

February 1922.

Strength

15¢

**Sport
And Its Heroes**

By Walter Camp.

**A Fool Proof
Keep-Fit System.**

**Comfort
and Health
in Winter.**



ELAYTON
SCHMIDT

The Magazine of Good Health

Shake Hands with Mr. Goodman!

Do He-Men exist only on the movie screen or between the pages of novels? Meet Mr. Goodman!

DID you ever pass a man on the street, and then instinctively turn and gaze after him, envying his magnificent physique and superbly developed muscles? There is something about the swinging, rhythmic stride of such a man that captivates the fancy and makes you just want to know that man and learn "how he does it." Such he-men are plentiful in movies and novels, but mighty scarce in real life. Ever meet one in the flesh? Shake hands with Mr. Goodman.

Edward W. Goodman, of Los Angeles, Cal., lawyer by profession, and whose hobby is keeping fit. The sort of chap who is a magnet for all eyes as he strides along the street, with shoulders back, chest out, and with firm, resilient step.

And yet, not so long ago, Mr. Goodman was of slender build and only ordinary strength, and pretty much like the rest of men. To-day he would be conspicuous even among a crowd of athletes. How did he do it? Let Mr. Goodman tell you in his own words:

In view of the results obtained from your system of training, I feel it my duty to write this letter, thinking it may stimulate others into adopting a method of health and muscle building that renders the most for the efforts made.

When I first started training with your system, I possessed only ordinary build and was not considered strong. Now I can say that I have attained results far beyond my wildest expectations. This increase in health, strength and muscular development which has come to me is but a natural consequence of faithfully devoting a portion of time to the use of your system.

My measurements at the present time are as follows:

Height.....	5 ft. 8½ in.	Weight.....	170 lbs.
Neck.....	17¾ "	Chest.....	44½ in.
Waist.....	32 "	Thighs.....	23¾ "
Calves.....	15 "	Ankles.....	9 "
Forearms.....	14 "	Wrists.....	7½ "
Upper arm.....	16¾ in.		

These measurements are tremendous when compared to what they were when I began exercising.

You may make any use of this letter you see fit, as I owe you a debt of gratitude for giving me the right system of training, and I trust that others will be stimulated into adopting a system of physical culture that is unequalled.

Very cordially yours,
EDWARD W. GOODMAN,
 231 Union Oil Bldg., Los Angeles, Calif.

Notice Mr. Goodman's small, yet muscular waist, deep chest, massive shoulders, arms of steel, and powerful legs. Small wonder that people turn to gaze at him on the street! Every muscle of his body is firm and well developed. And each ounce of muscle is a reservoir of energy that lifts him above the crowd and places him as a real man. Are you in his class—or just one of the crowd?



Don't Be One of the Crowd

IF YOU are a runt or a weakling—or of ordinary build—you do not have to stay so. What would you give to be a he-man—a real two-fisted chunk of nerve and brawn? What would you give to be a man like Mr. Goodman? Would you give a few minutes a day?

What would you give to have every muscle of your body developed as Nature intended it should be? To be conscious of the fact that both internally and externally you had a strong, dependable body that would not fail you in an emergency? To be tingling with life and the joy of living? To have that bounding energy and vitality and that buoyant, cheerful outlook on life that is pos-

sessed only by those in top-notch physical condition? Would you give a few minutes a day for this?

To banish pills and powders, worry and weakness? To have the appetite of a wolf, the digestion of an ostrich—to have every muscle in your body as hard as nails and your system running as smooth as a dynamo? A few minutes a day are all you need give.

Aren't the superb health, physical energy and mental vigor that come with a perfectly developed body worth that price?

If you are determined to better your physical condition, and are willing to spend a few minutes a day in pleasurable exercise, we can give you all these things—or rather show you the way to obtain them for yourself. This isn't just a promise, it's a guarantee.

Either You Make Good—Or We Do

OUR guarantee means just that—either you obtain results that are entirely satisfactory to you—or your money will be refunded without question. You are to be the sole judge of the results, and your decision will not be questioned.

The Milo Body-Building Method is the simplest and most effective system of exercise ever devised. No matter how weak or undeveloped you may be, you will begin with exercises that will be graded to suit your needs and which will provide sufficient work for every muscle of the body, without danger of strain.

As your strength gradually increases—as it can not fail to do—the resistance used is gradually increased. This eliminates all useless and wearisome repetitions and makes a distinct saving in time and energy. The beneficial results are noticeable immediately, and in a surprisingly short time you are the possessor of a remarkable development that lifts you out of the crowd and marks you a man of unusual physique of accomplishments.

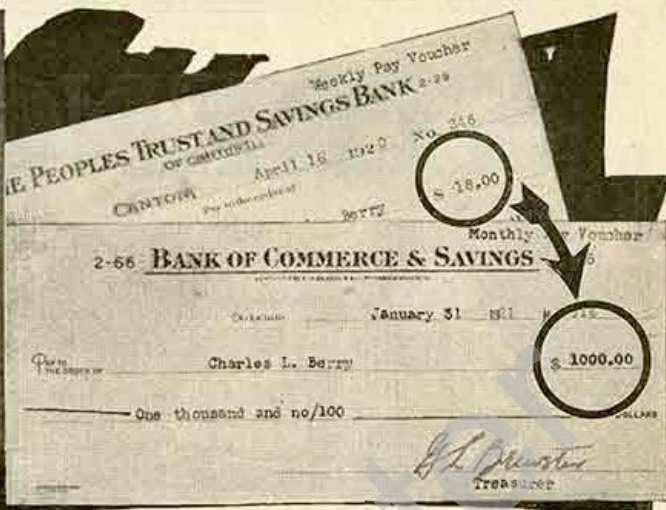
All you need to give is a few minutes of your time a day. Our booklet, "Health, Strength and Development—How to Obtain Them," will show you the way. It is free. Send for it to-day.

THE MILO BAR BELL COMPANY

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

Dept. 24, 301 DIAMOND ST.

Philadelphia, Pa.



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

The Inspiring Story of Charles L. Berry

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

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

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

How I Jumped My Earnings to \$1000 a Month

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

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

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

example. After ten years in the railway mail service earning \$900 to \$1,600 a year, he became a Master Salesman and made \$1,000 in thirty days.

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

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

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

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

National Salesmen's Training Association Dept 21-B, Chicago, Ill.

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

Name

Address

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

STRENGTH

Vol. 6

FEBRUARY, 1922

No. 6

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Table of Contents

	Page
Editorial	6
The Mystery of the Missing Suspenders.....	8
.....By Harry Barton Paschall	
Sport and Its Heroes.....	9
.....By Walter Camp	
A Fool-Proof Keep Fit System.....	11
.....By John Madison Jones	
Fencing for Women.....	14
.....By William J. Herrmann	
How I Keep Young.....	17
.....By Marcy I. Curtis, M.D.	
Winter Trails	19
.....By T. Von Ziekursch	
Louis Cyr—"the Daddy of Them All".....	22
.....By Alan Calvert	
How to Use the Gymnasium.....	26
.....By Rev. B. H. B. Lange, C. S. C.	
Comfort and Health in Winter.....	30
.....By L. E. Eubanks	
Pictorial Section	31
The Boxer's Training.....	33
.....By Ralph Hale	
Head Locks and Chancery Holds.....	37
.....By William J. Herrmann	
How to Develop the Muscles of the Abdomen.....	43
.....By O. R. Coulter	
Prize Contest Announcement.....	46
Reader's Service Department.....	48
The Question Box.....	48
Records and Weight-Lifting.....	52

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Science Discovers the Secret of Caruso's Marvelous Voice

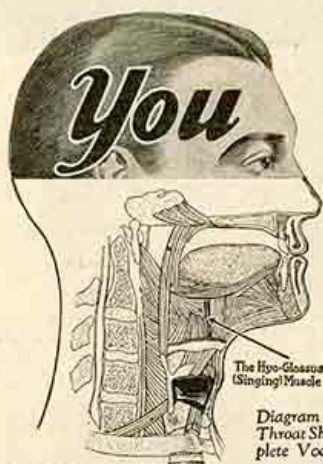


Diagram of the Normal Throat Showing the Complete Vocal Mechanism.

Caruso's Throat and Yours

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

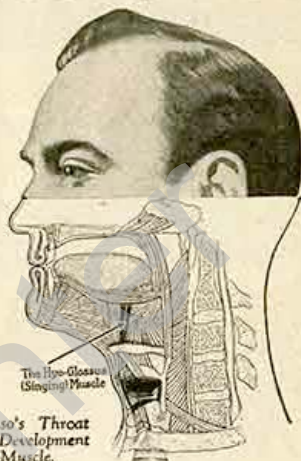


Diagram of Caruso's Throat Showing the Superb Development of his Hyo-Glossus Muscle.

We Guarantee— Your Voice Can Be Improved 100%

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

Prof. Feuchtinger's Great Discovery

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

Professor Feuchtinger went even farther into the Science of Singing.

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

Grand Opera Stars Among His Students

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

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

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

A Beautiful Voice for YOU

You do not know the possibilities of your voice.

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

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

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

Professor Feuchtinger's Book "Voice Culture" Free

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

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

Perfect Voice Institute

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

Singing Speeking Stammering Weak Voice

Name _____

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Age _____

Perfect Voice Institute
1922 Sunnyside Ave., Studio 5772, Chicago, Ill.

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 years?

A Complete Education in PHYSICAL CULTURE

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

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

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.

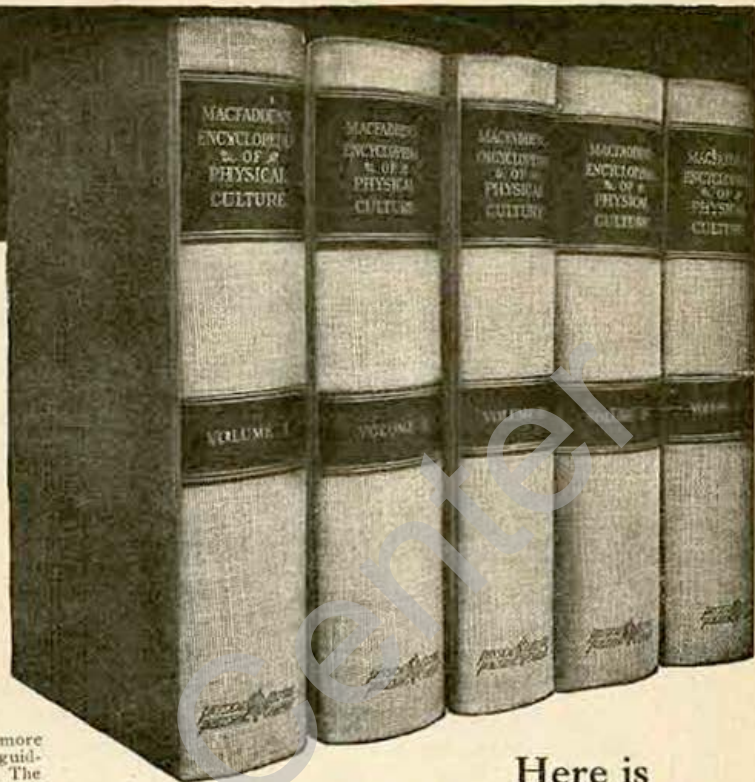
Because it is impossible for us to explain adequately about this Encyclopedia in this space, we therefore want you to mail the coupon printed on the next page so that we can send you any volume of the Encyclopedia you select for free examination. Read the full details of this offer and mail the coupon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

A Complete Guide-Course to Perfect Health by Bernarr Macfadden

Read About
OUR OFFER
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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



Here is
OUR OFFER

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

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

Do not let the word "encyclopedia" give you the impression that it is dull or boring. This is the only word 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 overestimated unless you wish to underestimate 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
treat the common forms of disease
understand the process of reproduction
benefit by laws of sex and marriage
treat diseases of women
diagnose diseases
have healthy and vigorous children
treat female disorders
treat male disorders
obtain virility and manhood
care for the complexion
manicure; care for the hair and feet
cultivate the mind
These are only a few of the matters explained in the Encyclopedia
build nervous energy

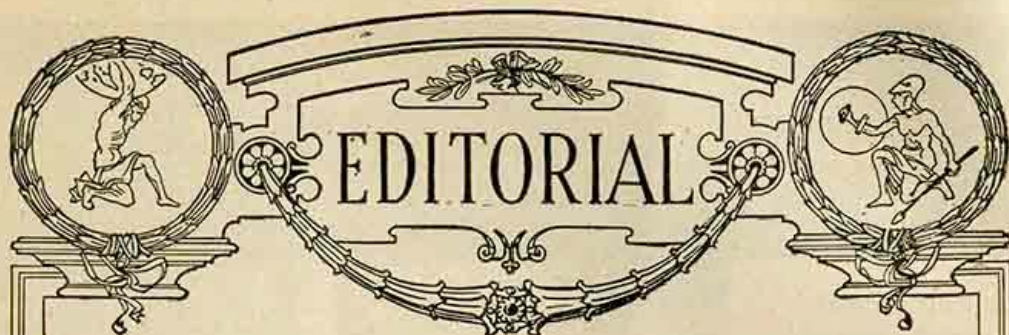
Decide which volume of Macfadden's Encyclopedia of Physical Culture you wish to examine. Then fill out the coupon and mail it at once. The volume you select will be sent to you prepaid for five days' free examination. Then if you decide that you want the Encyclopedia send a deposit of \$2 and the other four volumes will immediately be sent prepaid. Then pay only \$3 a month until the total cost of the Encyclopedia, \$35, is paid. If you care to pay cash, the price is only \$21.50. 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-2 119 West 40th Street, New York</p>	<p>PHYSICAL CULTURE CORPORATION Dept. S-2 119 West 40th St. New York City.</p>
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Send me for inspection Volume, of the Encyclopedia of Physical Culture. I agree to return the volume in five days or pay \$31.50 cash for the entire Encyclopedia or \$35 on the easy terms mentioned in this offer. My acceptance of this offer includes a year's subscription to Physical Culture Magazine.

Name
Occupation
Residence
Business Address



Give Yourself a Chance

PATIENCE and perseverance count just as much in body building as they do in any other line of endeavor. We cannot buy health in bottles; we cannot purchase strength in packages. One cannot become an Apollo or a Hercules in one month's time, although a great improvement can be made in that period.

The trouble with the average physical culture enthusiast is that he expects results too soon. He forgets that the new system of exercise, before it can show beneficial results, may first have to overcome the effects of years of bad habits.

For instance, a man may have a sluggish liver and be inclined to constipation. It has been proven that certain exercises for the abdominal muscles will, almost invariably, cure chronic constipation. Yet no one but a fool would expect a cure from one day's practice of these abdominal exercises.

Even a beginner knows that it is the regular performance of the exercise that brings the results. The bending of the body at the waist line with its consequent compression, stretching and automatic massage of the abdominal organs is part of the cure, but the greater benefit comes from the upbuilding of the exterior muscles of the waist region, and the consequent improved blood supply and circulation in that part of the body.

We are confident that among our readers there is not one who would contend that the performance of abdominal exercises daily for one week would guarantee an absence of constipation for one year. Why is it then, that there are so many physical culturists who expect visible improvement in bodily development from the very instant they begin exercising? It is a standing joke that a small child who plants a garden will continually dig up the seeds to see if they are growing. After a few discouraged inspections and replantings the child will forget all about the seeds. The spring sun and rains vivify the soil, and one fine morning the child is surprised and delighted to find rows of plants.

A Watched Pot Never Boils

OR IF the darned thing does boil, it is after we have grown tired of watching and waiting. Seems foolish to repeat such a well-known story, or to preach a sermon from such a worn-out text, now doesn't it?

But let us think back to the time we started to raise a nice

lot of hot-house muscles. What did we do? The chances are that at least once a week, often twice a week, and (whisper it) sometimes every day, we would get out our little tape-measure and pass it around our biceps, our chest, our necks, etc. Sometimes we were vastly encouraged by an undoubted gain of a sixteenth of an inch over the previous day, but usually the measurements seemed precisely the same, and the only real tangible results was an unmistakable feeling of stiffness and soreness.

It is a fact that immediately after vigorous exercise the muscles are larger. Ten minutes of strenuous wrist-work will make a temporary increase of $\frac{1}{8}$, and sometimes $\frac{1}{4}$ of an inch in the forearm measurements; such increase being due to the fact that all the muscles of the forearm are surcharged with blood. After an hours' rest the forearm has gone back, or almost back, to its original size.

If a man could permanently increase his arm $\frac{1}{32}$ of an inch per day, and hold that rate it would mean an inch a month. It has been done, but rarely by those who measure themselves daily. It is almost impossible to measure oneself so accurately that increases or variations of $\frac{1}{32}$ of an inch are perceptible.

But there is an analogy between the child and its garden and you and your muscles.

Just so long as you fuss over your muscles and insist on measuring them every day, just so long are you apt to be disappointed and discouraged. It is the fellow who refuses to get discouraged who gets results.

Persevere after the stiffness has worked out of your muscles—Persevere after the novelty has worn off—Persevere until your exercise becomes a habit, and you go through your routine just as naturally as you eat your breakfast or dinner. Then some day you will wake up to the realization that your collars are uncomfortably tight; that it is only with an effort that you can button your coat across your chest; and that your arms and legs have taken on a new size and shapeliness.

Age a Factor

A MAN in his forties cannot expect as rapid increases as a youth in his twenties. Our experience is that greatest results in the way of increased size and strength of muscles are obtained between the ages of 20 and 25.

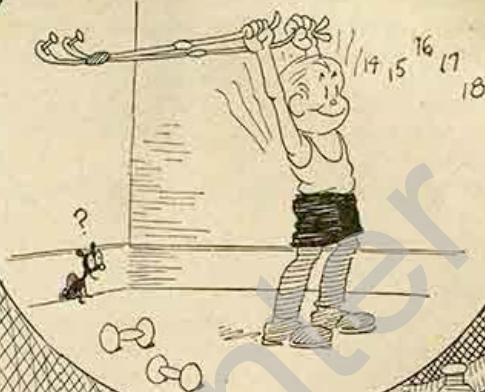
Some of us attain our full height when 15 years of age, others continue lengthening out until the age of 23. As a rule the frame does not "fill out" until after the maximum height is reached.

That is why young men taking up exercise between 20 and 25 years of age are apt to make more marked improvement than boys of 16 to 18 can make. In fact a man of 28 will frequently develop muscle more rapidly than will a boy ten years younger.

Improvement in muscular development, increases in the size of the chest itself and broadening of the shoulders, are all possible up to the age of sixty. Naturally, there is a declining ratio of improvement in direct proportion to the age.

NOW WHERE
THA DICKENS
ARE THEM
SUSPENDERS
I GOT FER
CHRIS'MUS?

(THEY MADE A
DANDY ELASTIC WALL
EXERCISER FOR
LITTLE JIMMY!)



PASCHALL

Sport and Its Heroes

By Walter Camp

IN opening this new series of articles, I wish to quote two verses written by a man, Adams Lindsay Gordon, one of the greatest sporting writers which England ever produced:

"Oh, the vigor with which the air is rife!
The spirit of joyous motion;
The fever, the fullness of animal life,
Can be drain'd from no earthly potion!
The lungs with the living gas grow light,
And the limbs feel the strength of ten,
While the chest expands with its mad-
d'ning might,
God's Glorious Oxygen!"

"No game was ever yet worth a rap,
For a rational man to play,
Into which no accident, no mishap,
Could possibly find its way!"

No one can read this without being thrilled with the spirit of the great outdoors, and the sports which go with that spirit. The coddled weakling finds, as he comes into youth and maturity, that those who have taken such especial care of him have really proven his worst enemies. It is no preparation for life to be watched over, removed from any chances of accident, spoiled and petted and made much of, and the child that is thus handled soon misses the sturdy strength of the youngster turned loose in the open, with the sun to shine on, the wind to blow on and to shift for himself among the children of his own age. This has been proven too many times to need any further demonstration.

A clever professor in one of the colleges, on being criticised by a parent as to the dangers of sport, replied: "A boy is in danger from the time he gets his first knife, climbs the cherry tree, goes fishing, swim-

ming or boating, and from this time on all through his life, and anyone who undertakes to keep him away from all these things will make a weakling out of him instead of a robust man.

Hence, we shall start off with the proposition that the Gospel of Fresh Air, Exercise and Sport is the great gospel to preach to civilization. Nor shall we preach it, but rather demonstrate it with actual cases, so that truly he who runs may read.

I have before me now, as I dictate this, a photograph. In the center, with a football in his hands, marked "Champions of '91," is a man who became Treasurer of the United States. In the line just above him is one of the most prominent surgeons in the country and the ablest man on forestry matters in the United States, while on his right side is the man who became Chairman of the Democratic Committee, and above that man is one of the ablest financiers in



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

the firm of J. P. Morgan & Co. These men are Lee McClung, Dr. J. A. Hartwell, Harry Graves, Vance McCormick and Thomas Cochran. McClung was captain of that football team and McCormick was his successor the next year. Graves was a quarterback and Hartwell and Cochran were ends.

And just what were they like in those days of boyhood, and what were the qualities which they developed which fitted them for these positions of prominence? McClung was a rather chunky, well-built man when he appeared on the football field at Yale for the first time. All through the first year, however, he was slow, and was repeatedly overtaken from behind. Realizing this infirmity he worked to quicken up his speed. He was always a remarkable dodger, and hard to tackle from in front.

Daily he used to work in track and otherwise to increase his speed and the results came as they always will to patient, persistent effort. He acquired that added pace and when this was once accomplished, McClung jumped at once to the highest rank of backfield men. In his game against Princeton in Brooklyn in the year of his captaincy he made a unique running record which really has not been surpassed by anyone since his time. Here was the case of a man who actually made himself into a high-class football player.

