering from asthenia.

"Rest, recreation, eliminative treatment, and general tonic treatment are generally only palliative, and effective only as they may tend to once more bring about normal functioning of the adrenal glands, and the entire endocrine chain connected with the adrenals by the 'hormone messenger system.'

"This hormone messenger service, and the normal activity of the 'sending station' (the adrenal glands),

are often stimulated in a perfectly marvelous way by radiation of the glands thru focused radio-activity. The material best adapted for this work is a combination of thorium and radium, calculated on Sir Ernest Rutherford's estimate to produce a million trillion ions a minute.

"Often within twelve hours after the application of these raying aeriels there is a complete change in the clinical picture. The heart beats more strongly, the circulation is improved, hands and feet become warm. Resistance to fatigue is increased; the capacity for intensive work is often doubled. And this is only one of a score of different conditions that are materially helped by gland stimulation."

"What is the real value of this sort of stimulation in helping to retard the progress of old age?" I asked.

"Around this question there is a tremendous amount of controversy at the present time. Of course, common sense should teach anyone that it is impossible to take a man or woman of sixty, seventy or eighty years of age, and by any form of treatment restore to him or her the vigor and vitality of twenty or thirty.

"Yet, that perfect physical function, natural at forty, fifty or sixty years of age can be restored to a man or woman of this age, is not only a possibility, but an accomplished fact; as I have proven over and over again with scores of patients.

"If a man or woman of forty or fifty years of age were really healthy, if all their organs were functioning as they should function, this man or woman might, in truth, be said to be young, with the bounding spirit of youth."

"Well," I inquired, "what were the steps that led up to the recognition of this possible arrest, or rather re-

tardation, of cell degeneration, and, what's the present status of the science?"

"The real beginning of the science of retarding cell decay and holding back old age for a little while," replied the doctor, "was the work of Brown-Sequard in Paris, who, in the eighties of the last century gave an impetus to this subject, even though at the time an overwhelming wave of scorn and ridicule swept the really constructive results of his work temporarily into the discard.

"However his work was taken up by other scientists, not quite so hide-bound as the calumniators of Brown-Sequard, and by giving the desiccated extracts of gland substances or the fluid extract of the gonad, or sex glands, either by hypodermic or in capsule form, considerable progress has been made in overcoming many of the pre-senile symptoms. These include failing memory, loss of strength, vigor and virility, rheumatism, lumbago, diabetes, Bright's disease, high blood pressure, arteriosclerosis, and other evidences of imperfect metabolism. Finally, however, Dr. G. Frank Lydston, a Chicago surgeon, conceived the idea of doing an actual transplantation of the sex gland (Continued on page 95)

Have You Asthenia?

THE most common ailment in the world is asthenia, or loss of strength. It afflicts more than three out of five adults and at least thirty per cent of all children.

Practically everyone who is easily fatigued, whose resistance is lowered, and who requires more than seven hours sleep to thoroughly refresh his body, is asthenic.

The so-called "fatigue syndrome," which affects everyone who tires easily and early, produces also a corresponding mental lethargy, manifested in a decreased mental capacity, inability to concentrate on business, and a decided lack of "punch."

The Story of Frank Dennis

How one man pronounced incurably tubercular, gained health and strength

By George F. Jowett

WE are constantly coming in contact with people whose search for better health and a generally improved physical condition, seems to me like so much groping in the darkness. And it seems to be hard to make them realize that life's real values are always within their sight and open to whoever will accept them, while the shadowy and unreal lies so far beyond, that it costs struggle, all in vain. Human nature appears to be more ready to accept the shadow for the substance, like a child that will throw away pearls to catch bubbles. Therefore, in struggling for conviction on the reliability and necessity for the cultivation of health and bodily strength, through the adaptation of barbell instruction, they find it hard to attune themselves to its progressive qualifications, simply because of their natural tendency to egoism, that generally becomes more pronounced by the voicings of cranks, who are nothing more or less than self-asserted nonentities, people who pessimistically enjoy telling you to do the wrong thing.

Our beliefs and unbeliefs were given to us like our hands and feet, for guidance in the right direction, but

in many cases they have the opposite effect. Then is the time when we should be willing to be led by experience and knowledge into the right path by some one in whom we have faith. Because of all this, it is very refreshing and inspirational to have laid before us the life experience of one who has been led from sickness and despair to the joys of emancipated manhood in all its glorifications of achieved manhood.

The subject of this story is of such a person, whose life for many, many weeks hung in the balance, and whose future was apparently to be one of physical affliction from the ravages of disease. So he was told by the medical authorities, who could only advise rest and quietness. To one who has to rely upon his occupation for a living, such advice, while possible in some cases, is absolutely no use in general, and anyway never tends to regenerate the physical and organic systems to their full capacity of recuperation. Consequently, it is readily understood how dark the future must be to any one who is told he must look forward into it with such advice. It was not the case with Frank Dennis. His instincts revolted against accepting such a decision, and

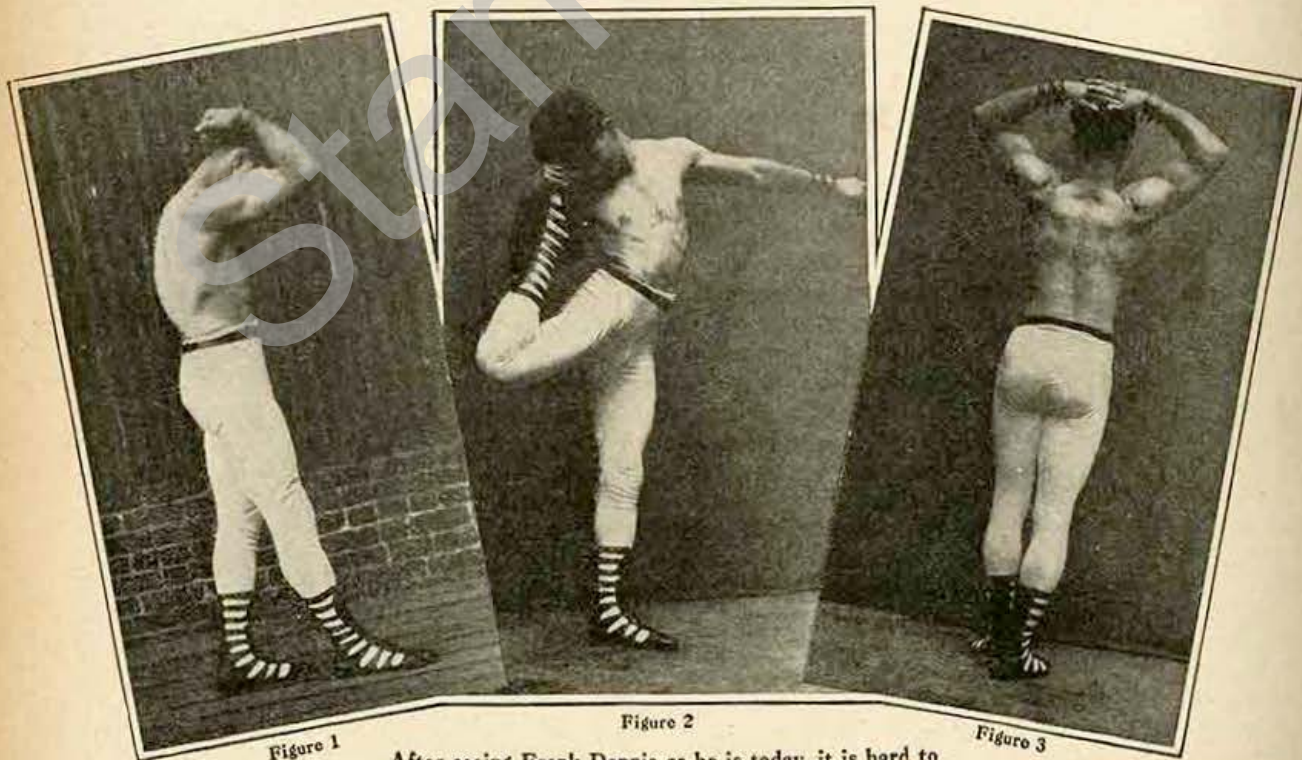


Figure 1

Figure 2

Figure 3

After seeing Frank Dennis as he is today, it is hard to believe that in 1922 he was told he had little chance of recovery.

in the despair of his sickness, he glimpsed the ray of truth that told him health, strength, and manliness were all open to him if he would accept guidance. A person who has so closely approached death will grasp at any straw, but there is a right and a wrong straw to cling to, and his decision caught the lifebuoy of health and strength. He gave forth all his reciprocal faith, that is such a necessary factor between pupil and teacher, in all walks of education and instruction. Reciprocal faith is an absolute necessity to attain success. If a teacher has faith in his abilities to guide you in any special line, that faith must be returned. Both must co-operate, which is not always done, for many pupils develop the assumption that they are wiser than their teacher, and these are the ones who fall by the wayside.

Dennis threw all his hopes into physical instruction as the sole means of his physical salvation. He gave forth all his implicit faith, and trust to his instructor, and after two years experience with progressive bar-bell instruction, he developed into being an accepted—Well, that is getting ahead of my story too fast, so I will start at the beginning, and relate for your benefit the true story and actual personal experience of Frank Dennis in his fight for health and happiness to his present day physical condition, that has always been under my personal observation and instruction.

On September 25, 1922, Dennis, then just an average young man, was first confined to his room with a severe cold with a high temperature that daily became much worse and later developed into influenza. He became confined to his bed as his condition became more serious. His hearing and eyesight became affected, and he gradually sank into pneumonia that necessitated his removal to the local hospital. During this state he began to evince signs of lung hemorrhage that gradually became more pronounced, and according to his medical statistics dating from October 11th, when the bleeding from the lungs commenced, up to October 18th, he actually lost 30 pounds in his bodyweight. On the 22nd of November he was removed to his home in a stage of convalescence, when his actual bodyweight dressed was 105 pounds. Altogether he had lost over 40 pounds, but the greatest loss was shown between the dates of October 11th to 18th from hemorrhages of the lungs. It can be readily understood that any person to lose such an amount of blood must naturally be in a terribly weakened condition, particularly when it covered such a short period of time. This

Figure 4

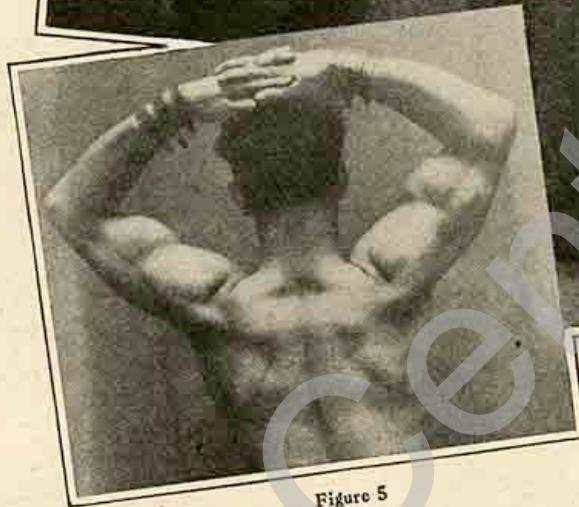
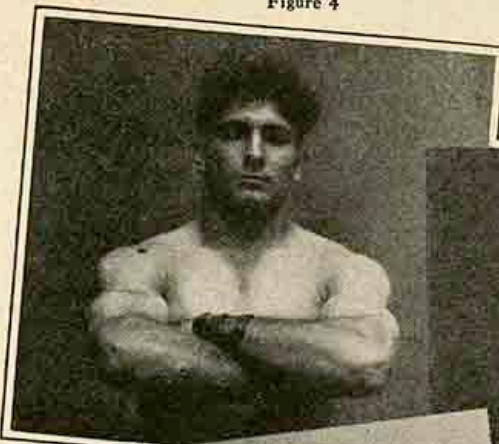


Figure 5

left him with a weak heart and affected lungs, that were later pronounced to be in a Tubercular condition. This outlook was indeed very unpromising, but as we are told "Hope springs eternal in the human breast," and as a last resource, he turned to the law of nature and sought instruction by physical training.

I could honestly offer him hope, as his case was not the first that I had ever handled of this kind by any means, for one of my shining examples is that well known Pittsburgh athlete now in vaudeville, Charles Shaffer, who developed into such a prodigy of power, that has caused



Figure 6

While regaining his health, Frank Dennis has also attained a perfectly symmetrical figure.

him to be known as "The Pocket Hercules" all over the American Continent, who is undoubtedly the strongest man in the U. S. A. at his bodyweight.

The diagnosis of the physical condition of Dennis, showed him to be in a very emaciated condition, with a pronounced chest deterioration. The walls of his chest had sunk in considerably, leaving him very hollow chested. This explained just how bad the condition of his lungs were. In his case, as in all such cases, a very careful analysis is required, and when all has been taken into consideration, a general outline is made that consists of diet and rest, with a gradual increase of exercise, that commences with breathing. When treating such cases, I believe that a proper diet is a very important part of the program, and I spend a great deal of time in laying out a diet course that will be the means of supplying the body with proper nutrition, that will help create the substance that goes to form healthful body tissue, with a similar bearing upon the affected organs. Once the body begins to respond to this diet treatment, exercise will do its part by materializing the substance into muscular form and increased proportion, but all this must be graded. Dennis followed the prescribed diet schedule, and included with it breathing exercise, and the time between he rested by completely relaxing his whole body.

I want it to be clearly understood that by breathing exercise, I do not mean the regular breathing movements, for physical instruction is a profound science, and knowledge of, must be known how and where to properly apply it.

In the case of Dennis, he had a weak heart; therefore a change of procedure must be gotten, whereby he could

obtain the results, and not cause any undue stress to be thrown upon this organ. Consequently all his breathing exercises had to be taken lying down, and were commenced in bed. When the body is laid flat and straight, less strain is thrown upon the heart in its pumping process. It becomes more normal, and gives better co-operation for another reason, which is, that the blood stream all being on the level does not require so much effort from the heart in order to function, thereby an all-round better organic stimulation is brought about with people who are thus afflicted. Dennis continued on this work until he began to find more response from the lungs, that became

manifest by their increase in breathing volume, that also went to prove that the proper diet and respiration was having the effect of creating new tissue for the lungs, and the oxygen carefully inhaled, burns up the wasted tissue, and carbonic acid of the organs under treatment, and the blood, as it passes through the heart. With this improvement, light physical movements in conjunction with the breathing, whilst laying down was graded as our next step in progression. The Serratus Magnus that fit in between the ribs of the chest, that hold the chest up and allow space for the lungs to function in, were badly emaciated as they always are in the case of Tuberculosis, and these had to be developed in order to hold what we gained, and allow greater lung volume to operate. A progressive plan of breathing with arms, leg and body movements, as he became able, were adopted. They had a double effect—whilst they called into action the Serratus Magnus, a gentle massage was brought to bear upon the lungs that eliminated soreness, and stimulated their organic activity, and as he became more able, the more progressive were the breathing exercises and movements, until he was able to work standing up. We had gotten results to make everything encouraging, but caution was still advocated. His vitality was still low, and according to many who claim to know, the vitality of a Tuberculosis person is never regenerated. Experience and close observation had proven to me that the neck was the seat of nervous activity, and from here all the nervous vigor commences, and all down the spine whence starts the other nerves that provide the whole body with its nervous vitality. This part of the body is as important as the torso, and why the majority of body-builders neglect it is beyond me, for it is probably the easiest part of the body to respond to right exercise.

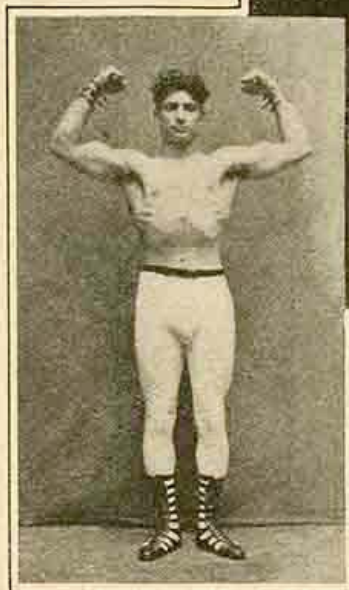


Figure 7

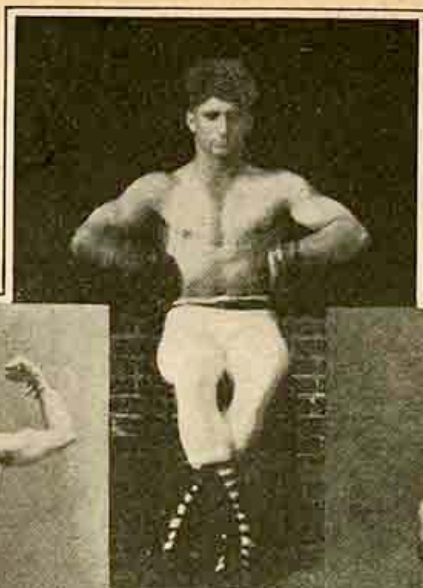


Figure 8

Notice how the smooth muscles of the athlete in repose, as in Figure 8, contrast with the same muscles when tensed in Figure 9.

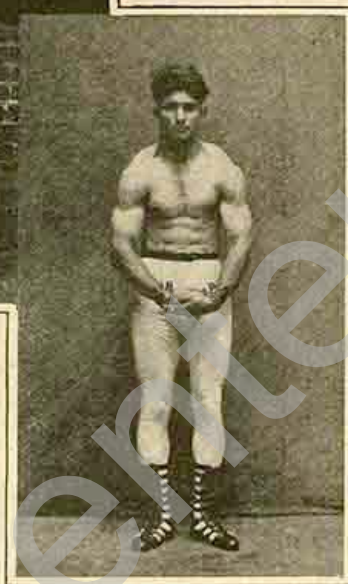


Figure 9

The neck then became the next study for treatment, and how thoroughly and conscientiously Dennis persevered upon this work will be proven later on, by the results he obtained.

His appetite and sleep were both more normal and refreshing, the aching strain, and defective breathing from the lungs were fast passing away altogether. The lassitude caused by his former heart condition was entirely gone, and his whole physical being was beginning to feel the effects of the stimulated nerve force. He was beginning to become happy, and the faithful trust he employed upon his work and to myself was of that type that makes a man feel good and fall in love

with his work. It was his courage that won.

He began to become anxious to commence on more progressive work, but he was satisfied to creep well before he commenced to walk, and he was ever open to listen to reason. The increased enthusiasm on his part inspired in him high ideals. He was better now than he had ever felt, and since the ground had been covered successfully in gradual progressive exercise, I now commenced to put him on bar-bell instruction. I knew if he followed my dictates as sincerely in the future as he had done in the past, I was positively sure to make him physically and organically immune from the dread of his former disease.

My biggest trouble was to hold down his enthusiasm. To put it in a humorous way, he was like a little chap who has learned to blow a trumpet, and wants every one to hear it to the detriment of himself and others. Believe me, it is a grand sensation, and eight years on and off in hospitals as a boy, as I was, taught me to realize it. It must feel something like the patriot exiled in prison, who, when released, comes back into his own country, and enjoys all that he was deprived of. There is a thankfulness and joy in it that words fail to explain.

There is nothing in the world that can make the body respond as rapidly in development as the use of bar-bells under proper instruction. A person acquires not only size but genuine man-power that is always capable of asserting itself at the right time. It brings out every muscle to its greatest capacity that is simply impossible any other way. Dennis proved it to himself. Muscles began to grow where he thought he never had any, and his other muscles began to take on shape and outline. His continual adherence to progression stimulated his nervous activity to a remarkable degree. He was radiating

with vitality, and his body-weight had increased to 140 pounds of solid manhood, an exceptional increase of growth.

His progress from now on was very rapid, and when he came to see me last New Year I was both surprised and pleased. He was anxious to display to me some evidence of his power, and asked me to

carefully examine him physically, and outline his future program so that any defects could be corrected. I invited him to strip off so I could examine him, and his appearance was one of pleasure to the eyes. The chest was full and square with the Serratus Magnus, that once did not exist, standing boldly in prominence. They gave me the idea of fingers laid between the ribs, and they were just as thick. The neck was splendidly poised, and gave him appearance, for there is nothing that will set a person's carriage off so well as a well built neck. His arms were nicely moulded, even so the torso, but the legs were not so heavy as they could be, simply because the major part of our training had been laid down, or stood up with no effort thrown upon the legs. Where heart trouble is apparent, a person should go very slowly about leg development, for the thighs, being the largest muscles in the body, and almost the farthest away, need a greater blood supply and cause increased breathing, that all causes the heart to work faster in order to pump the blood fast enough to stimulate the muscles of the legs, and I did not want to take too many chances. Slow but sure was our motto, and we stuck to it during that period of progression. Now, I saw he was capable of sustaining more advanced work, and before he left I decided from then on we would concentrate more upon the legs in order to balance his development.

As he was anxious to demonstrate some proof of his strength, we pulled out the bar-bells, and I asked him what he wanted to do, and he requested he be allowed to perform a wrestler's bridge, and desired the bell to be loaded to 200 pounds. I was surprised, for I remembered that it was only a few months before that he had commenced to use bar-bells, and then with only a very low poundage. His best at that time was only about 40 pounds in this same feat, so you can imagine how weak he was; therefore I asked him to excuse me, for I thought he was attempting too much. He said he had done it before and could do it now, and so anxious was he to prove it, that he would not use the weight at a lighter poundage, and work up to his limit as I advised. If he had,

I am sure he would have succeeded, but many things were against him, including strange weights, and the floor was slippery for his feet, and the cushion his head rested upon. He got the weight almost up several times, when either the cushion, or his feet would slip away, and he exhausted himself fighting to hold his ground. He worked himself out, and finally became satisfied with pressing in this position 182 pounds. He was terribly disappointed by his showing, and felt awfully bad, whereas I felt proud, and tremendously well pleased to see him elevate the poundage he did, as he performed it without any knowledge of technique of this lift. Anyway, he promised himself and I, that he would come back soon and do more than he claimed. He

remained true to his word, and not long afterwards he pressed in the wrestler's bridge 212 pounds. In the meantime I had encouraged him to take up hand balancing, which he did, and by securing another partner he made wonderful strides. We concentrated on his leg development, and increased their measurements in the short time between his first



Figure 10

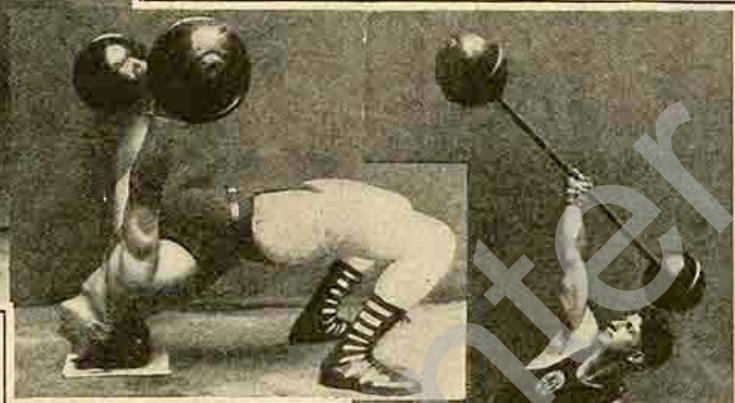


Figure 11



Figure 12

visit to me, and his last, which was last September, that he had acquired a well balanced development, as his pictures here show, which were taken by our photographer on his last visit. Just examine his photos and notice the fine development of the Serratus Magnus in particular, and the wide chest and well balanced form in general, that gives no one the slightest idea that he ever endured the ravages of lung affection, or ever possessed a hollow chest. The folded arm pose, Figure 4, is alive with the significance of power, and shows the great development of the Trapezius that roll from the back of the neck to the base of the skull. The Sterno Mastoids of the neck finish the pillar-like appearance of the neck, that gives the impression that his neck must be larger than 16 inches. It would be if I had measured it like many do, right at the bottom, where it can be easily seen how much larger the measurement would be made. I measure on the smallest part of the neck. The side pose, Figure 6, gives a good illustration of the depth of the rib-box and tricep formation, whilst Figure 1, with the hands on the head, shows the nice roll of the back that is gotten by the development of the spinal columns and neck, a true depiction of back strength. Where he is sitting down, in Figure 8, you have an idea of his physical development in repose. Aren't these pictures an inspiration to you, my

(Continued on page 86)

Sunshine—

The Cure for T. B.

The Sun Treatment Used Centuries Ago Has Recently Been
Adopted By Our Sanitariums—How It Should Be Applied.

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

NO one should die of tuberculosis, and with the exception of those who develop the disease as infants no one should have tuberculosis. Perhaps with the ghastly proportions the white plague has assumed in modern civilization that seems like a ridiculous statement as well as an unscientific one. It is neither, since tuberculosis is one of the most responsive of diseases to treatment and one of the most easily diagnosed; furthermore since it is so easily possible to head it off and to ascertain when an individual is predisposed toward it and thus guard against it.

When we speak of tuberculosis it is immediately concluded by the average person that we mean tuberculosis of the lungs; but that is a fallacy since there are very many kinds of tuberculosis, meaning that the disease affects many parts of the body. For instance, there is external tuberculosis, tuberculosis of the bones, or of the joints or of the bronchial glands or various other parts of the anatomy.

This article is to be devoted to discussing one of the most effective and least known methods of treating the tubercular patient, one that is almost certain to cure the disease if taken in time. It must be clearly understood that in the fight against this scourge the whole body must be treated and not merely the local condition where the disease has its stronghold, as in the lungs for instance.

This method of treatment is what science knows as Heliotherapy—that is, treatment by the sun or the sun treatment.

As we go along we shall take up an explanation of this treatment and see how the sun's rays can and do cure tuberculosis. It is one of the oldest of physiotherapeutic measures used by man, but only recently has modern civilization given it the recognition it deserves. It is a curious fact that in primeval times the Indians of Central America and along the Pacific Coast used sun baths to treat rheumatism and tuberculosis, lying flat in the sand with the sun beating on their naked bodies. Also we know that the ancient cliff dwellers excavated their dwellings facing toward the east and south. Herodotus, the famous historian, tells us in elaborate fashion that the ancient Greeks were much given to sun baths at the time when they were noted as the finest physical speci-

mens the world has ever known. In Rome, too, the solarium or sun parlor was a part of most dwellings and was regarded not as a luxury but as a necessity, and was extensively used in the treatment of disease.

And then the use of the sun as a remedy for disease was practically forgotten. In fact it is little known today but it is becoming better known, and from now on as an agent in combating tuberculosis its use will play an ever increasing part, until the day may come when it will virtually conquer the disease. It is a very regrettable fact that there are all too few physicians who understand its use now, but its study is being advanced and osteopathy is delving deeply into the subject with some rather surprising results.

Its modern use dates back to 1902 although it was quite a number of years later before the facts became known to the scientific world. Bernhard, the Swiss, became dissatisfied with the accepted methods of treating poorly healing wounds, severe anemias and tuberculosis of the skin, joints and bones, and resorted to exposing his patients to the sun's rays. He got wonderful results. Then Rollier, a follower of Bernhard, developed a treatment of external tuberculosis by the sun, that cured the disease. Still, the rest of the world heard little about it and is only beginning to learn. Today Rollier's treatments have been found so excellent that they have not been improved upon. They cure and we know why.

Sunlight is composed of different wave lengths of energy, the different wave lengths manifesting themselves in different colors. The various wave lengths or rays have different properties and it is the understanding of these properties that makes sunlight treatment for tuberculosis a success. The rays do three different things. The red rays produce heat, the yellow rays produce light and the violet rays produce chemical actions. This must be understood and remembered.

We have proven in the laboratories that sunlight retards and inhibits the growth of bacteria. Direct sunlight will kill the typhoid germ in an hour and a half. An eight-hundred candle power arc light will kill the same germ in eight hours because the arc light is rich in ultra-violet rays which produce the same chemical action as the sunlight.

On the human skin the violet or ultra-violet rays of sunlight are bactericidal to a depth of one and a half

centimeters. Also, sunlight, unlike antiseptics, does not damage the body tissues.

There is another very important thing to be taken into consideration. The world wrongly looks upon the skin as solely an organ of elimination. It is, but it is also an organ of absorption. It was originally intended as such, to absorb certain gases and also the light rays just as the plants absorb them. These light rays were meant to play a very important part in the chemical action of our bodies and by exposing the skin to the sun and the air and allowing it to resume the functions lost through civilization we are in a fair way to regaining and retaining our health.

There are nine definite things that sunlight does to the body through the skin. Let us take them by number.

1. It increases pigmentation, or coloring.
2. Increases metabolism, stimulating the digestive system.
3. Increases the number of erythrocytes or red corpuscles.
4. Increases hair growth.
5. Causes local hyperemia, which is an increase of the blood supply at any given point.
6. Improves the respiration, thus causing a greater intake of oxygen.
7. Decreases the number of respirations necessary.
8. Lowers the blood pressure.
9. Stimulates the nervous system.

All of these are beneficial, of course. Remembering that the violet rays are the chemical rays, when sunlight penetrates the skin all the chemical rays are absorbed by the blood. The local hyperemia or increase of blood supply at the part of the body where the sun's rays touch naturally causes an enormous energy absorption by the blood.

Von Schläffer has shown that during exposure in this way to sunlight, the blood absorbs such a tremendous amount of light energy that in a dark room it can be transferred from the blood to a photographic plate. Thus it can be seen that the tubercular sufferer exposing himself to the sunlight is simply pouring in vast quantities of new strength through his skin, and strength that also has the peculiar power of reaching through the skin to kill the germs of his disease, since tuberculosis is a condition affecting the whole body although it may only manifest itself in one locality as the lungs or the throat or the joints. Furthermore this transference of the light energy from the blood to a photographic plate indicates how the blood surrenders that health-giving energy to the organs of the body.

We also know now how the sunlight kills the germs in the body. The death of bacteria in this way is partly due to what is known as an inflammatory reaction. The leucocytes or white corpuscles pass out of the blood vessels in great

numbers, assisting in the destruction of the microbes.

In previous articles I have taken up certain osteopathic adjustments which the patient can make himself as an aid in the treatment of tuberculosis where it was caused by some mechanical fault which cut off proper nourishment to the affected parts. The possibility of such a condition must never be overlooked in tuberculosis, but whatever the cause these sunlight treatments will be found of great value. And now for the discussion of the actual treatment.

Sunlight does not affect all persons alike. Many factors are involved and the treatment must be regulated accordingly. It has been demonstrated that certain osteopathic adjustments to increase the efficiency of the liver and spleen as well as any other parts of the body that are not functioning properly are a great help when given just prior to the exposure treatment. This is particularly true in undernourished children who have a tubercular tendency—and their undernourishment may be due not alone to improper or insufficient food but to some physical defect or digestive derangement.

The effect of sunlight on the individual depends upon the intensity of the light, the altitude at which the patient is exposed, the amount of moisture and dirt in the air, and upon the individual.

Therefore it is clear that the dirt laden city air is not the ideal place for using the sun's rays in treatment. The volume of the ultra-violet rays increases with the altitude since they are lost in penetrating dusty, moist atmosphere which the red and yellow rays go through without being greatly affected. Also the difference in the power of the ultra-violet rays at high altitudes in winter and summer is small while it is great in the lowlands. But the altitude should not be

high for children—the foot hills being better than the mountains—because of the effect on the circulation, high altitudes causing a depression of the heart and lungs. Treatment should never be taken at a higher altitude than 8000 feet in the mountains and from 1000 to 8000 feet is best, according to the individual.

This does not mean that you cannot get any beneficial effects at home. You can, for there is some value in those ultra-violet rays no matter where they reach you. But to get best results a region where the air is dry and protected from high winds is most suitable; also where there is no intense summer heat.

If the patient is going to give up his entire time to the task of getting well he should spend the first few days in bed, especially if the region is new to him, as this is the easiest way for the body to become acclimated.

After anywhere from three to ten days the first sun treatment should be taken. In this treatment the patient clothed in white garments should sit in the sun with the head protected by a white

(Continued on page 78)

IN primeval times the Indians of Central America, and along the Pacific Coast used sun baths to treat rheumatism and tuberculosis by lying flat in the sand where the sun could beat down on their naked bodies. Also historians tell us that the ancient Greeks were much given to sun baths at the time they were noted as the finest physical specimens the world has ever known.

Since then the use of the sun as a remedy for disease had practically been forgotten until 1902 when Bernhard, the Swiss, became dissatisfied with the accepted methods of treating poorly healing wounds, severe anemias and tuberculosis of the skin, joints and bones, and resorted to exposing his patients to the sun's rays.

Today we feel that sunshine is the cure for tuberculosis for which we have so long been searching. Dr. Drew's article on the subject besides being interesting and enlightening, serves a practical purpose in bringing the sun treatment before the public.

Fighting Methods— New and Old

From the Stone Age Down to the
Heavy Artillery—From Clubs and Bare
Knuckles to the Prize Fight of Today

By *T. Von Ziekursch*

A THOUSAND years ago fighting men were different than they are today. So were they five thousand years ago and even fifty years ago. Fighting styles change as do styles in other things. About the time our ancestors were abandoning the caudal appendage they advanced to the highly civilized stage of making implements for their gentle little wars out of rocks. A choice method of disposing of enemies in the tribal battles was to caress them over the forehead with a large and very rugged rock lashed to the end of a stick by thongs. Warfare in those days was a knock down and drag out affair. In individual fights also there was nothing of the spirit of sportsmanship, no such thing as science. All fighting was aimed toward the one and common end of disposing of opponents in the quickest and most thorough manner.

Certainly in those days men fought just as they fight today, warring tribe upon tribe, village upon village, just as nations war upon each other today. Also it is certain that even then

men fought among themselves as they do today, and the styles of fighting among themselves as individuals have changed just as the warring between tribes and nations has changed.

Probably few of us realize that we who are living in the present generation have seen the probable passing of the last of that old era which hung over from the stone age and are witnessing, if we have not already witnessed, the coming of the new.

In the days when men as tribes warred upon



each other with the crudest of implements, men in their individual fights outside the realm of warfare, fought also in the crudest of fashions. Then it was a matter of sheer brute strength of battering and tearing until one or the other fell.

Gradually came refinement in warfare and refinement in those individual fights. The world saw the advent of such gentle things as the cestus for the individual to use against the opponent and the

first dawning of boxing science. The cestus was the forerunner of the modern boxing glove, a set of knuckles and straps made of brass or other metals and which fitted the wrists and hands. Men fought with them in the arenas of Rome and Greece and it was called sport although usually the conquered died.

That was at a time when the broadsword, the javelin, the chariot and the arrow were the bearers of death on the battlefield.

Gradually the age of chivalry was evolved. Methods of warfare had changed but little and the manner of the individual combat by which man's longing for physical competition was expressed, remained much the same. The club and the bare fist with kicking thrown in, was the fighting way for those of lesser rating than the knights who boasted their spurs of gold.

And so it continued. Warfare changed with the discovery of gun powder by the western part of the world, and so did the manner of the individual combat which became constantly more and more "refined." The bare knuckle fight and the art of boxing developed as did the more skillful method of the duelist.

Men were advancing in many ways. The first masters of the modern science of boxing, gained fame. They stood toe to toe and fought without gloves until one or the other was unable to come up for more.

On the battlefield armies fought and battles were won not by the artillery or the weight of musket fire but by the side which had most "stomach" for the bayonet.

The day when the mace and spear and the heavily armored knight could swing the tide of war had passed. So had the time when the stone axe and the cestus could dominate individual combat, which men had learned to call by the name of sport.

And then came a comparatively rapid development. Through all the history of man, warfare and the fighting methods of individuals have kept pace in changes to new conditions.

As warfare became a thing of advanced science so did the thing we call boxing now. The day of the club fighting caveman and the day of the heavy, slowly swung cestus passed. So did the day of the bare knuckle fighter and the time when the tide of battle was turned by regiments that marched to the attack with fixed bayonets against unmasked batteries.

Time was and not so long ago as changing eras are reckoned, when a great soldier like General Pickett led his chosen brigades up Cemetery Ridge at Gettysburg in the face of a storm of fire. Also, the time is not out of modern memory when John L. Sullivan waded after an opponent like a desperate bull, asking only to get within reach to batter and maul the other man into submission and unconsciousness in as quick and desperate a fight as was possible.

Were old methods better? It is hard to say. There are many who think so. Was there more glory, more adventure, more of the spirit of the magnificent, in warfare at a time when a regiment of hussars might turn the whole tide of a war in one wild, terrible charge, when one bold stroke of generalship could overturn empires, than there is today when armies of millions dig in and fight for months and years at long range? Was there more real fighting spirit among the old champions of the ring than there is among the moderns? The consensus of those who voice opinions would seem to

indicate that there was more appeal at least.

