

STRENGTH

Vol. VI. No. 2

OCTOBER, 1921

Price, 15 Cents

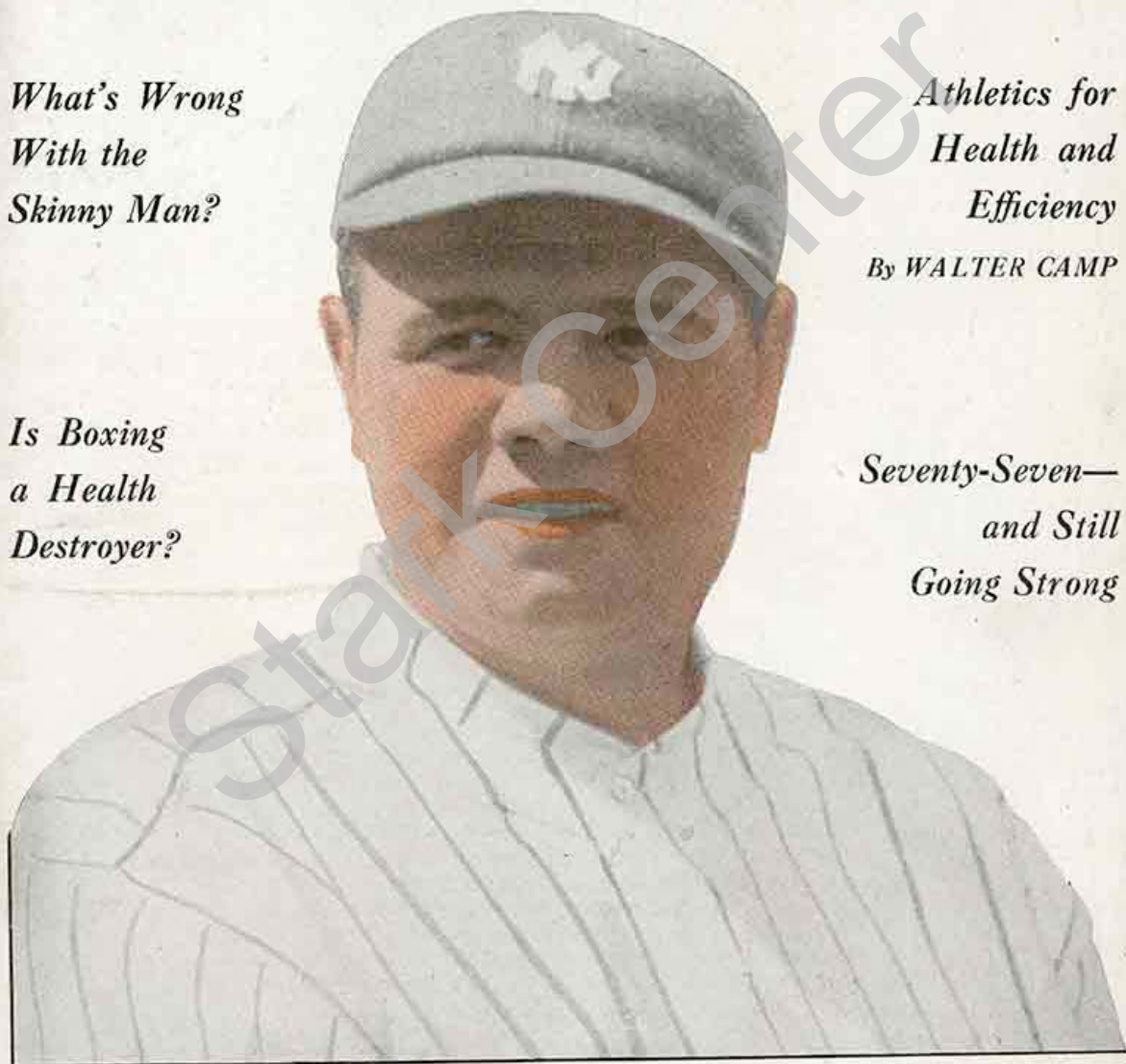
*What's Wrong
With the
Skinny Man?*

*Is Boxing
a Health
Destroyer?*

*Athletics for
Health and
Efficiency*

By WALTER CAMP

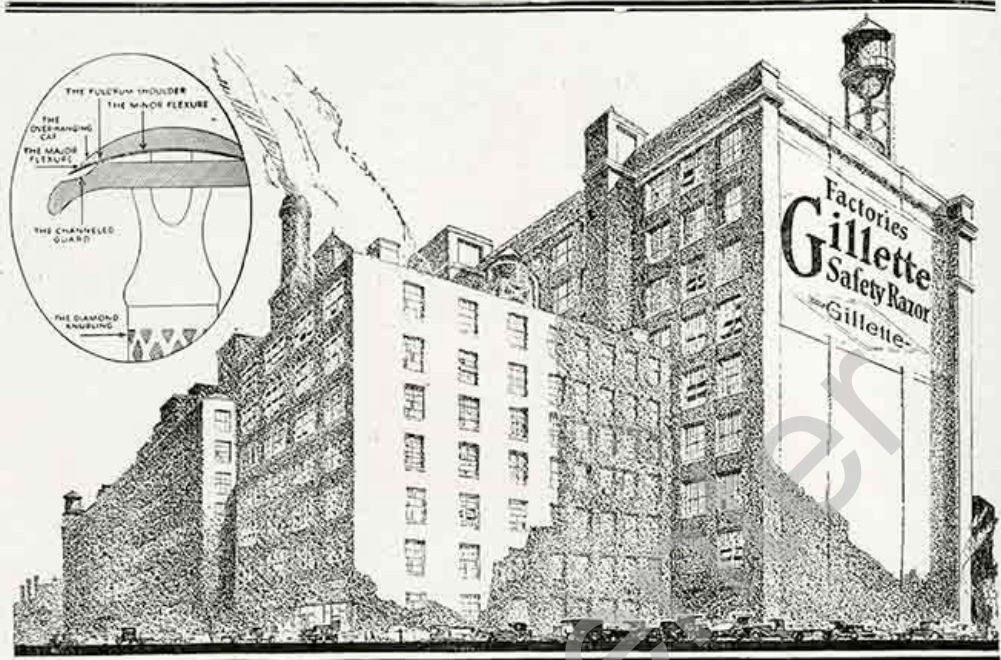
*Seventy-Seven—
and Still
Going Strong*



BABE RUTH

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The Magazine of Good Health



The New Improved
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 Uses the same fine Gillette Blades as you have known for years—but now your blades can give you *all* the luxury of the finest shaving edge in the world. Identify the New Improved Gillette by its

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Seventeen years ago the Gillette was hardly more than a name. Today, here is the great home factory in Boston. Go to Montreal and you find another—and still another in London.

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An Amazingly Easy Way to Earn \$10,000 a Year

Let Me Show You How FREE

To the average man the \$10,000-a-year job is only a dream. Yet to-day there are a surprising number of men earning five-figure salaries who were merely dreaming of them a short while ago. The secret of their success should prove a startling revelation to every ambitious man who has ever aspired to get into the \$10,000-a-year class.

There is nothing "different" about the man whose salary runs into five figures. He is made of the same stuff as you and I. For example, take J. P. Overstreet, of Dallas, Texas. A few short years ago he was a police officer earning less than \$1,000 a year. To-day his earnings are in excess of \$1,000 a month—more than \$12,000 a year. C. W. Campbell, Greensburg, Pa., was formerly a railroad employee on a small salary—last month his earnings were \$1,562.

Why Don't YOU Get Into The Selling Field?

Mr. Overstreet, Mr. Campbell, and the others whose letters you see on this page are all successful salesmen. They have stepped into the \$10,000-a-year class—and they never sold goods before! It is hard to believe that such big success could come so quickly and easily. Yet it was all amazingly simple! Ask them the secret of their sudden success. They will tell you they owe it to the National Salesmen's Training Association. This is an organization of top-notch salesmen and sales managers formed expressly for the purpose of training men to sell and helping them to good sell-

ing positions. It has taken hundreds of men from all walks of life and made them Master Salesmen—it has lifted them out of the rut and shown them the way to magnificent earnings, to fascinating careers and big selling positions.

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What these men have done, you can do! In your spare time at home you can easily master the secrets of selling that make Star Salesmen. Whatever your experience has been—whatever you may be doing now—whether or not you think you can sell—just answer this question: Are you ambitious to earn \$10,000 a year? Then send me your name quick! I will prove to you without cost or obligation that you can easily become a Star Salesman. I will show you how the Salesmanship Training and Free Employment Service of the N. S. T. A. will help you to wonderful success in Selling.

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Just mail the coupon or write for our great illustrated Book, "A Knight of the Grip," which we will send you Free. Let us prove to you that, regardless of what you are doing now, you can quickly become a Star Salesman. Let us show you how you, too, can step into the ranks of the big money makers of business. See how easily you can learn this fascinating, big-pay profession at home in your spare time. Learn what we have done for others, and what we stand ready to do for you. Don't put it off until to-morrow—write us to-day. Mail the coupon at once.

National Salesmen's Training Association

Dept. 21-R Monadnock Bldg., Chicago, Ill., U. S. A.

National Salesmen's Training Association,
Dept. 21-R, Monadnock Bldg., Chicago, Ill., U. S. A.

Please send me without any obligation on my part, your free book, "A Knight of the Grip," and full information about the N. S. T. A. system of Salesmanship Training and Employment Service. Also a list showing lines of business with openings for salesmen.

Name

Street

City

State

READ THESE AMAZING STORIES OF SUCCESS

Earned \$524 in Two Weeks
I had never earned more than \$50 a month. Last week I cleared \$396 and this week \$218. You have done wonders for me.—Geo. W. Kearns, 107 W. Park Place, Oklahoma City, Okla.

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Earns \$1,562 in Thirty Days

My earnings for the past thirty days are \$1,562.00 and I won Second Prize in March although I only worked two weeks during that month.—C. W. Campbell, Greensburg, Pa.

Earned \$1,800 in Six Weeks

My earnings for March were over \$1,000 and over \$1,800 for the last six weeks, while last week my earnings were \$856.00. I travel eleven months out of the year, working 5 days each week.

The N. S. T. A. dug me out of a rut where I was earning less than \$1,000 a year and showed me how to make a success.—J. P. Overstreet, Dallas, Texas.

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Positively, Quickly and Inexpensively Yours

At last there is a quick and inexpensive way to radiant beauty—glowing health—pulsing vitality. Electricity in its most scientific and efficient form for the human system. A wonderful Violet Ray of tremendous curative power. Not a Vibrator—not a current to shock you—not a massaging device. A powerful penetrating Ray of Energy that heals—beautifies—rejuvenates and energizes. It was the big sensation of the Health Show recently held at Chicago. Endorsed by every doctor, scientist—physical culture and beauty expert. Use it in the privacy of your home.

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Try VI-REX RAYS 10 Days Free

Better than gallons of liniment and drugs. Better than a ton of cosmetics. Vi-Rex treatments now used at home by thousands. Remarkable records made in cases of neuritis, rheumatism, asthma, catarrh, deafness, insomnia, obesity, nervousness, lumbago, pains, as well as in cases of skin trouble, sallowness, pimples, blackheads, falling hair.

Try the Vi-Rex Violet Ray machine in your own home on our 10-day offer. Attach to any electric light socket or use Battery Outfit Complete. No shock. No vibration. Harmless even to infants. Soothing or stimulating as desired. Electricity in its most helpful, healing, soothing form. Creates energy, strength, vigor and beauty.

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VI-REX ELECTRIC COMPANY

Dept. 509

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

VI-REX ELECTRIC CO., 326 W. Madison St., Dept. 509 Chicago, Ill.

STRENGTH

Vol. 6

OCTOBER, 1921

No. 2

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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 LOWREY-MARDEN CORPORATION, Dept. 751, 1133 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 remail 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.

"Have the Voice You Want"



Says Eugene Feuchtinger

YOUR voice can be rich, full and vibrant. Its overtones can be greatly multiplied. You can add many notes to its range, and have them clear, limpid and alluring. You can have a voice round, rolling and compelling, and so strong and magnetic that it will be the marvel of your associates.

Eugene Feuchtinger, A.M.
Master of Voice

European Maestro. Creator of many of the greatest voices of the Operatic World. Teacher of Forena, formerly with Kubelik, Paul Bauer, and scores of others.

100% Improvement Guaranteed

By the Feuchtinger System, you can develop your voice by simple, agreeable methods in your spare time, and in your own home. Professor Feuchtinger, the eminent Maestro, will direct your efforts and a **REDOUBLEMENT** of your voice—an improvement of **AT LEAST 100%** is absolutely guaranteed. Think of being trained by one of the great masters of Voice Culture, in your own home, at a mere fraction of the usual cost, under a positive guarantee. It is the opportunity of a lifetime.

You Do Not Know Your Real Voice

THE FEUCHTINGER SYSTEM OF VOICE PRODUCTION will be a source of wonder to you. It arouses at once complete confidence and great enthusiasm. Results are assured and rapidly secured. Its secret is in the *Control of the Vital Vocal Muscles*, which you can understand in five minutes and practice to the point of perfection, **ANYWHERE—SILENTLY**. No tiresome, noisy scale-running is allowed; you can study *secretly* if you wish—and in a few weeks only—the increase in the range, power and beauty of your voice should be **STRIKINGLY** evident, a priceless joy to yourself and an astonishment to your friends.



A Beautiful Voice for You!

Until you understand the Feuchtinger System you cannot know the possibilities of your vocal gifts. The Feuchtinger System **PRODUCES**, as well as **DEVELOPS**, the true voice. It corrects all strain and falsetto, and makes clear the wonderful fact that any normal person can develop a fine voice if expertly trained. Thousands of delighted graduates testify to this—many of them great vocal successes who, before coming to Professor Feuchtinger, sung very poorly or not at all.

FREE Learn to sing well and be a Vital Personality. Get the handsome De Luxe book describing the Feuchtinger method. Send coupon or a postal now for this great book and particulars of the special price concession in the cost of Professor Feuchtinger's teaching now being made to readers of this publication for a limited time only. Act at once before this wonderful offer is withdrawn. Don't delay. Send the coupon or a postal today—**NOW!**

Perfect Voice Institute

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Gentlemen: Send at once, free and without obligation, De Luxe book describing the famous Feuchtinger System of Voice Culture at Home.

Name.....

Address.....

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 Gymnasies, 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.
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- (15) An Anatomy of the Sexual Organs.
- (16) Sexual Weakness and Disease, Their Cause and Cure.
- (17) Rules for Happy Marriage and Parenthood.
- (18) A complete work on Child-birth—how to make it safe.

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

The Daily Guide to Perfect Health

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

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

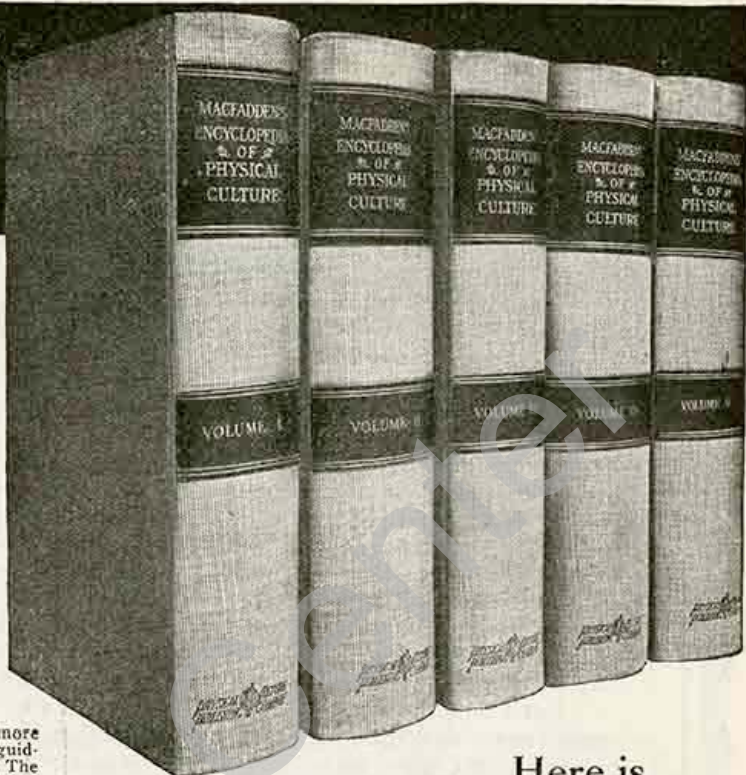
A reading of the two panels printed here will give you a better idea of the vast scope of this Encyclopedia of Physical Culture. In it is contained the equivalent of at least twenty complete books. The Encyclopedia contains more than 3,000 pages and 1,200 illustrations, besides scores of color plates.

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

A Complete Guide-Course to Perfect Health by Bernarr Macfadden

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

If this Offer is Accepted
the Price Includes
a Year's Subscription to
Physical Culture
The Most Valuable Health
Course Ever Prepared



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 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.

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
build nervous energy
treat the common forms of disease
understand the process of reproduction
benefit by laws of sex and marriage
treat diseases of women
diagnose diseases
have healthy and vigorous children
treat female disorders
treat male disorders
obtain virility and manhood
care for the complexion
manicure: care for the hair and feet
cultivate the mind
These are only a few of the matters explained in the Encyclopedia.

Here is OUR OFFER

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

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

<p>PHYSICAL CULTURE CORPORATION Dept. S-10 119 West 40th Street, New York</p>	<p>PHYSICAL CULTURE CORPORATION Dept. S-10 119 West 40th St. New York City.</p> <p>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.</p> <p>Name Occupation Residence Business Address</p>
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IDEALS

IDEALS are what really make life worth living. If there were not something to continually strive for, something to achieve, life would lose its zest and be not worth the while.

Consciously or unconsciously, we are all striving after perfection. One man in this thing, another in that, but each has his ideals that represent to him the ultimate of human achievement. And no matter how varied or far apart these ideals may seem, each one of us, after all, is striving to be a success. One aspires to be a captain of industry or finance, and perhaps another a merchant chief. Each wants to be a success in his own line. We all want success and all that goes with it.

But there are certain things that we all expect of the successful man, and the first and foremost is that he be a **real** man. Opinions may differ as to what constitutes a real man, but there are two attributes that all unite in conceding as being essential to the real man—strength and courage.

Your real man must have courage. Not only moral courage, but a generous sprinkling of the physical sort as well. To be accused of cowardice is something that automatically deprives him of the right to be called a man. Nor is courage alone sufficient. To have courage to attempt that which is praiseworthy and is expected of one is not enough—there must also be physical strength sufficient to carry it through.

STRENGTH AND COURAGE

WHILE the two terms are not synonymous, they are generally found together. Though a weak, undeveloped shrimp may be a giant in courage; and a big over-grown boob have the bravery of a mouse; yet neither of them could be called a real man, because there is something lacking in each. In the shrimp because he has not the strength to match his courage, and in the boob because his courage is something yet to be developed. Both of these are abnormal.

Whenever we think of a real man, we think of a fine, up-standing, strong and well-developed chap who is quite capable of looking after himself no matter what happens, who bears the

buffetings of misfortune with a smile, and who always comes back for more. Weakness and worry are foreign to his nature. He is successful because of these things. He loses no time through sickness or by worrying about what might happen, and is a doer instead of a dreamer. He has both strength and courage.

The man who is not strong and well-developed is not sure of himself. He has no reliance in his powers of physical endurance, which he knows may fail him at any moment. While he may be efficient mentally, he is continually worrying about this, that and the other thing. Worry leads to fear, and fear to despair. He has not an equal chance with the man of strong physique, simply because he has neglected his physical condition.

Strength is a breeder of courage, weakness of fear and despair.

Were it not possible for every man to develop health and strength, they might be omitted from the qualifications of a real man. But we expect of the real man that he shall make the most of his opportunities, and good physical condition is the opportunity of everyone.

SOMETHING FOR NOTHING

WHY is it, since it is possible for all men to be well developed and strong—and courageous because they are strong—that there are so many physical weaklings? The answer is—something for nothing.

A man wishes for courage, and remains a coward. He wishes for strength and remains a weakling. You can't get something for nothing. Everything in this world that is worth having is worth working for. Wish for strength, by all means, but crystallize the thought into action and work for it. You can not get it in any other way.