If one wishes to know why we need football and other sports in this country, he should have watched the Cornell-Penn and the Army-Navy games this year and seen the players plough through mud and slime, fight tenaciously for every foot of ground and never give up or quit. Then he should read this:

"Sit in the corner of any club or an Eastern university and you hear discussed, not politics or sociology or economics, not even literature or art, but sports, Broadway, Babe Ruth, the price of Brooks Brothers' clothing and the tyranny of prohibition.

"As to the 'social crust,' it does exist in American universities and has a rank growth in private schools largely because they are so filled with men who are 'getting culture,' as Mr. Bennett says—as though it were something to be bought by the year, to give them social prestige.

"Mr. Scott Fitzgerald in his 'This Side of Paradise' has given us a rather thorough and certainly an honest picture of American university life, wherein men are elected to the Senior Board 'because they are blond and part their hair in the middle.' 'Slickers,' Fitzgerald calls them. His Amory Blaine is a very typical example of the American youth as he emerges from the ordeal of high education."

I would like to give a few side lights on this most interesting fall sport in order that the reader may go a little behind the scenes and get some picture of a side of college life outside the curriculum, perhaps, but in which there are the greatest teachers of that real discipline that becomes one of the boy's greatest assets when he plunges into life itself outside the college walls.

Here is an extract from the letter of one of our most prominent coaches in the Middle West to his candidates in the fall. Noth-

ing could more emphasize the disciplinary training of the gridiron game and any business manager might turn it over bodily to his force:

"In bygone days the teams that have represented — on the football field have left a record that their old Alma Mater is proud of. Those boys who have now gone out into the world and have passed on to you the responsibility and privilege of upholding the honor and prestige of — on the Gridiron.

"Victory is sweet, but to win success means hard work. The campaign on which we are about to start will test every man's capacity and endurance to the limit. The football season is like a giant crucible. As the weeks go by, the wear and grind and stress of the work sifts out the good metal until we have only the pure gold.

"What other — teams have done, you can do. To win championships takes character. We need a band of fighters who have made up their minds to give heart and soul for the next three months to the one great purpose—of utilizing every ounce of brain, energy and strength to acquire football skill to develop a team that will go through to victory.

"You know what this means, boys. It means self-denial and self-sacrifice; early to bed every night; no parties or dances; no smoking; careful eating; strict attention to business; reliability, promptness, hard study and hard work, and the development of teamwork and comradeship which binds the squad together into a mighty machine that sweeps all before it to success.

"Everybody for the team; nobody for himself; and everybody giving everything that he has!

"Every man will get a square deal. There are no inside tracks, and everyone will make his place on the result of his work and his true worth this fall. Experience counts heavily, but the final test comes in being able to deliver the goods."

That is the sort of school your boy goes into when he enters the football squad. More than that, as he goes on he receives mighty few words of praise, but instead a constant daily criticism of his work and how he ought to improve. He must make new effort every day, for there are other men out for his position and the rivalry is

(Continued on page 56)

A Fool-Proof Keep Fit System

By John Madison Jones

OF course you have an ideal system of keeping fit—in your mind. But why don't you put it into operation? What's the matter with it?

You know, and I know, and Bill knows, that the very foundation of all successful living lies in keeping in condition, keeping strong, keeping full of energy. We know that we've got to keep just about right if we want to do our work right and if we want to be happy. And we know what to do, by the way of exercise and sleep and outdoor life, in order to keep in shape. But why don't we do it?

You ask me that, and I'll say, just as you would say: "Oh, I don't know; I just don't seem to get at it. I'm doing other things and thinking about other things."

And so it seems that the trouble with most systems of training is that we don't do them. As the fellow said in Shakespeare's *Julius Caesar*, "The fault, dear Brutus, lies not in our stars, but in ourselves, that we are underlings." Now just substitute "weaklings" for "underlings" in that classic line, and it's us.

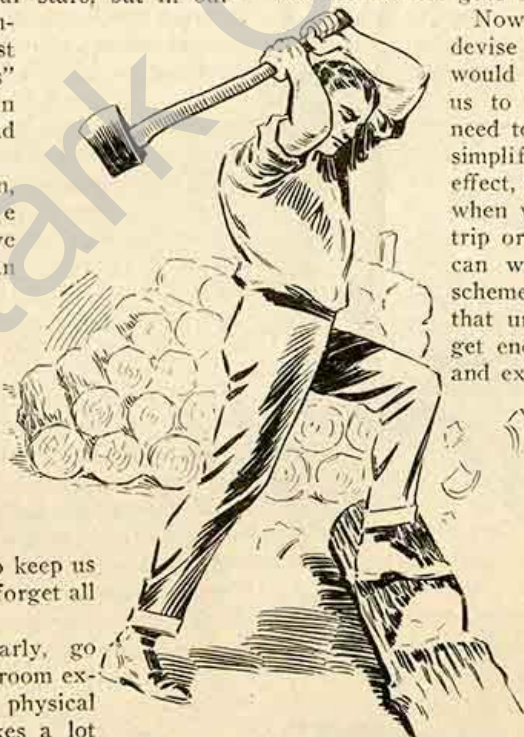
What we need then, it seems, is some scheme by which we can outwit frail human nature and contrive to keep ourselves fit in spite of our failings and our carelessness. In other words, can we not do a little personal health engineering that will insure our living in a way to keep us sound even when we forget all about it?

To go to bed early, go through our daily bedroom exercise and practice physical culture generally, takes a lot of purpose, will-power and character. To expect of our-

selves that we will do it all just because we want to is placing upon ourselves a burden that few of us are equal to. I never met the author of that much-advertised book on the power of the will, but I question if he is capable of following out a rigid keep-fit system, for the sake of perfect health, just as a matter of pure volition and moral force. He would probably say that he did not wish to, and so naturally he wouldn't. And there's just the trouble with the average scheme of physical culture that you expect to follow out only because you want to: the difficulty is that you do not sufficiently want to. You want to do other things. It is like breaking the tobacco habit. One says, glibly, that he can break off smoking whenever he wants to. But he does not sufficiently want to. He wants to smoke. And he wants to stay up nights. And he wants to loaf. And he wants to indulge himself in any number of ways. And so the physical culture life goes blooey!

Now, if only we could devise some scheme that would automatically force us to do the things that we need to do, would not that simplify the problem? In effect, we do just that thing when we go on a camping trip or a hunting trip. So can we not engineer our scheme of everyday life so that unconsciously we will get enough of outdoor life and exercise and sleep that we can go on about our business and keep vigorous without constantly keeping our will-power on tap? Let's try for a fool-proof system of this kind.

The possibility was suggested by the experience of a friend, Harry Hale, who showed up one day not



There is as much pleasure in swinging an axe as in swinging a baseball bat, and more benefit.

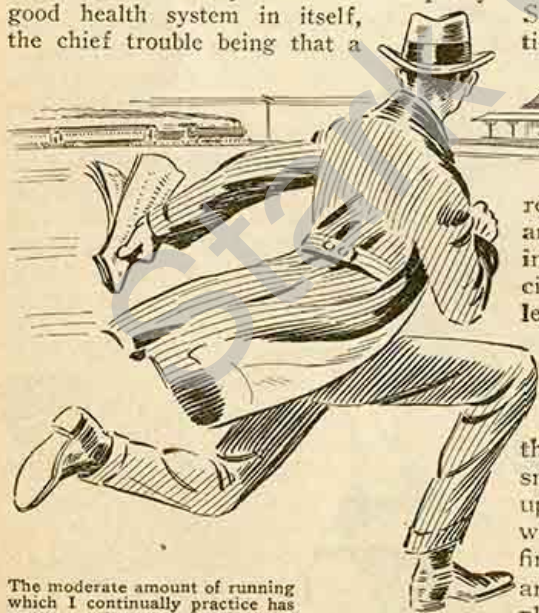
long ago looking fresh and vigorous to a degree that was entirely unlike him, as I had known him before. It seems that the rise in rents in conjunction with a fight with the landlord had forced Harry and his wife and baby out of the flat where they used to live, even out of the city, and into a small suburban home. It wasn't much to look at, but it was a home, the only place the boy could find, and he had to buy it. It was a mile and a half from the railroad station, besides up hill, and Harry had to foot it twice a day, doing a young mountain climbing act on his way home each evening. There was not much exercise in that, but he had not had it before, and it was enough to make a difference in his appetite, in his depth of sleep, and in his health and looks. Besides, there were "premises" around the house, trees and shrubs to prune, grass that needed a frequent haircut, a garden to make and care for, screens to make and put up, shelves and other fixings inside to attend to. So with a dozen other odd jobs to attend to, Harry found himself physically active and very much more alive. And he surely looked the improvement that he had made in himself. Suburban or country home life is a pretty good health system in itself, the chief trouble being that a

wretched diet will sometimes counteract its benefits.

Of course one of the best provisions one can make for himself is to secure an outdoor job. Unfortunately many of us have indoor jobs. And the thing that the sedentary worker needs most of all is to get away from his job when he can, that is, to get outdoors. Long ago I figured it out that if one could contrive to spend one day of each week out of doors, or twenty-four hours a week, in the open, he would have a fighting chance at keeping strong. So I figured on two hours a day from Monday to Friday, totalling ten hours, Saturday afternoon outdoors, making four hours more, and all day Sunday, another ten hours, on some kind of an outing, and there it all was.

It is not necessary to live in the country to arrange such a program. One can best insure getting that two hours each week day by living where he can walk to his work, or if too far, by walking part way to work. Make that a part of the plan of your day's work, and then forget the health end of it. That will come automatically and unconsciously. Especially if one is unmarried, the Saturday afternoon and all day Sunday outings can be easily arranged, particularly by affiliating oneself with some sport, or with a number of sports that take him out.

But there are marked advantages, especially for the married man, in a suburban residence, for apart from the greater amount of walking that he is likely to find incidental to it, there are the natural exercises that he finds around the place, not the least of which are: pushing the lawn mower, preparing and caring for the garden, looking after trees and shrubs, and keeping the place fixed up. These are summer activities, but in the winter they are balanced more or less by occasional snow shovelling, rustling heavy ash cans up out of the basement, and perhaps a little wood chopping, the latter being one of the finest exercises in all the world. Having an attractive fireplace, I found it a good plan to buy wood in regular cordwood, or four-foot length, so that I would have the necessity as well as the pleasure of cutting it up myself. There is as much pleasure



The moderate amount of running which I continually practice has more to do with keeping me energetically vigorous than all the other work combined.

in swinging an axe 'as in swinging a baseball bat, and more benefit for the reason that it is more continuous.

Suburban life has another advantage in that it makes it a very simple matter for one to keep up running, which I have always regarded as an ideal conditioning exercise. Ask any prize fighter what he utterly depends upon for conditioning, and he will tell you about his road work. The ability to run is a pretty good all around test of physical vigor, for one cannot do much of it unless he is organically and physically sound. When, approaching or passing middle age, one finds that he can no longer run, or that he runs very poorly, he knows that he is getting soft and flabby, and slipping from the vigorous estate of his youth. And so, having been a fairly good runner twenty years ago, I still enjoy running and regard the continued practice of it as something of a guarantee of physical fitness. The point is that suburban life enables one to keep it up more easily. And instead of walking to the railroad station each morning, with several minutes to spare, I have formed the habit of waiting at home until there is no longer time to walk, and it is necessary to take it on the run in order to get the train. Once or twice a month I may miss the train, waiting eighteen minutes for the next one. But my neighbor who walks and stands on the platform for five minutes in order to make sure of getting his train, loses a half hour that way every week. However, while on this subject, I may say that with all the other work and exercise, I feel that the moderate amount of running which I continually practice has more to do with keeping me energetically vigorous than all the other work combined. And at forty-two I weigh exactly the same as I did at twenty-two or twenty-five.

In the suburbs the various errands of going to the bank, the post office or to market, call for considerable walking. Of an evening we may go to the movies on foot, our preferred theatre being nearly two miles away, and we often go more for the walk there and back than for the show. The latter, however, only runs an hour and a half or three-quarters, and is relaxation anyway. One can as easily get in the way

of walking, in all such cases, as of riding in the trolley.

It is true that one may be addicted to motoring, if he is prosperous enough, but to my way of thinking there are other things that come first, such as mortgages and what not. When an auto is necessary I hire a taxi, spending perhaps a few dollars a year on that, whereas goodness knows how much I would spend on my own automobile.

When taking an occasional taxi I share the expense of gas and tires and chauffeur with a few hundred other people. Some day I will buy a good car, when I can afford it, and perhaps I will spend more time outdoors than now, but I will feel it as a matter for regret, if I do less walking or running than I do now.

As for actual strength building or corrective exercises, which must be systematic in character, it would be pretty hard to fit them into such a program of "unconscious" health building as we are suggesting, for they must be done for their own sake, at a special time set apart for them. However, when badly needed, there is always an incentive to do them found in the fact that one is ashamed of himself, and as soon as he realizes his shortcomings almost any one will persist in systematic exercises for the few weeks or months necessary to bring his physique up to normal. After that it is a simple matter to keep his muscular development through almost any kind of exercise, and the future problem is one rather of conditioning, and this can be accomplished, as suggested, by fixing upon a scheme of living that will make health culture unconscious.

So long as one feels that he must take systematic or special strength-building exercise, the problem is one of making that exercise interesting, and the best means to that end is music. Put some stimulating march music, or even jazz, on the phonograph, and it will make the practice of any kind of exercise easy. The use of apparatus, such as a bar bell, a horizontal bar, flying rings, or parallel bars, may solve the problem of making exercise so fascinating that you are not likely to let slip the ten minutes set aside for it before the morning bath. Or, if you have the ground available,

(Continued on page 58)


Fencing for Women

By William J. Herrmann

*Undeclared Professional Swordsman. Maitre d'Armes—
Salle d'Armes Herrmann*

Instructor in Sword, Bayonet, Knife Fighting, and Combat Tricks, of the U. S. Marine Corps Famous Bayonet Team under command of Major A. J. Drexel Biddle, U. S. M. C.

Formerly Fencing Master of the Philadelphia Fencers Club; of the Second City Troop, N. G. P.; State Fencibles Battalion, N. G. P.; Pennsylvania Military Academy.




ALTHOUGH at the present time, fencing for women is still mostly in vogue by the elite, it nevertheless is fast becoming a more popular exercise for women in general. Now-a-days it is not only a favorite physical accomplishment of the social leader, matron, debutant, artist, literary worker, actress and screen star, but also a fascinating sport of the modern type of athletic girl as well as a real live intelligent exercise for business and professional women.

This is as it should be. There is no one exercise so particularly adapted to feminine needs as fencing, nevertheless, it is interesting to mark the passing of this one time, life or death man's game into the hands of his gentler sister.

As usual there's a reason why and it is not far to seek. It is because fencing has become so scientific and highly developed a game that strength of arms and shoulders, the sort that is commonly termed "brute force" in which men will always excel women, cuts practically no figure.

In the days of old when Roland or Richard the Lion-Hearted or Du Guesclin girded on their weighty armour and boldly sallied forth to meet their foe, a *salle d'armes* was no place for women. Even in the days of D'Artagnan, of fiction, and Prince Rupert of history, it was quite possible to beat down an opponent's guard by sheer weight, strength and power, but even then clever swordsmen were devising and perfecting plays in which skill, "head," speed and quickness of thought and preception were substituting for those depending merely on robustness, power, vigor and superior natural physical advantages.

To-day the element of strength has so completely disappeared that middle-aged



and even elderly persons may be seen competing upon even terms with those in the prime of life; and women on an equal footing with men. Unlike other intensive competitive antagonistic exercises, fencing is not prohibited at the approach of middle age. Fencing shoes need not be discarded nor foils laid aside, as many of our matronly fencers can readily testify and practically demonstrate.

It seems like a far cry from Du Guesclin to Mrs. Wm. H. Dewar, Mrs. Maxwell Biernbaum, Mrs. Paxson Deeter, Miss Marie A. Bradley, Miss Jessie Pyle, Miss Edith Evans, Miss Dorothea Samuel, Miss Helen Smith and other brilliant stars in the feminine fencing world, yet any of the ladies just mentioned are just as famous exponents of the sword to-day as the famous Captain of the Free Companies was in his.

Imagine battling in single combat any of the free lancers and swaggering swash-bucklers of old—it's a sure bet that in a fight "a la mort" any of them, in their de-coming fencing costume with their deadly finger-broad steel blade held in a small gloved but steady sword-hand, directed by wits as keen as the business end of the rapier, would prove more than a match for any mail-clad champion.

A knight in full armour, as you probably know, could not move much faster than a slow walk. His big two-handed sword weighed half a hundredweight, yet every time he raised his arms for a stroke he exposed an inch-broad opening in the shoulder joint of his suit of steel mail. In actual combat with a swords-woman of the ability of our modern women fencing champions, with their sword craft and sureness of thrust, one such opening would be sufficient to definitely decide the affair.

Yet it is not to fight Palladin or Saracen that women have taken possession of fencing, but to combat ill health, worry, mental strain and encroaching embonpoint. They welcome it with joy, because it is far from being the dismal task so often denoted by the term exercise. Something more than mere routine work or mechanical movement is necessary or else the exercise indulged in will eventually become dull monotonous, reluctantly engaged in and gladly dispensed with after a short trial.

Fencing is not a monotonous grind, but something to be really enjoyed—it is fascinating, thrilling, alive. It is competition, exercise, play. Lack of incentive, the bane of many an otherwise excellent exercise, is never lacking in fencing. Business and professional cares are impossible. All extraneous thoughts are barred as the mind is too busily occupied in divining your opponent's intentions while concealing your own.

Competition may or may not be the life of trade, but certainly it is the life of exercise. Only the woman of exceptional will, determination and force of character will compel herself daily to go through a set formula of exercise prescribed as a means of restoring health, vim and vigor or fighting off heavy excess baggage or repairing the ravages of social cares, over-study, business worries or diet of chocolate, fudge and pastry approved of only too much by the majority of the fair sex.

that the necessity of

In spite of the fact systematic exercises are conceded by all, the average woman regards her prescription of exercise and health drills as a drudge,

indulged in only because her physician tells her it's imperative. Start the same woman fencing and within a day or two after grasping the theory she is so keenly interested that she earnestly strives to perfect herself by diligent practice, more for the keenness of the sport than for her own good health's sake.

Looking around, she readily finds fencers of all degrees of proficiency from famous champions down to novices as unskilled as herself. Usually she joins a group of women of equal skill and ability. With these she crosses blades almost daily in the most intense friendly rivalry.

In a short time she notices that the headaches which so frequently annoyed her have taken their flight while the shortness of breath and distressing tendency to bourgeois rotundity are fast disappearing. Her friends compliment her upon her improved appearance, enhanced grace, animation and energy and she herself recalls how easily she tired before, while little things no longer upset her.

Best of all, she marvels at her ability to think and act quickly and decisively. On the fencing strip she finds that she can hold her own more and more with the veterans of the game, while even the champions handle her with more respect than formerly.

In time she looks forward to her fencing lesson as the best part of her day and perseveringly keeps at it not so much for the sake of health, but because she is enthusiastically anxious to perfect herself. There is always someone who is just a shade more expert than yourself, with whom she is burningly eager to try con-



Mrs. Wm. H. Dewar,
Holder of International Fencing Honors.

clusions. Incidentally, when a woman takes her first fencing lessons she forms a healthy habit for the rest of her life. Once a fencer, always a fencer. No one who has once experienced the fascinations and benefits of this game with the foils will ever willingly give it up.

As a healthful, all-the-year-round exercise for women, fencing—the fine art of athletics, the most courtly and noble of competitive antagonistic exercise—remains unsurpassed. It stands in a class by itself. It decreases bodily ills and increases physical vigor. It rejuvenates the body while it interests the mind. Its fascinations keep one's mental as well as physical powers healthfully, actively and interestingly engaged. It exercises every muscle while it strains none. It is not a matter of merely developing brute strength. Even women of delicate physique find its effects beneficial from the very beginning. Its devotees soon graduate into the ranks of real, live, healthy women. Its health-promoting, strength-imparting, grace-enhancing, features class it as an exercise par excellence for women.

Those who recognize its value profit by increased energy and buoyancy of spirit, and enjoy comparative immunity from the physical deterioration caused by sedentary occupations, excessive mental application, exacting social cares and prolonged nervous tension. Its effects are superior to all the passive methods ever devised and all the venerated cosmetics, questionable tonics and medicinal pick-me-ups ever concocted. It puts and keeps its disciples in condition to do more and enjoy more, both duties and pleasures.

Second only to its health and beautifying properties is the mental effect of fencing. Surely many of our reigning social queens

could confess that it was in the *salle d'armes* where they first acquired the poise, ease, grace, carriage, bearing, tact and self-control which greatly helped to enhance the charm that captivates all those with whom they come in contact.

The novice who desires to become an expert should avail herself of every opportunity to see good fencers in action. She should also take advantage of every occasion offered her to cross blades with others, especially with fencers her superior.

For the *assaut*, the fencer should protect herself against any possible accident by using a fencing outfit that answers this purpose. Above all, never fence without wearing a good close meshed mask in order to protect the eyes. Face, forehead and ears should also be covered by it. Be sure the mask fits you well to avoid any possible loose motion of the mask interfering with your sight when you are in action as well as to prevent a possible accidental unmasking during the progress of a bout.

The fencing-jacket should be light yet safe and protecting, with rather a high collar to properly cover the neck. Fencing-gloves should be worn to protect the hands, admitting the fencer intends to learn fencing with her left hand as well as with her right.

The various plays, positions, attacks, parries, ripostes, etc., are readily learned but the real secret of expertness lies in keenness of sight, quickness of thought, alertness of movement, and a good fencing-brain. Every play calls for instantaneous action and ready coordination of both mind and body. A novice cannot continue the deplorable and demoralizing habit of thinking of one thing while trying to do another.