In the whole realm of the ring today there is just one champion who may be compared to the kings of the sport in days gone by and it has been long since there was another.

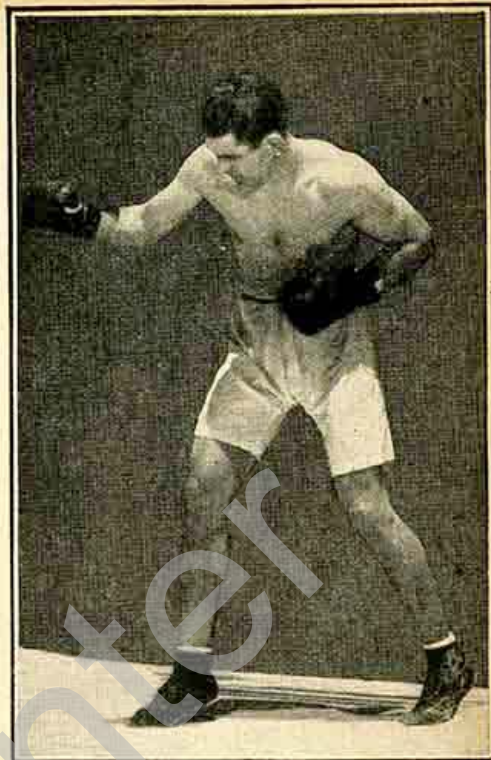
That one is Jack Dempsey. A lot has been written to the opposite about Dempsey but Jack is first, last and always a fighting man. He is tainted with the charge of being a money fighter, who will not listen unless the jingle of hundreds of thousands sounds first in his ears. That is not Dempsey. It is his manager, Jack Kearns, who has brought big business in its connection with sport to its highest development. Dempsey would fight for a thousand dollars if left to his own devices. In spite of all the disparaging things that have been written about him, he is a fighting man and that is all. He loves it as much as any of the old champions that are held up as idols by the veterans.

You have only to look over his record on the route to his fight with Willard. It was sensational as such things go—knockout after knockout, and all in short order.

The old timers who talk of Sullivan, of Corbett and Fitzsimmons and McCoy and Sharkey and the other great fighters of the past, cannot take one bit from that record of Dempsey's. It is the equal of any, and Jack would probably have knocked any of the ancient ones out with the exception of Jim Jeffries.

But when you have taken Dempsey out, who is there remaining to compare with the fighting men of the past? Benny Leonard? Yes, the lightweight champion is a great champion, one of the greatest who ever held the throne in his division, and he is aggressive with it, but he is not the demon that was Kid Lavigne when the westerner ruled the roost and fought anyone who would get into the ring with him, no matter what the weight.

Certainly old methods have gone out in the game of war and also in the game of the ring. Fighting styles in both have changed tremendously. Tom Figg, Daniel Mendoza and their ilk would stand no more chance with Dempsey or even with a fighting man like Stanley Ketchell was, than the old frigates of the line would have stood against a modern cruiser. Their hitting power certainly could not have compared with that of Dempsey



Jack Dempsey alone compares to the fighters of old

or Ketchell. If it had, they would have made short work of their opponents. They did not know the science of hitting as it is known today, the art of clipping a man on a vulnerable spot, a short, twisting blow that shocks the nerve centers to induce temporary paralysis or unconsciousness. Nor would the bayonet line of the Old Guard of Napoleon have lasted long enough to impress a dug-in modern army with its machine gunners.

Fighting—call it boxing if you will, among individuals has kept pace in its developments with warfare. Skill, science is everything today in both where a century ago, even a half century past, and on down along the back trail through the ages it was force. You may answer that when such military geniuses as Napoleon, Hannibal, Alexander and Rameses II, led their armies it was their skill that made them mighty conquerors, names outstanding in history as symbolic of fighting brilliance. So must have Theagenes possessed something more than his mere brute force to dominate the ancient gladiators with the cestes as long as he is reputed to have.

But it is hardly to be doubted that Theagenes, armed with modern, soft leather gloves instead of his heavy brass knuckles and metal bands around the hands and wrists, would have been battered into a comatose condition in minutes or even seconds by the lithe panther-like Dempsey with his short, vicious thrusts that felled the enormous Willard and the mighty Firpo.

True we have at the present time in the ring and probably always will have, a class of fighting men who fight as men always have fought, the desperate, slugging type of fight, but they are the men who rarely, yes, very rarely climb above mediocrity. They are the ones who whet the appetite of the fans. The masters of the game, those who rise to know the regal robes of champions and who taste the sweets of near championships as most formidable contenders, are the ones who fight campaigns that are planned with the best that the modern science of the ring has taught them.

Modern artillery has made obsolete the methods of the old war lords. The modern artillery of the ring, which is nothing more or less than knowing how to hit and where to hit to get the greatest effect out of a punch, has made it impossible for another of the Sullivan type to rule the realm of the ring.

Perhaps the last man of that type, unless Dempsey can also be included because of the fact that he appears to throw all caution and thoughts of skill to the winds and chase victory in mad onslaught after mad onslaught, was Ketchell. Dempsey really cannot be included. The writer as well as others who have had the opportunity to observe the workings of Dempsey's battle campaigns, knows that the champion invariably fights by well ordered plan. He is a lashing whirlwind of a fighting man beyond doubt and all his engagements have been planned so that his amazing speed and hitting power could be used to its greatest advantage just as the modern strategist turns loose his shock troops only at the intervals when their effectiveness can be higher.

Those who saw Ketchell in his fights with the Illinois Thunderbolt, Billy Papke, and Philadelphia Jack O'Brien, saw an old order passing. There haven't been any champions since the days of Ketchell who came into the ring with no definite thought of the plan to be followed other than to keep slugging until the other man went down to stay.

In the days when Ketchell was middleweight champion of the world, Sam Langford was in his prime, one of the greatest of modern fighting men. Jack Johnson was side-stepping the Boston tar-baby and Langford clamored in vain for a crack at the title. Langford could hit. Beyond question he was a frightful slugger. Ketchell feared nothing in human form and, although he was only a middleweight, took on Langford. Came time for the men to enter the ring. Langford was accustomed to sending a message to his opponent to enter first and then said opponent (Continued on page 90)





A nicely developed body, but wrong position of arms, legs and head have robbed it of some of its curves and spoiled the effect, in imitating the opposite pose.



This is Matysek, who besides having a splendid development, has studied posing. Our readers will find any of his poses well worth imitating.

Strength Posing Competition

Send In Your Photos

THERE are two reasons why we are running a posing competition. First, to stimulate more interest in the body culturist's program that will give him encouragement to strive for some definite object. Secondly, we are aware that many of our readers have wonderful physiques, but that they are too deficient in the art of posing the body to display their development in the meritorious way they deserve; which has convinced us that a posing competition would create a keener competitive spirit, that would cause a student of development to analyze his position more seriously, and create poses that would show his development to an advantage, and we hope, in many cases it will develop an originality of style in the art of posing.

Therefore, we are limiting each member to two poses each. One pose must be a duplicate of any familiar pose, as used by Sandow, Matysek, Klein, or any other posers whose type of physique and pose appeals to him. This will give a definite position to imitate, and will give a good comparison on how your physical standard will compare with that of your ideal. The second pose can be any position that originates in your mind that strikes you as showing off your development to the best advantage. In each case two full length poses will be required from each entrant.

Prize

For the winner of the first prize, we are offering a handsome loving cup of suitable design with the inscription of the contest upon it, and the winner's name. In the event of two competitors receiving the same amount of votes through the postal ballot, we shall present each party with a similar loving cup to designate their dual win. To all entrants other than the winner, whose pose we publish in the *STRENGTH* MAGAZINE after the contest has been concluded, one year's subscription to *STRENGTH* will be given as an appreciation of their efforts, and we expect to publish a lot. This contest is NOT open to any man who has won a place in any other previous posing contest, or to any of the present physical training instructors, or to any expert on the staff of *STRENGTH*.

Every *STRENGTH* Subscriber Can Vote

All poses of each and every entrant will be exhibited in the pages of *STRENGTH* to vote on. The first batch of poses will be published in the February issue, when voting will commence. That will be left entirely in the hands of our readers. A reader who renews his subscription before the date of the first showing, or during the exhibit of contestants' poses will be entitled to two votes. Upon receipt of renewal and request for additional vote, and when the ballots are all in, they will be counted before several notable witnesses, when the highest total of ballots to one name shall decide the winner. Notice will be given well in advance for the closing date of voting.

It will be all-round development, and the quality of the pose that will count, and it will be impossible for any favoritism to be shown. It does not matter whose pupil it is who wins. It is the ballot of the reader that will count.

It Is Free

You merely send your two poses along, with your full name and address, and address to "The Editor of *STRENGTH* Posing Competition, 2741 N. Palethorp St., Philadelphia, Pa.," and on receipt of same, we will forward to each entrant the rules to observe with special advice that will help to make his opportunities of winning better.

No information will be supplied where no photo accompanies inquiry, or if sent without filled in coupon for entrance into the competition.

The Contest Is Now On. Send in Your Photos.

Strength Posing Competition

Dear Sir:—

Please accept my name as an entrant into the *Strength Posing Competition* that is absolutely free from any entrance fee. Enclosed are my two poses.

Name
Street
Town State

Can You Drive a Nail With Your Hands?

There Are Many Ways of Making
This Stunt Easier—Here Are Some
Fine Points on How It Is Done

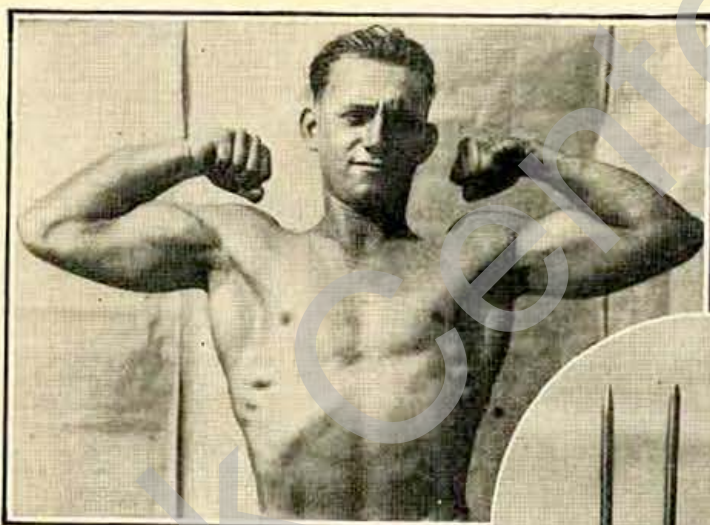
By Charles MacMahon

THERE has been some mention of this feat of hitting power of late in various physical culture periodicals; but to my knowledge the subject has not been treated in detail. All that has been printed concerning this feat is that so-and-so performs it, which proves that it is an exceptional accomplishment.

As the title implies, I intend to tell you in detail just how you, too, can do it. I will tell you of many different ways in which punching nails through planks or boards is practiced.

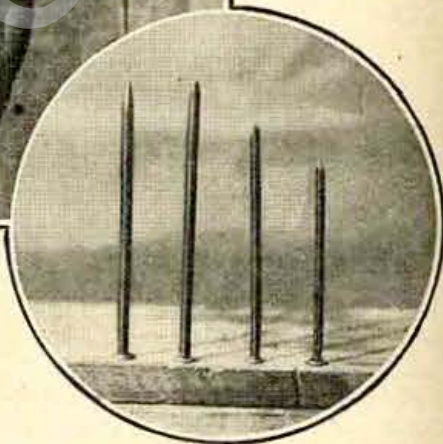
First, however, I wish to introduce to you and other readers of *STRENGTH*, Mr. Edward Geiser, who has made rapid strides in developing his own body and strength, as well as learning numerous meritorious feats. His muscular picture on this page will show what he has accomplished in the way of development. I have never seen a picture of muscles on any man that I like better than this one. Mr. Geiser's achievements in the physical culture line are doubly remarkable when you consider that he is only eighteen years of age.

Did you ever see a more even development? Each muscle is full and rounded, with no appearance of being overtrained. I do not know what your ideals of physical development are, but this is the type of physique that appeals most to me. Notice the abdominal muscles showing clearly enough, though they are relaxed and stretched instead of contracted as is usually necessary in displaying them. Look how pronounced the serratus muscles (often mistaken for ribs because of their similar appearance) are, and how the fullness of the latissimus (just in back of the serratus muscles directly under



Edward Geiser who posed for these photographs and who has had great success in driving nails with his hands.

From left to right, a sharpened sixty-penny nail, a regular sixty-penny nail, a forty- and a twenty-penny nail, the last being the most convenient for driving.



the armpit) adds to the breadth of the chest.

Mr. Geiser posed for the illustrations in this article and has had fine success for one of his age and weight in driving nails with his hands. His weight is 135 pounds.

In driving nails through boards with your hands, there are many advantages in certain size nails and certain types of planks. On the other hand, there are nails and planks that are very disadvantageous. In the illustration showing four nails, you will see a short one which is a twenty-penny size. The medium length nail is a forty-penny, and the remaining two are sixty-penny nails. The sixty-penny nail on the extreme left gives an idea of how a nail may be pointed or sharpened in order to make the feat of driving through one or two boards easier than when the ordinary pointed nail of the same size is used.

The idea of pointing or sharpening the nail is simply given as an aid to those beginners who find they cannot drive a nail as pointed by the manufacturer through a board or plank. It allows you to exactly experience how it feels to drive a nail through wood with your hand. Naturally, the sharper the nail is pointed, the easier the feat is made. However, the nail used by professionals and others who are especially good at this feat are never sharpened.

Naturally, the sixty-penny, or largest of the three sizes, is the hardest to drive. There are two reasons for this. The sixty-penny nail is thicker and consequently must displace more wood fibre in going through a board. It is also too long to be used with much success. Its length from point to knuckles in driving causes it to turn in the hand instead of going straight through the plank.

The next size (the forty-penny) has these bad qualities also, but they are not so great as with the large nail.

The twenty-penny seems to be the best suited for the purpose, as its length is about right and its thickness just enough to prevent it from bending under the force of a blow. Incidentally, these are the size nails that are used in the feat of grip and arm strength, which is called bending spikes. In this feat, however, the large nail is preferred because it is possible to get a better grip upon it, and also because its thickness makes the feat more difficult, or at least makes it appear so. So much for the nails.

The boards or planks are next to be considered. An inch board is the thickness generally used, and to be exact, an inch board is only seven-eighths of an inch thick. The reason for this is the other eighth of an inch is taken off in the planing or finishing. If you are a carpenter or are familiar with lumber, you will know this to be true. Most strong men who feature this stunt use the word plank instead of board. You can see the better impression it gives.

In due respect to some of those who specialize on this feat, I might add that there are a few who use two-inch planks ($1\frac{3}{4}$ thickness) in which case, of course, the word "plank" is justified. I don't mean to give the impression that it is more difficult to drive a nail through a two-inch plank than through two one-inch boards placed together. There is little difference, if any.

Whether the wood in the board you use is hard or soft makes a great difference. The grain, too, has a lot to do with your success in this feat. If a board with a grain is used, see that it runs straight through the board from one side to the other and not on a slant. In this case, there is a chance that the point of the nail will hit in the soft fibre between grains and go through easy. If it hits on a grain, I need not tell you it will take more

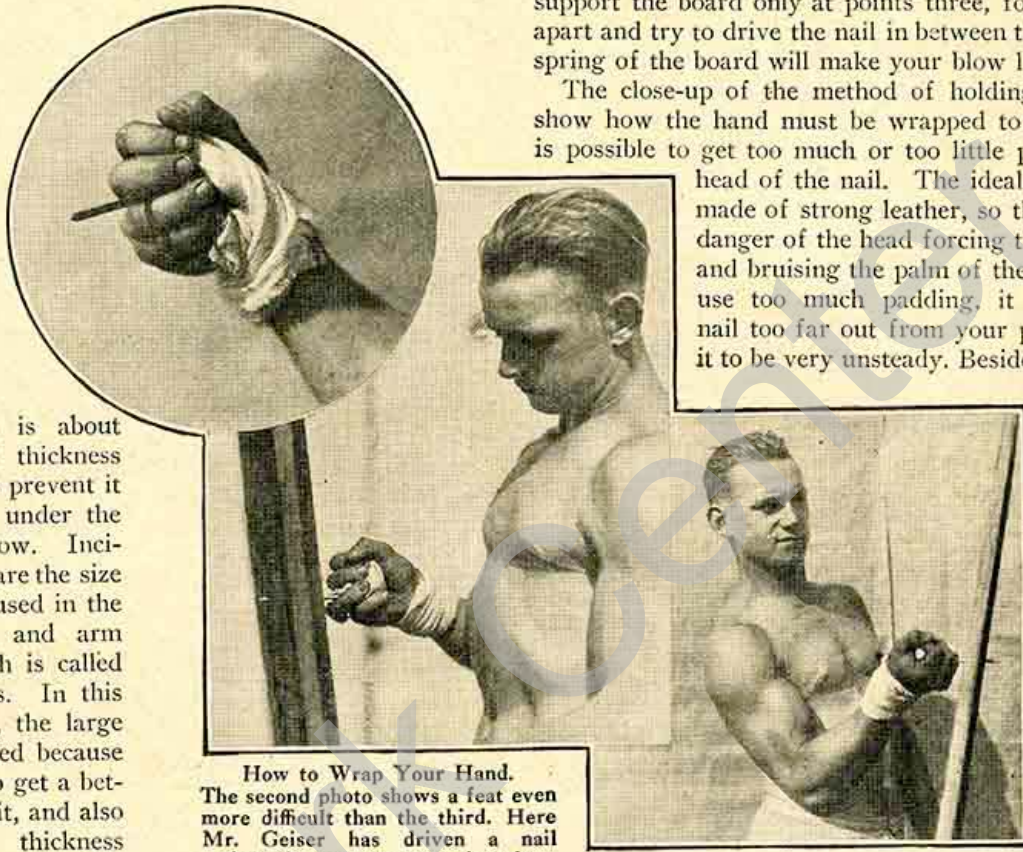
force to drive the nail through. Furthermore, if the grain is on a slant, as just mentioned, it will be impossible to put the nail straight through without the point coming in contact with the slanting grain. And further still, if the nail point fails to pierce the hard, knotty grain and follows the line of least resistance, along the side of the grain, it will have to travel farther because of the slant than if the nail went straight through.

A beginner should use the softest boards he can find, and see that the board is solid before driving. If you support the board only at points three, four or five feet apart and try to drive the nail in between these points, the spring of the board will make your blow less effective.

The close-up of the method of holding the nail will show how the hand must be wrapped to protect it. It is possible to get too much or too little padding on the head of the nail. The ideal pad should be made of strong leather, so there will be no danger of the head forcing through the pad and bruising the palm of the hand. If you use too much padding, it will push the nail too far out from your palm and cause it to be very unsteady. Besides, there will be

too much "give" to the pad when the point of the nail hits the board.

In the illustration, the end of the towel is wrapped around the wrist merely to keep it out of the



How to Wrap Your Hand. The second photo shows a feat even more difficult than the third. Here Mr. Geiser has driven a nail through two separate boards.

way and not for the purpose of supporting the wrist as might be supposed. Some men hold the nail so that it would point directly toward you if the hand was held in the same position as it is in this illustration. This position of the nail in the hand means that the performer cannot punch straight from the shoulder as he can by holding the nail in the position shown.

But it does mean that a longer sweep of the hand and arm is possible. In this longer sweep method, however, you sacrifice the advantage of being able to add your body weight to the blow. Therefore, it is a "toss-up" as to which is the better method.

In another illustration, you will see Mr. Geiser caught in the act of punching a nail through an inch board. You can imagine the great power that he must exert in order to accomplish this. In the case of a heavier man, his extra bodily weight helps a great deal. This advantage Mr. Geiser does not possess.

In still another illustration, you will see Mr. Geiser holding up a board with a nail which he has just punched a great distance through. Note the bluntness of the point of the nail used in this case. It is easier to put a nail clear through one board up to your knuckles, than it is to just break the same nail through two or three boards. The reason for this is easy to see, for after the

point breaks through a single board, the remaining force of the blow will easily slip it through the hole already made. In the case of two boards, the blow is well spent by the time the point breaks through the under side of the second board.

The other picture shows the point of the nail just about through two boards. This, you can imagine, is a very good drive for a young man of Mr. Geiser's weight and age.

In trying the feat of pushing nails through boards, you should be very cautious. Use a half-inch soft board for the first few trials, or until you feel sure you have the idea. If a board should split when you have driven with all your might, your knuckles will smash down on the board and be painfully injured. Injury can be done to the wrist by exerting more force of the arm and shoulder than the joint can stand. The results would be a sprained wrist.

A man's hand has a lot to do with his success. If your hand is soft, there is more chance of its being bruised than if it is calloused, muscular, and accustomed to rough usage. Mr. Geiser's hands are heavy and tough for one of his age and size. Notice the capable looking left arm, especially the forearm, in the picture showing him in the act of driving a nail through.

Mr. Geiser is the young man who posed for my article of a few months ago entitled, "How to Take Your Measurements." The photograph of the man measuring his forearm is one of Mr. Geiser as he appeared a few months ago in that article. Compare his development at that time with his present physique as shown on page 52.

This young man is extremely enthusiastic and eager to learn and improve. He has succeeded on several occasions in driving a twenty-penny nail through two one-inch boards with one blow. But I expect him to pierce three or four one-inch boards before he has reached his limit of weight and strength.

Mr. Geiser's present measurements are as follows: weight 130 pounds; height 5 feet, 4 inches; upper arm 14 inches; forearm $12\frac{1}{2}$ inches; wrist $6\frac{5}{8}$ inches; waist 27 inches; thigh 21 inches; calf $14\frac{1}{2}$ inches; ankle $8\frac{3}{4}$ inches; normal chest 37 inches.

I hope many of my readers will try punching a nail through a board. I will be glad to hear from any of you who may have exceptional success in performing this feat. In other words, if you can, with a little practice, drive a twenty-penny nail through two or three one-inch boards, I would like to hear of it.

In proceeding, first get a one-inch board about six inches wide, of any length over a foot long. Lay this board on something solid about waist high, as shown in the illustrations. Of course, there must be no support directly under the spot where you are going to drive the nail. It is best to have two supports of the same height placed not closer than a foot apart. It is also advisable not to have the two supports farther apart than a foot, for the hand is liable

to spring with the force of the blow, as before mentioned.

Now, take your twenty-penny nail and wrap the head well with a piece of rag. Do not use cloth that is any good, as the head of the nail often forces a hole through one thickness of the goods. Take great care in the wrapping process, going over the flat of the head as well as wrapping the rag around it. A bright, new nail is far better than a rusty one. The difference is the same as cutting a piece of wood with a rusty knife as compared with cutting it with a bright one.

Now, take the position Mr. Geiser illustrates and punch down straight from the shoulder. Be sure to keep the nail, your wrist and forearm absolutely straight, not letting the impact change this position any more than you can help.

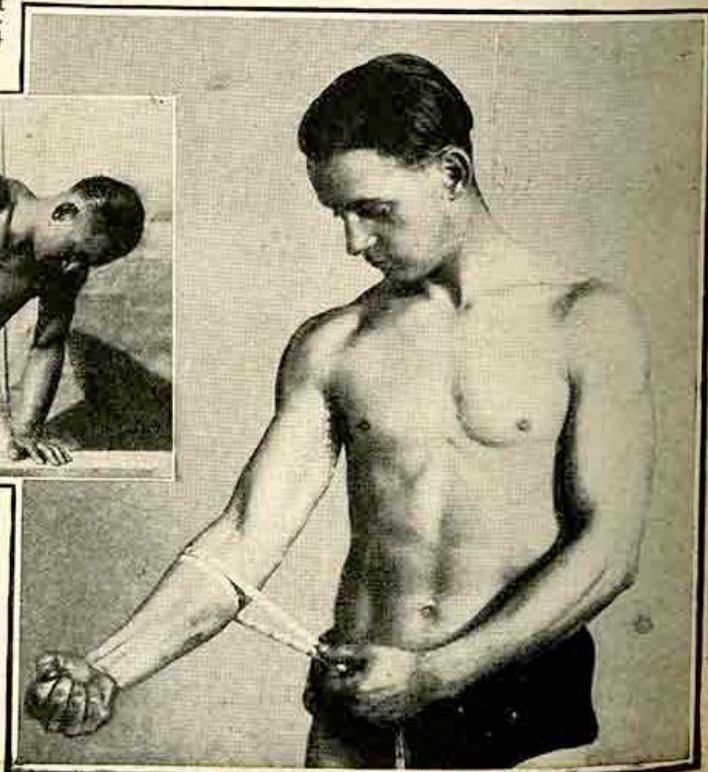
The nail head should press, with the padding between, on the center or heel of the hand, or that part nearest the wrist. If you allow the nail to press in the palm, it will not only tend to bend the wrist and consequently lessen the force of the blow, but will more easily bruise the hand—the palm being more tender than the heel.

If your hands are exceedingly tender and you find they cannot stand the shock of the blow, you can put the nail with the head cut off into a sort of wooden handle similar to that of a gimlet. This wooden grip should be about three-quarters of an inch in diameter; and a hole slightly smaller than the nail should be drilled in the center and half way through. The nail minus its head should then be driven in to the bottom of this hole. The wood used should be hard. If the driving process blunts the point of the nail, it should be brought to its natural point again by filing. But you should take care that the nail is secure and that the handle will not split. This is a safety-first method of driving nails with tender hands, and is well worth the trouble in preventing bruised palms.



The act of driving the nail (above)

At the right is reproduced a photo of Mr. Geiser shown in the April number of STRENGTH. We leave it to the reader to compare his development then and now as shown on page 52.



Are You a Physical Failure?

Check Up on Yourself and Find Out
Why. Maybe You Also Have Spent
Your Years in Developing Your Mind
at the Expense of Your Body

By Jean West

YES, the conviction grew strong upon me—too many years had been given to developing my mind, to training my brain and almost no thought or time had been spent on developing my body. I wasn't even a good animal and that, it seemed to me as I looked at myself in the long mirror, was the first step an individual should take in the art of living.

I was underweight. My body was poorly developed. There were distinguishable bags under my eyes. My cheeks were pale. No glow of health radiated from the languid girl I saw before me. Energy I had, but it was nervous energy, that wore me out and worried me. Where was that energy that comes from pulsing vital health? No, I was decidedly not a good animal and all of my other accomplishments seemed to be valueless before this great lack.

Being a creature of impulse and decision, I straightway began to diagnose my case, to find out what made me so devitalized. First I considered my diet. I ate too much; particularly I ate too many sweets and pastries.

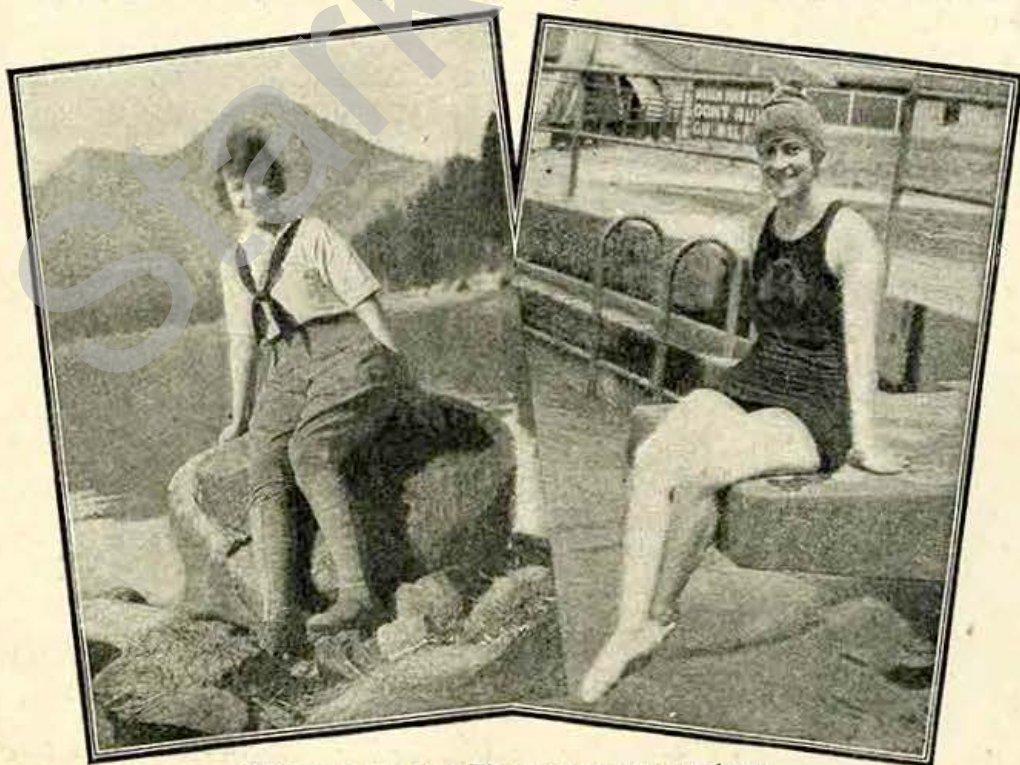
Chocolates were my

strong forte but any confection, pie or pastry was always welcomed joyfully by me. For the rest my diet was made up largely of fruits, vegetables and nuts so I had a reasonable right to expect that if I limited the quantity and omitted the sweets my diet troubles would be few. I decided on a one day fast in each fortnight and made a firm resolve to give up all artificial sweets, substituting dates, raisins and sweet fruits when I felt a hunger for pastries.

Next I considered exercise. Walking was the only physical activity I indulged in. I had a walk of sixteen city blocks night and morning to work and I walked fast, so twice a day my blood really got to circulating and I felt quite alive. The rest of the time I spent sitting at a desk, or on the floor before the fireplace of an evening. I

seldom sat correctly, I realized upon thinking of it—my legs were always crossed and my back humped over.

What could I do to remedy this lack of physical exercise? I had to think a long time about this. At least I could keep a good posture at the office and at home but how could I
(Continued on page 79)



Two years ago Jean West was nervous, rundown and underdeveloped. Having a hearty dislike for set exercises she took to swimming and tennis and these photos show what they have done for her.

Our Girls' Circle

Conducted by

Marjorie Heathcote

A Chat About Height

IF some one should ask any one of us what the perfect height for women is, we should probably answer, "Five feet, five inches," instead of replying truthfully that "there is no such thing as a perfect height."

There was a time when people wanted something very concrete to cling to, even in this matter of beauty. That

was the age when once they formed an opinion they stuck to it firmly for the rest of their lives,—and Heaven help the person who tried to change their minds! Nowadays, however, we admit that there is no perfection, that even as we improve, our ideal of perfection becomes higher and stays always beyond our reach. Nowadays we should also admit that trying to decide



Whether you boast of five feet seven inches or only five feet two makes little difference so long as that five feet two is symmetrical. For instance, Mrs. Earle Liederman (at the left), the Miss Alaska of 1922, as compared with Miss Florence Lloyd who stands only five feet two inches.



which is the most charming type of woman is about as logical as trying to decide which is the prettiest flower, the pansy, the rose or the lily. The qualities we most admire in one we do not look for in the other.

There is the tall woman who, if her bearing is queenly, has about her a dig-

nity similar to that of the lily in our bouquet. The woman to whom nature has given more than the usual number of inches, has been given an advantage over most of her sex. She instantly attracts attention. Whether she pleases or displeases is up to herself. If she is symmetrical, graceful, well-groomed, then hers is an outstanding personality. The one thing over which she has no control is her height, and in that nature has distinguished her.

Yet now and then one sees tall women pitifully conscious of their height. Especially have we all seen the young girl who has gotten beyond the "average" slouching at the shoulders and carrying herself as though her inches were something of which she should be ashamed instead of being very proud. Indeed, one of our best musical comedy stars (Charlotte Greenwood, of Linger Longer Letty fame), admits that the taller she grew, the more conscious she became of her awkwardness, until finally she made herself more conspicuous by tripping over everything in sight.

It may be a little extreme to consider such conditions the outcome of the popular idea that there is such a thing as a perfect height; but it is truthful at least to claim that if tall girls had before them an ideal of their own height, they would be more encouraged to work toward that ideal, and would realize their qualifications and advantages. In the tall, well-formed woman nature has given us one of her most beautiful accomplishments, and it is up to her to realize this and make the most of it.

Gertrude Artlett, whom we are showing you today, is one of these very tall women. She stands five feet, ten inches high and tips the scale somewhere around 160 pounds. You have probably heard of her before, as she has distinguished herself by her swimming records. And speaking of those who have gotten a little above the

average, we want to show you the charming Miss Alaska of 1922. She is five feet, seven inches high and could well issue a challenge to women of any height to beat her when it comes to attraction or charm. Surely she should be an inspiration to any one of our readers who fears she is handicapped by a height somewhere over 5 feet, 5 inches.

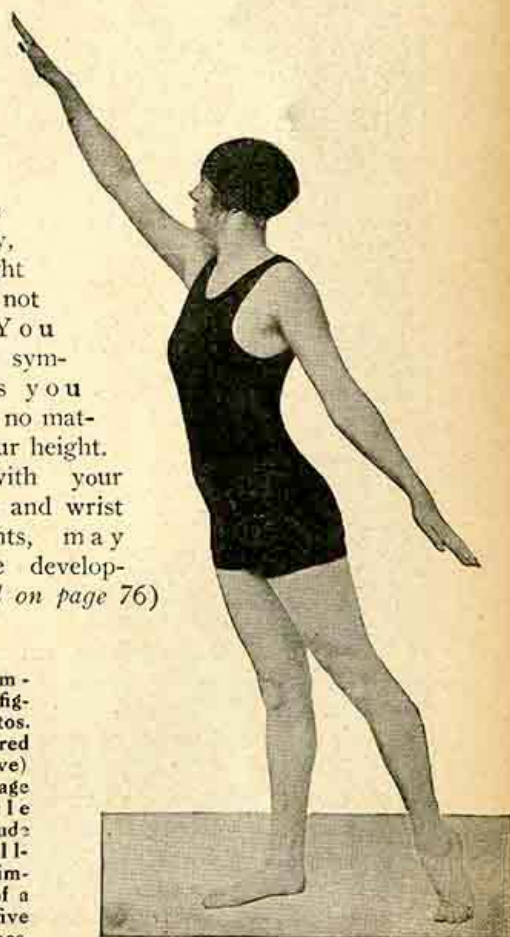
The woman of average or "perfect" height needs no encouragement to induce her to make the most of her form. She has before her constantly ideals of womanhood to which she knows she can work. She takes the place of the rose in the bouquet,—she just fits in. If she is charming enough she attracts attention. If she is not, she is at least not so noticeable as her taller sisters. She is not apt to jar upon one quite so easily if her proportions are not what they should be; but no matter what her height, she will be pleasing only when she has that symmetry of form that makes one so. While we are talking about it, we may as well tell you that the average "Follies" girl is five feet, four and a half inches tall.

The small woman, however, finds herself up against a rather perplexing problem. She is apt to be insignificant, she fears, or if she gets the least bit overweight she will appear pudgy. Now she may as well remember the story of the bouquet and make of herself the most charming bit of womanhood she can, for she cannot alter her height. It is in her favor that the small woman is quite popular today. And then hers is a piquant sort of charm which her taller sisters would find quite hard to imitate. Besides there is Mary Pickford, whose height is well below the "five feet" mark and whom the public has certainly found more adorable because of it.

The purpose of this chat is to show you that except

for giving you a little individuality, your height really does not matter. You may be as symmetrical as you want to be, no matter what your height.

That, with your ankle, knee and wrist measurements, may govern the develop-
(Continued on page 76)



Another comparison in figures and photos. Miss Mildred Walker (above) is of average height, while Miss Gertrude Artlett, well-known swimmer, boasts of a symmetrical five feet ten inches.

Ask the Doctor

By

H. H. Rubin, M.D.



DEAR DOCTOR:
I have been ailing for so many years and have consumed so many remedies without any relief, that I thought perhaps my case might be of glandular origin. Therefore, I am applying to you for help.

I am 42 years of age, and although well built, I am what may be called a "physical bluff."

