

STRENGTH

Vol. VI., No. 5

JANUARY, 1922

Price, 15 Cents



*Don't Carry That
Tub of Fat
Around*

By JOHN MADISON JONES

Coffee and Condition

By

J. MORGAN THORN, M.D.

*That Constipation
Problem*

By WAINWRIGHT EVANS

*Athletics for Health
and Efficiency*

By WALTER CAMP

The Magazine of Good Health

"Mens Sana In Corpore Sano"

Read the Remarkable Story of Fred Rohde, another Milo-built Man, who says, "My health and success I owe to Milo!"

PHYSICAL perfection and mental alertness—that perfect coordination between body and mind—was well typified in that motto of the ancients, "A sound mind in a healthy body." It wasn't just a motto to hang over their desks or on the walls of their offices, but an honest-to-goodness rule for every-day life. And they had both. Have you?

Have you the strong, well-developed, perfectly functioning body that Nature intended you should have? Do you feel fit for any emergency, or does your day's work leave you exhausted, with your physical energy depleted and your mind saturated with inertia? You're in a rut, man! Get out of it! Listen to the story of Fred Rohde:

Fred Rohde followed the sea from the days of his early boyhood, and one day his wanderings brought him into the harbor of Honolulu aboard the S. S. *Great Northern*. While on shore leave he came across a copy of *PHYSICAL CULTURE* in the reading-room of the Y. M. C. A. One page of it in particular attracted his attention—the ad of Milo Bar Bell Co. On this page was shown a picture of a Milo pupil, and Rohde determined to equal the magnificent development shown in the picture. He clipped the coupon and started on the first chapter of a new life.

The regular and systematic use of his entire muscular system did wonders for him physically, as his picture shows. He soon became one of the mighty army of Milo-built men. So much for his physical development, but his mental development is even more interesting.

A Modern Miracle

Fred Rohde grew in mind as well as in body. His body was now strong enough to cope with all the hazards of a life at sea, but his intellect had grown too big for his job. He packed up his bar bells, and went ashore to live, expecting to be forced for a time to struggle along in a subordinate position. But not for very long. He soon found that the regular use of his muscular system had not only developed his body, but had also stimulated his mental processes as well. He came to realize the better gifts that were hidden in him, and began to study music. He is still a very young man, but is now a success in his chosen profession.

Perhaps you, too, are in a rut, and are only waiting for a mental awakening to go on to success. Whatever your ambition in life may be, a strong, healthy body will help you to obtain it.

Get Out of the Rut!

A sound mind in a healthy body, or a stupid brain in a sluggish body? It's up to you. Choose. You can have the strong, vigorous, dependable body that will enable you to tackle your daily problems with pep and energy, and a wide-awake brain that will be nourished and sustained by the flow of good, red, healthy, life-giving blood. Or you can have a feeble, under-nourished brain, housed in an anaemic body.

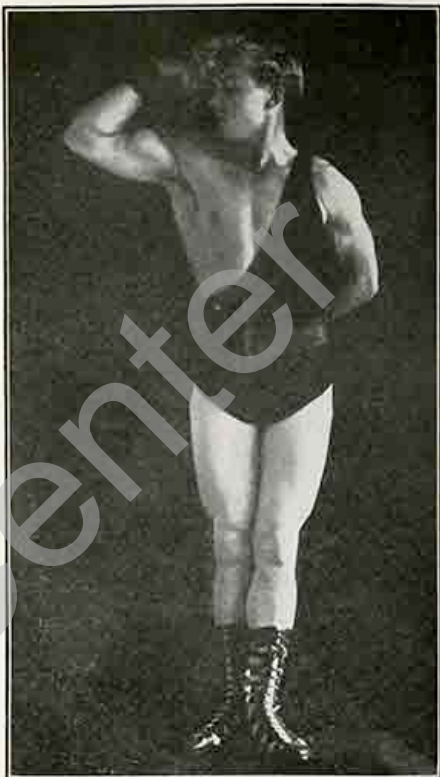
We do not guarantee to make you healthy, wealthy, and wise. But we *do* guarantee that if you practice our course of instruction for a half hour every other day, within three or four months you will have a strong, well developed body of which you can be justly proud. And you can bet your last dollar that when you are full of pep physically, there will be a corresponding increase in your mental powers.

We do not merely promise results, we guarantee them. If at any time within a period of three months after you enroll for our course of instructions, you are dissatisfied with the apparatus, the courses of instructions, or the results you have obtained, you are privileged to return them to us and your money will be refunded without question.

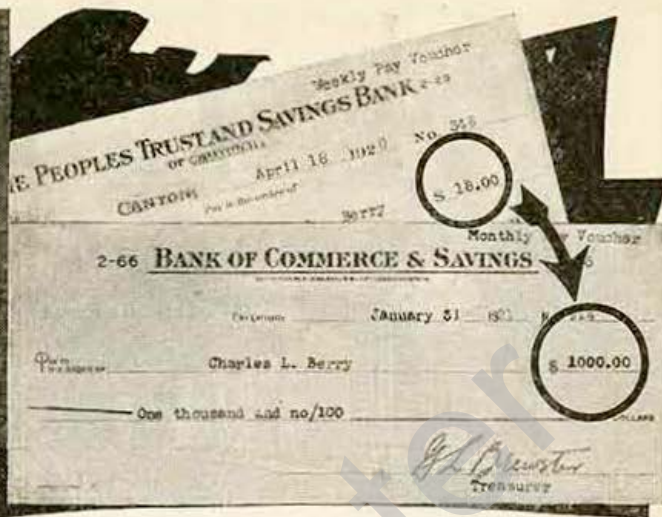
That's fair enough, isn't it? Our illustrated catalog will open your eyes to the possibilities of physical betterment, and does not obligate you in any way. Send for it to-day.

The Milo Bar Bell Co. Dept. 23
301 DIAMOND ST. Philadelphia, Pa.

Physical Culture Specialists and the largest manufacturers and distributors of bar bells, dumb-bells and kettle bells in the world



Fred Rohde, another Milo-built man, who says: "My health and success I owe to Milo."



Easier to Earn \$1000 a Month Than \$18 a Week

The Inspiring Story of Charles L. Berry

IT is a whole lot easier to earn \$1,000 a month than \$18 a week. I know—because I used to earn \$18 a week, and now I am making \$1,000 a month. I used to work mighty hard for \$18 a week—constantly worried over money matters, with no chance to enjoy the pleasures and luxuries of life.

Then suddenly I discovered the way to big money. Quick as a flash my earnings jumped to \$1,000 the very first month. Since then I have earned as high as \$2,130 in one month. And it was all so amazingly easy! I do not work half as hard for \$1,000 a month as I did for \$18 a week. My hours are short—I am independent—I travel—meet big men—and I enjoy every minute of my work.

In fact, I do not understand why any ambitious man should work for small pay when big earnings are within such easy reach. For what I have done, anyone can do. There's absolutely no doubt about it—and almost everyone has more advantages than I had to start with.

How I Jumped My Earnings to \$1000 a Month

I started as a farmhand, making about \$60 a month. A case of sunstroke forced me to quit. Then a job as a clerk in a variety store at \$18 a week. Probably I would have gone on indefinitely working for small pay if I hadn't discovered the secret of earning big money. I discovered that the big money is in the selling end of business and any man of normal intelligence and ambition can quickly become a Master Salesman.

Heretofore it was thought that a man must be a "born" Salesman. But now the wonderful opportunity to achieve quick and big success is thrown open to everyone through the National Salesmen's Training Association. This is an organization of top-notch Salesmen and Sales Managers formed just for the purpose of fitting men to become Master Salesmen.

I owe my success to the day I wrote to this great organization for particulars of their system of Salesmanship Training and Free Employment Service. The answer I received absolutely astounded me—it was nothing short of a revelation. I read how hundreds of men after slaving for years at small pay, suddenly stepped to magnificent earnings. There was Warren Hartle of Chicago, for

example. After ten years in the railway mail service earning \$900 to \$1,000 a year, he became a Master Salesman and made \$1,000 in thirty days.

George W. Kearns of Oklahoma City, earned \$524 in two weeks. He had previously been earning \$60 a month. And C. W. Campbell of Greensburg, Pa., wrote: "My earnings for the past thirty days are \$1,562 and I won second prize in March although I worked only two weeks during that month."

In short, the PROOF was so overwhelming that I immediately decided to accept the offer of the N. S. T. A. to make me a Master Salesman. This did not interfere with my work at all. It just required some of my spare hours at home. Almost before I knew it I found myself a thorough master of the Secrets of Selling and ready to accept a position as Salesman with a big company to which the N. S. T. A. recommended me. My first month in this position netted me \$1,000. In one step I left behind my small pay job for the magnificent earnings and fascinating career of a Salesman.

That is why I suggest that if you are ambitious to take your place in the ranks of the big money-makers, write to the N. S. T. A. Entirely free of cost you will receive a wonderful Book on Salesmanship, and amazing proof that no matter what you are doing now you can quickly become a Master Salesman, in your spare time at home. You will read how others are to-day earning five, ten and fifteen times as much money as they had ever earned before.

It was worth \$1,000 a month to me to write to the N. S. T. A. It may be worth that much or more to you. Just mail the coupon. There is no cost or obligation. Address National Salesmen's Training Association, Dept. 21-A, Chicago, Ill.

National Salesmen's Training Association

Dept. 21-A, Chicago, Ill.

Please send me your Free Salesmanship Book and Free Proof you can make me a Master Salesman. Also tell me how the Free Employment Service of the N. S. T. A. will help me to a selling position and send list of business lines with openings for Salesmen.

Name

Address

City State

STRENGTH

Vol. 6

JANUARY, 1922

No. 5

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

Table of Contents

	Page
Editorial	By Alan Calvert 8
Remember?	By Harry Barton Paschall 10
Athletics for Health and Efficiency	By Walter Camp 11
Exercises for Health and Beauty. By George W. Orton, Ph.D.	13
That Constipation Problem	By Wainwright Evans 17
Don't Carry That Tub of Fat Around	By John Madison Jones 19
Strength Thru Progressive Exercise	By Alan Calvert 24
Massive Muscles versus Efficiency	By Ralph Hale 28
Pictorial Section	31
Coffee—and Condition	By J. Morgan Thorn, M.D. 35
How to Develop the Muscles of the Abdomen	By O. R. Coulter 37
Head Locks and Chancery Holds. .By William J. Herrmann	39
Question Box	43
Records and Weight-Lifting	44

Published Monthly by The Milo Publishing Co.

Publication Offices, 301 Diamond Street, Philadelphia, Pa.

J. C. Egan, Editor D. G. Redmond, Publisher

Subscriptions, \$1.50 per year. Canada, \$1.75. Foreign, \$2.00.

Copyright, 1921, by The Milo Publishing Co.

W. T. EDGAR & CO., Ltd.

B. P. MADON

51 and 52 Chancery Lane, London, W. C. 2
Exclusive British Agents

Health Home; Santa Cruz, Bombay, India
Exclusive Agent for India

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

Science Discovers the Secret of Caruso's Marvelous Voice

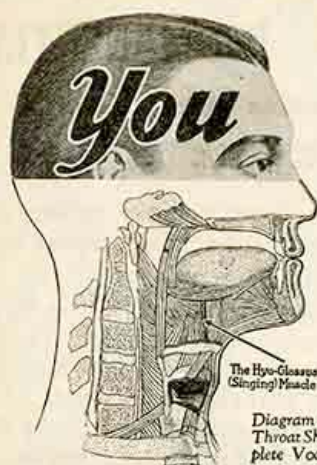


Diagram of the Normal Throat Showing the Complete Vocal Mechanism.

Caruso's Throat and Yours

Why is it that the humble peasant boy of Italy became the greatest singer of all time? This diagram of his throat will show you. Caruso's marvelous voice was due to a superb development of his Hyo-Glossus muscle. Your Hyo-Glossus muscle can be developed too! A good voice can be made better—a weak voice become strong—a lost voice restored—stammering and stuttering cured. Science will help you.

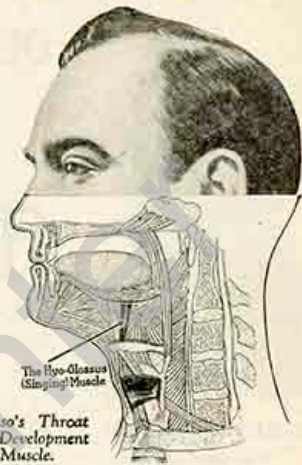


Diagram of Caruso's Throat Showing the Superb Development of his Hyo-Glossus Muscle.

We Guarantee— Your Voice Can Be Improved 100%

EVERY normal human being has a Hyo-Glossus muscle in his or her throat. A few very fortunate persons—like the late Caruso—are born with the ability to sing well. But even they must develop their natural gifts. Caruso had to work many years developing that muscle before his voice was perfect. Whether your voice is strong or weak, pleasant or unpleasant, melodious or harsh, depends upon the development of your Hyo-Glossus muscle. You can have a beautiful singing or speaking voice if that muscle is developed by correct training.

Prof. Feuchtinger's Great Discovery

Professor Feuchtinger, A. M.—descendant of a long line of musicians—famous in the music centers of Europe, Munich, Dresden, Berlin, Bayreuth, Vienna, Paris and Florence, for his success in training famous Opera Singers—discovered the secret of the Hyo-Glossus muscle. Dissatisfied with the methods used by the maestros of the Continent who went on year after year blindly following obsolete methods, Professor Feuchtinger devoted years of his life to scientific research. His reward was the discovery of the Hyo-Glossus, the "Singing Muscle".

Professor Feuchtinger went even farther into the Science of Singing.

He perfected a system of voice training that will develop your Hyo-Glossus muscle by simple, silent exercises right in your own home.

Grand Opera Stars Among His Students

Hundreds of famous singers have studied with Professor Feuchtinger. Over 10,000 happy pupils have received the benefits of his wonderful training.

There is nothing complicated about the Professor's methods. They are ideally adapted for correspondence instruction. Give him a few minutes each day; The exercises are silent. The results are sure.

The Perfect Voice Institute guarantees that Professor Feuchtinger's method will improve your voice 100%. You are to be your own judge—take this training—if your voice is not improved 100% in your own opinion, we will refund your money.

A Beautiful Voice for YOU

You do not know the possibilities of your voice.

If you want to sing—if you have always felt that you could sing but lacked the proper training because you had not

the time nor the means to study—here is your chance. Professor Feuchtinger's course will improve your voice 100%. You can now learn to sing at a very small cost and in the privacy of your own home.

If you want to improve your speaking voice—if you stammer or stutter—Professor Feuchtinger will help you.

Professor Feuchtinger's Book "Voice Culture" Free

Send us the coupon below and we'll send you FREE this valuable work on the Perfect Voice. Do not hesitate to ask. Professor Feuchtinger is glad to have us give you this book and you assume no obligations whatever by sending for it.

You will do yourself a great and lasting good by studying this book "Voice Culture". It may be the first step in your career. Do not delay. The number of these books is limited. Send for "Voice Culture" today.

Perfect Voice Institute

Studio 5771 1922 Sunnyside Ave., Chicago

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

Singing Speaking Stammering Weak Voice

Name _____

Address _____

Age _____

Perfect Voice Institute
1922 Sunnyside Ave., Studio 5771, Chicago, Ill.

How to Rid Yourself of Your Catarrh

QUICKLY!

PERMANENTLY!

Without Drugs or Medicine of any Kind

By R. L. ALSAKER, M. D.



R. L. ALSAKER, M. D.
Founder of
The Alsaker Way

THE majority of the people in our country suffer from catarrh. Some have it from time to time, others have it all the time.

"Catarrh of the head is troublesome. Catarrh of the throat causes coughing and much annoying expectoration. When the catarrh goes into the chest it is called bronchitis. If it is allowed to continue it becomes chronic, and chronic bronchitis means farewell to health and comfort. It robs the sufferer of refreshing sleep and takes away his strength. It also weakens the lungs so that the individual easily falls a victim to pneumonia or consumption.

"Then there is catarrh of the stomach and small intestines, which always means indigestion. Catarrh of the large intestine often ends in inflammation of the lower bowel—colitis.

"Catarrh of the ear causes headache, ringing in the ear and general discomfort.

"Catarrh of the liver produces various diseases, such as jaundice and gall-stones, and often ends in much suffering from liver colic.

"All who easily catch cold are in a catarrhal condition. Those who take one cold after another will in a short time suffer from chronic catarrh, which will in turn give rise to some other serious disease—as if catarrh itself isn't bad enough.

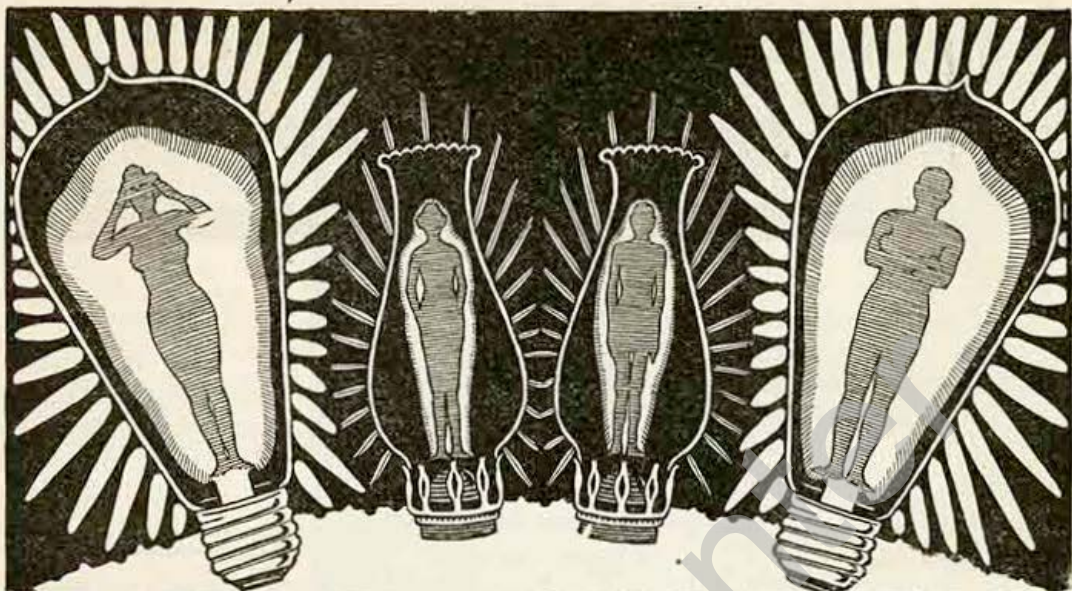
"Either you personally suffer from catarrh, or some member of your family is afflicted. Isn't it time to give this serious danger a little attention, before it is too late, and solve the problem for yourself? You can do it. It's easy.

"Catarrh can be conquered easily and permanently. It has been done in thousands of cases. You can cure yourself—and while you are losing your catarrh you will lose your other physical ills. That discolored tongue will clean up; that tired feeling will vanish; that bad taste in the mouth will disappear; that troublesome gas will stop forming in the stomach and bowels; and the pain will leave your back; headaches will take flight; rheumatism will say good-by and those creaky joints will become pliant."

Realizing the great need of definite, practical information regarding this terrible disease, Dr. Alsaker has prepared a plain, simple instruction book on the cause, prevention and cure of catarrh, asthma, hay fever, coughs and colds. This book is entirely free from fads, bunk and medical bombast. It sets forth a commonsense, proved-out PLAN, that is easy and pleasant to follow—a plan that teaches the sick how to get well and how to keep well. The name of this book is "Curing Catarrh, Coughs and Colds." It tells the true cause of these objectionable, health-destroying troubles, and it gives you a safe, simple, sure cure without drugs, medicines or apparatus of any kind. You apply this wonderfully successful treatment yourself, in your own home, and without the expenditure of an additional penny. There is nothing difficult, technical or mysterious about this treatment. It is so easy to understand and so simple to follow that anyone, young or old, can reap the utmost benefit from it.

If you suffer from colds, coughs, or catarrh in any form, send only \$3 to the publishers of "THE ALSAKER WAY," THE SUCCESS MAGAZINE CORPORATION, Dept. 751, 1123 Broadway, New York, and get your copy of this valuable instruction book. Follow the instructions for thirty days; then if you are not delighted with the results—if you do not see a wonderful improvement in your health—if you are not satisfied that you have made the best \$3 investment you ever made—simply return the book and your money will be promptly and cheerfully refunded.

Remember this: If you want to free yourself forever from catarrh, asthma, hay fever, coughs and colds you can do so. Dr. Alsaker's treatment is not experimental. It is proved-out and time-tested. And it includes no drugs or serums, sprays or salves. And it costs nothing to follow it, while doctors' bills, prescriptions, and so-called patent medicines that do not cure, soon eat a big hole in any man's income. Send for this book to-day. Follow it faithfully and you will experience the same splendid results that thousands of others are receiving.



Do You Glow With Health?

Build Up Personality, Magnetism, Vitality with

VI-REX VIOLET RAYS

Some people are dull, drab, uninteresting and sickly! Others are vital, compelling and magnetic! WHICH ARE YOU? It is all a matter of vitality and health. The greatest discovery in years is that of VIOLET RAYS, electricity in a curative, medical form. Violet Rays put new life into over-taxed and sluggish tissues; penetrate and invigorate all the muscles and nerves of the body; give new tone and vitality to the entire body.

Learn the Secret of Physical Perfection

Learn how you can multiply your energy and vim! Learn how to banish those pains, aches, and ailments that run down your system, drain your personality and ruin your looks. WHAT IS PHYSICAL MAGNETISM? It is PERFECT HEALTH—plus the keen mentality based on perfectly balanced nerve centers. We will be glad to send you on request the most interesting book ever published on this subject.

Treat Yourself at Home for

Asthma, Constipation, Headache, Rheumatism, Neuritis, Neuralgia, Catarrh, Pimples, Blackheads, Dandruff, Gout, Pains, Skin Diseases.

Write Now for Startling Book and Free Trial Offer

Just write postal or mail coupon for wonderful free 52-page book explaining in detail. Read how Violet Rays massage every cell in the body. Read letters from users. See what physicians, sanitoriums, home-users say.

Why suffer? Why be satisfied with less than your full share of health and beauty? See what wonderful Violet Rays will do for you.

Mail coupon or write postal for free book and 10 days Trial Offer. Do not miss this offer. Address NOW.



VI-REX ELECTRIC CO.

Dept. 1001, 326 W. Madison Street, Chicago, Ill.
For New York Only: 47 W. 34th St., New York

VI-REX ELECTRIC CO.

Dept. 1001.

326 W. Madison St., Chicago, Ill.

Please send me your free book and particulars of your Trial Offer of the Vi-Rex Violet Ray Machine.

Name

Address

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

Secrets of Glorious Daily Health!

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

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

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

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

Why Lose \$4,100?

\$4,100 is about what sickness costs the average person during his lifetime. The person who does not understand Nature's methods of preventing and curing sickness is ill an average of 21½ days each year—or a total of about 3½ years in his lifetime. Suppose that person earned the very moderate salary of \$20 a week—his total loss would be about \$3,700. Then think of the worry of sickness, the inconvenience, the doctor and hospital bills, the pain—whatever of this can be figured in mere money would bring the average person's loss because of sickness to about \$4,100.

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

Feel 10 Years Behind Your Real Age

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

A Complete Education in PHYSICAL CULTURE

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

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

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

The Daily Guide to Perfect Health

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

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

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

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

A Complete Guide-Course to Perfect Health by Bernarr Macfadden

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

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

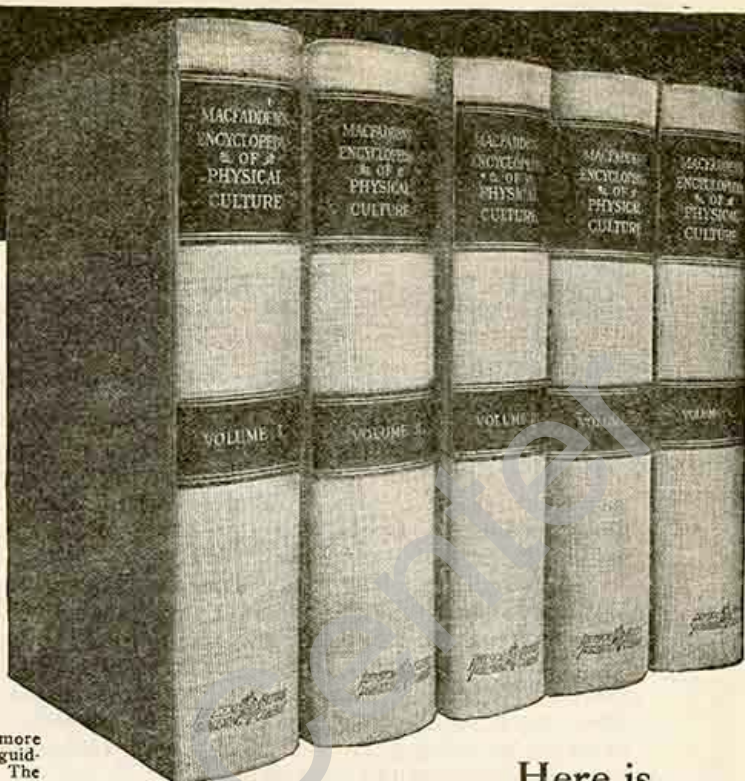
Physical Culture

The Most Valuable Health
Course Ever Prepared

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

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

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



Here is
OUR OFFER

How to - -

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

Decide which volume of Macfadden's Encyclopedia of Physical Culture you wish to examine. Then fill out the coupon and mail it at once. The volume you select will be sent to you prepaid for five days' free examination. Then if you decide that you want the Encyclopedia send a deposit of \$2 and the other four volumes will immediately be sent prepaid. Then pay only \$3 a month until the total cost of the Encyclopedia, \$25, is paid. If you care to pay cash, the price is only \$31.50. If, on the other hand, after 5 days' examination of the one volume you select, you decide that you do not wish the Encyclopedia return the volume and the matter will be considered closed. If you decide to retain the volume and purchase this Encyclopedia a full year's subscription to Physical Culture is included. No offer could be fairer than this. Pick out the volume you wish to examine and mail the coupon now.

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

PHYSICAL CULTURE CORPORATION	PHYSICAL CULTURE CORPORATION
Dept. S-1	Dept. S-1
119 West 40th Street, New York	119 West 40th St. New York City.
	Send me for inspection Volume..... of the Encyclopedia of Physical Culture. I agree to return the volume in five days or pay \$31.50 cash for the entire Encyclopedia or \$35 on the easy terms mentioned in this offer.
	My acceptance of this offer includes a year's subscription to Physical Culture Magazine.
Name	Occupation
Residence	Business Address



Why Apologize for Exercising?