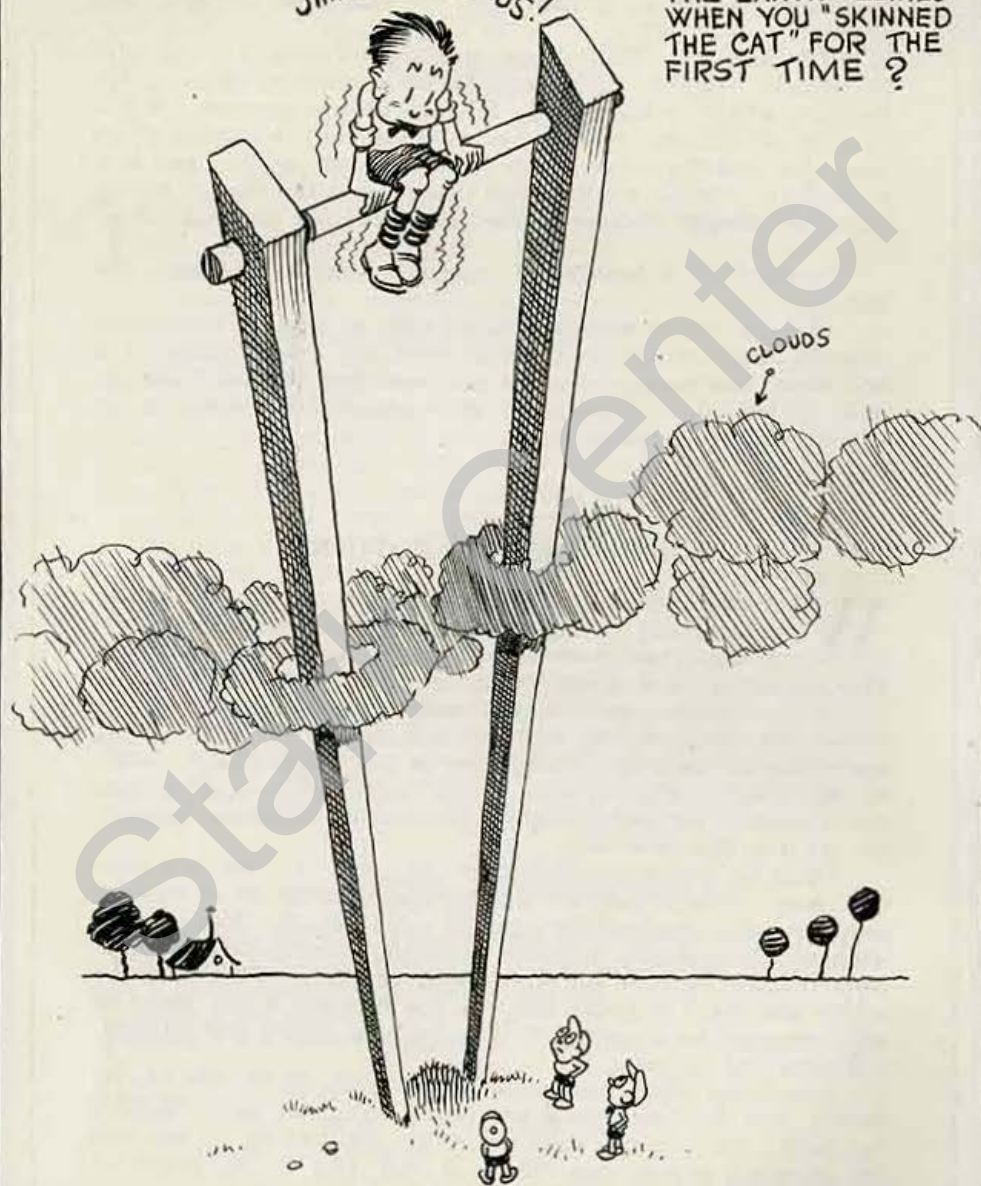
Don't be content to admire the real man. He was not born that way. Every inch of muscle, every ounce of energy he possesses was acquired through his own efforts. You can do likewise. It is simply a matter of giving your muscles enough work to keep them fit and functioning properly. This is surely within the reach of every one. A few minutes a day spent in judicious exercise is enough to give any man health and strength sufficient and to spare.

No matter what your ambition or ideals in life may be, a strong, well-developed body will be an invaluable aid in obtaining them. But you can't get something for nothing. Carry out the practical suggestions that you will find in the pages of **STRENGTH**. Begin working for it to-day.

REMEMBER -

HOW FAR AWAY
THE EARTH SEEMED
WHEN YOU "SKINNED
THE CAT" FOR THE
FIRST TIME ?

JIMINY CRIS'MUS!



PASCHAU
21

Athletics for Health and Efficiency

By Walter Camp

CABLES recently announced that the National Conference of the German Y. M. C. A. secretaries decided to secure the services of an American athletic director to introduce American sports. It is said they intend to secure one of the prominent leaders in the American Army of Occupation. An interesting phase of this is shown by the resolution adopted by one of the clubs over there stating that, "Sport is a moral antidote needed to save German youth from further moral ruin now that the military service has been abandoned."

There was a time when it was necessary even in this country to argue the existing need in mind and body for physical exercise. That time, thanks to many writers and more practical examples, is passed. Athletics are recognized as a power exerting a beneficial influence upon our people. Among students especially is the change most marked. As a professor remarked at a college dinner, "We have ceased to recognize the long-haired, hollow-chested invalid as the type of the student." Physical culture is fast giving us a better breed of men, and the question now asked is not "Is it good?" but "How can we obtain it in its best form?"

A man of thirty, engaged in business or in a profession, has little time to devote to physical culture, in the sense of building up his physique. More than this, if he attempts a course of exercise for that purpose he is likely to find that it requires too much energy and effort to be compatible with his pursuits. As the expression is, "it takes too much out of him," leaving him fatigued and exhausted, so that he soon abandons the experiment; and yet in this day of the motor and trolley car there is a double need of physical exercise for both youth and age. The truth is that a man develops little physically after middle life. It is in his earlier days and in his student days that a man should build up the physique and the constitution that are to last him through life and make that life worth living. That exercise is needed by the mature man goes without saying, but that exercise should be merely to keep him in the

physical perfection which he has acquired in earlier life. Nature has shown us her ideas, first the body, then the mind, and we should learn the lesson.

It is the time of life spent in school and college which we can best utilize. Perfectly rounded and symmetrical development should be the object. If mature men of sound judgment have not the perseverance to follow out physical-culture methods, how can we expect boys to be devoted to exercise for its own sake? Yet we have at our command the very incentives that will lead them to persevere in that physical development. We have their sports. The promise of future development and future health alone will not lead one out of a dozen; the promise of successful competition will lead five out of ten. Hence the great wisdom of turning their love of games into the incentive and letting individual rivalry and college rivalry act as the inducements. The healthy tonic of excitement forms no small part of the good arising from these sports, for without it exercise fails of half its good results by becoming a tiresome duty instead of a pleasant recreation. Not only do these sports induce the boys especially endowed by nature to participate, but by example the desire becomes infectious, and those who at first go to look on eventually stay to take part. There is an honor to be striven for, and men feeling it work with interest and enthusiasm. Regularity doubles the benefit of exercise, and college sports are so conducted as to give this fixed time and place in a round of college duties. It is not exercise to-day and then forget it until warned by a headache of the need. It is to-day at two, to-morrow at two, and so on without a break. The methods are systematic and the discipline and restraint enforced. A man in training to represent his college is bound by college honor to keep in training, and that means that he will be free from dissipation, excesses and license. College sports form a bond of fellowship between different men and different classes. Men thus brought together are educated and humanized; their rough edges are rubbed down in the contact, and they

learn the better to know and respect their fellow men. Coolness in emergencies, courage and self-control are taught in college athletics as they could be in no other school. Cool courage is an attribute of every "best man" or "best team," and the demand for it develops manhood by putting the highest premium upon quick thought and self-control. Courage, nerve, heart, "sand"—call it what you will, it is *the* recommendation for a player, and it is what makes *men*. For the acquirement of executive power, invention and organization, we have in the college curriculum as described in the catalogue no special course. But our college athletics step in to supply the need. Captaining a team, executing a play, are instances where a man is thrown upon his own resources and must find his own way out.

It is gradually but none the less surely dawning upon those who make a study of conditions that the wisest plan for college faculties to adopt is to require certain work and certain attendance upon college exercises, then to encourage, as much as is consistent with these requirements, athletic sport and every business experience for which the student has or can make an opportunity. Then will he broaden in mind and body wisely, reasonably and symmetrically. The school or college should furnish field room and facilities so that every man may take part in some form of sport. Few of them have the requisite room at present, and one of the first acts of the administration of these institutions should be to provide this field space. It is an even wiser investment than additional buildings. Supplementing the sports and dovetailing with them there is unquestionably need of a minimum of some form of postural work, occupying but a very few minutes of time, but also improving the carriage and poise. The right kind of calisthenics will rapidly increase a boy's efficiency and preparation for his sports and make of his athletic career a real success. The wrong kind merely bores in and is shirked by the great majority. Suppleness is acquired by proper muscular movements repeated daily, and this means freedom from strains or lameness as well as a greatly increased endurance. A larger chest, a better back, a more powerful neck and shoulders are the great

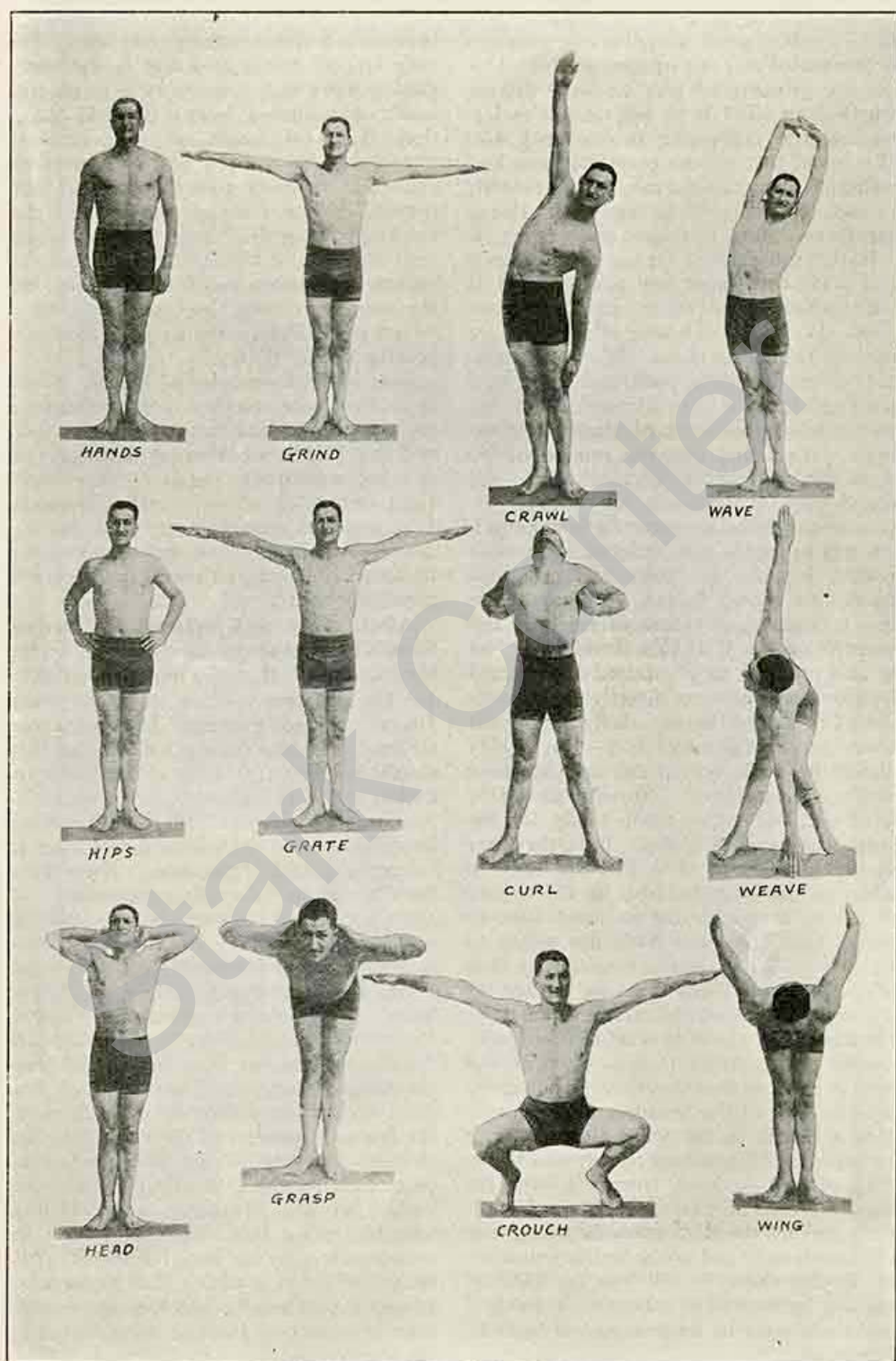
assets upon which to build the success in sports of all kinds, and these can be acquired with the expenditure of less than ten minutes a day.

At last we are really beginning to awake not only to the realities of the physical condition of our people, but what is far more practical, to the possibilities of the examinations, tests and methods by means of which we may be made better. Dr. Roger I. Lee, Professor of Hygiene at Harvard, recently announced the results of his examination of the Freshman Class at that university. He found that some 80 per cent. are deficient in bodily mechanics, that is, that they do not use their bodies well. He is quite ready to admit that this condition is so helped out by the youth of the subjects that they probably do not recognize this condition through any disagreeable features. In other words, their poor bodily mechanics are offset by their youth and otherwise good physical condition. But here is the point: such a condition continuing is pretty sure to grow worse, and as youth fades then serious troubles are likely to result. A description of the examination makes all this clear. He divides the men into four groups—A, those who have a good mechanical use of the body; B, fairly good; C, bad; and D, very bad. His percentages result as follows:

A.	0.97	1916	A.	7.5
B.	14.8		B.	12.5
C.	49.3		C.	55
D.	34.8		D.	25

To make this more clear to the average reader, it should be noted that those in Groups A carry the head straight above the chest, hips and feet, with the chest up and forward, the abdomen flat, and natural curves in the back. Group B, head too far forward, chest not so well up, abdomen fairly flat, back nearly natural. Group C, head forward of chest, chest flat, abdomen relaxed and forward, back curves exaggerated. Group D, head still farther forward, chest flatter and farther back, abdomen completely relaxed, back curves exaggerated to the extreme.

We have learned in the recent stress of affairs how not only individuals, but nations are suddenly awakened to the fact that what



WALTER CAMP'S DAILY DOZEN.

may have been good enough even a year ago is antiquated and out of date to-day. Under the pressure of war we were driven, whether we liked it or not, to put to immediate test everything in our daily life. We found that almost every machine and well-nigh every method might be improved; in fact, that it had to be improved. Boats, aeroplanes, guns, processes, even living itself were submitted to the test of emergency and made over upon new plans. So it is with athletics and other setting-up exercises. We could no longer afford to waste time or motion or effort. We were teaching on an intensive scale and must take nothing out of a man in preparation, but rather add to his store of vitality and energy. We found that the routine of his work would strengthen legs and arms. We found outdoor sport was an essential for relaxation. What we must do in calisthenics was to supple him, quicken his coordination, improve his poise and make his trunk and thorax better. We must give him endurance, quickness of response and resistive force. With this, therefore, before us as a problem, we eliminated the arm and leg exercises and went directly at the problem of trunk and thorax. And standing out above all was this major fact—"No vitality should be taken out of the men by these setting-up exercises." No man should be tired out, but rather made ready for the regular work of the day. It is the same in the problem of civil life, not only in athletics and sport, but also for the mature man who cannot devote so much time to play. Vacillation and doubt are poison to the nerves. This is the reason why it is advisable to teach coordination, prompt response to the command of the brain over the muscles, and the general sense of self-control which comes to man when he has only to think to turn that thought into quick action. One of the penalties of the executive or leader is apt to be that, although he began as a disciplined private and therefore obliged to have command over his muscles, when he went up higher and gradually reached the point where he was giving commands only and never had any practice in obeying them, he fell into the habit of pushing buttons while other people jumped, and there were no buttons pushed to make him jump.

Now as to the worry side of it, it has

been said, and not in truth, that one of the very largest causes of worry is weakness. And in more than a majority of cases this weakness emanates from a physical condition. A good digestion and proper elimination seems to make the organism move smoothly, not alone with muscles, but with nerves. Hence if we get the engine right, the lungs doing their duty, the skin acting as it should, and having the opportunity to so act, the bowels and kidneys taking off the waste products, we generally find a robust man, little given to that most expensive habit, "Worry."

Fear is the forerunner of illness. There is nothing quite so effective in producing a bad condition of the human system as fear, and this fear is what worry develops into as it becomes anxiety and finally sure downright cowardice. Worry makes cowards. If a man has enough worry and anxiety, fear follows in its wake, and then the man becomes a mental and moral, and often a physical, coward.

After study and practice of Danish, Swedish and other calisthenics, and by the elimination of those designed principally for leg and arm work, a so-called "Daily Dozen" set of exercises has been constructed, based upon the principles that they should not be particularly difficult of execution, should not demand unusual muscular strength, and, beyond all, should neither be exhausting or unfair to heavy men in comparison with light men. These have been tested by scientific experiments and from a practical point of view, to avoid, if possible, any slacking, and it will be found that they give a reasonable amount of exercise to every muscle of the trunk and body. They promote suppleness, strengthen the muscles less frequently used, and are far more efficacious than any special feats requiring strength or knack. When first used, their effect will be found on some of the less used muscles of the neck, back and stomach, but they will not produce the muscular fatigue which usually goes with exercises of this character, and which is harmful rather than beneficial. They increase materially the resistive forces of the body and act as a tonic. Additional work to any extent can be added in the case of men in service or training for athletics by the simple expedient of running in addition to their daily practice.

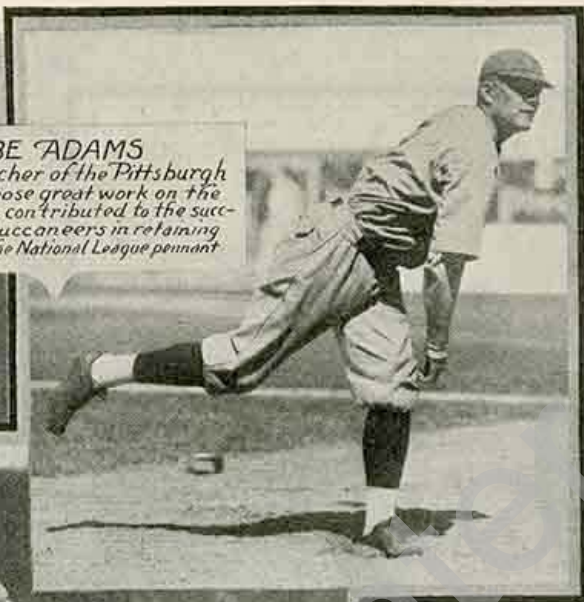


SUZANNE LENGLEN
*The French tennis wizard
in action in her match
with Mrs. Mallory.*



*Mrs. MALLORY the present champion
and conqueror of the French girl.*

BABE ADAMS
The big pitcher of the Pittsburgh Pirates, whose great work on the mound, has contributed to the success of the Bucconeers in retaining their lead in the National League pennant race.



"RABBIT" MARANVILLE
The diminutive star shortstop of the Pittsburgh Pirates whose playing contributed greatly to the success of the team.

MAX CAREY
The veteran outfielder of the Pittsburgh Pirates, whose great playing helped to keep the team in front for the National League pennant.



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America's Sporting Classic

By J. C. Kofoed

EVERY year, when the edge of October's winds keen up the dying summer's breezes, the real classic of American sports—the World Series—is staged. Interest does not narrow down to the cities in which it is played. Every red-blooded American forgets his business cares, and focusses eyes and mind on the scores of the contesting teams. At two o'clock on every afternoon while the series lasts you'll find a mob packed around the New York newspaper buildings in Park Row, whether a metropolitan team is in the battle or not. At the identical hour you can spot smaller, but not less enthusiastic crowds before the offices of the *Higginsville Banner* or the *Los Amigos Dispatch*. In every city and hamlet the bulk of the population migrates to the nearest point where it can learn the score. The thirty-five or forty thousand people who actually see the big series is an infinitesimal part of the audience that hangs breathlessly on every play.

Why, the stir of it is felt across thousands of miles of blue water. The Parisian-American, at his cafe table on the Boul' Mich' turns eagerly to the Paris edition of the *New York Herald* to find who pitched and won that opening game. The hardboiled leatherneck down in Haiti; the missionary in China; the seaman on "battle wagon" doing duty in foreign waters; all exiles—voluntary or involuntary—from America turn their thoughts to the big series when the first days of October come slipping in.

We grin with satisfaction when an American polo team defeats our ancient British rivals, or an American yacht gives Tommy Lipton his usual trouncing. We chuckle when lank Jock Hutchison out-plays England's best golfers, or Tilden or Kelly or some other homebred champion shows the world that our athletes are in a class by themselves. However, I can imagine no other sporting spectacle where we would be more likely to yell our throats into hashed beef than a winning home-run by Babe Ruth in the ninth inning of a World Series battle.

There is color—vibrant, living color in

these games. Every move is freighted with meaning. The crowd is tense; the players are nervously on edge, though they strive to appear nonchalant. This fall classic has a strange effect on the professionals. It has made heroes of unknowns like George Rohe and George Whiteman; it has made "goats" of tried veterans of the kidney of Johnny Kling, Red Jack Murray, Fred Snodgrass and others.

Rohe, it will be remembered, was the kid third baseman, who the White Sox picked up as a substitute for Lee Tannehill during the season of 1906. No one expected him to get into the game, but as shortstop Davis was injured prior to the big series, Tannehill was switched to that position, and Rohe went in at third.

He won the first game with a slashing triple off "Miner" Brown. The third contest was a heartbreaking pitching battle between Jack Pfeister and Ed Walsh. The former had been in several tight holes, due to wildness, but had pitched himself out with superb courage. In the sixth inning the White Sox filled the bases, and Rohe came to bat.

Johnny Kling, the Cub, catcher—one of the brainiest that ever donned the mask—decided to "talk" Rohe out of a hit.

"Pretty lucky—that triple you hit the other day," he grunted, "but don't worry; you won't get any more high, fast ones to swing at."

Rohe instantly decided that Kling was trying to kid him into a strike, set himself for a fast ball, and drove the first ball pitched into the left field seats for another triple. In the last two games he made five hits that materially aided his team in winning baseball's highest honors. At that time Rohe looked like a coming star. Yet two months after the opening of the 1907 season, he was back in the minor leagues—and never came up for another trial. There was an elixir in the atmosphere of the series that made him play far above his usual speed.

In the coming series there is a possibility that youth may dominate affairs—though this chance is entirely a National League one. Pittsburg has Barnhardt, Tierney,

Glazner, Morrison, Yellowhorse, Brottem, Wilson and Rowher—all recruits with no more experience than Rohe had in those trying days of fifteen years ago. Both Cleveland and New York—who are almost deadlocked for the American League pennant as this is written—are veteran teams practically in entirety.

Speaking of the outstanding star of any particular World Series inevitably brings Christy Mathewson to mind. There never has been another fall classic where one man so completely dominated affairs as "Big Six" did in 1905; in all probability there never will be again. Mathewson was then at the height of his career. He had won thirty-one games during the National League season, and was in the very pink of condition when the big series started.

He faced powerful sluggers in Harry Davis, Dan Murphy, Socks Seybold, Shreck and other Athletic players. Nevertheless, he allowed them but fourteen hits and not a solitary run in the twenty-seven innings he worked against them. Three straight shut outs against any team is not a feat to be sniffed at. Three straight shut outs against a club like the 1905 Athletics—particularly in a series so tense with excitement—was the work of a superman. No other heaver has ever equalled it.