After the slightest exertion, my heart beats like a sledge-hammer and I feel quite dizzy. I have an inordinate appetite for all kinds of food, especially meats, but never enjoy the meal. My bowels move freely, sometimes several times a day. But I always have a sour taste in my mouth. My mind and body seem to be everlastingly busy, with all sorts of problems. However, I accomplish very little, so little that I can hardly earn my living. I can not fall asleep until long after I retire. As soon as daylight comes, I am again awake. I am easily subject to colds. My hands and feet perspire profusely. Within the last months I lost ten pounds of weight which worries me considerably. All my powers seem to be waning. Am I on the "decline" and beyond help?

THE hundreds of letters that have poured into the "ASK THE DOCTOR" Department of STRENGTH MAGAZINE have justified the assumption of the Editors of STRENGTH that almost every family in the land—not to say every individual—has some problem that can properly be solved only by a trained physician. It is our desire to feature in this department, to a large extent, questions and answers that revolve around the subject of glands and their defects. However, questions on every conceivable subject from baby feeding to the prevention of bed-sores on the dying grandmother, have been answered by our medical staff.

We welcome these inquiries. We want to be of material service to our readers, so do not hesitate to ask advice and do not forget to enclose stamp or stamped addressed envelope, as you know that only a few of the most interesting questions can be answered here each month. The remainder must be answered by mail.

Sincerely,
J. G. R.

P. S. Of late, my memory is becoming very poor and am suffering from frequent headaches.

You are undoubtedly suffering from what is called a "polyglandular dysfunction." This means that several of your glands are involved, to a greater or lesser degree. All our glands when normal work in harmony, producing a well-balanced coordinate nervous system. The glands involved in your case are the Thyroid, Pituitary, Adrenals, and Gonads (sex glands). The Thyroid controls the manufacture of energy in the body. In other words, it governs the speed of living. In your case, it appears to be overactive as manifested by your nervousness, insomnia, and sledge-hammer palpitation of the heart. Your recent loss of weight is more evidence of Thyroid overactivity, for the Thyroid, in addition to its other functions, also helps burn up waste material.

In your case, not only the waste material is burned but also a good deal of your normal tissue, which accounts for your rapid loss of weight.

The Adrenals are the glands of combat, the glands of courage. They are the reservoirs of energy, pouring forth into the system their energizing fluid whenever called upon to do so. This fluid acts directly on the nervous system, stimulating it to activity.

On account of an over-functioning of the Thyroid, in your case, there is an excessive amount of muscle work performed, which drains the reservoirs of the Adrenals and depletes these glands. The Pituitary, aside from its varied functions, is responsible for the transformation, expenditure and conversion of that energy into healthful, youthful vitality. As in many like cases, there has been an attempt on the part of the Pituitary to convert the excessive energy produced by the Thyroid and Adrenals into normal vitality. However, this gland soon becomes depleted. This accounts for your headaches and poor memory.

The Gonads or sex glands control all the glands. This explains the importance of sex-energy. Whenever one or several glands become depleted or deteriorated, the Gonads come to the rescue and there is an over-secretion of gonadal hormones, which stimulate all the other weakened glands. To overcome your glandular deficiency, there are four things necessary. First, is the proper selection of food. You will remember that the activity of certain of the glands depends entirely upon the amount of ipline, calcium, phosphorus, or potassium they may secure. For instance, in a deficiency of iodine in the diet, there is almost invariably a dysfunction of the Thyroid gland resulting in some form of

goiter. Where there is a deficiency of lime, there is a definite dysfunction in the Thymus, Thyroid, and other glands, and so on. Therefore, I would urge that you avoid demineralized foods, such as Cream of Wheat, corn flakes, oatmeal, white crackers, and all white flour products, and instead, eat whole wheat bread, and whole wheat flour products, such as shredded wheat, grape-nuts, Wheatsworth crackers, etc.

Drink plenty of water, six or eight glasses a day, as this helps remove poisons from the system. Be sure to get plenty of sleep, eight hours a night is none too much for recuperative purposes. In addition, direct stimulation of the ductless glands by means of radiation would have a wonderful effect in toning up these sluggish organs and helping them to function properly.

Dear Doctor:

What is the cause of the disagreeable and embarrassing flushing that comes to my face so unexpectedly? I have never had anything like this before.

MRS. ELIZABETH R.

I take it from the snap-shot of yourself which you enclosed, that you are a woman of from 40 to 45 years of age. I do not think there is much doubt but that your flushings are "change of life" symptoms, and are perfectly natural vaso-motor disturbances, to be expected at your age. It may interest you to know that the "change of life" period may often be deferred for several years by radiating the ovaries. A light diet, regular daily movements of the bowels and warmth applied to the extremities are very helpful.

Dear Doctor:

Can you tell me how I can get rid of stomach catarrh? I have doctored for many years and have spent all kinds of money, but I never get any real benefit from it.

MARY H. S.

The subject of stomach and intestinal catarrh is an extremely important one. We have had thirty or forty inquiries on this very subject; so we have asked Dr. Bowers, who has recently joined the Editorial Staff of STRENGTH, to write an article covering every phase of this big subject with a special reference to such things as those who suffer from gastric and intestinal catarrh can themselves do at home. This will be made the subject of Dr. Bowers' article in a forthcoming issue.

Dear Doctor:

What can I do to overcome high blood pressure? I am 62 years of age, and have a pressure of 180. My father died of an apopleptic stroke only a few years ago, and I am afraid that I am going the same way.

WILL S. F.

Just because your father died of apoplexy is no reason that you should go the same way. Please get that thought out of your mind immediately. First and foremost, your blood pressure is only 20 degrees above what should be normal at your age. Adding 100 to your age would give you 162 which should be the normal blood pressure so that you are not so very much above these figures.

The main cause of high blood pressure is auto-intoxication from infestinal absorption. If you will be certain to secure at least two or three free daily movements of the bowels, and eat liberally of fruit, green vegetables, and whole wheat bread, and a limited amount of meat in the form of steak or rare roast beef, as well as drink six to eight glasses of water every day, I believe that you will see an appreciable reduction in your blood pressure within a very short time.

If you have any prostatic trouble, or any chronic conditions of this nature, it would be well for you to see a physician and have local treatment instituted. Be sure to get plenty of sleep and plenty of fresh air, and a reasonable amount of exercise, avoiding of course, any "stunts" that are calculated to put an extra strain upon the heart and the circulatory apparatus.

Dear Doctor:

Is there any cure for hemorrhoids except operation?

J. B. S.

Engorgements of the hemorrhoidal veins is caused

primarily by pressure on the portal vein, leading from the liver, together with a general weakened condition of the walls of the blood vessels concerned in the hemorrhoidal process. One of the greatest evils that you have to combat in this condition is constipation. First and foremost, the presence of solid, irritating feces in the rectum produces a condition of irritation that results in relaxation of these veins. Consequently, the attempt to void these feces causes so much straining, that the veins naturally become engorged and dilated. If the condition persists for a sufficient length of time, it has a tendency to become chronic. This would give you a hint as to what you should do. First, overcome your constipation. Use such measures as in-

jections, suppositories, or any other ways that would unload the lower bowel without weakening it. Local sitz baths of extremely hot water will tend to reduce the size of the pile. Steady pressure with your finger against this pile will gently force the blood out of the dilated vein and give the structures a chance to return to normal.

It might be well also to use some such astringent ointment as dionol, which can be introduced into the rectum with a pile pipe, provided for this purpose.

I have known this treatment to overcome many of the obstinate cases.

Dear Doctor:

Is uric acid the cause of rheumatism? One of my friends says that uric acid has nothing to do with rheumatism. What do you think?

R. B. T.

While there may be other exciting causes still the uric acid diathesis is an important factor. Would advise you to read carefully the article on Rheumatism in the October number of STRENGTH.

What Do You Know About Glands?

YOU have heard of "monkey glands" and of "sheep glands." You have read of operations in which these have been planted in the human body, with more or less success. But what do you know about the function of glands in your own body?

Are you aware that irritability, undue fatigue, the 4 o'clock "let-down" which business men feel, may all be traced to dysfunction of some particular gland which is "laying down on the job?"

The medical profession has brought forth enough information to interest the public, but most of us are still mystified. In this issue Dr. Edwin F. Bowers tells the truth on the subject.

See Page 40

How Much Truth Is There in This Gland Business?



The DINNER TABLE

— Conducted by Jane Randolph

The Right Food for Christmas

ONCE upon a time there was a small boy who made a wish that he might be baked into the middle of a pumpkin pie as large as Lake Erie so that he might eat his way out. I don't know what his fairy godmother did to him, but if she was Old Mother Nature she doubtless spanked him soundly.

The case of that youngster, however, is suggestive; for it just happens that nearly all of us, at least once a year, adopt a point of view which is quite as naive and greedy as his. Christmas comes but once a year. This is fortunate; because when it gets here we straightway drop ourselves down plump into the middle of the traditional Christmas dinner, and the week of surfeiting that follows; and then it's all over but the stomach-ache, to mention the least of the evils that follow.

The traditional holiday menu of too much of everything—too much turkey, too much plum pudding, too many trimmings, and, above all, oodles and oodles of candy in fancy boxes that last and last and last, is one of the chief reasons why there are never enough doctors to go 'round during the last half of every winter.

It would be perfectly all right if we would just let Christmas go to our hearts, as it was meant to do, and stop there. But we don't! Instead, we let it go to our heads, with the result that even the wisest of us enter upon dietetic follies which, at any other time, we would know to be insane. After that, of course, there's no stopping. Mother Nature administers the spanking. It's indigestion, "biliousness," colds, coughs, rheumatism, grippe, and what not from then on till summer mercifully comes along and gives a chance to catch up—and get ready for *another* orgy of holiday indulgence. No, Reader, I have not overdrawn the picture. It is both moderate and accurate.

This condition of things is worth kicking about right now, on the eve of the holidays if only for the sake of the helpless kiddies. That's why I'm doing it—in the hope that some will quit these follies this year before they begin.

Kill-joy? Death's Head at the Christmas Feast? "Don't" Artist?—Dear no! There's a world of good things to eat! Eat them by all means! All you have to do to be healthy, wealthy, and wise after the holidays is to follow three simple dietetic rules, and, within the

limits of these, eat as wildly and with as much abandon as you like. I'll guarantee it won't hurt you. Here they are:

First:—DON'T have anything around that will hurt anybody if eaten moderately.

Second:—DO have plenty of good things to eat around that will not hurt anybody if eaten moderately.

Third:—Eat of everything MODERATELY.

To those who protest against this seemingly ruthless destruction of all the time-honored ideas of how to celebrate Christmas I should like to say that only the lazy-minded will be dismayed by the vacancy left by the omission of all things that are harmful. There are plenty of good things to eat at this as at all times of the year. Here is one mother who has already attacked the job of finding them by substituting the right for the wrong kind of pie and cake. I am glad to print her letter because it is typical of many similar letters from thoughtful persons.

Montrose, Pa.

My dear Mrs. Randolph:

I use wholewheat flour for bread and gems but now I'd like to try it for pie crust and cake. As it must be used differently from white flour for bread, will you tell me how to make pie crust and cake?

I enclose stamp for reply. Thanking you,

Sincerely yours,

E. R. A.

The baking of pies and cake made with whole wheat flour is more or less of a pioneer business, or rather it is an old art to be revived which has been forgotten ever since the manufacturers of white flour began educating the public. Not many people have tried it and fewer have published or handed round any recipes for such things. The Wheatsworth flour package contains a folder of recipes for all kinds of things made with whole wheat flour that are the best and most convenient of any I know, and they almost cover the ground of sweets necessary for Christmas. If you can't get one easily I will be glad to mail one to you if you will send me a stamped and addressed envelope.

Their pie crust recipe follows the general rule for whole wheat, one-fourth cup of water to one and one-half cups of flour. But the amount may vary if you use home ground or any other kind of flour. In any case do not use more water than is necessary to make the dough roll out smooth and thin. The less the dough is handled the more tender the crust will be.

Whole Wheat Pie Crust

- 1½ cups whole wheat flour
 1 teaspoon salt
 2 teaspoons sugar
 ¾ teaspoon baking powder
 3 tablespoons shortening
 ¼ cup cold water.

Mix the flour, sugar, salt and baking powder; add the shortening, rubbing it in very lightly; add enough cold water to hold together. Roll out half the dough on floured board and line the pie plate. The pie can then be filled with apples or any fresh, canned or dried fruit which has been cooked. The remainder of the dough can then be rolled out and used to cover the pie. Brush top with milk and bake in a moderate oven.

For all pies where it is possible I advise the omission of the covering for the simple reason that the less pie crust the family eats the better. In that case the second half of the dough can be used for another pie. After the pie crust has been rolled out and put in the pan it can be kept for a day or even two days before baking, so that even with a small family it is an economy of time and labor to make enough for two pies at once if you can use them.

But I warn you, it requires both perseverance and patience to make whole wheat pie crust; and when it is done you must not expect it to look like crust made with white flour. The dough is sticky when you don't want it to stick to your fingers, and it is not sticky when you want it to stick together and be lifted about. But don't let that discourage you. With plenty of trying it can be made successfully and it does taste good—there is no mistake about that.

Almost any cookie or cake recipe can be used with whole wheat in the place of white flour if you use

especially if it is one you worked out for yourself. Then you feel as though you had really done something worth while.

I can't imagine anything you could do that would be of more value to you or your family than to break loose from the traditional methods of Christmas baking and do a little pioneering on your own account. Use regular recipes for whole wheat if you want to be absolutely sure of results. But don't be afraid to try out some of your own favorite recipes too. You will be surprised how well they will often turn out. And if they fail? That probably would not happen a second time; and besides, you will never discover anything new unless you are willing to gamble on a failure now and then.

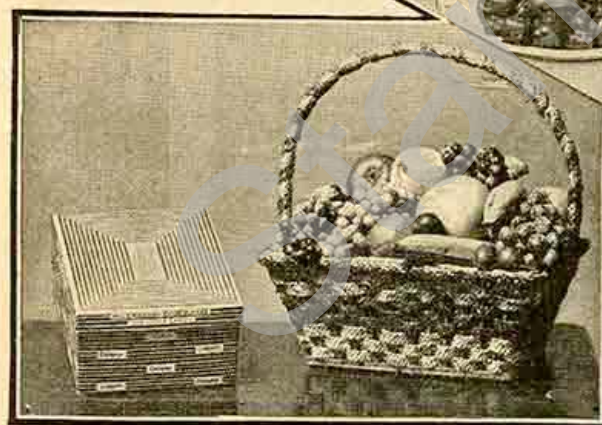
For instance I will tell you how I learned to make the little cake that is shown in the picture.

Whole Wheat Raisin or Nut Cake

- 4 tablespoons butter 2⅓ teaspoons baking powder
 ⅔ cup sugar ½ teaspoon nutmeg
 2 eggs 1 teaspoon cinnamon
 1¼ cups whole wheat flour ¼ teaspoon salt.
 ½ cup milk

There was a recipe which came with the double fry-pan, which is also shown in the picture, for a cake to be made with white flour which would just fill the pan. It could be done to a turn by cooking it over a hot flame for ten minutes and then over a low flame fifteen minutes more. That appealed to me because it saved the expense and discomfort of heating up the oven in a little kitchen. So I tried the recipe exactly as it was, substituting whole wheat for white flour, and my cake was a success the very first time. It could of course be baked in a round tin in the oven just as well.

I split the cake in two after



Photos by W. H. Trippe.

Which would you choose for a Christmas gift? The basket of fruit costs \$3.25, the five pound box of candy anywhere from \$5.00 to \$50.00, according to the size of the doctor's bill.

a little judgment about the amount of flour according to your previous experience with the recipe as to how the mixture ought to thicken up. Put the flour in gradually and use only enough to make the mixture look about as thick as it usually does when white flour is used. You will be surprised to find how easy it is to achieve a successful experiment of this kind, and there is a real thrill of satisfaction in taking from the oven a new dish,



Here is a picture of a Merry Christmas and a Happy New Year. Dates filled with nuts make a plateful of wholesome, natural food for forty cents.



Nut cake and peach short cake can be made with whole wheat flour and baked in the oven or over a flame in the pan that is shown in this picture.

it had cooled and filled and covered it with icing made just like the usual boiled icing except that I made it with dark brown instead of white granulated sugar. I watched it and boiled it till it haired well from the spoon, and it spread beautifully. Nuts went in between the layers—chopped raisins or figs would do just as well—and I had a two-layer cake made in a jiffy, just enough for six people to be served generously for dinner.

In the first article which I wrote for "The Dinner Table" and which appeared in this magazine last April, I gave the best recipe that I know for a good sized whole wheat cake, as well as a

(Continued on page 77)

THE MAT

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

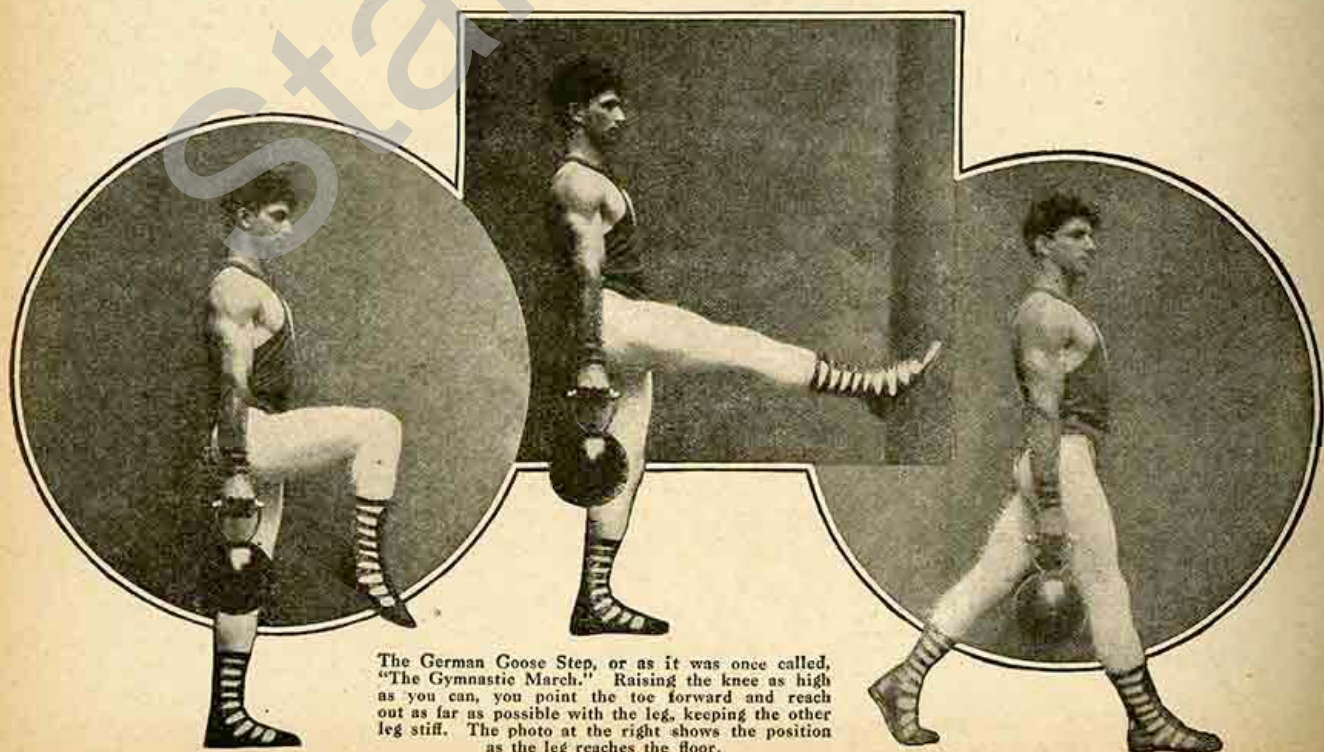
Conducted by George F. Jowett

Does bar-bell exercise make one slow and muscle-bound?

THIS question every once in a while will pop up. Of late years, it has become less insistent, simply because in the last few years people have come to know more about body-building. They have found the implication to be an utter fallacy, which it absolutely is, being the result of either the ignorant-minded who fail to analyze facts as they are, or the voicings of the bigoted who are always prejudiced against the culture of the body. They always remind me of that class of tribal fanatics who would mutilate their own body to appease the soul. They are a curse to themselves, and try to curse others with their obsessions. Thank goodness, we are leaving this crowd far in the rear with our broadened minds and visions. When a person tells me body-building is no good, or an athlete dies young, I generally give him the "once over" and find that he has neither body development, nor ever excelled at any sport. They are the failures. Everybody wants to be strong and healthy. It is primal instinct with man, and because I do not believe in allowing such cranks and bigots to get away with such talk in endeavoring to dampen a health and body-builder's enthusiasm, I am

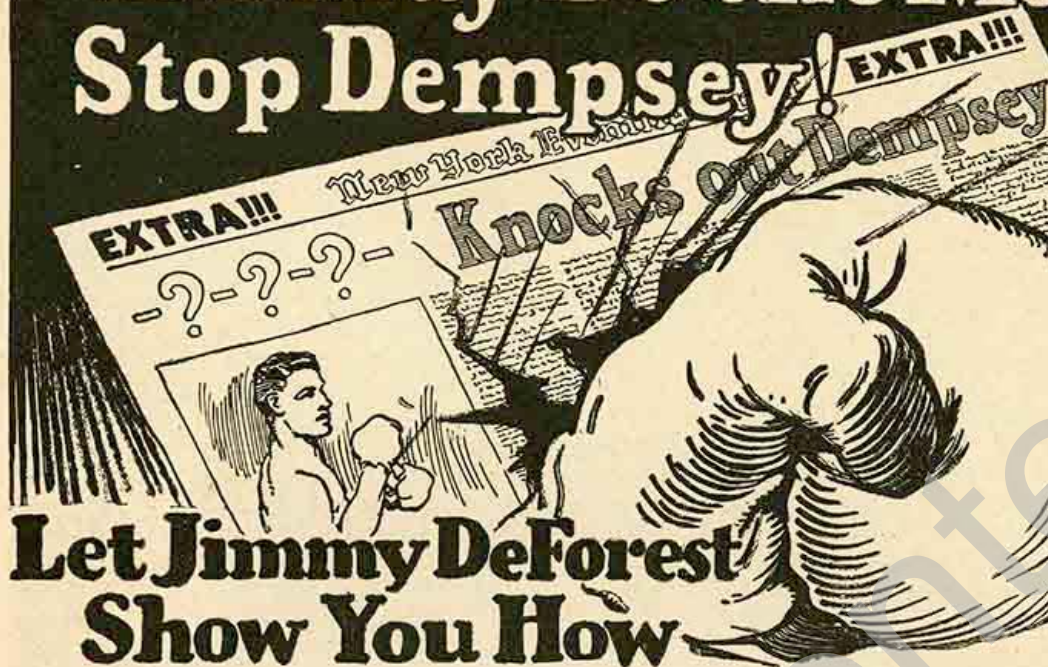
going to talk a little on this subject for this month.

I believe in stimulating the desire for a well developed body, and above all, I believe that bar-bells are the only means of giving all-round development capable of qualifying a man on all physical occasions. I do not mean to say other means of physical training are no good, for methods without the use of bar-bells do create good health, but I figure when a fellow is going out to do a thing, he might as well do it right, and go for that which will give him the best and most lasting results. Hence bar-bells, and since they are the point of our discussion, we will stick to them. The "knocker" says, "How can a man be fast with all that muscle on him?" My answer is, "How can he be slow?" How many of you have gone to the theaters and admired the hand to hand balancing act? You all have. Their wonderful quickness and precision in "timing" a stunt, the elastic flexibility of muscles that give grace to the act, the ease with which they handle each other, and the beautiful muscular appearance of both men convinced you that there was nothing slow about them. Every hand to hand balancing team I ever met had commenced their training with bar-bells, and from their practice had developed the power that enabled them to handle each other's body-weight, and build an act. (Continued on page 91)



The German Goose Step, or as it was once called, "The Gymnastic March." Raising the knee as high as you can, you point the toe forward and reach out as far as possible with the leg, keeping the other leg stiff. The photo at the right shows the position as the leg reaches the floor.

You May Be the Man to Stop Dempsey!



Let Jimmy DeForest Show You How

Dempsey knows he can't go on forever. He freely admits that the day is surely coming when the championship crown will go skidding off his head, as it did in the case of every great champion from John L. Sullivan to Jess Willard.

The man who will stop Dempsey already exists. He may never yet have had a boxing glove on, but that makes no difference to me. Whoever he is, wherever he is, I want to be the one to discover and develop the future champion just as I developed Dempsey, Firpo, Joe Gans, Mysterious Billy Smith, Pal Moore, Frankie Burns, and many other great champions and contenders. I am equally eager to place in the ring men now unknown and unheralded who will take the measure of Bennie Leonard, Mickey Walker, and all the other champions in their respective classes.

Are You the Man?

Why not? If you are healthy, physically sound and fairly strong; if you have plenty of natural courage, determination and ambition, you can develop into a professional boxer of the highest class, by means of the Jimmy DeForest Boxing and Training Course by Mail, even if you do not possess into a champion.

It makes no difference to me whether you are a raw beginner, or an experienced professional not coming along as fast as you should. My Course is so complete, comprehensive and scientific, that in a few months it will make you master of every modern blow, guard, and trick of ring-craft, and help you to develop a punch that will send you fairly flying to the top of the boxing profession. Read the outline of my Course on this page.

All That I Taught Jack Dempsey I Will Teach You

Dempsey knew little about ring-craft when he came to me; but he left me one of the greatest and most finished fighters of all time. I will give you the same extensive training and boxing course that I gave him, including even a surprising amount of personal supervision. I have mapped out my course so scientifically that I can closely follow your progress from lesson to lesson just as if I actually had you with me at my training camp at Long Branch, N. J.

Every Blow, Guard and Trick of Ring Strategy Scientifically Taught You

During my 35 years' experience, I have introduced more new punches and blows, more orig-

inal tactics in footwork and defense, more new angles in ring generalship than any other trainer, living or dead. And I can make you master of them all, if you will study my lessons faithfully and practice the blows, guards, exercises, etc., as I teach them to you.

The World's Greatest Trainer's Own Boxing Course

Remember this is not an ordinary boxing-course, nor just another boxing-book. It is a series of progressive lessons, profusely diagrammed and illustrated, and actually written and designed by me out of the great wealth of my extensive knowledge and experience. After you have taken my course, you will understand why I am justly called the world's greatest instructor and conditioner of boxers.

Right in my own gymnasium, I myself put on the gloves with another expert boxer, and in that way worked out my course lesson by lesson. As one result, I have been able to fill my course with diagrams of my own making which will prove of great help to you in studying just how each blow should be struck, blocked or ducked.

What Other Profession Can Pay You So Well as Boxing?

My course will not only insure you a fine, vigorous, symmetrically developed body and complete mastery of the fine art of boxing, but if you have the right stuff in you, it will also enable you to shine in a profession which affords even mediocre talent more money, glory independence and leisure than the leaders of other professions often can command. Even the preliminary boxers earn fine incomes.

Tex Rickard Endorses My Course

He believes that it offers a wonderful opportunity to boxers all over the world to develop into real stars. So great is his faith in my course, that he has written me a letter (you probably read it in my opening announce-

ment in last month's issue of this publication) offering to stage a bout in his new Madison Square Garden, New York City, for the champion in each class developed by my course.

Now Read My FREE Offer

I will personally select the heavyweight, light heavyweight, middleweight, welter-weight, lightweight, bantam-weight feather-weight and fly-weight boxer, who makes the best showing on my course and train him FREE at my camp at Long Branch, so that he can go up to Mr. Rickard's Garden Arena fit and ready to make a real showing that will give him the right start towards a highly successful and profitable boxing career. SEND FOR MY GREAT BOOK

"The Golden Age of Boxing"

Send 10 cents to cover cost of mailing and postage, and I will send you my keenly interesting, 64-page book, "The Golden Age of Boxing." It describes my course in a way that I haven't room to describe it here, and is crammed with facts about modern boxing, the people in it, and the great opportunity for the lads of today to win fame and fortune in the ring.

The illustrations alone make "The Golden Age of Boxing" valuable as a permanent book of reference. Many of them are reproductions of pictures from my own private collection, and cannot be duplicated. Some of them go back to days long before you were born, and all together they certainly trace in a remarkably interesting way the entire history of modern fighting and boxing.

Send for your copy TODAY WITHOUT FAIL!

Outline of My Course

- 1st Week—Fundamentals of Boxing, Diet, Roadwork, etc.
- 2nd Week—Elementary Punches.
- 3rd Week—Basic Attacks.
- 4th Week—Infighting.
- 5th Week—Elementary Defense.
- 6th Week—Advance Defense.
- 7th Week—Covering and Clinching.
- 8th Week—Counter Attacks.
- 9th Week—Defense against Counter Attacks.
- 10th Week—Shadow Boxing
- 11th Week—Combination Punches.
- 12th Week—Feinting.
- 13th Week—Fighting Slow Opponent.
- 14th Week—Fighting Fast Opponent.
- 15th Week—Fighting Purely Defensive Opponent.
- 16th Week—More "Inside" Boxing.
- 17th Week—My Tricks of the Game.
- 18th Week—Pitfalls and Traps.
- 19th Week—How to Deliver Knock-out Blows.
- 20th Week—Ringcraft and Generalship.

USE THIS COUPON NOW!

Jimmy DeForest
347 Madison Avenue, Box 513
New York City

Gentlemen: Enclosed find ten cents, for which please send me your book, "The Golden Age of Boxing," without obligation on my part. I am interested in your course as a prospective professional () as an amateur ()

Name

Street

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

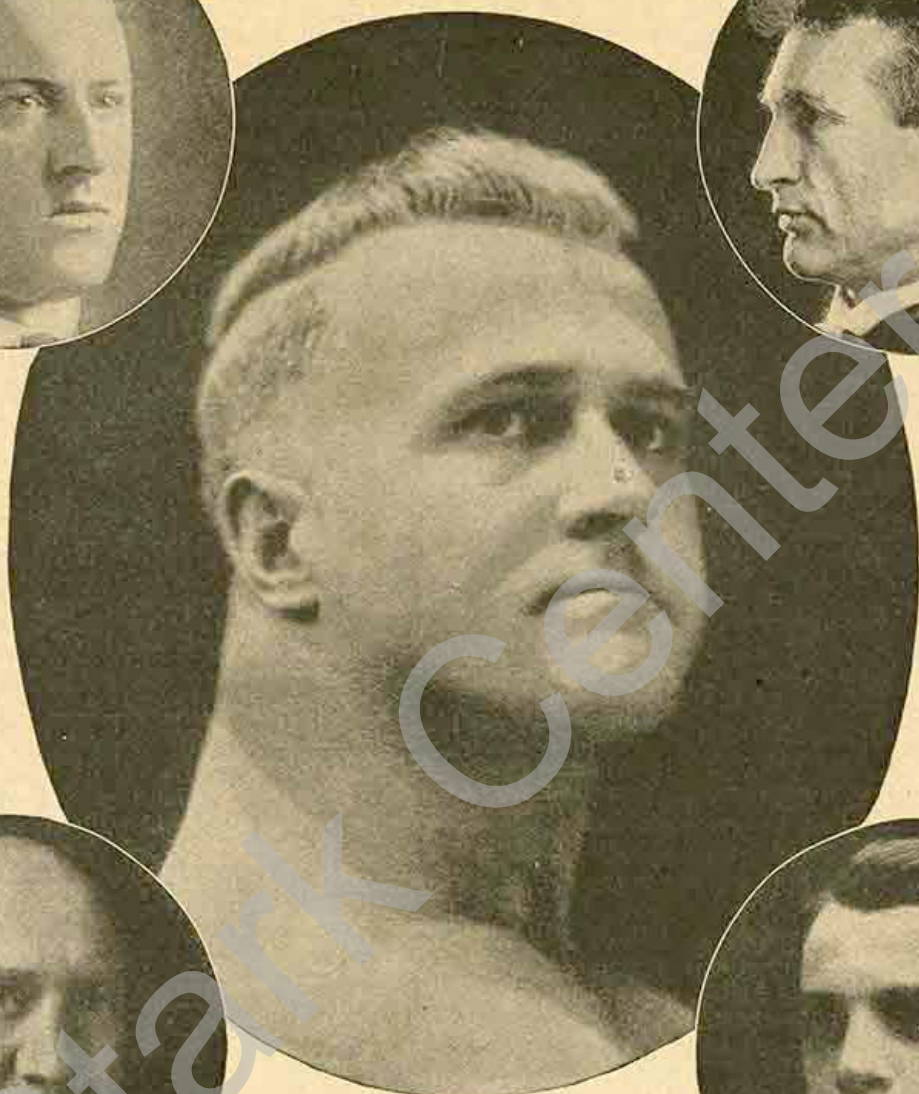
Jimmy DeForest
Box 512, 347 Madison Ave., New York City



BUDD GOODWIN
*Ex-Champion Long
 Distance Swimmer
 of the World.*



BERRARR MacFADDEN
*Noted Author and
 Authority on Physical
 Culture*



EARLE E. LIEDERMAN

*The Committee
 of Judges*



GEORGE O. PRITCHARD
Former Professional Football Player



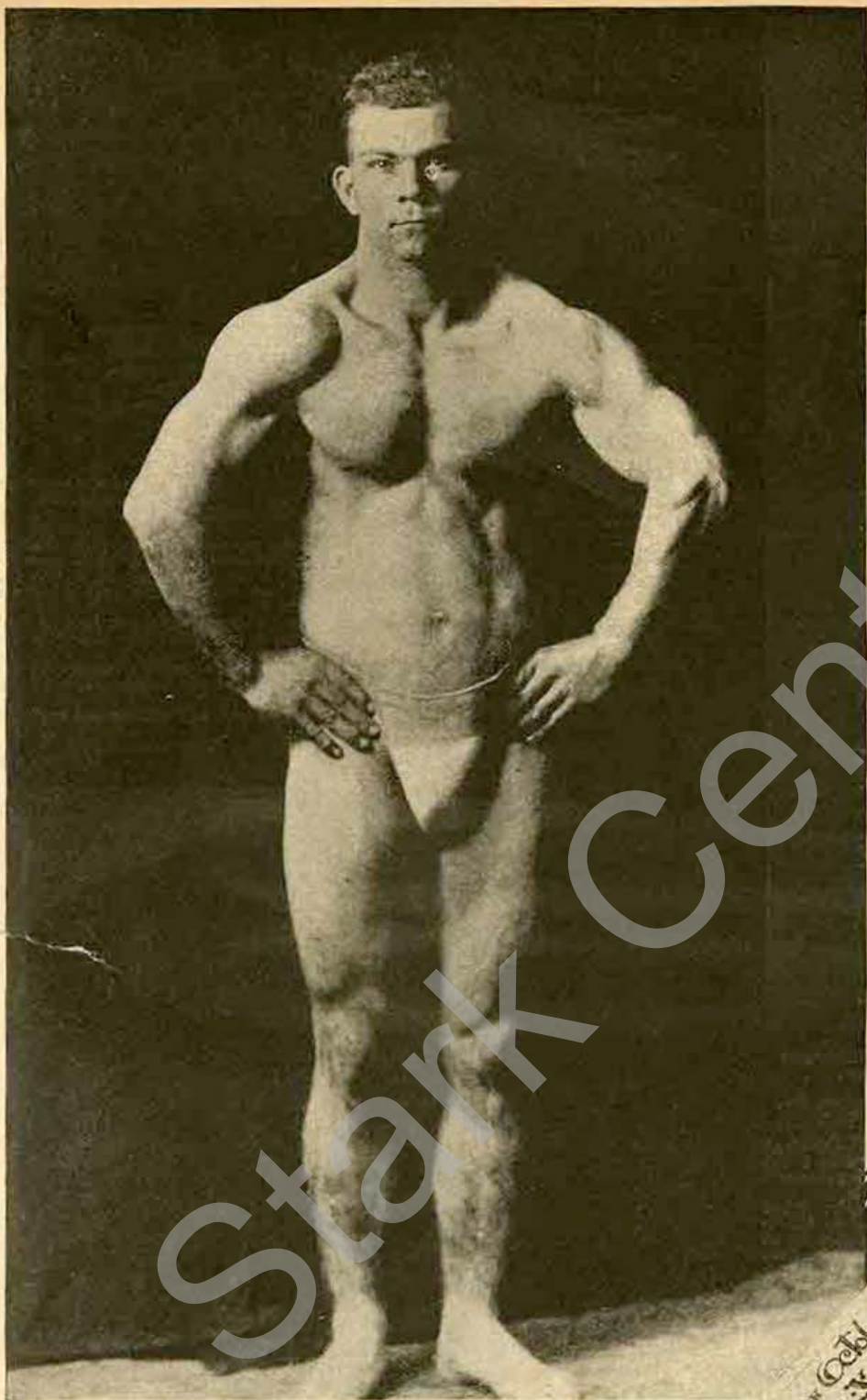
ARTHUR L. HYSON
Physical Culture Instructor

Present the Prize Winners

in the

**Earle E. Liederman 1924
 International Physical Improvement Contest**

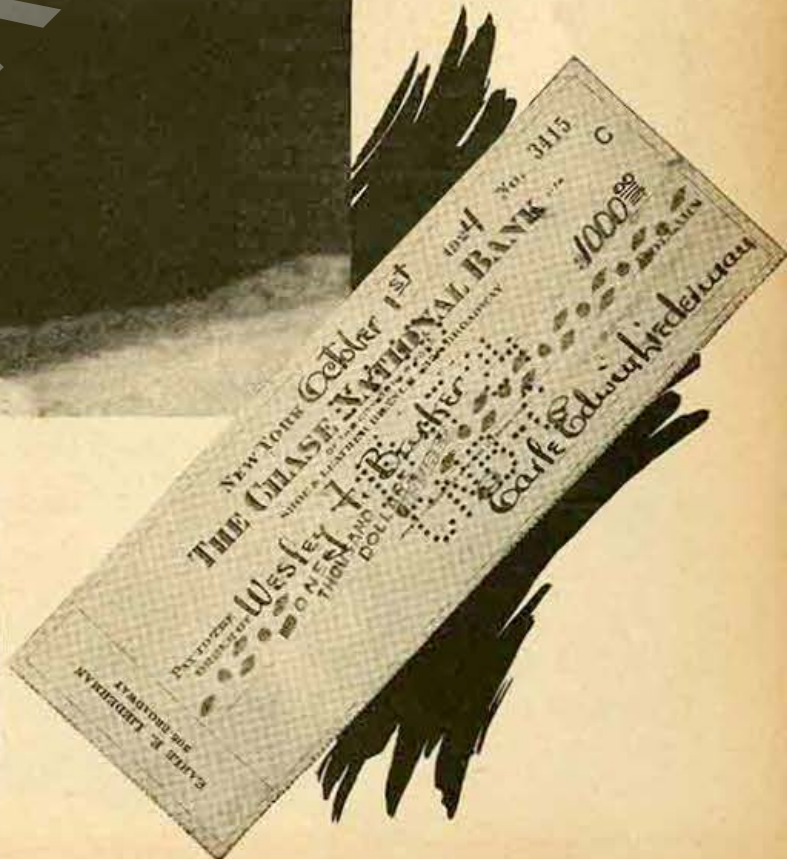
See Following Pages



WESLEY F. BARKER
509 Carolina Avenue, Spencer, N. C.