THERE is a certain class of people who pooh-pooh any form of exercise unless it is in the form of organized games. There are men (most of them young) who will enthusiastically swim, row, play baseball, football, tennis, golf or any other recognized games, and yet cannot be persuaded to attend a gym, or to take exercise at home.

Apparently their attitude is that it is a very manly thing to play games but that one makes oneself rather ridiculous if one takes exercise for exercise's sake, and that one is positively eccentric if one deliberately tries to improve the body by means of exercise. There are weeks, and sometimes months in every year, when none of the above games can be played. If exercise is valuable in making the body "fit," why avoid exercise because there is no opportunity for games?

We see no reason why a man should be ashamed to exercise, or to take an interest in the development of his bodily powers.

In all history there is one nation that deliberately made a cult of developing the body—the Ancient Greeks. Scholars tell us that as far as pure intellectual power is concerned, the best modern thinkers are no further advanced than the Greek philosophers; while artists and sculptors hold up the physique of the Greek Athlete as the ideal we should all try to equal.

Are the Ancient Greeks despised, derided or condemned because they glorified the body—Hardly! History applauds their devotion to physical culture.

On Getting Fitter

ANOTHER class of men will grudgingly admit that they "take a little exercise to keep themselves fit."

"Keeping Fit" seems to imply the mental attitude that you have a certain fixed task and desire just enough strength to get thru that task. Roosevelt said something like this: "The man who accomplished big things, is the man who does all the work he has to do, and on top of that a lot of things he don't have to do." You need a lot of strength to live up to that program.

Washington had the strongest arms of any man in the Continental army. Lincoln was said to be the second strongest man in the middle west. Their physical powers help to account for the quantity as well as the quality of their services to the nation.

One man studies bookkeeping and is a bookkeeper for life. Another man studies bookkeeping so that when he runs a business he can show others how his books are to be kept.

One man exercises grudgingly because he is told he ought to keep fit. Another man exercises wholeheartedly because he wants to acquire such physical energy that he will be able to conquer all the different tasks he has set himself.

If you are sick you cannot work at all. If you are in health you can do your daily work. But if you "feel like a fighting cock" you can "eat up" work, and have a big surplus of energy for your mental hobbies and your physical sports. So, if sick, get fit, and if fit—get fitter.

The Example of Mr. Roosevelt

THEODORE ROOSEVELT had strength of mind, strength of body, strength of purpose, strength of will and strength of convictions. And the people loved him for his strength. Roosevelt as a young man was not very strong, but he had set himself many tasks to accomplish. And knowing that he needed great physical energy and endurance to perform those tasks, he set about improving his body. He went to live on a ranch and loved the rough outdoor work of the range riders.

Later in life, he walked, rode, boxed and played tennis. Whatever he did, he did with all his might. No half measures for T. R.

Look what the man accomplished. A life spent in the service of the public and resultant fame as a soldier, statesman and administrator.

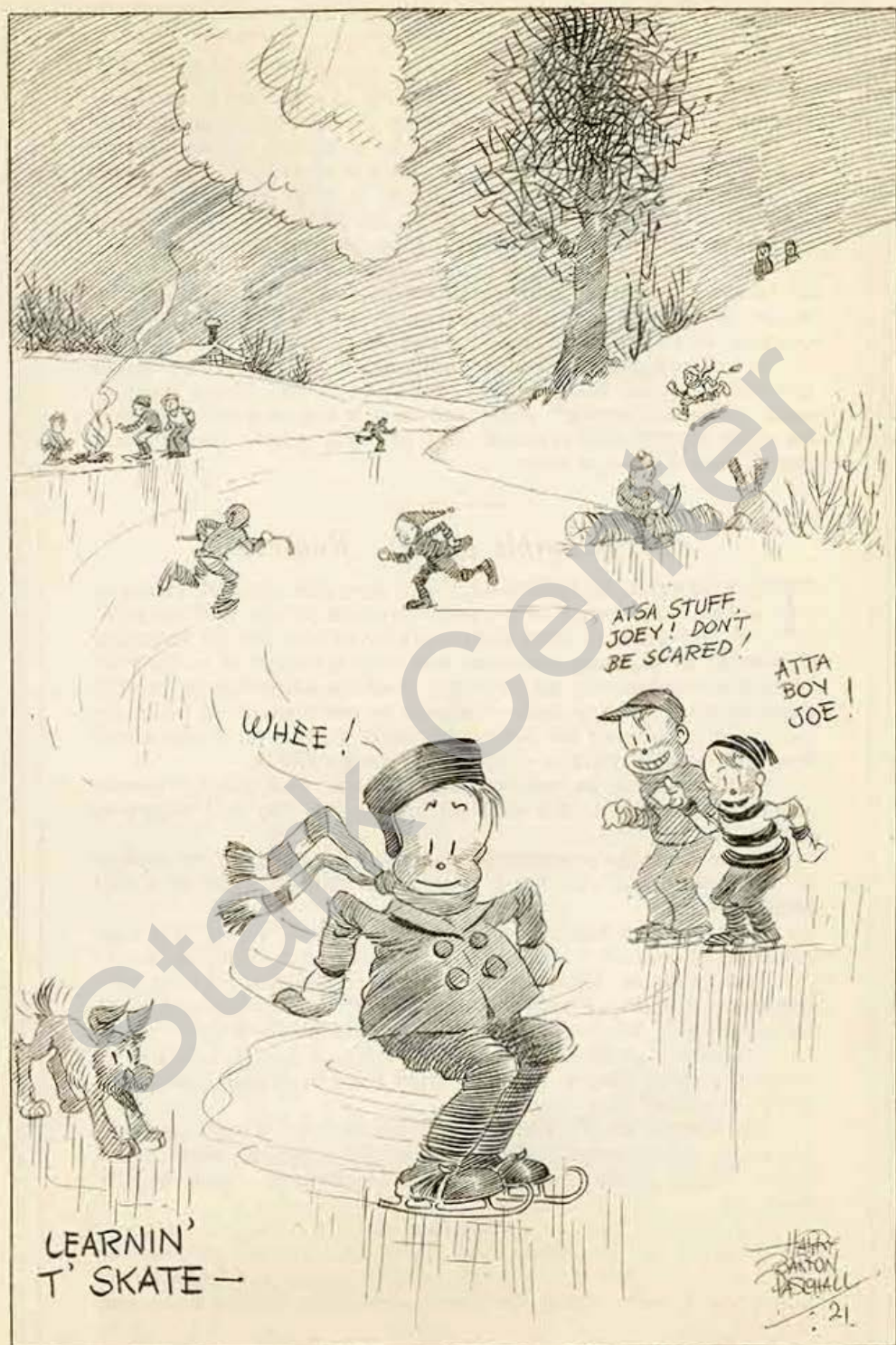
And was this busy, famous, dignified world figure of a man ashamed to exercise? Did he apologize for cultivating his body?

Did he claim that exercise was a bore and that he only took it because his doctor said he must? Did he hide himself when he exercised? Well, not so that you could notice it.

He was a great walker, a good rider, a fair boxer, and an ordinary tennis player. But he **tried** hard at tennis, just as he did at anything else.

He **always** tried. He achieved because he always pursued. He was a great hunter. He hunted health, strength, work, facts, bears, lions, rivers, Spaniards and Democrats. And he got them all.

So when we hear a man say that he is "too busy to exercise" we think of Mr. Roosevelt, and smile. And when we hear another man say that it is a waste of time to try and **improve** the body, we wonder what the Great American would have said to that.



LEARNIN'
T' SKATE —

Remember ?

Athletics for Health and Efficiency

By Walter Camp

Editor's Note: This is the last of a series of articles on Physical Fitness by Walter Camp, trainer of business men as well as athletes.

IN this, the concluding article of this series on Athletics for Health and Physical Fitness, I hope to convince the reader that it costs but little in the way of time or attention to become fit and keep so. These words are not directed to any age or class. The boy who wishes to be fit for his sports; the girl who wishes to be beautiful and well; the young man in business knows what a terrible handicap it is to feel out of sorts, and that few firms will continue to employ anyone who is absent for illness repeatedly. The middle-aged man knows how vitally important it is to him and to his affairs that he shall keep well, alert and at the top of his powers. The older or more mature man realizes what a dreary road it is to spend his time in seeking health instead of enjoying life, and even the old man, if there are any "old men" to-day, wishes to continue to enjoy his pleasures to the end of life.

Now, all these things are possible, but the best foundation is that which is laid in youth. In fact, not only the military possibilities of the country, but its productive capacity in civil life bears more upon health and physical fitness than any other one thing. I wish to decry also the attempts to exercise too great care or to put iron-clad restrictions of diet and conduct where Nature has meant that there should be a reasonable amount of freedom. An English writer once said, "It is a fearful responsibility to be young and none can bear it like their elders." He was inveighing against the attempts of the elders to restrict and circumscribe the pleasures of youth. A professor

once asked me if I did not think that the proper thing for men in college would be to take a walk once a day of three or four miles, enjoying the beauties of Nature, and spending the rest of the time at study. He said he found that was the ideal thing for him and he did not see why boys should not do the same thing!

This, of course, seems silly to the average reader, but there are plenty of people who are practicing quite as foolish methods of supposed or would-be control over youth and wondering why they do not meet with success.

In childhood and youth play is the vital thing. Nine-tenths of physical exercises in schools should be devoted to play and one-tenth to postural exercises, and the reason for this is that civilization has brought about conditions such

that the little human animal, instead of being a savage and living out of doors, has not the opportunities to develop physically in quite a normal way and some straightening of the figure and deepening of the chest is quite essential. These little bodies are as plastic as clay and can be made into almost any form desired, and that, too, at the expenditure of only a few minutes scattered through the day. Facilities for outdoor play are essential, and no school or community should be without them. It is far more vital than a good many things for which the community spends its money, and quite as productive.

When we get past the time of youth, play is still essential in some form or other, and it is the relaxation of play that exercises the most beneficial results. Here again,



© Underwood & Underwood
Walter Camp in his uniform as Commissioner of Athletics in the United States Navy.

however, civilization has made matters difficult, and consequently a certain amount of stretching exercises are the best and shortest means of keeping that body in condition. But some of the orgies of exercises and a great deal of the exercise that has formerly been done purely and simply for the purposes of presumably keeping well have been anything but effective, and in a great many instances injurious, and still further, those who have indulged in them have finally abandoned them and have reached the conclusion that no exercise at all is better than this sapping of the vitality which leaves them entirely exhausted.

We are in a world of varied interests. One man may be engrossed in finance, another in a profession, a third in manufacturing interests, and thousands of others in simply holding down a job of some kind that will enable them to wrest a living out of conditions. It is the same all the way down the scale of age, sex and environment, but after all the one thing in common and the one thing that is of the greatest vital interest to the individual is his or her physical condition. Pick up any periodical and you will see they could not possibly pay to carry the advertising which appeals to that element in human nature unless this one vital interest were present. And finally it is the interest of the state itself to have its men and women well, because that means more productivity and less sickness and pauperism for the state to take care of. A strong, vigorous and healthy people is the greatest asset of any community, and yet we show something very like a failure in this respect. Nature is willing and anxious to keep her children well and strong and does everything she can to aid them, but far too large a majority ignore all her laws, and while at times forced to think of them, soon forget them again. The old saying,

"The devil was sick, the devil a monk would be;

The devil got well, the devil a monk was he!"

applies to a large majority of us. But there is a reason which we should long ago have considered, and that is that the attempts that have been made to correct this condition have been extremely ill-judged and have not resulted satisfactorily, as was shown by the selective draft, when nearly 33½ per cent. of our youth was rejected.

As we gradually grew to be a city people from the old days when our Pilgrim ancestors landed and forced a hard living in outdoor work from the soil, we forgot a great deal of the old precept that a man must earn his bread by the sweat of his brow. Then individually and sporadically, sometimes in groups, men and women, fired with a purpose to become physically fit again, took certain strenuous and muscle-building calisthenic exercises, rushing madly into them. This brought about its own penalty, for they burned up the vitality they needed, and while the will was there to become physically fit, the method was extremely foolish, so that, after the first excitement and interest, a large majority abandoned these things and became even more sedentary than before. As a matter of fact, the exercises were too cumbersome for those who indulged in them and took a great deal too much out of them. One may play to the point of exhaustion without half as serious effects as indulging in dumb-bell work or over-strenuous setting-up exercises to the point of extreme fatigue.

Physical exercise, as such, in the form of calisthenics, should never interfere with play, or usurp its part. Had we realized this we should be far fitter to-day. No less an authority than Bolin, the greatest exponent of the Swedish system, reached the conclusion at the end of his life that it was folly to spend time or energy in calisthenics or setting-up exercises for the arms, legs or pectoral muscles, and yet a great many of our methods are built around such exercises. The arms and legs should get their exercise in play and in the ordinary pursuits of life, but the trunk and the "engine" need something in addition. During the last four or five years, I have had the opportunity of studying and working with over a million boys and men of all ages and conditions, and have reached the conviction that the progress of this country towards health and happiness is largely dependent upon the division of the leisure hours into some such proportion as nine-tenths play and one-tenth calisthenics or setting-up exercises, provided that these calisthenics are devoted mainly to the supplying and stretching of the body, the lifting of the chest, the proper use of the big muscles of the trunk and the shoulders, and suitable work for the arch of

(Continued on page 49)

Exercises for Health and Beauty

By George W. Orton, Ph. D.

PROBABLY in no epoch of the world's history has the influence of woman been so powerful as at the present time. The war helped this greatly, as it pushed women forward into many positions and phases of life into which they had never been found before. To the amazement of the men, they have made good in many lines of work for which they were supposed to be physically or temperamentally unfit or unsuited. This is the age for women, and they are reaching out in all quarters and acquiring for themselves fields of endeavor that, to them, are full of interest and hope for the future. Many of them have found that in order to hold their own they must measure up physically with their male rivals. This has served to draw their attention to the benefits of outdoor exercise and regular gymnasium exercises, as they find that by keeping fit they are able to "carry on" with their increased responsibilities. This may be one reason for the wave of enthusiasm that is now sweeping over this country for all kinds of sport and exercise for women. The sporting columns of the newspapers will prove this, as we find women's sport in tennis, golf, hockey, swimming, fencing, etc., given equal space with that of the men.

The best and most advanced of our women's colleges, such as Wellesley, Vassar and others, have recognized for many years the great benefits of regular exercise and competitive sport for their women students; but it has only been of recent years that provision has been made in our grammar schools and high schools for the physical education of the girls. It is even more recent that we find women in general forming physical-education classes or clubs for the purpose of gaining the health and strength that comes through physical activity of body.

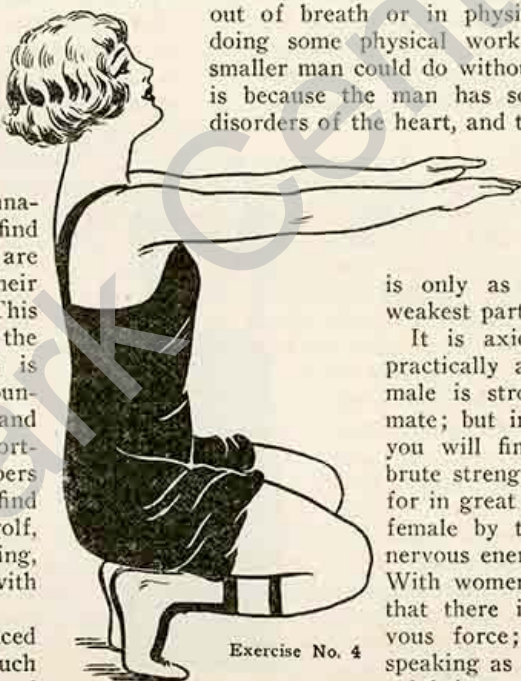
It is a very old saying that a chain is only as strong as its weakest link, but it has taken the public a very long time to find out that this applies equally to the body. Indeed, it is only recognized to a very limited extent as yet, especially among the women. One of the most frequent laments of women who look big and strong is that they are really not so strong as they look, or that, though apparently robust, they are really invalids, having nervous or functional troubles that cause them constant pain and worry. It is no rare sight to see some 200-pound man with muscles of iron and the inherent strength of a giant out of breath or in physical distress in doing some physical work that a much smaller man could do without effort. This is because the man has some functional disorders of the heart, and though his back

and legs and arms are as strong as those of Achilles, he

is only as strong as his weakest part—his heart.

It is axiomatic that in practically all animals the male is stronger than his mate; but in most animals you will find the lack of brute strength compensated for in great measure in the female by the increase in nervous energy and agility. With women, it is possible that there is greater nervous force; but generally speaking as civilized physical beings, the man has a

much greater physical advantage than is to be found in the male of the lower animals. There must be some explanation for this, because in the savage state the comparison of men and women conforms pretty exactly to that found in the lower animals. The comparative weakness of women is a matter of environment more than anything else. The shut-in life of most women, with the monotony of their household duties, the lazy lives of many of the better-off and the



Exercise No. 4

unnatural lives of many of the wealthy, all tend to weaken rather than strengthen the physical powers of women.

This matter of environment as it affects growth forms a very interesting study. We find that the rich and the poor form a physical classification as well as a social one. Statistics show that there is an average difference of $2\frac{1}{2}$ inches in height between the daughters of the wealthy and the poor. This fact is easily apparent in all of the large, old cities of Europe. We find that the families that have lived in the slums for generations are very much below the average in height and general physique. This result is, of course, due to inferior food, poor sanitation, bad air in the dwellings and a general mode of life that is deteriorating in its effects. Carried through centuries or generations, it makes a very apparent difference in the stature of the people. In a general way, it may be stated that people brought up in cities are smaller and less robust than those brought up out in the country.

A very interesting table has been worked out from statistics by Dr. Mary Taylor Bissell, showing the influence of physical nurture upon height for girls. The girls were taken at ten years of age, and the averages of height were found as follows:

Under best physical conditions; town and country, 53.4 inches.

Less favorable conditions; town, 51.4 inches.

Laboring class; country, 50.4 inches.

Harder worked, more confined to house; town, 48.9 inches.

Industrial schools, most unfavorable conditions, 47.7 inches.

The same physician states that at fifteen years of age the most favored girl is seven inches taller than the inmate of the Industrial Schools. The same girls have a difference in weight of nearly 40 pounds.

Just a little reflection will show how large a proportion of the life of the girl is lived in school. Only rarely, even in our best built public schools, do we find the proper amount of fresh air obtainable for

the pupils in the various class rooms. In other words, for a large part of their daily lives, the girls are breathing vitiated air and thus not getting into their systems the oxygen which is necessary for full growth and robust health. This applies equally to the boys.

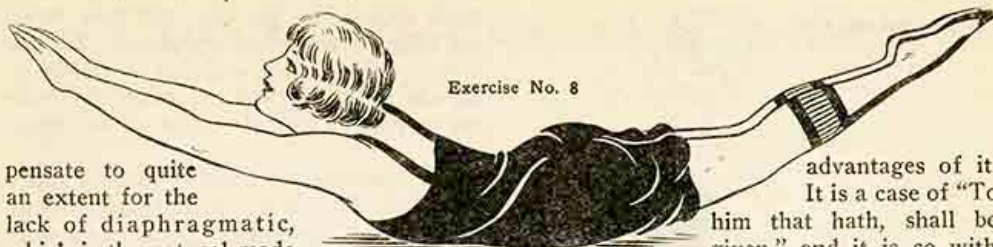
Only one more reference to the growth, or rather the cause of the retardation of growth in our girls. A concrete example will put the matter plainly and briefly. Dr. Schenck, of Berlin, on examining the poses of 200 girls in one of the Berlin schools, found that 160 of them assumed positions that induced curvature of the spine. He also found that many of the girls sat in such a way as interfered with free breathing and which tended to limit the growth of the chest.

We feel it necessary to make these and other references to girls because the women are a direct result of the development or lack of development of the girls. This matter of environment is thus very important

as it affects such a very large number of our girls in an unfavorable way. The matter of tight clothing for women, however, affects them all with but very few exceptions. It is true that the present day corset is a much healthier affair than it used to be, as some styles of corset now approach the original Greek forerunner of the corset which was merely a girdle to support the breasts and which performed a very useful and graceful purpose. The effect of the corset is uniformly bad and it has been dwelt on so frequently that we shall make but little mention of it. It interferes very evidently with the chest expansion and therefore the breathing of women. It has been found that women with corsets on have an average expansion of only $\frac{3}{4}$ inch, while without the corset their expansion is $2\frac{1}{2}$ inches. If this interference with chest expansion were the only evil of the corset, matters would not be so bad as many women suffer but little evil effects through the fact that by breathing more deeply in the clavicular region, they com-



Exercise No. 7



pensate to quite an extent for the lack of diaphragmatic, which is the natural mode of breathing for both men and women. Some maintain that clavicular breathing is the natural mode of breathing for women but this is not so. Women who do not wear corsets and women in the natural or uncivilized state naturally breathe from the diaphragm.

But, the corset is the cause and the forerunner of many other ills of women. It interferes with the circulation of the blood in the pelvic region, displaces the liver and causes a downward pressure on the pelvic organs. Thus, the corset or other waist constriction is just as serious a menace to pelvic health as to the health and proper growth of the chest region.

The above remarks would indicate that women really have more reasons for requiring regular and systematic exercise than men. This is the case and we are glad to note the wonderful development of the last fifteen years in competitive sports for women and in the facilities for general exercise for women. If a woman is young and vigorous, it will be a very fine thing for her to take up some of the regular sports in season, such as tennis, golf, and swimming; or riding, archery, walking or mountain-climbing in the summer; hockey or skating in the fall or winter; or fencing, aesthetic dancing or regular gymnastics for indoor work. Facilities for all these sports are available. Women who engage in such physical recreation show by their ruddy cheeks, their naturally graceful carriage, their vim and good spirits, the benefits of such exercise. But the great majority of women do not go in for these sports. Football is one of the greatest and most widely played sports at our colleges, but how many men get a chance for the physical development, the lessons in team work, in courage and in general ability to surmount obstacles that come from such a vigorous sport? The answer might very well be that the men who least need the development found in college football are the ones who reap the

advantages of it. It is a case of "To him that hath, shall be given," and it is so with the competitive sports for women. They miss the great mass of women.

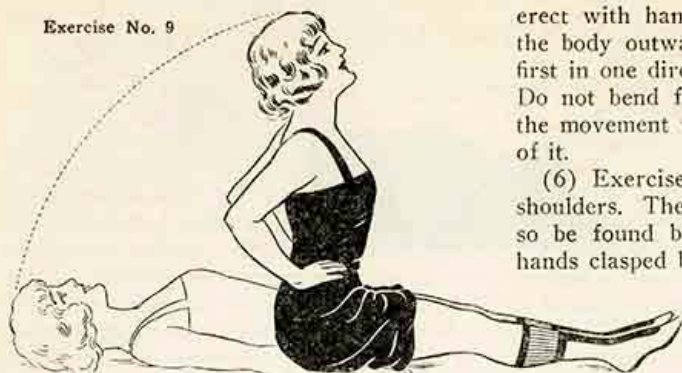
For these with their limited opportunities and limited time for exercise, we shall prescribe a few easy exercises that will be of benefit. In the first place, no exercise will be of real benefit if they are practised only occasionally. All women like to be beautiful and here is a means whereby the great majority may be beautiful in form if not also in feature. Exercises persisted in and regularly practiced will give either man or woman control of the body, skill, agility, increase the moral qualities such as courage and fearlessness, and give to the body a development that is pleasing to look upon whether seen in man or woman.

It is not necessary to go in for competition to enjoy the benefits of the above-mentioned outdoor and indoor sports. Swimming will be found the ideal sport for women. It answers all the requirements. Tennis, golf and archery, are very fine sports but they all tend to develop some one part of the body more than the others. Swimming develops the entire body and it also tends to develop the chest and to give exercise for the pelvic region that should be especially beneficial to women.

But, for those who would have to exercise at home or not at all, a few simple gymnastic exercises may be recommended. The limbs of most girls are fairly well developed through walking and dancing. Women generally need body development and exercises that will expand the lungs. The corset, as already stated, not only retards or interferes with the natural development and functioning of the lungs and the organs in the pelvic region; but by doing the work of the back, abdominal and side muscles, it weakens them to an appreciable extent. This is one of the main reasons why women need body exercises.

(1) Rope skipping due to the fact that it will cause rapid respiration, will help to develop the lungs. Short sprints, if space

Exercise No. 9



is available, will act in the same way.

(2) Deep breathing exercises will, of course, be especially valuable for women. The most natural deep-breathing exercise is to stand erect with arms at side. Raise the arms slowly above the head, inhaling deeply as this is done. Then lower the arms slowly exhaling until the original position is reached. Then repeat several times. It would be best to do this exercise in an especially well ventilated room so that the air breathed will be as pure as possible.

(3) Another exercise that will help to correct round shoulders and also develop the chest muscles is as follows: Stand erect with hands on chest and arms horizontal. Then step out smartly with the right foot, at the same time throwing the arms first out and then horizontally backwards as far as they will go, and at the same time inhaling deeply. Then reverse the movement until the original position is reached at the same time exhaling. Then go through the movement again, but stepping out with the left foot. This exercise should not be done too fast in order that the deep breathing that goes with the exercise may be taken.

(4) A movement for the strengthening of the spine is as follows: Stand erect with hands on hips. Then bend the knees, letting the body down until it touches the heels, at the same time keeping the body perfectly vertical and extending the arms. This movement repeated several times will be found to give very good exercise, and it will help the spine and the various muscles that radiate from it.

(5) The spine is also helped by the various bending exercises that might be given for developing the abdominal or back muscles. A very good abdominal exercise, one that will tend to loss of fat, is to stand

erect with hands on hips and then swing the body outward and circularly. Do this first in one direction and then in the other. Do not bend forward too much but make the movement with the waist as the center of it.

(6) Exercise 3 as noted is good for round shoulders. The following movement will also be found beneficial. Stand erect with hands clasped behind the neck. Then lean back with elbows horizontal, repeating the movement several time and using the resisting muscles.

(7) A good exercise to help push out the chest and retract the abdomen is to join the hands behind at the waist and then to thrust them down and away from the body. Many women stand with chest in and abdomen out and this exercise will help them to correct this fault in posture, a fault that is very noticeable and ugly.

(8) A very good exercise to develop the muscles of the back is to lie on the stomach with arms at the sides. Then bend up from the waist. This is hard exercise and should be taken only a very few times at first though after a few days practice, it will be found that it can be repeated fifteen or twenty times without too much effort.