During the past quarter century of baseball history Mathewson, Young, Alexander, Johnson, Plank and Waddell stand out as pitching geniuses. Johnson and Waddell never appeared in World Series games. Wonderful Cy Young was bombed from the peak in one classic start, and peppered with fair regularity in two others. Alexander the Great failed to provide an expected sensation in the 1915 battles, and Eddie Plank was unlucky in a number of his games. So Matty's feat stands unparalleled in the history of the game.

He carved that record sixteen years. As this season's battlers take the field for baseball's greatest prize Big Six is at grips with the white devil of consumption at Saranac Lake, fighting as gamely as he fought the Athletics in October, 1903. I wonder if he often thinks of those brave days, and the men who were his team-mates and his diamond foes. Of the two champion teams Waddell, the tragic jester, Shreck, genial Doc Powers, Dan McGann and Devlin are

dead; the others scattered the length and breadth of these United States. And Mathewson broods in his eyre at Saranac—a broken paladin.

It is questionable if Christy's record will be nearly matched in the coming series. Pittsburg has a powerful pitching staff. Cooper is the best southpaw in either league, and "Babe" Adams, the hero of the 1909 series, is pitching as fine ball as at any time of his lengthy career. The veteran Hamilton and recruits Glazner and Morrison, with the two leaders, represents the Pirate bulwark. Neither Cleveland nor New York can show its equal. Bagby and Mails, for the Ohioans, have cracked this year, leaving only Coveleski for an ace; Coveleski, who, last year, won three games in the classic series. New York is no better off, for Mays is the only outstanding star they can show on the mound. Not one of that talented group is likely to blank the opposing sluggers for twenty-seven innings in this year of grace, 1921.

For the first time in a good many years sentiment outside of New York favors a Yankee victory. This is because of the general desire to see Babe Ruth in a World Series game as a hitter rather than a pitcher. The Bustin' Bambino has already split three post season purses in his comparatively short career.

In 1915 he was a rookie, and did not start a game, but in the following year he pitched and won the longest Series contest on record: a 2 to 1, fourteen inning battle with Sherrod Smith. In 1918 he shut out Chicago 1 to 0 in the opening brawl, and also won the fourth by a 3 to 2 count. In his trio of big games the Babe allowed less than nine-tenths of a run per game—certainly the closest approach to Mathewson's record that has ever been made.

Great as it is to watch a splendid pitching exhibition, it is the slashing drives of the hitters that bring the fans to their feet. Ruth has proven himself one of the greatest of World Series pitchers; everyone wants to know if he can knock home runs off the slants of such competent left handers as Cooper and Hamilton.

I am particularly glad that Pittsburg is to share in the 1921 prize money, and one
(Continued on page 56)

Seventy-Seven—and Still Going Strong

By Gilbert I. Stodola

THE proof of the pudding lies in the eating," the old saying goes. I had the pleasure recently of interviewing a man who is a remarkable example of what physical training can do for the human body. This man is Professor Louis Attila, whose international reputation as a professional strong man and as an authority on physical training is so well established that I need not enlarge upon it here.

Professor Attila is now seventy-seven years old. He claims that he can do everything that he did twenty-five years ago. I have no reason to doubt his word, for he is as full of "pep" as a man of forty. He certainly looks no older than fifty. You can find him daily at his gymnasium in New York City, conducting his private instruction in physical culture, the same as a man in the prime of life, day in, day out, with never an hour lost on account of illness, and without a thought of being an old man.

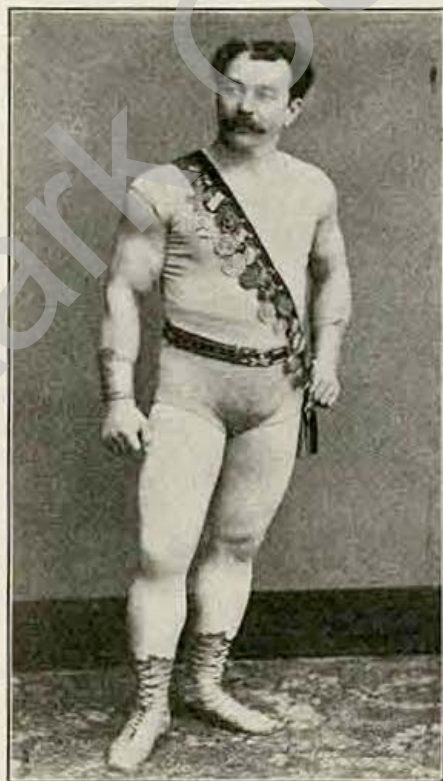
Think of the average man who reaches the age of seventy-seven! Generally he is just able to get around with the help of a stick, or is tied up in a knot with rheumatism, or possibly is bed-ridden; in fact he usually regards himself as mighty fortunate in being alive at all, no matter what his condition may be. Yet here is a man at seventy-seven full of vigor and go, apparently in perfect health. And what is the answer? Undoubtedly it is: Proper physical training and correct habits of living.

There are certain people who will talk very learnedly about the bad effects of weight-lifting: How it causes you to become muscle bound, is bad for the heart, etc., etc. Yet here is a man who has been a professional athlete and weight-lifter for nearly sixty years, thirty of which he spent on the stage as a performer, where he daily performed tremendous feats of strength and who at seventy-seven is in perfect health. According to these "know-it-alls" he should have been in his grave long ago. Supposing he had been a banker, or lawyer, or business man, or had been in almost any other line of work, would he be in the superb condition he is in now? It is highly doubtful.

I asked Professor Attila how he developed his great strength.

"My training in earnest really began when I was seventeen," he replied. "I commenced with light work; in fact, with five-pound dumb bells, using a model which I invented myself. Then when I felt that I had gotten all the development possible from these, I took up weight-lifting. At first I worked with light weights, gradually increasing till I was able to lift far more than the average man.

"In a few years I was ready to appear in public and began to travel, giving exhibitions. Gradually, as I became better known, my engagements became more and more numerous and before I retired from stage life I had toured the principal cities of Europe and other parts



Prof. Louis Attila.

of the world time and time again and had been invited many times to give private exhibitions before various princes and kings.

"It was always my aim," continued Professor Attila, "to give an artistic performance, rather than a mere exhibition of strength. I was always trying to find something novel and interesting to give to the public. One of my numbers, which always brought down the house, was to have placed on my chest a platform holding a regulation grand piano with a heavy chair. Of course, it took several men to lift the piano. While I supported the piano, a performer sat at it and played an operatic selection which took five minutes. Other feats of strength that took well were: Tearing packs of cards; breaking steel bars; using a 40-pound cannon ball in cup and ball juggling; the Roman column; the Roman chair, etc. All these acts have been much imitated since I originated them."

One of Professor Attila's star pupils was the renowned Sandow. He came to Professor Attila as a young man. The former, seeing possibilities of developing this exceptional athlete into something phenomenal as a strong man, concentrated his skill and knowledge on that end, using the same method which he employed in acquiring his own great strength. This, incidentally, was the same method which Professor Attila followed in developing all the many strong men which he has brought out; that is, beginning with light weights and gradually increasing.

Professor Attila toured the principal cities of Europe with Sandow, bringing him to this country in 1893. Sandow was acclaimed as "the strongest man in the world." Whether he was really that, it would be difficult for anybody to say, but there is no doubt of the fact that he created a sensation in his day. I personally remember seeing him perform at Proctor's Theatre in New York. I recall that when the curtain rose it revealed a wonderfully developed man, beautiful as an ancient Greek statue, standing on a pedestal on the darkened stage. As the pedestal slowly revolved and the spotlight played on Sandow, bringing out his superb muscular development from various angles, the applause was tremendous.

Knowing that the matter of weight-lifting

figures is always of interest to physical culture enthusiasts, I asked Professor Attila if some of the phenomenal lifts claimed by strong men were really authentic. His answer "let the cat out of the bag." He said:

"From my intimate contact with professional strong men, gained through my many years of stage life, as well as in developing numerous strong men, I can confidently say that the claims of many professional performers are much exaggerated. As Barnum has proved, the public likes to be fooled. But by this I do not mean that the feats of strength performed on the stage are not exceptional. It is safe to say that nobody in the audience aside from a professional athlete could duplicate them. I make this statement merely in order that the young weight-lifter will not become discouraged when he sees the professional on the stage apparently doing things which the young athlete feels he could never hope to equal."

Professor Attila might truthfully almost be called "the father of physical training" in this country, for he came here twenty-eight years ago, when physical culture was practically in its infancy. Since then he has worked hard and successfully to develop interest in physical development and has taken an active part in the movement which has sought to make the public realize the importance of building up the human body and keeping it fit and strong. Many men now well known in the physical culture field, either as professional strong men or as teachers, have been his pupils. Offhand he named a few, as for example: Rolandow, Lionel Strongfort, Titus, Travers, Mac-Levy, Barker, Cellai, Stern, etc.

Having for so long been a professional weight-lifter and strong man, Professor Attila is naturally a strong advocate of the benefits of weight-lifting. He insists that in order to develop the muscles you must give them work to do. But he is also a believer in bag punching, boxing, rowing, skating, swimming, running (but not sprinting, as it is apt to be bad for the heart). Exercises such as golf, tennis, etc., are in his opinion of little use in body building, although they have their value in keeping a person out in the fresh air. Boxing he thinks very highly of. To illustrate some

(Continued on page 54)

Is Boxing a Health Destroyer?

By Jack Hazlitt

SEVERAL weeks ago I met a boxer—an internationally famous hero of the squared circle, and an old friend of mine—on the boardwalk at Atlantic City. He was boiling with rage, and I demanded to know the reason for his spleen. He shook a newspaper under my nose while he answered.

"Am I a consumptive freak?" he demanded. "Am I a flatheaded dub without the brains of a child? Do I lack courage and manliness?"

I looked at his splendidly developed body, at the clear color of his cheeks, at his keen, intelligent eyes, and I grinned.

"Who said all that about you?" I wanted to know.

My boxer friend brandished his paper again. "Doctor Woods Hutchinson," he said.

Everyone has heard of Dr. Hutchinson. His syndicated articles on health and hygiene have been followed with general interest by millions of people. I shook my head.

"Dr. Hutchinson is an eminent physician. He couldn't have made an examination of you, and said those things."

"Well, he doesn't say them about me personally," the leather pusher admitted, "but he does about all boxers in general. That amounts to an indictment of the game itself, for the professional fighter comes from sturdy stock, and if he turns into a tubercular freak without brains or endurance it is the fault of boxing. It's not so, Jack. . . . You

know it's not." He shoved the paper into my hand, and I read Dr. Hutchinson's article.

Briefly, the physician stated that professional boxers:

1. Are freaks and inferior men.
2. Lack strength and endurance.
3. Have no need of courage or manliness.
4. Are, as a general thing, tubercular.
5. Lives, on an average, only to the age of 36.
6. Has the mentality of a six-year-old child.
7. Is insensible to pain in the ring.

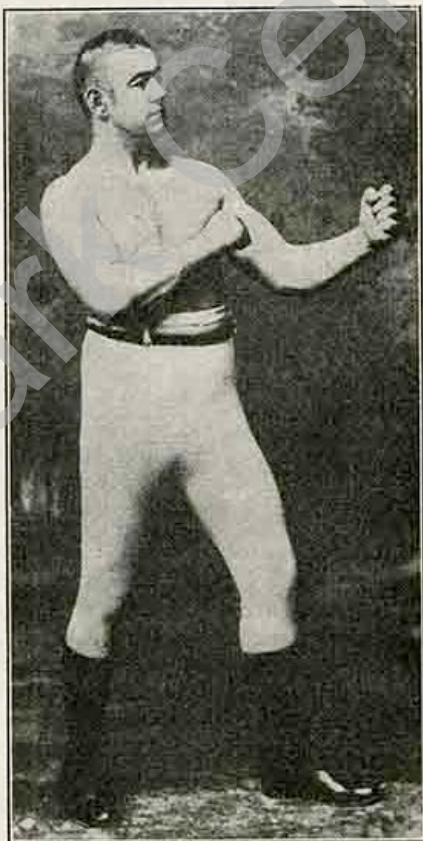
Now, I have every respect for Dr. Hutchinson's ability as a physician, and I will

admit that I have met some fighters who filled this description, but I know that such a description does not fit the average man of the ring. If this were so it would be tantamount to saying that boxing made them into that sort of thing—which is absurd on the face of it.

So I promised my indignant friend that I would do my best to refute Dr. Hutchinson's article. In doing so, I will take up each of his statements separately.

1. *The boxer is a freak and an inferior man.*

"Prize fighters are freaks," says the worthy Doctor, "but I don't want you to understand that I think they are roughnecks. They're not. Many people have called them vicious, but that's absurd. The average prize fighter is usually kind hearted,



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John L. Sullivan, who was almost 60 when he died.

and very good natured. But they are freaks."

I agree with all but one of those statements. The boxer is not a freak, for he is an athlete whom boxing has turned into a speedy, quick-hitting machine of the ring. There have been physical freaks like Bob Fitzsimmons, with his enormous shoulders and spindly legs, and Joe Grim, whose nervous system was of such low caliber that he seldom felt pain, but the average fighter is an athlete of the usual proportions.

He must be. Boxing is a sport that demands an excellent heart, good lungs and muscular strength. It also demands a sense of balance that Doctor Hutchinson declares the boxer does not own. When a man possesses these attributes I can't, for the life of me, see where he is a physical freak. As for boxing making him one the very reverse is true.

Lew Tendler was a thin little chap, selling papers at Broad Street station before he took up the ring game. Now he is a wonderfully developed chap. Tommy Murphy, who some years ago, was only a step from the lightweight championship, said:

"I was very thin when I began to box; so slender, in fact, that most people pitied that 'poor child.' It wasn't a year after I entered the ring that I was as husky a chap as any of my inches. Boxing did it."

Any specialized form of athletics develops certain muscles at the expense of others. You can see it with the sprinter, the weight-thrower or the wrestler. And to call a boxer a freak because his trade has developed certain parts of his body more highly than others seems to me to be the height of absurdity.

2. *The boxer lacks strength and endurance.*

It is true that boxing does not make for the huge muscles of weight-lifters or wrestlers, but it does strengthen a man's muscles in the sinewy way that a fighter needs. It adds even more to his endurance, and Doctor Hutchinson's statement to the contrary cannot be taken seriously. If such men as Dempsey, Jeffries, Brennan and others lack strength and endurance then heaven pity the average man in the street.

Brute strength has never been highly regarded in ringdom. Jack Broughton, one of the first of the champions, and the man

who, with the aid of the Duke of Cumberland, cleaned up the boxing game in 1743, was asked what he thought of the big Prussian grenadiers as candidates for the ring.

He replied: "I would be most happy to take on a regiment of them, provided that I was allowed a square meal after every second mill."

3. *The boxer has no need of courage or manliness.*

This statement is even more absurd than the preceding one. From the very beginning of the game courage has been the outstanding requirement for every ringman.

Read this clipping from an old newspaper as one in a million refutations of Doctor Hutchinson's statement:

"It was the phenomenal grit of George (Kid) Lavigne that enabled him to beat the giant-killer, Walcott, in the most sensational battle on record. They met at Maspeth, and it was a wicked fight from the start. Lavigne took such a lacing in the first eight rounds that his left ear was hanging by a thread. He had a broken nose, and actually was bathed in blood. However, he rallied later on, and by the fifteenth round had Walcott groggy and bleeding."

That is the courage that boxing generates; the sort of courage that Big Jack Munroe exhibited when, as one of the last survivors of the famous Princess Pat Regiment, his axe smashed death and destruction among the advancing Germans.

Boxing is *not* a health destroyer. It is a health builder. It is also a builder of courage. The United States Army authorities taught boxing in every camp during the war, because it was the one sport that combined all the athletic attributes that a soldier needed.

4. *Boxers are, as a rule, Tubercular.*

Many athletes are touched with the white plague, but the proportion among boxers—among clean-living boxers—is not high. There is nothing in the game to induce that terrible disease.

Dr. Hutchinson says that he examined Joe Wolcott and Willie Meehan and Bombadier Wells, and found that they had not only tubercular chests, but that they actually had tuberculosis. He points to the deaths by consumption of Peter Jackson, George Dixon, Joe Gans and other stars

of the ring. He says, in driving home this point, that: "I can state that at least one-third of the fighters of by-gone days whose records I investigated died of tuberculosis."

Possibly so, for Doctor Hutchinson was looking for that particular type. But he did not look deeply enough into those records. Dixon acquired the drink habit at an early stage of his career, a habit that invariably leads to worse ones. On more than one occasion Young Griffo, that marvelous Australian light-weight, was carried from a brothel after a wild carouse, given a Turkish bath and thrown into the ring. Doctor Hutchinson must know how the men he mentioned lived. The dissipations that they enjoyed killed lots of them—and killed a good many thousands of other men who never had boxing gloves on their hands.

The underlying cause of it all was money. Those boys never had known the feel of greenbacks. When it came to them, hundreds of dollars at a time, it dazzled them. They were heroes, and each wanted to prove that he was a "good fellow"—which is usually a cross between a bad fellow and a fool. But I would not blame it on boxing. We have excellent examples of that very mania in the movie game to-day. You can blame the consumption and the short lives of some leading fistic lights not on the ring itself, but a combination of too much money and applause with an insufficiently level head.

5. *The boxer lives, on an average, only to the age of 36.*

The live of the average man is fifty-three years. Dr. Hutchinson says that the average professional fighter lasts only thirty-



© International.
Jas. J. Corbett is 55, and is still in excellent health.

six. Just where he gets those figures I am at a loss to explain. Jem Mace and Jem Ward, heavy-weight champions of England, years ago, lived to the ripe old age of 84. John L. Sullivan was nearing the sixtieth milestone when he died. Corbett is fifty-five, and still in excellent health, while Tommy Ryan, former middle-weight champion, is only four years younger. I personally know at least a score of fighters who are nearing the fifty-year mark, with every sign of lasting a good many more springs and summers.

And there is bald-headed Jack (Twin) Sullivan, once at the top of the middle-weight division, who, at the age of forty-three, is returning to the ring again. Even Gans, Dixon and others who died of tuberculosis were years over the thirty-six set by Doctor Hutchinson as the average span of a pugilist's life.

Jem Mace—with the possible exception of John Lawrence Sullivan—was the most picturesque of the old, long-living champions. He had gypsy blood in his veins, and when a boy followed the country fairs in England. Every fair had a boxing booth in those days, and in them Mace learned the tricks of the London Prize Ring. They were the bare-knuckle days, and Jem served a stern apprenticeship, through which he went with flying colors, coming out eventually as the heavy-weight champion of England. The gruelling he experienced in the ring should have had its effect on him and Heenan, Sayres and the other "raw, manly" boys if Doctor Hutchinson is right about the vocation of the fighting men—but it did not.

When Heenan and Sayres met for the heavy-weight title of the world at Farn-

borough, England, in 1860, they pounded each other to a pulp with bare knuckles for forty-four rounds before the mob broke into the ring. Sayres fought two hours with a broken arm, and both fighters were injured internally. An even more savage bout was that between Jonathan Smith and Australian Kelly, five years later, when they smashed each other unmercifully for six hours and fifteen minutes. Both men were carried from the ring, blinded and speechless, two of the worst-butchered pugilists Fisticiana has ever seen.

That was prize fighting in the original sense of the term. Doctor Hutchinson might expect such conditions to make "freaks" and "inferior men" of the participants, but present-day boxing is as different from that as fencing is from a saber fight between war-mad cavalymen.

6. *The professional boxer has the mentality of a six-year-old child.*

I do not hold the average ringster up as a paragon of intelligence. He isn't. But I do believe that he is as equally sound mentally as the run of young men of his class—the working people. There have been fighters with minds that a college man might envy. There was Jimmy Britt, for instance, former white light-weight champion of the world. Even as a plumber boy in 'Frisco young Britt was the brightest lad in his neighborhood. When he retired from the ring Jimmy took up the study of law with the same zest he put into his training.

Then there was John Morrissey, who went to Congress and handled millions in his day; Bob Turnbull, who, thirty years ago, was the amateur light-weight champion of America, and when he died in his palatial Long Island home left a fortune of more than a quarter of a million dollars. No one will, I think, intimate that Benny Leonard, Jim Corbett, Kid McCoy and others of that stripe are morons.

Professional boxing is not a career that inculcates the desire for study in a man. It does one thing, however. It gives the successful boxer a broad education in the school of experience. He travels, meets the foremost men of the country, most of whom are interested in this great sport. The game is no more a destroyer of mentality than it is of health, for if the average pro-

fessional boxer stuck to a lathe or a bench he would be no more likely to read Euripides in the original or study the theory of relativity than he is now. Of that I feel certain, and I have known hundreds of fighting men.

7. *The boxer is insensible to pain in the ring.*

Dr. Hutchinson says: "The fighter has no nerves. Pain is a thing unknown to him. Never in my life have I known pain to show in a fighter's face."

I have done quite a bit of boxing in my day, and I know that in the heat and excitement of the scrap you don't feel blows that would ordinarily hurt. The brain is too occupied with other things to record the sensation of pain. The same thing has been proved on the battlefield, where soldiers have been badly wounded and did not know about it until hours afterward.

Doctor Joseph Creamer, who has examined more fighters than Doctor Hutchinson has ever seen, says of Joe Grim:

"In Joe Grim," said Doctor Creamer, "his recuperative power and ability to stand punishment is due to the fact that his brain is so small that it is incapable of conveying a very deep sense of pain. The average fighter is not like that, however."

In summing up my answer to Doctor Woods Hutchinson I want to say emphatically, and it has been proven many thousands of times: Boxing is not a health destroyer; it is a health builder. And, in addition, that the first-rate boxers you see in the ring compare very favorably physically and mentally with other young men of the period.