First Prize Winner

MR. BARKER was awarded first prize of \$1,000 and gold medal in the Earle Liederman 1924 International Improvement Contest. The diligence and faithfulness with which this pupil worked under Earle Liederman's guidance enabled him to accumulate the massive muscles where just smooth flesh was before.



509 Carolina Avenue, Spencer, N. C., October 3rd, 1924.

Mr. Earle Liederman,
305 Broadway, New York City.

Dear Friend:—

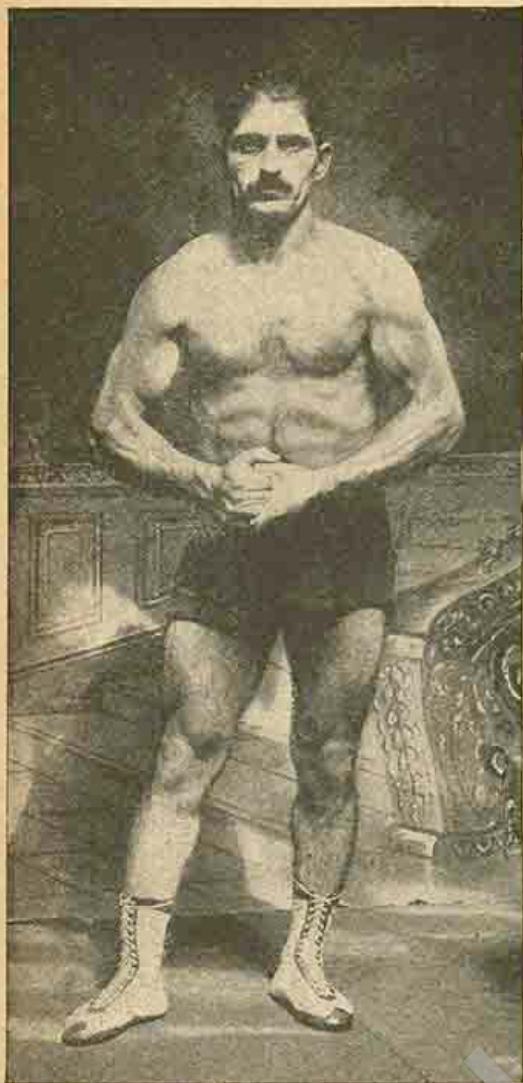
It is with great pleasure that I take this opportunity of acknowledging receipt of your letter enclosing check for \$1,000 as first prize in your competition.

I wish to thank you from the bottom of my heart, for the wonderful improvement your course has brought me, and for the straightforward and honest way you have treated me while I have been under your tuition.

I certainly hope I can inspire some fellow that has given up all hope of getting strong. My pictures show what your course has put on me and it will do the same for anyone else, if they really and truly want a strong body.

I enthusiastically acclaim your course to be second to none. Again thanking you, and with best wishes,

I beg to remain,
Your friend and pupil,
WESLEY F. BARKER.



DONALD CONSTANTINE

Box 11, Palmerton, Pa.

The second prize (\$500) winner in the Earle Liederman 1924 International Improvement Contest.

Earle E. Liederman, 305 Broadway, New York City. Box 11, Palmerton, Pa., Oct. 2nd, 1924.

My dear Mr. Liederman:

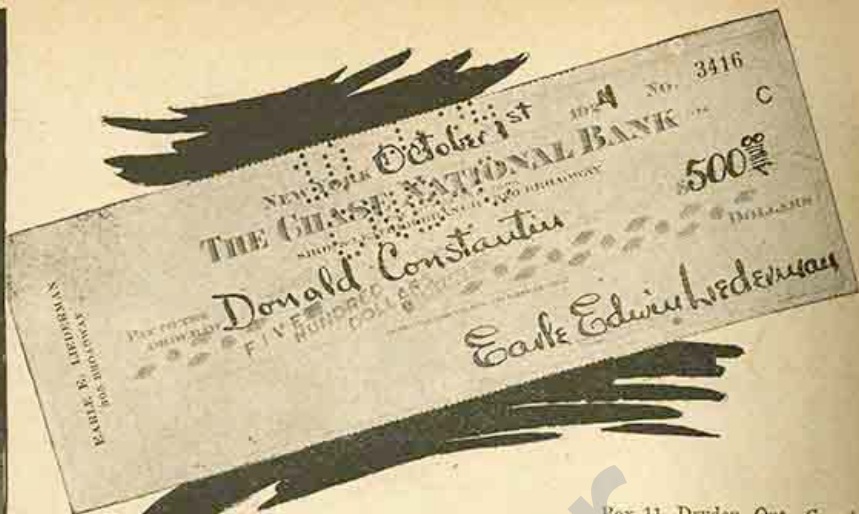
To say that I was surprised when I received your check for \$500 would be putting it mildly. The fact that I was awarded second prize in your International Improvement Contest was a great honor.

When I took your course, I did so for myself only. I had been having headaches continually, but shortly after following your directions and exercises, these headaches disappeared and I have not been bothered with them since. It is needless to say that my general bodily health and strength has improved—the prize awarded proves that.

I strongly recommend your course to those whose bodies are weak and sickly, because it will make them healthy; and to those whose bodies are strong and healthy, because it will make them more so.

Sincerely,

DONALD CONSTANTINE.



Box 11, Dryden, Ont., Canada,
Oct. 8th, 1924.

Earle E. Liederman,
Dear Sir:

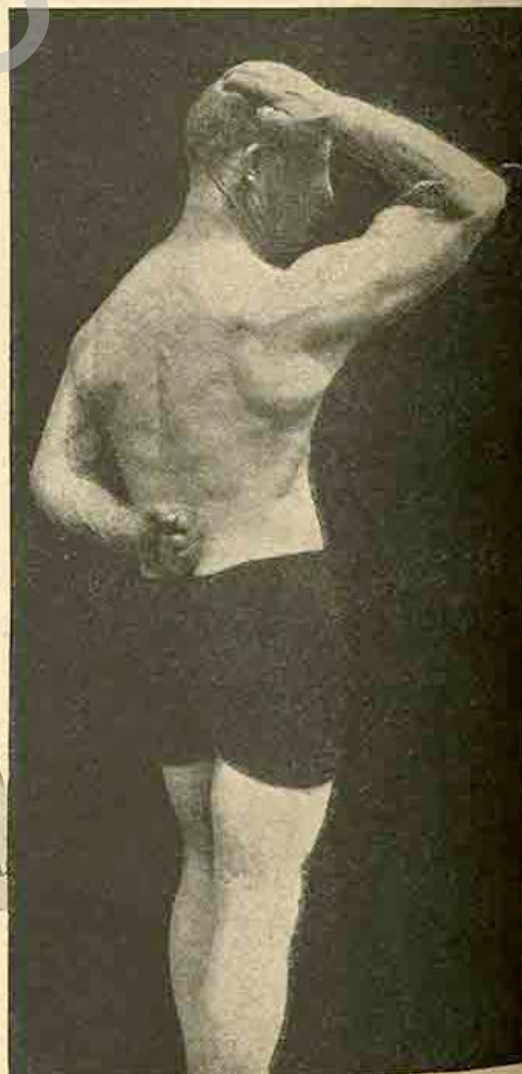
Imagine my delight this morning on getting my mail, to find enclosed your check for \$300 for the third prize in your International Physical Contest. I can assure you I am proud of my teacher. The benefits I have received from your splendid course cannot be estimated in money.

You promised to make me strong, which you kept to the letter. I would say that my health is 100% better and I am stronger than I was twenty years ago.

Your letters to your pupils are a source of inspiration to them. No one, young or old, can make any mistake about taking your course.

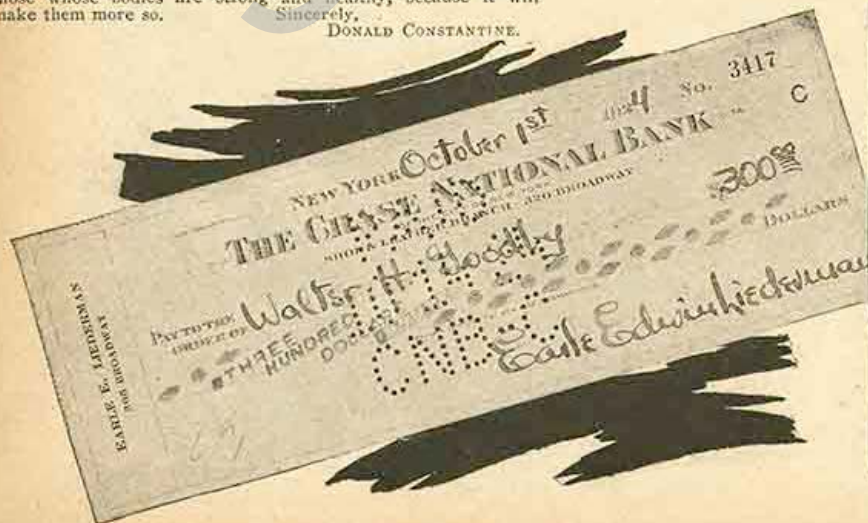
Once more, a thousand thanks, and wishing you every success,
I am

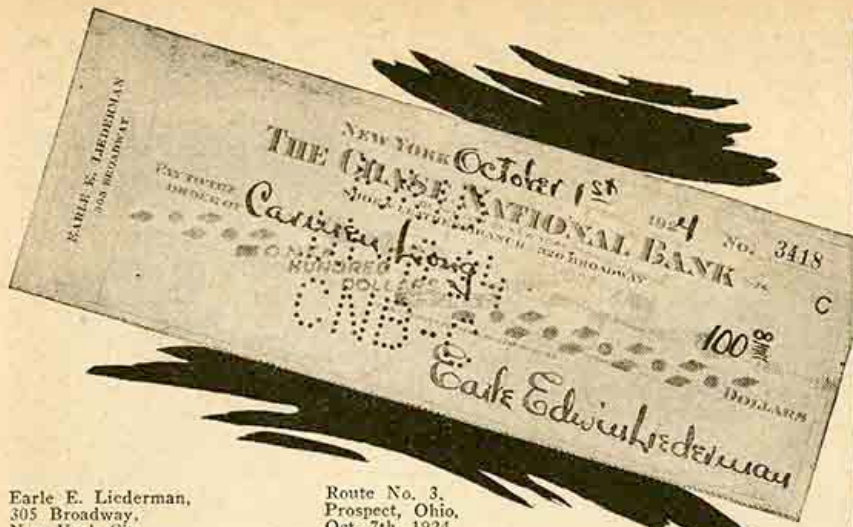
Your devoted pupil,
WALTER GOODBY.



WALTER GOODBY

Box 11, Dryden, Ont., Canada
The third prize (\$300) winner in the Earle Liederman 1924 International Improvement Contest.





Earle E. Liederman,
305 Broadway,
New York City.

Route No. 3,
Prospect, Ohio,
Oct. 7th, 1924

Dear Friend Liederman:—

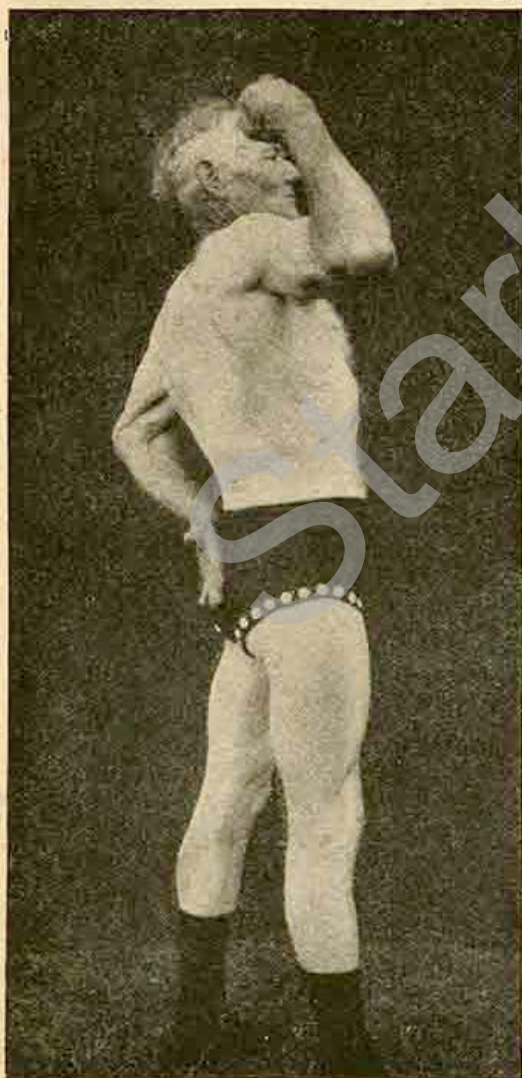
I received your check for \$100 and medal, to my great surprise. You have made a new man out of me. I was stooped badly and hollow chested. Now I am straight and my chest is rounded out and I am a real man.

Mr. Liederman, you have made me the best man in this part of the country in every way. I have tried out the best young men I could find and I haven't found one who can do the things I am able to do.

Mr. Liederman, you never knew my real condition when I started on your work. I was a physical and nervous wreck. People were saying I couldn't live very long; in fact, I thought so, but through your kind and never tiring efforts, I am a stout and rugged man today. I can turn a hand-spring as gracefully as any athlete you ever saw.

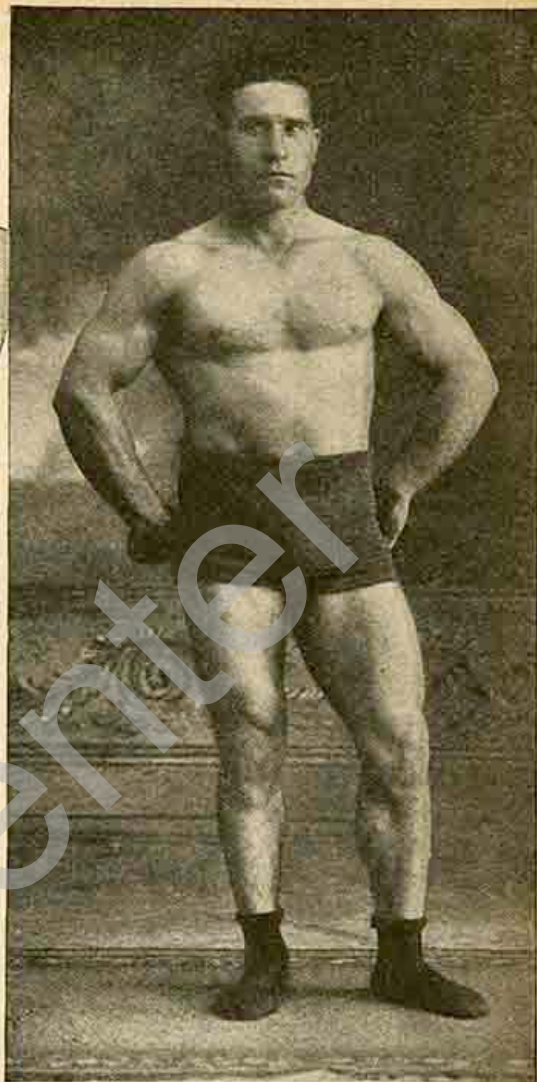
My best wishes are always with you and I hope your good work will extend throughout the entire world.

As ever,
Your friend,
DAVID C. CURREN.



DAVID C. CURREN
Route No. 3, Prospect, Ohio

Tied for fourth prize (\$100) in the Earle Liederman 1924 International Improvement Contest.



CARMEN LONG

595 Arthur St., Hazleton, Pa.

Tied for fourth prize (\$100) in the Earle Liederman 1924 International Improvement Contest.

595 Arthur Street, Hazleton, Pa., October 6th, 1924.

Dear Friend Liederman:—

Dear Liederman:—Coming home from work last night, I got a real surprise when my wife told me I was a prize winner. If some one had died and left me all his money, I wouldn't be so surprised. I really must thank you from the bottom of my heart for all you have done for me.

I recommended you to all my friends. I also told them of the prize I won and I was congratulated by all of them. Dear Friend, I cannot find words in the dictionary to praise your wonderful system of training.

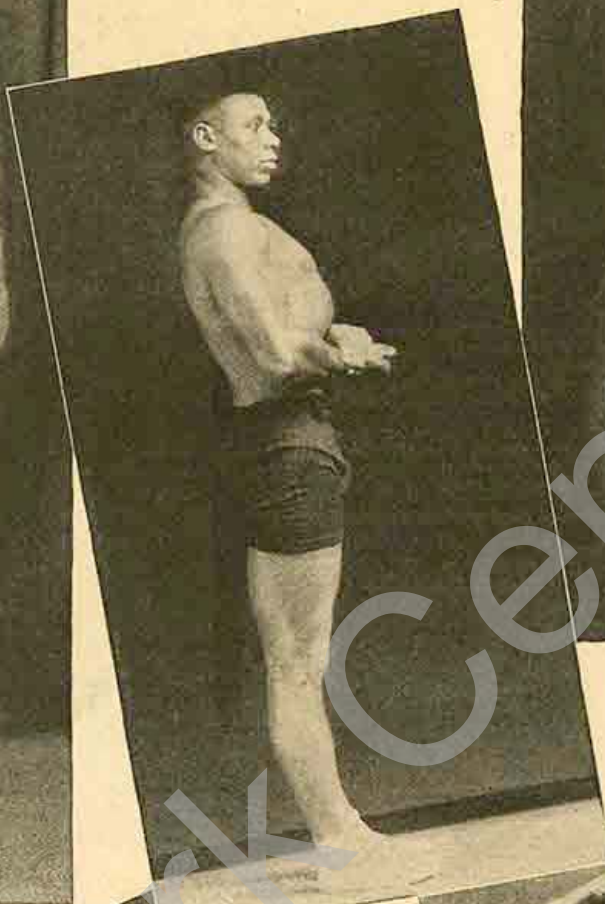
I wish the world would open their eyes and realize what you have done for me. I thank you very much for keeping your promise. You promised to make a strong man of me and you did.

Your Pupil,
CARMEN LONG.



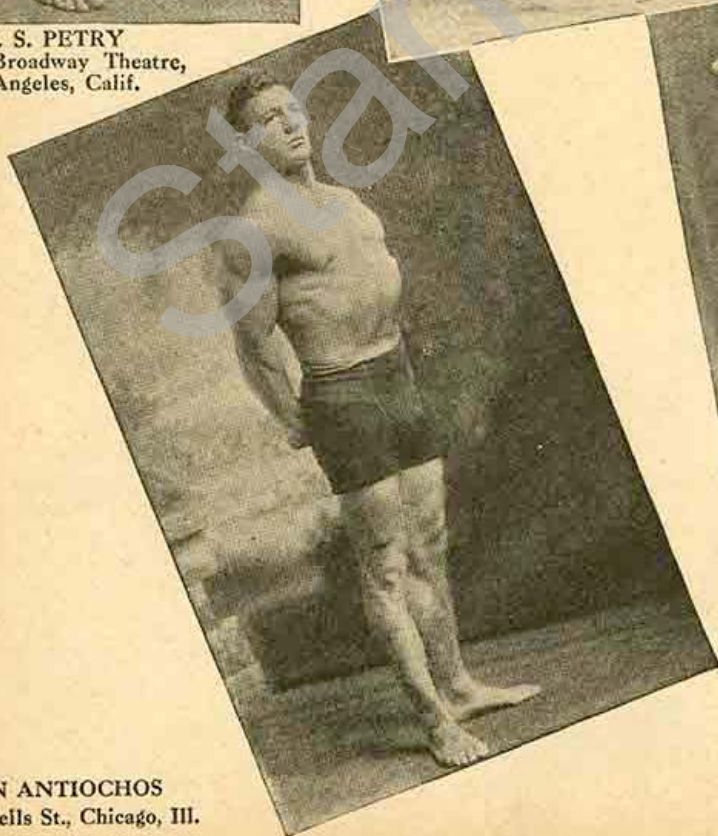
Winners of \$10 in Cash, Gold Medal and Diploma

ERNEST E. SMITH
R. F. D. 4, Box 21
Salisbury, N. C.



ANGELO TRULIO
174 Irving Ave., Brooklyn, N. Y.

WM. S. PETRY
Dalton's Broadway Theatre,
Los Angeles, Calif.



JOHN ANTIOCHOS
755 N. Wells St., Chicago, Ill.



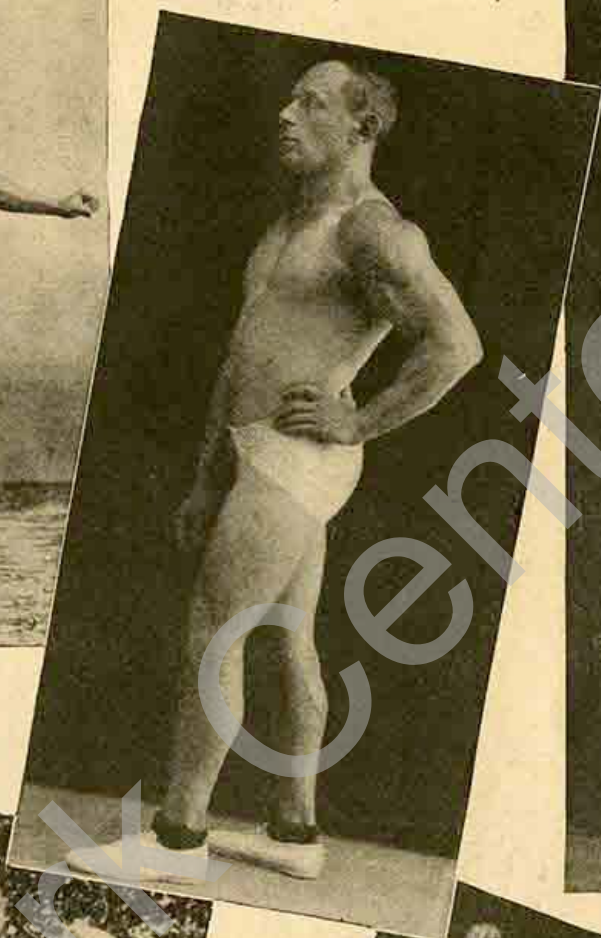
KASI CHETTIAR
21 Hindoo St., Medan, East Coast,
Sumatra, D. E. I.

Winners of \$10 in Cash, Gold Medal and Diploma



JULIAN WIJEYSINGHA
Railway Technical School,
Kulala Lumpur, Selangor,
F. M. S.

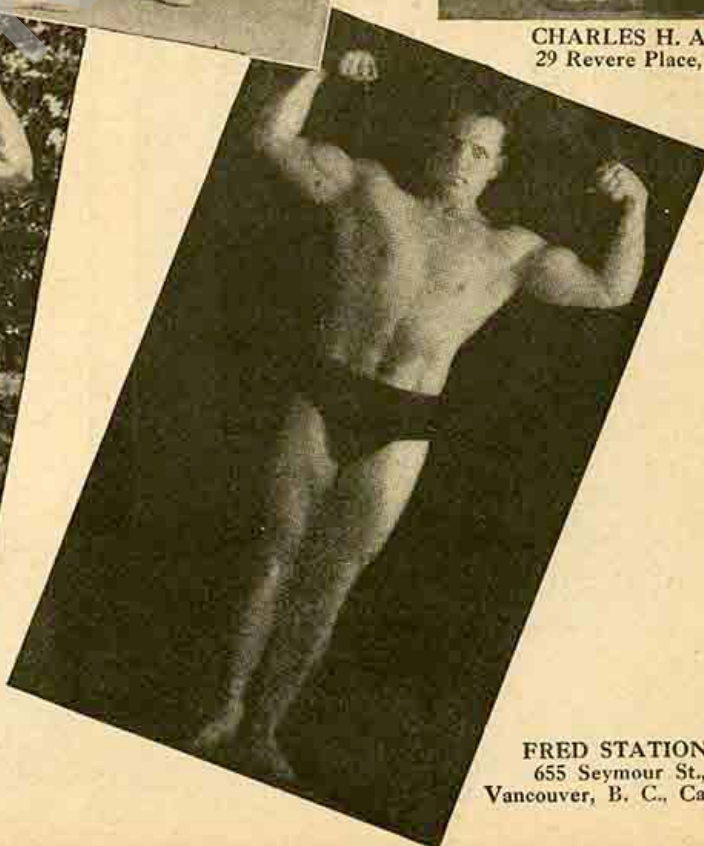
L. WEISS
Acme Stamp Co.
147 W. 42nd St., New York City



CHARLES H. ARKLAND
29 Revere Place, Buffalo, N. Y.



JAMES T. SING
805 Maunaloa Ave., Honolulu, Oahu, Hawaii



FRED STATION
655 Seymour St.,
Vancouver, B. C., Canada

A Few of the Gold and Silver Medal Winners in



A Few of My Boys

All of these fellows started the Earle E. Liederman system since December 1st, 1923. The improvement they have shown is really astounding. Can you blame me for being proud of a system that will develop such strong men as these?

Earle Liederman's 1924 International Improvement Contest



Can You Match This Group?

Just a few more pupils of Earle E. Liederman. These all entered the 1924 Improvement Contest. These fellows represent practically every country in the world. It makes no difference where you live, I can do the same for you as I have already done for the many pupils represented in these pages.



A Free Trip to New York AND \$3,000 IN CASH

How would you like to come to New York and walk up Broadway arm in arm with Earle Liederman? How would you like to see all the points of interest by day and attend the big theatres by night? How would you like to leave your home town and spend one full week in the biggest city in the world as Earle Liederman's guest?

THAT'S what I'm going to do for two of the prize winners in my 1925 contest. I'm going to buy the railroad tickets and Pullman. I'm going to meet them at the station and pay all their expenses while they are in New York. I'm going to show them the best time they ever had in their lives, and it's *all on me*. And beside that I am going to give one of these chaps one thousand dollars (\$1,000) and the other fellow five hundred dollars (\$500) in cold cash.

The Earle Liederman 1924 contest was a grand success. The improvement shown among my pupils was unbelievable. The \$2,100 which I gave as prize money has not only made happy hearts, but it was the means of spurring on thousands of men and boys in their endeavor for physical perfection. As I sat at my desk and looked over the photographs and read the letters telling how faithfully my pupils have

worked, my heart filled with deep emotion. It has made me the happiest man in the world. These letters told me how some of my pupils who were physical weaklings transformed themselves into strong, sturdy men. They told me of such men as Mr. Curren, who, at the age of 60, had given up all hope of ever having a strong, healthy body and then, through his own efforts, had suddenly realized his life-long ambition. As I read these letters, I could not help but wish that I could grab each and every one by the hand and say, "Atta boy, keep it up; you're doing fine!"

Of course, such a plan is impossible, but I have decided that next year I will do this very thing with the first prize winner in each contest. Yes, there are going to be two separate contests in 1925. I'll tell you why. There were a great many photographs received from pupils whose muscles were far greater developed than

those who won the prizes, but these better developed boys and men had not shown as great gains during the period which I allotted. And beside this, there were pupils who enrolled in 1923, and further back, who were not entitled to any of the advantages of the 1924 pupils. However, these pupils will have a show in my 1925 contest, for I am offering an additional \$1,000 to be awarded to the pupils showing the best muscular development, regardless of when they enrolled.

Do you get what all this means? Twenty-eight fellows are going to get cash prize money in amounts all the way from \$1,000 down to \$10, and two pupils will get in addition to their

cash prize, a free visit to the wonder city of the world. These two pupils will select their own time to come. Just notify me long enough in advance so I can get the scenery ready. I am going to stand all expenses, railroad tickets, hotel bills, amusements, etc. It will give us a chance to become friends—get better acquainted. Where you live won't make a bit of difference. I don't care if you live in China. The judges will pick out the winners, then I will write and send them their necessary money, tickets, etc., for whatever dates they select.

And remember, the colored boy has just as much chance as his white neighbor.

NOW READ CAREFULLY WHAT THE CONTESTS ARE

The first contest for 1925 is as follows: To the pupils showing the greatest improvement from whatever time they enroll after receiving this notice until October 1, 1925, I will award prizes totaling

\$2,000 in Cash

First Prize . . .	\$1,000 and gold medal
Second " . . .	500 " " "
Third " . . .	300 " " "
Fourth " . . .	100 " " "

To the next ten in order, each \$10 and gold medal.

In case of tie for any of these positions, each tying contestant will receive the full amount of prize money offered for position where tie occurred.

The first prize winner also gets the *free trip to New York*, to spend one week here at whatever time he selects. I am to pay all expenses from the time he leaves his front door till he is safely back again.

TO THE BEST DEVELOPED MAN

The second awards will be given to the pupils showing the *finest looking muscles* regardless of when they enrolled. This will be open to old and new pupils alike. It will give everyone a chance to develop herculean proportions. These prizes will be as follows:

\$1,000 in Cash

First Prize . . .	\$500 and gold medal
Second " . . .	250 " " "
Third " . . .	100 " " "
Fourth " . . .	50 " " "

To the next ten pupils in order, \$10 each and gold medal.

In case of tie for any of these positions, each tying contestant will receive the full amount of prize money offered for position where tie occurred.

The winner of first prize in this contest will also be given a *free trip to New York* to spend one full week at whatever time he selects. The same conditions holding true as in the other contest.

1,000 SILVER MEDALS

In addition to all the prize money given to the winners in these two contests, I am also giving at least one thousand solid silver medals to all those who have worked up to my standard.

Now, fellows, who are to be the prize winners? Who is going to get all this money? And who are the two lucky ones that I am going to pal around with in New York? Is one of them going to be *you*? The answer is within yourself. Think of it! Follow pleasant exercise under my guidance, build up a powerful, robust body that will be yours for your life time and, besides all this, spend the finest vacation you ever had or ever even hoped to have. And, just think! I am going to hand over to one of these boys \$1,000 in cash, and to the other \$500. And then I won't let them spend a cent of it. The good time is *all on me*.

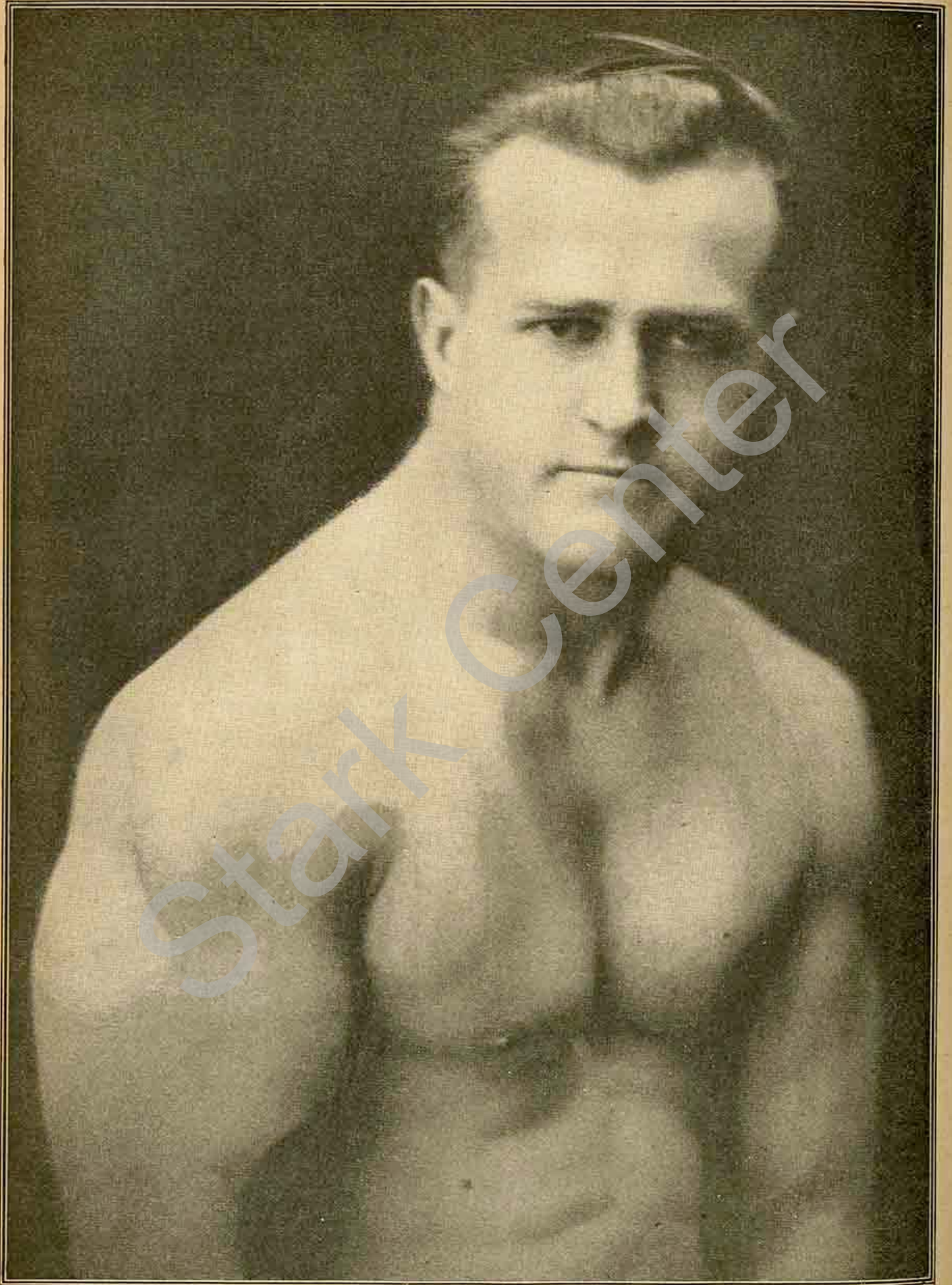
Read the conditions carefully. Then shoot me your measurements and enrollment blank and—let's go. Remember the sooner you get started, the better chance you have to grab that big prize.