Miss Marie A. Bradley, Holder of National Championship Honors.



How I Keep Young

By Marcy I. Curtis, M. D.

Here is the proper spirit! Not "How I Ward Off Old Age," but "How I Keep Young." Dr. Curtis was born near Utica, N. Y., in 1845, was educated in schools near there, and received a medical degree in Vienna. He is 76 years "young."

"A MAN is as old as his arteries." This is a trite saying, but think it over. How many people over sixty have you known with arterio-sclerosis?

Hardening of the arteries and its companions, Bright's disease, apoplexy, paralysis, glaucoma, mental degeneration, rheumatism and a host of other ills are, in a large measure, preventable maladies attacking thousands of men in the prime of life and cheating them of a vigorous old age.

I am a professional man, seventy-six years old, whose work is very exacting in character, requiring close mental concentration. I live the sort of life that would be distinctly sedentary if I allowed it to be so. As far as old-age infirmities are concerned, I have a rather poor physical inheritance. My mother died of apoplexy when she was between sixty and seventy. My grandfather had a "stroke"

when he was about the same age. One brother died of Bright's disease a few years ago, and I have a sister who has been blind for the last five years as a result of glaucoma. All the family has a marked tendency to hardening of the arteries in some form or another.

About twenty years ago I observed certain symptoms in myself that warned me I also was heading for this undesirable goal. Certain rheumatic difficulties asserted themselves along with one of the first significant

signs of letting go—the appearance of a slight "bay-window," that unsightly accumulation of fat over the abdomen so commonly seen among men past middle age. My mind rebelled at the threatening prospect, and I set myself to study a possible way of escape.

I had never been a drinking man, for in my profession I had seen that drink, disease and death usually hunt together, and I did not use tobacco. This was in my favor, but I had always been a hearty eater and enjoyed a good dinner, often quoting that the way to a man's heart is through his stomach. It is also the way to other things less pleasant to contemplate. That "bay-window" was a sign that I was eating more than I could take care of. I began observing the habits of other men, and I adopted a new motto: "We dig our graves with our teeth."

Most grown people not doing manual labor eat more than

they need—more meat especially, and rich food—and they take too much stimulant. I cut down my diet list, leaving out tea and coffee. I ate slowly and chewed thoroughly, and I soon found that I felt as well satisfied as formerly when I had eaten more.

I began to realize the value of regular exercise. I bought a bicycle and made it a plan to wheel or walk for an hour or more every day. Even on my busiest days I could ride my wheel to the office instead of riding in a close public conveyance. I had the air



Marcy I. Curtis, M. D., who reckons his age as 76 years "young."

and exercise and I lost no time. When the weather was too stormy to ride my wheel, I walked.

My "bay-window" gradually disappeared, my muscles grew firm and elastic. I began to see that my slight expenditure of will power was being rewarded far beyond its cost in self-denial. Decidedly, the game was worth the candle.

From that time to the present day I have lived an active, healthful life. Instead of degenerating with time, I feel better than I did twenty years ago. My vacations I have spent climbing and walking in the mountains, touring the country with my wheel or digging up and cultivating a large garden back of my house. Spading is first-rate exercise, even in a city back yard, and a lunch of bread and milk and fruit, earned by the sweat of one's brow, is food for the immortals.

Another item that bulks large in my scheme of living is water—plenty of it—both inside and out. Few people drink enough water to properly irrigate the system. Less than three pints a day is not enough—more is better. I am an ardent advocate of the hot bath. Regular bathing of any kind is essential, but I have found that a full, sizzling, soaking bath taken leisurely at least three times a week is invaluable in helping the skin to eliminate body poisons. When I have come home tired and lame from some more strenuous exercise than usual, I have discovered that a hot bath, a glass of hot milk and a night's rest will make me feel like new the next morning. I never eat a hearty meal immediately after any strenuous or tiring exercise.

In short, I have hit upon what seems to be a way of living best calculated to increase my personal efficiency and to keep the bogey of old age at a respectful distance. I now eat no red meat, though I enjoy oysters and fish of various kinds, and occasionally chicken. I drink neither coffee nor tea. Hot breads and rich, highly seasoned foods I leave pretty much alone. But I eat all the fruit and vegetables I want and I drink milk in quantities. I am very fond of dextrinized or twice-baked bread and cornmeal in various forms. I eat cereals, simple desserts of many different kinds and practically any other plain food, but always in moderation. I do not poison my system with liquor, tobacco or surplus food, and if at times I feel a disinclination to food or a tendency to a

cold, I skip a meal and feel the better for so doing.

I exercise every day. Nature gave man muscles to use and she punishes disuse with deterioration. (Good sermon here on the man with one unused talent.) If a day comes when for any reason I am unable to get outdoors, I exercise on a horizontal bar which I have hanging just inside my closet door, or I go down to the cellar and saw wood for the fireplace.

I drink water like a fish, and I bathe in a similar aquatic manner.

The result is that at a time when I might be called an old man, I am not one. My mind is alert and clear; I enjoy my books, music, travel; and I have a keen interest in my work and all this world's affairs. My body is strong and vigorous. Two years ago I climbed above ten thousand feet in the Rocky Mountains, with no inconvenience beyond a slight soreness of leg muscles, which yielded readily to a hot bath and a good sleep.

This "system" is absolutely simple. It can be carried out in principle anywhere, by anyone. It is the sane and natural way to escape many of the so-called infirmities of age, almost universally accepted as inevitable. They are not so—in my case at least—as I think I have proved.

Every normal person has the right to a vigorous old age, with a mind and body able to enjoy the fruits of early labor and experience. Isn't it worth the effort?

Eat These and Live for More Than a Hundred Years

(By Associated Press)

Derbent, Caucasia, Nov. 9.—The elixir of long life consists of soured cow's milk, cheese made from sheep's milk, and white bread, according to Dr. Sadowein, professor of physical chemistry at the University of Kiev. He has located a village in the mountains near Temir Khan Shura, the new capital of the Daghestan Republic, where eighteen men, out of a total population of 120, are more than 100 years old. Investigation showed they ate the above-named foods exclusively.

Winter Trails

By T. Von Ziekursch

THE call of the woods and streams, the lure of the open places, the beckoning appeal to step out of this industrial maelstrom and bustling activity of the cities to halt for a moment and gaze at the broad stretches of skyland, unsullied by the smoke of factories, unbroken by the jutting heights of office buildings—what is it that arouses in the hearts of men and women this longing for the out-of-doors, for the far places of silence? How often have you heard an apparently staid and satisfied man or woman repeat that old, old plea, "I wish I could get away for just a couple of days in the woods."

Perhaps it marks the coming to the surface in the mind of the speaker of some old memories of childhood days in the woods and fields. Far more likely it is, as science tells us, a recurrence of that desire to live as Nature originally ordained that men should live, and as they did live for untold centuries—a momentary reversion to the original man caused by some physical condition that demanded just such an excursion into the out-doors as a cure.

Recently a friend who had been complaining for several months about how worn out and sickly he felt, and whom I had advised to take a short vacation and merely tramp about in the out-of-doors, visited a noted specialist. The consultation fee was twenty-five dollars and the advice of the specialist was a vacation of some kind in the country, preferably in the nature of a camping trip. My friend asked the physician why he advised this and received rather vague replies about the benefits of the fresh air and the rest to jaded nerves.

What that physician really meant was what he said and a lot more. Perhaps he was wise enough to understand just how what he advised could bring the rest and relaxation necessary; probably he did really know that, like the lotus to the lotus-eaters of antiquity, the out-of-doors offered to this nerve-worn patient the panacea that would dwarf the importance of the troubles and cares that rested so heavily and rebuild his mental and physical condition to the extent that he could again laugh at those things

which had formerly weighed so heavily.

The fact remains the same that the troubles of life are really stationary in their importance; it is only a question of whether your mental and physical condition magnifies or lessens them in your eyes.

More and more science is recommending that the race of men learn to play beyond the shadow of roofs and the stone of cities, and more and more men are doing just that, not because science tells them to, perhaps, but because they want to.

I have been asked to sum up what the out-of-doors has to offer. There are millions to whom this must appear a useless thing—who know and are finding out for themselves what it has to offer, and finding, are content. Leading all else it has the joy of life to hold out, the exhilaration of sweeping, surging health and vitality. In a previous article I pointed out that the man or woman who led a tight little city life for fifty weeks in the year and spent the other two weeks in some arduous out-door trip could hardly hope to get the fullest enjoyment out of those two weeks simply because those fifty weeks of inactivity would sap too much of the physical condition unless some effort toward maintaining bodily efficiency was made, some exercise taken. That one or two or three weeks should be the period in which the individual is repaid for the other fifty, or whatever it is, weeks of keeping fit—the time to enjoy the healthy body.

Taking for granted that that which science and common sense tells us is true and that the out-doors is the thing most of us need more of, it must also be admitted that Nature is not a stern taskmistress; that they who seek her and want to get into her realms can never complain of it being a boresome or tiresome thing to which it is necessary to force themselves as a child is forced to a music lesson.

I am reminded of a medical man I know in a mid-western Pennsylvania city who had led a somewhat sedentary life for a number of years until a patient lured him into a deer-hunting camp not far from his home city. Now each year that physician spends the two weeks of the deer season in that

camp. He has married since then and finally brow-beat his wife into making a week's camping trip in summer with him in that same vicinity. Now, in addition to their summer campaign trips each year and his deer hunting in the early winter, they also spend virtually every week-end during the warm months with their pup tent and handy camping outfit. Recently I met her and she spent two hours telling me why the deer always seek the higher ridges and ledges near the crest of the mountains during the day time and at night, rarely coming down to the bottoms excepting during the early morning and evening. When they were married she was a puny little thing of doubtful health. Now she is a robust, jovial girl able to handle herself as well as anybody in the woods. Her real triumph came when she brought forth for my gaze a four foot rattlesnake skin and told me how she had whacked mister snake all by herself with a long stick picked up in the brush.

Between this pair there is an open, free camaraderie lacking in so many married couples. She is his equal and there is no fear of either becoming bored with the other's company. They have too much in common. That is what the out-doors did for them in addition to keeping them both at the peak of health.

Personally I have tramped the far places for many years, wandering as I saw fit

whenever opportunity offered, and, I confess, frequently making opportunity where there was none. In all that time I have never regretted one day spent in the woods or on the water trails, but quite recently I came close to the great experience of all and even now I wonder whether there would have been any regrets had Fate put the period to my existence.

I left the Canadian Pacific end of rail in Ontario for a short visit with an old buddy who still sticks to the woods. As luck would have it I ran into a real blizzard when leaving town with a mere jaunt of about twelve miles up a trail that ran parallel to a creek practically the entire distance to his cabin.

That was somewhere about 6.30 at night on a Sunday, and I felt so confident of my ability to hold the trail that the only food I carried in my knapsack included one ten cent bar of chocolate and an orange. Through some bit of carelessness I had failed to bring along the tiny pocket compass that is such an invaluable companion. Somehow, in the darkness and the storm, I lost the trail and realized that fact soon enough when I went down a couple of times in the brush. Daylight found me still going without any idea of where I was and a raging snowstorm completing my discomfiture. By that time I was beginning to feel pretty tired and thoroughly uncomfortable.



Ready for the trail.

My breakfast consisted of one bite from the chocolate, and late that afternoon I stumbled across an abandoned cabin which assumed proportions somewhat akin to the pearly gates in my estimation.

There I built a fire and thawed myself and rifle out, for the barrel of the gun was frozen solid and tight; and then I ate another bite of the chocolate for supper and slept a hungry sleep.

On Tuesday morning I consumed the interior of the orange, which had been badly frozen and thawed out, and saved the skin for a last meal in case the worst should happen. Then I left the cabin and resumed my wanderings, picking my way to the southward. By nightfall I believed I had about reached the limit of hunger and exhaustion. I built a brush shelter and a roaring fire and finished the chocolate with only the orange peel for further rations. That was one thoroughly uncomfortable night. Occasional bits of sleep would terminate suddenly when the fire died down and the intense cold began to get in its work, necessitating a bustling about to build up the fire.

On Wednesday morning I finished the orange skin and started out again, stumbling across a cow moose that I would have shot in defiance of all the game laws man ever made; but the snow had filled up my rifle barrel and chamber and had frozen solid again. To have pulled the trigger would have meant an explosion and I had to watch the hulking piece of fresh meat gallop off through the woods, visualizing the juicy steaks she would have afforded. I saw many deer and one old tom lynx but had absolutely no chance for a shot. Incidentally it was another bit of carelessness that I had not carried a gun case to protect the rifle so it would be ready for emergencies.

That afternoon I began to think of writing a few farewell words in the fly leaves of a volume of Thoreau I had carried in my kit, but then luck turned.

I was beating along through the brush and snow when a clear space appeared in front and I came out on what was evidently a trail. There were the marks of dog sleds and it was easy to ascertain which way they had been going. Fifty yards ahead and around a turn I saw the figure of a man and a half hour later was in a cabin drink-

ing a pint or more of broth made from frozen moose meat that had been boiled. That was preparatory to the feeding up process. I must have lost ten pounds during those three days and I remained in that cabin for several days more. That is, I slept there, for during the day I was entirely too busy having a good time in the woods, trying to photograph deer and re-acquainting myself with a lot of things among the forest folk.

Perhaps this would be classed as a brutal experience. Certainly I would not advise it as a pleasure jaunt. Of course it was gruelling and punishing; nothing is harder work than mushing through deep snow, either with or without snowshoes. It tries every muscle in the body and it is cold, but after the first couple of days the body gradually accustoms itself to the cold and it is not felt so intensely.

When I left that cabin to return to civilization and work I stood ready to swear that Jack Dempsey never came any closer to what is called the pink of condition when he prepared for Georges, than I was right then and there.

I had a great deal of work waiting for me down in the city. Before I decided to take a short vacation up in the woods it had seemed an appalling amount and had just about got on my nerves. I did not see how I could ever catch up. That may seem like a funny time to go away, but I knew from past experience that a few days in the outdoors would put me in shape to do about fifty per cent. more efficient work.

I hated to leave the woods. Each pine and spruce and fir seemed to beckon like a siren, the abstract beauty of the snow covered stretches was wonderful and called, the wilderness was some wondrous odalisque offering her charms without stint, and I was close to life at its fountain head.

As I stood on the crest of a ridge over which the trail wound on its way back to steel I stopped for fully a half hour, looking out over the tree tops with their caps of white and the dark sea green of the pines beneath forming a combination of mysterious, silent beauty. And then I did some thinking. What amazingly small places New York and Philadelphia and Chicago and all other cities, built by the race of men were! From here I could see

(Continued on page 61)

Louis Cyr--"the Daddy of Them All"

By Alan Calvert

IT is only a few years since Hans Wagner stopped playing baseball, yet there are many young fans who never heard of him. If the fans are already forgetting Wagner, how many of them can recall Mike Kelly and "Old Hoss" Radbourne, who flourished around 1890? Yet Kelly and Radbourne in their time were just as prominent as Hornsby and Babe Ruth are to-day.

Every reader of STRENGTH has heard of Sandow. Many of you probably think of him by his well advertised title, "The Strongest Man in the World." How many of you have heard of Louis Cyr of Montreal, who was as much stronger than Sandow as Sandow is stronger than you, Mr. Reader, and who was lifting weights about the time Radbourne and Kelly were playing ball?

The general public has forgotten Cyr, but his memory is green among the older members of the theatrical profession and among the passing generation of professional athletes.

To these old wiseacres there never was any "Strong Man" except "Big Louis." Show them a new star, tell them how the new men are breaking all Sandow's and Cyr's records, it makes no difference. They merely shake their heads and reply, "It may be true, but Cyr could have broken any one of them in two."

The important thing is that *they are right*. Louis Cyr was undoubtedly the strongest man of whom there was any record during the nineteenth century. In fact, it is doubtful whether there is alive to-day any individual who for pure unadulterated brute strength could compare with the late Louis Cyr.

Cyr was no "perfect man." No one ever raved over the beauty of his body or the splendor of his muscular development. The pictures which accompany this sketch will show you how he looked, but if you want a real idea of his figure, just call to mind one of those men made of auto tires that you see in the Michelin ads, or picture a man who would be a good running mate for the "Powerful Katrinka," and you will have Louis Cyr to the life.

Cyr was of French-Canadian stock. His father was the ordinary sturdy type of "habitant," but his mother was a giantess, both in size and strength.

Apparently Cyr never possessed a slender figure, even around the age of 15, when most boys are at their thinnest. The earliest pictures of him show him square as a block, almost as broad as he was tall, and with all the animated agility of a young hippopotamus.

At the age when most boys are thinking of going into long trousers, our young Louis could out-lift, out-work and out-fight any full-grown man in his part of Canada. His family considered that his destiny was plain, and at the earliest possible age had Louis enlisted among the policemen of Montreal. They recognized the undisputed fact that their boy "was too strong to work."

That they were right was soon proved, for shortly after joining the force, Louis caught two crooks at work, banged their heads together, and having reduced them to unconsciousness, proceeded to lug one under each arm to the police station and lock them up. No one ever needed a patrol wagon, a derrick or a shifting engine if Louis Cyr happened to be in the neighborhood.

Louis had practiced all kinds of heavy athletics since he was a boy, but he now redoubled his efforts. His exploit as a policeman had brought him to public attention, and his friends urged that he capitalize this public interest and prepare himself for a stage career.

A set of bar bells and dumb-bells was obtained and Cyr started training in earnest. Canada was full of "strong men." It was no trouble at first to get matches, and Cyr and his backers accumulated a considerable sum of money. But the harvest soon dwindled as the sporting fraternity soon found that it was folly to bet against Cyr. So Cyr had to go further afield to find opponents; and while matches grew fewer, stage engagements were offered him from every side, and his fame spread from the Mexican border to the Arctic Circle.

Cyr was never beaten in a lifting-match. His victories were hollow, and there was

little excitement over his various contests, as the result was a foregone conclusion. Many of his opponents quit cold as soon as they saw Cyr make one lift, and finally, about 1892, all opposition ceased; no one had the temerity to claim Cyr's title.

About this time Eugene Sandow was having a tremendous success in London. Like Cyr, he had defeated all comers and was looking for matches.

Cyr was a French-Canadian and the French were almost as proud of him as were the Canadians.

Word was sent from Paris to Montreal, and Cyr embarked for Europe in quest of Sandow's scalp.

Was there ever a match between Cyr and Sandow? You will look in vain for such a contest in any sketch of Sandow. But Cyr's adherents claim there was a match and that Cyr and his French backers cleaned up a tremendous sum from the Londoners, who to a man bet on Sandow.

Sandow has a record of elevating a 271-lb. bar bell by the method known as the "one-arm bent press." Sandow's method was to use a long-handled bar bell, stand it on end, rock it over and on his shoulder. Then, holding it firmly in the right hand, he bent the body so far over to the left that the right arm eventually was straight, although the bell had hardly been raised an inch. Then it was a simple matter to bend at knees and sway the bell until it was directly overhead and finally to stand up straight. This is the lift by which Arthur Saxon subsequently raised 336 lbs., but the style was then new and there were many bitter disputes before the "bent press" was admitted as a genuine lift.

In 1893 Sandow knew he had no rivals at the bent press. He was the

only man who could raise over 250 lbs. in that style. He had no fear of Cyr because he knew it was manifestly impossible for him to bend over far enough to complete a "bent press."

Both athletes were training at the same place and Cyr announced an exhibition to which he invited Sandow.

Judge Sandow's amazement when he saw Cyr roll out a short-handled dumb-bell weighing 273 lbs., pick it up, rest it for a second on his knee, swing it from knee to shoulder with the right hand, and then, leaning slightly to the left, push the weight cleanly to arm's length. Sandow never again evinced the least anxiety to match himself against Cyr.

Sandow had been immensely successful in London since 1890, and in 1891 a former stage partner of Samson's—a German named "Cyclops" Bienkowski—conceived the idea of picking up some easy money in America, where nobody knew Sandow by sight. Accordingly Cyclops enlisted the

services of an American "strong man" who somewhat resembled Sandow, and proceeded to tour America under the name of Sandow and Cyclops. They were quite successful, and it was not until the real Sandow came to the Chicago World's fair in 1893 that the American public realized how it had been duped.

On the tour above mentioned the "false Sandow" and Cyclops challenged all comers. The "false Sandow" could do some very difficult "tricks" of strength, and Cyclops carried with him a dumb-bell weighing 220 lbs., which he could "put up" quite easily with one hand. Cyclops's big bell and the tricks of the "false Sandow" were enough to overcome all challengers elated pair made the mis- in the states, but the



Cyr as he appeared in 1892, when he was, comparatively speaking, trained down fine.

take of issuing their usual challenge in Montreal. Cyr immediately accepted on behalf of himself and his pupil, Horace Barre. Cyr appeared at the theatre and easily lifted Cyclops's bells. The following day Cyr sent to the theatre some 5,000 lbs. of dumb-bells and at the evening performance offered first to bet Cyclops, and afterwards to present Cyclops with \$2,500 if he would even attempt one of Cyr's lifts. But Cyclops declined and could not be forced or coaxed to lift.

This Cyclops himself weighed 230 lbs. and had a 50-inch chest and a 18-inch arm. After he returned to France, Cyclops said to his friend, Prof. Desbonnet: "I was actually scared when Cyr strode on the stage. The breadth of his shoulders stupefied me, and I felt like a baby when I was close to him. When he started to lift my bells I felt that this man had twice my strength."

Cyr created a great impression when in Paris. A newspaper reporter said that if you turned a corner and unexpectedly met Cyr, you were startled as though you had met an elephant.