Smoking Laurels Go to France

If France has fallen from the graces of the gods and goddesses of sport in the defeats sustained by Georges Carpentier and Mlle. Suzanne Lenglen, it is taking some comfort to-day in a new championship with which it once more challenges the world—yea, tobacco smoking. The championship was officially recorded at Chantillon, a suburb of Paris, when M. Pourajaud established a world record for slow smoking—a pipeful of tobacco smoked for fifty-eight minutes two and three-fifths seconds, without relighting.

A speed record was made by Monasterski, who consumed a senator-size cigar in three minutes one and two-fifths seconds without dropping any ashes and beating his nearest competitor by seven seconds, though the judges were almost overcome by the smoke.—Philadelphia Public Ledger.

Measurements, Photography— and Exercise

By B. H. B. Lange, C. S. C.

The Author of this article is Director of Physical Culture, University of Notre Dame, and recently conducted an interesting and unusual physical development contest at the University, the results of which are herein set forth.

THERE are many people who would like to take exercise. In fact, the number who would prefer to indulge in exercise is much larger than one would at first imagine or guess. There are many, too, who even go to the trouble, for it is trouble to them, and that is mistake number one; there are many, I say, that even go to the trouble of procuring apparatus, more or less expensive, but after one or two days' use of said apparatus these people go no farther. They quit exercising. It is too much like work. **WORK!** What a peculiarly odd word. It is just made up of four letters, but let it be said here in the beginning of this article that no one gets anywhere *without* work. That which you get for nothing, that which you get without effort, is rarely worth while, is rarely lasting. An individual who is continually side-stepping work, effort or whatever one wishes to call it, would probably amount to quite something if he or she were to expend the same amount of energy at something laudable that he or she spends in devising means to dodge work. There are many people who would rather spend large sums of money in paying for drugs, in paying doctors' bills and in paying hospital expenses than take exercise. There is an equal-

ly large number that would rather "just lie around" and take things easy now and suffer innumerable discomforts later in life than put up with what to them is the discomfort of taking a "work-out" while they are young. The great big mistake which all the people of this caliber make is just

this, they look upon exercise as work, and they start with the idea that it is work and then they proceed to make work out of it. All wrong! There are various methods by which this mental disease can be done away with. It will be sufficient to present but one in this article.

Practically all famous athletes have used this method, which is conclusive proof of its efficacy. The method is that of having one's measurement taken before, or at the start of a course of exercise, and of going to a good photographer and having several poses taken. These poses should *not* be taken in full-length tights. Wear as little clothing as possible. A good supporter is enough: or a half leotard and a pair of Roman sandals are conventionally worn if one wishes a striking effect. What makes this method so efficacious is the fact that when one's measurements are properly taken, when one sees in figures just how big he is, and has these figures illustrated by photographic



Laurence Shaw, winner of first place in the contest. His measurements are: Height, 71 $\frac{3}{4}$ in.; Weight, 186 lbs.; Neck, 16 $\frac{1}{2}$ in.; Chest, (normal) 45 $\frac{1}{4}$; Waist, 34; Hips, 41; Thighs, 24 $\frac{1}{2}$, right, 24 $\frac{1}{4}$ left; Calf, 18 R., 16 L.; Ankle, 9 $\frac{1}{2}$ R., 9 $\frac{1}{4}$ L.; Upper Arm 15 $\frac{1}{4}$ R., 15 $\frac{1}{4}$ L.; Forearm, R. 13 $\frac{1}{4}$; L. 13; Wrist, R. 7 $\frac{1}{2}$, L. 7 $\frac{1}{2}$. Mr. Shaw is right tackle on the Notre Dame Football Team.

likenesses, then he has an incentive to make him try and better himself. When a person knows that his upper arms are two, or three, or four, or more inches underdeveloped, then he will not look upon exercise as work! He, if he really and honestly wishes to improve himself will set aside the notion of work, work as a word or term meaning the same as labor; he will regard it as something different; he will look upon it with the light of new interest; it has become play, recreation, beneficial enjoyment.

So much for introductory remarks. The purpose of this article being to set forth the results produced by setting forth the element of pleasure in exercise, derived through the means of measurements and picture taking, the author will try to give some of the evidence he acquired in some experiments conducted by himself.

Using the system of measurements devised by Mr. Alan Calvert, a system again printed in the September number of *STRENGTH*, the author discovered some very interesting facts. Out of five hundred college men that he measured it was found that most of them, yes practically *all* of them were lacking in chest development. Practically all were also very deficient in arm development. The thighs and calves were not so bad. The necks were the best part of the physiques measured. The waist-lines were usually too large, while the hips were fair.

Naturally, those students, members of various athletic teams far exceeded those who took part in no events of an athletic nature. As a class the football men were better all-around developed than the other athletes. Those spending most of their



Paul De Roulet, winner of second place. Measurements: Height, 65½ in.; Weight 157 lbs.; Neck, 15½ in.; Chest (normal) 41½; Waist, 30¾; Hips, 39; Thighs, R. 23¾, L. 23¾; Calf, R. 16, L. 16; Ankle, R. 10, L. 10; Upper Arm, 13¾ R., 13¾ L.; Forearm, R. 12, L. 11½; Wrist, R. 7, L. 7.

time in the gymnasium apparatus room were well developed above the waist, but their legs did not measure up proportionately. The student who took part in *all* branches of athletics always measured up better than the student who just specialized in some one branch wherein all the muscles were not put in play.

In order to arouse interest in body-building, in order to determine what students possess the best physiques in the university, four gold medal prizes were given. The four best built men in the university were given medals. The name of the university, the winning student's name and the honor he won being engraved on said medal. The contest was open to all students of good university standing. There was one other condition, that each contestant had to be personally measured by the author of this article. The interesting part of the contest was, to the author's mind, the attitude

so many of the boys took. Many said, upon presenting themselves, "Oh, I know I haven't got much of a build, but I would like to know how much underdeveloped I am." Interest, you see, *interest!* The mere announcement that they were offered an opportunity to learn how they actually stood, physically, brought them to me. Everyone of the lads measured wanted a copy of his measurements, and a copy of what he should measure when fully and properly developed. This was gladly given him, together with advice as to how he could best build up and develop the deficient parts. The purpose of the contest! To arouse interest in body-building! To make the student, young men, realize that *interest* is the big thing, the important thing in ex-

ercise as in anything else. If a boy, or a young man, or a middle age man just had the figures showing what he should be were he properly developed, if he had these before him, it is the author's contention that there would be ever so many more boys, young men and middle age men taking exercise, and they would *not* regard it as "hard work." The writer speaks from a two-fold view-point. His very own personal experience and his experience with others who have come under his direction. Tell a person that he is six or more inches underdeveloped in the chest region; tell him that his arms are four or more inches lacking in muscular tissue; tell that man that his legs look like slender reeds, that they need something to support his upper body, something like three or four inches of good solid vigorous muscular tissue, and tell him that his waist region seems to be the only part of his anatomy that is growing and perhaps he may wake up to the realization that there is something that he could do for himself. Some may say that this knowledge, knowledge that he is so woefully underdeveloped, will have a tendency to further discourage a man from taking exercise. It has been the author's experience that just the opposite is true: that the knowledge that he is underdeveloped will make the young man endeavor all the more earnestly to improve himself. Assure him that he actually, really and most certainly will reach whatever his ideally perfect standard may be, and he will never regard exercise as "work." Give him a goal to reach, an ambition to realize, and impress upon him that he will be all the better a man

when he does realize this ambition, a better man mentally and physically, and he will never regard his efforts as work.

Another wonderful stimulant in arousing interest in exercise, in body-building, is that of photography. Many a boy, many a man upon seeing himself pictured in a bathing suit or track suit, will audibly or secretly wish he had a better physique. If he could see himself, see a picture of himself taken in just a supporter, it would be better still; bathing suits and track suits, small and scanty as they may be, still hide too many deficiencies in the physical make-up. This is the thing to do. Go to a photographer, assume the poses that you think will show your physique to the best advantages, and then await the results.

Perhaps you pride yourself upon your arms—how do they look in the finished picture? How does the chest look in comparison? How about the shoulders? Is the neck scrawny? Those thighs? Do they suggest strength, and are they symmetrical? The calves are terrible-looking affairs, mere pegs, and with just about as much shape. The biggest part of the lower anatomy is found to be the feet—they are exceedingly well developed. Instinctively you will resolve to develop the underdeveloped parts. The photograph has shown you your physical deficiencies. It has proved beyond question of a doubt that there is much room for improvement. It has confirmed and illustrated what the tape-measure so eloquently declared. There is but one thing to do if you have any mental and physical get-up in you at all, and that is to endeavor to resolve to take exercise, and then, after having resolved to take it, to



Thomas Lieb, Captain University of Notre Dame Freshman football team, 1920, winner of third place. Measurements: Height, 71 in.; Weight, 199 lbs.; Neck, 16½ in.; Chest, normal 44¾; Waist, 35; Hips, 41; Thighs, 24¾ R., 24¾ L.; Calf, 16¾ R., 16¾ L.; Ankle, 10 R., 10 L.; Upper Arm, 15½ R., 14½ L.; Forearm, 14 R., 13 L.; Wrist, R 8, L 8

actually carry out your resolution. It will be very easy, it will not be regarded as work, as drudgery. After the end of the first month, have your measurements taken again. Notice the difference! And there will be a difference, if you have exercised properly and faithfully.

For the benefit of those readers of this article who have never read Alan Calvert's system of measurement, which occurred in the September number of *STRENGTH*, the author of this article will take the liberty of quoting said system. Of the various systems used by physical culturists, there is no doubt in my mind that Mr. Calvert's system is the best ever devised. It is a system based upon long years of practical experience in the development of real physical-culture men. Mr. Calvert's system is not one of mere guesswork. It is not an impossible system. It is not a system that is too ideal. It is a system that *anyone* can successfully follow, can really attain. Each individual is practically his own standard. His height, the size of his wrists and ankles, in other words, his individual framework is the determining factor, in so far as saying what the extent of his muscular development should be.

The big difficulty, or rather the big fault, with most, yes, with practically all the so-called "ideal" systems of measurement, lies in the fact that they are *too* ideal. They are ideal to the point that they are impossible. They are said to be based upon the old Grecian standard of physical perfection and beauty. The Greeks, it seems, had a hobby that amounted to a craze for men six feet tall, and they considered this height ideal. The muscles that they regarded as proper and physically perfect should be developed according to this height. Their proportions for this particular height of six feet are certainly artistic in conception. Any man reaching their ideal of physical development was most certainly a splendid creature—*but!* how about the others? How about all those taller or shorter than six feet? How about all those exceeding six feet? What standards should they follow? Or perhaps they have no right to physical perfection, no right to a physical ideal. Since they were not six feet, it seems very evident that they could never reach physically beautiful proportions. It sounds very unrea-

sonable. It is extremely unreasonable. And with this point in view, Mr. Calvert has devised a system which gives *every* man a right to reach proper physical proportions, whether he is four feet tall, five feet tall, six feet tall, seven feet tall, or less than four feet or more than seven feet! In other words, it does not make a particle of difference how tall or how short one is, each man has his own peculiar type of physical perfection. It seems very logical to say that a man with heavy, thick bones should in consequence have larger and heavier muscles than the man with light bones. Though, of course, there are exceptions. But it has been the writer's experience that the extremely large majority of large-boned men have proportionately large muscles, and that the big majority of small, or light-boned, men have slender and less bulky muscles. That this is the case, and that this should be the case, is only natural, and when this is not the case it is unnatural.

In order to determine just what a young man should measure were he physically perfect in development, one should take the following measurements: Height, in inches. Circumference of the neck; of the chest; perfectly normal, and be certain that the tape is up high under the armpits. Have the subject extend both arms out from the side, then pass the tape around the chest as high up as you can get it, then lower the arms to the sides again, observing that the tape is not too high in the back or too low in the front, that it is on the level all the way around the chest. Next take the normal waist measurements, then the hips, then the right thigh. In taking the thigh measurements be careful to observe that the tape is not too high in the back of the thigh; that is, get it around that part of the thigh just exactly below the crease where the buttocks join the thighs, which being done you will find that the tape on the inside of the thigh will be a little below the crotch. As in the chest measurement, be sure that the tape is on a level all around the thigh. Next, get the calf measurement around the largest part of the calf. Have the subject stand with his weight equally distributed on both feet. Next measure the right ankle, just above the ankle bone, that is, at the smallest part. Now proceed in the same manner with the

left leg. After that, take the right arm. Have the subject raise his right arm straight out from the shoulder at his side, not in front of him. Then tell him to close his hands, that is, making a fist. Then bend the arm at the elbow until his biceps is as big as he can make it. Now measure the biceps, or upper arm. Next, lower the arm to the side. Pass the tape around the largest part of the forearm, which is usually two or three inches below the elbow. Have the subject "fist" his hand during this measurement. Then measure the wrist, passing the tape around the biggest part of the wrist. Do the same with the left arm. In taking these measurements, make sure that the tape is not twisted,

that it is not too loose and that it is not too tight. That is, do not have it so tight that it makes an indentation in the flesh, because that would be cheating yourself. Be certain, too, that it is not too loose, or that it is not around the part measured on a slant, as then you would be cheating yourself also. In other words, be perfectly honest with yourself or with the one measured. Be certain of another item. Get a tape that does not stretch. Go to any good tailoring establishment and buy a good one. Then you will be sure your measurements are reliable.

Now that you have learned what one's measurements *are*, the next step is to determine what they *should* be. To decide this, as has already been stated in this article, there is no better system of mea-



Eddie Anderson, Captain of the University of Notre Dame Football Team and winner of fourth place. Measurements: Height, 69 in.; Weight, 171½ lbs.; Neck, 16; Chest normal 42¼; Waist 33; Hips, 40¼; Thighs, R. 24, L. 24; Calf, R. 15, L. 15; Ankle, R. 9, L. 9; Upper Arm, R. 15, L. 15; Forearm, R. 13¼, L. 13; Wrist R. 7½, L. 7½.

surement that can be followed than Mr. Calvert's. To learn what one's normal chest measurement should be, multiply one's height in inches by .63 (sixty-three hundredths). For instance, if you are six feet tall: seventy-two inches, then multiply seventy-two by sixty-three, the result being forty-five and thirty-six hundredths, or approximately forty-five and one-quarter inches. The waist should be eight or nine inches less. Personally, the author allows a variation of eight to twelve inches less than the chest measurement, depending on the age of the subject measured. A young man having a smaller waist-line and a greater difference between waist and chest measurement

than a man thirty or more. The forearm should be one and seven-eighths as much as the wrist. The biceps (upper arms flexed) should be 20 per cent. more than the forearm, that is, as the forearm *should* be. The thighs should be thirty-five per cent. of the height in inches. The calves seven or eight inches less than the thighs.

In determining what the hips should be, the author adds sixteen inches to the thigh measurements, basing his arguments on the fact that a man with, say, a twenty-three-inch thigh, will look better balanced and more symmetrical with hips measuring thirty-nine inches than a man with twenty-three-inch thighs and only thirty-five or thirty-six-inch hips. If his thighs should be twenty-three and his hips less than

(Continued on page 60)

How to Develop the Muscles of the Sides

By O. R. Coulter

THE development of the muscles of the sides is seldom given any especial attention by the average muscle-builder. In fact, it is doubtful if he thoroughly realizes the need of applying exercise to them or even knows what muscles are classified as side muscles and what their functions are. There are really only one pair of muscles, namely, the external oblique, that could correctly be designated as side muscles. These are located on the sides of the waist, a little above the greatest prominence of the hips. These muscles are used to bend the body from side to side or to enable it to make a rotary movement. Other movements of the trunk are effected by the working of the muscles of the back or chest.

It is my firm conviction that few athletes attain to near a maximum development of these parts, and the reason is quite apparent. If one closely observes them in training and notes the work that they practice. All systems of calisthenics embrace body-bending exercises, and while they promote development to a certain extent, yet, like all other free exercises, are productive of no very extensive results unless combined with muscle control—something that can be accomplished by only a highly trained athlete, and it is one of the main principles of muscle control that highly developed muscles are the easiest to control, and these are best attained by "mechanical" exercises wherein the resistance to the muscle is derived from some outside source, or, in other words, from a real effort rather than from an imaginary attempt at one. Of course, if the muscles of one arm are used to resist those of the other we have an effect similar to the use of weights or apparatus, but such an exercise as this is not possible for the development of the sides, and the majority of those who train with calisthenic exercises either do not realize that they are attaining but little development in these parts or are in doubt as to the proper course to pursue.

On the other hand, those athletes who use progressive exercise in various forms, with the possible exception of lifters who

practice the bent press, almost invariably neglect movements that have any direct effect on these side muscles and consequently never attain development in these parts or on equality with the development of their other muscles. Although many enthusiastic muscle-builders devote especial work to backward muscles, as direct exercise for the abdominal muscles, for example, yet these same men will often totally neglect to use special exercises for the development of the sides. Probably they never realized the need of exercise here, but more likely were not so much interested in the development of these parts. The muscles of the sides cannot be as advantageously displayed as the abdominal or pectoral muscles and are not as easily developed by exercises that are ordinarily used, as are many of the other muscles.

Writers on physical training, who constantly advise against developing the upper arm at the expense of the rest of the body or warn not to neglect the leg exercises, seldom if ever mention the muscles of the sides or their need of proper exercise. Even artists and sculptors of the present day do not seem to have quite the interest in these muscles as would be expected from the view-points they have taken on similar matters. That those of ancient time held a greater interest in the muscles of the sides than their followers of to-day is proven by examining the statues and drawings created by the ancient Greeks. It is quite noticeable in the reproductions of ancient Greek statues, for they show the pectoral and the side muscles, but do not show outlines of any others on the front of the body. Anyone who has carefully examined the statues at the Carnegie Museum will hear me out in this statement. It may be that the Greeks thought the pectoral muscles, which controlled the forward movements of the arms and the muscles of the sides which stabilize the torso, were of more importance than the arm or leg muscles. On the other hand, the training habits of ancient Greece may have been

(Continued on page 50)

DICK LONDON
the worlds
champion high
jumper, teaching
Douglas Fairbanks
the movie star,
some of the
ins. and outs
of jumping.

I.F.S.



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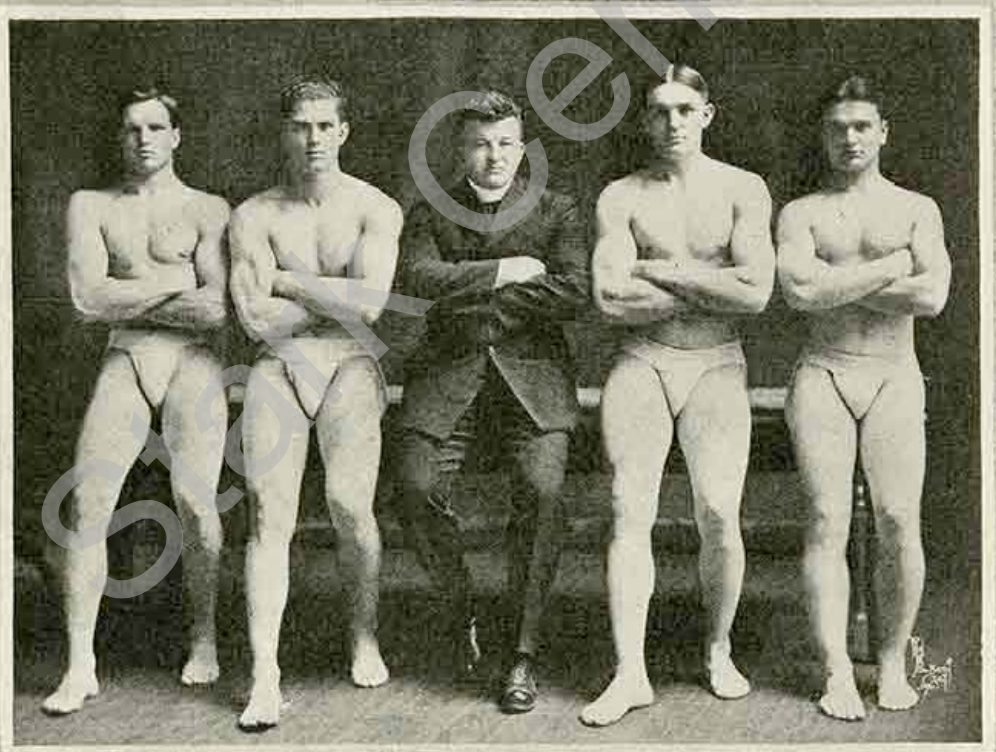
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SWIFT AMERICAN RUNNERS TOO MUCH
FOR THEIR ALLIES AT COBLENZ.

RUELLE, of the American Army
is shown breaking the army record for 400
metres in the big athletic meet on Carnival Island.



Miss *URSULA RAMSEY*
of *NEW YORK CITY*
She is shown using a
Bar Bell weighing *117½ lbs.*
Miss Ursula has lifted
125 lbs. in the two arm jerk.



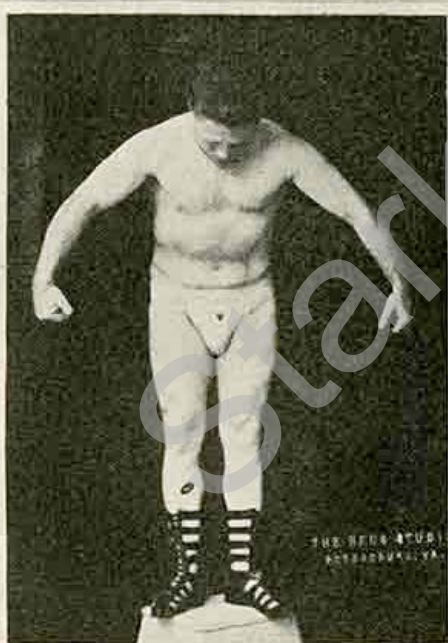
B.H. LANGE, C.S.C., Director of Physical Culture
University of Notre Dame and the four
winners of Gold Medals in the contests
he conducted.