If you are going to strive for the improvement contest, be sure to keep a copy of your measurements and a photograph as of enrollment date. Then, before October 1st comes around, send me your improved measurements, with the latest full-length photograph, showing your muscles to the best advantage, as contests close October 1, 1925. The photo of yourself as of date of enrollment need only be a snapshot. This should be kept by you and sent to me at close of contest together with your photo showing improvement. This will facilitate matters and also be a perpetual reminder of your changed condition. The latest photo must be taken of a full-length pose.

If you plan to enter the contest for best development, enroll at once and let me get you started in modeling your body. Muscles don't grow over night, but I surely can make a different looking man of you in a few months' time. After all, it's the strong, robust body that counts more than all the prizes in the world. But as long as men are human, prizes will stimulate them to greater activities. And if I can make bigger and better men by prizes, I'm going to give prizes.

The judges this year will be the same as last. They were so pleased with the 1924 contest that they immediately agreed to serve in 1925. They are as follows: Bernarr Macfadden, world renowned authority on physical culture; Budd Goodwin, undefeated long-distance swimming champion of America; Arthur L. Hyson, physical director; George O. Pritchard, former professional football and basketball player; your instructor,

EARLE E. LIEDERMAN.



EARLE E. LIEDERMAN
The Muscle Builder

Author of "Science of Wrestling", "Muscle Building" and "Here's Health", etc.

"Thou Shalt Not Kill"

is the most gruesome commandment handed down to mankind. A man may lie, steal or break any other law and the public will eventually forgive and forget. But let him commit murder and the cry of everybody is to give him the full penalty—*Death!* And what is the common excuse of the murderer? *INSANITY!* Sure, he's crazy. Any man must be crazy to commit murder.

But how about the fellow who slowly but surely kills his own body by neglect? He's the craziest one of all.

Stop! Think this over! What are you doing with your own body? Surely you don't want to be put in this class. But if you are not doing everything possible to prolong your life and keep your body just as clean and healthy as your Maker intended, you are inviting death. You are slowly but surely killing yourself.

A New Life

Have you ever enjoyed the pleasures of perfect health? Have you ever felt the thrills which accompany a strong, robust body? If not, you have nature's biggest gift awaiting you. That is what I have to offer you. I don't promise to feed this to you in pill form. No, you have to work for it. You can't get anything in this life without effort. Don't let anyone fool you by telling you different. I'm going to make you work, but oh boy! how you'll like it. After a few days you will feel the old pep shooting through your veins and you will crave your exercise like a kid wants his bread and sugar.

Today is Your Day

This is your birthday. Today you start a new life. I'm going to make a real live, "rip-snortin'," go-getter out of you. I'm going to expand that chest so it will give your lungs a treat with life-giving oxygen. This will put real vim into your blood and shoot it throughout your entire system. I'm going to broaden your shoulders and strengthen your back. I'm going to put a ripple of muscle up and down your body that will make a big powerful he-man out of you. You will have the arms and legs of a modern Hercules. I'll clear your brain and pep up your entire system. You will be just bubbling over with vitality. You will stretch out your powerful body and shout for bigger and greater things to accomplish. Nothing will be too difficult for you to tackle.

Sounds good, doesn't it? You can bet your Sunday hat it's good. It's wonderful. And it's no idle prattle either. I'm not promising these things. I guarantee them. Do you doubt me? Make me prove it. Come on, Atta boy. Let's go.

Send For My New
64 Page Book—

"Muscular Development"

IT IS FREE

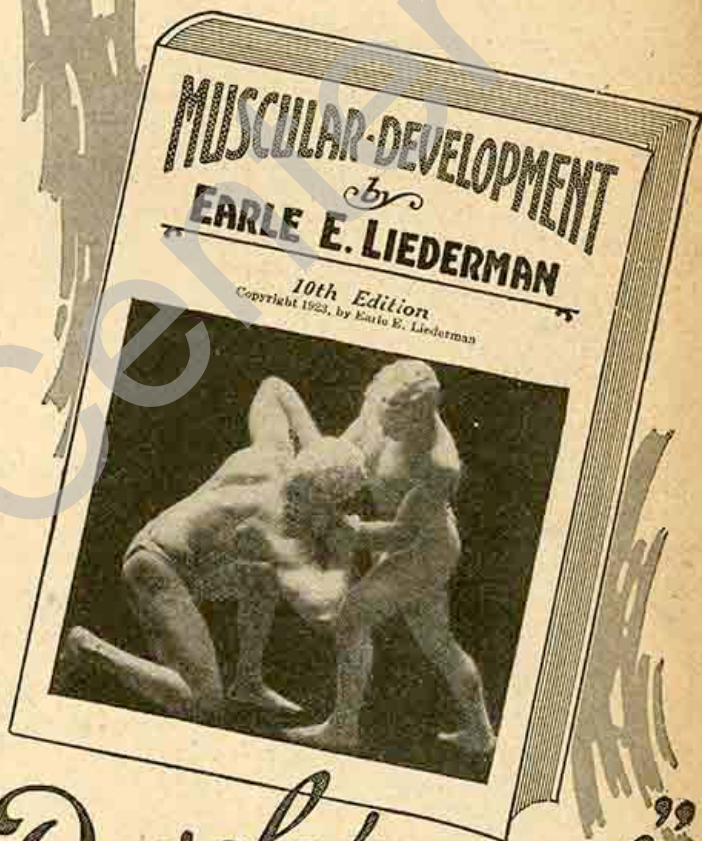
It contains forty-three full page photographs of myself and some of the many prize-winning pupils I have trained. Many of these are leaders in their business professions today. I have not only given them a body to be proud of, but made them better doctors, lawyers, merchants, etc. Some of these came to me as pitiful weaklings, imploring me to help them. Look them over now and you will marvel at their present physiques. I want you to have this book with my compliments—**absolutely free.** Fill out and mail the coupon or send me a postal today—before you forget it.

EARLE E. LIEDERMAN

Dept. 712

305 Broadway

New York City



It Is F R E E	DON'T	EARLE E. LIEDERMAN
	SEND ONE	Dept. 712, 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		



Men Past 40

Find Simple New Gland Treatment Ahead of Medicine or Surgery

Medical Authorities agree that nearly two-thirds of all men past a certain middle age suffer from a disorder of the Prostate Gland that has a depressing and often painful effect on the entire body. Thousands of men blame their troubles on approaching age and despairingly resign themselves to the disagreeable symptoms, not knowing how to obtain relief—and in many cases unaware of the real cause of their trouble.

The Symptoms

In Prostate trouble, mental and physical powers are both lessened. Nervousness, restlessness and insomnia frequently appear; sciatica, weak back, lack of vigor and chronic constipation are frequent symptoms. There is often pain in the back, loins, feet and legs. Often the blood pressure increases to a dangerous degree.

Amazing Discovery Brings Relief to 20,000 Men

But now, there is no reason why you should put up with these distressing conditions without seeking relief. For after years of experiment a scientist in the Middle West, a member of the American Association for the Advancement of Science, has developed a treatment that has already been used by more than 20,000 men. The results have been astounding—relief has been obtained in many cases after all other methods have apparently failed. The news of this method has spread round the world and it is recognized by many foremost doctors, and many think it is a hundred years ahead of medicine or surgery in the treatment of this gland trouble.

Free Discoverer's Book

If you suffer with any of the distressing conditions mentioned above, you should not lose a day in finding out the full details of this wonderful treatment. Every man past 40—in fact, every man in his late 30's, should learn how, by this method, he can treat himself at home and prevent these distressing conditions. The scientist who discovered this method has written an interesting book entitled: "Why Many Men are Old at 40," which will be sent you free, upon request. It comes in plain wrapper. It contains information that may be invaluable to you. Simply drop a letter or postcard to The Electro Thermal Company, 6440 Main Street, Steubenville, Ohio, the concern that is distributing these books for the author. Or you may send your request to the Western Office, addressing The Electro Thermal Company, Dept. 64 E, 711 Van Nuys Bldg., Los Angeles, Calif. But hurry, for the edition of these books is limited.



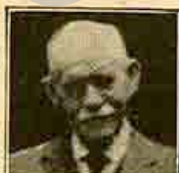
"Had enlarged Prostate Gland. Had to be up ten to fifteen times at night. Spent hundreds of dollars trying to get relief, then began using your treatment. I feel that the trouble is entirely relieved."—Dr. J. Frank McMichael, Union City, Tenn.



J. W. Casey found quick relief after being a sufferer for thirty years.



"Had about given up hope when doctor recommended your treatment. Can say I am cured of the awful trouble. My age is 73 young."—H. B. Ruth, Colorado Springs, Ohio.



"Had trouble with my Prostate Gland for five years. Sent for Electro Thermal Treatment, and about the third treatment felt much better. Can recommend your treatment to anyone afflicted as I was."—D. W. Cornelius, Pittsburgh, Penna.

Our Girls' Circle

(Continued from page 57)

ment you can get, but that development can be just as nearly perfect if you are five feet ten, or four feet nine, as it can if you are five feet five inches.

That is why we want well formed women of every height to send us their photos and measurements. We want them to be an inspiration to their sisters who are of their height but who lack development and the health that goes with it. We will be interested in any experiences you may care to tell us that would help others to attain a form like your own.

And the only rules are that your photograph be taken either in a bathing suit or dancing costume and that you take your measurements as we explained this month.

How to Measure for the Contest

We have received numerous requests from interested readers as to how they should take their measurements. So we are showing on the figure below where they should be taken. There are a few suggestions to be made, however, that may be of help to you.

First of all, tape measures are not always reliable and you cannot afford to have any discrepancy; so get a ruler and make sure that yours is correct before using it.

Then be careful when taking your measurements, or when having them taken, that the tape is held straight and does not drop a little lower in back than in front, thus adding a fraction of an inch, or, as is the case with the chest measurement, several inches. Be sure the tape is even and straight and the measurement will be exact. In sending your measurements of the upper arm, take it relaxed as in the left arm and flexed as in the right. Also, don't bend your arm at the elbow when you are taking your measurement of the forearm. When you get down to the ankle, measure the smallest part of it.

If you find you are still puzzled about anything, write to us and we will make it clear to you.

Miss Marjorie Heathcote:

I see in the STRENGTH where you are running a contest for perfect women. I am not perfect and I want to know how to be.

I will send my measurements and wish you would tell me how I may develop myself. I am interested in physical culture, take daily exercise, and I would love to have the correct measurements of my size, so I can see how much I can develop by the time your contest closes.

(Mrs.) M. G.

Oklahoma City, Okla.

We are glad you are interested in our department and we want to help you in every way we can.

Your chest, waist and hip measurements do not balance, however, and from that we judge you have not taken them correctly. If you will follow the instructions on this page and send them to us again we shall do our best to help you.

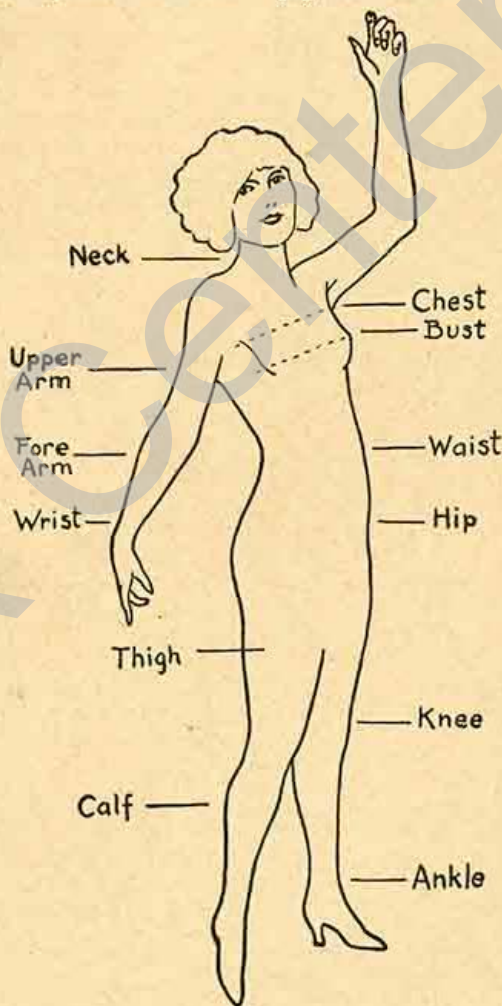
As regards the correct measurements for your size, we want to make it plain that we are not going to demand certain measurements for any size. We are aiming to see what is the most pleasing development for your height and frame. Your height is the same as that of Venus de Medici, however, and she was considered at one time the ideal feminine form. Her measurements were:

Height, 5ft. 3 in.
Weight, 137 lbs.
Neck, 12.3 in.
Chest, 33.1 in.
Waist, 27 in.
Hips, 37.8 in.
Thigh, 22.2 in.
Calf, 13 in.
Ankle, 7.7 in.
Upper Arm, 11.4 in.
Forearm, 10.6 in.
Wrist, 5.9 in.

You can see for yourself just how far these "perfectionists" and "ideals"

depend upon styles. Your own weight of 112 pounds, while a great deal lighter is far nearer what modern people would consider attractive than her 137. In fact, 119 is considered about right today. We fear Venus de Medici would be rather heavy for our modern gowns, and from the standpoint of health we do not believe we would be far behind.

However we are anxious to help you and shall tell you what exercise is suitable for your build as soon as we receive your letter. We may not answer through our columns, as we are receiving so many queries from our women readers that we are forced to reply by mail.



Where to take your measurements.

The Dinner Table

(Continued from page 61)

cookie recipe. The latter is especially good for Christmas because the cookies will keep in a covered jar for a long time to be used when needed.

For the short cake in the picture I used the following recipe:

Whole Wheat Short Cake.

- 1½ cups whole wheat flour.
- 2 tablespoons shortening.
- 3 teaspoons baking powder.
- ¼ teaspoon salt.
- ¾ cup milk.

Mix the flour, salt and baking powder. Rub in the shortening very lightly with the tips of the fingers. Add the milk. Place in pan and bake in the oven twenty minutes. It will take a little longer if you use the fry-pan and bake it over the flame.

Split the cake and fill it and cover the top with crushed fruit that has been sweetened to taste. Serve with whipped or plain cream. I filled this cake with canned peaches, but any canned or stewed dried fruit would be good, especially apricots.

There have been inquiries about candy, too. Almost any fudge or molasses candy can be made with dark brown sugar or open kettle molasses instead of commercial syrup or white sugar; and if you can afford to be more generous there is maple syrup. But why bother too much about making candy? Dates stuffed with nuts make the simplest, easiest substitute I know, and anybody can prepare them without fear of failure. The children always like to have a finger in the Christmas pie. This is one thing that they can do with a minimum of supervision. Just split the date open, take out the seed and pop in a nice fat nutmeat instead and press the date together again. It isn't necessary, but if you must make some concession to convention, roll it in powdered sugar for finishing. Dates can be filled with a mixture of other dried fruit, especially figs and raisins chopped and mixed with nuts.

The Carqué Pure Food Company of Los Angeles, California, fill mail orders for all kinds of unsulphured dried fruits, as well as sweet meats made of fruit and nut paste. If your children have never had real unsulphured black figs, they will be more delighted with them than with any candy. A five pound box costs \$1.40.

What kind of candy could you get for the same price?

And here is a suggestion for the bachelor who thinks candy the only thing to give a girl. Just think what a splash a gorgeous basket of fruit would make amid the usual array of kewpies and candy boxes which make up the bulk of the presents sent to the average popular girl. Any sensible girl would immediately recognize the genuine worth of such a gift. She could not but value the sound judgment as well as the sincerity of the giver.

If you want to give it a more personal tone, do a little shopping about and see what a varied collection of unusual fruits and nuts you can find, and then pack the basket yourself. In many drug stores as well as sweet shops they are selling jars of assorted nutmeats which are not ordinarily on the market. They usually cost about eighty cents a pound, the price of the average good candy.

Do Chiropractors Believe in Germs?

THAT germs exist is certain knowledge, but that they are the cause of disease is quite a different statement.

If the theory that germs are the primary cause of disease is correct, it follows that the introduction of germs into the living organism would produce disease in every case.

The instances that prove this untrue are so legion that the germ theorists have been compelled to explain that the germs are impotent UNLESS THE POWER OF RESISTANCE OF THE PATIENT IS SUBNORMAL.

Power of resistance may be measured in terms of life current or vitality. The stronger the life current, the greater the resistance and, vice versa, the weaker the life current, the weaker the resistance. So we may conclude that where 100 per cent of life current, or vitality, exists the susceptibility is zero; and where 50 per cent exists the resistance is small and the susceptibility correspondingly great.

It requires but little reasoning from these facts to conclude that those who contract typhoid, for instance, owe their susceptibility to a lack of vital force in the intestinal tract; those who contract tuberculosis, pneumonia, etc., to a lack of resistance in the lung tissue, and so on through the entire list of "germ" diseases.

Chiropractic goes several links farther back in the chain of cause and effect. While the germ theorists stop at the susceptibility of the patient, the chiropractor says that the susceptibility is the result of a lack of vital force, due to pressure on a nerve caused by a misaligned vertebra; and that when the vertebra is adjusted the normal vital force will again flow over the nerve, the affected parts will again

become normal and the disease germs and every other incidental effect will disappear.

Millions of people testify to the efficacy of Chiropractic in the so-called germ diseases. A fair trial at the hands of a competent chiropractor will convince you as it has convinced others.

CHIROPRACTIC CONQUERS TUBERCULOSIS



MR. AND MRS. KOEPEL, of 913 Forest Ave., Waukegan, Ill., upon being first duly sworn, under date of August 11, 1923, depose and say:

"A marvelous change has been wrought in the condition of our little daughter, Betty Jane. She was taken sick when about nine months old and for four years we tried various treatments, but with no results.

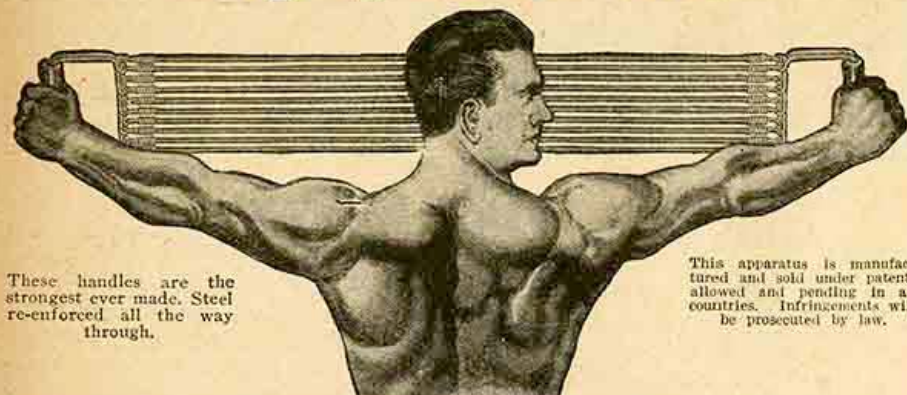
"The condition of our little girl was getting worse and was diagnosed by physicians to be tuberculosis, and we were advised to change climate. Before doing this we considered trying Chiropractic. We laid aside all medicine and let the chiropractor have full sway from September 26, 1922, to January 26, 1923, at which time she seemed entirely well and has been improving ever since. Today her health is entirely restored. We owe her life to Chiropractic and shall always praise it highly for its wonderful science."

Write for information regarding Chiropractors or Schools to the

**UNIVERSAL
CHIROPRACTORS' ASSOCIATION**
DAVENPORT, IOWA, U. S. A.



You TOO Can Have Muscles Bulging with Power



These handles are the strongest ever made. Steel re-enforced all the way through.

This apparatus is manufactured and sold under patents allowed and pending in all countries. Infringements will be prosecuted by law.

Every Muscle in Your Body Can Be Brought to the Highest Pitch of Development by My Methods and Apparatus—A New Invention
Over 100,000 Users—Not One Dissatisfied

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 as 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 these 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 it 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. 64, 103 E. 13th Street
New York City

Sunshine—The Cure for T. B.

(Continued from page 47)

hat or very small umbrella will do.

On the first day the naked feet should be exposed to the sunlight three times for periods of five minutes each.

On the second day the feet should be exposed three times for ten minutes each time and the legs as far as the knees three times for five minutes each.

The third day increase the exposures five minutes each time, that is, exposing the feet three times for fifteen minutes each time and the legs as far as the knees three times for ten minutes each.

On the fourth day include the thighs in these exposures for the same periods of time, increasing it five minutes for each part.

Include the arms on the fifth day and the back on the sixth day. On the seventh day the abdomen and chest should also be exposed, always adding five minutes to each part for each day. Thus at the end of a week some parts of the body, meaning the feet, can be exposed for an hour and a half total each day.

These exposures are to be increased five minutes to each part each day. To explain further—on the first day the feet were exposed three times for five minutes each time, on the second day for ten minutes each time and the legs to the knees for five minutes each time, on the third day the feet got fifteen minutes of exposure three times and the legs to the knees ten minutes, while the thighs received five. On the fourth day the feet got twenty minutes exposure three times, the legs to the knees fifteen minutes, to the thighs ten minutes and the arms, five minutes, and so on.

This increase of the time exposure is to be continued until the patient's body gets a complete sun bath from three to five hours daily.

And it must be taken out in the open, on a roof or a balcony or on the ground where the sun can have full play. Exposure through glass does no good as the glass absorbs the ultra-violet or chemical rays.

Individualization is necessary, of course.

A fat, phlegmatic person who might be suffering from tuberculosis in any of its forms, could stand seven hours of sunlight perhaps, while a thin, nervous, blonde type could not be given more than three hours.

Some times with young children complete exposures can be made for a minute or two at a time at the outset but never in the case of lung tuberculosis.

If the individual is strong enough to stand up there are some breathing exercises which will be found beneficial. They are simple and really constitute one exercise of standing with the feet pointing straight ahead, chin in and breathing deeply with the abdomen drawn in.

The writer has seen some remarkable results achieved in the treatment of tuberculosis with sunlight. Rollier and the others who have attained amazing results in Europe have found that this technique works where others fail. The patient can stand certain doses of these chemical rays of the sun. More of them would be harmful until the body can receive them.

If civilization wants it and will help, science can wipe out tuberculosis as a menace by using the sun as an ally.

Are You a Physical Failure?

(Continued from page 55)

get variety of exercise for my body? I didn't like set exercises. They were drudgery for me and I knew from past experience that I wouldn't stick to them. However, I loved to swim but I hadn't been doing it because of the expense. I decided that I would compromise and go to the movies less often and join a swimming class at the Y. W. C. A. Then there was a tennis court in the park near my rooming place. Sunday was the only time I had a spare minute, but I could give two hours on Sunday mornings to playing if I cut my sleep short. I decided that was worth trying.

Sleep held my attention next. I always slept with my window open, but it happened that there was only one window in my room so the ventilation could not be called good. I bethought myself of the roof where I always went to dry my hair. Yes, I could put a cot up there and sleep under the stars. That would make some morning sun-baths possible.

If I stopped sleeping on a pillow that might help straighten my shoulders, so I put that down as another resolve.

Next I thought of my mental attitude toward life in general and health in particular. This would be of primary importance in supplementing these physical reforms. I disliked my work and it had worried me for a long time. I had wanted to try a new line of work but had lacked the initiative to start out. Now I decided I must make an attempt to change it, for my discontent with my present occupation would offset the benefits I hoped to obtain from wiser daily living; otherwise, I would make a complete "right-about-face." A verse my mother had often quoted came into my mind to cinch my resolution:

"If you can do a thing, or think you can, begin it!
Boldness hath genius, power, and magic in it."

All of this happened two years ago. Today I ran across the slip of paper on which I scored my weak points and my resolutions. I checked through the points again and my delight is great to find that now my weight is correct for my height; my swimming has developed my body and made it beautifully symmetrical; my eyes shine and no longer is there even a suspicion of sacs under them. A ruddy color glows in my cheeks and it is a frequent occurrence to have someone say to me, "You just radiate health and energy. How do you do it?"

I want to answer, "Self-analysis plus self-discipline." It all dates from that day of my self-examination. I carried out my resolves conscientiously, at first forcing myself to do them, but after the first month I began to see results and it's been easy ever since. Now I have a set of health habits which are second nature to me and which keep me well and therefore happy. The Physical Culture life is the only one with any attraction for me.

\$2 XMAS GIFTS Sent for \$2

BY1—Lady's 18K white gold ring; hexagon center set with perfect cut blue white diamond. \$22.

BY2—Lady's Elite ring; perfect cut blue white diamond is set in 18K white gold prongs. 14K natural gold shank. \$65.

BY3—Lady's 20 K white gold orange blossom ring set in 3/4 Carat size 18K white gold cup with a perfect cut blue white diamond. \$75.

BY4—Lady's rectangular shaped wrist watch of solid 14K white gold; highest grade 15 ruby and sapphire jewelled movement. Lifetime guarantee. \$72.

BY5—Lady's 18K white gold ring; center set with absolutely perfect, blue white diamond; two flawless diamonds on sides. \$100.

BY6—Lady's 18K white gold ring; center set with perfect cut blue white diamond; 14K white gold shank. \$18.50.

BY8—Platinum front Scarf pin set with perfect cut blue white diamond; 14K white gold pin. \$27.50.

BY9—Lady's 7 diamonds cluster ring; 19K white gold. Each side of diamond center is set with a triangular shaped sapphire; looks like \$750 solitaire. \$67.50.

BY10—Diamond set rectangular shaped wrist watch; 14K solid white gold; set in platinum with 4 perfect cut blue white diamonds; highest grade 15 jewelled movement. Lifetime guarantee. \$42.50.

BY11—Lady's lace design ring of 18K white gold, set with perfect cut blue white diamond. \$45.

BY12—Solid platinum lace work design lady's ring set with a perfect cut blue white diamond of first quality. \$100.

BY13—Lady's platinum set 7 diamond cluster ring; 20 K white gold shank; resembles \$750 solitaire. \$37.50.

BY14—Lady's perfect cut blue white diamonds set in 18K white gold top; 18K white or green gold shank. \$75.

BY15—Gentleman's 18K white gold ring; center set with a perfect cut blue white diamond; French blue sapphires on sides. \$75.

BY16—Gentleman's platinum set diamond cluster ring; 18K white gold octagon top; 14K green gold shank; resembles \$900 solitaire. \$90.

BY17—Wedding ring of 18K white gold set with five perfectly matched blue white diamonds. \$35.

BY18—Lady's 7 diamond platinum set cluster diamond ring; 14K natural gold shank; resembles \$600 solitaire. \$48.50.

\$2.00 Brings Your Choice

NO RED TAPE—NO DELAY
Simply send \$2.00 and your choice goes to you charges paid. You have ten days in which to decide. Money back instantly if you are not satisfied as to the quality and value.

Ten Days' Free Trial
Send only \$2.00 and your choice goes to you in handsome gift box all charges paid. Guarantee Bond attesting to quality and value accompanies each shipment.

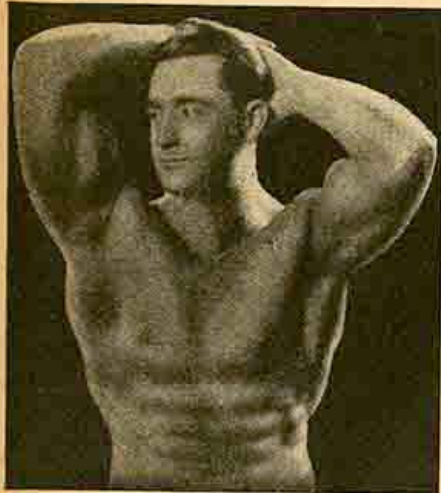
A Full Year to Pay
Simply send \$2.00 and receive your selection, all charges paid. After trial pay balance in 12 monthly payments. 10% discount for cash.

Free Royal Xmas Catalog
The most complete catalog ever published of Diamonds, Watches, Jewelry, Silverware, Cameras, Ivory Toilet Sets, etc., sent FREE. Prices from \$5.00 to \$1000—quality the highest. Ten days' trial and a full year to pay on everything you order from our \$2,000,000 stock. Send for your copy today. Dept. 1232

ROYAL DIAMOND & WATCH CO.

170 Broadway ~ New York

Let the World's Most Perfect Man Show You the Way to Radiant Health, Strength and Power of Will



CHARLES ATLAS

Twice pronounced the World's MOST PERFECT MAN, winning two \$1,000 FIRST PRIZES and a DIPLOMA for physical Perfection, given by Directors of Physical Culture Magazine. No other living man can claim this title.

You Cannot Be a Weakling and Win

Did you ever see a weakling leading a crowd? Of course not. The weak, timid man is afraid, he lacks the courage, the strength, the daring. He has no poise, no self-confidence. His nerves are unsteady and he cannot be relied upon. Everyone detects the weakling. There is no need for YOU to remain a human cypher when by a few weeks' scientific training under my expert guidance YOU can change your weakness for strength, your diseases for Health, your timidity for dauntless courage and daring—so that you can qualify for Life's Greatest Prizes.

Only a Few Hours' Difference Between Success and Failure

I CAN MAKE YOUNG MEN INTO APOLLOS. GIVE OLD MEN YOUTHFUL VIGOR AND GLORIOUS NEW HEALTH—ADDING MANY YEARS TO THEIR LIVES. THERE IS NO EXCUSE FOR ANYONE TO REMAIN A WEAKLING.

Now's the time to get the vital information that will make you a MAN OF POWER—so that YOU will generate Human Energy. The secret of HOW TO DO IT is fully explained in my amazing book:

"Secrets of Muscular Power and Beauty"

FREE

It contains the greatest collection of muscular marvels ever assembled. Every one of its 64 big pages is an inspiration! No man—old or young—can afford to be without the priceless information it contains. Send for it TODAY and learn how you can become one of the most perfectly developed men in the whole wide world. This volume—which will go down in physical culture history as a "classic"—is written by CHARLES ATLAS, The World's Most Perfect Man and recognized as The Foremost Muscular Scientist of the Age. NO other book on muscle building gives a fraction of the secrets or shows such wonderful muscular marvels as you'll find in "SECRETS OF MUSCULAR POWER AND BEAUTY," which will be sent to you without cost. Fill in and mail the coupon now



CHARLES ATLAS, World's Foremost Muscular Scientist
96 Fifth Ave., Dept. 511, New York City

CHARLES ATLAS, 96 Fifth Ave., Dept. 511, New York City
Please send me your new big free book: "SECRETS OF MUSCULAR POWER AND BEAUTY." I enclose 10c to cover wrapping and mailing charges. This places me under no obligation.

Name

Address

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

(Please write or print PLAINLY) Strength-12-24

The Breast and Abdominal Muscles

(Continued from page 31)

a hundred can do the stunt, yet any fairly strong young chap can hold himself with one hand, with his arm bent and his chin close to the ring or bar. There are many who can lower themselves two or three inches from that position and then pull up again, but if you make them hang at the full stretch of one arm, they cannot begin to pull themselves up. With a weight the same principle holds. Almost any physical culturist can hold a 100 pound dumb-bell at arms'-length above the head if some one helps him lift it into position, because he is supporting it partly by the bones of the locked arm; and if one bends the arm a trifle at the elbow, and lowers the weight two or three inches it does not take much strength to push it again to full arms' length. But if the ordinary athlete who can easily do the foregoing, is given a 100 pound weight at the height of his shoulders, and is told to push it aloft, he cannot even start it on its upward journey.

Which seems, to me at least, to argue that the strength of a muscle is limited by its ability to contract against heavy resistance at the BEGINNING of a contraction, and not at the end of it. It is perfectly possible, by the use of weights, to develop those muscles which pull the arm downwards or backwards. If you lie flat on the back with a bar-bell on the floor beyond your head, and then raise it with STRAIGHT ARMS until it is above your chest, you can get an incredible development of those fibers of the back muscles which pull the arms downwards.

One of the exercises, or tests, with springs or rubber cables, is to hold the apparatus above the head, as in Figure "J," and then to stretch the springs by pulling the arms downward as in Figure "K." The muscles used in that stunt are the same ones used in the "two-arm Pull-Over" with a bar-bell described in the previous paragraph. Another exercise with springs is to hold the apparatus in front of you, as in Figure "L," and then to stretch it by pulling the arms backward as in Figure "M." You can develop the muscles used in that stunt by doing the exercise shown in Figure "N," when you stand with body at right angles to the legs, and raise the weight by lifting it as shown. So long as you keep the body bent over, the chief work of raising the weight is done by the back muscles, which pull the arm backwards. In fact, in this particular exercise the muscles are worked through the full extent of their contraction, just as Mr. Mead thinks they should be. For the instant the weight leaves the floor, the work begins; and when it is raised to the highest point, as in the illustration, it is held there by muscular contraction. If all that was necessary was a continuous contraction, that is, the muscle working against resistance for the entire direction of the movement, I would prefer a pair of pulley weights to either steel springs or elastic cables, because then the resistance would be uniform, as well as constant.

I can assure you from my own experience that any muscle, or group of muscles, which can be developed by springs or

pulley weights, can be even better developed with some style of weight, whether it be a bar-bell, a dumb-bell, or a kettle-bell.

I believe that a man who practiced the exercise Figure "E" and "F" with a pair of dumb-bells as heavy as he could comfortably handle, would get better pectorals than if he used a pair of springs as strong as he could comfortably stretch. The fact that the muscle would not have to work vigorously near the end of the movement, has but little to do with the development of the muscle from its origin to its attachment.

I do admit that of all the muscles, the pectorals are the hardest to develop with weights, so that Mr. Mead hit upon the one movement where springs or pulley weights can vie with heavy dumb-bells. Lots of bar-bell users have written to me about exercise for the pectorals, and such correspondents will recall that I always advised "dipping" as the surest and quickest means of developing those muscles. If you do the ordinary floor dip, and repeat only a few times, the pectorals do not show much improvement, but if you practice until you can make thirty or forty dips without stopping, the pectorals will soon grow bigger and assume nicely-rounded but firm outlines.

You, of course, know that in the ordinary "floor dip," the weight of the body is carried on the hands and the toes, and that you lower and then raise the body by bending and straightening the arms; that when you start, you put the hands just as far apart as the width of your shoulders, and that when you push the body upwards and finish the movement, the arms are straight up and down, perpendicular to the floor. That means that the arms at the finish of a "dip" are in the same relative position to the chest as in Figures "F" and "H;" that is, held out straight in front of the chest, though instead of lying on your back with your arms raised straight aloft, you are resting on the hands.

Now, if instead of placing the hands so that the arms are perpendicular to the floor, you spread them further apart, and raise the body from that position, the work done by the arm muscles will be slightly less, and the work done by the pectorals will be greater, and, consequently, those muscles will develop more rapidly.

The further apart you put the hands, the greater will be the work thrown on the pectorals, for one of their chief functions is to bring the arm forward and across the body. If you lie face downward on the floor, reach out with the hands as far to each side as you can, and then try to raise the body off the floor by pressing hard against the floor with your hands, you have an exercise which gives violent work to the pectorals. That particular style of dipping is so extremely difficult that it can be accomplished only by those who have tremendously strong breast-muscles. I have never seen more than half a dozen men who could do it. One of them, who was a wonderful lifter, could do the arms extended dip with a 40 pound dumb-bell resting on his back between his shoulder-blades. His pectorals were ex-

traordinary large, but were so firmly knit that they never sagged of their own weight.

You can get wonderful pectorals by practicing the floor dip with your hands 24 inches apart instead of 18 inches from each other; and if you make the distance 30 inches, results will come more quickly. If you are using the "dip" simply for that purpose, you will find that after you have learned to dip with the arms wide spread, the former style of dipping with hands only 18 inches apart seems to be monotonous and time wasting.

And, here is the point I wish to make. The floor dip with arms spread wide creates far greater pectoral development than the dip with arms closer together, and yet at the finish of the arms spread movement, the arms are nowhere near the position shown in Figures "F" and "H." They are no further together than in "O." So it would seem that if the contractions are sufficiently vigorous it is not necessary to move the arms through a complete quarter-circle as in "E" and "F," and "G" and "H."