Cyr stood nearly six feet in height,

weighed 294 lbs., measured 58 inches around the chest (normal), and had biceps measuring 22 inches. The picture showing him with his manager gives you an idea of how he compared with the average big man. The manager, Mr. Libadee, weighed 180 lbs. and stood five feet ten inches.

Fortunately Cyr was always ready to lift, and if there were no contests on the program he would devote an afternoon to making records. Here are two sample performances:

At the Aquarium, in London, June 19, 1892, in the presence of 5,000 people, including delegations from the principal athletic clubs and a committee of "strong men":

- 1.—272 lbs. lifted from ground to shoulders with two hands and then pushed overhead with one hand.
- 2.—298-lb. bar bell lifted very easily with two hands from ground to shoulder and thence overhead.
- 3.—172 lbs. snatched with one arm.
- 4.—104 lbs. snatched aloft with one arm and then lowered until arm was horizontal (muscle out).

5.—A 310-lb. keg of cement set on shoulders with one hand. No help from knees.

6.—543 lbs. lifted from floor with one finger.

7.—3,620 lbs. lifted on back.

At St. Louis Hall, 1406 Custis Ave., Chicago, on May 7th, 1896, before 1,000 spectators:

1.—Snatched with one hand 186 lbs.

2.—A 254-lb. dumb-bell shouldered and then "put up" with one hand.

3.—"Muscle out" with right arm (held straight out in front of him) a weight of 129 lbs., the body being bent slightly backward at waist.

4.—Muscle out 94 lbs. in right hand, 88 lbs. in left, simultaneously.

5.—With right arm "put up" a 158-lb. dumb-bell, thirty-six times in succession.

6.—Lifted 545 lbs. from floor with one finger.



Cyr and his manager.

- 7.—Lifted with two hands to height of his knees, a barrel of cement weighing 1,870 lbs.
- 8.—Lifted from floor with one hand 975 lbs.
- 9.—Put on shoulders with one hand only, a barrel of sand weighing 427 lbs.
- 10.—Shouldered and then "jerked" aloft with two hands a bar bell weighing 342 lbs.
- 11.—Lifted on his back (without harness) a platform weighted to 4,125 lbs.

Some of Cyr's overhead lifts have been beaten, and by smaller men. Some lifters of my acquaintance have officially beaten his records.

Henry Steinborn Milo can easily beat Cyr's best in the one-hand snatch" and the "two-hand-clean-and-jerk." But Henry, besides being very strong, is the very last word in science; unquestionably the most scientific lifter in the world.

After we had watched Henry break one of Cyr's records, Geo. Zottman said to me, "That lad is a wonder; he has lifted more overhead than Cyr did—but Calvert! You know and I know that he isn't nearly as strong as old Louis was."

There's another tribute for you, for Mr. Zottman was considered the strongest man in the United States in 1895, yet he would not venture to compare himself with Cyr.

Eliminate the skill that comes from practice, eliminate the science that takes advantage of leverages and the use of legs. Come right down to pure strength and it will be many a day before you find Cyr's equal.

Athletic authorities rated him as a superman physically and said that it was not fair to compare ordinary athletes with the big Canadian.

You biceps boys! Get some sand and load a barrel to 427 lbs. and see how far you



Cyr's one-finger lift, after a drawing made at the time.

will get towards putting it up on your shoulder, even if you use two hands instead of the one hand that Cyr employed.

Imagine a man who could "muscle out" 129 lbs. Just about 100 lbs. more than the average athlete could manage.

Have you ever heard of anyone putting up a 158-lb. bell 36 times? Admitted, Cyr used the "one-arm-jerk," but how many lifters will "jerk" 158 lbs. once?"

So far as I know, Cyr's dead-weight and back-lifting records stand unbroken today.

Nobody has ever grasped 975 lbs. with one hand and lifted it from the floor. No-

body has ever made a "hands alone" of 1,870 lbs. Nobody has ever stirred that much weight from the floor, let alone lifting it as high as the knees.

Cyr "went West" several years ago. He had given up athletics and became immensely stout. Having created all the lifting records, he turned his attention to the eating records. He easily defeated his friend, Barre, at a match at 20-pound piglings. Cyr was picking the bones of his pig before Barre had eaten one-half of his beast.

The good Louis got fatter and fatter. Shortly before his death he told a friend of mine that it was very much easier for him to stoop slightly and then lift a ton on his shoulder than it was for him to bend over and pick a pin from the floor.

When he finally passed away he was given a great funeral. It was not merely that he had made his city famous but that he was loved and mourned.

Cyr traveled all over Canada, Europe and this country, and of all his records was proudest of the fact that he had never done an unkind thing nor committed a dishonorable act.

How to Use the Gymnasium

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

Physical Director, University of Notre Dame, Notre Dame, Ind.

EVERYBODY knows what a gymnasium is, that is, most people understand the meaning of the word as applied in these United States. It is a place set aside for the express purpose of developing the muscles of the body; it is a place wherein one may exercise his or her muscles; it is, in short, a sort of laboratory where a person goes to profitably and progressively build up his or her body.

Now gymnasiums differ. We have small gymnasiums and we have large ones. We have antiquated structures and we have modern structures. We have well equipped places of exercise and we have others not so well equipped. Finally, we have good gymnasiums and we have bad ones; but it can be said safely that almost every University, College, Athletic

Club and High School has its gymnasium of some sort. The writer has seen High School gymnasiums that rival in equipment, in appointment and in architecture the best of the larger University gymnasiums, and he has been in University gymnasiums that excel the worst of small town High School gymnasiums in everything that is undesirable in gymnasium construction and appointment—but the point is this, they all have *some* sort of gymnasium; they all feel the need of a gymnasium; they all maintain openly and loudly or secretly and quietly that exercise *is* necessary, that a place wherein *to* exercise *is* also necessary. And it follows almost infallibly that the institution best equipped, most up-to-date in its gymnastic appointments, is the institution that will get the best results, is the institution that will graduate the best men physically and mentally. A gymnasium, a real one, is not just the building, more or less expensive; it is not just the costly pile of bricks or stone, or both;

but it *is*, it should be, a structure so put together, both outside and inside, that its whole entirety should so harmoniously blend with God's own great Out-of-Doors that being inside of it will at once move the most apathetic, the most lethargic, the most listless creature to move, to think, to do things! There are just such buildings; and the architect that designs such a one is not just an architect, he is also a judge, a teacher, a doctor, a preacher and an artist.

THE photographs illustrating this article were posed by "Buck" Shaw, of the University of Notre Dame, All-American and All-Western right-tackle, and winner of the first-place gold medal for being the best-built student in the University, as described in the October issue of STRENGTH. The photographs, however, do not do him justice, as they are intended to illustrate the gymnastic apparatus and not his physique.

The most important part of any gymnasium, is, should be, its apparatus room. Any or every gymnasium in order to be worthy of that name must have at least an apparatus room, other features being secondary in importance, namely, showers, track, swimming pool, lockers, etc. Or, as was said in the preceding paragraph

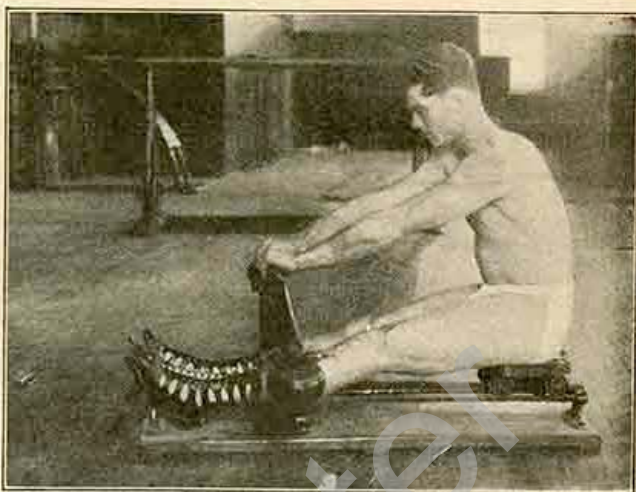
concerning the building itself, so also may be said of the apparatus room, if it is well equipped; its proper equipment will be an incentive to urge young men to take advantage of said proper equipment. Youth is essentially curious, it is fundamentally investigative, is especially eager to "try out" this or that bit of apparatus. Such being the case and when youth finds that it has good apparatus at its disposal and for its convenience, someone should be appointed to instruct the beginner in the proper use and function of every bit of apparatus. Much could be said in regard to various kinds of apparatus. The scope of this article will be restricted to the explanation of the efficacious use of the most common and most important apparatus.

The first piece of apparatus the young man will notice upon entering any apparatus room will, in most instances, be the "chest weight." Usually there is a row of these machines along the wall or walls of every well-appointed apparatus room. It

will hardly be necessary to give a detailed explanation of one of these machines, other than saying that it consists essentially of a pair of detachable weights, fastened to ropes, at the other end of which are handles. The ropes work over a set of pulleys, and the weights slide up and down upon rods. There are a hundred or more ways of using one of these machines. Almost every muscle of the body can be brought into play if one thoroughly masters all the movements that can be executed with the aid of a chest-weight machine. A first-class machine, or one that is known as the "Duplex Pulley Weights," consisting of two sets of handles, one, the upper or shoulder-high set; and the other, the lower or the floor set, is used most generally and popularly to exercise the chest, shoulders, arms, back, abdominal and the leg muscles.

There is another combination of this machine developed through attaching what is known as a "row-slide" to the chest weight. This attachment is fastened to the floor, permanently, or so that it may be detached when just the chest weight is to be used. It is fastened to the floor just in front of the lower pulleys of the chest weight. Roughly, it can be described as a track-like slide about five feet in length and ten or twelve inches in width. The seat, as the name somewhat indicates, slides or rolls back and forth as the force of the leg muscles straighten out or draw up again. It is a very efficacious apparatus for putting into play the back, abdomen, shoulder, entire arm, hand, finger, buttock and leg muscles. In a word, it is the land substitute for rowing a boat and any one that has ever pulled a boat through the water by means of oars will know immediately what muscles are involved. It is almost unnecessary to add, but we will, just the same, that there are very, very few exercises that will improve upon rowing.

To return to the chest weight proper. If you desire to exercise your biceps and inside muscles of the forearm, proceed as follows: Assume correct position facing the



The rowing machine (with quarter circle and parallel bar in the background) used in developing arms, back and leg muscles.

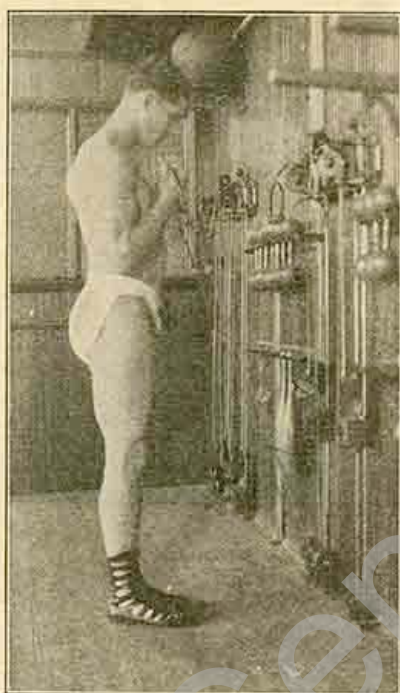
chest-weight machine. By correct position is meant the military attention position. Now presuming you are about two feet from the machine, stoop over, grasp a lower pulley handle in each hand, and straighten up, stand at attention again, except keep the fisted palms turned towards the machine, elbows at sides, wrists turned upwards, now bend the arms at elbows until knuckles touch front of the shoulders. Lower and repeat until you begin to feel that the weight is getting heavier, then stop. Next; to exercise the inner part of triceps muscles, front chest muscles, abdominal muscles, back thigh and calf muscles, buttock muscles and the muscles that run along each side of the spinal column; proceed as follows:

Attention position as above. Stoop over and grasp lower pulley handles, but this time keep knuckles facing machine. Now keeping legs stiff at the knees, raise arms, with elbows kept stiff also, high above the head until they are back as far as possible, then still keeping legs stiff, bending from the waist alone, try and touch the floor in front of the toes. Repeat until you begin to feel the effects of the repetition. Inhale as you raise arms overhead exhale as you bend towards the floor.

In order to give the muscles of the triceps, the deltoids, of the shoulders, the upper back muscles, the front chest or pectoral muscles, and the side muscles a work out, proceed as follows: Stand with the back to the chest-weight machine, feet being about

a foot from lower pulleys, grasp lower handles, one in each hand, raise hands shoulder high, elbows at side, knuckles towards the machine, which means that the palms are facing in the same direction as you are; now push the right hand straight up in the air as high as possible, the left one remaining at shoulder height. Now lower the right hand and arm until it is back to shoulder-high position. Meanwhile, pushing up the left hand. It is an alternating process, you see. In lowering the arms force the shoulders back as far as possible. Repeat until you feel a bit tired. If you desire to bring into active play the front chest or pectoral muscles, the shoulder or deltoid muscles, the trapezius or muscles between the shoulder blades and the triceps or back upper arm muscles, assume following positions. Stand at attention facing machine. Grasp upper handles. Hold arms straight out in front of you, palms of fist facing each other, now bring arms back until they can go no further. Return to position in front of chest. Repeat until you begin to tire.

The exercises just given are just a few of the less complex and, therefore, the more beneficial of the many exercises that can be performed with the aid of a chest-weight machine. Anyone trying these exercises just given will soon discover that as a matter of fact they call into play just about all of the larger and more important muscles, especially those of the upper body. The legs need exercises and movements performed with the aid of other apparatus than those possible with the chest weights. There is just one other important exercise that can be performed using the chest weight, and that is, "the kidney squeezer." Stand with either the back or the face towards the machine; feet about two or two and a half feet apart, depending on one's length



Chest weight used as biceps developer.

of legs, grasp the lower handles; now keeping the feet firmly planted on the floor, arms straight out at the sides from the shoulders, rotate the upper body from the hips, that is, swing or twist to the left as far as possible, then back to the right as far as possible as though you were trying to twist the trunk off the legs.

There is another piece of apparatus that is used universally in all gymnasiums, and that is the "horizontal bar." There are two varieties generally used, the floor horizontal bar and the suspended horizontal bar. The names of each practically describe their character. Outside of, and aside from, a number

of tricks or stunts, the best feature of the horizontal bar lies in the fact that its use demands a very forcible contraction of all upper body muscles. For instance, one of the best ways to exercise the biceps muscles, the chest muscles, all-around chest muscles, shoulder muscles, neck muscles, abdominal muscles, and side muscles is to practice the common stunt of "chinning" yourself. This may be done in two ways, either grasping the bar with the overhand grip, that is, knuckles turned upwards, or with the underhand grip, knuckles turned downwards. Both ways should be used in order to bring out all around forearm development. After grasping the bar *slowly*, draw yourself up until the chin can be projected over the bar, *slowly* let yourself down to full length again; repeat until you begin to feel tired. By the time you can repeat this exercise twenty times, and repeat it slowly without jerky movements, you will be the possessor of an upper body development not ordinary. If twenty repetitions are too easy, attach a weight to the feet. The author practiced this exercise using various sized dumb-bells, starting with twelve pounders and ending with seventy-seven pounders, with which he suc-

ceeded in chinning, himself seven times, which, plus his own weight at the time, totalled two hundred and eighty pounds. After you are able to chin yourself at least twenty times properly with two hands, then try chinning yourself with one. Try out each arm. Both should be taught the same movements. Otherwise, unbalanced development will be the result.

Here is a point to be remembered. You cannot chin yourself with one hand or arm when the overhand grip is used. You must use the underhand grip, and you must learn to keep the arm straight, so that it is relatively in the same position as it is in hanging from two arms, otherwise the body will swing around in such a position that the bones are antagonistically placed. They will be "out of line" as it were. Not only will the bones be out of line, but the muscles also. This exercise, chinning with one hand, is very, very strenuous, and it will only be mastered after long and patient practice. It is also very difficult and the more a man weighs the more difficulty he will encounter in mastering this stunt. In fact, some never seem able to master it. It requires exceptional development and strength in the shoulder, arm, both upper and forearm, and latissimus dorsi, shoulder blade muscles; and its practice will give just that strength and development and a prettier upper development could not be wanted.

There are many other, well, we might call them "exercises," that are performed on the horizontal bar, but the big majority of them are mostly "stunts." We are treating here only the real "building-up" exercises, not those stunts that can only be performed after one has built up a good physique. The parallel bar also should be classed in the stunt or feat type of apparatus. Nevertheless there is one movement that is rather easy and is very easily mastered. It is known as the "dip."

First of all, however, for the sake of explanation we will briefly describe the parallel bar. The standard parallel bar is usually made of heavy iron or steel bases. There are four uprights. These uprights, in order to insure better stability, are much broader and heavier at the bottom, tapering towards the top. The uprights are in pairs and each pair is joined to the other by cross pieces or stringers, also of the same metal as the uprights. This goes towards making a very solid base. The uprights are hollow and have been drilled smooth and perfectly correct so that they will hold snugly, yet at the same time permit the second or upper section of the legs to slide up or down at the will of the operator. On top of these secondary uprights, and reaching from one to the other, are placed the bars proper, that is, the two bars that constitute the parallel bar. These are of wood, hickory. A first class parallel is so constructed that it can be adjusted to any desirable height or to fit the width of the widest shoulders.

To return to our explanation of the "dip" as a developer. In this exercise the principal muscles that are involved are as

follows: The deltoids of the shoulders, the trapezius or the muscles at the back and the base of the neck, the front of the chest, the latissimus dorsi, back of chest, the triceps of the arm, the biceps of the arm, and the forearm and wrist and finger muscles. Now as the movement in the dip. Stand at one end of the bar, first having raised both sides a few inches higher than the shoulders. Then grasp each bar almost at the end. Now jump up, or mount up with force enough to carry you up at arm's length. Now hold this position, stiffening the arms to do so. Next, having achieved your balance, suddenly shoot your legs out behind you and also a little upwards. Then, as this movement is spent,

(Continued on page 50)



Chest weight used as triceps developer, shoulder developer and side developer.

Comfort and Health in Winter

By L. E. Eubanks

FROM what I have seen and read, I think last summer was a profitable season to lovers of outdoor life. Facilities for living in the open and tempting sports calculated to draw one out are increasing each year. "Summer outdoors" is no longer a fad, but an established custom, gaining in popularity.

It is regrettable that most of these people go back to their hibernating habits as soon as the days grow cool. Inherent dread of cold accounts for much of the sickness common in winter; belief that winter air is dangerous has helped to kill thousands—a belief with no logical foundation, the outgrowth of custom.

Winter air, especially when it is tempered with sunshine, is more healthful than summer air. Heat favors germ life, while cold is purifying. The building of bodily tissue proceeds more rapidly in winter; exercise produces keener appetite and we gain weight. The internal warmth produced by movement offsets low temperature and the blood bounds through the body with benefit to every function.

The tonic effect of cold air is so great that no one seeking health and efficiency can afford to neglect it. It does not so much matter what you do outdoors; the main thing, from a health viewpoint, is to get out. Let us all protest against the abandonment of outdoor exercise just because the summer ends. The best plan is to practice several sports and when the weather makes one impracticable, turn to another for a few days. If you have been skating for several weeks and a big thaw comes suddenly, take a cross-country tramp. A day or two of rest each week will do no harm; in fact, it is usually a good plan.

Note how promptly windows go down at the first spell of winter. I am glad to admit that the custom is not so common as in days gone by—on account of increased interest in health matters and wider diffusion of hygienic information. The popular practice used to be to "close them till spring," and many were nailed down lest the youngsters might open one and take their death of cold. In April or May windows were opened cau-

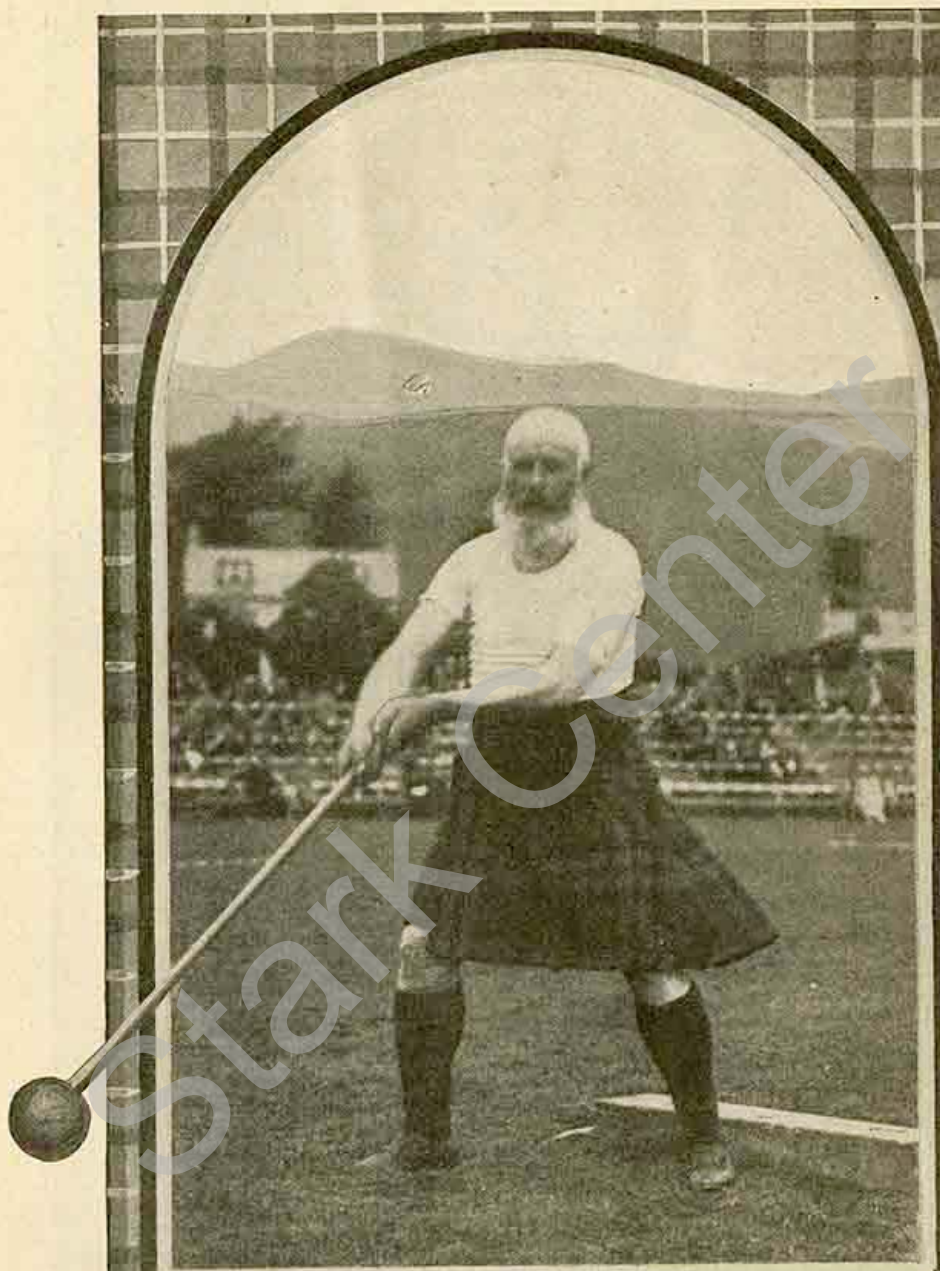
tiously for the warm part of the day, but closed at night. Strange that night air in the house should have been deemed more detrimental than the same air outdoors! People frequently rode late at night without harmful results, but on coming into the house insisted on shutting out "the dangerous night air."