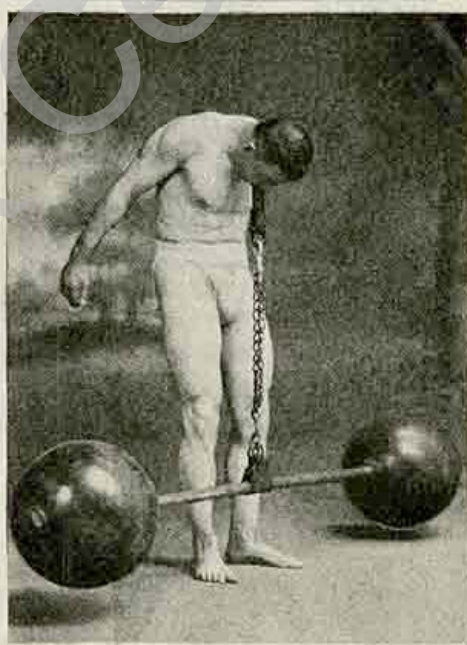
WM. FONTE
of
Canton, Ohio.



NORMAN D. MONEY
OF TONOPAH, NEV.,
in a one-hand stand.



F. N. DeLUCA
of Petersburg, Va. This picture
was taken on his 45th birthday.
He is stronger and in better
physical condition than at 25.



C. F. DILKS
BRIDGETON — N.J.
Lifting a Bar Bell weighing
250 lbs. with his teeth.

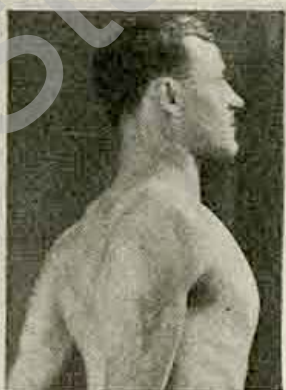
All the World loves a Strong Man



ARNOLD SCHIEMAN
KONIGSBERG, GERMANY.



DUSHAN K. MEHTA
BOMBAY, INDIA..



H. N. GOMEZ
TRINIDAD B. W. I.

What's Wrong With the Skinny Man?

By John Madison Jones

"**J**ACK SPRATT could eat no fat; his wife could eat no lean."

Of course, we never met either Jack or his wife, for a variety of reasons, but somehow we have always carried in mind a childhood impression, or perhaps a childish impression, that the pair of them resembled their respective diets. Somehow we just assumed that Jack Spratt would naturally be lean and skinny, and that his wife, physically speaking, would make about three or four of him, were it not for her being made of different material. And so these classic lines of the nursery always conjured up a mental image of those two circus side-show headliner, the living skeleton and the fat lady—or, the world's fattest lady, if one could believe the big liar with the big voice outside the tent who told you all about it.

However, the theory does not necessarily hold good, as more mature observation will show. For while it may happen often enough that the fat man or fat lady is fond of fatty foods, it does not hold true that the skinny man avoids them or dislikes them. It is more likely the case that he cultivates them, in the belief that he should eat fat in order to get fat. And that is where he sometimes goes wrong. He eats bacon, cultivates fried foods for the grease that is in them, sometimes indulges excessively in sweets because he has heard that they are fattening, or perhaps specializes on butter and cream.

Perhaps you will say that the trouble with him is not that he does not eat fat, but that he does not keep it after he eats it, that he does not assimilate it and store it up for future reference, as do those who easily take on the flesh that is superfluous. And, of course, that is true. For the fact of everyday life is that Jack Spratt and his wife might eat exactly the same foods, and in the identical same quantities, but with the far from identical result of being the one lean and the other fat. Our dinner table associations have never served to give us the impression that skinny people are underweight because they do not eat enough. Experience with people has given us quite

the contrary notion, so much so that we almost expect the leanest man at the table to make the biggest hog of himself, or to try to. This was also true in grandpa's day, for both your grandfather and my grandfather, observing and trying to explain this phenomenon of being lean and stringy, used to say that "He eats so much that it makes him thin to carry it around!"

Now why is Jack thin and his wife fat? The truth is, first of all, that some are born with a tendency to store up fatty tissue, and will certainly do so if they eat more than their systems require for everyday sustenance, while others are apparently gifted by nature with some factor of limitation which prevents them from taking on more than a moderate amount of fat no matter how much they eat. Just what this factor of limitation is one cannot say, but it would appear to be some form of inhibition not unlike that which limits bodily growth. Take a child born in a family of six-foot men. That child will grow and grow until he is six feet tall—or perhaps five feet eight if he is a *girl*—and then he will stop growing. But why doesn't he keep on growing until he is eight feet tall, or ten feet tall, or even taller? What stops him? There is some mysterious power of inhibition planted goodness knows where in his make-up that stops him from growing any more when he gets his six feet. Or which, if he comes from a five-foot four-inch ancestry, prevents him from growing any more after he reaches that stature. Well, there would seem to be a similar power of inhibition planted somewhere in us lean people which prevents us from piling up fatty tissue above our normal weight—no matter how much we eat.

But, of course, there is such a thing as normal weight, and that is just what we are getting at.

The trouble with the thin man is not that he is not fat—and who wants to be fat, anyway?—but that he lacks normal weight.

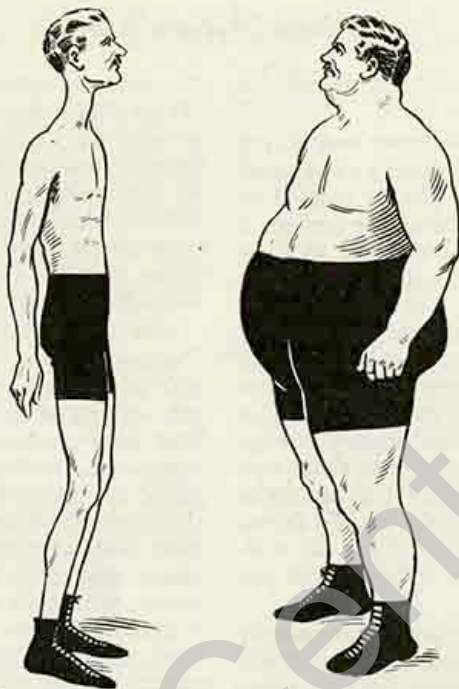
And the big mistake of the thin man who is absent from himself to the extent of twenty pounds or more that he ought to have but hasn't, lies in thinking that he

should eat fatty food in order to put on fat, instead of recognizing that what he needs is to build up.

The thing that the thin man lacks is not fat, but bodily development. Fatty tissue is only a small part of that complete physical make-up which is represented in one's normal weight. Forty per cent., or something like that, is muscular tissue. Now in the average case it is likely that his deficiency is here rather than in the matter of adipose tissue. If he is undeveloped, that is, if he has twenty or twenty-five per cent. of muscle instead of the normal forty per cent., then it is plain that he is all wrong in thinking that he wants to get "fat," in order to correct his bodily shortcomings. The answer is that he needs not an increase in the amount of fat in his diet, but just an all-around strength-building diet, a diet that will make good blood and nourish his organs and glands and muscles. If he has such a diet, the matter of fat will take care of itself.

A diet that is health-building, rather than a diet that is fat-forming, is important because the thin man in some cases is underweight just because he is in poor health. Perhaps he is anemic, his blood impoverished, his organs and glands functioning poorly. His lack of weight lies partly in his blood and glands and organs. Let him build these up through outdoor life, exercise, sunshine, plentiful sleep and happy conditions of living, and they will contribute a little of that increase of weight that he needs, as well as making it possible for him to build up the muscular and fatty tissue that he needs to round him out.

Did you ever notice a race-horse in the best condition for competition? Is he



The skinny man THINKS that he wants to get fat.

skinny? Not a bit of it. He is beautifully developed—every line of his body a line of beauty. Did you ever study the make-up of a sprinter or a boxer in the "pink" of condition? Is he thin? No. He carries very little visible fat, but he is beautifully rounded and developed—because he is organically sound, full of vitality, with his blood in perfect condition and his muscles built up to what they should be.

Now, just there, Mr. Skinny Man, in the picture of the race-horse or the athlete, is the lesson

for you to learn. In other words, what you need is not a diet with more bacon in it, but the good sense to go into physical training to build yourself up. You need not expect to make yourself an athlete, and may have no occasion to run sprinting races or indulge in extended boxing contests, but at least you should make yourself physically efficient. Perhaps it will help you in this respect if you will start at the mental end of the proposition by cultivating your personal pride. Perhaps you are just a little bit proud of that new suit of clothes, the best and snappiest that you ever had. But why not be proud—very, very proud, of your body? And make it your business to develop a body that you may be very, very proud of, and that will make that suit of clothes look like something on you, because your athletic figure will set it off—or rather, let the suit of clothes set off your figure?

It may be that you are thin partly because you do not digest or assimilate your food as you should. In that case it may be that your diet is all wrong, or it may be that what you need is a program of exercise and outdoor life, combined with more sleep or outdoor sleeping, to enable you to assimilate

better. The question of food may have something to do with your case, for one cannot build up on a starvation diet. However, do not forget that the essential is a health-building diet rather than a merely fattening diet. Milk is usually regarded as the ideal food for increasing weight, but this is because it is a blood-making and flesh-building food rather than only fattening. If whole milk gives you fat in the form of cream, it also gives you muscle-making protein, and tooth and bone-forming minerals, and other elements that enable you to keep the blood chemically well balanced. Milk is a growth-promoting, flesh-building proposition, and when farmers use it to feed and "fatten" their stock they usually do not depend upon the cream in it for results—for that is sent to the creamery. The stock gets the skimmed milk, or the buttermilk.

Of all fatty foods, however, cream or the fat of cream in the form of fresh, clean butter, has a special value as a health-builder. I have never been able to understand the practice of some doctors and dietary specialists, when advising against fried and greasy foods, of condemning the use of butter, or of advising one to use as little as possible. I have never known of any one eating too much butter. Not only is the fat of milk, whether eaten as cream or as butter, the most easily assimilated form of fat, but it has a growth-promoting and flesh-building value entirely apart from the fact that it is fat and may be deposited under our skins as such. The special value of the fat of milk, or of cream, as we call it, lies in the vitamins that it contains, these vitamins being of value not only in promoting the growth of children, but in otherwise contributing to bodily health, aiding in the assimilation of food generally, and even influencing the more rapid

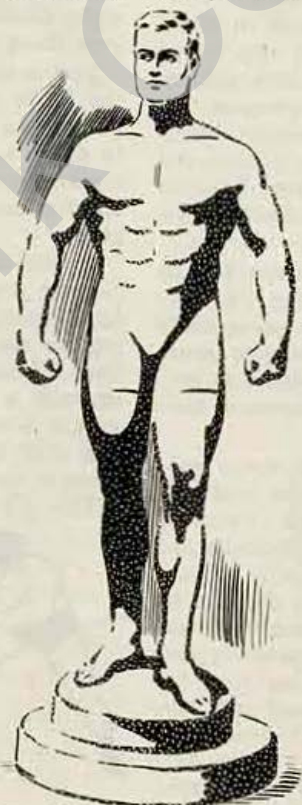
healing of wounds. Therefore, of all the supposedly fat-forming foods to which the thin man turns for his salvation, cream, or what is even better, whole milk, has special value.

The milk diet is a form of forced feeding which is usually successful in enabling one to put on weight, but this is for the reason that, as we have said, whole milk is a growth-promoting, blood-making and flesh-building food rather than a mere fattener. If you can live on it exclusively for a couple of months, consuming five quarts or more a day, taking it a glass at a time every half hour, together with such fruit as the appetite may require, you may gain from three to six pounds a week. Where ill-health is at the root of one's emaciation, this milk diet is often one's salvation, and it gives one something like a new start in life. But this does not mean that one can resume his former diet and mode of life, abusing himself as formerly, and hope to retain the benefit which he has gained. The complaint has sometimes been made, in

reference to the milk diet, that the weight so put on is very easily or very quickly lost. Of course, this would naturally be the case upon the return to the diet or habits which formerly made one thin. But this fact emphasizes the need of a general diet that is adequate for health-building, and of those other essentials that make for normal weight, such as fresh air and exercise.

Now, as to the details on this question of exercise and development. Are we to understand that exercise is a sort of cure-all, a form of magic that will reduce the flesh of those who have too much, and add flesh to those who have too little, a sort of contradiction of that old formula that says that, "To him who hath shall be given, and from—etc.?"

(Continued on page 58)



But what he really needs is this.

Head Locks and Chancery Holds

By William J. Herrmann

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



Stanislaus Zbyszko

The line cuts illustrating these wrestling lessons were especially made from original drawings sketched direct from life by "Strength's" special artist. Einar Johansen, of Norway, the light heavy-weight wrestling champion of America; Charles Olsen, of Sweden, the well-known professional heavy-weight wrestler; Joe Lustig, of New York, the former middle-weight wrestling champion of America; Cyclone Green, of Philadelphia, the popular light-weight wrestling champion, and William J. Herrmann (himself) have posed for the drawings which illustrate this wrestling course. This aggregation of wrestling stars will also collaborate with William J. Herrmann in presenting these lessons.

Dear Herrmann:—

June 3rd, 1921.

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 Chancery Hold Over the Arm

A FORM of Chancery Hold in which the opponent's head is imprisoned in the bend of the holder's arm, as illustrated by Fig. 29. Description of this hold is given under the supposition that it be secured from the preliminary Neck and Arm or Referee's Hold, with your left arm on your opponent's neck, as illustrated by Fig. 27.

It can just as readily be secured from Free Play, as illustrated by Fig. 26, especially following a feint that successfully paved a way for it. Opportunities to secure this hold may also present themselves during a series of moves or countermoves incident to a lively mix-up.

Instantly reach under and across your man's face in order to encircle his head with your right arm to imprison it in a Chancery Hold over the Right Arm. Instantly slip your left arm from the right side of your opponent's face and head to the left by quickly pivoting the heel of your left hand on or over the back of your opponent's neck in order to enable you to bring your left arm on the left side of his head and face, to permit your left hand and forearm to reinforce the Chancery Hold over the Arm held by the right arm. Firmly hold opponent's imprisoned head tight between your

hands, wrists, forearms, right arm and right shoulder, close to the right side of your chest, as illustrated by Fig. 29.

Just as soon as your Chancery Hold over the Right Arm is firmly secured, quickly yank down your opponent's head and body in order to weaken his position. This to a great extent prevents him from using any effective resistance or countermove against you.

Follow up your advantage by instantly forcing your man down towards the mat, by dropping on your right knee, while pulling his head and shoulders well under his body. Lean forward and over your man in such a manner as to give him your weight in order to better enable you to turn him over so as to pin his shoulders tight down to the mat for a fall.

This Chancery Hold over the Arm is

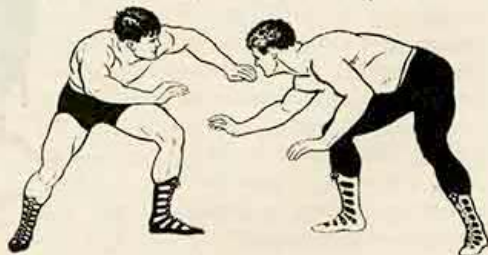


Fig. 26

Sparring for a Hold.

ofttimes confused with the previously described Original Head Lock, as well as with a Standing Chancery over the Shoulder—a hold that will be described later. This is due to the fact that at first glance there is quite a similarity in the general appearance of these three varieties of Head Chancery Holds.

In consequence, make it a point to particularly note the distinguishing characteristics of these three varieties of Chancery Holds. Fig. 29 illustrates the Chancery Hold over the Right Arm just described. Fig. 31 illustrates the Original Head Lock—not the Side Chancery Head Lock made famous by Ed. (Strangler) Lewis. Fig. 32 illustrates a Chancery Hold over the Right Shoulder, a form of Head Chancery Hold to be described later.

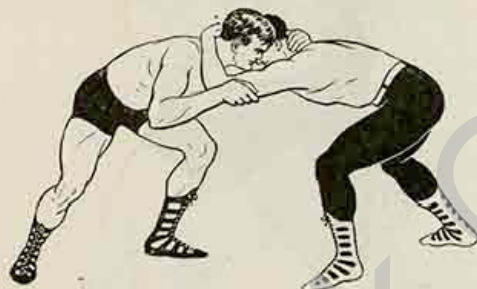


Fig. 27
Referee's Hold.

Standing Chancery Over the Arm and Inside Leg Grape Vine Combination

An Inside Leg Grape Vine, with your right leg on your opponent's left leg, used in combination with a Standing Chancery Hold over the Right Arm in order to more readily and effectively bring your man down to the mat.

Using an Inside Leg Grape Vine with your right leg on your opponent's left leg in combination with a Chancery Hold over the Right Arm is especially effective under the following combat conditions:

Having secured a Standing Chancery Hold over your Right Arm on your opponent, your adversary may successfully offer considerable resistance against you by placing his left foot forward in order to use it as a brace against your efforts to force him down towards the mat, while at the same time he resists your Chancery Hold over the Right Arm by energetically pressing



Fig. 29
Standing Chancery Over the Right Arm.

upward and backward with his head. These moves on the part of your opponent will considerably nullify your advantage in position. However, you can offset his defensive measures and regain your superiority in position by applying an Inside Leg Grape Vine with your right leg on the left leg of your opponent. By means of an Inside Leg Grape Vine you can remove the brace of his left leg by lifting with your right leg your opponent's grape-vined left leg forward up and clear off the mat. This will weaken his position and lessen his powers of resistance. As soon as you have raised his grape-vined leg clear off the mat, force your man over backward as you "sit-back"

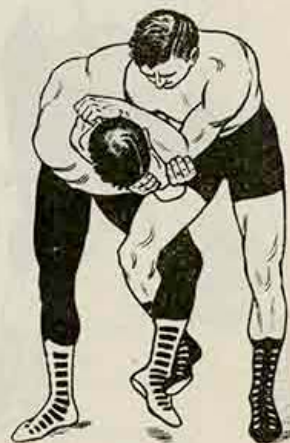


Fig. 30
Standing Chancery Hold Over the Arm and Inside Leg Grapevine.

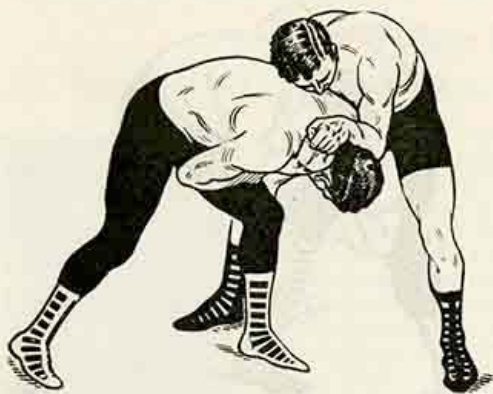


Fig. 31
The Original Standing Head Lock.

and down towards the mat. Follow up your advantage by keeping his grape-vined leg held up high in the air in order to weaken his position and to prevent him from using any effective defensive move against you while you follow up your advantage so as to pin his shoulders tight down to the mat for a fall.

Fig. 29 illustrates a Standing Chancery Hold over the Right Arm, while Fig. 30 illustrates a Standing Chancery Hold over the Right Arm, used in combination with



Fig. 32
Standing Chancery Hold Over the Shoulder.

an Inside Right Leg Grape Vine twined around the left leg of your opponent.

Although professionals are partial to using a Chancery Hold over the Right Arm in preference to that over the left, they nevertheless practice this as well as all Head Chancery Holds from both sides so as to be able to readily apply them from either side as combat conditions may warrant. To secure the Chancery Hold over the Left Arm, take the Referee's Hold with the right hand, not with your left hand, on your opponent's neck and read the word



Fig. 33
Standing Chancery Hold Over Left Shoulder.

"right" for "left," and the word "left" for "right" in following the above description of this particular form of chancery hold.

Chancery Over the Shoulder

A term applied to a form of Chancery Hold in which opponent's head is held *over*, not *under*, its holder's shoulder. It can be used as a direct attack, following an opening gained by means of a successful feint made while sparring for this hold during Free Play, as illustrated by Fig. 26; as well as from the Preliminary Neck and Arm, or as it is popularly termed, the Referee's Hold. Good opportunities to secure this hold may also present themselves dur-

ing a lively mix-up. Fig. 33 illustrates a Chancery Hold over the Left Shoulder.

This hold is not only used as a direct attack, but also as an effective counter, especially against a Standing Full Back Body Hold. It can be secured and used from a sitting just as well as from a standing or any of the intermediate between positions. It is especially useful when it is used as a counter following an escape from a Near Side Nelson by means of a "Sit Out" or when momentarily in a "Sitting Position" during a "mix-up."

As a Chancery Hold over the Shoulder can be used over the right just as well as



Fig. 34

Chancery Hold Over the Shoulder.

over the left shoulder, be sure and practice this hold from both sides in order to enable you to use it equally well over either shoulder as combat conditions may warrant.

Although this hold is usually held with both arms on the same side as that on which opponent's head is imprisoned, as illustrated by Figs. 32 and 33, it nevertheless, at times, is also used as illustrated by Fig. 34.

Owing to the spectacular and acrobatic combinations possible in following up the use of this particular form of Chancery Hold, it naturally is more or less a favorite chip of exhibitionists. Turning clear over forward, somersault fashion, and landing safely upstanding on both of your feet instead of flat on your back, or to land instead safe on your feet with an arched back and then to a bridge while your oppo-



Fig. 35

Bridging a Chancery Hold Over the Shoulder.

nent still maintains his Chancery Hold, as illustrated by Fig. 35, are just a few of the spectacular acrobatic possibilities that can be introduced from this hold on the part of the defender if held in a Chancery Hold over the Shoulder.

Another spectacular combination that can be developed from this hold, providing you are the aggressor and hold a Chancery Hold over the Shoulder on your opponent, is to permit your man to land in a good strong bridge position, as illustrated by Fig. 35, and then follow up with a "Double Bridge," in which you turn over to a bridge on your opponent's bridge, as illustrated by Fig. 36. You can further follow up this combination and finally score a fall in your favor by means of a Double Leg Grape Vine. By properly and effectively using a Double Leg Grape Vine, in which you grape-vine your opponent's right leg with your right leg and his left leg with your left leg, you can readily lift up both of
(Continued on page 50)



Fig. 36

Double Bridge.