The same principle will be admitted by any one who has observed the muscular attributes of men who do advanced apparatus work in the gymnasiums. The dip on the parallels, where the weight is supported entirely on the hands, provides harder work for the pectorals than does the "floor-dip." If you get a pair of adjustable parallels and spread the bars further apart, the work is harder still. All gymnastic experts recognize the value of what they call "straight-arm-work" for the developing of the upper body muscles. Extraordinary development of the pectorals, deltoids (shoulder-caps) and upper back muscles is found in those Roman-Ring artists who specialize on difficult feats like the "cross." Again, in performing those straight-arm stunts, which produce such high development, the gymnast rarely moves his arms far enough to cause the full range of contraction.

Details of that kind interest me exceedingly, although they may seem tiresome to you. But when we consider that at the present time in the two best known systems of muscle-culture, one calls for the use of weights, and the other for the use of springs, it seems as though any open discussion of results and effects should be helpful. The difference between the two methods has never caused any great argument in this country, although in England some years ago, they had a raging controversy. Over there they call spring exercises "chest expanders;" and they, like us, have experts who teach nothing else. Further than that, they have competitions in what they style "strand-stretching" and some "strong-men" carry around special "expanders" and offer prizes to any one who can stretch them to full length. I have seen posters which showed three men at each end of an expander, ineffectually straining in their effort to stretch; and that flanked by another picture of the "strong-man" himself nonchalantly stretching the expander to its full length. That, of course, is "show stuff,"—"circus hokum,"—although any one who knows how, will stretch an "expander" which furnishes enough resistance to baffle the efforts of even the strongest novice.

Thomas Inch, a terrifically strong Eng-

What Is Nerve Force?

By PAUL von BOECKMANN

Nerve Specialist and Psycho-Analyst

EXACTLY what Nerve Force is, we do not know. If we did know, we would know the Secret of Life. We know this: it is generated by the Nervous System through which it travels at a speed greater than 100 feet per second. It is the Master Force of the Body, the force that controls every heart beat, every breath, the digestion of every mouthful of food we eat, the action of every muscle, and the life of every cell. It is the force that gives us courage, ambition, personality, character, mental power and energy—the Force that Drives us On, On and On.

Every mental impure and every bodily act uses up a certain amount of Nerve Force. If we expend more Nerve Force than the system can develop, we necessarily become Nerve Bankrupts and we then have a condition known as Nerve Exhaustion.

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 body 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 your nerves are at fault—that you have exhausted your Nerve Force.

I agree with the noted British authority on the nerves, Alfred T. Schofield, M.D., the author of numerous works on the subject, who says: "It is my belief that the greatest single factor in the maintenance of health is that the nerves be in order."

I have written a 64-page book entitled, "Nerve Force," which in the simplest language explains hundreds of vital points regarding the nerves and their care; information every person should know. Students of the subject, including physicians, pronounce the book the most practical work on the subject which has ever been written. Large corporations have bought my book by the thousands for their employees. Physicians recommend it to their nervous patients. Extracts from the books have again and again been reprinted in magazines and newspapers, which is the strongest proof of real merit. The cost of the book is 25 cents. Remit in coin or stamps. Address Paul vonBoeckmann, Studio 464 110 West 40th St., New York City.

If your nerves have given you trouble, especially if your doctor has told you that your condition is due to your nerves, submit your case to me, and I shall tell you definitely the exact nature of your weakness, and whether I can help you, as I have helped over 90,000 men and women during the last thirty years.

I am a Nerve Specialist, and Psycho-analyst, besides being generally experienced in all sciences pertaining to the Body and Mind. I have treated more cases of "Nerves" than any other man in the world. My in-

struction is given by Mail only. No drugs or drastic treatments are employed. My method is remarkably simple, thoroughly scientific and invariably effective.

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

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

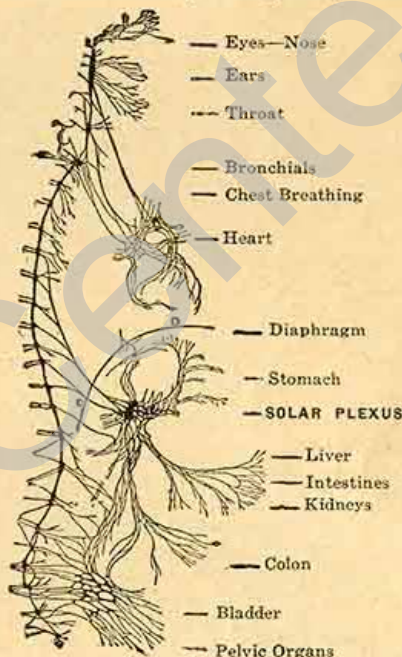


Diagram showing how the Solar Plexus, known as the "abdominal brain," is the great center of the Sympathetic (Internal) Nervous System. Mental strains, especially grief, fear, worry and anxiety paralyze the Solar Plexus, which in turn causes poor blood circulation, shallow breathing, indigestion, constipation, 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.

Swear Off Tobacco

TOBACCO



Shatters Nerves



Hurts Digestion



Stunts Growth



Robs Man of Vitality



Denies You 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 positive, 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 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.....

Newell
Pharmaceutical Co.
Dept. 974
St. Louis, Mo.

MANHOOD and MARRIAGE

THIS book contains the fruits of Bernard Macfadden's life-long study of one of the biggest problems confronting the young manhood of the nation. It is crammed full of information neglected by old-fashioned sex hygiene. In its pages the noted physical culturist talks to you as he would talk to a younger brother. He gives you straight from the shoulder facts and it is this plain-spoken sincerity that has made his book a never failing source of help and inspiration to the thousands who owe to it their whole life's happiness.

Send to you for free examination.

This book should be in the hands of every man who is married or is contemplating marriage. Just fill out the coupon below and the book will be forwarded promptly. Deposit the price of the book with the postman and then take five days to examine it thoroughly. If, at the end of that time, you are not entirely satisfied in every way with it just send it back and your money will be refunded immediately.

Macfadden Publications, Inc.
Dept. S-12
Macfadden Building
1926 Broadway, New York City

Please send me a copy of "Manhood and Marriage" under plain cover and I will pay the postman \$3.00 upon receipt. If I do not feel that the book is worth much more than the price charged it is understood that I may return it within five days after I receive it and my money will be refunded immediately and without question.

Name.....

Street.....

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

Register Now!

Become a Doctor
of Naturopathy
A Dignified
Profession



IF you are ambitious and possess normal intelligence, you can enter a splendid, well paying profession without a long drawn out, expensive training. There is an ever increasing demand for the services of Naturopathic doctors.

Study the New, Marvelous Science
of Naturopathy at Our School
of Biological Healing

Covers the entire field of Natural Healing, as Diet, Chiropractic, Osteopathy, Hydrotherapy, Massage and Physical Culture. Study under enthusiastic, earnest professors with the best modern equipment. Day and night classes. Busy, practical clinics. Students can pursue studies on self-supporting plan. Start today on a helpful and paying career. Send 25c for Full educational literature.

American School of Naturopathy
Dept. S, 7 West 76th Street
Dr. Benedict Lust, Pres. and Dean, N. Y. City

lishman, who has been a life-long advocate of weight exercise, could apparently beat anyone else at stretching springs, but he used a well-known lifting principle.

One of the favorite tests is to take an ordinary "expander" grasp the handles, allow the springs to rest across the back of the shoulders, and then to stretch them by pushing the hands out to the sides. Most advocates of springs start this variety of stretch by holding each hand a little way out from the shoulder, and pushing equally hard with each arm. Inch, who could "bent press" a 300 pound barbell, utilized his knowledge of that lift. He would hold his right hand close in to his right shoulder, and anchor his right elbow on the side above the right hipbone. He would then push with his left arm until it was straight, thus stretching the springs half-way (the easiest part of the stretch). Then, still keeping the left arm rigidly straight, and the right elbow against the side, he would bend his body over to the left and the right arm would "open-up,"—that is, straighten itself,—just as it does in a "bent press." It is a very hard thing to beat a skilled lifter when it comes to any kind of strength test. In this particular case, it should be borne in mind that Inch's year of practice with weights had given him enormous strength in his arms and shoulders, and that he could make a "one-arm military press" with over 100 pounds; which proves that he could exert unusual power in straightening the arm.

I can honestly say that I have never seen a man who used nothing except springs for development purposes, who could lift nearly as much weight as a man who trained on weights; and, on the other side, I have never seen a first-class lifter who could not beat all "spring-users" at stretching their own expanders. I admit that may be because most weight-users absorb an instinctive knowledge of the mechanics of strength. It certainly seems that most users of springs cannot perform any strength feats except with springs; whereas a skilled lifter is usually able to perform any sort of a strength stunt with dead-weight, live-weight, or his own weight.

I fear that when Mr. Mead reads this, he will accuse me of wandering away from the subject, for his letter dealt with the greatest possible development of muscle rather than with feats of strength. But if we consider that a highly developed muscle should possess enormous contractile strength as well as having maximum size and beautiful outlines, then what I have said has some bearing on the subject.

Mr. Mead's letter is interesting throughout. At its conclusion, he says:

"I have come to the conclusion that the whole secret of obtaining a good development lies in the following:

(1) The determination to obtain your aim.

(2) The knowledge of how to do so, which can very easily be acquired by study of anatomy and the use of a little common-sense.

(3) A sense of knowing what good development really looks like, and

(4) The "never be satisfied" attitude which you were laying stress on in your

article in the September issue of *Strength*."

And there we are in perfect agreement. I have been hammering away for a long time in the effort to get all you physical culturists to study anatomy, particularly muscular anatomy; and the fact that Mr. Mead says so positively that his knowledge of anatomy has been an invaluable help to him in building up his own body, should make you realize the necessity of knowing the location and the functions of your own muscles. Certainly, any one who can get a shape and development like Mead's should be satisfied; although it should be noted that he is not satisfied that he has done all that is possible for himself.

His third and fourth requirements naturally go together. The average young fellow is far too easily satisfied with himself, and self-satisfaction is a positive bar to self-improvement. If you happen to have a 14-inch biceps don't be satisfied with it because all your personal friends who have 12-inch arms think your arm is something wonderful, and tell you so. You should set your own standard very high; but it is impossible for you to tell whether you have reached your possible limits unless you have some basis of comparison. In a previous article, I suggested that you make a collection of pictures of men famous for their build and development, and use those pictures both as an inspiration, and as examples of what perfectly developed muscles should look like. As a result I got a lot of letters from readers asking me to give them or sell them pictures, and in view of the number of requests, that was impossible. Some two years ago I started a department called *The Mat*. I got real pleasure out of writing it, as it afforded me a chance to publicly discuss subjects like those in this article. The way it worked out was that out of every ten men who were sufficiently interested to read my stuff, five would insist on regarding *The Mat* as a "question and answer" department, and I was deluged with letters asking for personal advice and instruction. On top of that, some of those who wrote me grew quite indignant if I failed to give them everything they asked for. The letters grew so numerous that if I had answered them all, I would have had time for nothing else, and since I have a rooted objection to any one else writing letters over my signature, I have resigned from *The Mat* and turned it over to Mr. George F. Jowett. This does not mean that I have stopped answering all letters, for I hope to continue to hear from my friends, especially those of the "Old Guard," whom I have corresponded with for years past.

As an instance of almost perfect development, I submit these two pictures of Otto Arco, which he sent a few days ago. Figure "R" is a very similar pose to that of the same athlete shown on page 34 of the October issue, but that cut was made from a photo taken in 1916, while this Figure "R" is from a photo taken this year. Although eight years have elapsed, I think you will admit that the new picture is the better of the two. Figure "S" is a new pose of Arco, which displays the great trapezius muscle between the shoulder and the neck, the huge deltoid capping the point of the shoulder itself, the wonderful triceps at the back of the upper arm, the supinator

longus of the forearm, and the abdominal oblique at the side of the waist. Incidentally, it shows his control over the diaphragm. Figure "R" shows the well known isolation (separate display) of the *rectus abdomini muscles*, which this man discovered, or originated,—whichever you choose to term it. Arco, when a young man in Europe, was easily associated with those other remarkable 140 pound athletes, Max Sick and Emil Moggyrossy. All three of them were star lifters, wrestlers, and "Strong Men." Moggyrossy is dead, Max Sick calls himself "Maxick," and has sponsored a very good book and system on "Muscle Control," but if he knows more, or even as much about muscle control as Arco does, it would surprise me.

It is impossible to make such a display through muscle-control, unless you have good-sized muscles to control, and both Maxick and Arco are dowered with wonderful muscles. The question is, do you consider Arco over-developed? In Figure "R" every muscle seems to me to fit into the picture; that is, the forearms are of the correct size to go with the upper arms, the neck is no bigger than it should be to go with the mighty shoulders, and the broad chest, and so on. It would interest me if any of you could point out a muscle that is lacking in development, or a muscle that is too large in proportion to the neighboring muscles. Note, if you please, the complete absence of overly thick pectoral muscles on the breast. Naturally neither pose "R" nor "S" is one which contracts the pectorals, although you can see them more plainly in "S." These pectorals would look big in a thin-armed and narrow-shouldered man, but they certainly do not force themselves on your attention. I tell you! when a man's breast muscles are very noticeable it is a sign that his shoulders and upper back muscles lack development.

Quite a number of *STRENGTH* readers write and tell me that they "met Arco," and in his letter he says that wherever he goes, young men will seek him out, and tell him that they read about him in this magazine. He travels around in one of the big vaudeville circuits doing a hand-balancing act, and if he shows in your town, I advise you to go see his act. If you are lucky enough to meet him personally, you will find him very approachable. He is a quite unassuming chap, deeply interested in his work, and always glad to look over a promising newcomer in the strength crowd.

One business man who was shown picture "R," exclaimed, "Well, I would hate to have muscles sticking out all over me like that," and it was almost impossible to convince him that when Arco relaxed his muscles they were as smooth (though much larger and better shaped) as those of a boxer. Others claim that the isolated abdominal control is unsightly and makes Arco look absurd. And that is quite the natural point of view for an outsider. When Caruso sang, no one except other singers could realize quite how remarkable a singer he was, and it takes another dancer to properly appreciate the wonder of Pavlova's steps. Only those interested in body-building and muscle-culture can truly value Arco's ability as demonstrated in these two poses.

This Tenor Banjo FREE



This hand-size, professional tenor banjo is yours. We want to make one thousand new friends this month. We want to present one of these wonderful, delightful instruments as a gift to each of one thousand readers of this magazine — and here's why.

Before becoming a professor, and a lover of music, particularly the tenor banjo, I yearned and yearned for the possession of a genuine, professional instrument, the same kind used by the big, successful professionals of the world. Now we want you to succeed. We want to help every music-lover that we can attain success, and this gift offer is made to pave the way for you, and no previous musical knowledge is necessary. We have another surprise for you! Not only do we start you on the way to popularity, success and fame by supplying you with an instrument that you can compare to any used or displayed in your town, but under personal supervision you will be given, by mail, the benefit of the professor's twenty-two years experience as director of Glee and Instrumental clubs of New York University (his name is Harry S. Six). We don't just send you a lot of printed words and instructions, we trust to luck that you will catch on. Our method is different and has proven to be the simplest devised by man—that is why we claim you'll be able to play in thirty minutes. Put us to the test.

Learn in 30 Minutes With My Picture Method

Arthur Brisbane, the highest paid journalist in the world, once said that "a single picture is worth a thousand words." He was right, for it stands to reason, when you take your instrument in hand along with the actual photographs of our professor in action as your guide, it is easy to imitate and do the right thing. But that is not all.

We also furnish, as an additional guide, phonographic records of our professor playing the piece you are learning, along with our thorough, printed and illustrated, easy-to-read course. Doesn't that sound easy? It is easy. If you could sit at my desk and see the letters and telegrams from my pupils, you would be convinced that we have perfected the simplest, yet most highly efficient course to insure your mastering the tenor banjo.

Don't Send a Single Cent

Investigate after today. Don't put off until tomorrow, because you might forget and miss this wonderful opportunity. It might be drop a line—use coupon or postal card will do—telling you are interested in receiving full particulars about course and to reserve your, which is offered as a gift. Act quickly, because there may not be enough gift banjos to go around for the million or more readers of *STRENGTH*. This does not reservation now, this very minute. Therefore, do not hesitate—put in your join our happy army of enthusiastic finished tenor banjo musicians.

FREE BANJO COUPON

EARN BIG MONEY

Hundreds have started orchestras and are making money.

New York Academy of Music
Studio 4812-212 Fifth Ave., New York

Please rush all information relative to your Tenor Banjo Course and reserve a gift banjo for me. This obligates me in no way whatever.

Name

Address

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

GO TO FLORIDA!

"Youngborn" Tangerine Florida

FAMOUS HEALTH & REST RESORT

Ideal for convalescents. For those seeking health and recreation. If you are overworked, exhausted, or suffering from suppressed emotions and you are looking for a quiet and restful retreat, go to Youngborn, located above Lake Oka dry climate, free from fogs, malaria, mosquitoes, and the extremes of heat and cold. People have long made this locality famous as a health resort. Fine bathing and swimming, automobile and all outdoor sports.

WE GIVE THE
"Marathon Bath" Blood Washing Treatments
Physical Culture and Nature Cure Methods
and other Special Cures and Natural Methods of
Treatment—Dieting—Fasting, etc.

For full information address either New York City Office
DR. B. LUST, 110 East 41st Street
or Tangerine, Florida Dept. S.
Write for Free Literature.

Special Book Offer TO THE READERS OF STRENGTH

FOR some time past I have received a great number of requests from readers interested in the subject of health. Any number of books and treatises have been written on the subject of Natural and Drugless healing. In my many years of practice I had occasion to recommend some of these books. Below you will find listed what I consider the best works on Natural and Drugless methods. They all have my highest endorsement.

The Kneipp Cure
By Rev. Sebastian Kneipp
One of the most remarkable books ever written; tells in the most complete detail how Rev. Kneipp cured thousands of people of disease through hydropathy (Water Cure). Book contains over 200 illustrations. Book explains various baths, gushes, douches, etc., covers entire procedure. Illustrated.

Tells in detail medicinal plants used by Father Kneipp's treatment. Also account of many diseases afflicting man, and cures accomplished by Water Cure. Book has reached 155th edition. Translated into 48 languages. Paper cover, \$1.60. Cloth, \$2.25 postpaid.

Return to Nature
"Paradise Regained"
By Adolph Just
The true Natural method of healing and living; and the true Salvation of the Soul. Translated by Dr. B. Lust. The care of the body—Water, Light, Air, Earth, Food, Fruit Culture.

Written by a man who has dedicated his life to the betterment of humanity. This book will take you out of the darkness (Medical Superstition) and will enlighten you to the real truth of hope, health and happiness. 300 pages. Illustrated. Paper cover, \$2.10; cloth bound, \$3.20.

Prof. Arnold Ehret's
3 Famous Lessons on Scientific Diet
Second—Mucusless Diet
First—Rational Fasting
Regeneration, Diet and Natural Cure for all diseases. Tells about causes, removal and prevention of diseases. Cause of growing old and ugly. Gray hair, etc. Death.

Superior diet for Health and Economy. Mucusless diet and Naturopathy. Proper Human Nourishment and overcoming Gluttony. Healing System. Outline of food-combination—special menus—recipes, etc. Including Biographical Sketch of Prof. Ehret's life.

Third—Internal Uncleanliness of Man
Including complete discourse on the following: Chronic Constipation. The diagnosis of your disease and the "Magic Mirror." The Secret of Vitality. The Transition Diet.

(Regular price for the three, \$6.00)
Special to Strength Readers, \$2.20 for the three.

Neo Naturopathy
The New Science of Healing
By Louis Kuhne
The most far reaching, sensational book ever written about the many causes of Human suffering—their treatment and eventual cure. All thoroughly explained in a simple, straightforward logical manner. Millions of these books have been sold. If you are interested in keeping yourself physically fit and in "pink of condition," you will find Louis Kuhne's book absolutely indispensable. Contains over 300 pages. Illustrated. Covers almost every known disease and ailment known. Gives complete home treatment (Drugless Method). (Actual worth, \$500.00) \$3.20 post paid.

Naturopathic Vegetarian Cook Book
By Louise Lust, N.D.
The only book of its kind
Listing a comprehensive number of recognized menus. These identical menus and recipes were endorsed and used at the Naturopathic Institution at Butler, New Jersey. Contains wealth of information on cooked and uncooked foods. Paper cover, 80 cents. Cloth bound, \$1.00.

The Concealed Sins
By Dr. El Lernanto
Sexual diseases, their Prevention and Cure. Subject fully and openly discussed from both a medical and biblical standpoint. (Also a special supplement on Sexual Control, by Dr. B. Lust.) Paper cover, \$1.60; cloth, \$2.10.

The Rediscovery of the Lost Fountain of Health and Happiness
For Nervous Affliction and Nerve Exhaustion, including Mental Tills and Sexual Diseases. By Dr. El Lernanto. Paper cover, \$1.60; cloth, \$2.10.

HOW TO ORDER
When ordering, please state titles of books you want. Send cash, check or money order. We pay postage (C. O. D., 10c extra). Special discount of 10% on all orders of \$5 and over.

DR. BENEDICT LUST
110 East 41st St., Dept. S, New York City

Beauty—Not Skin Deep but Bone Deep

(Continued from page 23)

and it would be a commonplace human race if we did not have this variety.

So there are some things that we can change, or with reference to which we may improve, and there are some that we can only accept as they are. Among these—our bones.

I fancy that most women do not realize that the very basis of their beauty lies in their bones. Speak of bones, and most women will think of skeletons. And thinking of skeletons, there comes to mind associations of haunted houses and spooky graveyards and the symbolism of death. Actually, our bones are the least spooky thing about us, being the most substantial, and they have the least to do with death. Bones are just bones, valuable for making soup, if they are not human but beef or mutton bones. And they positively pre-terminate our bodily conformation. You have often been told that the shapeliness and contour of the body is the product of the muscular system, which is true, and which we will go into in a later article, but even the character of your muscular conformation is determined by the length and shape of your bone substructure. Everything depends upon whether your bones are light or heavy, long or short, and whether they fit into each other one way or another.

While it has often been said that beauty is not skin-deep, you will now see that it is bone-deep. Bones are the primary factor in the character and beauty of the figure, in the first place, and in the form and character of the face in the second place. It is largely by bone formation that we recognize personality, even though the lapse of time has added layers and rolls of fat in some instances, or in spite of the loss of flesh, as in advancing age. Personality is stamped in the bones, so that we recognize one from the clear-cut shadow just as well as from the sight of the face itself.

Let us take for a moment the relation of the bones to the figure. For instance, the case of the woman who complains of the size of her hips. She probably thinks of them as just hips, being a pronouncedly fleshy section of the body, and she likely enough says to herself, as Hamlet said, "Oh, that this too, too solid flesh might melt, thaw and resolve itself into a dew!" Now of course, hips become all the more massive if deposits of adipose tissue (which is the genteel name for human suet) are superadded, but if a woman really has "hips" they are determined by the bone structure of the pelvis and hip joints. She cannot "reduce" the real hips, but she can make them firm and snug and shapely, and avoid padding them under the skin. On the other hand the woman who does not have hips, and who is in fashion just now, though likely to be out of fashion a little later when "hips come back," owes her "boyish figure" to the kind of bones that she had given to her.

You have probably observed contrasting types of build, representing extremes of heavy lower limbs, with a very light frame above the waist, on the one hand, and the top-heavy make-up, with slender legs and large shoulders with full chest and bust. Between these extremes there are many who are not badly proportioned but who tend to approach one or the other of these builds. These variations are entirely and absolutely a matter of bones. Matters of being short or tall are determined by bone growth, and at that chiefly by the length of the bones of the legs. One has chunky little hands or long lean ones, call them long, graceful hands if you happen to have them, according to bone length. One is slight of build, like Lillian Gish, if she has the light bones of the human greyhound, or she has a more rounded development if she has bones of medium height. The still more robust figure, due to heavier bones, is not so common; the "stout" figure is usually due to excess of tissue other than bone.

Recognition of these facts is vital and pertinent in this respect, namely, that if one recognizes her type and her limitations, as determined by her basic framework, she will avoid futile efforts to achieve the figure of someone else of a different type, and she will spare herself the distress of failing to accomplish it. Instead, she will make the most of her own type. To cite the case of Lillian Gish, again, we are told that she has for years been interested in physical training, and tried for years, oh, so hard, to put more meat on her slender frame, and to gain a rounder and more robust figure. But Miss Gish has the willowy build, and obviously has all the flesh she needs, at least what normally goes with her basic make-up, and so, being healthy and active, she remains slender. Also, she represents one of the most distinctive types of real beauty in the cinema world.

Where the face is concerned the factor of bone conformation is equally dominating. Study the faces of your friends from this point of view and you will see for yourself what I mean, and also you will have found a new source of interest. You will find here and there people of exceptionally interesting bones. Moving pictures will take on a new interest, for when the story bones you entertainment may be found in studying the characters from this angle. Since the facial bones of men are normally more pronounced you will see the point illustrated more forcibly and quickly in the features of Jack Holt, Lon Chaney, Theodore Roberts, Ernest Torrence and many others. In some cases, such as Conrad Nagel, James Rennie and the Barrymores, you would almost say that one's bones are his fortune. But of course these men are artists, fundamentally.

The size and shape of the head is primarily a matter of bone. (At this point punsters and would-be humorists please restrain themselves! This is a serious discussion). There are small heads and large heads, with skulls of varying bone thickness. There are long heads and

round heads. And there are long faces and round faces, long noses and eyes, round noses, long chins and round chins—and square chins, even dimpled chins. Foreheads and eye sockets present interesting studies in bones, since the underlying conformation here is often very obvious. But even dimples in the cheeks and the flesh about the mouth are determined by the character of the substructure that the muscles are tacked onto. You have probably noticed on your own account that the loss even of the natural teeth makes a difference in the appearance of the face.

Beautiful bones are responsible in large measure for the classic character of some faces, such as that of the late Lillian Russell, greatest beauty of two generations, or, on the screen at the present time, such as those of Edna Purviance, Mary Pickford, Jean Paige and others with their practically straight and perfect noses, well balanced chins and shapely foreheads. Anita Stewart and Alice Terry achieve just an added touch of distinction by reason of the bridges of their noses. Leatrice Joy, Kathleen Williams, Irene Rich and others have a quality of beauty due to their very bones to start with, added to which is a quality of dignity and charm growing out of mentality and personality.

Now, as to the application of all this. What does it mean in the case of the woman favored by Nature with good bones, and what does it mean in the case of the woman less gifted, with nose and chin less commanding? It means merely, that the one has one point of beauty that the other has not, while it still remains possible that the other has other points of beauty in excess of the first. It means that beautiful bones give one good features, though it still remains for other factors to complete the job of making those features beautiful, while on the other hand the girl with less classic features may through health, good skin and a live, rich personality attain a beauty of her own, perhaps a beauty that transcends her good-featured sister. Referring again to the Gish sisters, one sees that intelligence more than makes up for lack of pronounced facial bones. Lillian and Dorothy Gish, in dramatic and comedy work respectively, are almost unrivalled. Dorothy might have putty instead of bones in her face, and yet she has probably the most expressive countenance yet seen upon the screen. She has real beauty, which is in considerable measure the product of personality and genius. The beauty of Lillian has often been catalogued, especially by artists, as spiritual.

So you will see that beauty is made up of many factors, and that its very essence is a quality of excellence. This excellence must be the characteristic not merely of the skin or any one other part or tissue of the body, but of all parts, including the nerves and mind. And in these various respects, cleanliness and strength are the qualities to strive for. If you make yourself a more perfect human being you will at the same time make yourself a more beautiful human being. I will go into further details on the subject in subsequent articles.

I Make Champions

28 Champs
to my
Credit

You can be a champion in your favorite sport. I have perfected a system of mail training which permits anyone to realize his life's ambition to be a champion. Athletes who have failed to meet the requirements of their home coach have come to me for aid—and needless to say, with my method of instruction, they quickly improved and many of them broke records.

I have the biggest list of champions to my credit of any coach in the world. Some of these champions at first seemed hopeless to themselves and others. Yet, after I took them in hand they became world beaters. Why? I'll tell you the reason. I don't try to change a man's natural style, or nag him about what not to do. I let him follow his own individual style and tell him what he should do. Regardless of what athletic sport it is, I know how to get best results. Twenty-five years as an all-around trainer and coach has given me a wealth of information that I don't want to keep in storage for a few. I want every Boy, Girl, Man or Woman in the world to get the benefit of my experience and quickly become a champion.

My system never fails. Ask Charles M. Daniels, champion swimmer; Tim Jordan, famous home-run hitter; Harry Babcock, world's champion pole vaulter, and a long list of others. They will all tell you that they have "Doc Seixas" to thank for their medals and success. What I have done for others I can do for you and I guarantee to do it. My system never fails!

Let Me Pop You Up

I don't just develop you to have "show-off" muscles. I pep you up by a systematic method of training so you are better able to do your daily work. I don't force you to do something you don't like. You pick your own favorite sport and I teach you how to become perfect in that sport. When you get fun out of athletics, you surely get all the real exercise, body development and limbering up you need. My method is simple. The Seixas System Sport Charts picture each move. It's easy to imitate pictures. These alone should improve your form 100%. In addition, I send you my individual coaching word I say with an iron-clad guarantee.

Booklet Free

Send no money. Fill in coupon and check sport you are interested in. Receive my free booklet which gives full particulars. Train secretly at home if you wish, and surprise your friends. I handle each student personally. You will be surprised how much I give for very little money. Write for your booklet now. Do it this minute before you forget.

A Few of My Champions

Below you will find a list of a few of the men I helped. Look them over. Many are internationally famous: I have 24 to my credit.

CHARLES DANIELS, World's Champion Swimmer, Member of Olympic Team.

HARRY V. BABCOCK, Captain Columbia University and World's Champion Pole Vaulter; Holder of Olympic Pole Vault Record.

HAROLD MILBANK, Inter-collegiate Wrestling Champion, Yale University.

NED BUTLER, Inter-collegiate Gymnastic Champion, Yale University.



DR. P. M. SEIXAS,
Seixas Athletic Systems, Inc.,
Dept. 9115, 1920 Broadway, New York.

Without obligation, send FREE Booklet—"I Make Champions." I am interested in sport checked. (For other sports, write in margin.)

- | | |
|--|--|
| <input type="checkbox"/> Baseball | <input type="checkbox"/> Pole Vault |
| <input type="checkbox"/> Basketball | <input type="checkbox"/> Field Athletics |
| <input type="checkbox"/> Boxing | <input type="checkbox"/> Cross Country |
| <input type="checkbox"/> Fanny Diving | <input type="checkbox"/> Dashes |
| <input type="checkbox"/> Football | <input type="checkbox"/> 1 & 2 Mile |
| <input type="checkbox"/> Golf | <input type="checkbox"/> Marathon |
| <input type="checkbox"/> Hockey | <input type="checkbox"/> High Hurdles |
| <input type="checkbox"/> Prize Fighting | <input type="checkbox"/> Low Hurdles |
| <input type="checkbox"/> Track Athletics | <input type="checkbox"/> Fancy Skating |
| <input type="checkbox"/> Discus | <input type="checkbox"/> Speed Skating |
| <input type="checkbox"/> Hammer | <input type="checkbox"/> Swimming |
| <input type="checkbox"/> Javelin | <input type="checkbox"/> Speed Swimming |
| <input type="checkbox"/> Shot Put | <input type="checkbox"/> Tennis |
| <input type="checkbox"/> Broad Jump | <input type="checkbox"/> Tumbling |
| <input type="checkbox"/> High Jump | <input type="checkbox"/> Wrestling |

Name
Address
City State

How Many Pounds Would You Like to Gain in a Week?

If you are thin and scrawny and would like to gain weight, I will send you a sample of the genuine Hilton's Vitamins absolutely FREE. Do not send any money—just your name and address to W. W. Hilton, 166 Gateway Sta., Kansas City, Mo.

HOW TO KEEP FIT

That is the burning human problem, and the "ROCKER" EXERCISE solves it. It is *The Master Exercise*. Scrap all the others. Settles the Health Question.

THE HEALTH LEAGUE
4675 LAKE PARK AV., DEPT 22, CHICAGO

Send Now
For—



A Magazine of Art and Inspiration.

O. K. or Money Back

Magazine Art and Life

Would you like to have
A Body Beautiful,

Mind Intellectual, soul institutional? Then read Art and Life. Fine drawings and photos of *The Human Body*, reproductions of famous paintings and statuary that show ideal human proportions; also birds, animals, scenery. Articles on health, art, nature and psychology. Comics, cartoons and jokes. Art contests, lessons, criticisms. For artists, writers, students, thinkers, those who are developing body, mind, soul. You will like it. Can't be described, must be seen. \$2.50 a year, no free samples.

CUT THIS OUT send \$1.00 NOW

for a 5 months' trial sub. O. K. or money back.
ART and LIFE, Dept. 955, Kalamazoo, Mich.

Natural Brown Rice for Health!

COMES to you whole, like whole wheat, with all the goodness that grew in the grain. All the vitamin energies. All the health-building minerals. No polish is put on and none of the good bran coating taken off. That's why it makes such a nourishing food. Easy to digest. Easy to cook in many ways, and in every way delicious!

Comet Brown Rice is sold in sealed cartons only. If your grocer cannot supply you, cut out this advertisement, send one dollar with your name and address, and we will mail you 4 pounds postpaid. COMET RICE, 55 Laight Street, New York.

Comet
Brown
UNPOLISHED
Rice

HENDRICKSON Big Muscle Builder

The HENDRICKSON is made of very heavy rubber cables, especially designed for these heavy Expanders. The Elastic Cables are detachable, having Safety Snap Hooks, allowing one or more of these heavy cables to be used. You can start with one Cable and add others as your strength increases.

Our handle frames are not made of shoddy light single 5 loop frames, or double 5 loops, but have 10 continuous heavy loops.



A Genuine 10-Cable
Chest Expander

Only **\$5** (\$10 Value)
Postpaid

Powerful Muscles and a Fine Physique can be had in the shortest period of time, by using this PROGRESSIVE EXERCISER. You can increase the size of the neck, forearm and bicep one full inch in a month; and double the strength of your back and shoulders. You can be a NEW MAN in a few weeks.

Our Guarantee: With this Progressive Exerciser you can do all we claim in one month; strengthen your nerves; obtain Health, Muscular Development and Manhood.

The HENDRICKSON is the ONLY Chest Expander on the market having a Handle Frame of 10 Continuous loops.

OUR LIBERAL OFFER: We will send you this wonderful exercising apparatus and include FREE our illustrated Course of Physical Training, showing how to develop the entire body at the extremely low price of \$5 postpaid. If you want to be a REAL MAN—order TODAY!

LIND-HENDRICKSON CO., INC., (Originators and Inventors)
U-63 Dey Street, New York

The Story of Frank Dennis

(Continued from page 45)

friends, who are seeking health, and an encouragement to you who have health, to go out for the physical achievements that Dennis has gotten.

His bodyweight had increased to 147 pounds stripped, and he is all that an athlete and well developed man need be for his bodyweight. He is a good height for that poundage, and his measurements are nicely distributed, which are as follows: Height 5 feet 7 inches, weight 147 pounds, neck 16 inches, chest normal 39, expanded 42, waist 31, hips 36½, thigh 21, calf 14½, ankle 8¾, biceps 14½, forearm 12¼, wrist 7 inches. His measurements are honest, like his feats, for which I always admired him. He is wonderfully appreciative for all the interest taken in him, and I am proud of him. He has by no means gotten to his limit, for in my estimation he is just commencing, and I expect to see him some day with 20 pounds more of real muscular manhood than his present weight, and all his feats to go up in proportion. Up to date he has performed 230 pounds in the wrestler's bridge, 270 pounds in the shoulder bridge and a two hands curl of 130 pounds, each splendid performances and records in his class. He has just begun to take up the standard lifts, and is showing great aptitude, performing already the following feats: Two hands military press 157 pounds; two hands clean and jerk 208 pounds, and a two hands dead lift of 450 pounds.

His agility is surprising, and he is as supple and pliant as a willow, an example is given in Figure 2, where he is touching his forehead with the toe of his foot. If you think it is easy, just try it, and hold the position until you are photographed. In Figure 11 he is seen performing the wrestler's bridge with our large size Milo Duplex Bell, that weighs 225 pounds, and Figure 12 shows him performing a perfect one arm side press, that requires great flexibility of the waist, in order to achieve success in this particular lift.

My final remarks are that any one who has any organic or physical trouble, can, after reading the story of this young man, Dennis, look forward with all the encouragement in the world to redeem their lost health and physical vigor back even as he did. Under right treatment nothing is impossible, and I consider that the case of Dennis is one out of many that are a distinct triumph for the training and use of bar-bells as a positive means of securing for one and all perfect health, strength, and physical happiness.