(9) For the abdominal muscles, the following exercise is recommended: Lie on back with arms at side or on the hips; then sit up, keeping the back straight. This, like exercise 8, will be found very strenuous at first but a few days practice will soon show a strengthening of the abdominal muscles, as it will be found possible to do this movement fifteen times without strain.

All of the above exercises may be taken at home, but the woman starting them should remember two things; first, that these exercises will be of little help unless they are taken regularly; and second, that they should be gone at very easily at first. If the muscles become sore and stiff, a hot bath and gentle massage will help. After the first week, it will be found that daily exercise of this kind will leave no soreness but will tone up the system and develop the various muscles.

It would, of course be better to go to some well regulated gymnasium for these exercises. This will be more interesting

(Continued on page 57)

That Constipation Problem

By Wainwright Evans

THE abundant advertising of that class of medicines known as Cathartics has done an enormous amount of harm to the American people, for the reason that it has taught this nation to rely on drugs instead of on nature and right living for the daily functioning of one of the most vital activities of the body.

The hundreds of cathartic advertisements which flood our publications and which have such a prominent place in the car-card advertising of our large cities, have gradually trained most persons to the habit of using laxatives and purgatives, some of them very harmful and others only moderately so, till more cathartic medicines are sold to-day over the counters of our drug stores than any one drug or class of drugs.

No sane person would try to keep his heart going by means of a drug. He would do everything possible to correct the conditions that made such drugging necessary. He would want his heart to travel on its own power, as nature intended. If his kidneys didn't function without drugs, he would be seriously alarmed, because he knows how swiftly fatal kidney trouble can be. But when his bowels won't do their work except under whip and spur, that's another story. He isn't alarmed. He takes no warning from it, simply because the symptoms which go with constipation are not acute. Constipation takes a longer time to kill. It works in decades instead of in months or years.

And yet the advertising of cathartics, in spite of the harm it has done and the false ideas it has spread, has not been an unmixed evil. These advertisements are educational in the sense that they persistently call attention to the dangers of constipation as the source of lowered vitality, depleted resis-

tance to disease, the tendency to a general breaking down of health, and other results of the condition of acidosis, of which the auto-intoxication resulting from constipation is one of the chief causes. Such advertisements are a constant warning to the people at large of the dangers of our most prevalent disorder. The harm they do lies in the fact that they prescribe the wrong way to correct the trouble. If they told the truth—which is that these medicines may be legitimate as a temporary relief, but that the true cure for constipation is a correct diet—the makers of such remedies might make less money, but they would be doing the human race a substantial service.

With the single exception of those apparently harmless bowel lubricants known as mineral oils, all cathartics force an action of the bowels by whipping them till they are forced to throw off the irritants that have been introduced. A dose of salts, for example, causes an outpouring of intestinal fluids much greater than would be possible under normal conditions; and the daily taking of salts—a common practice with many

persons—gradually brings the bowel secretions to such a low ebb that exhausted nature refuses to give them up any more unless compelled to do so by constantly increasing doses of the irritant. That is why the persistent taking of these active cathartics tends to aggravate the condition instead of curing it. In that sense, constant reliance on cathartics deserves to be called a Drug Habit.

Mineral oils differ from cathartic drugs in that they are mechanical in their action. They are not absorbed; they have no direct physiological effect. They merely make it possible for a bowel whose peristaltic action has become enfeebled to keep its contents



Wainwright Evans

moving. In addition, they make it possible for the bowel to cause the movement of fecal matter so hard and so small in bulk that ordinary peristalsis could not take hold of it. Peristalsis, as most persons know, is simply the series of slight muscular contractions of the intestinal walls, by which the bowel contents are kept steadily moving. Of course, it cannot act effectively unless there is plenty of bulk for it to take hold of, but to that point I shall return later.

Anything, whether it be right living, right eating, mineral oil, cathartic drugs, or enemas, which can keep the bowel contents in motion does away with an exceedingly grave danger to human life; for anything in the way of a sluggish movement of food through the intestinal tract inevitably results in putrefaction, which is simply the rotting of food by bacterial action. The millions of bacteria which seize the opportunity to feed on food that remains too long in the intestines throw off deadly poisons, which are the waste products of their own life processes. These poisons are absorbed through the intestinal wall into the blood. They are acid in character, and tend therefore to increase the condition of acidosis, which results also from the excessive eating of foods whose end products are acid.

The food products which most readily lend themselves to putrefaction if they be not kept moving through the bowels are the rich concentrated foods like meat, cheese, beans, and the like. There are two reasons for this. In the first place these protein foods are the kind of media in which bacteria thrive. In the second place, they contain such a very large proportion of nourishment that by the time the system has absorbed the nutriment they contain there is almost no residue left for the bowel peristalsis to take hold of. Thus men and women who eat excessively of such foods come to double grief: first, in that the end products of their normal digestion are acid products; and second, in that the residue left from their digestion tends to stay where it is, rot, and produce more acid poisons.

Excessive eaters of these concentrated protein foods are almost always troubled with constipation, and with acidosis; and almost always they show the characteristic symptoms—headaches, that tired feeling, a bad taste in the mouth, stomach upset, defective eyesight, *colds* on the least provocation, and so on. Women are particularly

prone to these troubles. Acidosis tells the whole story of many a woman's chronic ill-health. In children the result is adenoids and diseased tonsils, and a pasty complexion, showing anemia. In adults come later on rheumatism, anemia, nervousness, duodenal ulcers, tuberculosis, and *cancer*. In addition to this, you have abnormal susceptibility to contagious diseases, owing to lowered resistance. Disease bacteria are like some weeds—they can thrive in a soil so acid that healthy cells can't live in it.

One of the chief causes of the prevalence of constipation is the fact that a great many persons have the theory that since eggs, meat, cheese, and the like contain a maximum of "nourishment," the thing to do is to eat a maximum amount of them, and to abandon foods which do not contain such quantities of muscle-building and energy-producing material.

Cheese, for example, is rich in protein; therefore, they reason, eat more cheese. For it is a tissue builder, and a wonderful food, a fact I should be the last to deny. Beans are rich in proteins; therefore eat more beans. Meat is a body builder; therefore eat more meat.

Still another argument in favor of this theory of diet is the fact that such foods as these are nearly 100 per cent. digestible. That is, they yield a maximum of nourishment for their bulk. It is not unnatural, surely, to reason that if one eats a rich, concentrated diet, one need not eat so much; or else that if one eats the same amount of rich foods that one formerly ate of foods less rich, he will get more strength and nutriment. Better a pound of meat, according to this doctrine, than a pound of carrots, because the carrots are mostly water and contain very little muscle-building material.

This is true of most vegetables. They are mostly water; and by that I mean 90 per cent. or even more. Why, reasons the novice, fill myself up with worthless foods like that when I can draw water from the hydrant for nothing? Why spend money on foods of that kind when I could get something like meat, with plenty of real stuff in it? Those are the things that will enable me to "keep up my strength." In keeping with this notion, the theory has even been advanced by some "scientists" that some day it would be possible to put up concentrated food essence in tablets in such a form that

(Continued on page 58)



Don't Carry That Tub of Fat Around

By John Madison Jones



THE other day I turned a street corner and bumped into a fat man, who was also turning the same corner from the other direction. Of course, I didn't mind the bump, because I learned very early in life that if one is going to bump someone it is best to pick out a fat one. They're so much softer to bump into. Of course, there is the disadvantage that because of sheer bulk and momentum one cannot brush them out of the way. Instead, one gets brushed, but does not get hurt in the process. The point of contact is yielding and pillowlike. I pick a fat man for bumps every time—except when he is going to fall on me afterward. However, in this instance I had no sooner been brushed or bounced off and had begged pardon than the fat man grabbed me by the hand and greeted me like a long-lost brother.

"Why, hello, John," he exclaimed, beaming on me.

"Oh, hello," I said, pretending to know him, as I studied his face and tried to place him. There was a suggestion of something familiar, in spite of the fat cheeks and half-shut eyes.

"You don't know me," he chuckled, enjoying my embarrassment. But now I recognized the voice, and the elusive familiarity of the face was all clear. It was Tom Flanders, whom I had not seen for twelve years. He had been lean and slender and fairly tall when I knew him in his teens. Now he was portly and pillowy, and yet the same Tom. I wondered at it. How do they get that way?

"Sure, I know you, Tom," I replied, making believe that I got him at the first glance, as any other polite liar would have done. "Sure, I know you. But how you have changed. Why, you never did stop growing, did you?"

"Ha, ha, ha," he laughed. "I guess that's right."

And then we talked of commonplaces for a few minutes, about the fellows we knew back home and about what we were doing; but all the time I was thinking about his getting so fat.

"Where did you get it?" I asked, interrupting our small talk.

"Oh, I don't know; it just comes and sticks. I guess it's natural for me. I'm made that way."

"Do you mean you made yourself that way?"

"Do you mean—I eat too much?"

"Yes," I said. "Do you suppose you absorbed it out of the air?"

"No," he said; "I don't eat so much. It just all turns to fat, that's all. I don't eat much."

"But still too much?" I persisted.

"No! it's just natural." He was thoughtful. "Some people are thin, some are fat, and that's all there is to it. I've tried everything—exercise and belts and medicines and—and still it comes."

I saw that his was a typical case. He was running true to form. He knew he could not lose his fat, and so he did not really try. He weighed two hundred and fifty. He would give anything to take off a hundred.

"You're a salesman," I said. "Why not sell yourself the proposition of correct weight? Do you walk much?"

"Walk?" he exclaimed. "Well, if you had my weight you wouldn't walk much, either."

Two or three doors up the street a truck stopped at the curb in front of a grocery store. The driver got off, picked up a large tub of butter and carried it in; then came out and got another as we looked idly on. I nodded my head in his direction.

"How'd you like his job?" I asked. "How'd you like to carry that big tub of butter around for a living?"

He laughed. "Nothing doing, nothing doing. Too much like work. Why, I wouldn't carry those loads around if you gave them to me, and gave me the dairy and the creamery and the grocery."

"But that's just what you're doing," I said.

"Huh?"

"He's carrying it in a tub, and you're carrying it inside your skin."

"Oh, you mean—"

"Yes, but he's getting paid real money for doing it, and you're doing it for nothing. Or for the fun of it."

"Good God, it isn't fun." He was thoughtful.

"Why do you do it?"

"Search me. I can't help it."

"Do you want to? You can if you want to."

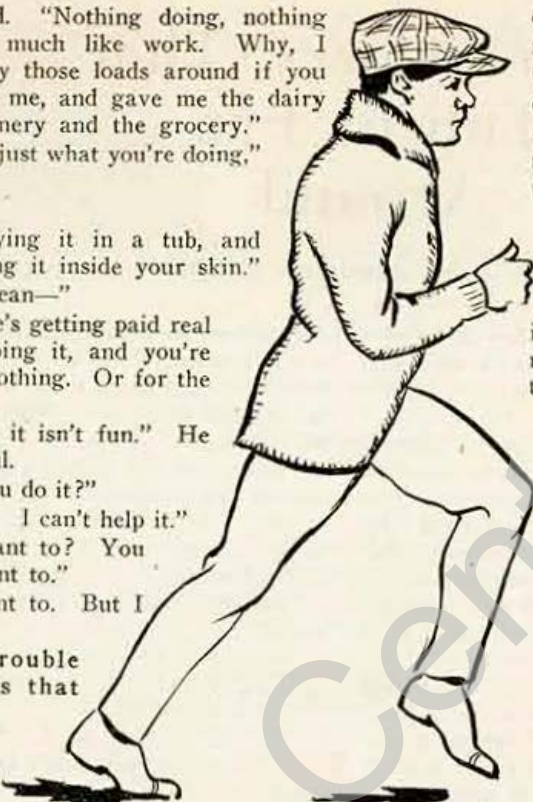
"Sure I want to. But I can't."

Now, the trouble with him was that he could not "want to" enough to get down to brass tacks and grapple with his burden and

get rid of it. Anyway, I had a talk with him and told him what little I know, as I am now going to tell you. It isn't much, but it's enough. The recipe for getting rid of fat is found in equal parts of knowing how and wanting to. If you lack the latter, the former will be worth nothing.

Now, there are really just two factors in the formula for getting thin. Everyone knows what these two factors are. You know them before I mention them. You knew in the beginning that before I got very far I would be talking about exercise and restricted diet. Simple enough, isn't it? People grow stout because they eat too much and exercise or work too little. Reverse the program and one gets thin. Correct. But in the practical application of the program one may encounter difficulties. And so we will discuss some of these important minor details.

As a general thing, when Fatty So-and-So decides that he would like to reduce, he makes up his mind that he will take a



The boxer is the classic example of weight reduction through exercise. The point is that the average fat man can not do this much muscular work.

course of exercise. He does not like exercise, but he would rather exercise than diet. He will do anything rather than stop eating too much. And yet of the two, the restriction in food is the more important. He is so constituted that he assimilates only too well and stores it away if he eats more than he needs. His real problem is to arrange a schedule or a system or a scheme by which he will eat no more than he needs. And if he has enough character to formulate such a system or schedule and to stick to it, he will undergo no hardships and will find that he gets no less pleasure out of eating, taking everything into consideration.

As a rule, one cannot get thin through exercise alone, for the reason that one cannot "burn up" enough fat through exercise to offset the

amount eaten; one nearly always eats more than enough food to supply the energy required for the amount of exercise that he can stand.

Now, it is true that it is possible in certain instances to work hard enough to "burn up" more than one eats, but only a few of the particularly athletic types of people can do this. The point is that the average fat man cannot do that much muscular work. The fellow who can do that is naturally lean and muscular, as, for instance, a professional prize fighter. The boxer is the classic example of weight reduction through exercise. He is expected to place himself at a certain weight on the day of a contest, for in order that the contest shall be fair, both fighters must weigh about the same. And so our boxer contracts to weigh 135 pounds the day of the fight. Three weeks before he weighs 145. He must take off ten pounds. He is not obese at 145; that is probably his natural weight. Why doesn't he fight at that

weight? With other men at that weight? Well, because he would rather fight a smaller man, who weighs only 135 pounds. Same with his opponent. So they both train down ten pounds, each trying to win the championship of the lightweight class.

Accordingly, your boxer enters upon a strenuous program of hard work, running ten miles on the road, doing gym work, punching the bag, skipping the rope, doing a thousand stomach (sitting up) movements, and finally—when he is too tired for his best, fastest work—boxing six to ten rounds. One strenuous day. And so he burns up more than he eats, and gets thin.

But when we consider the application of all this to the case of the ordinary fat man, who is fat partly because of his lazy life and partly through gluttony, we see at once that he is not able to do that much hard physical work. He would burn out his nerves and break down his vital organs before he would burn up very much of his fat. Consider also the fact that the purpose of the boxer is not only to reduce weight, but primarily to build strength and endurance—for a contest that is expected to tax him to his very limit.

So, there is a limit as to what Fatty So-and-So may expect to accomplish in taking it off by means of exercise. And yet exercise must be a part of his scheme, for unless he burns up at least a part of what he eats in this way, he will store up all of it, or nearly all. Also, he needs exercise for reasons of health, for the sake of toning up all of the bodily functions and strengthening the vital organs. Therefore, exercise he must have. But what kind?

The public has before now become accustomed to newspaper pictures of "reducing squads," pictures of classes of fat women in bloomers engaged in the regulation bending and toe-touching exercises. And so that is what one usually thinks of when the subject of weight-reducing exercise is mentioned. But as it happens, that is just the kind of exercise that does not get one

very far. These movements will do one good from the standpoint of corrective gymnastics, posture, stronger abdominal walls, spinal alignment and all that, but they will accomplish little in burning up the fat. They are often accomplished only with much effort. What is wanted is not intensive exercise but quantitative exercise. Let the work be mild in character, but long continued. If it is light, but fast, so much the better. The lighter and faster, the better. It is endurance work, and not strength-building exercise, that you want. Remember that strength involves power and muscular bulk. You're not looking for that in getting thin. Endurance involves the capacity to repeat or continue a given effort, presumably a lesser effort than one which is intended to test one's strength. Accordingly any endurance work, however mild or light, which is continued for a reasonable period of time, will burn up more fuel, or more fat, than a few movements that call for real strength.

That is why walking, which requires comparatively little strength, is a better exercise for reducing than toe-touching, sitting up, bridging or even bar-bell juggling—provided you do enough walking. This is not saying that you should not practice these other development exercises, but that you should use them for their own purposes of strength building and toning up weak parts, not because you think they will take off weight. They won't, unless you can practice them for two hours at a time, and that would wear you out. Therefore, practice some activity that you can continue for a while. Do your weight-reducing exercise by the hour, not by the grunt. Walking is mentioned first because it is always available, to any one. Make it golf if you can. If you are

vigorous enough for hand-ball or tennis, so much the better. Otherwise, content yourself with rowing, canoeing, swimming, skating, snowshoeing, wood-chopping, pushing the lawn mower all over your private park, or anything else that will make you perspire and continue for some little time.



One cannot "burn up" enough fat through exercise to offset the fuel eaten.

Now for the food end of the program. Two plus two are four. In the case of Fatty So-and-So the food is the plus, and the answer is in pounds. If he is too fat, he is eating too much; even if he thinks he eats very little, it is still too much. He must reduce the supply of fuel until he can burn it up instead of storing it up.

Now, it may be that a great reduction in diet is not necessary. You have been years accumulating that excess. You did not put it on at the rate of two pounds a day. If you put on an ounce a day, it would take you a year to gain twenty-three pounds. Perhaps your growth in adiposity has been slower than that, on the average. Accordingly, you should not expect to take off five pounds a week, or five pounds a day. Take it off slowly, as you put it on. Be satisfied if you take off two to four ounces a day, or one to two pounds a week. But be sure that you take off a little. And the way to be sure is to weigh yourself, either every day or twice a week. Weigh yourself each day under the same conditions, that is, before breakfast, or before dinner. And if you are not losing your two or four ounces, reduce your food intake accordingly. The best thing to cut down on is bread. Most avoirdupoisy people eat lots of bread. It's the white stuff, and worth nothing anyway. It is better to

eliminate carbohydrates (starches and sugar) than to cut down too much on fats, though fats are naturally fattening. But where butter, for instance, is concerned, remember that it has value as a nerve food. It is not a mere "fattener." At least this applies to fresh cream. Your butter may not be fresh, "good" butter.

There is a system of diet for fat reduction which consists in the elimination of all fat-forming food.

that is fats, sugars and starches, permitting the victim to eat as much as he wishes of green salads, non-starchy vegetables, fruits and lean meat. The only objection to that plan is that one is likely to burden himself with a protein excess through eating too much meat. And the weakness of it is that even protein may be transposed into fat if there is an excess of the total amount eaten over the needs of the body.

The best plan, therefore, is to limit the total of food consumed, but always leaning toward the non-fattening foods. One can often accomplish this most conveniently by adopting the two-meal per day plan, or even the one-meal a day plan. To the gluttonously inclined the latter has the advantage that when eating only once, one may go the limit at that one meal. A better plan is the light lunch and hearty dinner, for instance, a salad or baked apple for lunch, with a glass of milk or buttermilk, or a cup of tea, and then a hearty dinner. You may even continue with your three meals per day, but they may not be "square" meals. Have one square, and two very spare, that is, breakfast and lunch very light, and chiefly liquid in character. This doesn't mean soup, necessarily, though soup is fine for your purpose, filling but not fattening. It means food that is largely water, like celery, spinach, tomato, greens, fruit and

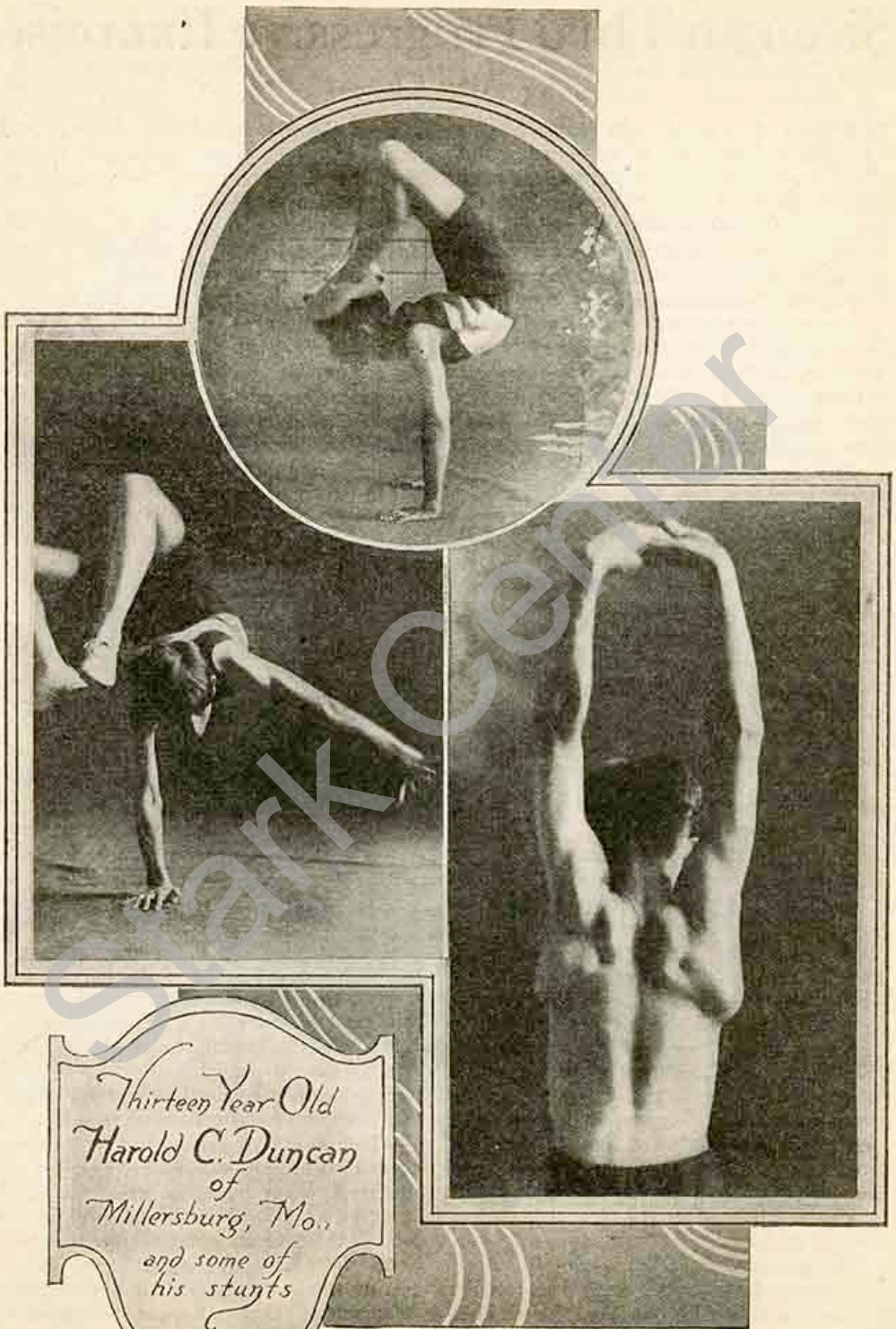
the like—even milk. You would need three or four quarts of milk to keep up your weight, if you lived on nothing else. A glass of milk will not fatten you.

And while speaking of liquid food, don't try the experiment of abstaining from water, trying to dry out your fat. Fat is not made of water, but of food. You may harm yourself by lack of water.

Further than this, I am not going to tell you what you should eat. You might not like the foods I mention. The general principles, however, are here, and you can (Cont. on page 56)



Do your weight-reducing exercises by the hour, not by the grunt—anything that will make you perspire and continue for some little time to perspire.



*Thirteen Year Old
Harold C. Duncan
of
Millersburg, Mo.,
and some of
his stunts*

Strength Thru Progressive Exercise

By Alan Calvert

IF you wish to develop the mental powers of a schoolboy you do so by making his lessons progressively harder, although not necessarily longer. You can give the boy moderate mental effort by making him count up to ten thousand, but that won't develop his mind as much as a few elementary arithmetical problems. Did it ever strike you that muscular powers can be, and should be, developed in the same way? Did you ever try making your exercises harder, instead of making them longer? If you have not, then you have a pleasant and gratifying experience in store for you.

Instead of repeating your different exercises ten times each the first week, twenty each the second week and (maybe!) two hundred times each the twentieth week, why not try the effect of making your exercise a little shorter, but a little harder as you go along?

For instance, if you are fond of vigorous exercise and covet biceps development, you probably practice chinning the bar. And if you do, the chances are that every day you "chin" in exactly the same way, and try only to see how many times you can repeat. If after six months of arduous practice you tell a friend that you can "chin yourself" thirty times, you will be surprised to see how little he is impressed. The chances are that five minutes later he forgets whether you said twenty times or forty times. But, suppose in his presence you "chin yourself" with *one* hand. The next time he meets anyone who knows you he will say, "Holy Moses! that fellow Bill is strong. The other day I saw him chin himself with one hand."

The funny thing is that it takes less time, less exertion, and consequently less fatigue, to learn to chin with one hand than it does to chin even twenty times with both hands. In the bargain, you acquire more develop-

ment of the muscles of arm, shoulder and upper body, and, furthermore, you acquire muscles that respond much more readily to the dictates of your will.

The next time you practice, try this stunt. Grasp the bar with right hand, and with the left hand, grasp the right wrist. Chin two or three times in this manner, and then reverse, and grasp bar with left hand, and left wrist with right hand. Every day you practice try and lighten the grip with the hand that holds the wrist. The easiest way is to release one finger at a time. In a week you will be holding on to the right wrist with the thumb and three fingers of the left hand, and in two or three weeks you should chin

while encircling the right wrist with only the thumb and first finger of the left hand, from which point it is only a short time until you can do the trick while merely pinching the right wrist with the tips of the same left thumb and first finger, as in Fig. 1. One arm alone soon follows.

If you want finger strength, tie leather loops to the bar and chin with *both* hands, but using only three fingers on each hand. Then, later on, two fingers, and in a



Fig. 1

month or so get down to the pair of first fingers, the pair of middle fingers, or the third and little fingers in conjunction.

My, what a terrific grip that gives a man! After a few weeks of such practice, ordinary two-hand chinning becomes so easy that you wonder why you stuck to it so long.

When practicing the foregoing exercises *never count the repetitions. Never say beforehand, "I am going to repeat six times, or seven times."* You should stop just as soon as the exercise becomes uncomfortably hard. That is really the great secret of acquiring unusual muscular strength and development. There is a great difference between endurance exercises, which merely keep the muscles in condition, and progres-

sive exercises, that develop and educate the muscles. Bear that in mind if you practice all or any of these exercises.