Hand-Balancing

EDITOR'S NOTE: This is the third of a series of articles on Hand-Balancing. It will be continued in the November issue.

By Robert B. Snyder, Sr.

THE next feat in hand-to-hand balancing is to arise from prone position on the back to a standing full-arm balance with top-mounter. There are two ways of doing this, and of the easier one I will first speak.

First, the understander will assume a full-arm balance, and ducking his head will roll over flat upon his back. He is then ready for the top-mounter to execute a hand balance upon his hands.

From the full-arm balance, the top-mounter comes down through to the knees until

and the result is a full-arm hand-to-hand stand (Fig.25).

More difficult way of arising with top-mounter.

The understander assumes the prone position upon the ground, and the top-mounter strikes a full-arm hand-to-hand balance; the under man then heaves with his legs (as the understander becomes proficient he does not move his legs in the least in assuming the sit-up position), simultaneously lowering the top-mounter (Fig. 26) and thrusting forward, the position of Fig. 27 is attained.

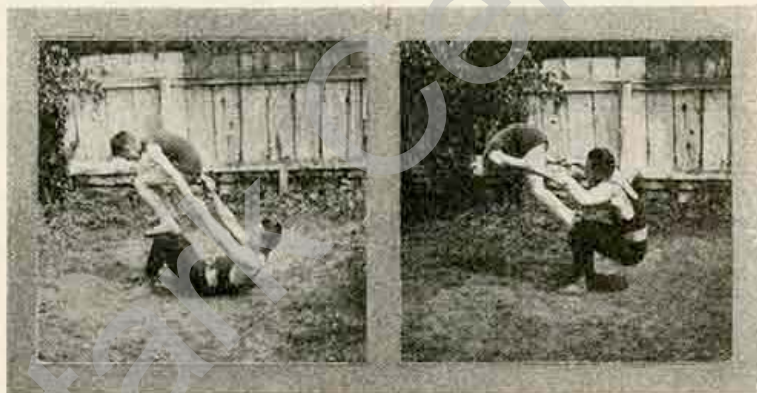


Fig. 20

Fig. 21

the position of Fig. 20 is attained; the understander then pushes the top-mounter forward, at the same time the top-mounter tries to pull the under man to his feet and succeeds by throwing his body forward until the understander rises from the ground, as in Fig. 21. With the understander throwing himself forward upon the toes, at the same time giving his top-mounter a pull, the result is shown in Fig. 22, and with a push to straight arms the understander lands his top-mounter upon his shoulders (Fig. 23), and from there pushes up to a hand-to-hand stand (Fig. 24). The understander then pushes to a straight arm,

Now all the understander has to do is to arise to a full hand-to-hand stand, as shown in Figs. 28 and 25.

This latter method of arising with top-mounter always at a full-arm balance seems to me to be the most wonderful exercise for putting on muscle and developing endurance that I know of. In our practice periods, my partner and I do at least fifteen repetitions of this feat, for it surely is superb exercise for acquiring all-around development.

To say a little more about my fourteen-year-old top-mounter, Clarke Dofflemyer: He is an example of what supreme enthu-

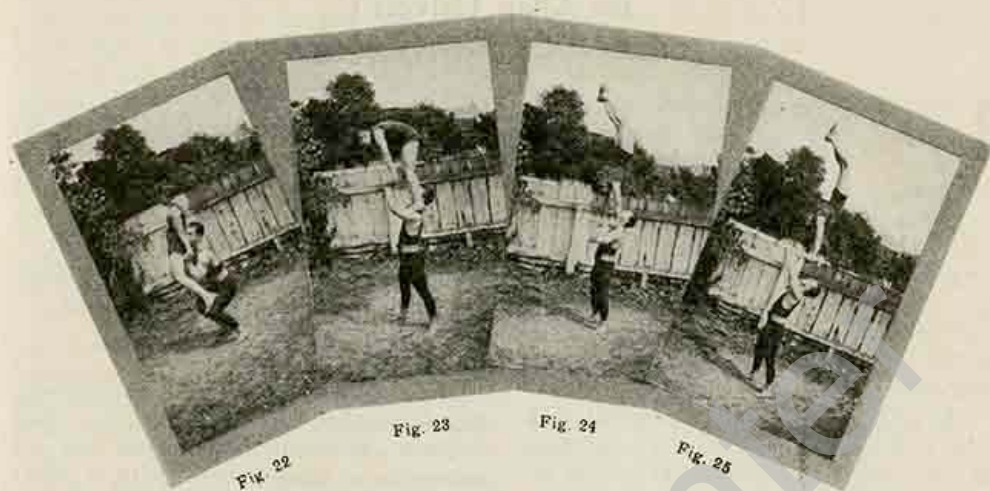


Fig. 22

Fig. 23

Fig. 24

Fig. 25

siasm will do. February last I gave an exhibition in my home town of weight-lifting for the benefit of the "American Legion," incidentally doing a few hand-balancing tricks. These feats inspired him to take up the practice of hand-balancing, so that he has practiced almost daily since then and has become quite proficient. In fact, the boy had so much enthusiasm that he wanted to devote hours and hours daily,

but I restrained him from doing that, telling him the rest periods were just as valuable as practice periods, for broken-down tissues must have time to rebuild, and I must remind you again that it is not how many hours one devotes daily to exercise that counts; it is the small daily period, with strict regularity, that pays you the largest dividends.

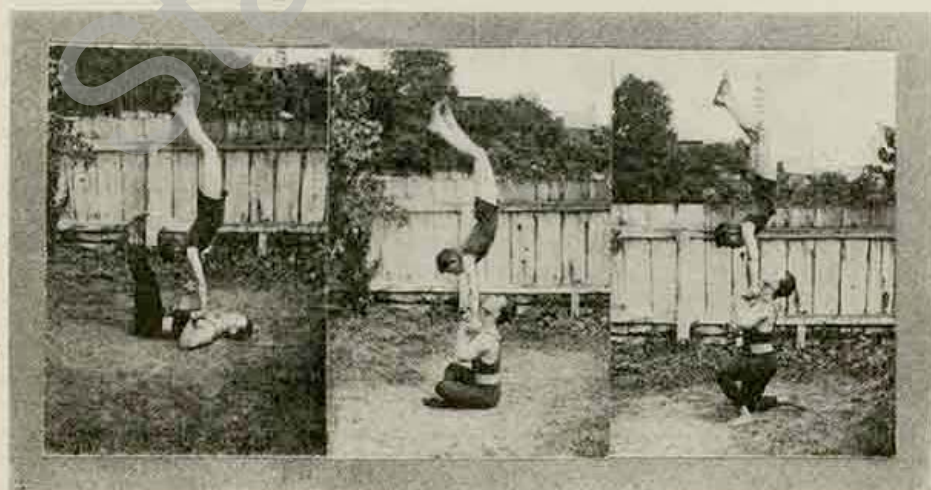


Fig. 26

Fig. 27

Fig. 28

How to Take Your Measurements

By Allan Calvert

(Continued from the September Issue)

I BELIEVE that the wrist should be measured at the very smallest part, which is usually between the base of the hand and the small bone which projects on the outside of the wrist. Another job for your friend with the tape.

Do not expect and noticeable increase in size of the wrist, because it is bone-size and not muscle-size which governs the size of the wrist when measured at the point suggested above.

The principal value of the wrist measurement is to give you an idea of what forearm and upper-arm measurements you are capable of attaining.

The Thigh

In measuring the thigh, pass the tape around the leg right below the crotch, taking care that the tape is horizontal and does not catch on the buttocks.

Some athletes with phenomenally developed thighs can actually show a larger measurement an inch and a half below the crotch than at the crotch itself, but such individuals are rare, and so we will take the point most favorable to the majority.

It is perfectly fair to tense, or harden, all the thigh muscles when measuring.

The Calf

Stand flat-footed and pass tape around largest part of calf. Men vary so much in shape and size in the lower leg that it is impossible to name a fixed point at which to measure. Four inches below the knee might be best for one individual and six inches for another.

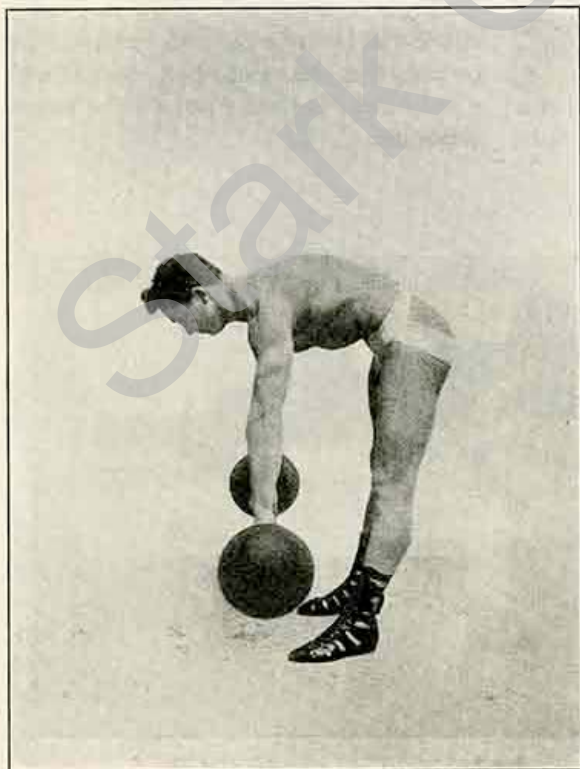
The Ankle

Measure at smallest part—which is usually 2 or 3 inches above the ankle bones.

While the ankle measurement, like that of the wrist, is governed by size of bones, rather than of muscles, yet the ankle will increase in size through persistent and vigorous exercise. Ballet dancers, particularly those girls who specialize on toe-dancing, usually increase the size of the ankle ten per cent. inside of a few months after starting training.

Now, while we are on the subject, it may be in order to give a few hints about the kind of work that will help you to make rapid increases in size.

I do not believe that anyone of you will make the very most of your possibilities in the way of muscular development unless you take the trouble to acquire at least an elementary knowledge of the location and functions of the different muscles. After you have such information you will perceive that it is possible to exercise each muscle or each group of muscles in at least two different ways; and, furthermore, that unless you give



each muscle such varied exercise it will not reach its limit in size and strength.

For example, let us consider the calves of the legs. For nearly a generation physical culturists were told that if they raised up and down on their toes they could acquire well-muscled calves.

It is true that by this one simple movement it is possible to develop one's calves, but it is equally true that the development of that one muscle will not mean a well-rounded, shapely calf, deep from front to back, and wide from side to side.

In order to reach the maximum in calf development, you must not only practice raising on the toes and walking on the toes, but also must practice hopping on one foot, which uses the muscles in a different way.

Also, you should practice standing with feet flat on the floor and raising and lowering a moderately heavy bar-bell by bending the body, as shown in the illustration. If you hold the legs straight and bend the body also as far as possible this exercise will help make your calves deep from front to back.

The shin muscles are important, but usually neglected. Walking on your heels, or fast heel-and-toe walking, will develop the shin muscles and add size and shapeliness to the calves.

When exercising the thighs, remember that there are muscles on the outside, inside and back of thighs as well as on the front. Many physical culturists practice only the deep-knee bend (or squatting) exercise, without any variation. Said exercise is a wonderful thigh builder, *if variety is introduced*. If you stand with feet parallel and a few inches apart, and point knees forward as you squat, you will develop the

front of the thigh; whereas, if you stand with heels together, toes turned out and spread your knees as far apart as possible when squatting, you will gain development on outside of thighs.

The bar-bell lifting exercise given for calves of legs will also develop the under side of thighs.

All the foregoing exercises should be supplemented with a moderate amount of jumping. It will be an additional help if you tie a light dumbbell to one ankle and slowly raise that foot upward to front, side and rear; in each case as high as possible.

In exercising the waist muscles, remember the general rule that, as a rule, exercises that develop front of thigh help the abdominal muscles. Those for the outside of the thigh help those muscles at the sides of the waist, and those that develop the under side of thigh help the small of the back.

In working for a big chest, concentrate on the upper back muscles. They have far more to do with the chest measurement than the pectoral or breast muscles. "Straight-arm" floor dipping, rope climbing and overhead lifts with moderately heavy bar-bells and dumbbells are great chest expanders.

In working for big forearms, don't stop at gripping fingers and twisting wrists. Include exercises where hands are clenched and the whole arm is used.

"Curling" 25-pound dumbbells, both "palms up" and "knuckles up," is great for the forearm; so is "chinning the bar"—both palms front and knuckles front.

Big upper arms can never be obtained by using the biceps only. Develop your triceps by practicing exercises which straighten the arm.

Tax on Excess Girth Proposed in Germany

Berlin, Sept. 7.

It no longer will be "Watch your step" for the Germans, but "Watch your waistline," if a new taxation project which has been submitted to the finance ministry is accepted. If the proposed measure goes through, persons with waistlines exceeding

normal will be required to pay for every superfluous inch, paying 500 marks for the first inch, 1,000 marks for the second, and so on.

The backers of the move hope that this not only will save the finances, but will improve the beauty of the citizenry.—Chicago Tribune.

The Question Box

F. R.—Exercises that develop the latissimus muscles will also develop the serratus magnus. Also practice deliberate deep breathing, expanding the chest as much as possible.

A. C. P.—The best record for the one-arm clean and jerk is 254.63 pounds, made by Maurice Deriaz, in 1912; and for the one-arm Continental jerk, 266.75, made by Lurich, in 1902.

C. A. B.—In the one-arm military press to arms length above the head, the bell is lifted to the shoulder, anyway. Then push the bell straight up, keeping the feet together, knees straight, other hand at the side, and keeping the body rigidly erect, bending neither to the front or back or to the sides. This is a test of pure strength and is valuable for developing the front part of the deltoid muscle and also the triceps muscles of the arm.

The best record for one-hand dead-weight lifting is held by Arnold, who lifted 436.5 pounds.

J. B.—To develop the latissimus dorsi muscle: Place a bar bell on the floor, assume the

position shown on page 44 and raise the bar bell from the floor to the chest with the arms only, keeping the back bent and at right angles to the legs. Also practice this exercise with a kettle bell, as this enables you to raise the weight closer to the chest and for this reason is more effective. After you have reached 100 pounds in the kettle-bell exercise the strain is thrown on the back and legs; so you may use a desk, chair or table to sustain your weight. Place one hand on the table for support and raise the kettle bell as high as possible with the other hand. Rowing and rope climbing are also effective for developing the latissimus dorsi muscle.

W. G.—To determine what your measurement should be, read "Measurements, Photography and Exercise" in this issue. For the hips and thighs practice the deep-knee bend with bar bell on shoulders. For the buttocks, assume position shown in illustration on page 44 and lift the bell with straight arms, raising and lowering the back. To develop the chest, practice the two-arm pull over, as described in the July issue of STRENGTH.

Records and Weight-Lifting

To the Editor:

I am going to describe my own crude method of chest and arm development. I am going to recommend my method, but not my equipment, except to those who may be handicapped as I am.

Being on the road all the time with grips and sample cases, I cannot carry an extra grip of heavy dumbbells.

In the absence of dumbbells I use four plain fire-bricks.

With two bricks side by side on edge held in each hand, in a standing position, muscle them out in every possible direction from straight up to straight down.

Lying flat on the back and holding the bricks as before, hold them straight out in every direction.

If there is a better way of developing all the muscles from the waist to the fingertips I would like to hear of it.

My development in four months has been:

Forearm, 10½ inches to 11 inches.

Upper arm, 10½ inches to 13 inches.

Chest, 35 inches to 39 inches.

Neck, 14 inches to 15 inches.

Yours truly,

J. S.

Los Angeles, Cal.

To the Editor:

I am enclosing herewith my check in the amount of \$1.50 to cover one year's subscription to the STRENGTH magazine, for which you can start with the next issue.

I have been training quite a lot off and on during the past ten years with heavy bar bells, and back in the early fall of 1913 I bought a Milo Triplex Bell. At present I am back again with the Los Angeles Athletic Club, after being away from the heavy weight for over three years.

While I am still a few pounds below my old records in several of my lifts, I consider the same lifts to be fairly good, as I have not made any special effort to train along their particular lines. The lifts I refer to are the "two-hand press" and "one-arm jerk." In the former lift I can press over 215 pounds, and in the latter I can handle 180 pounds with my right arm.

My present measurements are as follows:

Height, 5 feet 9½ inches.

Weight, 176 pounds (stripped).

Chest, 41½.

Chest, 45 (expanded).

How I Increased My Salary More Than 300%

By JOSEPH ANDERSON

I AM just the average man—twenty-eight years old, with a wife and a three-year-old youngster. I left school when I was fourteen. My parents didn't want me to do it, but I thought I knew more than they did.

I can see my father now, standing before me, pleading, threatening, coaxing me to keep on with my schooling. With tears in his eyes he told me how he had been a failure all his life because of lack of education—how the untrained man is always forced to work for a small salary—how he had hoped, yes, and prayed, that I would be a more successful man than he was.

But no! My mind was made up. I had been offered a job at \$9 a week and I was going to take it.

That nine dollars looked awfully big to me. I didn't realize then, nor for years afterward, that I was being paid only for the work of my hands. My brain didn't count.

THEN one day, glancing through a magazine, I came across the story of a man just like myself. He, too, had left school when he was fourteen years of age, and had worked for years at a small salary. But he was ambitious. He decided that he would get out of the rut by training himself to become expert in some line of work.

So he got in touch with the International Correspondence Schools at Scranton and started to study in his spare time at home. It was the turn in the road for him—the beginning of his success.

Most stories like that tell of the presidents of great institutions who are earning \$25,000 and \$50,000 a year. Those stories frighten me. I don't think I could ever earn that much. But this story told of a man who, through spare-time study, lifted himself from \$25 to \$75 a week. It made an impression on me because it talked in terms I could understand. It seemed reasonable to suppose that I could do as well.

I tell you it didn't take me long that time to mark and send in that familiar coupon. Information regarding the Course I had marked came back by return mail. I found it wasn't too late to make up the education I had denied myself as a boy.

I was surprised to find out how fascinating a home-study course could be. The I. C. S. worked with me every hour I had to spare. I felt myself growing. I knew there was a bigger job waiting for me somewhere.

Four months after I enrolled my employer came to me and told me that he always gave preference to men who studied their jobs—and that my next salary envelope would show how much he thought of the improvement in my work.

Today, my salary is more than 300% greater than it was when I began my studies. That increase has meant a better home and all the luxuries that make life worth while.



What I have done, you can do. For I am just an average man. I had no more education to begin with than you have—perhaps not as much. The only difference is a matter of training and a resolve to be like Lincoln, who said—"I will study and get ready and some time my chance will come."

TO every man who is earning less than \$75 a week, I say simply this:—*Find out what the I. C. S. can do for you!*

It will take only a minute of your time to mark and mail the coupon. But that one simple act may change your whole life.

If I hadn't taken that first step four years ago I wouldn't be writing this message to you today! No, and I wouldn't be earning anywhere near \$75 a week, either!

TEAR OUT HERE

INTERNATIONAL CORRESPONDENCE SCHOOLS
BOX 2381
SCRANTON, PA.

Without cost or obligation please explain how I can qualify for the position, or in the subject before which I have marked an X in the list below:

- | | |
|---|---|
| <input type="checkbox"/> ELECTRICAL ENGINEER | <input type="checkbox"/> BUSINESS MANAGEM'T |
| <input type="checkbox"/> Electric Lighting & Railways | <input type="checkbox"/> SALESMANSHIP |
| <input type="checkbox"/> Electric Wiring | <input type="checkbox"/> ADVERTISING |
| <input type="checkbox"/> Telegraph Engineer | <input type="checkbox"/> Show Card & Sign Ptg. |
| <input type="checkbox"/> Telephone Work | <input type="checkbox"/> Railroad Positions |
| <input type="checkbox"/> MECHANICAL ENGINEER | <input type="checkbox"/> ILLUSTRATING |
| <input type="checkbox"/> Mechanical Draftsman | <input type="checkbox"/> Cartooning |
| <input type="checkbox"/> Machine Shop Practice | <input type="checkbox"/> Private Secretary |
| <input type="checkbox"/> Toolmaker | <input type="checkbox"/> Business Correspondent |
| <input type="checkbox"/> Gas Engine Operating | <input type="checkbox"/> BOOKKEEPER |
| <input type="checkbox"/> CIVIL ENGINEER | <input type="checkbox"/> Stenographer & Typist |
| <input type="checkbox"/> Surveying and Mapping | <input type="checkbox"/> Certified Public Accountant |
| <input type="checkbox"/> MINE FOREMAN or ENG'R | <input type="checkbox"/> TRAFFIC MANAGE.. |
| <input type="checkbox"/> STATIONARY ENGINEER | <input type="checkbox"/> Railway Accountant |
| <input type="checkbox"/> Marine Engineer | <input type="checkbox"/> Commercial Law |
| <input type="checkbox"/> ARCHITECT | <input type="checkbox"/> GOOD ENGLISH |
| <input type="checkbox"/> Contractor and Builder | <input type="checkbox"/> Common School Subjects |
| <input type="checkbox"/> Architectural Draftsman | <input type="checkbox"/> CIVIL SERVICE |
| <input type="checkbox"/> Concrete Builder | <input type="checkbox"/> Railway Mail Clerk |
| <input type="checkbox"/> Structural Engineer | <input type="checkbox"/> AUTOMOBILES |
| <input type="checkbox"/> PLUMBING & HEATING | <input type="checkbox"/> Mathematics |
| <input type="checkbox"/> Sheet Metal Worker | <input type="checkbox"/> Navigation |
| <input type="checkbox"/> Textile Overseer or Supt. | <input type="checkbox"/> AGRICULTURE |
| <input type="checkbox"/> CHEMIST | <input type="checkbox"/> Poultry Raising <input type="checkbox"/> Spanish |
| <input type="checkbox"/> Pharmacy | <input type="checkbox"/> BANKING <input type="checkbox"/> Teacher |

Name.....

Street and No.....

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

Occupation.....