In Our Girls' Circle Marjorie Heathcote will continue to discuss topics of interest to our feminine readers. Any questions mailed her with a stamped addressed envelope will be answered personally, and those of general interest will be published.

BE A RAPID-FIRE TRICK CARTOONIST

\$1 BUYS COMPLETE COURSE, including 40 Clever Cartoon Stunts, "How to Give a Performance," "How to Originate Ideas," Samples Inc., Modern Cartoon Service, Dept. D., 290 Bergen St., Brooklyn, N. Y.

Be a Detective Earn Big Money
 Work home or travel.
 Experience unnecessary. Particulars free. Write Dept. S.,
American Detective System, 1968 Broadway, NEW YORK.

Four Wonderful Books Ideal for Gifts By Thomas R. Gaines

Discoverer of Vitalic Breathing, Founder of Vitalic Culture, Author, Lecturer, Teacher

Every Strength Magazine reader should possess copies of these worth-while, vibrant publications of health, happiness and success.

"Vitalic Breathing" Price, \$2.60
Nature's Way to Good Health.

"Friendly Thoughts" Price, \$1.00
Joy, Healing, Inspiration. A little volume of mental sunshine in prose and poetry.

"Life's Mightiest Force" Price, \$1.00
Fascinating Essay on Love. Ideal for Gift Purposes.

"The Truth About Food" Price \$1.00
Booklet of food facts, with list of sixty-three harmonized meals, literally worth its weight in gold.

All mailed prepaid. Money refunded if dissatisfied.

THOMAS R. GAINES

210 West 107th St., Dept. 51-B, New York, N. Y.

You CAN Stop Smoking!

You can quit cigarettes, cigars, pipe and snuff once and for all time, RIGHT NOW! No matter how long you have been a slave to Lady Nicotine. Stop smoking without resorting to drugs or medicines. Nothing INTERNAL. Full scientific psychological discovery sent on APPROVAL, MUST break you of the tobacco habit or it costs you nothing. On account of its remarkable results I call it the "SURE WAY METHOD." Never fails if properly followed. Increases your mental force and makes you more fit for life's battles. Used with amazing success on myself and friends. A limited number of interested parties who are desirous of conquering the tobacco habit have the opportunity of sharing in my good fortune. THIS IS NOT AN ORDINARY COMMERCIALIZED OFFER. It was only after the constant urging of my colleagues that I decided to distribute a few hundred of my SURE-WAY METHODS. You need have no hesitancy in sending for the METHOD. I am absolutely responsible and back up all claims. I want you to subscribe to my method with full assurance that if I fail to break you of the tobacco habit after you have faithfully followed my instructions, I will refund the entire amount paid. Sent Postpaid complete in plain wrapper on the receipt of \$5.00 check or money order.
 Prof. LAWRENCE W. ROGERS, Eminent Psychologist
 523 West 138th Street Dept. 20 New York City



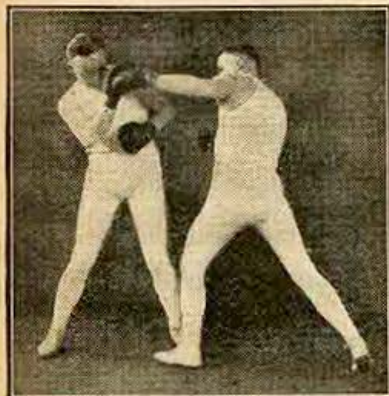
LEARN HOW TO BOX

Develop Your Body, Get Physically Fit, and Learn to Defend Yourself while Enjoying a Real Man's Sport.
 Scientific Boxing will give you all these benefits. In addition, it will develop self-confidence and mental alertness.

LEARN FROM EXPERTS
 MIKE GIBBONS and TOM GIBBONS will teach you in your own home by mail how to use every punch and the defenses for all blows. Also how to train to be physically fit. Learn from first class boxers who have proved their knowledge of scientific boxing in the ring. Learn the latest improved methods of Scientific Boxing developed and used by modern boxers. In the GIBBONS' COURSE you learn the science which enabled Mike and Tom to engage in hundreds of ring bouts without ever being knocked out; you learn the scientific defensive tricks that enabled Tom Gibbons to avoid Champion Jack Dempsey's knockout punches for 15 rounds—Gibbons is the only man Dempsey has been unable to knock out in a championship fight.

SPECIAL PHOTOS MAKE EVERY MOVE CLEAR
 The pictures in the lessons are four times the size of the one shown here. Easy to learn. Will make you a clever boxer and a hard hitter in a short time. BEGIN NOW.

COMPLETE COURSE ONLY \$2.00—SENT C. O. D.
 Send your name and full address written plainly to Mike Gibbons, Dept. S, St. Paul, Minn. The course will reach you by return mail. When you get it you pay the postman the price (plus a few cents postage). If you prefer send your payment direct to Mike Gibbons NOW and get the course by return mail without any further cost. (No C. O. D. orders outside United States.)



Mike Gibbons blocking left hook led by Tom Gibbons

Vitamins

(Continued from page 25)

established the fact that there is considerable doubt with respect to the ability of an animal to synthesize the amino acids essential to health such as alanine, leucine, isoleucine, norleucine. Apparently as far as human discovery has proceeded in this very complex field of investigation, these amino acids must be found in natural foods if the animal is not to suffer.

No layman can adequately comprehend the extraordinary difficulties involved in the effort to go into the living organism and identify these various amino acids as they play their important parts in the metabolism of a creature, tracing their subtle movements through the body, and actually segregating and identifying the end-products of their activity, determining the role performed by each in the neutralizing of deadly poisons which, if not detoxicated, would result in many diseased conditions.

The pursuit of the so-called vitamins has been so easy, so free from technical dexterity, so will-o'-the-wispish, and so free-for-all that, when compared with the intricacy of method and process which has been characteristic of Dr. Sherwin's work, one begins to understand why so many vitamin enthusiasts are prone to play hide and seek with each other on a vast campus of velvety grass rather than to enter the depths where one must find his way, without any light but that of his own making, where he would bring painfully to the surface the kind of truth which, even though it has no commercial value for the seeker and does not reward his labor and devotion with riches, does offer to the human family a contribution of priceless value.

For years a tremendous flood of energy has been side-tracked from the definite and the known into the indefinite and the unknown, and all that this energy can now claim for itself is the doubtful assertion that a single one of the variously named vitamins has been isolated, even though there is very definite evidence to suggest, if not to conclusively prove that vitamins are nothing other than one of the essential amino acids.

If the vitamin enthusiasts really wish to preserve the name why do they not line up the eighteen amino acids, wipe them off the slate and substitute in their place the numbers from one to eighteen inclusive, so that then they would no longer have a vitamin A, vitamin B, and vitamin C, but vitamin 1, vitamin 2, vitamin 3, and so on down the line to vitamin 18. If they did this it would simplify feeding experiments extraordinarily, and we would now know how to compound from any given list of raw foodstuffs a perfect diet for infant, youth and adult, with no confusing or complicating mysteries to contend against.

As a matter of fact we do know what food deficiencies to guard against, and how to offset food deficiencies by the addition of other foods, which, though deficient in themselves, contain the very substances lacking in their neighbor.

Milk alone of all foods contains all the amino acids, or the materials from which the body itself can synthesize them. As a matter of fact milk lacks but one amino acid, glycocoll, which Dr. Sherwin has

definitely proven can be synthesized in the body.

We now know what amino acids are lacking in meat, fish, vegetables, fruits and cereals, and we know how to so combine these foods that the deficiencies of the one can be made up by the other, although in the meantime the American people, with no definite information to guide them, but much mysterious hocus pocus to misguide them, go on selecting their foods without regard to the necessity of supplying this or that deficiency, and we also know that foods which contribute the maximum of the essentials are so processed, juggled, refined and denatured by commercial processes that the average mother of children, even with full knowledge to guide her, would find it difficult to select from a score of patented foods any combination that would adequately sustain the life of her own offsprings and properly contribute to their normal growth and development.

In my own laboratory, with a dozen patented foods purchased every day by the mothers of the metropolis from its grocery stores, I have set up all sorts of complications and departures from the normal among animals of which I have at the present time an odd hundred under experiment.

In my laboratory we wholly ignore the issue of vitamins, and find that in this state of abysmal ignorance we achieve results for good or evil, lifting up some litters to eminent heights of normalcy and dropping others down the line and holding them there at any place desired, or letting them descend into the depths where death ends their sufferings.

We can control the whole course of the development of the young, the whole course of reproduction, the whole course of adult life into healthy old age, or we can substitute along the way a score of infirmities under which the young are dwarfed, the adult loses its resistance, and maternity itself becomes such a plague that the afflicted mother either brings forth her young dead, dies in the effort to bear them, or, like a cannibal, eats them when born.

Why is Dr. Carl P. Sherwin's work on the amino acids so wretchedly ignored in high places? Who is this man Dr. Carl P. Sherwin?

Dr. Sherwin took his degree of Doctor of Science at the University of Tübingen, Württemberg, Germany, his degree of Bachelor of Science at Hanover College, U. S. A., his degree of Master of Arts at Indiana University, his degree of Master of Science at Illinois University, his degree of Doctor of Medicine at Fordham University, his degree of Doctor of Public Health at New York University, his degree of Doctor of Laws at Fordham University, at which institution he held the professorship of physiological chemistry for five years, and was dean of the department of chemistry for five years, during all of which period he has been engaged in the pursuit and capture of a definite physiological truth from which the disciples of the vitamins have been so progressively receding that they now seem to be beyond the horizon from whence they must return in humility, if they are destined to gaze ever upon the promised land.

MEN



-this famous Boxing Course

now only \$1.67
plus postage
WAS \$5-

10 DAY TRIAL
SEND NO MONEY

Here's a bargain for you—a complete course in Boxing for only \$1.67! Six big books, finely printed, with 250 photographic illustrations. Teaches you in your own home all the fundamentals of boxing and the blows and guards used by the champions—the Benny Leonard Triple, the Jack Dempsey Triple, the Fitzsimmons Shift, etc. All the fine points of feinting, timing, ducking, clinching, breaking ground, judging distance, etc.

Cuts the Time of Learning in Half

The Stillman System of teaching boxing cuts the time of learning in half. It is based on the methods used by famous Professor Mike Donovan, former boxing instructor of the New York Athletic Club. You will marvel at how quickly and easily we lead you into the most difficult blows and guards. In a short time we have you hitting punishing blows, cleverly guarding, ducking, feinting, etc., just as though you had a real opponent before you. You can spend as much time on each lesson as you please and refer to the lessons again and again—you can't do that with a private instructor!

Shadow Boxing and Training

Three fast rounds of Shadow Boxing follow your lessons in Blows and Guards. And to strengthen you physically, we give you a complete set of muscle building and breathing exercises, with instructions on how to train, how to put on or take off weight, what to eat, etc.

Jiu-Jitsu and Wrestling

In addition to making you a good boxer, we teach you the cleverest holds in Jiu-Jitsu—how to disarm an opponent, how to throw him if he grabs you from behind, how to break a stranglehold, etc., and such famous wrestling holds as the Gotch Toe Hold, the Stecher Scissors Hold, the Head-lock, etc.

History of Boxers: Included in the course is a History of Boxers with ring-side views of their greatest fights.
SEND NO MONEY: We prove that we can teach you boxing by sending our ENTIRE COURSE for 10-day Trial. Remember, if you keep it, the course costs only \$1.67. SEE 10-DAY TRIAL OFFER BELOW. Mail the coupon now.

*This Coupon brings
you the Course*

THE STILLMAN ASSOCIATION

Dept. 1724-M, 247 Park Avenue, New York
Send me an approval of 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.

The Menace of Wasted Years

Too many men think only of To-day.

When one is young and strong, some sort of a job is easy to get, and fairly easy to hold.

But along about 50 or 60—what then?

Age follows on the heels of youth—the back bends over—the legs soon weary—the man who lives by his hands alone falls lower and lower on the salary list.

Think of this old age problem, you young fellows of to-day, as you read over this magazine. Sit down quietly a little while and ask yourself this question—"What will I be doing at 50 or 60?"

Dependent on some relative for support? Waiting the coming day with dread? Knowing nothing of the joys of graceful old age?

Truly, it's a vital problem. And the only way to beat it is to train yourself while you are still young to do some one thing well—to be a trained man.

You can delay sending in this I. C. S. coupon to-day and to-morrow and next week or next year. But don't forget that the longer you wait the more you are going to lose. Time has never waited for any man, and it won't wait for you. Do it now!

INTERNATIONAL CORRESPONDENCE SCHOOLS

Box 2387-B, Scranton, Penna.

Without cost or obligation on my part, please tell me how I can qualify for the position or in the subject before which I have marked an X.

BUSINESS TRAINING COURSES

- | | |
|--|---|
| <input type="checkbox"/> Business Management | <input type="checkbox"/> Salesmanship |
| <input type="checkbox"/> Industrial Management | <input type="checkbox"/> Advertising |
| <input type="checkbox"/> Personnel Organization | <input type="checkbox"/> Better Letters |
| <input type="checkbox"/> Traffic Management | <input type="checkbox"/> Show Card Lettering |
| <input type="checkbox"/> Business Law | <input type="checkbox"/> Stenography and Typing |
| <input type="checkbox"/> Banking and Banking Law | <input type="checkbox"/> Business English |
| <input type="checkbox"/> Accountancy (including C.P.A.) | <input type="checkbox"/> Civil Service |
| <input type="checkbox"/> Nicholson Cost Accounting | <input type="checkbox"/> Railway Mail Clerk |
| <input type="checkbox"/> Bookkeeping | <input type="checkbox"/> Common School Subjects |
| <input type="checkbox"/> Private Secretary | <input type="checkbox"/> High School Subjects |
| <input type="checkbox"/> Spanish <input type="checkbox"/> French | <input type="checkbox"/> Illustrating |

TECHNICAL AND INDUSTRIAL COURSES

- | | |
|---|--|
| <input type="checkbox"/> Electrical Engineering | <input type="checkbox"/> Architect |
| <input type="checkbox"/> Electric Lighting | <input type="checkbox"/> Architects' Blue Prints |
| <input type="checkbox"/> Mechanical Engineer | <input type="checkbox"/> Contractor and Builder |
| <input type="checkbox"/> Mechanical Draftsman | <input type="checkbox"/> Architectural Draftsman |
| <input type="checkbox"/> Machine Shop Practice | <input type="checkbox"/> Concrete Builder |
| <input type="checkbox"/> Railroad Positions | <input type="checkbox"/> Structural Engineer |
| <input type="checkbox"/> Gas Engine Operating | <input type="checkbox"/> Chemistry <input type="checkbox"/> Pharmacy |
| <input type="checkbox"/> Civil Engineer | <input type="checkbox"/> Automobile Work |
| <input type="checkbox"/> Surveying and Mapping | <input type="checkbox"/> Airplane Engines |
| <input type="checkbox"/> Metallurgy <input type="checkbox"/> Mining | <input type="checkbox"/> Agriculture and Poultry |
| <input type="checkbox"/> Steam Engineering <input type="checkbox"/> Radio | <input type="checkbox"/> Mathematics |

Name.....
Street..... 3-6-24
Address.....
City..... State.....

Occupation.....
Persons residing in Canada should send this coupon to the
International Correspondence Schools Canadian, Limited,
Montreal, Canada

Deafness



Perfect hearing is now being restored in every condition of deafness or defective hearing from causes such as Catarrhal Deafness, Relaxed or Sunken Drums, Thickened Drums, Roaring and Hissing Sounds, Perforated, Wholly or Partially Destroyed Drums, Discharge from Ears, etc.

Wilson Common-Sense Ear Drums
"Little Wireless Phones for the Ears" require no medicine but effectively replace what is lacking or defective in the natural ear drums. They are simple devices, which the wearer easily fits into the ears where they are invisible. Soft, safe and comfortable. Write today for our 168 page FREE book on DEAFNESS, giving you full particulars and testimonials.

WILSON EAR DRUM CO., Incorporated
373 Inter-Southern Bldg. LOUISVILLE, KY.

Do You Eat Too Much?

(Continued from page 35)

bacon; one serving of ham; one slice of leg of lamb or one small lamb chop; two small pieces of chicken or small piece of steak; two figs, four dates or three dozen small raisins; four teaspoons of honey; two teaspoons of olive oil; one tablespoon of butter; four tablespoons of cream; three quarters of a glass of milk; one glass and a half of real buttermilk; one head of cabbage; three cucumbers or two large onions; one bunch of grapes or one and a half pears or oranges. Memorize that and you will be able to figure the most of your foods in terms of calories, and these are about all that you would remember out of a big list anyway, if yours is just an ordinary memory.

Now, after you have learned that list you find that the trouble with the calorie system of rating foods is that it is too easily and too conveniently mistaken for a measure of that general food value, which it distinctly is not. Calories express only heat value, or fuel value; they mean nothing in respect to tissue building or repair; nothing with respect to regulating the body chemistry. Merely heat. Eggs and bacon (two strips) would give you three hundred calories of heat, which is the same as six tablespoons of corn starch would give you, but that does not mean equal food value, for the eggs supply tissue building substances and vitamins and mineral salts, while the cornstarch offers only heat, fuel, coal.

The Sun-Maid Raisins package presents on the wrapper the "food value" statement that one pound of California raisins represents an "energizing food value" equal to 1 1/3 pounds of beef, 6 pounds of apples, 5 pounds of bananas, 4 1/4 pounds of potatoes, one pound of bread; 4 pounds of milk (two quarts); 4 3/4 pounds of fish or two pounds of eggs. All of which may be true, speaking of fuel or energy alone, but to the average uninformed person it is sadly misleading as to food "value." Food value represents so many other things. One pound of white bread, for instance, is practically just so much coal, and certainly can in no way replace the various food values in two quarts of milk or two pounds of eggs or one pound of raisins or several pounds of apples or potatoes. The raisins, for instance, contain the organic salts of iron and other precious minerals which are deplorably lacking in white bread. One cannot be fair in making such comparisons, for the beef, fish and eggs are tissue building foods, essentially, while the apples and potatoes are balancing, regulating, "tissue-sweetening" foods, maintaining a balanced body-chemistry; the bread, if white, is almost purely fuel; the raisins are both fuel and balancing, and the milk is everything, tissue-building, balancing and fuel. Comparisons are never more odious than when foods of different type are reduced to one type of measure, to the seeming detriment of some and the false overvaluation of others.

So the first thing to ascertain about your diet is not the matter of calories represented. You could buy calories very cheaply in the form of cottonseed oil, white flour

and kerosene. But you could not thrive on such a diet. The first consideration is to make sure of the other food values particularly the factors of balancing and tissue building. And after that you can begin to think in terms of quantities and calories.

You see, it is partly a question of your eating too much of the right food, which is not so easy to do, and not so bad if you do it, or of eating too much of the wrong food, which is a more serious matter. Unquestionably a lot of people are overeating even though an estimate of the calories consumed would not seem to indicate it. Suppose that 2,500 calories is theoretically about right for a man doing office work and taking little exercise. You may easily find that John Smith does not eat any more than that. But on closer scrutiny of his diet you find that half of these calories, or more, represent meat, eggs and cheese. Result, Smith is overloaded with protein, is sleepy after lunch, and dies of Bright's Disease before he is fifty years old. He is overeating.

The idea used to be prevalent—probably still is, in most quarters—that manual workers and athletes, through the breaking down of muscle cells in their strenuous bodily activity require large amounts of protein food. The theory, however, is not justified, because the main thing consumed in "work" is fuel, producing the necessary energy. The actual displacement of protein has been overrated. A moderate amount of meat or other protein food will still be sufficient, and if the hard worker needs an increase in calories these should represent a balanced diet of other foods of the right kinds, including vegetables, fruits, salads and whole grain foods.

This reference to whole grain foods is especially pertinent, for just now we arrive at the reasons why people commonly overeat. Among these reasons are the use of condiments which abnormally stimulate appetite and the excessive use of meat and other protein foods. Not alone is meat stimulating in its very nature, but all protein foods have a savory character which make them desirable in combination with a balanced diet and also make it easy to eat too much of them, especially if one has acquired the habit. Naturally, habit has much to do with appetite and kind and quantity of food consumed.

Then there is the American practice of lavish providing, which naturally invites overeating. Even animals sometimes eat too much under conditions of plenty. I have known cows to do it when the grass was green and fresh and tender, though animals are supposed to be restrained by instinct. However, men are usually careful not to turn their horses loose in the oat bin, and the lions at the zoo are fed their meat once a day, fasting on Sunday. The American housewife has set standards of plenty and variety, dating back to pioneer or farm life when lots of hard work, not to say exposure to cold, made it possible for one to eat three big "squares." And so she has the habit of preparing and serving too much—except perhaps in New England. One finds every inducement to

overeat, even before he comes to the desert, which, by the time one reaches it has become superfluous. And this very dessert is one of the reasons for overeating, especially when it takes the form of a custard, or a coconut pie, or a pudding which is almost a whole lunch in itself. The Italian notion of a piece of fruit as a dessert is the logical thing, and particularly so with a meal that includes meat, since the fruit then serves as a balancing food. But pastries and heavy desserts are all out of order to top off any substantial meal. If we "leave room" for them, that is one thing. But if we fill up first, and then add dessert of the richer kinds, we must do so only with a consciousness of our gluttony and self-indulgence.

But finally, the big reason for overeating is undoubtedly the consumption of inadequate food, making it necessary to overeat of substances that we do not need in order to secure a sufficiency of other essential elements.

To illustrate, let us take one particular and much needed element, calcium, or lime. In a normal diet, we will say, one secures enough lime by eating a normal amount of food. But we will suppose, in order to make his brand of food whiter and softer and more finely sifted, some manufacturer contrives certain processes of refinement which remove three-quarters of the lime from this food. You then find it less satisfying, and so in order to secure the amount of lime the system craves you go on eating up to a possible four times as much of this food as you needed before.

In the main, we do two things to our foods, to mutilate them and impair their original value, aside from overcooking. The first concerns our vegetables, and consists in throwing away the water in which they have been cooked. The chief value of these vegetables, any way, lies in their balancing and regulating qualities, due to their mineral salts, by which they maintain or restore the normal body chemistry. And it is these very mineral salts, easily dissolved in water, that we mostly throw away, along with the best of the flavor.

The other thing that we do is to refine our cereal or grain foods until there is practically nothing left of them but pure starch. We do it with wheat and rice and rye, and more recently, with corn as well. Great commercial interests have made it both economical and profitable to train the public to eat white bread, almost pure starch or fuel, thus utilizing only about seventy-two per cent. of the wheat crop and wasting the other more precious twenty-eight per cent. It is not wholly wasted, however, since it is fed to the stock, in the way of producing better animals and poorer humans. The whole grain of the natural wheat is a practically perfect and perfectly balanced human food. Children who eat no bread but the whole wheat grow up with sound teeth, sturdy bones and rugged bodies. But the child or the man who is given white bread finds himself "stuffing" in the hope of securing the missing elements that he vitally needs.

We do the same with rice. The polished and "pearly" white rice of commerce is as worthless as it is pretty. It is starch, fuel. That would seem to be all right, as fuel or energy producing matter, except



Read This Ad

PROF. BARKER says that all young men, 15 years of age and over, also all real he-men with red blood flowing through their veins need a system of progressive exercise with apparatus. During my 40 years of experience as a professor of physical culture, I have yet to meet one well-built man who obtained his development from exercise without apparatus. Exercise without apparatus is all right for women and children, but any man who wants broad shoulders, big chest, powerful back, strong

arms, healthy stomach and shapely legs, can have it if he will exercise fifteen minutes a day with the Barker Strength Maker Bar Bell outfit. You receive a complete course showing the proper way to use long bar bells, short bar bells, ring weights and kettle bells. The Strength Maker can be changed into a long bar bell or a short bar bell, or ring weights. It weighs about 20 lbs. empty, which is just the right weight for beginners and you can increase the weight up to about 200 lbs., which will be heavy enough for the strongest man.

To advertise my health gymnasium in New York City. I am going to sell a limited number of \$35.00 bar bell outfits for \$17.00. This is a special offer for a short time only, so send in your order today—now—before you forget.

SEND IN THE COUPON TODAY

Prof. A. Barker, D. C., Studio A-8, 865 Sixth Ave., N. Y.

Please send me immediately your "New Strength-Maker" dumb bell outfit. I am enclosing \$17.00, in full payment in accordance with your special offer:

Name

Address

City State

"ODOFORM BATHS" WILL ADD MANY YEARS TO YOUR LIFE!

Whenever you are feeling out of sorts, tired and suffering from general nerve exhaustion, just take a warm bath with a few table-spoonfuls of Odoform. Immediate beneficial results will be felt.

Odoform is particularly recommended in the treatment of paralysis, gout and rheumatism, dropsy, sexual skin and blood diseases; also highly recommended for abnormal blood pressure, pneumonia, diabetes, bladder and kidney troubles, general debility, weakness of heart and all toxic conditions.

Odoform comes in the following sizes:

1 lb.	4 baths	\$1.35	4 lbs.	16 baths	\$4.50
2 lbs.	8 baths	2.35	8 lbs.	32 baths	8.50

Send money order or check, all orders sent postpaid and insured.

BESSEMER CHEMICAL CO.
295 1/2 Pearl Street, Dept. 20, New York City

I Offer You \$100 a Week

Without experience, training or capital you can establish a big business for yourself. Be your own boss, work when you please, spare time or full time, and make from \$25 to \$100 a week.

Ford Auto Given Free

We want men and women to represent us. Wonderful plan. 350 Household Necessities direct from factory to home. We provide all instructions and equipment including automobile. Write quick for offer.

AMERICAN PRODUCTS CO., Dept. 667 Cincinnati, Ohio



VITAL FACTS

A BOOK FOR THOSE WHO THINK.—A gold mine of practical, vital knowledge and information. Contains the following seven parts:

Wonders of The Air: how to breathe for health, vigor, vitality, power. There is nothing like it.

Vital Foods, The Real Staff of Life. The vital principles of this chapter alone, if accepted, will make life worth the living. Quit being a hog, or the other extreme, a diet crank.

The Two Principles of Mind, shows the reader how to think for practical, tangible results. Deals with subject in a novel way; shows how to make the test.

How Desire is Fulfilled Through Demand and Affirmation. There is only one right way and many wrong paths of achievement. How one man demanded and received \$10,000, shows what to avoid and how to apply mental force properly.

Love, The Mainspring of Evolution. The how and why of happy marriage. A practical solution of the sex question in all its many sided complexity.

The Money Consciousness. A sure road to prosperity that anyone may take. The mental basis of material wealth is clearly shown; examples are given.

The Philosophy and Mission of Life. The secret of real achievement. Many will find their life's mission by reading this chapter. Seven books boiled down into one.

Send 50 cents for one, or \$1.00 for three copies
J. A. EICHWALDT ST124 Fruitvale Sta., Oakland, Calif.

\$3 DOWN Brings you a Genuine **UNDERWOOD** TYPEWRITER

10 DAYS FREE TRIAL Your \$3.00 unconditionally returned if at end of 10 days you are not satisfied with this late model UNDERWOOD typewriter rebuilt by the famous Shipman Ward process.

GREAT PRICE SAVING Direct to you from the largest typewriter factory of its kind in the world by our money saving methods.

EASY MONTHLY PAYMENTS So small that you will not notice it while you enjoy the use of this wonderful machine.

FREE BOOK OF FACTS Explaining Shipman Ward's wonderful system of rebuilding typewriters and also valuable information about the typewriter industry both instructive and entertaining.

Act Today! Mail Coupon

5 Year Guarantee

Shipman Ward Mfg. Company
1949 Shipman Building
Montrose & Ravenswood Aves., Chicago

Please send me a copy of your free book of facts, explaining bargain offer.

Name.....

St. and No.....

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



Trick Saves Life

Unarmed man takes gun away from hold-up man

When a hold-up man thrust his gun into the face of D. E. Cox, on a lonely Alabama road, he got the surprise of his life. The next moment found him on the ground, and the gun in the hand of Mr. Cox.

What would you give, in case of danger, to be able to do the same? To know that under all circumstances you could protect yourself and those dear to you against insult or injury?

The boy who gave the Alabama highwayman such a rough surprise was not a superman—nor was he a rowdy or a bully himself. He simply knew the secrets of scientific wrestling. He had learned them at home (as thousands of other young men and boys are learning them) through a course in wrestling prepared by two of the greatest wrestlers who ever lived—Frank Gotch, the world's champion, and his trainer, Farmer Burns. He writes:

"..... I successfully took the gun away from him with the trick shown in your sixth book of lessons, although he was 50 pounds heavier than myself. Your course was undoubtedly the means of saving my life."

Wrestling Secrets Revealed

by Frank Gotch and Farmer Burns

You may learn the trick which saved the life of D. E. Cox and hundreds of other marvelous blocks, breaks, falls, and holds—you may become an expert in wrestling, the world's finest, cleanest sport (encouraged by churches, Y. M. C. A.'s and the Government)—and you may develop a magnificent physique—all taught to you by mail without your leaving your home. The instructions of Frank Gotch and Farmer Burns are a revelation to men and boys. Wrestling makes strong men stronger and weak men strong. It is the healthiest exercise in the world besides a fascinating sport and the finest kind of self defense. Start today to be an expert wrestler! You Can.

Free Book Send Coupon!

The coupon brings a valuable illustrated wrestling book explaining how you may learn to handle big strong men with ease and have a fine physique. Lots of pictures. Trick holds shown. Sending the coupon puts you under no obligation.

Please send at once without any obligation on my part your free illustrated book on Scientific Wrestling, Physical Culture, Self Defense, and How to Win.

Farmer Burns School
3459 Ry. Exchange Bldg.
Omaha, Neb.

Send it Now!

Name _____
Address _____
Age _____

that the body cannot utilize such fuel except when its chemical integrity is provided for by the balancing elements, which have been taken out of the natural rice in the course of its polishing, which consists in the removal of its brown overcoat. Rice as Nature grows it is a light brown, and in that brown overcoat is contained the mineral salts and vitamins that make the whole grain of rice an adequate food. Pigeons fed on the polished rice develop neuritis and paralysis, from which they promptly recover when they are given the brown covering of the rice, a solution of it, or the whole natural rice itself. Races for whom rice represents the "staff of life," and who depend upon it almost exclusively, develop beri-beri when eating polished rice, but not when using the natural brown rice.

The lesson of all this is that if we eat rice it should be the whole natural rice. If we eat bread it should be the whole grain bread. If we use corn for cereal purposes it should be the whole grain corn. And if we do that we will find ourselves eating foods that "satisfy." And that, I believe, will almost solve the problem of overeating in most cases. If you should happen to eat very heartily one meal you would not be so hungry the next meal, and would not eat so much. This business of overeating, in short, seems to be largely a matter of eating too much of the wrong foods, while it is doubtful if one is naturally inclined to eat too much of the right foods.

Fighting Methods— New and Old

(Continued from page 50)

would be kept waiting until it was Sam's pleasure to appear. He sent that message to Ketchell and the one Ketchell sent back burned Langford's kinky hair. Sam went into the ring first and ten minutes later Ketchell came in. He walked to where Langford sat with his back turned.

"Hello, Shoe Polish," said Ketchell to the dusky Sam. "I'm going to shine up the canvas with you tonight."

Langford's surprise left him speechless. When the bell rang Langford started to advance; always he'd been compelled to come after his man. But not with Ketchell. Stanley rushed, and before Langford knew what was happening, Ketchell had sunk his right glove almost to the wrist in the pit of Langford's stomach. When the fight was over someone asked Langford whether Ketchell could hit.

"Lawd man!" said Langford. "Can dat man hit? He done drobe mah stomach fru mah kidneys. Hit? Dass just whut he can do."

McGovern was that kind of a champion; so was Fitzsimmons. Grant was that kind of a General when he led the armies of the North against those of the South; so was Ludendorff when he sought to batter the whole world into submission by reverting to the fighting methods of the stone era when sheer force must conquer. But times have changed and fighting methods in the thing that we now call boxing have changed also and kept pace with the changes in warfare. You can trace it down through the ages and the centuries, even the generations.

21 Jewel Burlington



LOOK!

Adjusted to the Second
Adjusted to Temperature
Adjusted to Isochronism
Adjusted to Positions
21 Ruby and Sapphire Jewels
25 Year Gold Strata Case
Your choice of Dials
(Including Montgomery Railroad Dial)
New Ideas in Thin Cases

Only \$100 Down

Only One Dollar Down will buy this masterpiece of watch manufacture. The balance you are allowed to pay in small, easy monthly payments. The Burlington—a 21-Jewel Watch—is sold to you at a price much lower than that of other high-grade watches. Besides, you have the selection of the finest thin model designs and latest styles in watch cases. Don't delay! Write for the FREE Watch Book and our Special Offer today.

Write

While this Special Offer Lasts

Get the Burlington Watch Book by sending this coupon. Find out about this great special offer which is being made for only a limited time. You will know a great deal more about watch buying when you read this book. You will be able to "steer clear" of the over-priced watches which are no better. Remember, the Burlington is sent to you for only One Dollar down, balance in small monthly payments. Send the coupon for watch book and our special offer Today! Do not delay one minute!

Burlington Watch Co., Dept. 57-79
19th St. and Marshall Blvd., Chicago, Illinois
Canadian Address: 62 Albert St., Winnipeg, Man.

Please send me (without obligations and prepaid) your free book on watches with full explanation of your \$1 down offer on the Burlington Watch.

Print name and address plainly

Name _____

Address _____

The Mat

(Continued from page 62)

The only difference between their act and a "strong man's" act is that they substitute their own body-weight for the weight lifter's heavy dumbbells and barbells.

Just watch the hammer thrower and shot putter, either in practice or in contest, and notice the elasticity of his waist and lower-back muscles, how responsive the hip and leg muscles are to back up that "snap" of back and shoulder that hurls the hammer or shot past the record mark.

Take the wrestler, the fastest athletic machine of all, whose physical endurance is capable of sustaining the most strenuous muscular efforts for hours when needful whose muscles are so pliant and flexible as to allow him to imitate a contortionist, by being doubled up in the most complicated holds, and yet retain his wonderful strength, and "break" where other athletes would be absolutely helpless. Examine his back and chest particularly, and note the depth of muscle and the remarkable development of same. On his feet he is as agile as a cat, every muscle pulsating with his vigorous vitality, and full of action and speed.

The greatest wrestlers that the world ever produced owed their great superiority on the mat over all others to their exceptional ability to manipulate weight. Hackenschmidt, Lurich, Zybylko, and many others were all great weight lifters, and their training practice was controlled by the use of bar-bells. Their capacity to elevate huge poundages with bar-bells intensified their power on the mat. The opponent's body-weight never came up to near the amount they could elevate overhead, only in a few very exceptional cases, and many times I have seen wrestlers, particularly the first two mentioned, match their opponents off the mat, and hurl them overhead as tho they weighed nothing. There was no chance of hugging the mat when you had those boys to contend with. Their physical strength was enormous, and they were just like a flash in action. This was all due to the consistent practice with barbells and there certainly was nothing slow about these men.

Most average people believe boxers are the quickest athletes, both on foot and with hands, and herein lies a good argument. The mightiest of them all were Sullivan, Fitzsimmons, Jeffries, Johnson, and Dempsey. Examine their lives, and see what you will find. Each man was tremendously strong, particularly Sullivan, Jeffries and Johnson. These three men could shame lots of professional strong men. Why? Because they had developed their powers by handling heavy weights, they had each been aspirants with weights during their career. John L. made a reputation for himself as the "Boston Strong Boy" having exceptional ability in the use of barbells. For exceptionally big men they were all speedy, and the tremendous shoulders and back development they possessed gave them that terrific punching power that has made their names live when other names have passed away.

The different athletes named are of the type that demands great strength, agility and endurance, quick response from every

muscle and the ability to apply themselves with vigorous alacrity. And when all is summed up, they are all heavy-weight manipulators, and come under the category of athletes who should be slow, if we are to believe the chorus of those who sing, "Barbells make you slow and muscle-bound," but even casual observation proves to the most impartial minded that there is nothing slow about those boys.

We will now pass on to the weight lifter, the man who continuously uses barbells both in training, and for sport.