Most of your exercises employ either your arms or your legs, and by adapting this progressive principle you can readily make your arms and legs twice as strong and considerably larger than they were before. This means making yourself just about twice as strong as the average man.

Mr. Geo. Elliot Flint, one of the pioneers of progressive work, tells in his book of his experience. Joining a gym, he and his friends used the parallel bars for the purpose of developing arm and chest muscles. The friends were content to practice the usual "dipping" exercise, where the body is lowered by bending arms, and then raised by straightening arms. Mr. Flint, in addition to this exercise, invented some of his own. He would swing his legs in the air, let go with his hands, and actually jump forward, his hands landing on the bars a few inches in advance of the original position. Every day he "jumped" a little farther and in a short time could make a jump the full length of the parallels. As a result of this kind of training he soon exceeded all his classmates in arm and chest development and strength.

That is one way to progress. There is another simpler and easier way, and that is to vary the ordinary "floor dip," the exercise where the body, in a horizontal position, is supported on palms of hands and tips of toes, and then lowered and raised by bending and straightening the arms. Everybody knows that stunt, and while to the beginner it seems hard, it soon becomes an endurance test rather than a developing exercise. I have dipped one hundred successive times in that manner, and have seen a man repeat two hundred times.

This exercise is capable of infinite variation, and it has been written up so often that I doubt if I can give you more than one or two points.

You can, after each time you raise the

body, spread your hands an inch further apart. This throws extra work on the breast and back muscles and develops them tremendously.

You can, after each "dip," move your toes a little bit further from your hands. That throws so much work

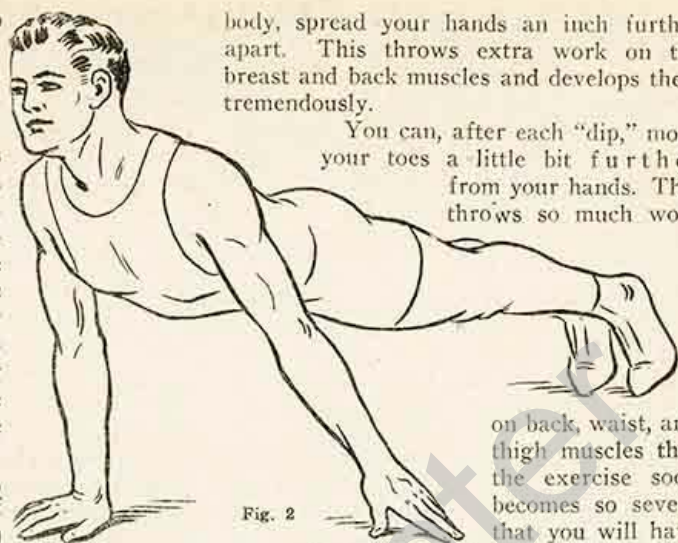


Fig. 2

on back, waist, and thigh muscles that the exercise soon becomes so severe that you will have to rest (flat on ground) a few seconds after each dip.

I know "Strong Men" who can dip either with arms extended full length to the sides, or full length over head, but that is further than most of you will be able to go.

If you want to learn to dip with one arm you follow the same method as in chinning, that is, you adopt a position that throws more work on one arm than on the other. Dip once with both arms, and before the second dip move your left hand a couple of inches out to the side, and on each successive dip move left hand out still further until you have reached your limit. Be careful to keep your body as much as possible over the right hand, as in Fig. 2. Now, after a moment's rest, start over again and work right hand out to side, keeping body over left hand so as to make the work harder for the left arm.

The foregoing will soon enable you to make a one-arm dip in the usual position of face downward, although when you are using one arm only you will find it necessary to place the hand crossways on floor (with thumb towards feet) in order to preserve your balance.

Some athletes lie on side on floor when making a one-arm dip.

You can soon develop strength enough to use that method by gripping with the free hand the edge of a heavy table, or the foot board of a bed and pulling with free arm, while pushing with the dipping arm. Naturally, you develop the pushing muscles of

the dipping arm by gradually lightening your pull with the free arm.

The floor dip employs many more muscles than those of the arms and chest. While dipping you must hold the body in a straight line from neck to toes, and all of you have certainly noticed that after several two-arm dips you can feel the muscles of the waist and front of thighs tensing in order to keep the body from sagging.

If you want to increase the work on the legs and waist, dip with both arms, but raise one foot in the air. If you raise the left foot in air, and hold it there during several dips, you will give vigorous work to the muscles on the back of left thigh, the left buttock and lower left side of back, while the muscles on the front of the right thigh and the right side of the abdomen will likewise get more work. When you raise right foot, as in Fig. 3, the muscles in action are just reversed.

Wrestlers training to strengthen their abdominal muscles adopt the regular dipping position, but instead of bending the arms and lowering body, they keep arms straight and allow body to sag until the stomach touches the floor and then raise the hips as far from floor as possible; repeating a great many times. Or they sit on floor, reach backwards, put palms on floor and raise hips as high as possible, thus exercising the muscles of the under thigh, buttocks and small of back.

Either of these exercises can be made more strenuous by keeping only one foot on the floor and

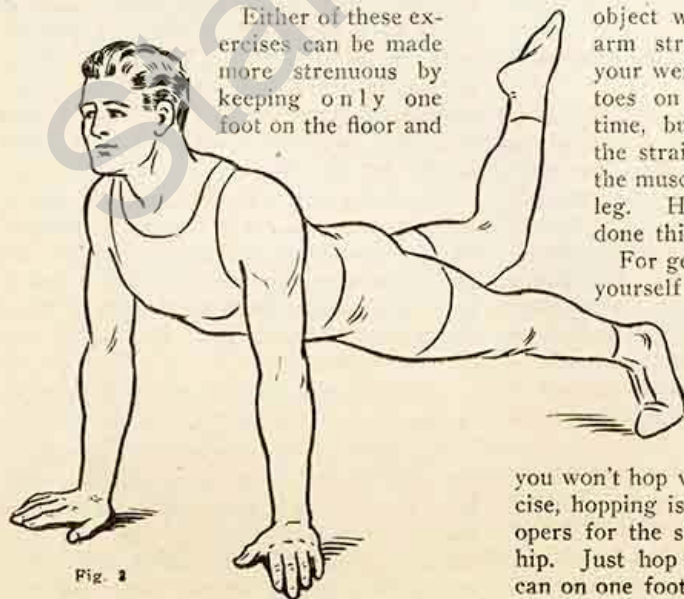


Fig. 3

holding the other in the air. You will be surprised at how much strength you can develop in your loins by these two simple exercises.

For the muscles of the sides and for that coveted development on the outside of the thighs, you should support your weight on one hand and sides of feet (toes of one foot touching the heel of the other foot) and allowing body to sag downwards until one hip touches floor. Of course, you must give both sides an equal amount of work, which entails reversing your position; and you will find the work a great deal more beneficial if you teach yourself to use only one foot instead of both.

Four out of five instructors will tell you that all that is necessary to develop the muscles of the calves is to raise upon the toes and repeat until you are tired. I once knew a man who repeated this movement a thousand times daily without acquiring noticeable calf development. When he changed his method and worked one leg at a time, he found that a hundred repetitions really taxed his muscles, and rapidly increased their size. When going on tip-toe on one foot, you must rest one hand against a door jamb, or on the back of a chair to help you keep your balance, and each time you must raise your heel as high as possible.

You can strengthen ankles, toes and calves by teaching yourself to stand on tips of toes as the dancers do. Grasp some firm object with both hands. Use your arm strength to support most of your weight and put the very tips of toes on floor. It may take some time, but by gradually decreasing the strain on arms you can develop the muscles in feet, ankles and lower leg. Hundreds of dancers have done this, and so can you.

For general leg development, train yourself progressively until you are able to use one leg at a time. If you have any doubts as to the value of this method, try a little hopping. You may be able to run for ten miles, but you won't hop very far. As a general exercise, hopping is one of the very best developers for the sides, and the entire leg and hip. Just hop as far as you comfortably can on one foot, and after a rest, then turn

around and hop back on the other foot. Never allow the heel to touch the ground while hopping. Don't go at your hopping too vigorously at the start. It is very strenuous work and the muscles used must be gradually conditioned by slow increase in distance covered.

But rest assured that leg muscles developed by a course in hopping are put on to stay.

For the thigh muscles, you have probably been practicing squatting, or the "deep-knee bend," or "sitting on your heels"; three different names for the same exercise. The chances are that you may repeat the exercise 50 to 100 times and it is likely that, day in and day out, you limit the value of the exercise by always keeping your feet in the same position. Even if you don't aspire to the leg development that comes from doing the deep-knee bend on *one* leg and prefer the easier exercise of using both legs, in the usual way, you can improve your thigh development by varying the foot position. If you stand with feet close together and point knees forward as you squat, you will help the front of the thigh. If you stand with heels together and toes turned out, and spread knees *far apart* as you squat, you will help the muscles on the outside of thighs. If you stand with feet about twenty inches apart and keep flat-footed as you squat, you will help the inside and back of thighs.

Certainly it is better to squat 20 times in each of these three positions than to squat 60 times in the first (and most usual) position.

But real thigh strength does not commence until you are able to hold one foot out straight in front of you and squat down on the other foot. You may be able to do the squat three hundred times on both legs and yet be unable to do it once on one leg. Not that it requires three hundred times, or even three times as much thigh strength, but that squatting on one leg does require considerable strength in the waist muscles that you can never acquire by squatting on both legs.

In one-leg squatting, you can either raise heel from ground as leg bends, or you

can keep flat-footed. The second is the harder. It requires more strength and

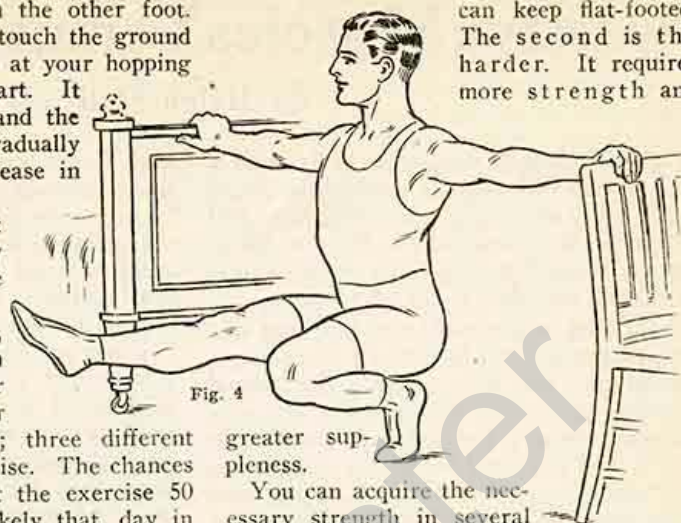


Fig. 4

greater suppleness.

You can acquire the necessary strength in several ways. Place a chair about four feet from foot of bed. Put one hand on back of chair and other on bed. Hold one leg straight out in front and sink down on other heel, as in Fig. 4, and when you straighten up assist with your arms.

At first you will probably use your arms vigorously. Your leg muscles may be so inelastic that you can't go all the way down. In such case, go part way, but persist until you can actually bring your buttocks either against heel (if heel is raised) or within a couple of inches of floor (if flat-footed). It won't be long before you are using the arms only to steady yourself, and then you must dispense with first one-hand support and then with both. Remember that it is a strength feat, not an endurance exercise, and be content with three or four repetitions.

Or you can use only one-hand support and both legs. In this case you keep body over right leg and advance left leg twenty inches, resting left heel on the floor (or vice versa). You squat straight down on rear leg, using advanced leg to help pull yourself erect and gradually shifting more and more of the work on the rear leg. This method is not as good as the other.

You may have seen the famous Cossack dancing step, where the dancer, with arms folded across chest, sinks down on right heel with left leg extended frontwards (heel touching) and then, like a flash, changes to a squat on the left leg with

(Continued on page 55)

Massive Muscles Versus Efficiency

By Ralph Hale

THERE is a widespread belief that a man with massive muscles, developed through heavy weight-lifting and other strenuous exertion, is likely to die at an early age, has little brain power, and is awkward and slow in his movements.

The first of these charges has been discussed pro and con in this and other magazines over and over again. The second charge against the strong man, for very obvious reasons, has not been paraded in print very glaringly for it is a ticklish undertaking to point out which strong man does and which strong man does not possess mentality. The third charge—that the strong man is hampered in his bodily movements, and that his muscles lack skill and intelligence, has not been given the consideration it deserves.

After all, a few years or less of life is of no great importance, especially if the later years of life be spent in inactivity and, perhaps, in serenely awaiting the end. On the other hand, the degree of efficiency during the active years of life is of decided importance.

The study of muscular efficiency has always been somewhat of a hobby with me. Unfortunately, careful search in our libraries reveals no definite data on the effect of strenuous exercises upon muscular efficiency. Although there are records of tests made with the aid of complicated apparatus to determine the contractile force of various sets of muscles, and endless data on the measurements of the human body, there is little or no data on the speed with which the muscles respond to the command of the mind. I have been compelled to be guided, therefore, in the study of the science of muscular efficiency, by observation rather than by accurate scientific data.

First of all, it must be admitted that men of small, slender physique are, as a rule, more rapid in their motions than large men. This is also true of most animals. The graceful and agile lion or tiger cannot turn in his tracks or perform other motions as rapidly as the rat or mouse. This restriction in bodily action is governed by certain

well known laws in physics. In actual speed, however, the large animal usually far surpasses the small animal, though it does not appear to be so. The seemingly greater speed of small men and animals is an optical illusion. We have the same optical illusion in observing the speed of machinery. For instance, in observing two locomotives, a large and a small one, traveling at the same speed, the small locomotive, with its small driving-wheels and relatively rapid moving connecting rods, appears to move faster than the large locomotive, with its larger wheels and slower acting connecting rods. Similarly, the ponderous arm of a heavy-weight boxer seems to move quite slowly as compared to the slender arm of the feather-weight boxer. Yet if the actual speed of the fists of the two were measured, it would be found that the speed of the hand of the heavy-weight boxer is at least equal to that of the light-weight boxer. Few people can realize that a ponderous elephant with his apparently slow and awkward walk travels at a greater speed than a running mouse, though the mouse's feet move so rapidly that the eye cannot follow them. As stated, therefore, the much credited superior speed of small men is an optical illusion and not an actual fact. I have, in a crude way, and without the aid of extremely delicate instruments, made some tests of the comparative speed of large and small men, and to say the least, honors were about even.

Bodily activity and speed is mainly a question of Nerve Force. Motion of the arms and legs, and the body, is produced through muscular contraction and relaxation, which in turn is governed by the nerves. The more powerfully a muscle is acted upon by the nerves, the greater and more rapid will be the contraction and in consequence, the more powerful and rapid will be the bodily motion. In the last analysis, therefore, bodily speed and activity depend mainly upon the nervous system. This accounts for the fact that two people of approximately the same height, weight, and physical proportions very often vary greatly in their speed of action. It is estimated by careful tests that an impulse of Nerve Force travels

through the nerve fibres at an average rate of about 111 feet a second, that is, if the mind wills that the forefinger shall be crooked, and if the distance from the brain to the finger is about three feet, it will require $1/37$ of a second for the message from the brain to reach the finger and impart motion to its muscles. Nerve speed varies in individuals to a great degree. Usually it is very high in a person with a motive-nervous temperament and it may be very low in a person of a phlegmatic temperament. Also, the volume of Nerve Force, that is, the factor that governs the degree of muscular contraction, varies greatly in people, according to their nerve characteristics. This accounts for the fact that a man with large muscles may not be as strong as a man with considerably smaller muscles.

Speed of motion, while of importance, especially in athletics, and playing of musical instruments, is not as important as muscular intelligence — accuracy of motion and the timing of motion. Great speed of muscular action without accuracy and well timed rhythm would be of little or no value. Think of a boxer, wrestler, high jumper, pianist, or violinist having extreme speed and no accuracy of motion or ability to time his motions. ALL would be chaos. Muscular control, therefore, is the most important factor in all muscular effort. Does the small lithe man excel the heavy muscled man in accuracy of motion and timing his muscular actions? Most decidedly "No." Our greatest violinists, pianists, painters, sculptors, are usually large and heavy men. At a recent typewriters' speed test held in New York a large and powerful man won the contest, though pitted against him were a score of apparently agile men and women. The reason that women have failed to excel men in any art or accomplishment requiring muscular control and speed is due to the fact that a

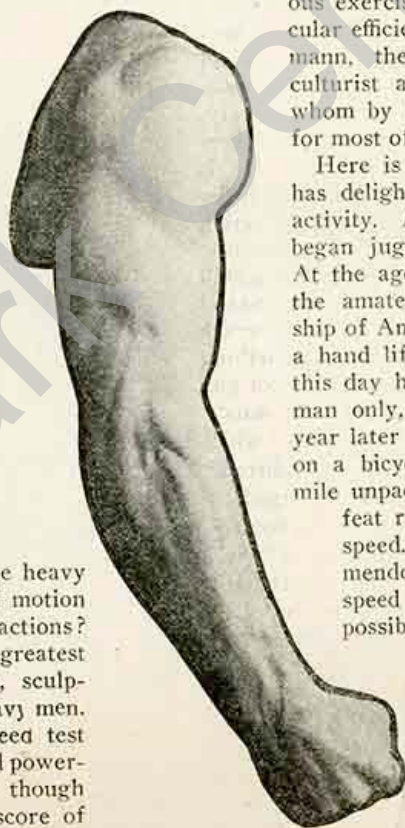
woman has not man's muscular strength. It is a well known fact that large and strong men as a rule excel weaker men in all work requiring a delicate touch.

The main question I wish to discuss in this article is whether strenuous physical exercise improves or decreases muscular speed, accuracy, and rhythm. Would heavy weight-lifting, for instance, cramp the muscles of a pianist and impair his technique? It is a general opinion that it would do so, but no irrefutable facts have been presented to prove it. Joseph Hoffman, the great pianist, for instance, has a phenomenal muscular development of the arms, wrists, and hands, and all his life he has delighted in exercising his powerful muscles by heavy exertions.

The man who stands as an example above all others, as evidence showing that strenuous exercise does not impair muscular efficiency, is Paul von Boeckmann, the well known physical culturist and Nerve specialist, to whom by the way, I am indebted for most of the data presented here.

Here is a man who all his life has delighted in intense muscular activity. At the age of sixteen he began juggling heavy dumb-bells. At the age of twenty-one he won the amateur wrestling championship of America. In 1893 he made a hand lift of 1652 lbs. which to this day has been excelled by one man only, Lewis Cyr. About a year later he made a world record on a bicycle, riding a third of a mile unpaced in $36 \frac{2}{5}$ seconds, a feat requiring phenomenal leg speed. Surely if lifting tremendous weights impairs the speed of muscles he could not possibly have made this record.

His greatest strength lies in his arms and hands. His fore arm and wrist are especially ponderous. (The size can be judged when it is stated that his wrist measurement is $7 \frac{7}{8}$ inches.) For years he claimed to have the strongest grip in the world. Even to-day,



The arm of Paul von Boeckmann, said by Sarony, the famous photographer who has photographed many famous strong men, to be the most symmetrical arm he has ever seen.

though he is past 50 years of age, it is doubtful if there are half a dozen men in the world who can compete with him in a grip test. Recently at Bothner's gymnasium in New York, I saw him lift a massive dumb-bell from the floor with one hand, which, I am told by a reliable authority, has never been done by any other man who visits the gymnasium. I might state that the dumb-bell belongs to the Olympic champion strong man of the world, Toffalos. Furthermore, Bothner's gymnasium is the rendezvous of the world's greatest wrestlers and weight lifters, who have been unable to lift this dumb-bell.

I have seen von Boeckmann tear a New York telephone directory in half and then in quarters in fifty seconds. Therefore, if massive muscles and years of extreme muscular exertion have a tendency of causing muscular slowness and inaccuracy, von Boeckmann should be a veritable dullard in his arms and hands. This he certainly is not. On the contrary, few, if any men in the world, have better control of their arms and hands. He is master of many accomplishments which demand great speed and accuracy of action of the hands and arms. Perhaps the best example of his muscular control is his skill as a "trap-shot." In order to understand the extreme skill required to be a crack trap-shot it is necessary to know something of the sport. The shooter, with a shot-gun in hand or at his shoulder, faces a mechanical device known as a "clay target trap," which throws a target into the air to a distance of about 50 yards. The shooter stands at a mark back of the trap varying from 16 yards to 23 yards. At his command "Pull," the trap is sprung and the target takes flight. At every "pull" the direction of the flight is changed, varying from an extreme right angle target to an extreme left angle. The angle is unknown to the shooter, as it is set by a man hidden in the "trap-house." The speed of the target as it leaves the trap is estimated at from 45 to 50 miles an hour, and when a wind is blowing targets dodge hither and thither, thus adding to the difficulty of breaking them. So rapid is the flight of the target that the shot must be directed a considerable distance ahead, over or under the target. An extreme angle tar-



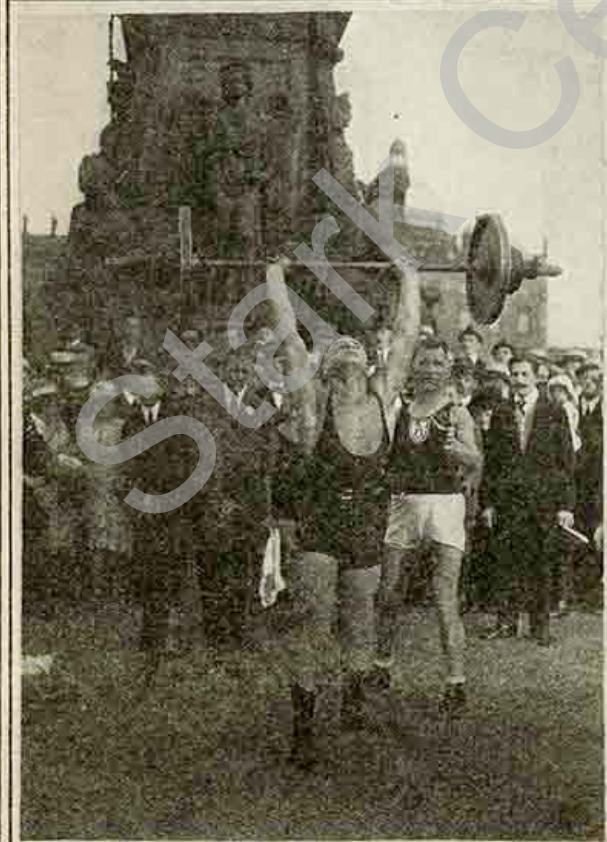
Piece torn out of a full deck of playing cards, which is perhaps the most difficult of all card-tearing feats. This feat was accomplished by Mr. von Boeckmann

get must be "lead" from three to six feet, according to varying conditions. As the effective area of the load of shot is not greater than a circle of about eighteen inches, it is very evident that an error in the "lead" of less than a foot will mean a miss. Much less than one second elapses from the time the target is first seen in flight till the time when it is broken. If the muzzle of the gun is misdirected but a quarter of an inch it means a miss. If the pull of the trigger is delayed a tenth of a second it means a miss. Yet in spite of these extreme requirements in accuracy of action and timing of muscular contraction, von Boeckmann, during the season of 1921 has on seven different occasions made a run of 100 straight or more. It is a goal that all of the many thousands of trap-shooters in the United States strive to attain, but few ever do. Nearly every week in the New York daily papers, von Boeckmann's name appears in the headlines: "Von Boeckmann Victor." Or "von Boeckmann, New York crack-shot, wins with the phenomenal score 98 or 99 out of 100, etc.

In addition to extreme muscular co-ordination, trap shooting demands intense mental concentration and extremely rapid mental decisions in judging the amount of "lead" a target must be given. All in less than three-quarters of a second.

It is true that other gunners have made

(Continued on page 56)

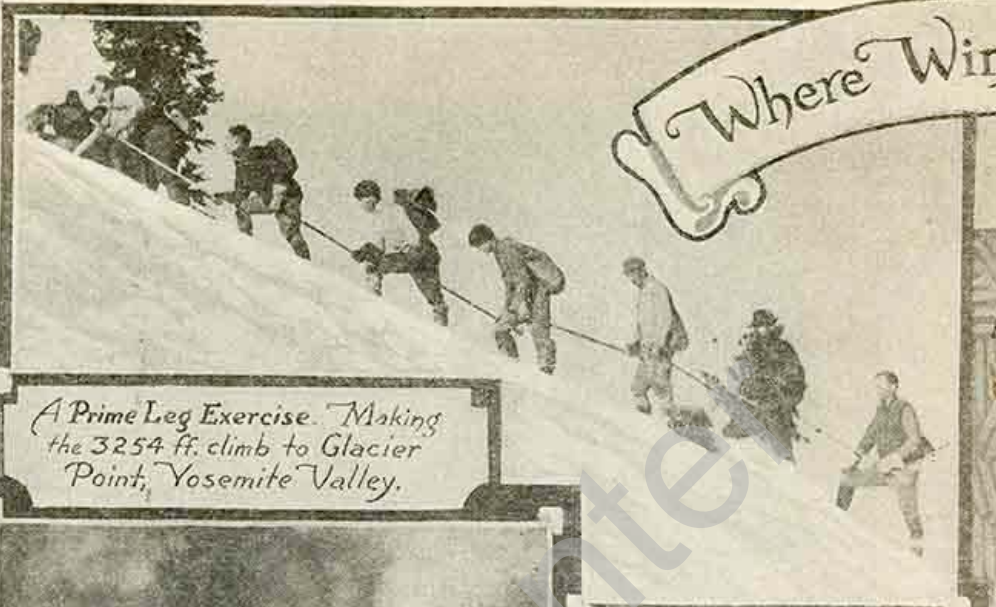


WHERE ONCE
THE KAISER
REIGNED

Athletic Tournament in front of the ex-Kaiser's Palace, for the first time used as a public exhibition place. The top picture shows the athletes being reviewed by officials, and the bottom picture, one of the weight lifting events. The weight is 230 lbs., but the lift and the name of the lifter are not mentioned.

© CENTRAL NEWS PHOTO SERVICE

Where Winter Sports



A Prime Leg Exercise. Making the 3254 ft. climb to Glacier Point, Yosemite Valley.



Each year women and girls are going in more than ever for winter sports. The photo shows Miss Otilie Barth, of Brooklyn, N.Y., a fair skater of championship calibre.



And the girls like Stryker and Miss were the winners of winter sports carn.

PHOTOS COPYRIGHT

Winter is King



"Over the Top" at full speed
Tobogganing is a favorite
at Lake Placid, N.Y.



Sledding, too. Miss Frances
and Miss Marion McLean
win the sledding contest in the
winter carnival at Wellesley College.