The night air bugaboo is passing; few people now question the value of all-year-round ventilation. Since the tendency of air to enter rooms is so much stronger in winter than in summer (because of the greater difference between the temperature inside and that of the outer air), it is unnecessary to have the inlets of bedrooms (where there is no stove) as large during cold weather—though the outlet, at the window-top, should be as large as in the summer.

Fresh air is the finest tonic in Nature's pharmacopoeia, the greatest vitalizer in existence, and we should breathe it every hour. Excuse of discomfort from cold is seldom justifiable. The necessity of ventilation will warrant any slight addition to the fuel bill caused by "air holes." Similarly, the expense of extra comforters and blankets is the merest trifle compared to the importance of ventilation.

In the matter of clothing for winter, I believe in some change, changes made necessary by winter weather. I do not believe in seasonal changes, in putting on heavy clothes just because it is October or November. I have seen Octobers that were warmer than Augusts. People who regulate clothing by the calendar cause themselves much discomfort and no little sickness.

When a week of comparatively warm weather comes in November the man who is wearing heavy clothes finds himself too warm. As a rule, he makes no change in his clothing, and in a few days the body adapts itself to the unnecessary warmth; in a week the man feels ordinarily comfortable. Then comes a drop of the mercury that makes his teeth rattle. He piles on more clothes. Perhaps it is no colder than
(Continued on page 35)



*SANDY Mc. INTOSH
age 74, the oldest competitor
at the BRAEMAR GATHERING
throwing the hammer. ∞*



*All-Philadelphia Girls
in a spectacular field hockey
meet on Radcliffe Field, Boston.
The All-Philadelphia team won
12 to 1 over the crack players
of Sargent Physical Culture
School. The match was a
thriller.*

*Championship
game of
South
America
between
Argentine
and
Brazil*

*Photo shows
Brazilian
guard in action
tossing back
the
Argentine
ball.*



The Boxer's Training

By Ralph Hale

ALL considered, the most important thing for a boxer is a wise decision as to his class, that is, his proper fighting weight. All boxers, athletes of every kind—and, for that matter, every person—have a "best" weight, a point at which they are healthiest, strongest, fastest, etc.

Boxing is exceptional in its weight demands; almost no other sport makes such a fuss over a pound or two. On the part of the boxer there seems to be an instinctive desire to get the bodily poundage as low as possible so that he can meet smaller men. He figures that he'll still have his skill and speed, even if he is a trifle shy on strength, and that with these he can win over the naturally smaller man.

Right there is a big mistake. Do you remember "Terrible Terry" McGovern? He fought best at 128 pounds. Frank Earn, than whom we have had few classier boxers, was a lightweight, making 133 when he had to, but preferring 135. He saw a chance—that is, he thought he did—to step down and pick up the featherweight title. Of course, he conceded that McGovern was a wonderful little man, but still a "little man," and with his (Earn's) superior strength, reach, etc., he could—

Well, the match was made. They weighed in at 128, and Frank found himself no match at all for the rushing little killer, McGovern. It will affect any man's stamina to take seven pounds from his best weight, and with men weighing less than 140 or 150, the difference wrought is very great.

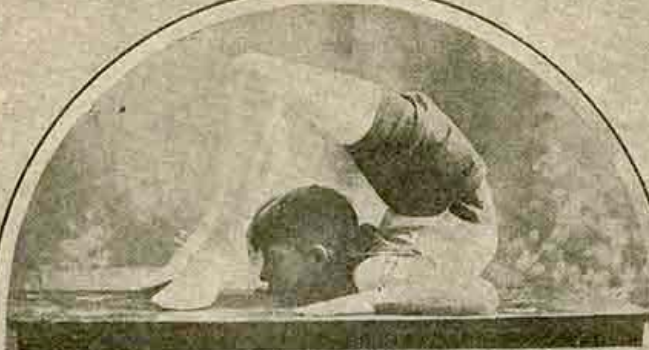
But loss of form and failure to win the contest are the least of the bad results; the effect on the athlete's health is the big thing. All followers of boxing remember the sad fate of Joe Gans, the colored boy who held the lightweight championship against many of the best men that ever contended for it, and who, I am sure, was one of the greatest of all boxers. Gans became too heavy for a lightweight, but to confess it meant loss of a championship. He was not quite a welterweight, and, besides, there were at that time no great worlds to conquer in that division. For

some reason, welterweights have always been the least popular division of boxers. Then along came "The Durable Dane," Battling Nelson. His claims could not be denied and Gans had to meet him—and as a lightweight! He did it, but the drain on his vitality to make 133 pounds, coming after other similar efforts, contributed to his death; for the black marvel was never himself afterward, and died of tuberculosis. Wolgast, a natural lightweight, tried hard to induce Packy McFarland to fight him after the latter had really outgrown the lightweight limit, but the stockyards boy was too foxy. McFarland, like our present lightweight champion, Leonard, was always wise on this matter of weight-making, and that is one of the reasons for his excellent health to-day.

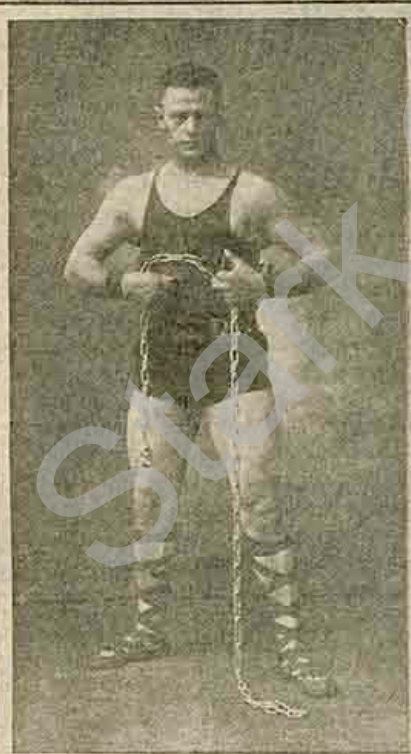
There is room for great art in the proper weight reduction of an athlete, and the trainer who can regulate it exactly is worth his weight in radium to a boxer! To reach an "edge" too soon, too long before the contest day, means staleness when the gong rings; but to wait too long, then to have to work one's head off right up to the last day, etc., is dangerous indeed to one's chances of winning. Too much "drying out" is injurious; I think the boxer wise who refuses to make a weight that necessitates reduction of his water supply or many Turkish baths. In days gone by it was customary among pugilists to take on loads of fat between contests; but men like Dempsey, Carpentier, Tom Gibbons, Johnny Wilson and Benny Leonard lead good, clean lives, stay in fair shape all the time and keep their poundage within reasonable distance from fighting weight. And this should be a big point in the study of every man aiming at real class as a boxer.

Heavyweights are supposed to have an advantage over men of the other classes in that they do not have to make a certain weight. But, in effect, they *do* have to make weight; every man, even a colossus like Willard, has a "best" weight, as I have said, and it behooves him to be at that figure for the contest. The fact that there is no

(Continued on page 41)



*Harold C. Duncan
thirteen years old, says this little
twister should be a cinch for any one.*



*Petros Deskinos
demonstrates what a
simple matter chain-
breaking is.*



*Clevio Massimo
makes a hand-stand
look easy enough.
Suppose you try it.*

Comfort and Health in Winter

(Continued from page 30)

it was in October, but his resistance has been weakened. In this manner many people become so susceptible to cold that they habitually carry pounds of unnecessary clothing.

We should dress according to weather, not by season. I find it a good plan to wear the same weight underwear the year round and make the necessary changes by changing my suit, dozing or laying aside my vest or having a light overcoat handy. The general tendency is to wear too much. But I do not advocate the opposite extreme; a prolonged loss of bodily heat is a heavy drain on the system. The thing is to feel comfortable and not to wear more than is required each day. That course is bound to be the correct one.

When clothing is unreasonably heavy or light, reduction or addition should be made gradually, thus avoiding discomfort and possible illness. I should emphasize this caution particularly in the care of the throat; the habit of bundling the neck with a muffler or buttoning up a high collar on going out tends to weaken the throat, one of the body's vulnerable points. The idea is to avoid coddling but at the same time be sensible.

I had not intended to say much about clothing, believing that most of the readers of this magazine know how to dress sensibly. However, it might be well to say that the kind of underwear that absorbs the body's moisture quickly is not necessarily the warmest, in the long run. Flannel is an example; but it is slow in giving off that dampness. Linen seems cold at first, but because of its quick-drying qualities it keeps the body at a more equal temperature. For the outdoor man, say a trapper of the North or a winter camper, I would recommend woolen underwear, but I am sure linen will better suit the average person spending most of his time indoors—after he is once accustomed to it. And another point worth remembering is that "dead air" is the best insulator of bodily heat; two fairly light garments will be warmer than a single heavy one because of the air between. This is the principle of the well-known Eiderdown quilt.

Few people bathe as often in cold weather as in summer. It is true that in summer there is more cause for the bath, but there should be nothing like the difference commonly found. Why, there are persons who bathe but once or twice in a month during cold weather! I know a devotee to swimming who frequents the bathing beach several times a week in summer, but goes three or four weeks without a bath during winter.

The plea against winter tubbing is fear of taking cold, and this is not entirely groundless. But there should be no more danger than in summer, if proper measures are taken to avoid getting chilled. By choosing times when the body is warm and not depleted by fatigue, and by working fast and drying vigorously with rough towels, danger of cold will be reduced to a minimum. After one is hardened to the practice he can laugh at the precautions essential at the beginning.

Perhaps the reason some find winter baths injurious is that the water is too hot—used under the impression that this lessens risk. On the contrary, it has a debilitating effect on the whole body. It flushes the skin with blood temporarily, only to leave it cold with the reaction; the pores are opened and the bodily surface relaxed to a degree favorable to contraction of "a bad cold."

Cool water bathing has the opposite effect; it first drives the blood inward, then the current returns with warmth, if the bather is ordinarily vigorous. This is the much-talked-of "reaction" from cold bathing. This kind of a bath, when it can be used satisfactorily, taken daily after a period of exercise, is one of the best safeguards against colds. In my own work I find the cool (seldom cold) bath a pleasure and a benefit. I take a reasonably hot bath with plenty of soap once a week to insure thorough cleanliness. On this day I omit the cool bath, but I always finish a "hot tub" with cool sponging. I take an air bath once or twice a week; this is a tonic for the general health and fine treatment for the skin.

Of course, to the fellow who is cold all the time "bath night" carries particular tortures. He rather be thrashed or skinned alive! Really, he should make a specialty

of bathing. If the skin is clogged, inactive and anemic the person will be chilly no matter how much he eats, piles on the clothes and hugs the stove. A simple experiment will show whether or not the feeling of cold is due to a functionally weak skin. I quote from Hereward Carrington: "If you have two adjoining rooms, one of which is warm and the other cold, and if you undress completely in the cold room, you will feel cold for a few moments, and then your skin will react, and you will begin to feel the glow of warmth. If, now, when you are warm, you enter the warm room you will immediately begin to feel cold—showing that cold is a relative and not an absolute thing. The reason for this is that the skin has suddenly stopped reacting, and immediately this occurs the feeling of cold is experienced. The skin, therefore, must be kept alive and active." The "dead skin" is cold and clammy at all times, except when kept absurdly close to some source of external heat.

Cold baths, friction baths, dry rubs, salt rubs, etc., are good. The idea is to toughen and invigorate the skin. Air baths are highly beneficial, if one will use good sense and start at them very gradually. I realize that it sounds like cruelty to tell a person who is "eternally freezing" to take air baths, but—well, try it for six weeks.

To the person who has for years depended on stoves, radiators and heavy clothing for bodily heat, it sometimes seems very doubtful that the human machine is really and naturally self-heating. The poor fellow whose teeth are rattling with cold in spite of his overcoat, muffler and gloves cannot believe that the athlete in nothing but running pants and spikes is not uncomfortable. "He's cold and doesn't know it; has lost his sense of feeling," etc., say the stove-huggers.

And that reminds me of a little story—good, if you haven't heard it. A fur-clad trapper met an almost naked Indian. "How do you stand it?" the former asked.

After a moment's thought the Indian said: "Your face naked; you not feel cold?"

"No," replied the trapper; "my face is used to it; it is toughened by constant exposure to all kinds of weather."

"Ugh!" grunted the red man; "Indian all face."

But let no one infer from this that resistance to cold is entirely a matter of

habituation. Unquestionably, getting used to it is a big point, but anyone would freeze in sufficiently low temperature, in spite of heroism, unless his bodily mechanism actually made heat. In this matter of self-heat we find one great difference between the body and other machines. When scientists burn certain foods in a testing instrument, called, I believe, a bomb-calorimeter, and compile a comparative statement of those foods' heating values, they should append to the list an explanation that no two bodies are exactly alike. We all know that it takes twice as much food, or seems to, for one person's support as for some other's, and that any given food will yield heat and other energy-products in proportion to the body's ability to extract them—its digestive and assimilative powers.

It is not all a matter of food, by any means; but there is one fact I wish to stress before passing on to other considerations: Overeating is sometimes a cause, at least a contributory one, of chronic coldness. We have only to remember that bodily warmth is impossible without good blood circulation, and that too much rich food thickens the vital stream and clogs up the blood vessels, to see why this is so. It is true that too little food, non-nutritious foods, etc., predispose one to coldness, but the other extreme is often more dangerous. Experts in the fasting treatment tell us that it is not uncommon for a patient's temperature to be higher after two or three days' abstinence from food than at the beginning, and ascribe the difference to improvement in the circulation—though as a matter of fact, there are other reasons also. Certainly, diet should be somewhat different in cold weather from the summer fare, especially if one is exposed and working hard; but the practice of increasing the size of meals two- or three-fold, and using meat three times a day as against three times a week, perhaps, in summer, can end only in complaints—for which the winter season is erroneously blamed.

Many persons never think of respiration as an agent in the creation of bodily warmth, but the food we eat would be of little fuel value were it not for oxidation. Oxygen permeates all our tissues, is at work in every part of the body generating heat. Habitual deep breathing—the taking in of

(Continued on page 62)

Head Locks and Chancery Holds

By William J. Herrmann

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



Stanislaus Zbyszko

Dear Herrmann:—

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 Front Chancery and Front Hammer Lock

A STANDING Left Chancery Hold in combination with a Front Hammer Lock held with your right hand and secured while both wrestlers are up-standing on their feet instead of when working down on the wrestling carpet as in the preceding combination, in which your man was on his hands and knees on "all fours."

A far more difficult combination to secure "up-standing" than when working down on the wrestling carpet. Besides, there are far less opportunities to secure this effective combination "up-standing" than when down on the mat on "all fours." This is due to the fact that in a general way there are more opportunities to secure a Hammer Lock when working on your man while he is down on the wrestling carpet than when wrestling up-standing on the feet.

However, opportunities to secure this strong and punishing combination do present themselves at times during the progress of a bout especially while holding a Standing Front Chancery under your left arm and working for a Right Bar Lock.

Under the supposition that you have securely trapped and safely held your opponent's head in a Left Front Chancery Hold and working to secure a Bar Hold

with your right arm, there is often a good chance to secure a Front Hammer Lock instead. Should an opportunity to secure a Front Hammer Lock present itself while working for a Bar Hold, instantly change your plan of attack and work for the Hammer Lock instead, by grasping with your right hand the left wrist of your opponent in order to develop your wrist hold on his left arm to a Front Hammer Lock. As a Hammer Lock is a far stronger, punishing

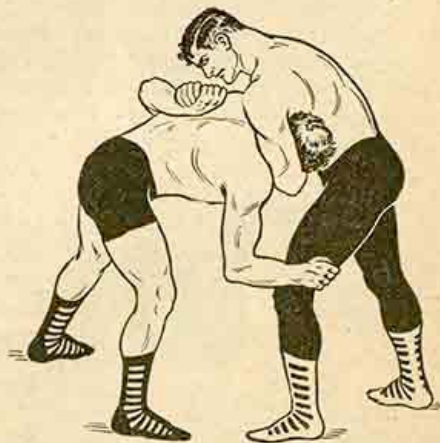


Fig. 62

Front Chancery and Front Hammer Lock.

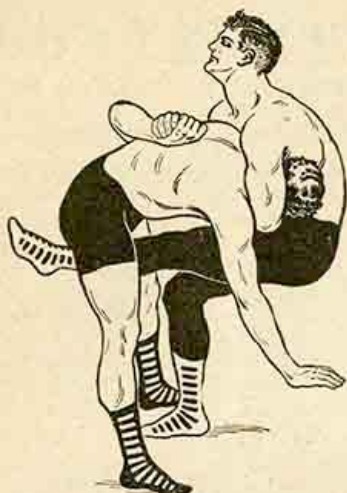


Fig. 63

Beginning of a "Sit Back." Preparatory to Bringing Your Man Over You and Down to the Wrestling Carpet.

and effective hold than a Bar Hold, it obviously is to your advantage to change your original plan of attack to a Hammer Lock instead whenever a favorable opportunity present itself.

In developing a Hammer Lock, force your opponent's trapped left arm well up his back towards his left shoulder blade. Hold both holds as tight as you possibly can. Especially be sure you don't permit your opponent to free his hammer-locked arm. Realizing his danger, he will naturally do his utmost to prevent you from developing a well-held Hammer Lock on him. Its punishing powers are increased even further still by twisting as well as sharply bending the captured arm. So keep working tight as you follow up your combination by dropping on your left knee in order to more readily enable you to force and turn him

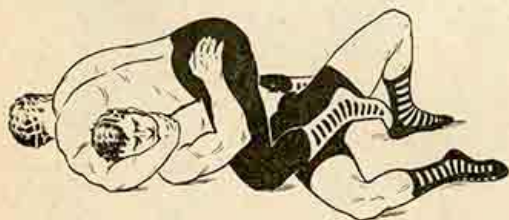


Fig. 64

Fall Scored by Means of a "Sit Back," while Holding a Front Chancery and Front Hammer Lock.

over to your own left side. As you turn him over twist his face well toward your right side in order to more readily pin your man's shoulders down on the mat for a fall.

Another method used to follow up your hold in order to more readily force your man to the mat so that you can easier score a fall in your favor, is the following spectacular acrobatic method favored by most of our clever wrestlers. While holding both holds just as firm as you possibly can, the Chancery as well as the Hammer Lock, suddenly sit back and down to the mat in such a manner as to execute a complete "back roll-over" on the mat while at the same time bringing your man bodily over your head along with you so as to score a fall before your surprised opponent can offer any effectual resistance against you.



Fig. 65

Chancery, Hammer Lock and Back Heel.

Fig. 62 illustrates a Standing Front Chancery and Front Hammer Lock Combination.

Fig. 63 illustrates the beginning of a "Set Back" while Fig. 64 illustrates a fall secured by means of a "Set Back" used with a Front Chancery and Front Hammer Lock Combination. A spectacular method to effectively bring your man down to the mat while holding a Standing Front Chancery and Front Hammer Lock Combination.

If the Hammer Lock is well held and properly used there is a possibility of your opponent conceding the fall in order to avoid further pain and punishment as well

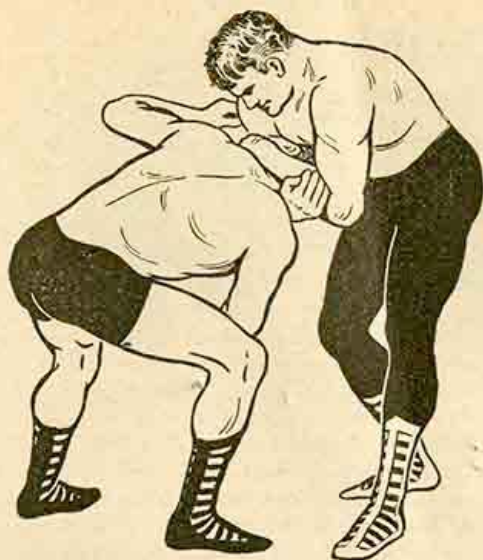


Fig. 66

Double-Front Chancery Hold.

as to save his hammer-locked arm from getting severely strained and wrenched and at times even dislocated by the effective use of this punishing hold.