Any student of weight lifting knows that in order to excel in the "snatch" lifts either with one or two hands, he *must* be exceptionally fast; his muscles must be able to supply that vigorous nervous action that give exceptional "pep" or "snap" to the muscles that control speed lifts. Then comes the "swing" with its combination of speed and power like the "snatch," but which compels more exact "timing" of movement, because in this lift there are more movements, changing of bodily postures in order to eliminate reactionary movements of the lifter's body-weight that would slow up the weight in its course. In other words, your muscles must be taught instinctive co-operation, to act automatically, and in order to do that, they must be fast.

Then we come to the king lift of all, the one that calls for more all-round co-operation, greater strength, coupled with the speed and timing of the "snatch" and "swing"—the two hands "jerk." There have been more people in the world able to swing their body-weight overhead with one hand (an exceptional feat) than there have been men capable of elevating double their body-weight in the two-hand "jerk," simply because in order to accomplish that almost miracle, you have to be extraordinarily fast and strong, to be in the same class with Paddock. Strength and speed made it possible for him to create a new sprint record. The only difference, you have to be exceptionally strong in muscular power, and because the elevation of double the body-weight feat has been done on four or five occasions, it proves that the more muscular power a man obtains, the greater speed he can acquire, just the opposite to what our crepe-hanging friends state.

No, my friends, proper bar-bell instruction and practice turns out the fastest and strongest all-round athletes of the lot, men who are capable of excelling at more sports than any other athlete. I could fill a book on stunts that various lifters can do with weights in fast acrobatic and tumbling work, that other athletes cannot do without weight, but I am sure that here is enough proof to attest to the bar-bell qualifications and prove that their use is productive of the fastest, strongest, and most supple of athletes.

In the last few issues we have been discussing for our topic "How many times can you chin yourself?" and we received in the meantime, during that discussion, many letters and reports from body-building enthusiasts, telling us how many times they could chin themselves. Some of them were

Quickly Learn to Play Hawaiian Guitar

Play Like This Native

Bring the romantic, enchanting entrancing and melodious strains of the great instrument of the Hawaiian Islands into your soul. Become popular and successful. This short cut method of home instruction enables you to quickly master Hawaiian Guitar so you will play as well as Native Hawaiians.

Our staff of Hawaiian instructors have perfected a method of teaching, so simple, that without musical knowledge, you quickly learn to play real music from notes. Simple as learning your A, B, C's and it will not be long before you will play latest Broadway hits.

Only four simple motions to learn. You will then play any music, whether it be popular, dance or classical. Almost 1000 free first lesson, you play love songs like Aloha Oe.

To help you get started, we furnish free when you enroll as a student, a beautiful, full tone, genuine, \$18.00 Hawaiian Guitar. Only \$2.00 free instruments given away; if you want to get in on free offer, write for particulars at once—you must act quickly.

New Invention—Kno-All-Chart

Quickly Teaches You How to Play

The newest invention of our Hawaiian instructor, which is exclusively used by us and which we call the "Kno-All-Chart," quickly teaches you how to play and read notes. So simple in this device that anyone can understand it and begin to play immediately.

Picture Method Easy

We do not depend upon our printed instructions alone for your success as a student, but we also supply you with many pictures of our professors' playing. This enables you to imitate the pictures.

Isn't this easy?

Phonograph Records Free

As an additional guide, we also furnish you with phonograph records of our Hawaiian instructor for a few playing of the piece you are learning. This practically brings our professors from our studio to your own home and enables you to listen to their playing just as if they were actually in front of you.

Genuine \$18.00 Hawaiian Guitar Free

Enroll as a student, and secure free, a beautiful, full tone, genuine \$18.00 Hawaiian Guitar. We also furnish every bit of equipment so it is never necessary for you to spend an extra penny. When you graduate, you get a beautifully engraved diploma and a free graduation service and consultation. Send for free particulars now.

Send for Free First Lesson and Book

So positive are you will become one of our students, that if you write at once, we will send you free, our first lesson which will enable you to see just what you can expect when you enroll. You will also receive our big book of full particulars. Write for your copy and free lesson today.

You will be one of the lucky ones to have a free Hawaiian Guitar reserved for you—write at once.

Hawaiian Studio No. 8212
of New York Academy
of Music
212 Fifth Ave.,
New York, N.Y.

JAZZ

Your Way to

Popularity and

Success

No forming class

to wait for. Start

at once and join hand

wagon of success and popu-

larity. Do it through Ha-

waiian Guitar.

13 WEEKS FOR 15 CENTS

The Pathfinder

SHOWS THE WAY THROUGH THE JUNGLE OF EVENTS

You've heard your neighbor praise this wonderful weekly magazine that 3 million people read. Unbiased digest of national and world affairs.

Check full of the kind of reading you want. Science, politics, travel, fun, question box, books, health, home, radio—entertainment and instruction for all. Send 15c (coin or stamps) today for this big paper on trial 13 weeks, or \$1 for 1 year (52 issues).

PATHFINDER, 612 Langdon Sta., Washington, D. C.

WANTED — Railway Postal Clerks

\$133 to \$192 A MONTH MEN—BOYS 18 up

Travel—See Your Country

FRANKLIN INSTITUTE, Dept. S-183, Rochester, N.Y.

Rise: Send me, without charge, (1) specimen Railway Postal Clerk Examination questions; (2) list of U. S. Government jobs now obtainable; (3) Send free sample coaching lesson.

Mail coupon Today: Sure Name Address

FREE This Package of Whole Wheat Crackers

Famed for Delicious Flavor
Good for You
Good for the Children.



This photograph is only one-ninth the actual size of the package of Wheatworth Crackers sent you absolutely free. These crackers are endorsed and recommended for flavor and wholesomeness by Alfred W. McCann, Dr. Harvey W. Wiley, Luther Burbank, and other leading pure food authorities.

WE want you to try Wheatworth Whole Wheat Crackers at our expense, because we want to prove to you how wonderfully delicious and nourishing they really are. 100% body and brain food in tempting cracker form—nut-sweet, crisp and fresh. Taste them for yourself. Enjoy them with tasty fillings of butter, peanut butter, cheese, jelly or jam; break them in a bowl of milk; or eat them plain—right from the box. The children, too, will love them. Right now, while you think of it, mail this coupon with 4 cents in stamps to cover postage, and the special FREE trial package will be sent by return mail.

FREE SAMPLE

F. H. Bennett Biscuit Co.,
133 Ave. D, Dept. L, New York City.

I enclose 4 cents in stamps to pay for postage on Free Sample Package Wheatworth Whole Wheat Crackers, to be sent promptly to address here given.

Name.....
Address.....

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.

Be a Radio Expert

EARN \$3000 to \$9000 a Year

Enter fast growing radio field, thousands of big pay jobs waiting for you. U. S. Gov't., Steamships, R. R.'s, Corporations eagerly seek Radio trained men. Advancement rapid, earn from \$3000 to \$9000 yearly.

Prepare for Big Pay in Spare Time

My reputation as Radio Engineer and instructor insures you complete, speedy success, at home in sparetime; earn while you learn. I make you expert in radio designing, building, repairing and operating and teach you only practical "inside" dope. You quickly complete my course and step out into Big Pay. No experience required.

FREE RADIO OUTFIT 1000 MILE TUBE SET

For a short time I will give tube radio set in handsome cabinet to men who enroll now, absolutely FREE. Send at once for my FREE wonder-book of inside Radio "dope."

A. G. MOHAUPT, Radio Engineer,
RADIO ASS'N OF AMERICA
4513 Ravenswood Avenue, Dept. 1412, CHICAGO

Dear Sir: Send me your FREE Radio Book and your limited plan without cost or obligation.

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



fairly creditable, and some of them were splendid, according to their body-weight, for as was explained, we did not expect a 200 pound man to be able to chin himself as often as a lighter man, but the results would be the same in proportion to their body-weight, and the amount of times they were able to perform the "chins." This we do know—that our amicable controversy was the means of enthusing lots of young fellows into trying the stunt themselves, and thereby a pleasant piece of recreation supplied the means of creating muscular development they probably had not thought of before. It was the means of demonstrating to lots of fellows who had poorly developed biceps, how they could increase their biceps proportions by this simple stunt of "chinning." You will, therefore, realize that in a pleasant and unusual way, we endeavor to solve your problems in physical development, so that you will be benefited by your practice. It allows you to train the apparently unresponsive muscles from a new angle, when you forget your discouragement, and find new "pep." This has another benefit, by making your training practice upon that certain part of the body that grows less quickly, more hopeful.

You know, the body is like a field; one farmer is a failure at producing crops, and another will come along and work the field from another angle, and produce a fine yield of produce. Yes, the body is like a fallow field; it is always fertile, never unresponsive, but it all lies in the way you handle it. The more you study your ground, the better development you are bound to attain.

Your body demands a mental analysis. Many of you are unable to find a solution, simply because your experience along those lines has been limited, but that is what "The Mat" is for, to settle your problems in the most effective way.

I have frequently been asked for some method, or form of exercise to develop the calves of the legs; so this month I have decided to talk about calf development, and show you some very interesting ways that will make these very unresponsive muscles respond more rapidly to treatment. I do not know of a single body-builder who had only ordinary sized calves to commence with, that was not faced, sometime during his training, with the fact that every other part of the body has responded to growth much faster than the calves. Generally, they did everything they could think of, with very little success. It becomes discouraging I know, for I faced the same issue during the early part of my career. Although I always had heavy hip and thigh muscles, and a fair calf measurement, my other development became so pronounced as to make me look top-heavy. I felt I was up against a snag, and I sat down and wondered what others had done. Subconsciously, the answer was given me. THINK. That was just what I did, and my efforts were rewarded. I have always passed them on, and I am giving them here for your approval, and I know the fundamentals of this explanation will be new to you.

The whole trouble with the calves lies in the fact that with their continuous use in walking, the muscular tissue becomes very

LOFTIS BROS. & CO. 1838

DIAMONDS WATCHES

Cash or Credit

MAKE WORTH-WHILE

Christmas Gifts

A handsome Genuine Diamond or a Watch, Wrist Watch, Pearl Necklace, Opal or Emblem Ring, Mesh Bag, Silverware, etc., is sure to please. We have endless assortments of Gifts appropriate for everyone.

We Invite comparisons.

Send for Catalog

Over 2,000 Illustrations of Diamond-set Jewelry, Watches, Wrist Watches, Pearls, Mesh Bags, Silverware, etc. Sent prepaid for your

FREE EXAMINATION

Genuine Diamonds GUARANTEED

TERMS: Goods delivered on first payment of one-tenth of purchase price; balance in equal amounts payable weekly, semi-monthly or monthly at your convenience.

Satisfaction Guaranteed or Money Refunded



No. 12
Blue White Diamond. Solid 18-k White Gold. \$50. Terms, \$5 down, then \$1.25 A WEEK



No. 33
Blue White Diamond. Solid 18-k White Gold. \$75. Only \$7.50 down, then \$1.25 A WEEK



No. 34
5 Blue White Diamonds, 4 Sapphires, Platinum. \$200. Only \$20 down, then \$7.50 A WEEK



No. 35
Blue White Diamond, Solid 18-k White Gold. \$37.50. Pay \$3.75 down, then \$1.00 A WEEK



No. 27
Dazzling Blue White Diamond. Solid 18-k White Gold. Price \$100. Pay \$10 down, then \$2.50 A WEEK



No. 36
Blue White Diamond. Solid 18-k White Gold. \$25. Only \$2.50 down, then \$3.25 A WEEK



WRIST WATCH

No. 49 - Solid 18-k White Gold, 17 Jewels. \$40. Delivered on first payment of \$4.00, then

\$1.00 A Week



17 Jewel Elgin Guaranteed 25 Years

No. 15 - Green Gold, engraved Assorted patterns, 12 Size, gilt dial, \$30. Delivered on first payment of \$3.00, then

\$1.00 A Week

LOFTIS

BROS. & CO. THE OLD RELIABLE ORIGINAL CREDIT JEWELERS DEPT. G-287 108 N. State St., Chicago, Ill. Stores in Leading Cities

Send for the Loftis Catalog

A PERFECT LOOKING NOSE Can Easily Be Yours



Trados Model No. 25 corrects now all illshaped noses quickly, painlessly, permanently, and comfortably at home. It is the only safe and guaranteed patent device that will actually give you a perfect looking nose. Over 87,000 satisfied users. For years recommended by physicians. 16 years of experience in manufacturing. Nose Shapers is at your service. Model 25 Junior for children.

Write for free booklet, which tells you how to obtain a perfect looking nose.
M. TRILETY, SPECIALIST
Dept. 2182 Binghamton, N. Y.

"The Science of Wrestling and the Art of Jiu Jitsu"

The most elaborate instructions in wrestling ever produced; highly illustrated from life. Every hold of any importance is fully explained in detail; also methods of counteracting these holds. Two hundred and twenty-four pages. Bound in leather and embossed in gold.

By Earle E. Liederman

PRICE
\$3.00

EARLE E. LIEDERMAN,
Dept. B, 305 Broadway, New York City

INNER-CLEAN

TRADE MARK
ASSISTS
NATURE

Prof. Arnold Ehret's genuine Inner-Clean. A natural food addition to relieve Constipation and other digestive disorders.

MADE OF AROMATIC HERBS.
Intestinal Scourer and Stomach Cleanser.

Not a drug but a laxative food.

Sent for \$1 Postpaid.

DR. BENEDICT LUST, 110 E. 41 St., Dept. S, N. Y. 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 cigarette, pipe, cigars, chewing or snuff. **Ni-O-Tine** (Wonderful Sanitarium treatment) tablet, by converting thousands of worst cases) will free you from the craving quickly and for good. No more desire for tobacco. Harmless. Guaranteed. Sent On Trial Postpaid. Small sum if cured. Not a cost if it fails.

Write today for full remedy on trial.

PERKINS CHEMICAL CO., Dept. 63, Hastings, Nebr.

BECOME A LANDSCAPE ARCHITECT

Dignified, exclusive profession. Little competition. \$5,000 to \$10,000 incomes for experts. Easy to master under our correspondence method. Assistance extended to students and graduates. Write today for full details.

American Landscape School, 98th St., Newark, New York

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.

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 pubic 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 Trial of Plapao absolutely FREE.

Write name on Coupon and send TODAY.

Plapao Co., 610 Stuart Bldg., St. Louis, Mo.

Name.....

Address.....

Return mail will bring Free Trial Plapao.

finely knit, and therefore very set and hard. Before these muscles, or any others as far as that goes, will respond to growth, the old muscular tissue must be broken down in order to allow the new tissue to grow. Ordinary exercise will not do it so effectively. Therefore you must find a way that will break the old tissue down, and allow you to progress.

In this case, I recommend practice every night. On the night you perform your regular practice for the whole body, perform the calf exercise twice, observing the same rules as I shall explain to be adapted on the night in between.

Perform the following exercises in the manner described. Take a 40 or 50 pound dumbbell in one hand, and stand on one foot only. Keep the knee locked, and whole leg perfectly straight to commence with, and all through the performance. Now, VERY SLOWLY raise up onto your toes as high as you can, and when at the limit of height, hold the position for a second or two before lowering the heel to the ground. As soon as the heel touches the floor IMMEDIATELY rise again, and repeat this movement. When you have performed the exercise only nine times in this very SLOW CONTINUOUS WAY, you will feel that your calf muscles are working. Perform the movement twelve times with each leg, and transfer the weight into the other hand, always holding the weight on the same side as the leg you are exercising. You may have to allow the tips of your fingers to rest against the wall, or on the back of a chair, but do not make the mistake of leaning any of your weight on the chair or against the wall.

When you have performed this exercise once, massage the calf gently, then rest by doing another exercise for some other part of the body. Never sit still, and keep off the feet during the rest, for this reason. When you perform an exercise, the blood is always drawn to the affected area to supply the muscles in action with lots of fuel; therefore you need all the blood supply possible. Now here is the important part. Under old methods you generally performed an exercise a large number of times. They became an exertion, and then exhaustive, simply because you performed the exercise so much that enough blood could not be drawn fast enough to the affected area, that caused the muscles to become exhausted. Under my advice here given, you are told to perform the exercise twelve times. (You all can do this amount to start on, and give you lots of tension too.) Then you are told to rest, because herein lies the secret. You perform the movement until you feel a comfortable strain on the muscles, having ceased well before the exhaustive reaction takes place. Lots of blood is then functioning around the muscular area. By the rest, more blood is drawn to recuperate, that gives you a reserve supply to continue the next calf exercise that follows. After the rest, that has been taken care of by another exercise for some other part of the body, you commence this other calf exercise. Fasten a 2x3 piece of wood to the floor, and place a bar-bell of about 50 pounds across the back of the neck, then place the balls of your feet on the edge of the board. Your heels



Become a Big Salesman

J Would you like to be a star salesman? Men who have mastered salesmanship—who are really proficient—name their own salaries. \$5,000 to \$10,000 a year and better not uncommon. Big money and opportunities in business always open to men who can SELL. Success in selling field leads to highest executive positions. Demand enormous. Old theory about "born salesman" exploded. Any man of average intelligence can now learn to sell thru scientific coaching. Training, the secret. Write today for free book, "MODERN SALESMANSHIP." It tells how you can quickly get into the selling game and win your way to the big-pay jobs. Learn in spare hours at home principles and methods of ablest sales organizations in America. Successful salesmen report sales doubled and trebled thru scientific study of salesmanship under LaSalle Problem Method. Low tuition fee—easy terms. Write now for information.

Open
LASALLE EXTENSION UNIVERSITY
The Largest Business Training Institution in the World
Dept. 12389-SR Chicago, Illinois

Gentlemen: Send without obligation to me information regarding course indicated below:

- Modern Salesmanship
- Business Management Modern Business Correspondence and Practice
- Higher Accountancy Modern Foremanship and Production Methods
- Traffic Management—Foreign and Domestic Personnel and Employment Management
- Railway Station Management Expert Bookkeeping
- Law, Degree of LL. B. Business English
- Commercial Law Commercial Spanish
- Industrial Management Effective Speaking
- Efficiency C. P. A. Coaching
- Banking and Finance

Name.....

Present Position.....

Address.....

At Last—a Perfect Coffee Substitute

A DELICIOUS, economical beverage with the true coffee flavor but without coffee's harmful results. Made entirely from cereals and fruits, skillfully blended and roasted. Rich in actual food value. No artificial preservatives or coloring matter. Try this perfect substitute and you'll never use any other.



Lindlahr Health Coffee

The 100% Food Beverage

Made under direct supervision of Dr. V. H. Lindlahr, of the world-famous Lindlahr Sanitariums. Guaranteed free from Caffeine and all habit-forming drugs. Used with splendid results by hundreds of convalescing patients. Equally good for young and old. Costs less than bean coffee and is more easily prepared. No danger from drinking too much. Price 30c a lb. Send for Trial Package! To introduce this wonderful new beverage, we offer a special 2 lb. trial package for only 55 cents plus few cents postage. Order today at our risk. Money back if not satisfied.

LINDLAHR SANITARiums
Supply Dept.
505-525D So. Ashland Blvd., Chicago



Pick Your Own Job!

Uncle Sam Needs Men

QUIT worrying about your job or your pay. Uncle Sam wants you in his Civil Service in a fine job you can't lose for political, personal or religious reasons. No experience needed. Good pay, short hours, 30-day vacation, sick leave with full pay. Pick the job you want—Postmaster, Postal Clerk, Customs Inspector, etc., etc. Positions for men and women. Arthur R. Patterson, once member of Official Board of Examiners, coach you at home. Write for BIG FREE BOOK today. Tells all about Civil Service, and money-back guarantee that you must pass with high mark so you will be offered job you want.

Patterson Civil Service School
Dept. 8812
Rochester, N. Y.

Patterson Civil Service School, Dept. 8812, Rochester, N. Y. SIRS: Send me without charge your Catalog, explaining your guaranteed preparation.

Name: _____
Address: _____

COMPLETE HOME GYMNASIUM OUTFIT

"Hendrickson Combination" \$5
SPECIAL OFFER ONLY \$5
Best material and workmanship. (\$10 Value)
Better than ever. Perfect satisfaction guaranteed.

FREE with Every Outfit
3 DISTINCT TRAINING MACHINES 3 COURSES OF PHYSICAL EXERCISES



Spring Exerciser: For general all-around muscle development.
Grip Machines: Produce powerful arms and vise-like grip.
Chest Expander: Fast developer of arms, shoulders, back, lungs.

Send for the 3 Outfits TO-DAY Postpaid only \$5.
Lind-Hendrickson (Makers), V-63 Doy St., New York

FREE Your Name in Gold \$175 VALUE

Inlaid in Gold NEVER SOLD FOR LESS

YOUR NAME HERE

THE PERFECT WRITING INSTRUMENT
The New Improved Inkograph Writes like pencil with ink better than good fountain pen. Won't skip, blot, scratch, leak, clog or soil bands. Makes 3 or 4 carbons. 14 kt. gold point. Absorbs like fine lead pencil point. Guaranteed. SEND NO MONEY. Easy postman's bill plus postage. Agents wanted. INKOGRAPH CO., Inc., 171-T Centre St., New York

Rejuvenation

by the famous author, W. J. Fielding. All the facts about the miracles of science extending the span of life; stopping old age, rolling back the years to youthful physical and mental activity.

25c

LIMITED EDITION

Vest pocket size, flexible, real leather binding; an attractive gift volume; opening up new life vistas; explaining impartially and fully what gland transplantation does. Interests both men and women. Tells all you want to know about this fascinating and vital subject. The edition is limited—send 25 cents today in coin or stamps for prepaid copy.

BRINKLEY PRESS, Dept. A, Millford, Kans.

will be much lower than the level of your toes. This will call for greater calf muscular action in performing this exercise, by raising as high as possible on to the toes. Hold the position for a second or two, when at the limit of your height as in first calf exercise, before lowering. Do the up and down movements very slowly, about twelve times, and then massage the calves gently, and rest them again by repeating another chest, neck or arm exercise. Then you repeat the first exercise over again, but do not try to perform the leg movements as many repetitions as you did the first. You can't without exhausting the muscles. *Forget repetitions.* They must be the minor thought in your mind. Let the feeling of your calves decide how many times you shall perform the repetitions, doing the movements only as you feel comfortably able to do. When a person gets a set number of repetitions in his head, that is all he thinks about. He feels he must do them or burst. Do neither. It makes the exercise a feat and not a developing movement. Always remember that. You can perform the calf exercises as many times as you like, providing you follow the program given with a rest period between. When you have completed the exercises for the night, massage the muscles with warm olive oil. It is very soothing and helps to relax the fixed muscular tissue.

I am now going to give you another calf movement that will have the same effect as chinning the bar has, giving you a competitive pastime that has marvelous effects on the calf muscles. I have never seen it written of before, and I know you will like it. Any number of fellows can compete in this, and the more the merrier. You each take a similar poundage that you decide on, in each hand, 40 or 50 pounds is good. You then stand at attention on a mark, and when the word "Go" is given, you each imitate the German Goose Step, or what was known in my early gymnastic days as "The Gymnastic March." You raise the knee of one leg up as high as possible, then point the toe forward, reaching out with the leg as far as you can. As your leg reaches forward, you will feel the heel of the other foot raise from the floor. Now the important part lies here. You must always keep that leg stiff, when the heel raises off the floor until you are balanced upon the toes. Your forward foot will then be on the floor ahead, flat heel and toe, and you then begin to bend the knee of the back leg, raising in the same manner as you started out. In other words, you do a fair heel and toe walk to the Gymnastic March. The back must not bend, and any bending of same or reverting from heel and toe rules will disqualify a competitor. This little combination of sport and exercise will give your calf muscles all the action you want, before you have walked the distance agreed on, and just watch 'em grow. It is both a dandy developer and a teaser for sport. Try it.

GEORGE F. JOWETT.

For News of the American Continental Weight Lifters' Association see page 39.

Every month from now on, we will keep our readers informed of the workings of this Organization.

URINALYSIS

Anywhere by Mail—Send No Money

Every man and woman should have a scientific health test made each year. 1000 new subscribers added. The Robinson chemical and microscopical test is the same accurate and complete test required by leading life insurance companies. It will enable you to

Prolong Your Life.

Many prominent people use our service regularly. We do not prescribe medicines but recommend medical attention where test indicates it is required. Booklet on request.

Our Liberal Offer to You

Send no money. We will mail bottle and container. You then return sample to us. We give a complete report of 25 determinations, together with suggestions for improvement in health. If you are satisfied with the value of our service send us \$2.50. Otherwise return the report.

LOUIS G. ROBINSON LABORATORIES
1291 Harrison Bldg. Established 1907. Cincinnati, Ohio

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.

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

PILES DON'T BE CUT

Until You Try This Wonderful Treatment
My internal method of treatment is the correct one, and is sanctioned by the best informed physicians and surgeons. Ointments, salves and other local applications give only temporary relief.

If you have piles in any form write for a FREE sample of Page's Pile Tablets and you will bless the day that you read this. Write today.
E. R. Page, 350 D, Page Bldg., Marshall, Mich.

"The Science of Wrestling and the Art of Jiu Jitsu"

By Earle E. Liederman

The most elaborate instructions in wrestling ever produced; highly illustrated from life. Every hold of any importance is fully explained in detail; also methods of countering these holds. Two hundred and twenty-four pages. Bound in leather and embossed in gold. Price \$3.00. Earle E. Liederman, Dept. BB, 395 Broadway, New York City.

FOR FUN OR MONEY—VENTRILOQUISM

taught almost anyone at home. Small cost. Send Today 2c stamp for particulars and proof.

GEO. W. SMITH, Room M-923, 125 N. JEFFERSON AVE., PEORIA, ILL.

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.

Would You Spend to Relieve Your

CATARRH?

Head Noises
Hay Fever, Asthma
Deafness

Quick, permanent relief with Weber's Vacuum Apparatus (Dr. Bier's Hyperamia.) Many other uses. Results or money back. Sent on plate for \$6.50 or write for literature. R. J. Weber Co., 49 W. 42d St., N.Y.C.



PERSONAL Appearance

Is now 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 "Lim-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
1107, W. U. Bldg., Blinghamton, N. Y.



HEALTHY LUNGS AND A BIG CHEST

For Men, Women & Children

You can have strong lungs and increase your chest measurement five inches by following instructions in my book

"Chest Development and Correct Breathing"

Send for it TODAY. 25c coin

For 1 Anthony Barker, D. C.
865 6th Ave., Dept 331, N. Y. C.

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
110 GIRALTAR BLDG. KANSAS CITY, MO.

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.

DON'T SUFFER LONGER FROM RUPTURE

The Brooks Appliance. Most wonderful discovery ever made for rupture sufferers. No obnoxious springs or pads. Automatic Air Cushions. Blinds and draws the broken parts together as you would a broken limb. No salves. No plaster. No ties. Durable. cheap. Many imitations. None equal.

SENT ON TRIAL. CATALOGUE FREE.
THE BROOKS CO. 189-A. State St., Marshall, Mich.

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.

FREE BOOK
CLEAR-TONE

E. S. GIVENS, 206 Chemical Bldg., Kansas City, Mo

How Much Truth Is There in This Gland Business?

(Continued from page 41)

from a dead to a living subject, for the purpose of rejuvenating the system. This operation Dr. Lydston performed upon himself under local anaesthesia with the assistance of his office associate.

"About half the tissue had to be subsequently removed by Dr. Lydston because of the death of the cells. Their removal was necessary to avoid the dangers of general blood poisoning.

"Dr. Lydston wrote me that he had experienced a very pronounced benefit from these operations, not only in the greater vigor and virility, but also in the increased power of endurance for work he had developed.

"Some years later Voronoff, a Russian surgeon, performed a series of experiments, rejuvenating animals by means of transplanting into them the sex glands of a young, vigorous animal of the same species. He applied the same method to humans, transplanting into them the glands of anthropoid apes.

"However, the greatest impetus in the science of rejuvenation was given a few years ago by Professor Eugen Steinach, a Viennese biologist, who found that by ligating one of the ducts leading from the sex gland, an increased development of certain of the sex cells (the so-called interstitial cells) could be stimulated.

"Men suffering from a multitude of disorders that ordinarily come with old age, were relieved of their troubles in a very remarkable degree by these treatments.

"However, this operative treatment was not practical with women, as it entailed a very dangerous major operation. Therefore Steinach resorted to a method of stimulating the glands by exposing the patient to X-rays. In a certain percentage of cases very striking results have followed this exposure.

"The drawback to the uses of the X-ray lies in the fact that it produces complete sterility in the man or woman exposed to its rays, and in the hands of a physician who may not be thoroughly informed of the technique of its application, may produce serious burns.

"Because of this fact, certain French physicists undertook a series of investigations with various other forms of radioactivity. They finally developed a formula that produced rays of very high intensity, but that had no destructive effect upon the gland itself or, when properly applied, upon the skin or other tissues.

"This method consists in radiation of the endocrine or ductless glands. Men and women whose glands are exposed to the rays of this machine are apparently rejuvenated, so that they appear, and they actually do function, as though they were ten or twenty years younger than they are.

These rays have the same wonderful effect as sunlight, only they are a thousand times more potent and penetrate more deeply without harming the most delicate skin or tissue.

"I believe that the discovery of this new natural method of healing is going to do more to put an end to drug taking and pill peddling than any discovery made in modern times."

Food that brings! the Old Vigor back!



Vigor Chocolate is the food for quick strength—and for lasting strength. Whether you are an athlete in your prime or so run down physically that you can hardly retain a spoonful of solid food on your stomach, you will be greatly benefited by adding Vigor Chocolate to your daily diet, either as sweet cake chocolate or as a delicious beverage.

Creation of a Noted European Food Specialist

Although the wonderful news about Vigor Chocolate came to America as a startling surprise, its amazing value as a food and tonic has been well appreciated in Europe for many years. It contains the rich nutriment of high grade chocolate (without the usual indigestibility) blended with the food and tonic equivalents of cod liver oil, food iron, phosphates and beef extract.

Makes the Weak Strong—the Strong Stronger

Vigor Chocolate adds tremendously to health, vigor and energy without taxing the most delicate digestion. Eyes brighten, complexion clears, wasted tissues grow plump and firm, and you tackle your daily tasks and pleasures with a wonderful new force and swing. Vigor Chocolate costs somewhat more than ordinary chocolate, because it takes two months to make a cake and because it has many times the strengthening, nourishing value of ordinary chocolate in much more digestible form. Completely descriptive book, "Condensed Vitality," FREE on request.

HAUSWALDT'S Vigor CHOCOLATE

GENUINE IMPORTED

Order Coupon

VIGOR CHOCOLATE CO., Dept. 125
41 Union Square, New York City

I enclose \$1.50, for which send me your full pound package of Four 4-ounce cakes of Vigor Chocolate.

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



Hotels Start You With Salaries up to \$3500 a Year — with your living

Hotels, restaurants, clubs, apartments; everywhere need trained men and women—salaries to start up to \$3,500 a year with your living. Over 70,000 high-class positions paying up to \$10,000 a year are open every year in the hotels of the United States. Today this is the first INDUSTRY IN AMERICA with over 392,394,968 in new hotels being built in 1924—exceeding by \$200,000,000 the next largest industry. These new hotels, restaurants, etc., will need over 60,000 trained men and women.

You can have one of these high-class big-ray 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 hotel men years to obtain—men who are now making \$3,000 to \$50,000 a year. We train you by mail in your spare time at home with the Lewis Simplified Study Plan, and we 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 A-3788 WASHINGTON, D. C.

—FREE BOOK COUPON—
LEWIS HOTEL TRAINING SCHOOLS,
Room A-3788, Washington, D. C.
Send me without obligation the Free Book, "YOUR BIG OPPORTUNITY."
Name.....
Address.....
City.....

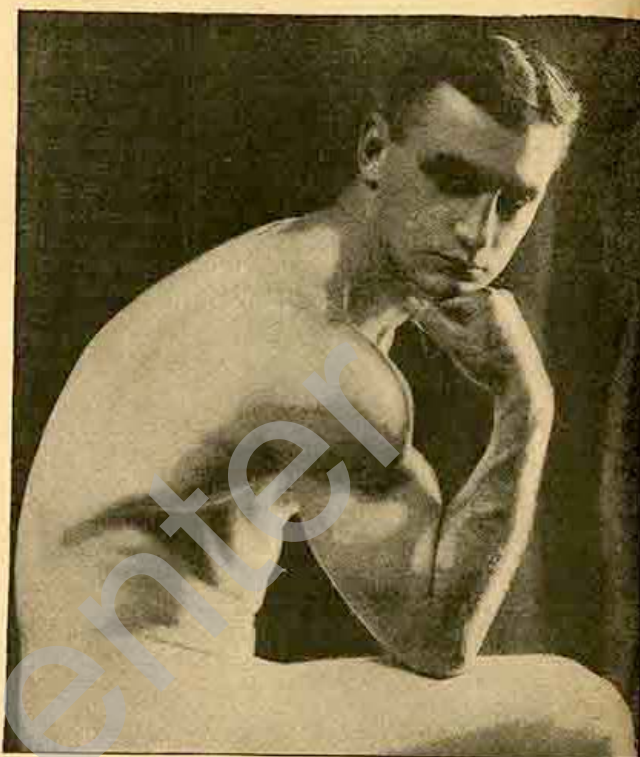
Look Down at the Wrestlers Below

I do not have to ask you if you would like to be able to throw your enemies (and for that matter your friends, too) like the wrestler below is throwing his opponent, for I know you would. Furthermore, I probably do not have to tell you that *you can do it easily*, if you know how and possess a little strength. The illustrated hold below is only one of a great number of *sensational holds* that I personally and clearly teach you to master in

My Brand New Course on Wrestling

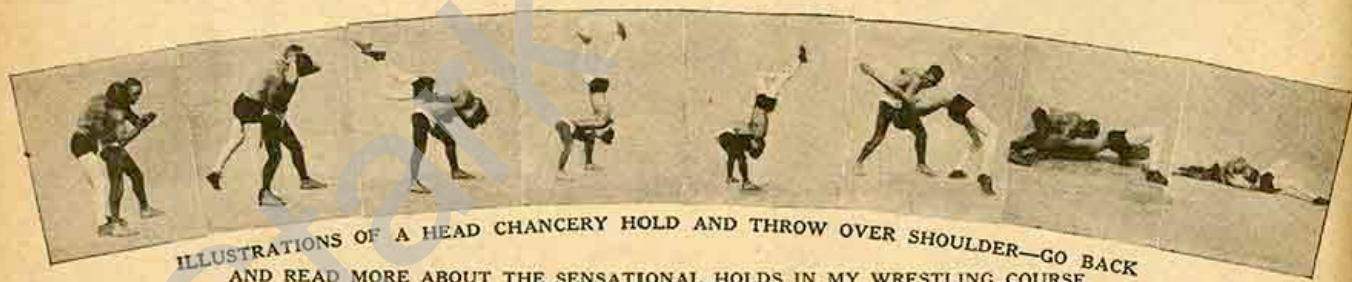
I have written this course because the great success of my new Tumbling and Hand Balancing Course, recently advertised, has prompted many of the readers of physical culture magazines to write in and ask me why I don't publish a course on *wrestling*, also.

So I have done this very thing and have succeeded in writing you a course which I personally believe is slightly better than its predecessor, and which gives you the most complicated combination holds in a very clear manner. Most courses on wrestling, I have found, are confusing to the beginner and amateur. That is why I have taken pains to give you a course that *is different*. The simplest and most difficult holds are all given with like clearness and care.



CHARLES MacMAHON

THERE ARE HOLDS THAT YOU NEVER KNEW EXISTED



ILLUSTRATIONS OF A HEAD CHANCERY HOLD AND THROW OVER SHOULDER—GO BACK AND READ MORE ABOUT THE SENSATIONAL HOLDS IN MY WRESTLING COURSE

—holds which by the combined strength of your legs and arms render your opponent powerless to break or prevent a fall for you. On top of this, there are *counters, blocks, breaks, circle outs*, etc., which enable you to make these same holds useless to your opponents. Do you know how to get the following holds: *the quarter, half, three-quarter, full and bar nelsons; the head locks; the numerous arm and leg chancery holds; the many variations of the scissors holds; the hammer lock*, etc.?

**This Course Will Make You Master of Them All
Mail the Coupon and \$3.00 Money Order Now.**

CHARLES MacMAHON

Studio A-27

180 W. Somerset St.

Philadelphia, Pa.

CHARLES
MacMAHON
180 W. Somerset St.,
Phila. Pa.
Studio A-27

Please find enclosed \$3.00
for which send me immedi-
ately your course on wrestling

Name.....

Address.....

City and State.....