Raymond Murray

The ten year old speed skating marvel.
Raymond, who is one of the most remarkable infant prodigies in the athletic world, was taught the rudiments of speed skating by his uncle, Joe Moore, the international champion.



CHANG ENG CHEOW
*Penang,
strait Settlements*



MATTHEW I. TANSKI
*Albany
N.Y.*



VIRGIL PETER
St. Paul, Minn.

Coffee—and Condition

By J. Morgan Thorn, M. D.

DURING the twenty-five years of my medical practice I have had many professional athletes under my care. The bodies of those men are their stock in trade. It is far more important that their nerves and muscles be perfectly attuned than it is for a follower of a sedentary occupation to attain that perfection. That is why the intelligent athlete does not smoke, use alcohol or drink coffee during his training period. There have been exceptions, successful exceptions, but they were abnormal specimens and should not be set up as criterions.

It is not the professional athlete, but the man in the street with whom we are principally concerned. It is not this fellow's problem to get his body into a razor-edge condition of "fineness," such as a boxer or runner desires at the moment of competition. He just wants to be in 100 per cent. working condition—and steady nerves are more necessary than hard muscles in achieving that object.

Nerves react to stimulants.

Coffee is a stimulant.

Can a person attain the 100 per cent. working condition I have mentioned if he is a consistent coffee drinker?

The United States is probably the greatest coffee-using country in the world. Englishmen, both on home soil and in the colonies, are extraordinary imbibers of tea. So are the Russians. The Scandinavians, I should say, rank next to Americans as coffee drinkers, while the Latin peoples are far more inclined toward alcoholic beverages, though chocolate is nearly always a part of their breakfasts. I have mentioned these facts because coffee and tea contain the alkaloid theine or caffeine—and caffeine is the most pronounced of the cerebral stimulants. The popularity of the beverages in question is principally due to the fact that they are stimulating—and there is no stimulant which is not likely to be abused!

I have always been a disciple of moderation. If a man is in excellent condition he may smoke and use alcohol or coffee moderately without it affecting him adversely

because his body is capable of a high degree of resistance. A man with enervated nerves or tissues (and they are only enervated because of previous excesses) cannot use any stimulant or narcotic without some adverse physical effects.

But let us come back definitely to coffee.

It contains, as I have said, caffeine, which is a cerebral stimulant. A cerebral stimulant is a drug which physiologically excites the motor centers of psychologic activity. Dr. Kellogg calls caffeine a "nerve poison identical with uric acid." Coffee also contains tannin, an astringent known as one of the constituents of oak bark.

Coffee possesses no nutritive substances. Many people—and this is particularly true among women—use nothing but coffee for their morning meal. It "holds them up," as they say, and they believe that they gain nourishment from it. Actually, it merely depresses the feeling of hunger for a time, and increases mental and physical activity, which is usually followed by increased hunger.

This increased activity often appears at night and is the cause of insomnia. In some respect large doses of caffeine act antagonistically to those of alcohol, especially in nervous individuals. Alcohol stupefies and invites sleep, while coffee has the opposite effect. It is common knowledge that men who have work of intense concentration during the night hours drink heavily of coffee to keep them awake and "pepped up," as they call it. Men employed on morning newspapers, authors who do most of their work in the wee, sma' hours and others in similar occupations, as a rule, drink too much coffee. It has been found by ergographic experiments that caffeine restores the power of performing work after muscular exhaustion, but only if food has been taken previously or simultaneously. It causes physical excitement without being followed by depression.

This was amply proven in the army. Many a time I rose in the cold, gray dawn, wet to the skin, shivering and with the blue devils thick in my mind. A cup of scalding hot coffee was the first step toward a nor-

mal condition. In this respect it seemed to me that coffee was far better for the men than the rum ration issued by the British and the wine by the French authorities.

Conditions—mentally and physically—were abnormal in France during the war-time. It was better that the nerves and minds of the soldiers be stimulated continually, even if it was at the eventual expense of their bodies. It was necessary that the body be driven on, even after muscular exhaustion had arrived. And caffeine—that feeble basic substance hidden away in the dried seed of coffee—contained the driving power.

Conditions are seldom like in civil life. It does not seem necessary to me that a person should require a stimulant immediately after rising from a warm, dry bed after a comfortable night's sleep. Yet millions of people have so accustomed their nervous systems to regular doses of caffeine that they are nervous and irritable without it; they develop headaches and "grouches." They would find as much difficulty in giving up their morning cup of coffee as the habitual smoker would in getting his body used to the absence of nicotine.

I speak now of the excessive use of coffee—the person who drinks from three or four to six or more cups a day; to the person who regards no meal as complete without his coffee. Moderation is a word with which they are unfamiliar. If they are as immoderate in their eating and smoking and sexual relations as they are in their coffee drinking they can be assured that they are cutting years off their lives. And they can be just as sure that the later years of their lives will be miserable with ailments they have brought upon themselves.

The average cup of coffee contains four grains of caffeine and two grains of tannin. The former has already been described. Tannin is an astringent and is harmful to the mucous membrane of the stomach and intestines. It diminishes intestinal movement and so is a direct cause of constipation.

Overindulgence in coffee for the average person is, I repeat, bad. Under conditions of mental strain and unrest the stimulative effect of the beverage is helpful, but scarcely otherwise. I should say that a *little* coffee every day would not materially affect a healthy person—but it would certainly do him no good.

Constipation and insomnia can, in numerous cases, be directly attributed to excessive coffee drinking; and there is little question, I think, but that the uric acid contained in the beverage is detrimental to persons with rheumatic tendencies. That these facts are understood by laymen as well as the medical profession is shown by the number of manufacturers who prepare coffee substitutes.

Moderation!

I have dwelt particularly on the average citizen who does not go in for strenuous athletics. The athlete should eschew coffee altogether while training, and indulge in it only sparingly when not going through the rigors of preparation.

Strength, as you know, is not merely bigness and hardness of muscle. The explosive nerve energy behind the muscles is even more important. This has been proven time and again when small men have beaten bigger opponents in the ring and on the mat. Jess Willard is a far bulkier man than Jack Dempsey, but even had Willard been trained to his finest point it is doubtful if he could have withstood the present champion's dynamic power.

This nervous energy is not inexhaustible. Repeated drains on the source deplete it in time. Alcohol and sexual excess will probably make the reaction sharper, but excessive eating, smoking or coffee drinking are very real sources of danger.

There isn't any use in saying: "But, doctor, there's Mr. So-and-So. He drinks two or three times as much coffee as I do, and it doesn't seem to affect him in the least."

That is the favorite excuse of the person who indulges himself—but it really is not an excuse at all. The other man's power of resistance may be far greater than yours. He may be able to go to excess in a dozen ways over a far greater period than you before the inevitable reaction appears. John L. Sullivan, in the hey-day of his career, scoffed at the idea that whisky could get the decision over him, and a good many years passed before it finally did. The Mexican lightweight, Aurelio Herrera, smoked twenty or thirty cigars a day while in training—as was pointed out in last month's *STRENGTH*—and it did not seem to hurt him. Nouroulah, the gigantic Turkish wrestler, lived almost entirely on thick black
(Continued on page 58)

How to Develop the Muscles of the Abdomen

By O. R. Coulter

THE development of the abdominal muscles is of the utmost importance to every individual, whether he realizes it or not. No system of health improvement is adequate for the purpose the name implies that does not develop a healthy condition in the muscles of the abdomen. While no exclusive training of one muscle or single group of muscles is advisable, yet if one were to adopt such a procedure, he might well take the abdominal muscles for his subject in preference to most any other group. The proper development of these muscles bears a close relationship to the functions of breathing and digestion, and any increase in vigor of these muscles encourages an increase in the general vitality of the body.

In diaphragmatic breathing there is an alternate high and low pressure throughout the abdominal cavity, which stimulates the blood circulation in the region of the abdomen. The internal exercise brought about by diaphragmatic breathing is of considerable value in restoring the functional power of the vital organs; and while breathing is ordinarily involuntary, yet a proper development of the abdominal muscles aids proper diaphragmatic breathing.

The erect posture of man places him at a disadvantage in several ways, especially, by increasing the height of the blood column, thus causing the blood to gravitate into the intra-abdominal veins. Among the resources of nature to combat this tendency, the vigor of the muscles of the abdomen is of prime importance.

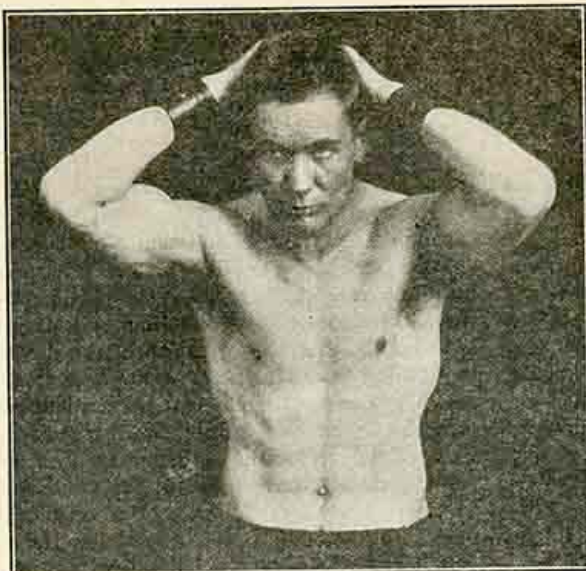
The relationship of abdominal development to digestion can best be realized by a little study of the digestive process. The moment that food reaches the stomach, the involuntary muscles of this organ, controlled by the nerves of the sympathetic system, start a churning motion that continues until the last bit of food has been expelled. In the small intestine the movement is controlled by a series of

ring-like muscles that contract and relax alternately, pushing digested food along through the intestine and mixing the pancreatic juice and the bile with it. We must naturally reason, therefore, that if the contractile power of these involuntary muscles is lower than normal, so much of the digestive ability is diminished. Sometimes these muscles become unable to perform their function because of neglect or ill treatment by artificial irritation of drugs or by lazy habits that allow them to get rusty and out of tone generally. When such a condition exists long enough, it often results in Heart Palpitation, Bilioussness, Dilatation (or unnatural stomach expansion) Flatulence, or Constipation arising directly from Indigestion.

To increase the strength of these involuntary muscles would be the way to overcome any effects arising from their lack of normal power, but as these muscles are involuntary and not subject to the will, the question how to do this arises. This appears difficult of explanation at first thought, but while these muscles cannot be controlled directly they can be indirectly by reason of their sympathetic relation with muscles which can be controlled. These sympathetic voluntary groups are located along the back, sides, abdomen, etc., and can be given desired ac-



M. J. Ford, "the Scotch Hercules." A pupil of O. R. Coulter.



M. R. Mason, a pupil of O. R. Coulter. Depicting abdominal and general bodily development.

tivity by properly directed exercises. All the tonics ever compounded cannot compete successfully with muscular activity in the digestive regions for promoting a vigorous digestion and increasing vital power, for exercise of the abdominal muscles accelerates, indirectly of course, but nevertheless, the work of the liver, the lungs, the kidneys and the stomach.

The exercise of these muscles has a direct bearing on the fatty condition of the body. When they are in the best of shape excessive fat cannot live. Thus the most direct way to removing fat from the abdomen is to establish a healthy system of muscle there. A man may box and fence without losing his terrible abdominal accumulations but if he directs his effort at muscular exertion on the abdomen itself, the fat cannot stand the attack and will gradually disappear. Aside from the general advantages that are afforded by well developed abdominal muscles, the strength athlete has special need for development here. It gives him a natural protection against rupture that even some strong men have suffered as a result of inadequate development of the abdominal muscles. A clean cut abdominal development is an absolutely necessary attribute of a well developed athlete and no man could attain much of any fame as an artist's or sculptor's model without a more than passive development in these parts.

One could not achieve much of any reputation at cabinet posing without a real worth while development showing both size and contour in the abdominals. These muscles are readily adapted for display and it would seem almost impossible to give an impressive exhibition of muscular posing without including them in the exhibition.

Notwithstanding the real need of well developed abdominal muscles, many men go through life without ever attaining abdominal development enough to give any realization of its possession. Even athletes do not as a class possess near the development in these parts that they should. J. P. Muller in his popular treatise, "My System," draws attention to this lack of development when he writes as follows: "Compared with the recog-

nized ideals of antiquity, all the athletes of the present day are very poorly developed round the waist." I believe this is a little strongly put, but it is certain that the majority of present day athletes do not have their abdominal muscles as highly developed as many of the ancient statues among which "Doryphoros of Polycleto's" is one of the outstanding examples. Some students of anatomy have even gone so far as to assert that the Greek women had better developed abdominal muscles than the average man of to-day. Others have called attention to the contrast in abdominal development depicted by the statues of the ancients as compared with the works of modern sculptors.

But there are two sides to every story, and the abdominal side, and the pectoral muscles are so noticeable in the Greek statues, partly because the other muscles are at least relatively smaller, if not actually small. If there was any real superiority in the Greek athlete as compared with those of modern times, it must have been due to better abdominal training as the size of ancient armor has proven inadequate for the chest development of some of our modern athletes. I think that Sargent explains the cause of any superiority in the abdominal development that may have existed in the days of the ancient Greeks, when he says,

(Continued on page 54)

Head Locks and Chancery Holds

By William J. Herrmann

Of Herrmann's Physical Training Institute, Boxing, Fencing and Wrestling Academy, Philadelphia, Pa.



Stanislaus Zbyszko

Dear Herrmann:—

Advance proof sheets of "Head Locks and Chancery Holds," also proofs of "NELSON'S—How to Take and How to Break Them," are the most thorough and instructive articles on these wrestling holds I've ever seen in print.

STANISLAUS ZBYSZKO,

World's Champion Catch-as-catch-can Wrestler.

(Continued from last month)

Standing Front Chancery and Bar Hold

ANOTHER good Front Chancery combination. Undoubtedly the most popular Front Chancery combination in common use among amateur as well as professional wrestlers. This hold is described under the supposition that it be secured from the Referee's Hold with your left hand on your opponent's neck.

A Chancery and Bar Hold can also be just as readily secured from Free Play following a successful feint that paved a way for it, as well as on a wrestler who wrestles with his head low. It can be and is often secured when both wrestlers are working from in front while on one or on both knees, as well as when working low in the Neck and Arm or Referee's Hold with knee or knees near or on the mat.

Place left hand on opponent's head. Forcibly yank your opponent's head down and forward with your left hand in order to trap his head in a Front Chancery Hold under your left arm-pit by quickly shifting your hand from in back of opponent's head to around his head so your hand is on his chin. The yank on opponent's head if properly timed and applied is likely to slightly throw your man forward off his balance. In consequence, your opponent's left arm is likely to swing slightly forward. This will

give you an opportunity to secure a Bar Hold by slipping your right arm under his left upper arm until your arm is well over and across his back. Suddenly force your man's body down and forward to weaken his position in order to make it easier for you to force him down to the mat. You can either gradually drag your man down

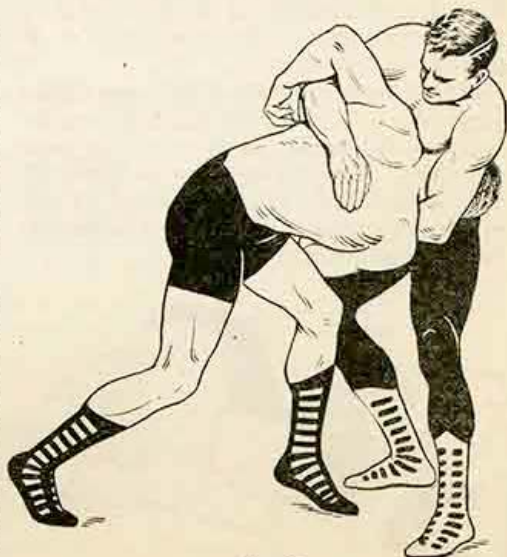


Fig. 52

Standing Chancery and Bar Hold.



Fig. 53

Fall Imminent from a Chancery and Bar Hold.

to the mat in this manner or over-step your man's right leg with your right leg, or you can trip your man or drop on one knee to force him bodily down towards the mat in order to finally turn him over. Turn him over to your left by pulling your man's head in close to your body with your Chancery Hold. Hold his head tight while twisting his face well with the Front Chancery Hold held with your left arm, while levering him over with the Bar Hold held with your right arm; until his shoulders are held and pinned fair and square to the mat for a fall. Be sure you don't relax your holds in spite of any stubborn resistance he may offer against you. A sure fall can be secured by means of this hold without the aid of any other assisting hold or holds providing this combination was properly held and performed. Its weakness is the fact that it is rather easily countered if attempted on a more clever opponent.

Fig. 52 illustrates a Standing Front Chancery Hold held with your left arm in combination with a Bar Hold held with your right arm. Fig. 53 illustrates an imminent fall, while Fig. 54 illustrates a fall gained by the proper use of this popular Chancery and Bar Hold combination.



Fig. 54

Fall from Chancery and Bar Hold.

Chancery and Bar Hold on the Wrestling Carpet

Precisely the same double combination Chancery and Bar Hold just described with the exception that it is secured and applied while working on your opponent while he is on his hands and knees on "all fours" on your front.

Both holds and their form of combination are practically the same whether they be secured while wrestling up-standing or when working down on the wrestling carpet. Nevertheless, different methods of breaking and countering this combination will naturally present themselves to your opponent if applied while your man is on his hands and knees on "all fours" on your front, than when he is wrestling up-standing on his feet. Besides, the under man



Fig. 55

Chancery and Bar Hold.

can resist more effectively by bracing himself with his free right arm. However, this right arm brace on the part of your opponent would only temporarily check a clever wrestler, as eventually he would wear down this support by superiority of position and score a fall in spite of it.

Fig. 55 illustrates a Left Front Chancery and Right Bar Hold secured from the front while your opponent was down on the wrestling carpet on his hands and knees on "all fours."

Standing Front Chancery and Body Heave

This combination is described on the supposition that you have successfully secured a standing Left Front Chancery Hold on your opponent. As your man attempts to resist, by bracing his right arm against the front of your left upper leg; turn quickly to your right and swing your right arm

under his body in order to enable you to heave your opponent's body clear over his head and shoulders in a spectacular dashing throw to the mat.

You can either dash your man bodily to the mat, while remaining up-standing on your feet as in the preceding manner or you can instead follow up your advantage, by lowering your man's body so as to enable you to press his shoulders flat down on the mat and hold him there for an appreciable length of time in order to score a pin fall in your favor.

A good spectacular chip used mostly in exhibition work, due to the fact that there are far more easier methods to overcome an "Arm Brace" against a Front Chancery Hold than a Half Under Body Hold Heave. It requires some strength to effectively



Fig. 56

Standing Front Chancery and Body Heave.

heave a man your own size and weight in this spectacular manner, whereas a quick freeing step with your left foot, or a sudden drop on your left knee would easily have nullified your opponent's defense. Nevertheless, this combination Chancery Hold and Body Heave can be and is used just as effectively in genuine contest. If applied in actual combat, the chances are you at least will take your opponent by surprise, due to the fact that in all probabilities he would not be anticipating this particular

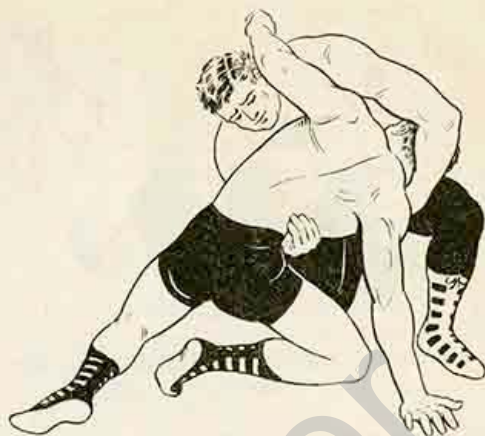


Fig. 57

Chancery and Half Under Body Hold Heave.

front chancery combination unless he was aware that this chip was one of your favorite combinations. In consequence, it is well worth your while to give this combination serious consideration in order to thoroughly master this chip in every detail so as to be able to effectively use this spectacular combination in actual personal combat as well as in friendly exhibitions. A fair amount of strength is necessary in order to effectively hold and perform this spectacular combination in good form and style.

Fig. 56 clearly illustrates a Standing Left Front Chancery used in effective combination with a Right Half Under Body Hold Heave.

Front Chancery and Body Heave on the Wrestling Carpet

This hold is described on the supposition that your opponent's head is securely trapped with your left arm, in a Front Chancery Hold. This is practically the same double combination hold as the Standing Front

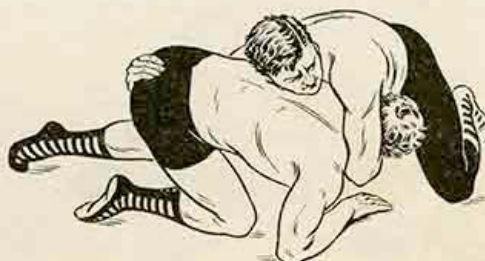


Fig. 58

Chancery and Inside Crotch Hold.



Fig. 58

Fall from Chancery and Inside Crotch Hold.

Chancery and Body Heave just described with the exception that it instead is secured while your opponent is down on his hands and knees on "all fours." As your opponent attempts to counter your Front Chancery by means of a Chancery Hold on his part, by swinging his left arm over your head, quickly avail yourself of this opportunity to instantly secure on him an Under Half Body Hold with your right arm. Follow up your advantage without hesitation by actually heaving your opponent bodily to your left, clear over his head and shoulders in such a manner that he falls flat down on his back for a fall.

Be sure you don't relax either hold even for but an instant. Opponent's head must be held in a firm tight Front Chancery Hold in order to avoid a possible "spin out" on the part of a clever wrestler. As in the Standing Front Chancery and Half Under Body Hold Heave described in the preceding combination, a certain amount of strength is necessary to successfully use this hold in good form and style.

Fig. 57 illustrates this Left Front Chancery Hold followed up with a Half Under Body Hold Heave, with your right arm, because of an attempted counter against your Front Chancery with a Front Chancery Hold on the part of your opponent.



Fig. 60

Trying for a Hammer Lock.

Front Chancery and Crotch Hold

Practically secured in precisely the same manner as in the preceding Chancery and Half Under Body Hold Heave just described, with the exception of applying with your right arm an Inside Crotch instead of the Half Under Body Hold.

Fig. 58 illustrates this combination of Front Chancery and Inside Crotch Hold while Fig. 59 illustrates a fall secured by means of this double combination hold.

Front Chancery and Hammer Lock on the Wrestling Carpet

A chip in which a Front Chancery with your right arm and a Hammer Lock held with your left arm are used in effective combination. This combination can natu-



Fig. 61

Chancery and Hammer Lock.

rally be more easily secured on your man when he is down on the mat, in a position on "all fours" on his hands and knees, while he is on your right side. Seize his left wrist with your left hand. Force his arm backward and keep forcing it backward toward his body until you get his left hand high up his back near his left shoulder blade. By properly using your head against his arm as illustrated by Fig. 60, you increase your chances of pulling back his arm. Push hard with your head while at the same time you lunge your man forward in order to enable you to more readily pull back his arm towards his body and up his back. Hold tight his left wrist, with your left hand, and lay weight on his wrist so as to prevent him from pulling his arm loose. Your next move will be to work yourself around his hips and over his back in order to get in front of your man's right side. Be sure and keep a tight hold on his left wrist with your

left hand and when you get over in front of him on his right side quickly clamp on a Front Chancery Hold with your right arm. Twist your opponent's head and force his head and body over to his own left side. Hold tight the Hammer Lock held with your left hand as you force your man over on his back and shoulders for a fall. Push up high on the Hammer Lock with your left hand so as to prevent him from freeing his hammer-locked arm. A powerful and punishing hold if properly held and applied. Don't let him release his left arm or he will escape. Should your opponent successfully free his left arm, he naturally would put his left arm out sideways in order to have it act as a brace that would instantly offset your Chancery Hold and make it extremely difficult for you to turn him over by means of the Chancery Hold alone. Besides, if free of the Hammer Lock he would only have the Chancery Hold to further contend against.

Fig. 61 illustrates the above described

powerful and punishing Hammer Lock held with your left hand in effective combination with a Front Chancery Hold held with your right arm.

Strictly speaking, this is really a Hammer Lock, not a Chancery combination owing to the fact that the Hammer Lock and not the Chancery is the hold first secured in developing this particular combination embodying the use of a Front Chancery Hold.

In this particular combination just described, the Chancery Hold is held with the right arm, whereas in all the other Front Chancery and Front Chancery Combinations described, the Front Chancery Hold is held with the left arm. This is due to the fact that in developing this particular combination while working down on the wrestling carpet with your man at your right side, the Hammer Lock must necessarily first be secured with your left hand. In consequence, the right arm must be used to secure the Chancery Hold in order to complete the combination.

The Question Box

R. E. H. The record for chinning with one arm is held by A. Cutler, Louisville, Ky., Sept. 18, 1878, 12 times. The record for chinning with one finger is also held by A. Cutler, who chinned 6 times with the little finger of one hand, Sept. 18, 1878. Thru an error in the September Question Box this record was attributed to P. O'Dea. Do not know records for deep knee bend on one knee, or dipping on floor.

E. R. For the pains in your back, practice this exercise: Stand with your back to the wall, with heels about 15 inches from the base board, and leaning back and touching the wall with the tips of your fingers.

J. M. F. The size of your wrist is determined by the size of your bones. After the bones have stopped growing it is impossible to increase their size. Since you are only 18 years of age, your bones probably have not stopped growing, and your wrist should increase in size. A good wrist exercise is as follows: Secure a round piece of wood 2 ft. long and about $1\frac{1}{2}$ ins. in diameter. Fasten a cord to the wood and

tie a $2\frac{1}{2}$ or 5 lb. weight to the other end of the cord. By winding this up towards you, and then away from you, you will give the wrist and forearms very vigorous exercise.

V. J. M. For developing the muscles of the neck, practice the wrestler's bridge. For the chest, practice dipping on the floor, with arms far apart, as described in "Strength Thru Progressive Exercise," by Alan Calvert, on page 24, of this issue.

M. L. J. For developing the pectoral muscles, practice the exercise just described for developing the chest.

E. E. B. There is no accepted way of chinning the bar. It can be done either with palms toward you or away from you. It is, of course, harder to chin with palms away from you.

The advisability of a cold bath on arising depends largely on the individual. If it is too much of a shock to the system, do not attempt it. After exercising, a tepid bath is more beneficial than a cold one. A rub down after exercising is desirable, but not essential.

The world's records for the one arm snatch is held by Henry Steinborn Milo, with 205½ lbs.

L. J. B. The muscle protecting the solar plexus is the rectus abdominis. You can develop it by practicing sit-ups, raising from a position flat on your back on the floor to a sitting position without the aid of the arms.