A Hammer Lock is one of the most punishing holds in wrestling and perfectly legitimate in professional wrestling contests, unless previously mutually barred by both contestant when framing articles of agreement. Under amateur wrestling rules a Hammer Lock is a barred hold and in

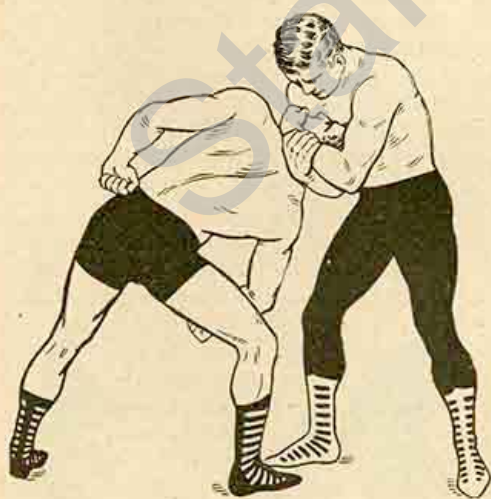


Fig. 67

Continuation of the Double-Front Chancery Hold.

consequence not allowed, due to the possibility of injuring your opponent's arm or shoulder.

However, there is a hold somewhat similar, yet a far more modified form of hold termed an "Arm Across the Back." In an "Arm Across the Back" the captured arm is restricted and limited to being held in a straight line across your opponent's back. The hand of the trapped arm must not be raised any further up the back than in line with your opponent's elbow. This avoids the punishing stage of the Hammer Lock. The punishing effect of a Hammer Lock

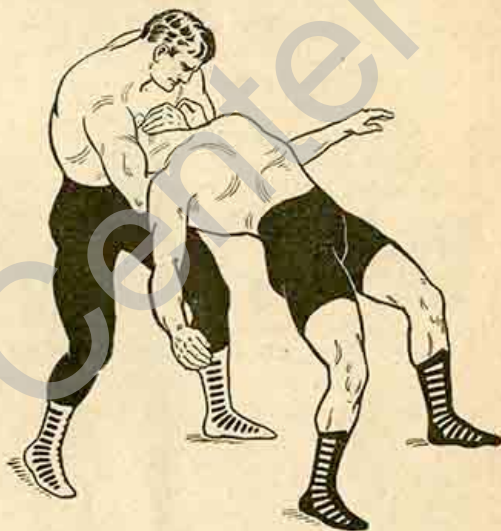


Fig. 68

A Further Development in following up a Double-Front Chancery Hold.

begins shortly after this stage is passed and increases in intensity in direct proportion as the hand is forced higher up the back until in a practically helpless position. Forcing opponent's hand further up the back by sharpening the angle of the trapped arm, and pushing the hand and fore-arm past the line of your opponent's elbow is the distinguishing demarcation line between an "Arm up the Back" and a Hammer Lock.

Sometimes a Hammer Lock and even an "Arm up the Back" is unfairly secured by first grasping the thumb instead of the wrist. By taking a Thumb Hold instead of a Hand Hold you can easily twist, bend back and seriously sprain and even dislocate your opponent's captured thumb.

In order to relieve this strain your man is likely to bend his arm. This is just what the attacker played for—an opportunity to easier get his man's "Arm Across the Back" or to a Hammer Lock depending on the rules wrestled under.

Twisting and bending the thumb is naturally more painful to your opponent than a Hand Hold. Nevertheless some wrestlers at times manage to pull off this trick and by its unfair use gain an advantage that may score a fall before it is noticed. However, a competent referee would not permit the thumb alone or any single finger to be individually held and attacked, whether used as a means to start off either a Hammer Lock or an "Arm Across the Back" or any other hold or combination.

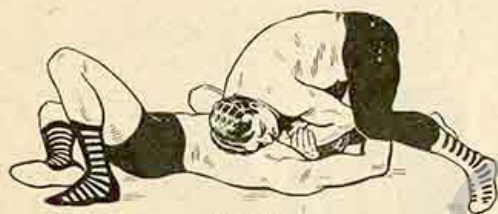


Fig. 69

Fall from Double-Front Chancery Hold.

Chancery, Hammer Lock and Back Heel

This Standing Front Chancery, Front Hammer Lock and Back Heel triple combination is precisely the same as the preceding Chancery and Hammer Lock combination just described with the addition of using a Back Heel instead of a "Sit Back" in order to effectively bring your man down to the mat for a fall.

Fig. 65 illustrates the above described Front Chancery, Front Hammer Lock and Back Heel triple combination.

Standing Double Front Chancery Hold

Opportunities to catch this hold can be secured while sparring for an opening or you can pave the way to take this hold by means of a well played successful feint, as well as from the Referee's Hold illustrated by Fig. 46.

To secure a Standing Double Chancery from the Referee's Hold with left hand on your opponent's neck, quickly change position of your left hand and fore-arm by slipping your left hand and fore-arm along the back of your opponent's neck and con-

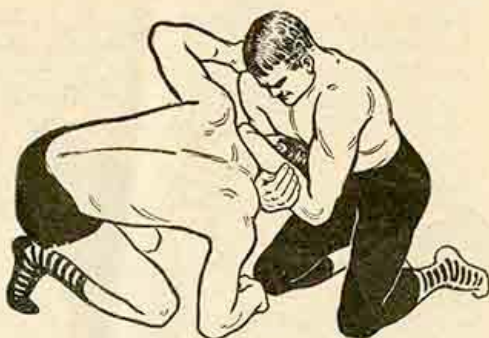


Fig. 70

Double-Front Chancery Hold.

tinuing this motion down along the side of opponent's left cheek until your left hand grasps and grips tight your hold on his chin.

At the same time bring your right hand up from below across his face and lock your right hand on your left fore-arm so that your right fore-arm is across your opponent's right cheek. Hold his head in a vise-like grip, tight between both of your forearms.

Force a fall by twisting his head and face upward to his left, as you drop on your left knee. This move twists your man out of position and off his feet backward and downward to the mat. A direct positive fall can be gained from the proper use and application of this powerful and punishing Double Front Chancery Hold.

As a Double Front Chancery is a powerful punishing hold, you can also use this hold primarily for punishment if combat conditions should warrant it. In consequence, be careful you don't permit your hold to develop into a strangle or even a partial strangle hold in order to avoid the

(Continued on page 46)

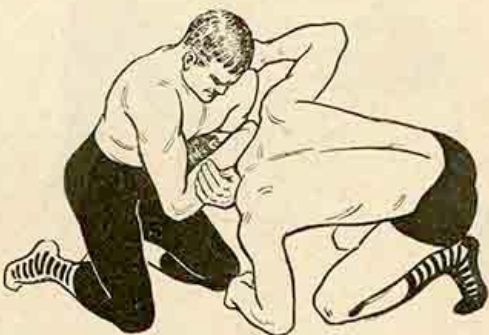


Fig. 71

Double-Front Chancery Hold.

The Boxer's Training

(Continued from page 33)

forfeit money up for weight should not lead a heavyweight to carelessness in this respect.

No one can deny that the best training for any sport is practice at that particular sport. That principle is but logical, and I have always conceded its truth. But I think it equally true and reasonable that any athlete who confines his exercise wholly to one game will, in the course of time, show bad results, both as to his prowess in his favorite sport and in his physical condition. Further, I believe that this is particularly true in boxing. In a sport that is in itself a developer of all-round strength—like weight-lifting or wrestling—the requirement for supplementary work is not so great (though it is always advisable for the sake of variety, if for no other reason); but boxing is not much of a muscle developer.

It is significant that the best boxers we have had liked other sports as well or better than they did the gloves. Jeffries much preferred a hunting excursion; Johnson became a fiend for motoring, and many go in for golf. Tom Sayers, the old-timer, owed his remarkable hitting powers, he said, to shoulder strength gained by handling bricks. So popular was the exercise of digging with the Greek boxers that the pick became their class badge. One of the best ways to avoid staleness and keep your appetite keen for the gloves is to devote some time to an exhilarating game like tennis. James J. Corbett was nearly as good at handball as with the gloves; Tommy Burns believes in this game, too, and is a champion at lacrosse. Do a little wrestling; the ruggedness it develops will make you strong for the clinches.

I am sure that many, many boxers make this mistake of confining themselves too closely to glove work. So much depends on sheer strength that every fighter and would-be fighter should try hard to acquire it. Now, hard hitting is a poor exercise. It is more a test of power than a developer of that power. I realize that this sounds strange, but when you try it a while you'll get my idea. Besides, daily slugging would not be practicable for any boxer—the dan-

ger to his hands would prevent this, were there no other reasons.

Yet we know that a heavy punch requires strength; so the question of how to possess that strength without risk of injury in its acquirement becomes a vital matter. Most boxers know that they could very profitably have more muscular power, but the majority of them are scared to death about becoming "muscle bound," slowing themselves down, etc. As a matter of fact, all boxers could add to their strength without decreasing speed one particle. In some cases, the exercise for strength would *increase* the speed. A fairly heavy bar bell—its weight depending altogether on the individual's strength—should be a feature of every boxer's training outfit. Used about three times a week, and never to excess, its effect would be good in every way, and the user would soon notice a gain in the all-important punching power.

In road work there is a right and a wrong way. Running is a part of nearly every boxer's training, and very properly, since it is the best of all developers of wind and endurance. But many fights have been "left on the road," that is, been lost because the boxer exhausted his stamina with long runs. After an athlete is in fair shape it is unnecessary to run every day; doing so may even detract from his condition. Road work need not always mean distance running; a fellow should be out every day, but it is a fine plan to vary the routine with a long walk, interspersed perhaps with a few fast, short dashes or a bicycle ride. Swimming, too, may occasionally be substituted for the long run. When a fellow feels that his wind and legs are in proper condition, and if he is fairly near the required weight, two long runs a week are sufficient. Another point is that the boxer should avoid monotony by selecting different directions for his runs. Day after day over the same route, same distance, etc., especially if always alone, tends to dull a man's relish for work and make it all too mechanical.

My favorite plan of training a boxer is road work or outdoor games (or a little of both) on one day, and indoor work, consisting of specific muscle exercises and box-

ing the next. Though I term the latter division indoor work, it can, of course, be done just as well, perhaps with more benefit, in the open. With the boxing itself, there are sometimes particular reasons for closed doors. Many fellows do not care to expose their style and pet blows to spectators, who may carry the information to the rival training camp. I believe in real work when it comes to boxing; a training fighter should have several sparring partners, among them a fellow who can slug and rough it with him, and another who can make him use "everything he has" in the way of science, and help him to become more skilful. A boxer who ridicules the possibility of picking up something from his working pals is a bigot. If Tommy Ryan had taken Kid McCoy more seriously when they worked together for some of Ryan's fights he might not later have been defeated by the clever Kid. The same is true of James J. Corbett, when he used Jeffries as a helper, and there are many other instances. It pays a boxer, just as it pays us all, to learn everything he can about his work, regardless of the source of that information.

In my own boxing, I always found it well to warm up with scientific sparring, trying to perfect my methods of defense and speed up on any favorite blows that I was developing, etc., then finish the workout with a few rounds of rough stuff. It must always be remembered that we can do only what we have trained to do, and no amount of sparring alone can make a champion pugilist; he has to learn to take a wallop as well as give one, to come right back after being sorely stung, to keep cool, etc. He cannot possibly do this by theorizing; it takes the real work, and mighty rough work at that.

I think I spoke in the preceding article about bag-punching. A light, fast bag is a great help in a boxer's training. I appreciate that some well-known fighters disagree with this statement, but the great majority find bag-punching a distinct help. Shadow boxing, too, is to be recommended, if the man will go at it with real snap and not merely pose a few fancy stunts for the picture man or the onlookers.

I hang a lot of faith on the big old sand-bag. The fellow who punches it, gently at first, then heavily as he feels his wrists gaining, will usually take a good pair of

hands into the ring, and hands, dear reader, are the big, big thing in boxing—as far as physique goes. In the specific work on the muscles, of course, the boxer's weakness, whatever it happens to be, should receive special attention; but give a lot of thought to those hands, making them and the wrists just as tough, hard and strong as you can.

Most boxers jump the rope as a part of their training, and too much can hardly be said for this measure. Whoever first proposed it for a boxer certainly hit the bull's-eye, for it improves the wind, contributes to a fellow's speed and footwork, strengthens his feet, ankles and knee joints, and is exactly adjustable to any desired degree of effort. It should not be overdone; being a concentrated form of leg exercise, a fellow can do a lot of work at it in a very short time. Do the skipping outdoors; it has nothing to do with a boxer's meditated plan of battle; there is nothing to conceal, so one might as well be absorbing the fresh air.

Very naturally, diet plays a big rôle in the process of conditioning a boxer, but not in the way faddists and food cranks understand dieting. More than one boxer has gone to pieces on the rocks of food experimentation. Every diet fad has its particular virtues, and the subject lends itself so well to exploitation and exaggerated statements that the unwary are easily convinced. I shall never forget the experience of Kid Parker, really the best little fighter Colorado ever gave the ring. Joe Gans was said to have terminated his climb toward the championship crown, but, in reality, the diet bug beat Gans by several months. Parker was a miniature Tom Sharkey in physique, and had a truly terrible wallop. I saw him knock Jack Carrig half-way across the ring and almost over the ropes, and his recuperative power was just as good as his punch.

But some agent of the devil, disguised as a food reformer and full of plausible gab on the injuries of meat eating, full meals, etc., talked the Kid into vegetarianism. Now, I want it understood that I believe in dieting, and that I have no particular quarrel with the no-meat plan; but I do object to anyone's taking up a system just because its principles sound good in the abstract. It matters not how fine a suit

(Continued on page 56)

How to Develop the Muscles of the Abdomen

By O. R. Coulter

(Continued from the January issue)

LAST month I dealt with the value of abdominal development and the results attained by calisthenics as ordinarily applied. This month I shall deal with the part played by various occupations and some of the more strenuous abdominal work afforded by track and field sports and outdoor games.

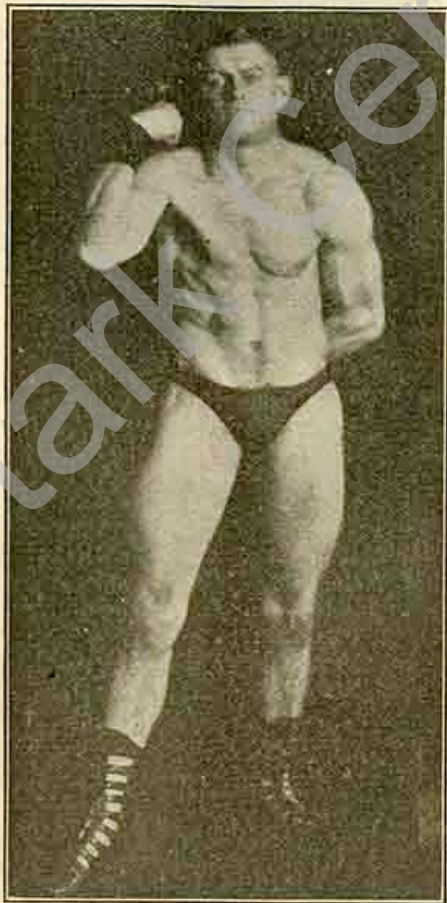
In my article on the development of the sides I mentioned some of the work formerly performed by the farmer that was very good for developing the side muscles. Among those mentioned were sawing wood, chopping with an axe, pitching hay and cradling. Most of exercises that involve the sides also use the main abdominal muscles, and these exercises all work the abdominal muscles to some extent; but they are not as good for this purpose as they are for developing those muscles properly known as the side muscles. In fact, pitching hay exercises the back directly and the abdomen only indirectly, and cradling uses the muscles that raise the body and turn it rather than the abdominal muscles that draw the chest closer to the thighs.

Most forms of work performed by the laborer have little direct bearing on the abdominal muscles. The carrying of the heavy loads on one shoulder which developed the sides of the old-time butcher

would do nothing for his abdominal muscles. In fact, I cannot recall any common forms of daily laboring work that directly use the abdominals except movements like using a pick or a sledge, and these would not use them to any great extent, except when the man performing the work would endeavor to put his weight into the force of the blow. If the pick or sledge was swung mainly by arm and shoulder-power and were allowed to strike of their weight alone, but little exercise would be afforded the abdominals, so we can see that

even here it is a case not only of what is done, but how it is done, that counts. But after all is said upon the subject of various occupations as conducive to abdominal development, the fact still remains that there is no vocation that will take the place of proper progressive exercise for attaining strength or development in any part of the body.

Track and field sports use the abdominal muscles more or less and some are very good developers of them. Skating, bicycle riding, and running use these muscles every time a forward movement is taken with either leg. The results that can be attained in abdominal development from their practice is largely a matter of how these movements are made and whether the sprints



O. R. COULTER

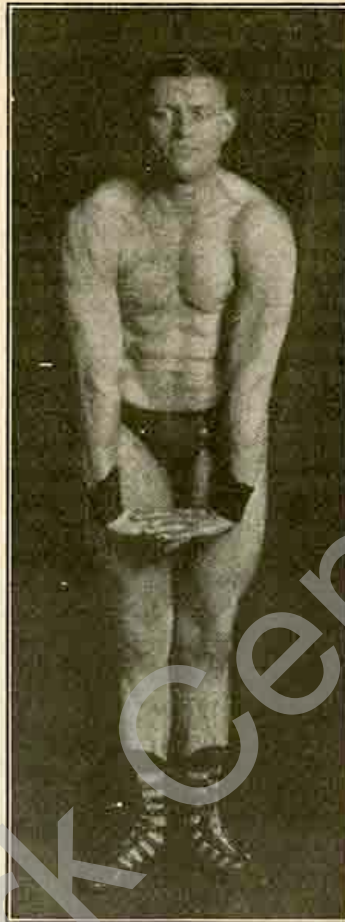
The photo proves that Mr. Coulter's methods of abdominal development are effective.

or endurance distances are practiced. Skating, in my opinion, is the poorest of the three for our purpose, as ordinarily the legs are not raised very high to the front and the movement is made in a part side and a part forward direction and is accomplished by the push of the leg and the weight of the body.

Bicycle riding is pretty much a matter of knee action, but the work does not at any time demand a complete contraction of the abdominal muscles. Speed racing gives much more real developing exercise to these muscles than can be attained from any amount of endurance bicycle work, but even the speed work does not call for powerful enough or complete enough contractions to be an ideal method of abdominal exercise.

Running I consider the best of the three for our purpose, providing the sprints are used instead of the wearing long-distance events. Speed of movement in the short dashes requires much more severe contractions of the abdominals than is needed for continued slow running. If a special effort is made to develop the knee action, that is to raise the knees as high as possible with each stride forward, the effectiveness of the exercise will be materially increased, but no matter how running may be applied, it will not develop the abdominal strength that can be attained by direct exercise of this part of the body by means of progressive resistance.

Hurdling and jumping afford somewhat similar results for our purpose. The former, however, combines something of the merits of both running and jumping in the one exercise. On the other hand, the effort at no stage of running the hurdles is as intensive as the effort made in jumping, for in the latter the entire energy of the body, so far as possible, is utilized in the one



O. R. COULTER

movement. The exercise to the abdominals in both comes from the raising of the knees towards the chest, and as the jumper raises them as energetically as possible to gain elevation, I think it quite reasonable to conclude that jumping affords the most powerful contractions to the abdominals and therefore is the best of the two for increasing them in strength and development. While followers of these sports usually have good abdominal muscles, yet as a class they do not possess as good a development here as I have seen on followers of some forms of gymnastic work, wrestlers or all-around lifters.

Throwing a baseball, the discus, the hammer, the 56-lb. weight or putting the shot—all involve the abdominal muscles. Throwing the hammer or 56-lb. weight brings considerable strain upon them when the weight, in its movement, is describing

an arc above and at the rear of the head. The throwing of the baseball or discus involves the abdominal muscles in a somewhat similar way so far as position is concerned, but the latter sport requires more intense muscular effort because of the much greater weight of the discus as compared to the baseball.

Putting the shot or the stone is a very vigorous abdominal exercise. In fact the distance that one is enabled to put depends upon the amount of concentrated effort given the final heave. Even where the style of expert putters may vary, it will be found that they impart the same tremendous force to the shot as it leaves the hand. The noted weight-thrower Mitchell, speaking of three noted putters, states as follows: "Coe, Rose and Horgan, leaders in the event at the present day, while somewhat dissimilar in build and style, get the

same tremendous drive at the finish, which is the acme of perfection." This "tremendous drive at the finish" is largely a matter of speed with which the body is brought directly forward after part of the force of the turn is exhausted and is accomplished mainly by strength and speed of contraction on the part of the abdominal muscles.

While it is true that the majority of weight-throwers have far from what would be considered a trim, square-built waist, yet their abdominal muscles are usually very strong. The men who excel at this work are mainly, exceedingly large and bulky for the reason that a "good big 'un can beat a good little 'un." Their abdominal development, as a class, will compare quite well with that of weight-lifters of the same extreme bulk and size who practice lifting above the head and do not direct especial work on the abdomen. These weight-throwing exercises are well worth practicing for variation by any strength athlete, big or little. Few have the facilities for its practice, but so far as abdominal development is concerned, greater results can be attained in one's own home by means of progressive weight work applied directly to the muscles in question.

Various other outdoor sports exercise the abdominal muscles to some extent. Lacrosse, hockey, and swimming utilize all the muscles. Of the three, swimming is the best for the purpose of abdominal exercise. While it brings into play all the abdominal muscles, the contractions necessary to its successful accomplishment are not strenuous enough to ordinarily attain any exceptional development in these parts. The fact that woman compares better to man in this than in most any other sport or athletic accomplishment are not especially great in the matter of contractile power needed. I have observed some swimmers with well-developed abdominal muscles, but the results on the whole are not such that I would consider that swimming was worth while for abdominal development alone, as I have seen much better results accomplished for this purpose by other means.