Waist, 33.
 Thigh, 24.
 Calf, 15¼.
 Biceps, 16½.
 Neck, 16½.
 Forearm, 12¾ (hanging at side, relaxed).
 Wrist, 7⅞.
 Ankle, 9½.

Yours respectfully,

A. L. MARTIN.

To the Editor:

I would like to ask a favor of you, and that is, that I am having a little trouble with the two-arm jerk. I have followed instructions, and don't seem to be able to raise more than 145 or 150 pounds that way. All my other lifts are very good. They are as follows:

One-arm jerk, 105.
 Bent Press, 133 (with either hand).
 One-arm military press, 60.
 Two-arm press, 125.
 Two-arm jerk, 150.
 Two-arm snatch, 110.
 One-arm snatch, 85.
 One-arm swing, 65.

These are about my best records up to date. I will always practice the developing exercises, as I find they do one a lot of good. Would you advise me to practice all the two-arm lifts more, such as the two-

arm snatch, two-arm jerk and two-arm press, in order to increase my record in the two-arm jerk? I weigh 120 pounds, stripped. What would you advise me to do in this case?

Wishing you every success in the future for the advancement of America's young manhood, I remain,

Sincerely yours,

R. F. D.

Anyone who is able to two-arm press 125 pounds should be able to do about 170 pounds in the two-arm jerk. Your failure to do this suggests lack of back and leg strength. Would suggest that you stop the two-arm jerk and pay special attention to back and leg exercises for a month. Then go back to the jerk, and you will be surprised at the increase in the amount of weight you can handle in this lift.

To the Editor:

I am a boy 16 years old. I don't know anybody in this city who likes to learn weight-lifting, wrestling and other sports. If there is anybody in Butte who would like a training partner in any kind of sports, will you please write to

ALFRED BROAD,
 15 Clear Grit,
 Butte, Mont.

Runner Covers 160 Miles

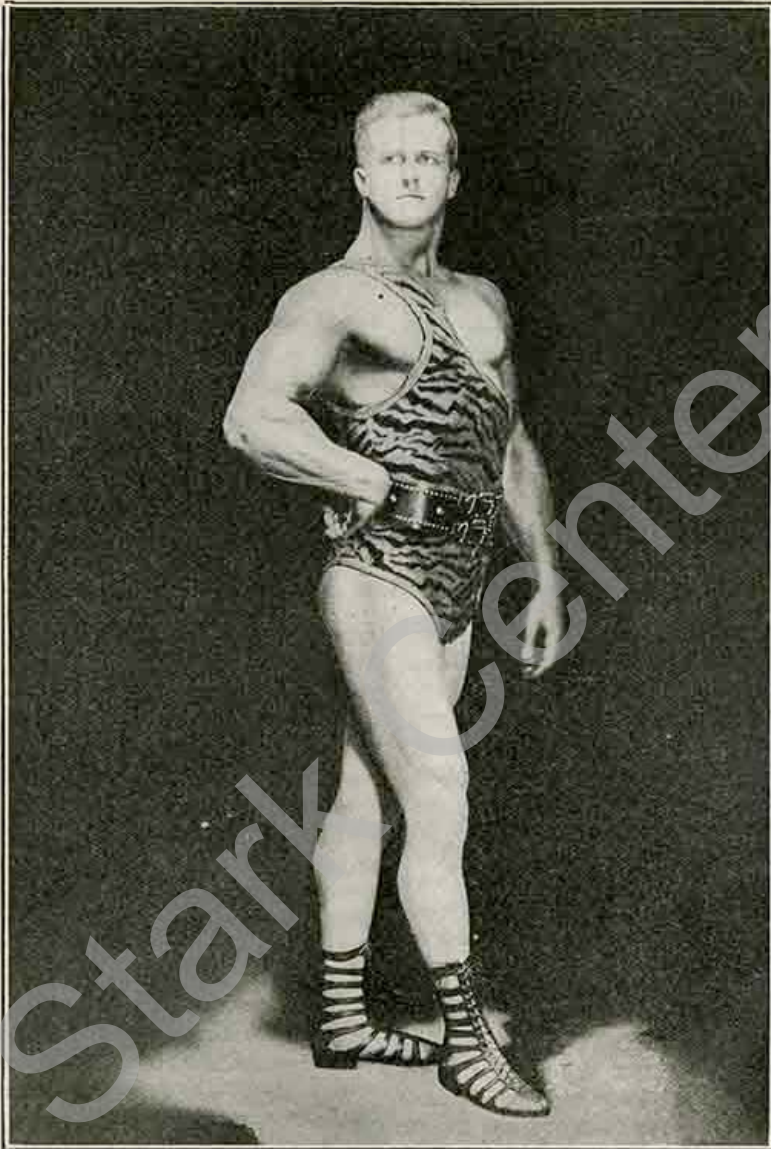
NEW YORK, Sept. 6.—A man forty-four years old, wearing running costume and Indian moccasins, turned off Broadway and hopped up the steps of City Hall at 1.20 o'clock yesterday afternoon, having made a continuous run from State House at Albany, 160 miles, in 28 hours and 20 minutes, with 20 minutes consumed in stops for lunch. He is Samuel A. Johnson, semi-professional runner and newsboy.

It is doubtful if, since the days of Indian runners, this particular feat has ever been accomplished. Indian runners probably never made it in so fast time, as the Post road of to-day far outclasses any trail then existing as a sprinting path. Johnson, who has been running twenty-two years, made the journey to win a wager of \$1,000 that he could do it in less than thirty hours. The wager was made with Miss Margaret Gast, woman motorcycle champion, who pace him in her machine.

The start was made at 9 A. M., Sunday. Hudson was reached, 33 miles, at 2.60 P. M., and a stop was made to eat. Immediately off again, he plugged along until 1 A. M. yesterday, when he increased his pace to a mile in six minutes and kept this up regularly until 4.30 o'clock.

During the night his pacemaker had to keep ahead of him or behind him because of engine trouble, so that much of the way he sped in total darkness, once running full-tilt into a fence and often being blinded by automobile headlights he met.

Johnson's moccasins are of his own contrivance, consisting of a regular Indian moccasin with a thicker sole than usual. On the way he consumed three cups of tea, three glasses of milk, three pieces of toast, six poached eggs and 1½ pounds of grapes. —Philadelphia *Evening Bulletin*.



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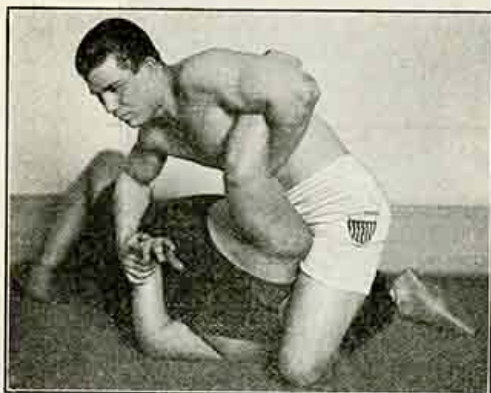
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NEW YORK CITY

Personal consultation
by appointment only

Head Locks and Chancery Holds

(Continued from page 41)



Nat Pendleton, Olympic Wrestling Champion, Showing a Leg Head-lock and Hammer-lock Combination.

your opponent's feet and drop him flat on his back, due to removing the pedal supports of his bridge. A good catchy finish to this acrobatic combination, developed from a Chancery over the Shoulder Hold.

Although the above combinations following a Chancery Hold over the Shoulder are much in favor among exhibitionists, nevertheless these very same identical moves, countermoves and combinations can be and are used and applied by skillful and clever wrestlers even when wrestling in dead earnest.

(To be continued)

How to Develop the Muscles of the Sides

(Continued from page 30)

more conducive to the development of these parts than our present-day methods as commonly applied.

It is my opinion that the open-air sports of that epoch, including putting the stone, throwing the discuss, wrestling and other competitive exercises, were more conducive to the development of the side muscles than the usually practiced calisthenics of the present day. At least it has been my observation that present-day shot-putters, hammer and discuss-throwers are considerably better developed in the side muscles than those who train at calisthenics and very light forms of gymnastics. While we do not know how much variation existed between the statues and the models who posed for them, yet knowing that artists and sculptors are inclined to express those points most striking in their models and most interesting to themselves, so it is quite likely that the models were relatively well developed in these parts, and we can reason soundly that there may have been something in their training methods worth while.

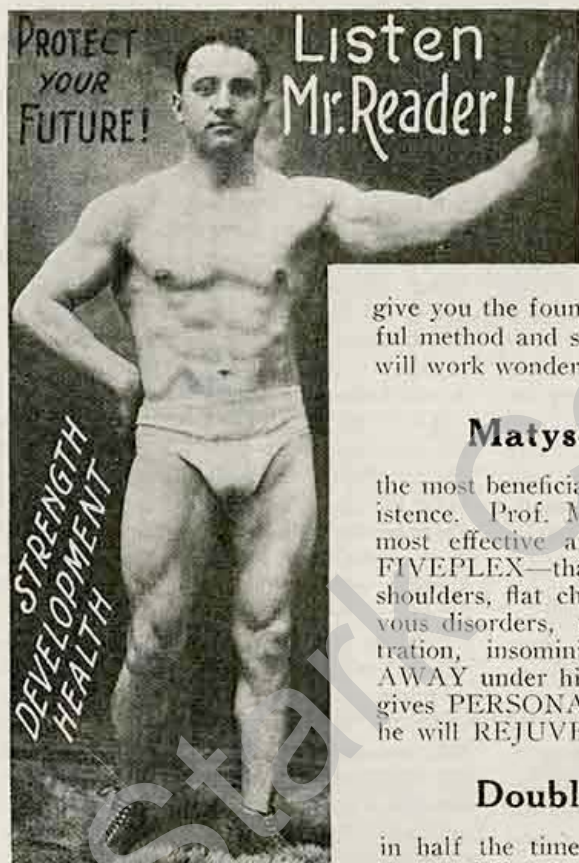
That the development of these side muscles is really important is self-evident from their use. And it is a fact that a man who has these muscles well developed has a square waist and possesses more real strength than does a man with wide shoul-

ders and the too-popular narrow waist. While a tapering from the chest and waist is a characteristic of all extremely muscular men, yet too much difference here would be more likely to denote an underdeveloped waist rather than an overdeveloped chest. I realize that many noted athletes call attention to their small waists and striking proportions, but I know that many of these same men are not as successful as some of their contemporaries with larger waists and less striking proportions in other parts. Of course, mere size of the waist denotes nothing regards the quality of the development, but a very large waist would be indicative of too much flesh, a lack of proper conditioning; while, on the other hand, an exceedingly small waist would be likely due to lack of proper development in the muscles of the sides, small of the back and the abdominal muscles. It is my opinion that the untrained man has a chest too small in proportion to his waist, and that the trained athlete possesses a waist too small in comparison to his chest. I do not believe in an extremely small waist, but prefer a larger one with a heavier muscle development. A man with too small a waist seems lacking in wrestling strength and is not nearly as efficient at many forms

Matysek Physique Exercise

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Way to Health and Strength



Every human being who "thinks and wants to grow" has some chief aim for which he is striving. You cannot attain this CHIEF AIM if you are ailing or possess all those handicaps that keep you from the attainment of that which you desire.

10c. Brings You a Wonderful Booklet

You get a large exhaustively produced 48-page booklet, entitled "The Road To Success," containing 26 artistic pictures of myself, many full-page size, which will

give you the foundation of my extremely successful method and start you on the true course that will work wonders in your mind, body and affairs.

Matysek Has Created

the most beneficial Physical Culture course in existence. Prof. Matysek will train you with the most effective and yet harmless exerciser—the FIVEPLEX—that makes real men. Rounded shoulders, flat chest, weak legs, indigestion, nervous disorders, poor circulation, lack of concentration, insomnia and bodily ailments FLY AWAY under his expert eye. No wonder! He gives PERSONAL ATTENTION. This is why he will REJUVENATE you and

Double Your Strength

in half the time than the many "experts" who do not fully acquaint you with the inefficient exercising device they would have you use. Matysek will show you the SHORTEST, SUREST and SAFEST PATH to HEALTH, STRENGTH and DEVELOPMENT.

GUARANTEES INCREASES

4 in. to chest, 2 in. to thighs, 2 in. to arms, but most pupils exceed this scale. To the normal man he produces such a high degree of development that satisfies his highest aims! No matter what you are now, your progress will be so generous that you will boost his methods.

Send for your book today! You are under no obligation whatever. Enclose 10c. to cover postage and wrapping.

PROF. MATYSEK, Dept. M. R. E. 50, 523 N. Charles St., Baltimore, Md.

of heavy laboring work as is his fellow workman with a more generous development of these parts.

Some forms of work necessitate considerable effort on the part of the waist muscles. Before the advent of the modern binder, the farmer had to cut his grain with a cradle, and this is very strenuous work for these muscles. The movement is similar to cutting with a scythe, but requires more effort, as the cradle is heavier and the train must be laid in a swath for binding. The bigger a sweep that a man could make with the cradle, the wider swath he would cut and the more he would cradle in a given time. The cradle movement, while apparently simple, is nevertheless quite different for proper execution, and seemingly the cradle is almost a lost art, and few men of the present time can use one with much of any success.

The movement of cradling is effected mainly by the swing of the body, with the arms nearly straight, and certainly developed the side muscles. Farmers of the present day seldom use a cradle except in a fence corner, and there is nothing else in a farmer's routine that is equal to it for developing the side muscles. Of course, sawing wood with a cross-cut saw, chopping with an axe, pitching hay and other work performed on the farm exercises the muscles, but none of these can be classed with "cradling" for developing the sides.

The laborer does considerable work involving these side muscles. Swinging a pick or using a shovel is very good for them. Carrying bags, kegs or a hod on one shoulder furnishes work for the sides, and the amount of development that will result from this kind of labor depends upon the regularity with which it is performed and the weight of the objects handled. As a general rule, the heavier work a man does the stronger he will be, and the old-time butcher who carried a half of beef on his shoulder would be stronger than the laborer in a salt works who carried 100-pound sacks of salt. Much of this kind of work is now performed by machinery, but, of course, a man who is willing and able to do work of this nature can usually find it to do; but any man would be foolish to select an occupation for developing purposes alone when he could attain better results from

properly directed progressive exercise and pursue a more lucrative profession for a livelihood.

In fact, there is no form of daily work that can take the place of scientific progressive exercise for the purpose of body building, in spite of all the tall stories of the wonderful strength of lumbermen, stevedores and men performing similar work as a vocation. It is true that they attain a development in the side muscles far better than the average calisthenic athlete, but when even these vigorous examples of the results attained by daily work are compared with properly trained weight-lifters, we find that the odds are all in favor of the man who trains scientifically. True, some laboring men will always be found who are stronger than the average lifter; but the lifters, as a class, will always be far superior in strength to the laborers on the infallible principle that the best-directed efforts produce the best results.

All forms of track and field sports use the side muscles to some extent, and many are exceedingly good for developing them. Long-distance bicycle riding or running exercises the sides, but several miles of this work would not produce as good results as hopping on one foot for a hundred yards or so.

Skating is a little better for the purpose than running or bicycle riding, as there is more side action involved. Jumping, especially the scissors method of clearing the bar, requires quite vigorous work on the side muscles, but jumpers invariably elevate the legs to the same side, so both sides are not equally exercised. Tug-of-war practice employs the side muscles, as the contestants are of necessity at one side or the other of the rope, but even then they assume as nearly a directly backward pulling position so as to gain the most possible leverage, and the one side always receives more work than the other.

Pole vaulting uses the side muscles in much the same way as jumping and exercises one side at the expense of the other, and has the further disadvantage of being impossible of practice to many city dwellers.

Throwing a baseball, the discus, the hammer or putting the shot require vigorous action of the side muscles, and form in these events is largely a matter of getting

What Kind of a Man Will You Be at Fifty?

Will You Be Old and Worn—On Your Last Legs, or Will You Be Strong, Vigorous and Robust?

The Answer Is Entirely Up to You

You can begin right now to build the foundation of a healthy body which you can retain throughout your life, simply by following an easy, pleasant course of exercises.



Prof. H. W. TITUS
At 20 Years of Age

I offer in evidence as proof of this statement, the two photographs of myself taken 30 years apart. I have many such convincing photographs of my pupils which I could show you if space permitted.

For more than 30 years I have kept my body in perfect condition, simply by following an easy course of exercises which I worked out many years ago. So that every one could attain the same physical development and good health that I possess, I perfected the TITUS PROGRESSIVE AND AUTOMATIC EXERCISER and a scientific course of instruction which will enable anyone to gain both health and strength in abundance. Everyone wants to be strong and healthy, and everyone would be if he or she knew how easy it is to build up a well developed body. If you are thin and weak, if you are nervous and run down, here is a practical home exerciser and course of instruction that will make you look and feel like a new person in a remarkably short time. A few minutes of easy, pleasant exercise each day will make your body fairly tingle with renewed vigor and strength and send the blood racing through your veins in a most refreshing and invigorating manner.



Prof. H. W. TITUS
At 50 Years of Age

THE TITUS PROGRESSIVE AND AUTOMATIC EXERCISER

A Complete Home Gymnasium

The TITUS is the original Progressive and Automatic Exerciser. It is designed to exercise every muscle of the body. It is not a complicated, heavy apparatus, but an extremely simple, yet ingenious home exerciser that can be used in any room of the house. It sets up instantly—anywhere. No wall attachments to mar the woodwork, nothing to wear out, break or get out of order. Will last a lifetime. Every member of the family from the youngsters up, can use the TITUS progressive and Automatic Exerciser. It is so constructed that the strength of each exercise can be increased as you develop.

The Original Progressive and Automatic Exerciser

The TITUS Progressive and Automatic Exerciser was originated by Prof. Titus to fill the long-felt need for a home apparatus which would furnish an exerciser for every part of the body.

Only the very finest materials are used in the construction of this ingenious home gymnasium. All springs are made of high-grade piano wire, which insures safety and long life to each exerciser. There is nothing to wear out—nothing to get out

of order. A TITUS Progressive and Automatic Exerciser will last a lifetime.

FREE 21 Weeks Course of Personal Instruction

With each TITUS Progressive and Automatic Exerciser you receive a 21 weeks' course of personal instruction, including measurement blanks to be filled out as you progress. Any individual question will be answered by me personally, and, if your case is extreme, I will suggest special exercises for you. I know I can help you build up a new body that will tingle with health and strength, just as I have done for thousands of my pupils, if you will only let me. Write to-day for details of my

Low Price Offer

The price of the TITUS Progressive and Automatic Exerciser is so low that everyone can afford to have this complete gymnasium in his home. When writing enclose 6 cents to cover mailing, and I will send you absolutely FREE my two books, "The Whys of Exercise" and "The First and Last Laws of Physical Culture." Send TO-DAY before you forget it or before this low price offer is withdrawn.

Prof. H. W. TITUS, 56-58 Cooper Square
Dept. 200 K NEW YORK, N. Y.

the most out of the swing of the body. They not only require action, but also need considerable strength of the speed variety. Men who excel at this kind of work like McDonald, Ryan, Flanagan, McGrath, Cameron, Dimmie, Nicholson and others are sure to be very strong in the muscles of the sides. The practice of these sports by any strength athletes who may have the inclination and the necessary facilities to do so furnishes an advantageous variation in their training.

Sculling, properly performed, is one of the best of out-door exercises for our purpose. I cannot describe the best method of practicing this for exercising the side muscles than to quote from "Apollo's" book, "The Ideal Athlete," wherein he states as

follows: "No better exercise is known for strengthening the muscles at the sides of the waist, that is, external oblique muscles of the abdomen and the iliac muscle, which is just above the hipbone—than sculling, standing up in the boat, with the feet well apart, and at every turn of the oar letting the upper part of the body sway well from the hips to each side alternately. This exercise ought to be taken advantage of whenever possible; or any other exercise making a similar movement, as it will greatly improve the carriage of the body."

To be continued next month with an analysis of various progressive methods that get worth-while results in developing the side muscles.

Seventy-Seven and Still Going Strong

(Continued from page 20)

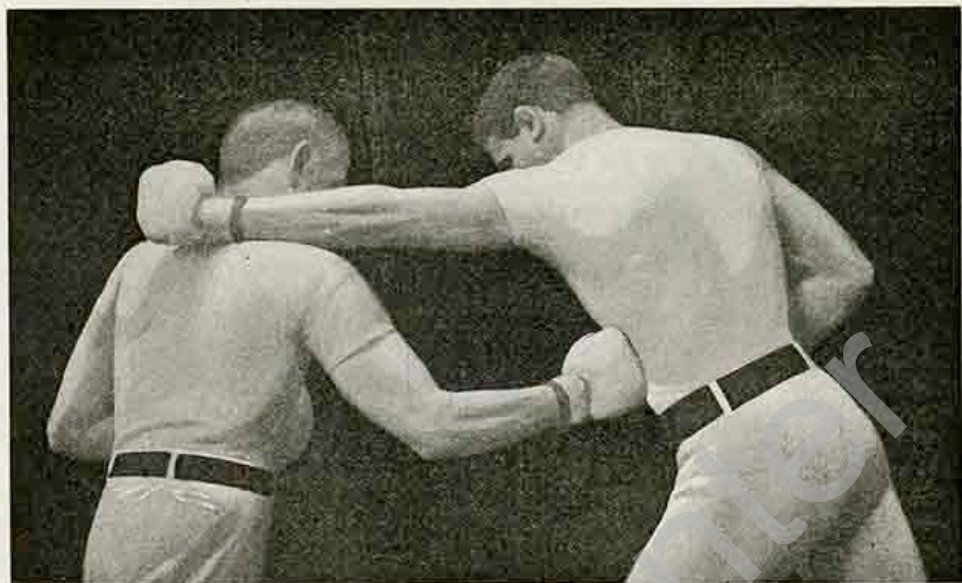
of its benefits he began making right and left leads, counters, jabs, swings and upper cuts at an imaginary opponent, till I thought it wise to duck out of the way, fearing that in his enthusiasm he might hand me a black eye or something similar as a souvenir. He prizes highly a jeweled locket presented to him by James J. Corbett, which the latter gave him as a present, in appreciation of his services at the time Corbett was training for his fight with Charley Mitchell in 1894 at Jacksonville, Fla. It was Professor Attila who helped Corbett develop the punch that won the championship for him.