H. W. The forearm should measure $1\frac{7}{8}$ (one and seven-eighths) times as much as the wrist. You have evidently figured it as $1\frac{7}{8}$ times the circumference of the wrist. With your $7\frac{1}{4}$ in. wrist, it is quite possible for you to develop a 16.32 in. upper arm.

Football Player. There are no special exercises that will increase your height or weight. Practice exercises that will bring into play all parts of the body, strengthening and developing all parts equally. Read "What's Wrong With the Skinny Man?" in the October issue.

To the Editor:

I would like to ask you about some statements I have seen of various lifting records.

In Ottley Coulter's list of world's records, Joe Nordquest is given the one-arm pull over with 61½ lbs. In July, 1920, STRENGTH, on page 32, it is stated that Arthur Poll has done 78 lbs. Is this a new world's record?

On page 19, July, 1920, STRENGTH, Noah Young is credited with 286 lbs. in bent press, 294 lbs. in two-arm clear and jerk, 204 lbs. in one-arm clear and jerk, 170 lbs. in one-arm snatch, and 3,200 on back lift. According to Coulter's table, the bent press should be a new American record (beating Nordquest's 277¼ lbs.); the two-arm jerk should be an American record; the one-arm jerk also an American record; the

one-arm snatch an American amateur record; the back lift an American amateur record; the bent press also a world's amateur record; and the back lift also a world's amateur record. Are they?

On page 9, January, 1917, STRENGTH, Tauscher is credited with 296 lbs. two-arm jerk; 210 lbs. one-arm jerk. These records are better than Noah Young's, and should therefore be American records. Are they?

On page 16, May, 1920, STRENGTH, Lurich is credited with 443 lbs. in the shoulder-bridge press. Since Nordquest holds the record with 388 lbs., how can this be so? Is it?

Yours very truly,

G. RUSSELL WEAVER.

G. R. W. In regard to the one arm pull-over, the whole question is whether Poll held the lifting arm in a perfectly straight line. It is not sufficient that you keep your arm rigid at elbow. It must be absolutely straight as well.

We have seen men pull over 85 lbs. with slightly-bent arm.

Mr. Young has undoubtedly made the lifts he claims. But such lifts are not official records unless they are made before competent judges and certified by a Notary Public.

Joe Nordquest has raised 302 lbs. in the one arm-bent-press but the lift was done in practice.

Young's record in the one arm snatch is probably the American amateur record; the same is true of Tauscher in the one arm clean-and-jerk.

Lurich's 443 lbs. was not a real arm-press but was accomplished by what is known as the "Bellytoss."

Records and Weight-Lifting

To the Editor:

Aware that your management have taken a most active part in trying to bring before your people generally the great benefits—physically, mentally and, as a sport, competitively—derived from weight-lifting, I have taken the pleasure of forwarding you a little interesting matter on the doings of the sport out here.

As you will notice, we are a well-organ-

ized body. Among the council are the following well-known exponents and physical culturists:

Messrs. Clarence Weber (President), heavyweight amateur champion.

F. J. Morgan (Vice-Pres.), heavyweight amateur champion.

John A. Rice (Vice-Pres.), a noted strong man.

Geo. J. Lynch (Asst. Sec.), one of the

"The GOLD NUGGET among FOODS"



Illustrations show trees photographed when 2½ years old. Since that date they have added considerable growth and thickened in trunk.



The Paper Shell Pecan is the gold nugget among foods—every way you look at it.

Just as the gold nugget is the purest, most valuable form of natural gold—because it is gold in its most concentrated form—so the paper shell pecan is the "purest, sweetest, most highly concentrated of all natural foods."

Just as the gold nugget reduces to the minimum the cost of refining—producing most gold with least labor—so the paper shell pecan is the finest source of fat and protein that Nature supplies, ready to eat without expensive refrigerated transportation and storage, without arduous, costly preparation for the table.

The paper shell pecan is a staple food in year-round demand which comes from the trees sealed in Nature's wonderful air-tight carton—the easily opened paper shell—from which the large kernels are easily removed whole without the use of nut crackers.

The paper shell pecan is the best of investments from a food standpoint, because of its concentrated nutriment, its purity, its ease of shipping, storage and preparation.

The paper shell pecan orchard is the best of investments because of the fast growing demand for this finest of all natural foods—because "we have now one pecan where we ought to have a million," as Burbank, the Edison of Agriculture, says. The best of investments because this increasing demand exhausts the increasing supply earlier each succeeding year; because once established, and bearing, the paper shell pecan orchard yields increasingly large crops not only for one generation, but for succeeding generations. "The longevity of the pecan orchard and its immense earning power make it one of the most profitable and permanent of agricultural investments," is the statement attributed to Burbank by the American Nut Journal. "We are building an industry which for generations should yield its bountiful crop of delicious food and bring millions of dollars to our citizens," says page 1478, Vol. 54, of the U. S. Congressional Record.

Unlike the gold mine—which becomes less valuable as you remove the gold from it—the pecan orchard gains in value because of its increasing yields.

Patrician Pecans

THE PINNACLE OF PECAN PERFECTION

"Patrician Pecans are the finest nuts I ever saw," says Dr. J. H. Kellogg, head of the famous Battle Creek Sanitarium.

The illustration below shows the large size of these de luxe pecans—the choicest of the fine, big, thin-shell pecans, superior in size, quality and flavor. Their large luscious kernels are easily removed whole.

SEND ME \$1.50 TODAY and I will send you postpaid a beautiful 12-oz. Gift Box of Patrician Pecans, fresh from the orchard.

GUARANTEE—Eat six at my risk; if dissatisfied return the balance within ten days and get your \$1.50 back. I could not make this offer if these were not the choicest of the fine, big, thin-shell pecans sure to please you in every way. Family package, 10 lbs. delivered, \$15.00.

ELAM G. HESS, Box 418,

Manheim
Pa.

ELAM G. HESS
President Keystone
Pecan Co., Inc.

Box 418, Manheim, Pa.

Please send me without further obligation on my part a copy of your book, "Paper Shell Pecans."

Get This Free Book, "Paper Shell Pecans"

Learn why E. Leo Worsham, when State Entomologist of Georgia, wrote, "In my opinion the pecan growers of South Georgia have the finest horticultural proposition in the United States." Learn more about the food value of the pecan; note that the consumption of nut meat in the United States has increased thirty-nine times as quickly as the population; learn how you can secure the paper shell pecans you need for your own table and a surplus to sell at a profit, under our co-operative, profit-sharing plan. Learn of the exceptional opportunity to secure

1-Year-Old Established Pecan Orchards,

hastening by a full year your profitable crops of pecans. This book illustrates trees of all ages, shows how your pecan orchard is planted for you with twenty budded trees on each acre-unit, how it is cared for and cultivated—we assuming all responsibility for turning over a thrifty, growing orchard. It proves its every statement by noted food experts and agricultural authorities and by government statistics. Makes clear the plan by which your orchards are full paid in case of death. Write to-day for this Free Book—use that coupon at once—before this limited allotment of established orchards is exhausted.

ELAM G. HESS, President
KEYSTONE PECAN CO., Inc.

Box 418, Manheim, Lancaster Co., Pa.

Reference: Keystone National Bank, Manheim, Pa.



Name.....

Street & No.....

City.....

State.....

strongest men in Australia and holder of the dead-lift record with 511½ lbs.

J. Jorgensen and H. Roberts, amateur champions in their respective weights and holders of many records.

F. Hillman, professional featherweight champion.

H. Robinson, Hon. Secy. and Treasurer.

We have prepared a list of 32 standard lifts from which the aspirants for honors have a large scope to try their powers. Records for these lifts have been tabulated and will stand until they are successfully attacked under the conditions laid down by the Association. Judges are appointed by the Council to watch every competitive lift and attempts to break records, and an official scale on which all attempts are weighed. No record can be passed unless weighed on this scale.

Our first competition for amateurs was held in January last. It comprised the following divisions under 112 lbs., 126 lbs., 140 lbs., 154 lbs., 168 lbs., and heavyweight. It was a great success, there being twenty-four new records established. The championship lifts were the one-hand snatch, one-hand clean and jerk, and two hands clean and jerk (one of the single-handed lifts to be done with the left hand or vice versa).

We have a certificate which is a beautiful work of art for every successful record holder, there being a charge of 2/6 made for same on application to the secretary. It is not compulsory for the holder to apply for the certificate.

Great praise is due to the press, the *Herald* (Melbourne's leading daily) and the *Sydney Referee* (one of the greatest sporting papers in the world, if not the greatest) for the publicity given to the sport, which has helped materially to the success achieved.

Sir, should there be a similar association formed or in course of formation in your country, I would be extremely pleased to give you any information whatsoever to the secretary, should the latter get in communication with me.

am,
Yours very sincerely,
H. ROBINSON, Hon. Secy.,
Weight-Lifting Association of Australia,
58 Rankins Rd.,
Kensington, Victoria, Australia.

To the Editor:

Am sending my latest lifts and measurements: Wrestler's bridge, raising 150 lbs. with my hands, while in the bridge; held up 300 lbs. on my shoulders and did the deep-knee bend three times; can do the shoulder stand with 90 lbs. on one foot. Prof. Matysek held up 120 lbs. in this lift in 1917, and I have tried it a few times. Can do the one-leg dip while holding 80 lbs. at the chest. About the last of February I am going to try some heavy lifts. I am working for development first. I am,

Yours truly,
A. J. ERWIN,
254 Grove Ave.,
Detroit, Mich.

To the Editor:

I would like to hear from any amateur lifter in the States or Canada with less than two years' practice who can equal my back lift of 1,100 lbs.; human bridge, 2,000 lbs.; side press, 122 lbs.; one-arm jerk, 125 lbs. Weight, 113 lbs.

Yours for Strength,
J. FOGARTY,
228 Bloor St., Sault-Ste. Marie,
Ontario, Canada.

To the Editor:

I think my subscription and photo have reached you by this time, and take great pleasure now to send you my records and measurements, in which I hope the readers of STRENGTH will be interested. These records were performed while I was living in Penang, and I hope that it will give STRENGTH readers some idea of an Eastern reader and lifter.

My training is of every kind, from the lightest to the heaviest exercise. I never go into training with weights daily, but once in a week. I have been lifting for one and a half years, with no regularity. During my rest days, i. e., when I was not doing any lifting, I go in for balancing, gymnastics on apparatus, and other exercising apparatus that I can lay hands on. Wrestling, boxing, tumbling, and Ju-Jit-Su also take some part in my training. I have no special diet, for I take what I think is good for the stomach, and I also pay good attention to moderation. In this tropical country of Penang you will find yourself like bathing after five minutes exercising, whereas an Englishman told me that in

“NERVES”

A subtle and dangerous malady which is undermining the vitality of the American Nation

By PAUL VON BOECKMANN

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

“NERVES”—We hear it everywhere. The physician tells his patient—“It’s your Nerves.” Sensitive and high-strung women complain of their “Nerves.” You see evidence of “Nerves” everywhere—in the street, in the cars, in the theatre, in business, and especially in your own home—right in your own family. We Americans are a nation of nervous people. This is known the world over. Our own Nerve Specialists admit it. It is caused by our “Mile-a-minute” life; the intenseness of our Natures in everything we do. It is making us the most progressive nation on earth, but it is also wrecking our people. Our crowded insane asylums prove it. Medical records prove it. Mil-

Force? We might as well ask “What is electricity?” We do not know. It is the secret of Nature. We *do* know that it is the vital force of life, a mysterious energy that flows from the nervous system and gives life and energy to every vital organ. Sever the nerve which leads to any organ and that organ will cease acting.

The wonderful organ we term the Nervous System consists of countless millions of cells. These cells are reservoirs which store Nerve Force. The amount stored represents our Nerve Capital. Every organ works incessantly to keep the supply of Nerve Force in these cells at a high level, for Life itself depends more upon Nerve Force than on the food we eat or even the air we breathe.

If we unduly tax the nerves through overwork, worry, excitement, or grief, if we subject the muscular system to excessive strain, or, in any way, consume more Nerve Force than the organs produce, the natural result must be Nerve Bankruptcy, in other words, Nerve Exhaustion, Neurasthenia, or “Nerves.”

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

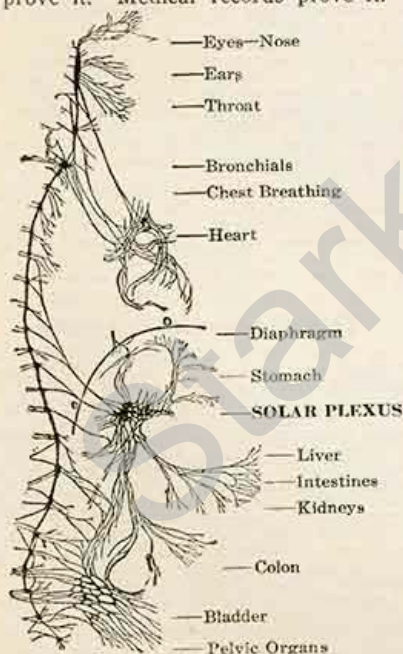
Nerve Exhaustion is not a malady that comes suddenly. It may be years in developing and the decline is accompanied by unmistakable symptoms, which can readily be recognized.

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,” especially in the back and knees.

SECOND STAGE: Nervousness; 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; backache; headaches; neuritis, rheumatism, and other pains.

THIRD STAGE: Serious mental disturbances:



The Sympathetic Nervous System
Showing how Every Vital Organ is governed by the Nervous System, and how the Solar Plexus, commonly known as the Abdominal Brain, is the Great Central Station for the distribution of Nerve Force.

lions of people have sub-normal Nerve Force, and consequently suffer from endless organic and physical troubles, which make their lives miserable. What is meant by “Nerves?” By “Nerves” is meant Nerve Exhaustion (Neurasthenia). lack of Nerve Force. What is Nerve

fear; undue worry, melancholia; dangerous organic disturbances; suicidal tendencies, and, in extreme cases, insanity.

How often do we hear of people, running from doctor to doctor, seeking relief from a mysterious "something the matter" with them, though repeated examinations fail to show that any particular organ is weak or diseased? How often do we hear of people racking their brains, trying to discover the reason of their failure in business, in a profession, love, or any undertaking? They would give anything to lay their finger on the stumbling block of their lives—the door that locks out their ambitions, the wall that blocks their progress. The answer is: Lack of Nerve Force. In short, Nerve Force means Life Force—Brain Force—Vital Force—Organic Force—Dynamic Force—Personal Magnetism—Manliness and Womanliness.



Author of *Nerve Force* and scores of other books on Health, Psychology, Breathing, Hygiene and kindred subjects. Over a million of his various books have been sold during the last 25 years.

Prof. von Boeckmann is the scientist who explained the mysterious Psycho-physic Force involved in the Coulton-Abbott Feats, a problem that had baffled the leading scientists of America and Europe for more than thirty years, and a full account of which has been published in recent issues of *Physical Culture Magazine*.

No man WITH Nerve Force has ever stood in a bread line.

No man WITH Nerve Force has ever been down and out.

No man WITH Nerve Force has ever acknowledged himself "licked."

No man WITH Nerve Force has ever failed to attain success.

This, of course, applies to women as well as men. And, on the other hand, WITHOUT Nerve Force no person of either sex in any walk of life has ever reached the top, has ever achieved success, or has ever gotten the fullest enjoyment from life itself. WITHOUT an abundant supply of Nerve Force our lives are wrongly adjusted, we fail to utilize our full powers, and we cheat ourselves of our birthright of health and vigor.

"A sound mind in a sound body" depends upon sound nerves. And to be a WINNER, even in a small way, demands, first of all—NERVE FORCE. If your NERVES have reached any of the three stages of depletion, you ought to take immediate steps to determine the cause and to learn what to do to build up your Nerve Force.

I have made a life study of the mental and physical characteristics of nervous people, having treated more cases of "Nerves" during the past 25 years than any other man in the world (over 90,000). My instruction is given by mail only. No drugs or drastic treatment of any kind are employed. My method is remarkably simple, thoroughly scientific, and always effective.

I shall agree to send you further information regarding my system of treatment FREE and without any obligation on your part. Everything is confidential and sent sealed in a plain envelope.

You should read my 64-page book, "NERVE FORCE." The cost of this book is only 25 cents (coin or stamps). The book is not an advertisement of any treatment I may have to offer. This is proved by the fact that large corporations have bought and are buying his book from me by the hundreds and thousands for circulation among their employees—Efficiency. Physicians recommend the book to their patients—Health. Ministers recommend it from the pulpit—Nerve Control, Happiness. Never before has so great a mass of valuable information been presented in so few words. It will enable you to understand your Nerves, your Mind your Emotions, and your Body for the first time.

Read the book at my risk, that is, if it does not meet with your fullest expectations, I shall refund your money PLUS your outlay for postage. My advertisements have been appearing in this and other standard magazines for more than 20 years. This is ample evidence of my integrity and responsibility.

The following extracts are quoted from letters written by people who have read the book:

"I have gained 12 pounds since reading your book, and I feel so energetic. I had about given up hope of ever finding the cause of my low weight."

"I have been treated by a number of nerve specialists, and have traveled from country to country in an endeavor to restore my nerves to normal. Your little book has done more for me than all other methods combined."

"Your book did more for me for indigestion than two courses in dieting."

"My heart is now regular again and my nerves are fine. I thought I had heart trouble, but it was simply a case of abused nerves. I have reread your book at least ten times." A woman writes: "Your book has helped my nerves wonderfully. I am sleeping so well and in the morning I feel so rested."

"The advice given in your book on relaxation and calming of nerves has cleared my brain. Before I was half dizzy all the time."

A physician says: "Your book shows you have scientific and profound knowledge of the nerves and nervous people. I am recommending your book to my patients."

A prominent lawyer in Ansonia, Conn., says: "Your book saved me from a nervous collapse, such as I had three years ago. I now sleep soundly and am gaining weight. I can again do a real day's work."

The Prevention of Colds

Of the various books, pamphlets and treatises which I have written on the subject of health and efficiency none has attracted more favorable comment than my sixteen-page booklet entitled, "The Prevention of Colds."

There is no human being absolutely immune to Colds. However, people who breathe correctly and deeply are not easily susceptible to Colds. This is clearly explained in my book NERVE FORCE. Other important factors, nevertheless, play an important part in the prevention of Colds—factors that concern the matter of ventilation, clothing, humidity, temperature, etc. These factors are fully discussed in the booklet *Prevention of Colds*.

No ailment is of greater danger than an "ordinary cold," as it may lead to Influenza, Grippe, Pneumonia or Tuberculosis. More deaths resulted during the recent "Flu" epidemic than were killed during the entire war, over 6,000,000 people dying in India alone.

A copy of the booklet *Prevention of Colds* will be sent Free upon receipt of 25c. with the book *Nerve Force*. You will agree that this alone is worth many times the price asked for both books. Address:

PAUL von BOECKMANN,
110 West 40th St., Studio 462, New York, N. Y.

Dear Sir: I desire to investigate your method, without obligation of any kind. (Print name and address plainly.)

Name

Address

Enclose 25c. if you wish the book.

England they cannot perspire without very vigorous exercise.

As I am now living in this little Siamese village, I have to abstain from taking many of my pleasant exercises. I am the only physical culturist here, and there is no exercising apparatus of any kind. In short, my daily training at present is balancing, tumbling, Indian clubs, Sandow's grip dumb-bells and developer (which I am not at all faithful to its use), rope-climbing, Roman rings, which I brought from Penang, and tin ores tied to both ends of a bar as bar bell. This is all, but I shall never be content unless I possess a proper set of bar bells and dumb-bells. For the present, I am not going to specialize in any particular hobby yet, but if ever I specialize I shall stick to the iron sport.

I am now seventeen and a half years of age, but these records were done when I was seventeen, with proper bar bells in the Penang gymnasium:

Two hands clean and jerk, 170 lbs.; one-arms snatch, 85 lbs.; one-hand clean and jerk, 115 lbs.; bent press, 120 lbs.; two hands dead lift, 285 lbs.; one-hand military press, 56 lbs.; two hands slow curl, 90 lbs.; two hands press, 125 lbs.; two hands snatch, 225 lbs.

Measurements: Neck, 15 $\frac{6}{8}$ in.; biceps, right, 12 $\frac{1}{4}$; biceps, left, 12 $\frac{1}{4}$; forearm, right, 10 $\frac{7}{8}$; forearm, left, 11; wrist, right, 6 $\frac{1}{2}$; wrist, left, 6 $\frac{5}{8}$; chest (expanded), 39 $\frac{6}{8}$; chest (normal), 36; waist, 28 $\frac{3}{8}$; hips, 34; thigh, right, 20 $\frac{1}{2}$; thigh, left, 20 $\frac{1}{2}$; calf, right, 14; calf, left, 14; height, 5 feet 5 inches; weight, 125 lbs.

As the only best football player in this village, I am elected as captain here, and this adds to my list of exercises.

Yours for Strength,

CHAN ENG CHEOW,

c/o. Cheng, Tai Mining Co., Huey-Yot, Southern Siam, via Penang, Straits Settlements.

Length of Our Lives

The Life Extension Institute says that 'whereas the normal span of human life is supposed to be seventy years, the average citizen of the United States lives only fifty-one years.'

This suggests a dip into the figures of the life-insurance companies, which offer some interesting data.

For one point, women live longer than men. Their "viability"—meaning ability to survive—is greater. They show it through all ages, from infancy onward. More male babies are born than females, but at the end of the first year of life the surviving females outnumber the surviving males.

Take 1,000 male babies born alive. Half of them will be dead before reaching the age of fifty-two. But of 1,000 females hal will be alive in their fifty-seventh year.

Of 1,000 males born, 733 will be living at ten years of age, 713 at twenty, 669 at thirty, 605 at forty, 518 at fifty, 398 at sixty, 239 at seventy, 80 at eighty and 7 at ninety years.

Thus it appears that in an average group of males one in four will die before reaching ten years; one in three will die before attaining the age of thirty-one; one in two will get past fifty, and six out of ten will fail to reach sixty.

A man of sixty has three chances out of five to reach seventy, but only one chance in five of reaching eighty years.

Take 1,000 men fifty years of age. Seven hundred and seventy of them will be alive at sixty, 461 at seventy, 155 at eighty and 13 at ninety.

Athletics for Health and Efficiency

(Continued from page 12)

markable benefits, the only complaint being the foot. The experience of the last few years proves this and shows also in addition that simplicity is the keynote and of the

most vital importance, because any plan, to accomplish results, must be one that takes such little time and is so acceptable that it will be practiced.

The athlete finds that this system of exercise as portrayed in the DAILY DOZEN makes him better in many of his sports, whether golf, tennis, football or baseball, and the results of combining these exercises with their sports produce extraordinary efficiency. It is, of course, the height of folly to talk to a boy of fifteen about what he can do to be healthy and well at forty. He cannot see himself at any such Methuselah-like age as that, but what he is ready to do is to go through any amount of drudgery and effort to "make his team" or to be good at his sports, so that when we combine this desire with something that shall not only aid him materially in his sport, but give him a well-poised and developed body, we are likely to accomplish real results.

England and America have learned much, each from the other, from the old days when England was so strong with outdoor sports that they could despise anything like competition. Hence, they grew up with the belief in what they called the "all-around sportsman" rather than the specialist. We, on the other hand, plunged into the specializing to an extreme. The Englishman believed that he could live his ordinary happy-go-lucky life and at any minute turn out a satisfactory performance in competition with anybody of any country. When he met the specialized American, as he did in the early Olympic games, he found that he could not win, and that more real training and more specializing were essential if he wished to demonstrate superiority. America, on the other hand, found something new in the English point of view, and the American realized that, while in his specialty he might win over the Englishman, when it came to a variety of sports the Englishman could perform fairly well in all, and more than that, got a great deal of fun out of it. So each nation has taken something from the other. We are broadening our ideas of training and making men go in more for all-around sport, while the Englishman is becoming a little more serious over his contests and willing to devote some amount of training to them.

Thousands of letters come to me from business and professional men, as well as younger athletes, women and boys who have now been using the DAILY DOZEN set of exercises, taking only seven or eight minutes a day, and all tell the story of the re- that they did not know of them before.

Many say they cannot see how they lived the life of unfitness or spent hundreds of hours in doing things which bored them and accomplished little results when it was so simple and easy to keep supple and well and physically fit by the expenditure of such a few minutes a day. They have found out the way of the animal, the inherited instinct by which the lion, tiger, or even the domestic dog and cat, have all kept fit—by stretching the muscles of the trunk and thus taking care of the main organs of the body.

Here is the solution of the problem. It seems so simple and sane that they are astonished that it had not occurred to them before, and many big offices report that in a few months they have reduced the absences for illness over fifteen per cent. by the use of the DAILY DOZEN, at the same time increasing the entire efficiency. Now as against this, it is a fact that, although it may shock the reader, we failed to profit as we should have done by the experience of the selective draft and are still letting our youth go on in the same old way. The paragraph that follows is proof that boys who were twelve years old when the war commenced, and fourteen years old when we went into it, are found at eighteen and nineteen showing the same old defects and the same flat chests, whereas another proof is shown that boys who take the DAILY DOZEN for a few minutes daily correct these conditions within a few weeks:

Now suppose we test this out by results. The average age of boys entering college is between eighteen and nineteen. In the examination of the Freshman Class at Yale in 1920, 711 in number, 96 per cent. showed one or more defects. Out of a list of twenty-two kinds of defects, there were six that were shown by at least 200 men. Of these 315 had flat chest, 673 round shoulders, 327 lateral curvature of the spine, 297 low arch in the foot, and 545 pre-nated feet. All these boys had been through what is supposed to be the physical education of home, school and later preparatory or high school, and yet the above was the result. If this is true in respect of the youths who have had the best chances, then what of the 80 or 90 per cent. who have had no such advantages? No wonder we had over 30 per cent. of rejects in the draft!

And yet a boys' magazine sent out a thousand charts of a simple form of exercise, known as the DAILY DOZEN, and occupy-

Start the New Year Right

Does 1922 mean SUCCESS or FAILURE?

It is up to you right now to decide. If you had started right one year ago you would be on the high road to success this minute. Don't let another year pass by. It is within your power to make yourself what you will. Let this be the beginning of a new life and a better one.

I Will Give You Wealth, Health and Happiness

I will take that body of yours and make it physically perfect. I will make a new man of you. I will fill out your chest so that every breath means increased life, purifying your blood and sending vim and vitality throughout your entire system. I will broaden your shoulders, and give you the large muscular arms and legs of an athlete. I will strengthen your back and every vital organ within you. You will be bubbling over with life, having the keen, alert brain, the bright, flashing eyes and the spring and step of youth. Passers-by will stop and admire you for your physical make-up, and you will be the favorite in both the business and social world—you will be a leader of men, and the good things in life will naturally come your way.