Football, in addition to being an all-around man-builder, exerts a more beneficial effect upon the abdominal muscles than does most of other sports. It combines the results in abdominal exercise that accrue from sprinting to those that result from

line bucking. The pushing-force exerted in the latter brings the abdominals into strong play, and kicking a football, especially if performed with each leg, is a magnificent exercise for these muscles.

The mere practice of kicking a football as high as possible would require stronger and more complete contractions than the kicking involved in a game. Football has the advantage of competitive interest but lacks the progressive resistance and complete abdominal movement necessary to ideal muscle-building methods.

Rowing I believe to be the best of all outdoor sports for our purpose and has the added advantage of being a good general exercise, as it works the small of the back, the thighs, the muscles in the broad of the back, forearm, etc., and in the recovery of the stroke, when the body is brought forward to the original position, muscles that work in opposition to the pulling muscles are brought into use. From a reclining position, leaning backward, the body is brought forward, and this brings the powerful abdominal muscles into play as well as those of the groin. The abdominal muscles during speed contests in rowing are brought into quick and powerful contractions and development here is necessary to a successful oarsman. Inexperienced rowers give out here first and the best of oarsmen are usually better developed in these parts than those weight-lifters who specialize on the overhead lifts. Unfortunately this exercise is not possible to everyone because of lack of facilities and necessary time. Of course, during the winter season, the rowing machine can be substituted by those having access to a well equipped gymnasium, but even then the results are not in keeping with what can be accomplished by properly directed efforts in the convenience of one's own home.

(To be continued next month, with a further analysis of abdominal exercise.)

SPECIAL PRIZE CONTEST

Beginning with this issue we are offering two prizes each month for the best criticisms of articles appearing in **STRENGTH**. The contest is open to all. Do not fail to read the details of it on page 46 of this issue.

(Continued from page 40)

referee's caution or possibly even lose the bout on an unintentional foul.

Fig. 66 illustrates a Standing Double Front Chancery Hold. Figures 67 and 68 respectively illustrate the further develop-



Fig. 72

Fall from Double-Front Chancery Hold.

ment of this punishing Double Front Chancery Hold while Fig. 69 illustrates a fall scored by means of the above described Double Front Chancery Hold.

Double Front Chancery on the Wrestling Carpet

Precisely the same hold as the Standing Double Front Chancery Hold just described with the exception that it is secured and applied while working in front of your opponent while he is down on his hands and knees on "all fours" or while working low in a Neck and Arm or Referee's Hold with knee or knees on the mat. Fig. 70 illustrates this Double Chancery Hold while Fig. 69 shows a fall scored by means of this powerful Double Chancery Hold.

A Double Chancery can also be secured;

in fact it is, if anything, a little easier to secure when working well up on your man when he is on your right side on "all fours," than when wrestling up-standing on his feet.

In this case slip your right arm over his head and down to the left side of his cheek in order to secure a good hold on his chin. Follow by bringing up your left foot and placing it on the mat on your man's front to permit you to swing your left arm under your opponent's face in order to grasp your right fore-arm with your left hand as you drop on your left knee. Swing your body around on his front and follow up by twisting your man over towards your own right side in order to score a sure fall in your favor. As in the preceding Standing Double Front Chancery Hold, be careful you don't permit your hold to develop into a "strangle" or even a partial strangle hold.

Fig. 71 illustrates this powerful Front Chancery Hold secured on your man while he was on the wrestling carpet on "all fours" on your side. Fig. 72 illustrates a fall scored by means of this punishing hold.

Note that in this last method of securing a Double Front Chancery on your opponent while working on your man when he is on your right side, you take your Chancery with your right hand on his chin, whereas when working on your man when he is directly on your front on the wrestling carpet or working up-standing on his feet in a Referee's Hold with left hand on neck, your left hand is on his chin in holding the Double Front Chancery Hold.

Prize Contest Announcement

BEGINNING with this issue we are going to award each month two prizes of Five Dollars (\$5.00) each for the best criticisms, in under 200 words:

1. Of the article in this issue which you believe to be the best and most worth while.
2. Of the article in this issue which you find least interesting and informative.

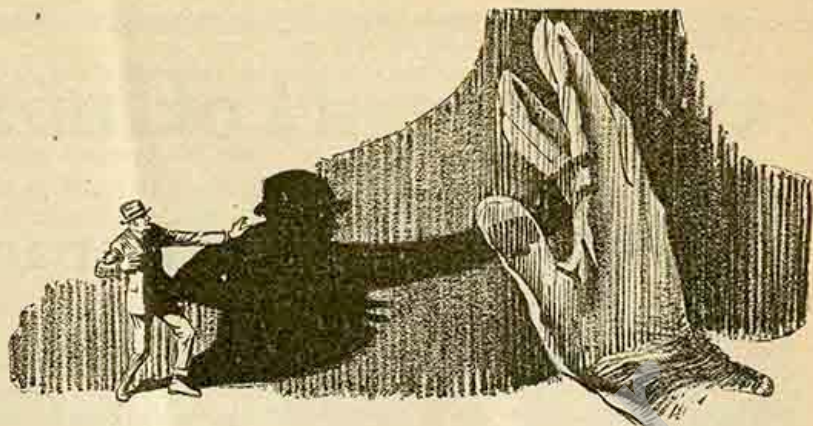
The Best and the Worst

The kind of articles you would like to see more of, and the kind you would like eliminated and no requirements. Simply write your criticism and send it to us.

The contest will close on the 20th of each month. The prizes will be awarded on the 25th, and the winning criticisms will be published in the second month following. That is, the contest for the February issue will close on February 20th; the prizes will be awarded on February 25th, and the prize-winning criticisms will appear in the April issue.

It is not necessary to be a writer, to win one of these prizes. Literary merit is not the first essential. The reasons why you like or do not like a certain article are of more importance than the way you express your likes or dislikes.

The Great Myth



Will You Let It Bar You From Success?

PROBABLY no falsehood has ruined more lives than that ancient myth, "There is no short cut to success."

When a man makes a million, or otherwise distinguishes himself, he seems to take an unwholesome delight in telling the folks back home that it was work—and only work—that did it.

Mothers and fathers quote him to their boys and girls; he gets front page space in the weekly "Gazette"; they preach his wisdom at the Sunday School—and eventually another crop of boys goes out into the world with the fixed idea that there is just one road to success, and that is to close one's eyes, and work, work, work.

But, as a matter of fact, it is almost impossible nowadays to achieve success that way.

You can quickly prove this for yourself.

Think of the noted examples of success. Did E. H. Harriman, for instance, get his millions merely by working? No. He once said he made them by smoking cigars while others built railroads for him.

Or the people whom you know yourself. Which work harder, the successes or the failures?

The truth is that work and success do *not* go hand in hand despite what the school-books say.

The truth is that success is more easily gained than failure.

The most important thing for you to do is not to work but first to find the short road to success. After that you may safely work all you like—but as a matter of fact, you won't have to work very hard.

"Fine," you say, "but how am I going to find this wonderful short cut?" The answer is simple.

How Success is Achieved

Statistics and science have determined that success is based on eleven essential qualities.

The short cut to success isn't to work as hard as you can, but to develop these eleven qualities in yourself.

Fortunately they are qualities that everyone possesses. You may not exercise them now. But you

have them just the same. The secret is in learning to control them. This is not difficult.

You have similar experiences in other matters. The first time you try to swim, for instance, you sink, and the first time you try to ride a bicycle you fall off. But the ability to do these things was born in you. And shortly you can both swim and ride. Then you wonder why you could not always do these things. They seem so absurdly simple.

So it is with the 11 essentials of success.

The science of learning to exercise them is simple. It is fascinating. It is called Pelmanism.

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The science of Pelmanism is over twenty years old. It has spread all over the world, almost with the force of a great religious movement. To-day there are over 650,000 Pelmanists. It is taught in seven different languages. And its sweep is growing wider every day.

Thousands and thousands of Pelmanists, in all walks of life, have testified to the wonderful things it has done for them. It has increased their incomes; it has won them promotion; it has brought them self-confidence, ease of mind and happiness.

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The whole story of Pelmanism is contained in the book, "Mind and Memory," which will be sent you free if you mail the coupon below.

This book explains just how Pelmanism enables you to exercise the qualities of success. In fact, it is in itself an important lesson in success. It also tells in detail what Pelmanism has done for others and what it will do for you.

You will say it is one of the most important books you ever read. Mail the coupon now.

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Durban, South Africa; Bombay, India. (St.-2-'22)

Everyone wins in this contest—there are no losers. Even if you should not win one of the cash prizes, you will be amply repaid by seeing in *STRENGTH* the articles you want and feel the need of.

Let's hear why you like or dislike the ar-

ticles, and your reasons for your preference.

The contest will be held each month, but remember, the February contest will close on February 20th. Address: Contest Editor, 301 Diamond St., Philadelphia, Pa.

Reader's Service Department

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

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

If you want Indian clubs, chest-weights,

rings, parallel bars or any gymnastic equipment, let us know.

Before getting equipment for camping, canoing, automobiling or outdoor trips of any type, try our service on equipment.

We will get the information you desire quickly and let you know at the earliest possible moment full details as to size, price, specification and manufacturer's name. Write to: Readers' Service Department, Milo Publishing Co., 301 Diamond St., Philadelphia, Pa.

The Question Box

To the Editor:

I would like very much if you would publish in the Question Box if Walter Camp's Daily Dozen are suitable exercises for a boy 15 years of age; and where they can be obtained. Yours truly,

C. F.

The Daily Dozen are suitable for a boy of fifteen or any other age. You can obtain them at most newsstands, and particularly at the larger railway newsstands.

To the Editor:

I am a reader of your magazine, and would like to suggest that you publish in the near future full particulars on the shot-put and the hammer throw, as to the correct way to practice for form.

W. W.

Full particulars on the shot-put and hammer-throwing will be published in our coming spring issue.

To the Editor:

Have been a reader of your most estimable magazine for some time, and consider the Question Box very interesting and helpful. My problem is this: Have been exercising with a bar bell for six months and

have been making very satisfactory progress, with the exception of my shoulders. My occupation keeps me bending over a desk most of the day, and although the rest of my body is strong and well developed, I am a trifle round-shouldered. What would you suggest to overcome this?

B. T.

The best exercise for correcting round shoulders is to raise a moderate weight bar bell to arm's length over head, and then to lower it as far as possible behind the neck and shoulders, pressing it to arm's length overhead and repeating the movement. Begin with five repetitions and a weight that you can easily handle, and increase one repetition every other day, and when you have reached ten repetitions, drop back to five and increase the weight of the bell five or ten pounds. Try at all times to carry the body erect, with the shoulders well back.

To the Editor:

What, in your opinion, is the best method of reducing surplus weight—through dieting or through exercise?

C. E. J.

Can You Do These Things?

Lift 200 Pounds or More Overhead With One Arm—Chin Yourself With One Hand—Tear Two Decks of Playing Cards—Bend and Break a Horseshoe—Expand Your Chest to 48 Inches—Flex Your Arm Until It Measures 16½ Inches.

Can YOU Do Any of Them?

I can, and hundreds of my pupils can.

You can do things that others cannot even attempt to do, if you follow my advice. You can feel strong—look strong—be strong. Train for strength and development at the same time. Large, well-shaped muscles will set you off and add to your personality. It is personality that brings success.

Anyone can obtain a splendid muscular development—it is simply up to themselves. I have taken hold of hundreds of weaklings and turned them into powerful athletes in a remarkably short time. I have turned hundreds of men and boys of average build into famous strong men. Some of the strongest men of the present day are my pupils. What I have done I am still doing every day, and if YOU—who read this, really desire to become a strong, well-developed man, I will explain how you can be one, in my latest book, "MUSCULAR DEVELOPMENT."

The best time to begin training is between the ages of 15 and 25. A young man is then growing and his muscles respond rapidly to systematic exercise. The man between 30 and 40 should not feel that he is too old, however, for at this age a man should be at his best. If he will pitch in and train systematically and determine to make the most of himself, he can positively develop and become just as strong as any YOUTH. The main thing is to do the right thing in the right way and my course has proven itself to be THE CORRECT WAY.

Hundreds of my pupils have tried other methods and failed. Why do they come to me? There must be a reason! They realize that my methods are the quickest and best for obtaining a splendid development.

I begin where others leave off. That is why I am successful! After a few weeks my pupils feel the energy and PEP that only an athlete knows.

No matter how badly you may be suffering from constipation, indigestion, nervousness or lack of vitality, in a few weeks' time I can make A REAL MAN OF YOU; and cause you to experience the joy of living.

You just have to get strong—that is all there is to it. Going through life with a sickly, weak body will never get you anywhere. The successful man is the man with PEP—PERSONALITY—APPEARANCE—STRENGTH and ENDURANCE. That's the makings of a real American man!



Latest photograph of
EARLE E. LIEDERMAN

The Eighth Edition of My Book

"MUSCULAR DEVELOPMENT"

is just off the press, and I will gladly send a copy to any one who will tear off the coupon attached and mail to me with 10c (stamps or coin) to help cover cost of postage, wrapping, etc. This little book is handsomely illustrated with 26 full page photographs of myself and of some of the well-developed men and boys whom I have trained. Send for your copy to-day—now—while it is on your mind.

EARLE E. LIEDERMAN

Dept. 702, 305 Broadway, New York City

EARLE E. LIEDERMAN,
Dept. 702, 305 Broadway, N. Y. City.

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

Name

Address

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

Both are valuable for reducing purposes. Why not a happy medium? The right sort of a diet will certainly tend to forestall the formation of fat, but will not get rid of that which has already accumulated—you must get rid of that by "burning it up." Try both, and read "Don't Carry That Tub of Fat Around," in the January issue of STRENGTH.

To the Editor:

Please advise is sitting in a chair or holding on to a support is allowed in lifting by the Bent Press or any other method.

Can you also show me if any man of 65 has died or been injured practicing weight-lifting. I know men of this age doing hard manual labor and getting away with it. Why not a short exercise in weight-lifting?

C. C. C.

It is impossible to lift by the Bent Press method while seated in a chair, and holding to a support is not permissible in most lifts. However, you will find some lists of records that give the records for raising two dumb-bells while seated in a chair.

Have never heard of anyone of 65, nor of any other age, having died from the practice of weight-lifting; nor of any serious injuries from this cause. There are any number of men of this age and over who practice weight-lifting with good results. For one beginning at this age, however, it is advisable to go very slowly and to use moderate weights. Would suggest that you read "Do Athletes Die Young?" by Ralph Hale, in the November issue.

To the Editor:

What is the cause of varicose veins? Will exercise help me to get rid of them, or will it tend to make them worse?

E. B.

Varicose veins are caused primarily by strain, and are found among people who are forced to be on their feet continually. Exercise will not improve your condition, but by wearing a rubber stocking while exercising you will avoid all danger of further strain.

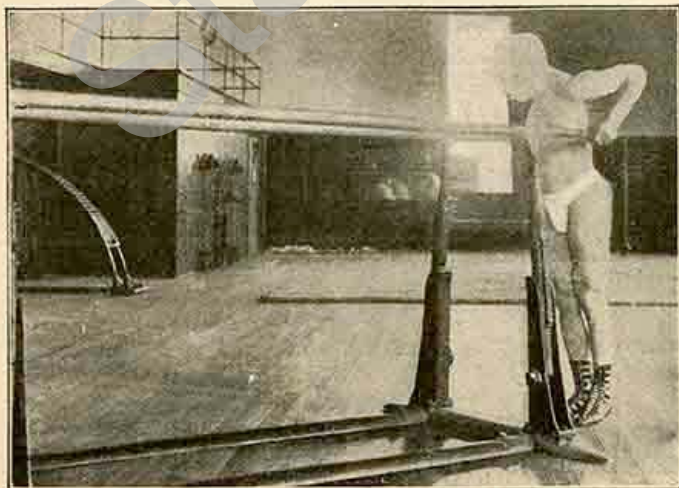
How to Use the Gymnasium

(Continued from page 0)

your arms naturally having leaned in the direction your legs took, you must now, as the legs descend, pull in at the same time with your arms forcibly enough to swim your legs in a descending arch, under, and then, continuing upwards till the toes are pointing straight ahead.

The big strain during the course of this exercise will be felt chiefly in the triceps muscles of the arms, though all the muscles mentioned at the start of this paragraph are vitally concerned. Notice this, as your feet are in position directly under you, your arms are doubled up, that is, pushed

backwards and bent at the elbows as much as physiologically possible, but as the legs swing up and out in front of the body, the arms again straighten out as in the starting position, if the exercise is performed properly. Trouble may be experienced in the first few attempts at this exercise, but in this, as in everything else, it is continual practice, perseverance and stick-to-it-iveness that counts.



Parallel bar.

(To be continued.)

Listen to the Voice of Experience

Be a Pride to Your Sex

PRACTICE

Muscle Control

and Be the Man You Should Be!
Admiration

always follows the robust, graceful and alert man. Pity trails behind the weakling, because his failing energy is not sufficient to carry him over the obstacles that obstruct every man's path to progress. Do you belong to the REAL MAN set—the dominant class of successful people; or are you among the sickly, flat-chested, weak-legged, nervous and always ailing—the insignificant class, that, instead of living just merely manage to breathe and exist? You are being given a wonderful chance to get more satisfaction out of yourself and the world by this

Amazing Opportunity for Greater Strength

offered by Prof. Matysek, the man who, years ago, having resolved to become healthy and highly developed, has experimented and trained himself until he is ranked among the strongest men in the world. He, in order to accomplish this, has been secretly practicing on this

"Body Beautiful" Maker

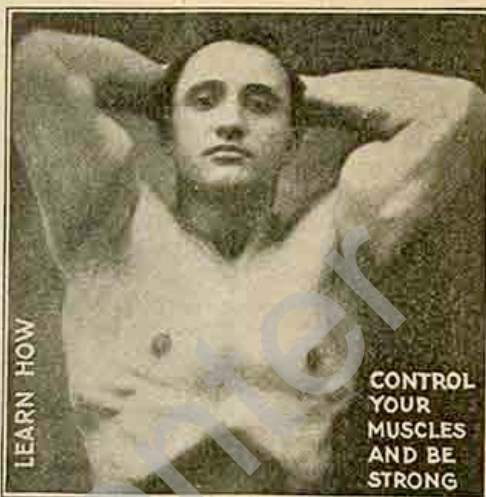
Thousands of men who have tested his "Muscle Control Course" say that it is the SUREST AND QUICKEST "MUSCLE BULGING OUT" STIMULANT, A CURATIVE SYSTEM OF EXERCISES THAT PRODUCE REALLY ATHLETIC MEN WITH GRACEFUL OUTLINES FULL OF STRONG PERSONALITY.

Matysek's Muscle Control Course Consists of

Two handsomely finished charts containing twenty-one beautifully produced pictures showing every detail as to how to perform the movements with absolute correctness. The instructions are "straight from the shoulder" such as only an expert who went through the mill himself could ever possibly produce. The following is but a part of what is embraced in the course:

- How To—quickly make respond the inactive bowels.
- How To—easily correct the rounded shoulders.
- How To—expel bothering gas out of the stomach.
- How To—promptly chase away the staleness of the body.
- How To—strengthen the nerves and internal organs.
- How To—control every muscle of your body.
- How To—store up energy for feats of strength.
- How To—completely relax and contract.
- How To—breathe effectively.
- How To—arouse your inactive nerves.
- How To—create better blood circulation.
- How To—increase your chest circumference.
- How To—learn the famous shoulder blade control.
- How To—thicken the shoulders.
- How To—make your shoulders supple.
- How To—broaden your back.
- How To—depress the abdominal muscles and wall.
- How To—control the chest muscles, biceps, triceps, thighs, calf and all other muscles.
- How To—assist in training the abdominal regions to be immune from rupture.
- How To—master correct posture.
- How To—overcome insomnia.

and many other vital pointers you need every day, too numerous to mention. The exercises in this course cause no strain on the heart and do not create nervousness.



ANTONE MATYSEK

the muscular phenomenon, the man who is offering to place you on the energetic strong man map. When you find your place on this map you will always be full of pep, ambition and joy. You will be a REAL MAN.

Only ten minutes a day, in the privacy of your own room, solves any case. From my own experience, as well as the very large number of pupils I have successfully aided, I know that in less than five days your efforts will be realized to a most surprising extent. If you are already training on some good "system" these Muscle Control exercises will force your progress to be 100% faster!

I Want to Assist YOU to Get Healthy and Strong

For this reason this Muscle Control Course is being offered you at such a trifling price that YOU CAN WELL AFFORD IT. COSTS BUT \$2.00. I guarantee quick results and absolute satisfaction or money back. In addition to this course you have the privilege to ask any questions pertaining to your physical training. To these I will gladly reply, giving you personal attention. This favor alone is worth the \$2.00 I ask. Better avail yourself of this splendid offer right now for in the future the charges may be doubled. GET STARTED RIGHT NOW!

Prof. Matysek

Muscle Control Dept. 217

523 North Charles Street, Baltimore, Md.

Detach and mail NOW while it is on your mind.
PROF. MATYSEK, Muscle Control Dept. 217,
523 N. Charles Street, Baltimore, Md.

I want bulging muscles and yet I want them to have fine outlines. I desire to increase my strength, my internal activity, my energy. I want to be more than I am now and I want to achieve my "chief aim" in a short and efficient manner. For these reasons send me your wonderful Muscle Control Course, illustrated with 21 high-grade pictures of yourself. If after 5 days of honest practice I am not completely satisfied, my money will be promptly refunded if course is returned at expiration of that time.