As a physical training instructor Professor Attila has had many thousands of pupils during his life, in all walks of life, from kings to clerks, so that he is well qualified to speak on the benefits and requirements in the way of exercise for the average man. He is very emphatic in believing that physical exercise should be taken under the supervision of a person thoroughly qualified to direct it; at the beginning at any rate, till the pupil is well grounded in the principles of physical training, so that he can go ahead by himself intelligently. Another principle upon which he insists is that of moderation, for it is the overdoing of exercise that eventually produces stiffness and the condition known as being "muscle bound." But he

would also apply this principle of moderation to everything; in fact, it is to the faithful obedience to this rule that he largely attributes his present wonderful physical condition.

"We heard a good deal not long ago," said the Professor, "about that wonderful race-horse Man-o'-War. But if his trainers had put the horse in a golden stall and fed him out of a golden platter, with the richest and most expensive food that could be found, but failed to give him exercise, how long do you suppose he would have kept on winning races? Ask any man with the least common sense whether the luxurious surroundings and expensive food would have taken the place of regular exercise and natural, wholesome feed for this horse. There can be no doubt about the answer. Yet many a man is trying to do the very thing which he knows would be contrary to nature if applied to an animal.

"The great trouble is that people get either no exercise in their daily work, or they overexercise one particular set of muscles, with the consequence that those particular muscles become overdeveloped at the expense of the rest. The overworked muscles become 'muscle bound' and in later life stiffness and rheumatism result. Take for instance, the carpenter. The chances are that the muscles of his shoulders and arms, especially on the right side, are greatly



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overdeveloped. So much so, in fact, that often a man who has been a carpenter for many years and who has not taken the proper all-round exercise appears almost to be humpbacked. His muscles are hard and stiff; his spine is bent; he has no 'pep' or 'go.' Muscles like this are slow to respond; they are like rubber bands that have lost their elasticity because they have been kept stretched too long. To develop a muscle means to educate it so that it can be quickly called into action when you need it. A developed muscle will promptly obey your orders, as you send them out from your brain. Such properly educated muscles will be soft when relaxed, but when contracted will be 'hard as steel.'

Here Professor Atilla asked me to feel his arm, which possesses the foregoing characteristics to a marked degree.

"The man who works in an office," he continued, "is a different problem. As he doesn't get any exercise to speak of in his daily work, his muscles soon become flabby, unless he takes steps to prevent it. He very likely eats more food than his body needs and as a result before long he has a 'bay window' that he would be very glad to get rid of. He needs systematic exercise as much as does the man whose work brings into play only a few of his muscles. Neither class of men should forget the old Latin proverb, 'Mens sana in corpore sano,' which is the real secret of success in life."

While Professor Atilla believes in physical development because it produces strength and incidentally beauty of form, and strength means health, he points out that physical strength in itself is also valuable and in an emergency may be the means of keeping a man from injury or may even save his life. For instance, he spoke of a letter which he had received recently from a former pupil who had been in an automobile accident. This man, because of the strength he had developed through physical training, was able to get himself out of the wreck, something which he could not have done had he been an average man without this training. Not only did his physical development make him strong, but it also taught him how to use his strength. Professor Atilla himself has had similar experiences. He has been in railroad wrecks, threatened with serious injury or death, but his great strength enabled him to lift heavy pieces of wreckage and thus save himself from injury.

"I wish you would tell the young men who are trying earnestly to develop themselves physically," said Professor Atilla as I left, "that any time, money or effort they put into proper physical training will bring results worth many times what they cost. I think I am entitled to speak with authority, in view of my experience. I wouldn't exchange my present wonderful health for all the money in the world!"

America's Sporting Classic

(Continued from page 18)

reason is Charley Grimm, the young first baseman. Grimm is a fine, clean-cut boy—but, by no means, a wealthy one. In 1920 he was rated as one of the best fielding initial sackers in the league, but his hitting was nothing to brag about. In fact, he was rated as the "weak sister" of the club.

Naturally, on that account, the figures in his 1921 contract did not show much of an increase. However, there was a clause added to the effect that, if he hit for a .260 average, he would receive a bonus of \$2000. Charley went after that extra money with every atom of fight in his makeup, and rapped the bulb well over the mark. Adding

the World Series purse to his salary and that additional \$2,000 will make his year a highly successful one. And he deserves every penny of it.

The most sensational fielding ever exhibited by a first baseman in a World Series was shown by "Jiggs" Donahue, of the Chicago White Sox in 1906. The Sox infield contained a group of erratic throwers, and Donahue's scoops of wretched chucks was nothing short of marvellous. If Jiggs' work is to be equalled this year Grimm is the lad to do it, for neither of the leading American League teams has a first baseman to compare with him in a fielding sense.

There have been many wonderful plays in the seventeen World Series that have been staged since the advent of the American League, but none more thrilling than in the fourth inning of the fourth game of the 1908 affair, and certainly none more important.

Detroit had won the third battle by pumeling Chicago's left-hand star, Pfeister, and were bubbling with confidence, even though the Cubs had taken a 2 to 0 lead. O'Leary started the fourth period with a line single to left, and Crawford pushed another to the same territory. With Cobb and Rossman coming up it looked as though the Chicago lead would be wiped out.

"Miner" Brown, who was pitching, knew that Cobb intended to bunt, and knowing the Georgian's uncanny speed, he decided to make a play for O'Leary. He walked over to third baseman Steinfeldt, and said:

"Stick on the bag, Steiny. The play is going to be made right there."

Then he walked back to the mound, and pitched a slow curve on the outside, the very thing Cobb wanted. As the ball left his hand, Brown "followed it through." Ty bunted down the third base line. The Miner pounced on it, whirled like a top, and cut loose with a powerful throw to Steinfeldt—catching O'Leary by five feet.

With one strike on Rossman, Catcher Kling unleashed a blazing throw to second, catching Crawford off the bag, and a moment later nipped Cobb stealing with a wide chuck that Evers speared with one hand. These lightning plays threw the Tigers into a panic. Had they not occurred Detroit would, in all probability, have won the game—and their chances of capturing the series would have been more than even.

For every hero, however, a "goat" develops, a man for whom things break wrong no matter how hard he tries. There were two in 1917; Red Faber, who stole second with a man already on the bag, and Heine Zimmerman, who chased Eddie Collins across the plate instead of throwing to the catcher for an easy out.

A bonehead play usually implies a lack of judgment on the part of the player concerned. Fred Merkle, an intelligent and daring man, is remembered more for his "bones" than for his brilliant efforts, because most of them occurred at some

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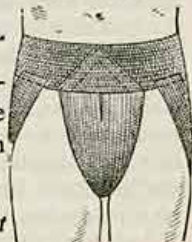


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crucial moment. One of them was his famous play against the Athletics in the series of 1913.

Ed Murphy was on third, and Baker rapped a grounder down the first base line to Merkle, who was playing in toward the plate. Baker stopped in his tracks, and waited to see what the other would do. Murphy made a break for the plate, but believing that he would have no chance to score started back to third. The play of course was for Merkle to run Baker back toward the plate, in the meantime keeping his eye on Murphy. The New Yorker, however, was in a quandary, and Eddie, seeing it, lit out for home, and easily beat Merkle's throw. That play, more than anything else, broke the Giants' heart, and made victory for the Philadelphia team comparatively easy.

Yet, it isn't fair to criticize these "goats" too harshly. Tommy Leach, one of the greatest outfielders that ever caught a fly, and a World Series performer of distinction, has this to say about "boners":

"Whenever I see two or three faulty plays made in a game I catch myself wondering why there aren't twenty or thirty—why the good plays and the solid mahog-anies don't break even on the afternoon. Think it over. Think of the situations that are crowded on a ball player in every game; think of the ever changing emergencies he has to deal with; and, above all, think of the speed with which it has to be done.

Then decide for yourself if the real marvel of the game isn't the scarcity of mistakes; the infrequency of errors."

So, if in the coming fall classic you see some veteran make an apparently foolish play—one that seems foolish to you, sitting at ease in the stand—remember what Tommy Leach said. Remember, too, that Johnny Evers, one of the most brilliant infielders the game has ever known, pulled the worst sort of a bone in the series of 1914, but was never censured heavily because of the Braves' overwhelming victory. If it is possible for Evers to do such a thing it is possible for any player that ever lived.

Predictions as to what will happen in the struggle soon to be staged for baseball's highest prize are useless. The best team does not always win, because sometimes an unknown blazes out—as Rohe, Adams, Whiteman and others have done—and ruins the most logical selection. I will admit to having been an American League rooter most of my days, but some little hunch seems to jog me, and whisper that the National League is about due for a triumph.

However, no matter who wins, the thrill and color; the meeting of old friends in the hotels after the games—for nearly all the aristocrats of sportdom flock to the big series—the bustle and excitement are all fine and interesting. Baseball is America's game, and the World Series is the finest possible spectacle it has to present.

What's Wrong With the Skinny Man?

(Continued from page 37)

Well, exercise is pretty near that, for it works both ways in helping one to find his way back to normal weight. But it is not the same kind of exercise that one needs in the two different cases.

What the thin man needs to build him up is purely development exercise, whereas what the fat man needs is quantitative exercise to burn up his fat, or to burn up the new fuel supplied in his food so that it will not be stored up and added to the fat that he already has.

Any form of endurance exercise, particularly light, fast exercise that is long continued, such as hand-ball, tennis or distance

running, may be particularly recommended for reducing weight. And for the same reason just this type of exercise is not suited to the man who is too thin, for it may possibly make him even thinner. What the thin man needs is quantitatively very little exercise, but that of a kind that will build up muscular bulk—in other words, not endurance work but strength-building exercise.

In order to make sure of accomplishing results in the burning up of his fat, the overweight man must take enough exercise to make him perspire freely, not because perspiration itself has anything to do with

fat, but because it is an indication of that amount of muscular action accomplished. On the other hand, the thin man does not need to sweat, and if his exercise makes him perspire too much, it may be taken as an indication that he has taken too much of it.

Exercise that is strength-building or muscle-building is not concerned with the number of repetitions of any movement for the sake of results. It is only concerned with the matter of muscular effort in overcoming resistance. In other words, you will accomplish more in building muscular tissue or strength by lifting fifty pounds once than by lifting five pounds ten times. The repetition of a small effort becomes a matter of endurance. You do not need much strength, or much muscle to do it. But if you will "bunch" the same amount of energy into a single effort you will place a real demand upon the muscles concerned, requiring considerable power to overcome the resistance offered. By following that plan, concentrating your energy in a few movements calculated to increase your muscular power, instead of scattering it into many repetitions, you will build up larger muscles, finally gaining the development that you need, and with it the normal bodily weight of a man perfectly developed. Of course, this means a rational scheme of training, without excessive strain at any point, and the constitutional health that will enable your system to respond to the demands made upon it in your exercise. That is all largely a matter of common sense.

Light calisthenics may be excellent for promoting circulation, stretching arteries and nerves, improving bodily posture and waking up the functional organs in the morning, but they will not give the thin man the development he needs, nor are they energetic enough to have much influence in the way of reducing excess fat. Try hand-ball or some similar game for that, though the diet is the important feature of any successful scheme of weight reduction. But for building up the skinny man one needs exercise—not too much of it—that offers real resistance—and not too much of that at first—so as to build up the muscular system. Gymnastic apparatus which requires one to lift the weight of his own body in various ways, as on the parallel bars, horizontal bar, vaulting horse, or floor exercises which require one to lift himself will be

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effective. Any other apparatus utilizing wire springs or rubber strands, which affords sufficiently stiff resistance, without strain, will be available. A very little exercise with a bar bell, using just such a weight as will promote development without strain, even for the man who is underweight and possibly not very strong in the beginning, would answer perfectly. Of course, the kind of exercise selected will depend entirely upon personal requirements and preferences. We have, however, given the general principles by which one should be governed.

Not only is normal weight usually the

expression of a general physical condition which is just about right, but any program which tends to bring one back to normal weight when he is above or below, will naturally tend at the same time to make him more efficient and vigorous in every way. Watch your weight and keep it right. Men of vigorous health, who realize their normal weight, will tell you that their weight does not vary more than two or three pounds the year round, for a period of years and years. So it is up to all of us to try to attain this right weight—the weight at which we are at our best—and then to keep it.

Measurements, Photography and Exercise

(Continued from page 29).

thirty-nine, then his thighs would appear too large and his hips too small. No harmony! And in deciding what a man's calves should measure it is always well to take into consideration the size of a man's ankles. To illustrate: Does it not seem reasonable to say that the young man with a ten, or a ten and a quarter or more ankle should have a larger calf than the man whose ankle measures less than ten? Therefore, if your ankle is large, subtract seven inches from what your thigh should be; if it is small, subtract eight inches.

In the contest held at the University of Notre Dame to determine who were the four best-built students to which reference has already been made in some previous paragraph, the Calvert system of measurement was used. As has already been said, this system is the most honest, it gives every young man a chance and does not confine itself to just certain ones of a certain height. The most gratifying feature of the contest was this, that the lads who won the distinction of being the best-built were almost generally acclaimed as being the best built, even before the final results were proclaimed. This was very specially and noticeably so in the case of the man who won first place. The author, who took all the measurements, was not influenced at all by opinions of others; the tape-measure was the real judge. The measurements of each winner are given in connection with the picture of each. It will

be noticed that they are practically four different types of physiques. Mr. Shaw, the winner of first place, is what may be styled the tall, fairly heavy type. Mr. De Roulet, the winner of second place, belongs to the short, heavy style. Mr. Lieb, the third-place winner, is a member of the tall, heavily-framed type. Mr. Anderson, winner of fourth place, is of the medium-height, light-boned type. Among the five hundred or more young men measured, there were many belonging in the same kind of physique class as the ones just mentioned, but none quite approached the proportions that should have been theirs, according to Mr. Calvert's system of measurements. None quite so successfully approximated their should-be standard as did the actual winners.

It may be of more or less interest to the readers of *STRENGTH* to know something about the history of these young men. All of them acquired their splendid physique in great part through heavy-weight lifting in some form or other. Mr. Shaw, winner of the first prize, who holds down the right-tackle position on the Notre Dame football team, and who also puts the shot and hurls the discus for the track team, gets his legs and shoulders and back in good working condition by practicing the two-arm jerk with a hundred and seventy-five-pound barbell belonging to the author. Although not an extremely heavy man, his weight, stripped, during the football season being

around a hundred and ninety-five pounds, he is so well and so beautifully proportioned that he does not appear to weigh even that much. His best put in putting the sixteen-pound shot is forty-five feet. Shaw's shoulders and chest are wonderful. His arms are very muscular, but they do not look massive or bumpy. His legs, especially his thighs, when observed in action in a track meet, give reason why he gets so much drive into each of his charges in a football game. It is very difficult to find flaws in Shaw's physique. It would be no little task to find a young man better built, more pleasing to look at. He would make any artist or painter or sculptor feel satisfied. In Rome, in the Vatican Gallery, stands a work of art. It is a marble statue known as the Discobolos, the discus thrower, accredited to Myron. To see Shaw in action while hurling the discus one could easily imagine he had posed for the Discobolos of Myron. Shaw has the largest chest of any student attending the University of Notre Dame.

Mr. Paul De Roulet, winner of the second prize, while not engaged in any of the 'variety major sports, nevertheless has the distinction of being the school's champion wrestler at any weight between one hundred and fifty and seventy pounds. A mere glance at his picture will furnish evidence enough why he enjoys said distinction. His forte, his pet hold, is the scissors, and once he gets his legs around his opponent, the latter's shoulders will inevitably find themselves pinned to the mat. Besides wrestling, De Roulet took special work in weight lifting from the author of this article. In any lift wherein he could get his legs into play, he soon proved an adept. De Roulet would make a good model for a Spartacus in miniature.

Mr. Thomas Lieb, to whom was awarded the third-place medal, is, like De Roulet, a heavily built young man, only he differs from De Roulet in this that he is much taller, being almost a half a foot more in stature. Lieb, although a very large man, lacked one pound of being two hundred at the time the author measured and weighed him, and is, in spite of his weight, exceedingly fast. When a man of his size can run a 40-yard dash consistently in five seconds flat, and now and then do it in four and four-fifths, that man is fast. Lieb captained the Notre Dame Freshmen foot-

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ball team, playing the full-back position. In their scrimmages against the Varsity, he always gained when given the ball, and against other teams, he tore through their line as if they were made of paper. Because of his speed and ability to forward pass, he also plays at half-back. In track, he most naturally takes to weights. The discus, sixteen-pound shot are his pet events, though he can run a wonderful lap in the relay races. At basketball there are few guards in the college game that can excel his game. His weight, his speed and his strength being so tremendous a combination, that his opponent, even an exceptionally good one, is soon worn out. In our national pastime he will be found behind the bat where his solid, stolid bulk steadfastly upholds any pitcher. Lieb loves to work with heavy weights, and the only time he does not use them is during the summer vacation, during which time he works in his father's stone quarry in order "to get a little variety," as he puts it. In the Louvre Art Gallery in France there is a masterpiece of sculpture known as the Achilles Borghese. Mr. Lieb's physique suggests very much that he might pose as a model for some similar work.

The winner of the fourth medal, Mr. Eddie Anderson, has one of the nicest builds one wants to see in a young man with small bones. Of the four prize winners he possesses the lightest frame. It is a frame, however, that might have been tempered and strengthened after much the same fashion as was the Damascus steel of old, as Anderson places tremendous responsibility and trust upon and in that frame of his. He has the honor of being captain of the University of Notre Dame football team this season, upon which team he holds down the right-end position. To see Anderson tear in, smash in and break up the opposing team's interference, you would be convinced that he is a youth with bones and muscles of finest temper. In all the games he has played with the varsity men he has never been "laid out." Time was never taken out for Eddie. The secret of this wonderful "Hercules" physique of his is that he is always in condition. Exercise is his big, almost his sole hobby. Like the other prize winners, Anderson acquired his wonderful physique through the medium of the weights. He is an adept tumbler and wore his legs to tire from walking he could use his hands with almost equal

facility and agility. In the apparatus room he is everlastingly walking on his hands. A glance at his picture wherein one sees his marvelous deltoids is explanation enough why he can do this. Besides being captain of the varsity football team, he also holds the position of guard on the basketball team, in which position he plays with the same fearless and speedy attack that he applies in his football tactics. Anderson seems to be utterly indefatigable, as well as invulnerable. Though he does not greatly care for baseball or track, he can also be depended upon to catch a good game, or to win points in the pole-vault. In this latter event, were he to practice, coaches have assured him that twelve feet would be easy for him because of his marvelous shoulder and arm strength. The author is of the opinion that Anderson would be in great demand as a model should he elect to follow that work. His muscles stand out so beautifully that they remind one of the Apoxyomenos found in the Vatican Gallery.

Very much interest was aroused by this contest. If the number of assurances to report for special building-up work given the author are realized, then he will find little time for other work along the line of exercise when school is again under way this month. But the end desired, the goal aimed at, and the purpose of arousing interest in exercise was reached and realized. When a man knows his exact measurements as they are, honestly, without flattery or deceit, and when he knows what he should be, and when he sees a good picture of himself as he is, minus the superficial adornments created by his tailor, then if he has any really red blood in his system, he will proceed immediately to better himself physically. The big point, the great thing to bear in mind, in this exercise proposition, as well as any other kind of venture of undertaking, is INTEREST. If you are interested, really and truly and honestly interested in muscle-building, in bettering yourself physically, then nothing *will*, nothing *can* stop you. Have your measurements taken, use Mr. Calvert's system, have your picture taken when you begin a course of exercise, keep it; then have it taken again, after, say, six months. Then, if *this* does not get you interested in exercise—*nothing* will!

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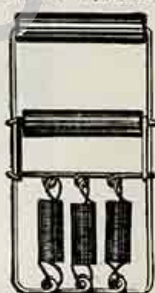
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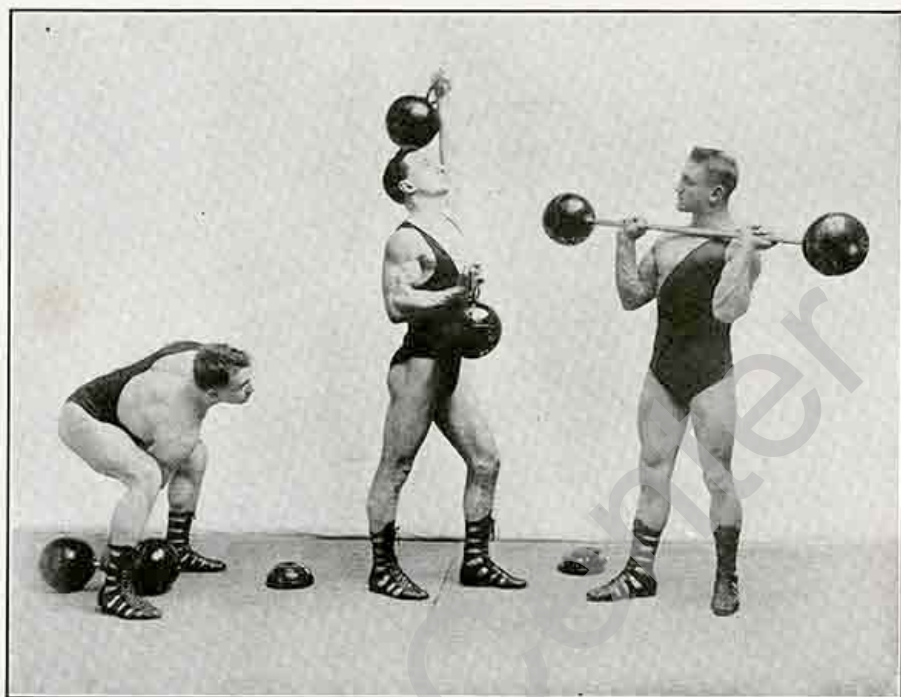
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