I Challenge the World

If a man stood on the housetops and shouted to the people that he was the strongest man on earth, it would avail him nothing. Someone would make him come down and prove it. But records speak for themselves. I will gladly show anyone personal letters from the leading strong men in the world to-day that my course is absolutely the best and quickest to acquire physical perfection. Come on, then, and make me prove it—I like it. I have the means of making you a perfect physical specimen of manhood, of making you a successful leader of men. I have done this for thousands of others. What I have done for them I will do for you. I don't care what your present condition is. The weaker you are the more noticeable the results. Come on, then, START THE NEW YEAR RIGHT.



EARLE E. LIEDERMAN
The acme of Physical
Perfection.

SEND FOR MY NEW BOOK

"MUSCULAR DEVELOPMENT"

IT IS FREE

It tells the secret. Handsomely illustrated with 26 full-page photographs of myself and some of the world's best athletes whom I have trained. Also contains full particulars of my splendid offer to you. The valuable book and special offer will be sent on receipt of only 10c, stamps or coin, to cover cost of wrapping and mailing.

Don't miss this opportunity. Sit right down now and fill in the coupon. The sooner you get started on the road to health the easier it will be to reach perfect manhood. Don't drag along one day longer—mail the coupon to-day.

EARLE E. LIEDERMAN

Dept. 701 305 Broadway, New York

EARLE E. LIEDERMAN,
Dept. 701, 305 Broadway, N. Y. City.

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

Name

Address

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

ing less than ten minutes a day, and these boys gained from three-quarters of an inch to two and three-quarter inches in chest measurement, and from two pounds to eight pounds in weight. The following letters show some of the results in six weeks:

"The following is the result of my three weeks' training:

	1st Week	2d Week	3d Week
Neck.....	13 $\frac{3}{4}$ "	13 $\frac{7}{8}$ "	14"
Chest.....	32"	32 $\frac{1}{2}$ "	33 $\frac{1}{2}$ "
Chest (full)....	34"	34"	34 $\frac{3}{4}$ "
Thigh.....	33"	33 $\frac{1}{2}$ "	35"
Shoulder.....	37"	38"	38"
Height.....	5' 9 $\frac{1}{2}$ "	5' 10"	5' 10"
Weight.....	130 lbs.	131 lbs.	132 lbs.

"Yours truly, L. B. B."

"I like my chart very much and find it is doing me much good in general health, strength and suppleness. It was just what I needed. If every boy had the chart and used it persistently he would build up a better physique.

"Chest gain, 3 inches; shoulder, 1 inch; thigh, 1 inch; neck, 1 $\frac{1}{8}$ inches; height, 1 $\frac{1}{2}$ inches; weight, 6 pounds.

"I started my exercises in March, 1920.

"Yours truly, R. C."

"In my estimation this chart is the best there could be gotten out. I go through the exercises every morning and take a good shower bath afterwards. I am interested in track and practice mostly on the Curl, Crouch and Grate. I can already begin to see improvement. I can keep up with those that a while ago would pass me on the home stretch. I owe this, I think, to the Curl. I can now get up that final spurt that lands me over the tape ahead of the rest. Chest gain, $\frac{3}{4}$ inch; shoulders, $\frac{1}{2}$ inch; thigh, $\frac{1}{2}$ inch; neck, $\frac{1}{4}$ inch; height, $\frac{1}{2}$ inch; weight, 1 $\frac{3}{4}$ pounds. I started the exercises April 4, 1920. Three cheers for the chart!

"Yours truly, C. S."

"Personally I think the chart is pretty good. My chest, weight, expansion, thighs and neck have increased, and I am much more supple. I could only get approximate size of my shoulders, so I did not give their gain. I think the chart would be a good thing for other boys, if they would practice it daily. They would be more supple (I am, anyway) and better in their games. Some people think they get enough exercise in their daily work. If they would just take

up setting-up exercises, maybe they wouldn't be quite so stiff. These exercises make one feel very much better. If you feel good and also are active in your play, isn't work easier? Chest gain, 2 inches; thigh, $\frac{3}{8}$ inch; neck, 1 $\frac{3}{8}$ inches; weight, 6 pounds. Started the exercises April 1, 1920.

"Sincerely yours, W. B. P."

"I have not been able to gain much, for I have been very busy on the farm since school was out and had not much time to exercise much by the chart. But I think it is worth the time it takes to learn it and I think every boy should have it. Shoulder gain, $\frac{1}{2}$ inch; thigh, 1 inch; neck, $\frac{1}{4}$ inch; height, $\frac{1}{2}$ inch; weight, 2 pounds. F. H."

"I am very glad to state my gains as they are recorded on the back of my American Boy Physical Exercise Chart. They are not so large, but as school is out I will have more time to put on the exercises, and I am sure I will get bigger gains.

"The back of my chart reads:

Neck.....	13"	13 $\frac{1}{2}$ "	14 $\frac{1}{2}$ "
Chest (normal) .	31"	32"	32 $\frac{1}{2}$ "
Chest (full).....	33"	35"	36"
Thigh.....	18"	18 $\frac{1}{2}$ "	19 $\frac{1}{3}$ "
Shoulder.....	40"	41"	41 $\frac{1}{2}$ "
Height.....	5' 5"	5' 5 $\frac{1}{2}$ "	5' 6"
Weight.....	124 lbs.	126 lbs.	131 lbs.
Chest expansion.	2" * 3"	3"	3 $\frac{1}{2}$ "

"These measurements are correct as far as I know. Tell Mr. Camp that he is doing one of the greatest things for boys in the world, making them healthy and physically fit for their life work. I think Mr. Camp ranks first as a helper of mankind. If every boy knew the value of the American Boy Physical Exercise Chart, I know the ——— Publishing Company could not furnish half enough charts. Boxing is my sport, and Mr. Camp's suggestions have helped me wonderfully. H. J. H."

And it should be noted that these results were accomplished by the boys themselves from a simple formula, and without the aid of a staff of instructors or an organization. If, therefore, the attempts of all were correlated and simplified, as they can readily be, under competent State or Federal advice, we should have no thirty per cent. rejects, as we found in the draft, and we should materially raise the standard of health and happiness.

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

*Develop and Increase Those Powers Now
Lying Dormant Within You Thru Practicing*

Prof. MATYSEK'S

COPYRIGHTED

Muscle Control Course

which sells for but \$2.00

This may be your final opportunity to secure the course for only \$2.00. In future the price will very likely be higher.

Be a Pride to Your Sex

This course teaches the scientific system of control of all the physical functions. You can cure yourself of many functional disorders. You will be independent of all medicines and drugs which you know cannot bring health and are often debilitating. When physicians fail in getting results they suggest Matysek—the Maker of 100% Men.

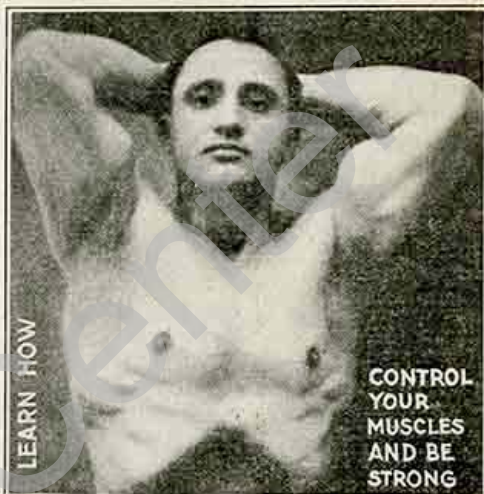
What \$2.00 Will Bring You

Two handsomely finished charts containing twenty-one large, beautifully produced pictures of myself showing every detail as to how to perform the movements with absolute correctness. The instructions are "straight from the shoulder" such as only an expert who went through the mill himself could ever possibly produce.

In addition to the above you have the privilege to ask any questions pertaining to your physical training and to these I will gladly write a personal reply. This feature alone is a mighty valuable one as I give you the benefit of my many years of experience and you will find it worth much more than the price paid for the full course.

The Subjects of This Course Are of Vital Interest to Everyone

How to quickly make respond the inactive bowels—easily correct the rounded shoulders—in no time expel the bothering gas out of the stomach—promptly chase away the staleness of the body—strengthen the nerves and internal organs—control every muscle of your body—store up energy for feats of strength, also: Complete relaxation and contraction—Effective breathing—the best way to arouse your inactive nerves—creation of better blood circulation—easiest way to increase your chest circumference—the famous shoulder-blade control—how to thicken the shoulders—how to learn the art of making your shoulders supple from only three days' practice—development and control of the neck muscles—spreading of the back—depression of the abdominal muscles and wall—control of the pectoralis (chest



muscles), the biceps, triceps, thighs, calf and all other muscles—how to greatly assist in training the abdominal regions to be immune from rupture—how to master correct posture—simple yet positive cure for insomnia—how to pose for good pictures—advantages of perfect co-ordination of muscles and mind through concentration which brings success and all the good things that go with it and many other vital pointers you need every day, too numerous to mention. The exercises in this course cause no strain on the heart and do not create nervousness, but build vitality and nerve force.

Prof. Matysek

Muscle Control Dept. 216

523 North Charles Street, Baltimore, Md.

Detach and mail NOW while it is on your mind.
PROF. MATYSEK, Muscle Control Dept. 216,
523 N. Charles Street, Baltimore, Md.

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

Name

Address

City..... State..... Strength, 1-22
(Canadian and Foreign Orders \$2.20.)

How to Develop Muscles of the Abdomen

(Continued from page 38)

"These are the muscles (abdominal) upon which the Greeks laid so much stress in their male and female statues and for the development of which they prescribed so many exercises."

It is quite certain that but few ever attained a maximum development in these parts as few ever get their abdominal muscles divided except into three horizontal rolls commonly known as the "washboard." Yet we know by some few examples like Vansittart that it is possible to develop them so highly that these horizontal rolls will be divided by vertical ridges into the extremely rare "checker board" formation. Conceding the ancient Greeks' superiority in abdominal development, whether real or not, will not change our chances for attaining the maximum possible to us. We can all reach much nearer to perfection by the application of properly directed efforts. The whole thing when subjected to a last analysis is largely a matter of quality and quantity of abdominal exercise. The many physical culturists who practice calisthenics have made the mistake of continuing exercises that do not involve contractions of an intensity in proportion to the strength of these muscles; and those who go in for progressive exercise graduated according to the strength of the muscles exercised, do not devote enough attention to the muscles in question. The exercise most practiced that utilizes the abdominal muscles is walking, which brings them into play with every step forward. The abdominal muscles work in conjunction with the muscles on the front of the thighs and any movement that brings the knees close to the chest exercises them. The higher one steps in walking, the more work falls upon these muscles. A man who is weak in these parts will usually have a feeble, shuffling walk, and on the other hand, a strong high step tilts the body slightly back and gives these muscles more to do and they soon develop and adapt themselves accordingly. Walking with an erect and energetic step will develop strength enough for its own purpose, but falls far short of attaining any worth while development.

The next thing usually practiced is the various movements of leg raising as incorporated in the various systems of light calisthenics. Some of these movements are performed in a standing position and others while reclining. There is a great variety of these calisthenic movements. Some were originated by Ling, others by Dio Lewis, Y. M. C. A. instructors; and men in similar lines of work have originated exercises until the various postures and movements that bring these muscles into play are very numerous. Unfortunately, they all lack the intensive effort necessary to attain any special strength in these muscles. There is a great similarity in many of the movements. A large part of them have no reason for existence except that they were invented mainly because of some one's desire to attain a reputation for originality. Of the entire category of calisthenic exercises used for the purpose of abdominal development, I consider the one best known and the most simple in movement as the most efficient. This is the exercise often-times designated as the "sit-up" which consists of raising the body from a reclining to a sitting position by the effort of the abdominal muscles. This is a very useful exercise for one with ordinary strength in these parts, but will not develop any noteworthy abdominal muscles as the work is not intensive enough. The mere fact that George Weber has accomplished 1700 sit-ups proves that it does not require great strength to perform the movement and that it is an endurance building exercise rather than a developer of strength. However, in my work as a Physical Instructor I have found some men to be unable to perform the movement correctly but I have learned from experience that after one can accomplish the movement ten or more times fairly easy that it is better to increase the resistance rather than the number of repetitions, if strength and development, as distinguished from endurance, are to be the goal.

To be continued next month with further methods as applied to developing the abdominal muscles.

Strength Thru Progressive Exercise

(Continued from page 27)

the right extended; and thus advances across stage, without once raising the body perceptibly.

That requires real thigh strength, but I knew a chap who mastered the step in a few weeks. He would step forward with left leg and bend slightly at right knee. Then step forward with right foot and bend at left knee. Every day he bent the rear leg a bit more until he could do the Cossack step. He said it was a most exhilarating exercise if practiced in moderation.

I can now hear you say to yourself, "That series of exercises would kill Samson. They would be too much for me."

I agree that they would probably exhaust you if you were rash enough to try them all the first day. So apply your progressive principle once more. Practice a couple of the exercises until you have mastered them, then add a third, and so on. In a few weeks or months you will have mastered them all, and in so doing acquire more practical, all-around strength than you ever dreamed of having.

Practice daily at first, but afterwards three or four times a week. Barring the hopping and chinning, you can do every one of the exercises in your bedroom.

Make play out of it. You can have almost as much fun as though you went to a gym and learned showy stunts on the apparatus.

And always look on them as stunts, and they will continue to be enjoyable and beneficial. Cut loose if you are feeling fit, and go easy if you are under par.

Coax progress, and don't try to force it; and above all, don't count repetitions. Let your muscles tell you when to stop. Rest a bit between stunts, and don't try another stunt, or another repetition of the same stunt, if you are laboring for breath.

"He who goes slowly, goes safely; and he who goes safely, goes far."



Home-Study Business Courses

Do you want an important, high-salaried position? You can have one if you can do the work. LaSalle experts will show you how, guide you step by step to success and help solve your personal business problems. Our plan enables you to train during spare hours without interference with your present duties. Give us your name and address and mark with an "X" below the kind of position you want to fill. We will mail catalog and full particulars regarding our low cost monthly payment plan. Also our valuable book for ambitious men, "Ten Years' Promotion In One." Tear out, mark and mail the coupon today. No obligation to you. Let us prove to you how this step has helped thousands of ambitious men to real success.

Coupon

LaSalle Extension University

Dept. 1389-R Chicago, Ill.

Please send me catalog and full information regarding the course and service I have marked with an X below. Also a copy of your book, "Ten Years' Promotion In One," all without obligation to me.



- Business Management: Training for Official, Managerial, Sales, and Executive positions.
- Higher Accountancy: Training for positions as Auditor, Comptroller, Certified Public Accountant, Cost Accountant, etc.
- Traffic Management—Foreign and Domestic: Training for positions as Railroad and Industrial Traffic Manager, etc.
- Railway Accounting and Station Management: Training for Railway Auditors, Comptrollers, Accountants, Clerks, Station Agents, Members of Railway and Public Utilities Commissions, etc.
- Law: Training for Bar: LL. B. Degree.
- Commercial Law: Reading, Reference, and Consultation Service for Business Men.
- Industrial Management Efficiency: For Executives, Managers, Office and Shop Employees and those desiring practical training in industrial management principles and practice.
- Modern Business Correspondence and Practice: Training for Sales and Collection Correspondents; Sales Promotion Managers; Credit and Office Managers; Correspondence Supervisors, Secretaries, etc.
- Banking and Finance: Training for executive positions in Banks and Financial Institutions.
- Modern Foremanship and Production Methods: Training in the direction and handling of industrial forces—for Executives, Managers, Superintendents, Contractors, Foremen, Subforemen, etc.
- Personnel and Employment Management: Training for Employers, Employment Managers, Executives, Industrial Engineers.
- Business English: Training for Business Correspondents and Copy Writers.
- Expert Bookkeeping: Training for position as Head Bookkeeper.
- Commercial Spanish
- Effective Speaking
- C. P. A. Coaching for Advanced Accountants

Name.....

Present Position.....

Address.....

YOU Can Possess a Perfect Figure and be Radiantly Healthy



MISS VEKA ROEHM

world famous Physical Culturist and Fascinating Stage Beauty who has just completed the most effective woman's course ever conceived.

You Can Become THE WOMAN You Have Always Wanted to Be

With radiant health, rare poise and grace, and a perfect figure you will be more attractive than you ever dared hope. Men will admire you. Women will envy you. You, yourself, will feel like a different woman—a happier, prettier, more carefree, one with that pleasing personality which always becomes part of such a woman.

Results Easily Attained

All the above can easily be secured through my body beautifying and health-producing course, the most effective condensed course ever gotten out for women. The exercises and other methods used by famous stage beauties, not only to retain their attractiveness, but to increase it, are now revealed for the first time.

In Your Own Room

My instructions may be taken in the privacy of your own room at the expenditure of only 10 or 15 minutes daily. You will quickly notice a wonderful improvement in your figure and a new grace to your movements which come with perfect health. **Supreme bust development can be acquired.**

"Womanly Charms"

is the title of my wonderful, copyrighted course. It is lavishly illustrated with beautifully posed pictures of myself (large size) and treats fully the following subjects: Proper Breathing, Advantages of Systematic Stretching, How to Acquire Perfect Waist Line, Overcome Rounded Shoulders and Weak Spine, How to Acquire Shapely Neck and Shoulders, How to Increase or Reduce Weight, Bust Beautifying, How to Secure Graceful Hips, Development of Thigh and Calf, How to Acquire Poise, Splendid Stomach Exercises, Elimination of Constipation and Insomnia, How to Secure Proportionate Development, etc., etc. A better personality is assured you.

Two (\$2.00) Dollars for Limited Time Only

The price is so extremely low, the scope of the course so wide and each subject covered so completely that every woman should order "Womanly Charms" at once. It is a duty you owe to your husband (if you are married), to your friends and most of all to yourself.

Of Especial Interest

is the fact that anyone ordering this course can get my personal advice on any subject not covered in the book.

My Guarantee

If after examining "Womanly Charms" you are not completely satisfied, return it within 48 hours and I will cheerfully refund your money. This is your opportunity to become a happier, healthier and physically better woman. Accept it to-day by sending a money order, check or \$2.00 in cash (registered letter) to

MISS VERA ROEHM

SUITE 402F, 500-5TH AVE., NEW YORK CITY

British Agents
W. T. EDGAR & CO., LTD.
51-52 Chancery Lane, London, W.C. 2.

Don't Carry That Tub of Fat Around

(Continued from page 22)

work out the details yourself. Remember, however, that the most important factor is the desire to get thin. You must "want to" badly enough to be willing to take the exercise and to limit your feasting. The price of the thin waist-line, in your case, at least, is eternal vigilance. If you have character enough, and desire enough, you can work out your own waist-line salvation. Those who stay fat, especially after they have learned what we have told here, do so because they want to be fat. They may deny this, but they would rather be lazy and gluttonous than to make the effort or observe the self-denial necessary to get rid of the burden. For my part, I wish to use my energy in some other way than carrying around that surplus tub of butter. No,—it's lard, come to think of it. I am at least too lazy to do that.

Massive Muscles versus Efficiency

(Continued from page 30)

runs of a hundred straight and more and they are even better shots than von Boeckmann, though but by a narrow margin. This fact, however, has nothing to do with the point at issue. His skill proves that his muscular development and years of strenuous exertion did not decrease his muscular efficiency and mental keenness. Other expert trap-shooters are also noted ex-athletes; Frank Gotch, the great wrestler, now dead, was also a very good shot. Jack Fanning and Frank Huseman, both crack professional wrestlers of years ago, are to-day among the best professional shots in the country. "Chief" Bender, the baseball player, an extremely large and powerful man, is also a crack shot. Scores of our strong men, including von Boeckmann, are very proficient billiard players, bowlers, and participants in other sports requiring skill, accuracy, and speed. For instance, Prince Trobetzkoy, the noted portrait painter, who is a gigantic man over six feet tall and with muscles like a Hercules, keeps in a room adjoining his studio a heavy bar bell

with which he exercises.' Surely he would not indulge in this sport if it hampered him in his art work. I might cite innumerable instances of men standing at the head of professions which require great skill, who are powerfully muscled.

My conclusions are, therefore, that a weak and undeveloped muscle does not readily respond to the will. Exercise of any kind, even of the most strenuous nature, will only help to increase muscular efficiency in every direction. While it seems plausible that extreme muscular strains may decrease muscular efficiency, we have no positive evidence that this is true. Muscular exertion, bordering even on the extreme, is more likely to increase muscular control and efficiency than to decrease it.

Exercises for Health and Beauty

(Continued from page 16)

and opportunities for other forms of body building will be found. It may surprise many people to know that fencing is a very popular sport for women at the gymnasiums, that scores of women take up gymnastics and develop a great deal of cleverness as acrobats; and that a large number find aesthetic dancing not only fascinating in itself but a very pleasant and strenuous means of exercise. Aesthetic dancing is indeed a very fine form of exercise for women, as the various postures develop the muscles, while the training in the various steps and the balancing of the body necessary for many of the movements, gives women a grace, an easy movement in walking and a carriage that draws attention to itself because of its perfect poise and liteness.

Women in general like to be beautiful and there is no greater aid to beauty in woman than regular exercise, and there is no surer means of retaining beauty and youth than by exercise. This is shown best in some of the favorite stage notables. Though they have been the delight of two generations or more ago, we find them, though at times fifty or sixty years of age, taking youthful parts and exhibiting all the beauty of form, grace and activity of movement that are to be found in the budding stage beauty. This retaining of youth has in every case been obtained by rigorous daily exercise and



\$100.00 a Week

He Doubled His Pay

and now enjoys the comforts and pleasures of a real income

Why not double your pay? Thousands of our students have done it and thousands more will do it. You can be one of them. Do not think for a moment that it is luck or pull which brings success and real money—far from it. It is preparing for the big opportunity and knowing what to do when the right time comes that does it. The men who have made successes for themselves were ready when their main chance came. Your main chance, too, will come. Are you ready for it?

Remember the Empty Lot?

The older fellows were playing ball and you were watching, wondering if you would ever get a chance to play. You knew if you only got a chance you would show them. Sure enough, one day they hollered, "Come on, kid, grab a bat!" Your chance at the pill had come. That is the way with life. Your chance at the pill will come, but, if you want to stay on the team, you will have to deliver the goods—and that you can do only if you are prepared. The big money and the permanent job go to the man "who knows."

You Can be the Man "Who Knows"

We will show you how. Without loss to you of a single working hour, we can show you a sure way to success and big pay. A large number of men in each of the positions listed are enjoying their salaries because of our help. We want to help you. Make a check on the coupon against the job you want and we will help you get it. Write or print your name on the coupon and send it in today.

AMERICAN SCHOOL

Dept. G-1203 Drexel Ave. and 58th St., Chicago

AMERICAN SCHOOL

Dept. G-1203 Drexel Ave. and 58th St., Chicago

Send me full information on how the PROMOTION PLAN will help me win promotion in the job checked.

- | | |
|------------------------------|----------------------------|
|Architect |Lawyer |
|Building Contractor |Machine Shop Practice |
|Automobile Engineer |Photoplay Writer |
|Automobile Repairman |Mechanical Engineer |
|Civil Engineer |Shop Superintendent |
|Structural Engineer |Employment Manager |
|Business Manager |Steam Engineer |
|Cert. Public Accountant |Foremanship |
|Accountant and Auditor |Sanitary Engineer |
|Bookkeeper |Surveyor (& Mapping) |
|Draftsman and Designer |Telephone Engineer |
|Electrical Engineer |Telegraph Engineer |
|Electric Light & Power |High School Graduate |
|General Education |Fire Insurance Expert |

Name

Address

WANTED!
RAILWAY MAIL CLERKS
 READ ADVERTISEMENT BELOW



Ever Get Fired?

You won't get fired or laid off if you work for Uncle Sam. When everybody else is worrying about his job or looking for work, the U. S. Civil Service Employee is earning good, steady pay in a pleasant occupation of his own selection. **\$1600 TO \$2300 A YEAR GUARANTEED**

Let me train you to pass the U. S. Civil Service Examination with **HIGH RATING** so you can get a position **QUICKEST**—at \$1600 to \$2300 guaranteed. I have trained **THOUSANDS**, and I guarantee you a position, or money back.

GET MY FREE BOOK
 I was Civil Service Secretary Examiner for 8 years and **KNOW** how to qualify you in your spare time. My free book explains everything. Be sure to write postal for it **NOW**. Get into the Railway Mail, Immigration, Internal Revenue, Rural Mail, Post Office or other Government Service right away and stop worrying about money or jobs! Write me now.



Arthur R. Patterson, Principal, Patterson Civil Service School, 881 Wisner Bldg., Rochester, N. Y.

You Can Have



STRONG ARMS

Powerful Back, Chest, Military Shoulders, Shapely Legs, and a Healthy Stomach

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

Send 25c in coin.
300,000 Copies Sold

Send your order today before you forget
Prof. ANTHONY BARKER, D. C.
 Studio 35
 865 6th Ave., New York City

Don't Wear a Truss



Brooks' Appliance, the modern scientific invention, the wonderful new discovery that relieves rupture, will be sent on trial. No obnoxious springs or pads.

Brooks' Rupture Appliance

Has automatic Air Cushions. Binds and draws the broken parts together as you would a broken limb. No salves. No lies. Durable, cheap. Sent on trial to prove it. Protected by U. S. patents. Catalog and measure blanks mailed free. Send name and address to-day.

BROOKS APPLIANCE CO., 244 B State St., Marshall, Mich

care of the body. These are the exceptional cases, it is true, but every woman can retain her youth and beauty long after the average period if she will take sufficient interest in herself to exercise regularly.

Coffee—and Condition

(Continued from page 36)

coffee, and was a champion for years, but those exceptions, of course, prove nothing.

Had Sullivan and Herrera and Nourouhah lived normally and sensibly their careers would probably have extended over even longer periods of time. It is impossible to beat Nature. If, for instance, you continue to jog your nerves with six or eight cups of coffee a day you must pay for the privilege with sleepless nights.

This is the case, squarely from the shoulder, as I have found it to be in my experience. We live under a high pressure here in the United States. Everything is done at top speed, our relaxation as well as our work. Too often we have "that tired feeling"; our nervous system sags. Consequently, there is always the temptation to use such a stimulant as coffee to excess—and in that excess, rather than the coffee itself, lies the danger.

The old, old story about the man who wanted to take sarsaparilla when he had enough whiskey, but always failed because when he had enough whisky he could not say sarsaparilla, just about covers the case of the average coffee drinker. By the time he has learned that coffee is hurting him it has such a grip on him that he finds it difficult to break away.

That Constipation Problem

(Continued from page 18)

we could do away with our messy cooking and make our dinner by simply swallowing a tablet.

The same reason applies strikingly when it comes to the subject of white bread, which is almost a pure carbohydrate, a heat producer. White bread is nearly 100 per cent. absorbed. It is almost 100 per cent. "nourishment." After it is digested it yields a minimum of residue. In that sense white bread may be regarded as an exceedingly cheap food, particularly if it be made at

home in good, solid loaves, instead of the spongy stuff with which the baker cheats the public. There are men of immense scientific reputation in this country, some of them in the pay of the white-flour industry, who actually argue for the use of white bread on that ground. And it is all so plausible that the trusting public swallows it whole, and follows up its consumption of that mess of lies with all the white bread it can eat, thinking it is trusting itself to the Staff of Life of the ages, and little knowing that white flour is a comparatively modern invention.

But the thing the average person can't for the life of him understand is why, in spite of the care he uses in his eating, he is so everlastingly troubled with constipation. Constipation is our national curse. It afflicts more women than men, and ultimately kills more women than men. Many of the worst troubles of pregnancy come from it.

The victim of constipation can't figure it out. He goes to his doctor, who looks him over and tells him to take more exercise and to eat fruit, because fruit juices are laxative—which is quite true. If the patient be a man who is chained to a desk all day, or a woman who is indoors too much with housework, children or office work, the doctor will recommend something like Walter Camp's excellent Daily Dozen.

The patient follows instructions, and the conditions improve. The mechanical stimulus which comes from vigorous use of the abdominal muscles, with liver twisters and the like, certainly helps. The patient thinks well of his doctor and tells his friends about it.

And yet, the thing doesn't quite clear itself up. He still has to take a dose of castor oil now and then to "clear himself out." The feces remain rather hard and black. He can't get back to the smooth, regular, abundant bowel action he had in childhood. Something is still wanting.

Now, if that person be observant, he will often have noticed one curious thing, which is that dogs, particularly pets that are fed on table scraps, are likely to be troubled with constipation, though such a complaint is generally rare among animals. I know a man who owns a Boston bull pup which he takes every care of. But the dog is delicate, has constipation and has to be dosed with castor oil once in so often. The

How to get a grip on life



DO YOU want to know one of the most vital secrets of success, and how to use it? Do you want to know how to create a favorable and masterful impression upon the big men you meet? This illustrated book tells you these among other valuable things you must know if you want to attain a winning personality. It is sent absolutely free.

Sent
FREE

All around you are men who are forging ahead. They are probably no more intelligent than you are, yet they are steadily climbing the ladder of success. How do they do it? Through impression—through mastering and dominating other weaker individuals.

The key to the character is in the handshake—the grip you give another. It marks you then and there, either as a success or a failure. Do you believe this? Notice the next five men with whom you shake hands. The man who gives your hand a firm clasp and a vigorous shake is an energetic, successful man. The one who places a limp, flabby hand in yours is a weak, personality-lacking man.

EASY TO ATTAIN

A strong grip is a matter of development. In ten days you can double the strength of your grip and increase the size of your forearm from one to two inches. It is easy—requires only the use of the VICTOR Master Grip and Forearm Developer. Scientific course of progressive exercise given free with each one. Will last a lifetime. Price only \$3. Send for one NOW and start on the road to success. Money back if you are not entirely satisfied.

Send for FREE Book

Whether you order a VICTOR Master Grip now or not, you will want to read the valuable book, "How To Get a Grip On Life." It is the only book of its kind ever written. Your copy is waiting for you. It will be mailed absolutely free. Write for it TO-DAY.

HENRY VICTOR, Dept. 200-A
56 Cooper Sq. New York

BE A RAILWAY TRAFFIC INSPECTOR

POSITION GUARANTEED

Earn Up to \$250.00 Per Month

EXPENSES PAID

MANY fine opportunities for trained Railway Traffic Inspectors. Steady, pleasant outdoor work; travel or remain near home.

EASY TO QUALIFY

Prepare in three months' spare-time study at home. Position then guaranteed at not less than \$110 per month and expenses, with many chances for advancement through contact with big railway officials.

YOU TAKE NO RISK

If position is not obtained for you, entire enrollment fee is refunded without question. You have nothing to lose.

Write to-day for details and booklet No. D-690.

**Standard Business
Training Inst.**
BUFFALO, N. Y.



How To Use Bar Bells Intelligently—Successfully



The value of owning a Bar Bell depends upon knowing how to use it. Bar Bell exercise can be either helpful or hurtful. Prof. Anthony Barker's Complete Course in Heavy Dumbbell Exercises shows the way to get the best results without danger of strain or injury. Gives instructions for complete development of entire body. Contains 40 different exercises, illustrated.

Warren Lincoln Travis, the World's Champion Weight Lifter, says: "I do all my training with Prof. Barker's system because it is the best and quickest method of gaining health and strength."

Complete course postpaid, \$2.00

Prof. A. BARKER D. C. Dept. 4, 865 6th Ave., N. Y. C.

Strength accepts no questionable advertising. You may feel perfectly free in patronizing our advertisers, as we give you our guarantee that your relations with them will be entirely satisfactory to you.

Stop Using a Truss



Reduced Fat-Simile
Gold Medal.

STUART'S PLAPAO-PADS are different from the truss, being medicine applicators made self-adhesive purposely to hold the sustained 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.



Grand Prix.

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

Write name on Coupon and send TO-DAY

PLAPAO CO., 610 Stuart Bldg. St. Louis, Mo.

Name

Address

Return mail will bring Free Trial Plapao.....

Free

trouble with that dog is that he eats a rich, concentrated diet.

Now let me ask a question. Have you ever seen a constipated horse or a constipated cow? Very rarely. Constipation is exceedingly rare with animals which eat hay, grain and other natural vegetable foods which have not been tampered with or refined. Any animal will get constipation if given table scraps or artificial foods. Any animal will get it on the diet we most of us indulge in.

The facts so far presented seem to me to carry their own obvious conclusions: Why are thousands of men and women—particularly women—fighting off persistent constipation by the daily use of bran, which is not a particularly pleasant way to take bulk food into the system? Why, because the bran unquestionably works. They eat the beautiful, smooth, soft, delicate white bread, which is 100 per cent. digestible, and then they turn to the bran which ought to have been in that bread and force it down their gullets by copious glasses of water, so that it will swell up inside of them and furnish the bulk necessary to scour the bowels and keep them clean. Of course, they miss the germ of the wheat berry, one of its best and most nourishing parts; but they don't know that.

White bread is the worst constipation-producer in the world. But the bran, taken on the side, in a measure corrects the condition caused by want of whole wheat bread. It does two things: First, it yields, under the action of the digestive fluids, the mineral salts it contains—salts which are absolutely necessary to life, and which being alkaline in their action neutralize the acids in the blood. Some of them also build bone and do other essential construction work besides. Second, the residue which is left when the salts have been dissolved is simply a variety of vegetable fiber called cellulose. It absorbs lots of water and passes on its way till it is out of the body, taking with it the residue of concentrated foods which would otherwise stay in the bowels and rot, though we call the result by the more euphonious name of putrefaction; one of the products of the decomposition process we call "wind" or "colic" or "gas."

Vegetables and fruits contain large amounts of this same fiber called cellulose. Cellulose is as essential to digestion as if it were itself absorbable. The notion that if a thing can't be absorbed it is not "digest-

ible," and that it imposes a needless strain on the digestive tract, is simply the result of a monstrous ignorance which scientists have in the past done much to foster.

In the digestion of all vegetables the valuable mineral salts are dissolved out and the coarse fiber is left. It is all so much bran, so much "waste." And if you want to know what happens to the bran of wheat when it gets inside of you, take a cupful of it and see what bulk it will assume when you soak it in water.

The cure for constipation, then, is not drugs, is not mineral oils, is not bran, is not enemas, is not even exercise. These things all tend to alleviate the condition but do not touch the cause of it. The easily remedied cause is a lack of an abundant vegetable and fruit diet—including whole-wheat bread—combined with a moderate use of rich protein and carbohydrate foods. Above all, don't get the notion that exercise, absolutely necessary and beneficial though it be, will in itself enable you to throw off the effects of running a plant for the manufacture of deadly poisons on your insides.

But what about that whole-wheat bread? Why insist on it? Why talk so everlastingly about whole-wheat bread? After all, isn't it just a food fad? Anybody who has ever tried it out can tell you absolutely that it is not. If you eat it you can eat almost anything else you like. So beneficial is the action of whole-wheat bread that it is capable by itself of almost entirely correcting other lacks in one's diet. But that does not mean simply white bread with bran whipped into it. *It means the whole berry of the wheat, including the germ.* Don't let any baker fool you. No baker will make bread with 100 per cent. whole-wheat flour if he can get out of it. Of that you may rest assured. In all New York there are only three or four bakers who make the real thing; and I suppose the same thing obtains even more in smaller cities. Why, I don't know, except that ignorance on the subject of bread has appeared to be the most conspicuous thing in the equipment of nearly every baker I have ever talked with. If ignorant bigotry be the principal qualification for making bread, most of them have it.

The enormous importance of whole wheat as a constipation cure and as an alkaline, base-forming, anti-acid food lies partly in the fact that it is an almost perfectly balanced diet in itself, like whole milk; and in

MIZPAH JOCK No. 44



Gives you a feeling of real comfort and the assurance of perfect protection while exercising or playing games of any kind.

All elastic. Perfect fit. Will not chafe. Perfect pouch. Patented opening in front. May be boiled to cleanse.

TWO WEEKS TRIAL

If not satisfactory return and money will be refunded. Mailed on receipt of price, \$1

State waist measurement



THE WALTER F. WARE CO., Dept. J
1036 Spring Street Philadelphia

Books You Should Read

Why Die So Young?

By JOHN B. HUBER, M.D.

A non-technical book which will show you how to pass the danger point in each of your "seven ages" of physical development. \$2.00

How To Get Strong And How To Stay So

By WILLIAM BLAIKIE

A practical common sense treatment of the subject. A complete and healthful system of exercise is given with careful attention to the needs of the young, the middle-aged and the old, both male and female. \$1.75

Keeping Fit All The Way

By WALTER CAMP

The system of physical culture evolved in this book supplies the needs of every man or woman between the ages of fifteen and sixty. 200 illustrations. \$1.75

How To Play Baseball

By JOHN J. MCGRAW

The manager of the Giants writes to show everyone how to play baseball. A chapter is devoted to each position. The book is illustrated by photographs. \$0.90

Sent postage prepaid on receipt of price.

THE MILO PUBLISHING CO.
301 Diamond St. Philadelphia, Pa.

The Greatest Discovery in Drugless Healing

The human body is a chemical composition of 14 elements (iron, calcium, sodium, potassium, phosphorus, sulphur, etc), and if one of these elements is lacking, disease sets in. Our civilized diet is deprived of most of these mineral elements, and for this reason American people are subject to scores of maladies. The daily "soup, meat, potato, white bread, pie, coffee" diet produces an oversupply of starches, fats and proteins, and an undersupply of the most important blood and nerve-building mineral salts.

This wrong diet brings about "AUTO-INTOXICATION" and a great "DEFICIENCY OF THE CONSTITUENT PARTS IN BLOOD AND TISSUES." These two disturbances are the underlying causes of nearly all ailments and diseases, beginning with constipation, digestive, kidney, liver, nerve, heart, skin and throat troubles, and ending with Apoplexy, Hardening of the Veins, and premature death. Eliminate the accumulated poisons and supply the lacking mineral salts and nearly all constitutional ailments and diseases will disappear like snow in March.

Write for particulars about our Mineral Salt Treatment, or order Thibaut's booklet concerning this matter. Price 50c. Thousands of testimonials on our files.

YOGHURT CO., Inc. 203 Bellingham, Wash.

CLASSICAL PHOTOGRAPHS OF FAMOUS STRONG MEN

These include at least 6 copyright poses of W. A. Pullum, the "Wizard of the Weight-Lifting World," and two special Anatomical Photographs of the famous T. W. Clarke—12st. British Champion, in addition to the best-known members of the Camberwell Weight-Lifting Club. No Physical Culturist should miss this offer—made for the first time in America.

Set of 20 \$2.00 post free

W. A. PULLUM

5 Church St., Camberwell, London, England

George F. Jowett, Inkerman, Ontario, Canada,
Special Representative for the United States and
Canada.

TOBACCO

Or Snuff Habit Cured or No Pay

No matter whether used in pipe, cigarettes, cigars, chewed or used in the form of snuff, Superba Tobacco Remedy contains nothing injurious, no dope, poisons, or habit-forming drugs. Guaranteed. Sent on trial. If it cures, costs you one dollar. If it fails, or if you are not perfectly satisfied, costs you nothing. Write for full remedy to-day.

Superba Co., M-32, Baltimore, Md.



Dr. Isaac Thompson's EYE WATER

strengthens weak, inflamed eyes, and is an ideal eye wash. Good since 1795. Keep your eyes well and they will help keep you.

35c At All Druggists or sent by mail upon receipt of price

Write for our Booklet. It is FREE
JOHN L. THOMPSON SONS & CO.
147 River St., Troy, N. Y.

the further fact that bread is a staple which is consumed in enormous quantities on every family table in the land, with every kind of food, three times a day. Other things we eat from time to time. Bread we eat all the time.

Try the "hay" diet; try the bulky cellulose burdened diet as here described, including whole-wheat bread, if you can either buy it or make it, for a single month, and you will be able to drop the word "constipation" from your lexicon—and along with it the tired feeling, the dark-brown taste in the mouth, the sick stomach and the persistent headache, all of which are warning signals which nature puts out to indicate the condition of acidosis, the greatest shortener of life known to science. A nation of acidosis victims is the victim of a drug habit as truly as a nation of opium eaters. Make up your mind that you will tolerate in your system no condition of the kind that will give you a diseased, broken-down body by the time you are fifty by the simple process of immersing every cell in your body in an acid bath.

From the point of the view of any man or woman who wants to excel in athletic feats which call for strength, endurance and clear-headedness, it is obvious that this whole subject of constipation is of capital importance. Endurance, for example, is a thing which no man or woman suffering from constipation can possibly have to a maximum degree. The tired feeling that goes with this condition in itself denotes a tendency to fatigue which should be a sufficient warning. And as to the question of clear-headedness and skill, a person suffering from constipation is practically drugged. It affects the eyesight and even the muscular coordinations like a dose of dope. On every count, then, it demands vigorous attention, both on the score of health and on the score of present bodily and mental efficiency.

In the last analysis, an article like this has to take the form of an appeal to the wisdom and common sense of the women of the country. It is the women who manage the dietary of most homes; it is the men who simply eat what is put before them, demanding only that it should be palatable, regardless of whether it be a death-dealer or not.

Any woman with the necessary initiative, who will inform herself on this subject of the right kind of food, and who will put

into practice what she learns, can do several vital things: First, she can feed her family at less cost than ever before; second, she can prepare meals with much less labor to herself; third, she can cut the doctor's bills to a fraction of their present size; fourth, she can give the dentist less to do; fifth, she can give to herself and to her family the sense of well-being which makes for happiness and efficiency both in work and play. In any family where conditions of ill health have not gone too far for ordinary measures to be a complete remedy, these things are possible. In any family where even far-advanced ill-health prevails, marked improvement and probable cure is within easy reach by taking daily the mineral salts and solubles prescribed by Mother Nature instead of Rochelle Salts and Difficult Doses prescribed by the Family Doctor.

Approach the matter with an open mind; think it out; turn the brains of the family in that direction, and give it a trial for three months. And if the clear heads of the adults, the rosy cheeks of the children and the greater happiness of all concerned don't give an answer that will warrant a continuation of the experiment, why—roll up your sleeves and go at it for another three months.

But it is the women of the country who must do it. It is they who rule the cookery of the nation.

HIS GREAT REGRET.—NEW OFFICE BOY—"A man called here to thrash you a few minutes ago."

EDITOR—"What did you say to him?"

NEW OFFICE BOY—"I told him I was sorry you weren't in."—*Chicago Herald and Examiner.*

Among Your Resolutions for the New Year

Let the first and foremost be a subscription to STRENGTH.

Like all the rest of us, you have made resolutions to do or not to do this, that and the other thing. Maybe you can carry out your resolutions, and maybe you can't.

Your chance of carrying them out depends on your physical condition. If you are weak, nervous, worried—your program will fall flat.

If you are strong and healthy, and full of punch, power and pep, things will go through with a rush.

Therefore—
Subscribe to STRENGTH.

Let this be the first and foremost of your resolutions. All else depends on your physical condition, and the energy it will enable you to devote to the tasks of the year.

STRENGTH will show you the way to a healthy, vigorous life. Subscribe to-day.

THE MILO PUBLISHING CO.
301 Diamond Street Philadelphia, Pa.

For FUN or MONEY— VENTRILLOQUISM

taught almost anyone at home. Small cost. Send TO-DAY 2c for particulars and proof.

GEORGE W. SMITH, Room M-160, 125 N. JEFFERSON AVE., PEORIA, ILL.

VEJ-MEAT A Perfect Substitute for Meat

A VEGETABLE MEAT

A delicious preparation made from choice nuts, cereals and vegetable products. LOOKS AND TASTES LIKE MEAT, very nourishing, wholesome and appetizing. Endorsed by leading dietitians and Doctors. Will refund your money if not satisfied. Send 90c for a large two-pound can, or 60c for a one-pound can. Special prices in dozen lots. VEJ-MEAT COMPANY, Box S, 227 N. Manassas St., Memphis, Tenn.

IN THIS DAY and AGE attention to your appearance is an absolute necessity if you expect to make the most out of life. Not only should you wish to appear as attractive as possible, for your own self-satisfaction, which is alone well worth your efforts, but you will find the world in general judging you a great deal, if not wholly, by your "look." therefore it pays to "look your best" at all times. Permit no one to see you looking otherwise; it will injure your welfare! Upon the impression you constantly make rests the failure or success of your life. Which is to be your ultimate destiny? My new *Nose-Shaper*, "Trados Model 25," corrects now ill-shaped noses without operation, quickly, safely and permanently. It is pleasant and does not interfere with one's occupation, being worn at night.

YOU HAVE A BEAUTIFUL FACE BUT YOUR NOSE?



Write today or see booklet, which tells you how to correct ill-shaped noses without cost if not satisfactory.

M. TRILETY, Face Specialist

1743 Ackerman Bldg., Binghamton, N. Y.

Does your English Help or Hurt you?

Does your English reveal your lack of education or does it prove that you are cultured and refined? Are you handicapped in your speech and writing or does your command of English rise to meet every occasion and every situation? English is the one weapon you must use every day. Here is how you can improve it almost at once.

MANY people say, "Did you hear from him to-day?" They should say, "Have you heard from him today?" Some people spell calendar "calender" or "calander." Still others say "between you and I," instead of "between you and me." It is astonishing how many people use "who" for "whom," and mispronounce the simplest words. Few people know whether to spell certain words with one or two "c's" or "m's" or "r's," or with "ic" or "ei," and when to use commas in order to make their meaning absolutely clear. And very few people use any but the most common words—colorless, flat, ordinary. Their speech and their letters are lifeless, monotonous, humdrum. Every time they talk or write they show themselves lacking in the essential points of English.

Every time you talk, every time you write, you show what you are. When you use the wrong word, when you mispronounce a word, when you punctuate incorrectly, when you use flat, ordinary words, you handicap yourself enormously. An unusual command of English enables you to present your ideas clearly, forcefully, convincingly. If your English is incorrect it hurts you more than you will ever know, for people are too polite to tell you about your mistakes.

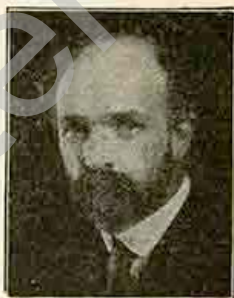
Wonderful New Invention

For the past five years Mr. Cody has been working almost day and night on the study of the problem, "How to make correct habits in speaking and writing stick in your mind." After countless experiments he finally invented a simple method by which you can acquire a better command of the English language in only 15 minutes a day. Now you can stop making the mistakes in English which have been hurting you. Mr. Cody's students have secured more improvement in five weeks than had previously been obtained by other pupils in two years!

Learn by Habit—Not by Rules

Under old methods, rules are memorized, but correct habits are not formed. Finally the rules themselves are forgotten. The new Sherwin Cody method provides for the formation of correct habits by constantly calling attention only to the mistakes you make.

One of the wonderful things about Mr. Cody's course is the speed with which these habit-forming practice drills can be carried out. You can write the answers to fifty questions in 15 minutes and correct your work in 5 minutes more. The drudgery and work of copying have been ended by Mr. Cody. You concentrate always on your mistakes until it becomes "second nature" to speak and write correctly.



Sherwin Cody

Write for Free Book

A booklet explaining Mr. Cody's remarkable Course is ready. If you are ever embarrassed by mistakes in grammar, spelling, pronunciation, or punctuation, if you cannot instantly command the exact words with which to express your ideas, this book will prove a revelation to you.

A polished and effective command of the English language gives you not only the stamp of education, but it wins friends and impresses favorably those with whom you come in contact. Spare time study—15 minutes a day—in your own home will give you power of language that will be worth more than you can realize.

Write for this new free book, "How to Speak and Write Masterly English." Merely mail the coupon or a letter, or even a postal card. You can never reach your greatest possibilities until you use correct English. Write to-day for the free booklet that tells about Mr. Cody's simple invention.

SHERWIN CODY SCHOOL OF ENGLISH
751 SEARLE BUILDING, ROCHESTER, N. Y.

SHERWIN CODY SCHOOL OF ENGLISH,
751 Searle Bldg., Rochester, N. Y.

Please send me your new Free Book "How to Speak and Write Masterly English."

Mr. _____
Mrs. _____
Miss _____
Address _____
City _____ State _____

If You Are Interested in Body Building

You probably train hard and faithfully. And yet, no matter how good you make yourself, you probably know some chap who never trains, never practices gymnastics, and yet is so well-built, and naturally strong, that he can far outdo your best efforts in any test of strength and endurance. Such a man is one of "Nature's Strong Men."

Did you know that it is possible to become perfectly healthy and phenomenally strong naturally—without apparatus, without strenuous exercises, or without dieting?

Have YOU Read CHECKLEY'S Book?

of which Dr. Jas. Rhodes Buchanan, writing in the *Anthropologist* said:

"His methods and discoveries differ so widely from everything that has been done in that direction heretofore, and are indeed so marvelous, as to suggest that something more than the common reasoning power of man may have guided him as by intuition to doctrines so novel, of which there has never been a hint in any production of physicians, artists, hygienists or philosophers heretofore."

Checkley, who by natural means made himself into probably the most wonderful combination of strength, agility, endurance and vigor yet known.—An average man at thirty, and yet able at seventy years of age to trot with 500 lbs. on his shoulders—Who cared so little about his own strength that he refers to it only once in his whole book.



With Checkley, health comes first. He insists in this book that no one without perfect health can have real, enduring strength. He proves that health, strength and vigor can be created by force of habit. He says:

"It will not do, to sit, stand and move badly for ninety-nine one hundredths of the time and then hope to make things come out even by one per cent. of right exercise."

"The muscles will have the greatest health, strength and 'staying' power that are kept flexible and full of blood by continuous use in every-day life. To expect them to keep healthy by an infrequent fifteen minutes at some machinery, is as unreasonable as to think of preserving the comfort of the stomach with one meal a week."

Checkley's book contains a complete exposition of his methods. It will revolutionize all your ideas.

The most instructive and fascinating book in the health and strength field.

"Checkley's Natural System of Physical Training"

Cloth bound, 14 chapters, 224 pages fully illustrated.

Price \$2.00 Postpaid

Send check, money order or cash in registered letter to

THE CHECKLEY BUREAU

2109 N. ORIANNA STREET

PHILADELPHIA, PA.

For the Woman

Fresh, youthful glowing complexion and a perfect skin—beauty that is more than skin deep. Soft, lustrous, glorious hair and eyes that sparkle with health.



For the Man

Sound nerves, perfect circulation and firm muscles! The current obtained from the Gal Far will fill you with energy which increases your vitality—your efficiency.

Do You Make the Most of Yourself?

The public mind is in rather a foggy state concerning the therapeutic value of electric treatments, but so great improvements are being made in the application of electricity that this uncertainty must soon yield before the tremendous flood of data that experience is accumulating on this subject. After a fatiguing day a man or woman can do nothing which will more quickly restore tone to the throbbing nerves; relieve strained, tense muscles of their aching weariness and fit you again for the duties of life than electric treatments. Science has come to our relief and indicated to us the broad highway to perfect physical health.

How many of our men and women are making the mistake of neglecting the one precious possession they have—their health. This mistake has led many to a vast amount of self-inflicted suffering. Everyone should know how to make the most of themselves and in that way reach a condition of physical fitness and mental alertness that will enable them to make the most of their opportunities. Your energy depends on your health and your success on your energy. You cannot go far if you are handicapped with poor health. You can have perfect health and real energy if you use the Gal-Far Battery. It nourishes the system, enriches the blood and builds up firm and healthy tissue. Its influence upon the mind and body through its soothing action upon the nervous system is most beneficial.

Have You a Sound Nervous System?

The greatest force of all bodily forces is Nerve Force. It controls and gives life to every muscle, every vital organ and every body cell. When your nervous system is not working properly your physical and mental condition becomes weakened. To be always physically fit the nervous system must be constantly tuned up. If you are weak, depressed or nervous, that is a sure sign that your nervous system needs proper stimulation. The Gal-Far Battery has the power of stimulating all functional energy, promoting cellular nutrition, quickening the circulation and energizing the nerves and muscles. In other words it means healthy nerves and that is the very foundation on which a man builds physical and mental fitness.



The Gal-Far Battery

Complete with single massage and cord massage attachments and electric comb.

Remember that the Gal-Far is not a vibrator. It supplies a mild electrical current which penetrates the muscles and nerves of your body, stimulating and soothing them at the same time. It only costs a fraction of the price charged for an ordinary battery or vibrator.

THE BATTERY SUPPLIES ITS OWN CURRENT AND NO WIRES OR ELECTRICITY ARE NEEDED.

SEND FOR OUR FREE ILLUSTRATED CATALOG. Gives a complete description of the battery and its use.

The Milo Bar Bell Co., GAL-FAR BATTERY DEPT.
301 DIAMOND ST., PHILA.

W. T. Edgar & Co., Ltd., 51 and 52 Chancery Lane, London, W. C. Exclusive British Agents.

Isaac Goldmann Company, Printers, New York