Name

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Records and Weight-Lifting

To the Editor:

I note Mr. Snyder's lifts published in a recent copy of STRENGTH, and I realize that he is not so very far ahead of me in some lifts, especially when considering our respective measurements and lifting experience. I will give my lifts and measurements, then you can judge for yourself.

One arm swing 125, one arm jerk 160, one arm snatch 135. Bent press 177½. Two arm snatch 160. Two arm press 185. Two arm jerk 240, side press, inch fashion, 160. I am confident I could do 250 in the two arm jerk. I clean lift, right arm, bent press, then lay down and get up with 135 lbs. I have a few other stunts, but will not mention them at present. My measurements: Neck, normal, 15. Normal chest 39. Expanded 42. Waist 30. Hips 35½. Thighs 20½. Calves 13¾. Ankles 8¼. Wrist 7¼. Forearm 12 (straight). Upper arm 13½. Weight, stripped, 137. I have a number of hand-balancing stunts, and when convenient, will have some pictures taken and forwarded.

Yours truly,

Gordon M. Strain,
504 East 10th Street,
Sedalia, Mo.

To the Editor:

All the Swiss and foreign newspapers have published a challenge issued from Robert Roth (surnamed the "King's Wrestler of Switzerland") to all professional wrestlers, to meet them for the World's Champion title.

Robert Roth, the new Star of the Wrestler's Fatherland, was born on the 5th of July, 1898, at Worb, near Berne (Switzerland). He began to wrestle in 1916 and after hard training took part in his first competition.

Won his first cantonal crown of laurel in 1916, his first federal one in 1919 and also his first international laurel at the Olympiades at Antwerp last year, where he defeated the Americans, Bedford and Pleta-was, as well as Mohamed Song, the Hindoo, and Jensen, the Finn.

In all, Robert Roth, the young marvel, has won 28 first crowns whether in the

"Lutte libre" (catch as catch can) or in the Swiss style.

Henry Chevalley, his manager, told me this: "From the 15th of January, 1922, Roth will take part to a European Championship held in Paris (Lutte libre), after that, we shall go to London where Roth will challenge all the world's heavy wrestlers; and then, if we receive some regular offers, we shall start for the United States where we hope to meet the best American heavy-weight wrestlers."

Up to the present, some of the best of the foreign wrestlers have accepted to come to Switzerland to take up his challenge; here are their names:

1. Giuseppe Massetti, the Italian heavy-weight champion, a big man, weighing 150 kilogs, height: 1 m. 90. Was the prize winner of a late championship, held in Rome, where he defeated 18 wrestlers.

2. John Lemm, the Swiss wrestler, who was matched with Deriaz some years ago.

3. Salvator Chevalier, from Paris, the wrestling champion of the Interallied games held at the Stade Pershing in Paris in 1918.

Here are, to conclude, the measures of Roth:

Height: 1 meter 85.
Weight (naked): 100 kilogs.
Biceps: 42 centim.
Neck: 48 centim.
Thigh: 65 centim.
Age: 23 years.

Fernand Magnin,
Lausanne, Switzerland.

To the Editor:

I have been using bar bells since April 18th this year and can handle the following weights in the lifts mentioned:

Military press—62½.
Bent press—115.
One arm jerk—110.
One arm snatch—100.
Two arm press—135.
Two arm jerk—160.

While these lifts may appear rather small would like to say that I have only had the bells about 7 months and I am improving every day and hope to get UP THERE in



FROM A PUPIL

At the time of subscribing to your course I was entering the amateur ring. After studying the course I found that it helped me beyond my expectations. I am now fighting professionally and can truly say that the Marshall Stillman Course has contributed more than anything else to my success. I have found it possible with your guards to hold my own against the blows of much heavier men than myself.

GORDON E. MONDAY.

Troop H, 12th Cavalry Machita, N. H.

Who Wants Free Boxing Lessons? for 10 days

We want you to study boxing for ten days without cost.

Marshall Stillman, a man who has taught professionals, will be your teacher. His Short-cut System is the result of 30 years' study and experience with famous Professor Mike Donovan, former Middle-weight champion of the World, and for many years teacher of boxing at the New York Athletic Club.

Marshall Stillman quickly teaches you the fundamentals — hitting, guarding, ducking, feinting and footwork. You start with simple movements you are already familiar with and practice them before a mirror—the breast stroke in swimming, reaching out for a coin, etc. Step by step, Marshall Stillman leads you from these simple movements into striking sub-consciously with both hands, putting the weight of the body behind the blow, ducking, guarding, feinting, etc., just as though you had a real opponent before you.

When you've mastered the fundamentals, you're taught every good blow used in the ring—when to land it, where to land it, and how to guard against your opponent's counter. Then you are ready to face your first opponent without the risk of being pounded or confused.

Next comes Shadow Boxing. Marshall Stillman has combined such scientific blows as the Jack Demp-

sey Triple, the Benny Leonard Triple, the Mike Donovan Double, etc., into three lively rounds for daily practise.

You're also taught 12 wrestling holds and 15 jiu-jitsu or bone-breaking holds—how to disarm a man with a pistol, dagger or club, how to break a strangle hold, etc.

As an added feature, there's a history of 69 great boxers, with their pictures, and "inside" stories seldom heard outside professional circles.

There are over 200 illustrations in the course.

We will send you this complete Marshall Stillman Boxing Course absolutely free on approval for 10 days. If you decide to keep it send us \$5 (Canada \$6; other countries \$7) in complete payment 10 days after receiving the course. Otherwise simply return the course, and no questions asked.

We couldn't make this liberal offer if the course didn't make good. Mail the coupon now and we will send it immediately.

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You may send me your complete course in Boxing and Self-Defense. I give you my pledge that you may feel safe in trusting me as agreed, and that I will either pay \$5 (Canada \$6 other countries \$7) for the course ten days after receiving it or return it in ten days.

Name

Address

the course of time, which I hope won't be so far off.

F. L. Osteen,
1404 Dallas Avenue,
Houston, Texas.

To the Editor:

Will you please give me a little advice? Have been practicing weight-lifting for 7 months and am doing fine except in one thing—the two arm press.

Now I can press with two arms 170, 175 and 180 lbs., which I do every other day, but I cannot even make the turn with 185. That is, I lift it from the floor to the chest but don't seem to be able to drop under the weight. Will you please advise me what is wrong and what to do to overcome that?

I read your magazine every month. I can press to arm's length 220 lbs. three times while laying on my back, but a friend helps me to pull it over my head.

Thanking you in advance, I remain,
Respectfully yours,

J. Haalmeyer,
425 Seneca Street,
Seattle, Washington.

Would suggest that you practice the Continental method for getting the weight up. In this the weight is not raised to the chest

in one clean movement, but in three separate movements.

To the Editor:

I wish to send you the Standard Lifts which I did December 17th, 1921. I have been doing the Standard Lifts for three months, and would like your opinion as to whether they are good or bad for such a short time. I am sure I could have made a better record in the Bent Press if I had a larger handle. The bar I have is $1\frac{1}{8}$ in. thick. My lifts are: One arm jerk, right, 125, left 115; one arm military press, right, 65, left, 62½; ordinary side press, right, 110, left, 105; bent press, right, 130, left, 120; one arm snatch, right, 105, left, 95; one arm swing, right, 90, left, 85; two arm snatch, 134½; two arm military press, 134½; two arm clean and jerk, 175; support in wrestler's bridge, 485; deep knee bend, 303.

My measurements are as follows: Neck, 16; biceps, $13\frac{3}{4}$; forearm, $13\frac{1}{2}$; chest, 41; wrist, 7; waist, 31; hips, $36\frac{1}{2}$; thighs, $22\frac{1}{2}$; calf, $14\frac{1}{2}$; ankle, $8\frac{3}{4}$; weight, 153; height, 5 ft. $6\frac{1}{2}$ in.

A. J. Erwin,
254 Grove Avenue,
Detroit, Mich.

Changing Our Medical Superstitions

Drug superstitions are dying out and are being replaced with others, such as psychoanalysis. This statement is quoted from *The Prescriber*, apparently with approval, by *The Medical Record* (New York), which is, however, inclined to think that, "superstition" aside, drugs are more valuable and more efficient than ever, although their value has somewhat depreciated in the minds of the medical profession. What is needed, in the view of this journal, is to reorganize the whole system. As it sees the situation:

"For a considerable time there have been those who have denied to all but a very few drugs of any real therapeutic virtues, while there are cynics as to the merits of drugs, and there are even yet drug nihilists.

"Moreover, there have sprung up within recent years various other methods of treating disease and conditions of ill-health, such as vaccine therapy, radiother-

apy, and lastly those much overrated methods of diagnosing and treating certain affections, psychoanalysis and psychotherapy. All this at first glance would seem to imply that belief in the efficacy of drugs in the treatment of disease has diminished. Perhaps, however, when the matter is looked into more closely it will be realized that it is not the use but the abuse of drugs that is on the wane. Drugs are not out of date, but, on the whole, are more efficient than ever. What is required to place drug therapy on a sound basis is to reorganize the entire system, to weed out those that are useless and sometimes even dangerous to improve and perfect those which have proved themselves of true value. Drugs also to exert their best effects must be prescribed with more or less exact knowledge of their action, and especially must be furnished with discretion. It is sometimes the fault of the physician that drug therapy fails."

Accidents Due to Fatigue

Accidents may happen to workers simply because they are overtired. Elimination of fatigue is therefore one of the most vital of safety measures, we are told by Frank B. and Lillian M. Gilbreth in a paper read before the National Safety Council in Boston and printed in *The Iron Trade Review* (Cleveland, O.). Shop welfare study of all kinds, including that of the elimination of eye-strain by proper coloring, and that of ascertaining the easiest and fewest motions necessary to accomplish a given item of work, tends directly toward the reduction of fatigue and is hence an important measure of accident-prevention. We read:

"Fatigue study is the first step in safety work. It lowers the number of accidents, decreases the wastefulness of operating methods and therefore lessens the number of problems that must be considered.

"The problems of fatigue and of safety bear a peculiar relation to one another. Fatigue causes accidents, while fear of accidents causes fatigue.

"Rest periods, chairs for work and rest, and other means of improving the conditions of work have an aspect of accident prevention as well as of fatigue prevention.

"The importance of proper lighting often is underestimated. Too much emphasis cannot be laid on the old-fashioned idea of 'light from the left side for right-handed workers.' 'White paint and white walls everywhere' should be not only a slogan but a law.

"The method of finding the one best way to do work, which is a fundamental part of the science of management, has been thoroughly worked out and is identical to the methods of minimizing fatigue and reducing the number of accidents. Habit, so long considered a cruel master, now is realized to be the most useful of helpers; automatically or firmly established habit may become dexterity and, finally skill.

"As far as possible, useless, inefficient and ill-directed motions are discarded, and the sequence of necessary motions is determined, so that the body can perform these with least effort and fatigue and the largest resulting wages."

Big Money for Placing the Right Man in the Right Place



THE Federal Board of Vocational Education in its Bulletin No. 50 states: "It is economical for a plant of 200 workers to have a separate employment department." Immediately we grant the truth of this statement. The magnitude of this great field is absolutely staggering. Without wasting the better part of your life in study and preparation, without the disappointing experience of years of hard grind before you can get a foothold in a profession, such as medicine, law, engineering, etc., you are offered one of the greatest opportunities of the age. Your chance to be a Human Engineer. Naturally it is hard for you to realize what a wonderful chance this is, we have, therefore, prepared a 100 page booklet explaining the field of human engineering and employment management, the demand, the opportunity and the reward. The facts and data in this booklet were compiled by nationally known experts on employment and human engineering methods. We shall be glad to send you this booklet, without obligation to you. Just fill out the coupon and send it in.

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The Boxer's Training

(Continued from page 42)

of clothes may be, a man can't sensibly use it unless it fits *him*. The "suit of vegetarianism" did not suit Parker at all, and was one of the big reasons, if not the sole reason, for his quick slide to oblivion. We have vegetarian boxers, some of them very successful, but that does not prove the system specially suited to glove wielders as a class. Self-study (without extremes and worry) is the only key to correct eating for an athlete or anyone else.

The purpose of training is to build strength and endurance. These a man cannot have unless he eats enough—and of the right food—to make good the losses sustained in exercise. Speaking generally, a

boxer in training thrives best on a mixed diet, three meals a day, plain home cooking.

Don't have too many helpers at the ring-side, and be sure to "can" any excitable fellow whose indiscretion may lose you a decision. There are not many situations in the ring that justify a second's interference, and it will be safer to have an understanding that there's to be no throwing up the sponge till you yourself give the hint. Then *forget the hint*, and fight as long as you can. You've got a chance as long as you're on your pins, and the other fellow may be weaker than you are. Outgame him—that's a part of your work.

Sport and Its Heroes

(Continued from page 10)

keen. Any man who lets up or plays carelessly drops to the rear. Missing a signal is a far more serious matter than any momentary forgetfulness in ordinary life. Muffing a punt may give the other side a touchdown and relegate the muffer to the side-lines from which point of vantage he has to reflect upon the discipline of a football field. It is a great school.

Here are some aphorisms from a coach which show the atmosphere in this kind of a school:

"An early season of 'continued applause' will ruin any team."

"Flattery wouldn't hurt a team if they didn't swallow it."

"You don't have to put up a deposit for a job on the 'Scrub.'"

Stimulated by a recent discussion which took place a few months ago regarding the All America Team, the writer has taken the pains to look up every member of that team and find his birthplace, so as to see how representative of America such a team is. The results were surprisingly confirmatory of the fact that the distribution of these football players is most widespread and that almost every section is represented. These men came from no less than seventeen states, from Minnesota and Quebec to Texas, from Massachusetts to Washington and Oregon. Massachusetts and Pennsylvania lead, each having furnished four

players. But Texas, Ohio and New York come next with three each; then follow West Virginia, Iowa, Illinois and Minnesota with two each, while North Dakota, Wisconsin, Quebec, Tennessee, Kentucky, Michigan, Washington and Oregon each furnished one.

Another interesting point that is brought to light by the investigation is that just one man more than half the team, namely, seventeen men, are playing outside of the states in which they were born and sixteen are playing in the states.

Some twenty-three colleges were represented, 7 Middle West, 7 New England, 6 Southern, 6 Pennsylvania and New Jersey, 3 New York State, 2 Pacific Coast, and 2 of the Naval and Military Academies.

A complete record follows:

Dumoe, Lafayette, born Nickerson, Minn.
Youngstrom, Dartmouth, born Waltham, Mass.

Robertson, Dartmouth, born Chambley Canton, Quebec.

Braden, Yale, born Washington, Pa.

Callahan, Yale, born Lawrence, Mass.

H. Miller, Penn, born Williamsport, Pa.

Harley, Ohio State, born Meigs County, Ohio.

Pixley, Ohio State, born Columbus, Ohio.

West, Colgate, born Hamilton, N. Y.

Gillo, Colgate, born Milwaukee, Wis.

Alexander, Syracuse, born Syracuse, N. Y.

Rodgers, West Virginia, born Bethany, W. Va.

Bailey, West Virginia, born Weston, W. Va.

Oss, Minnesota, born Ledgerwood, N. Dak.

Strubing, Princeton, Philadelphia, Pa.

Trimble, Princeton, Pittsburg, Pa.

Cody, Vanderbilt, Franklin, Tenn.

Casey, Harvard, Natick, Mass.

Clark, Harvard, Somerville, Mass.

Weaver, Center, Fort Worth, Texas.

McMillen, Center, born Fort Worth, Tex.

Roberts, Center, born Somerset, Ky.

Blaik, West Point, born Michigan.

Ingwerson, Illinois, born Fulton, Ill.

Depler, Illinois, born Lewiston, Ill.

Slater, Iowa, born Clinton, Ia.

Grimm, Washington, Centralia, Washing-

ton.

Steers, Oregon, born The Dalles, Oregon.

Higgins, Penn State, born Corning, N. Y.

Boynnton, Williams, born Waco, Texas.

Denfield, Annapolis, born Duluth, Minn.

Henry, Washington and Jefferson, born Mansfield, Ohio.

Weston, Wisconsin, born Thornton, Ia.

The most exciting game of football the writer ever witnessed was the Ohio State-Wisconsin game of 1920, played at Columbus, Ohio, before a crowd of twenty thousand people, on a day almost ideal for spectators and players. Perhaps, if anything, a little too warm for the players, but perfect for the crowd. In the first period Wisconsin used the whole power of her line and plunging backs and rained blow after blow upon Ohio State's team until, finally, after 11 minutes' play, Holmes went over for a touchdown and Sundt kicked the goal, making the score Wisconsin 7, Ohio State 0. In the second period Ohio State began its forward passing attack, and although several times bringing the ball up within reaching distance, still were unable to break the determined resistance of Wisconsin when their goal was threatened. Thus, the first half ended with the score Wisconsin 7, Ohio State 0.

During the third period the play was fairly equal, Ohio State trying in every possible way, both with forward passes and with runs by Workman, Stinchcomb and Taylor to get over that difficult Wisconsin line and tie the score. In the fourth period, this forward passing game with Workman running back and to the side 10, 12 almost 15 yards, finally proved successful and Stinch-

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Shoots Quick—7 Shots in 3 Seconds

Just pull the trigger. Each shot automatically ejects the cartridge and loads ready for the next shot. This revolver HAS DOUBLE SAFETY and is practically "fool-proof" against accidents. Perfect grip, accurate aim. Handsome blue steel gun metal finish. Rifled barrel, checkered grips, safety lever. Holds 7 cartridges. Small, compact, fits in vest pocket, lies flat and will not bulge out pocket. Shoots any Colt Auto Cartridges. Fine for target practice.

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comb receiving the ball got away for a touchdown. The two teams lined up, but as Stinchcomb's foot hit the ball it took a quick turn and instead of going majestically over the bar, hit the right-hand goal post and bounded back into the field of play, leaving the score 7 to 6, and the Ohio State crowd dumbfounded.

The game started again and in spite of every attempt of Ohio State it seemed that the score would rest at 7 to 6. With only a minute to play, Workman began hurling his forward passes once more and this time with practically no concealment of what was being attempted. Stinchcomb would run far out to the left of the line, starting at full tilt when the ball was passed and Workman running backward and sideways as far and as long as possible, giving Stinchcomb as big a start as could be obtained, would finally throw the ball, 30, 40 or even more yards down the field.

The first attempt failed. With 30 seconds to play remaining, and the watches clicking off these seconds, Workman from deep down in Ohio State's field threw one which was completed at midfield and lining up again repeated the same play, throwing 38 yards from the scrimmage line to Stinchcomb, who caught the ball on Wisconsin's 20-yard line and raced over for the touchdown which won the game. The goal was kicked and the score stood 13 to 7. Wisconsin left the field dazed and the Ohio State crowd so strung up with excitement, first with discouragement and then finally with victory, were almost too limp to get out of the stands. As a matter of fact, Ohio State completed 11 forward passes out of 17 attempts and gained by these passes no less than 165 yards to Wisconsin's 20.

A Fool-Proof Keep Fit System

(Continued from page 13)

athletic pastimes such as shot putting, hammer throwing, discus throwing, broad jumping, high jumping or pole vaulting would serve to keep you interested.

One may further insure his physical fitness by cultivating whatever interest he may have in sports. If possible, join a golf club or tennis club, or both. Arrange to play handball, if possible. One may sometimes contrive to build a handball court in

the back yard, using the side wall of a garage, or the back of the house, or even, in some cases, a specially built high fence. Also one should be alive to the possibilities in the way of swimming, skating and coasting. Coasting is the best exercise in the world, for no matter how small the hill, you will have climbed the equivalent of an "Alp" in the course of an afternoon.

Of course there is nothing compelling about sports, as there is about the walking and the lawn mowing after one has let himself in for the conditions of life that involve these. But on the other hand, because of the very attractiveness of golf and tennis and swimming and skating, one does not need compulsion, especially if he sees that they should be cultivated as a part of his scheme of life. One will very easily indulge in them, just for the fun of it, if he has made it convenient for himself to do so, or has prepared for himself the expectation of doing so through joining a golf club, for instance.

But let us not forget that other habits of life are involved in this matter of insuring personal efficiency, sleep in particular. How our bright eyes hate it before midnight, but how our heavy eyes love it at seven A. M. This state of affairs is so well recognized that the alarm clock has become a national institution. The alarm clock is a great asset to American industry, but it is a liability so far as national vitality is concerned. It is a device for robbing one of the sleep that he craves and needs. But the correct way to use an alarm clock is to set it for ten o'clock in the evening, as a signal that it is time to go to bed. It would be of real service, used that way.

In the matter of providing for sleep it becomes particularly evident that one imperatively needs some definite plan of life. The American habit is to drift along and act upon impulse, going to bed, for instance, when you feel like it. It's all wrong, Bill. One ought to have a time for going to bed, just as he has a time for going to work. That's the way to get sleep, just as it is the way to get work done. Not that a person wants to be tied to routine. If you live wholly by routine you get very little out of life. But on the other hand, a sloppy, haphazard way of living, in which one is subject to his own every whim, will only enable one to miss his train, miss his appointments, and miss his aims in life. We must

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have some general scheme of living, sufficiently elastic, however, to provide for freedom. In other words, applying this to the matter of sleep, a man should have a definite bedtime at which he generally goes to bed, but with the allowance that perhaps one or two nights a week he may go out for the evening, getting home at midnight, and still have enough sleep for the seven days of the week. He should see that if he occasionally goes out for the evening it is all the more essential that he should have a definite time to retire for the stay-at-home-nights. Just take thought that one can be intelligent about these matters, if he chooses, or he may be very, very stupid.

But can you also formulate for yourself a fool-proof system of eating? Can you so adjust your diet that you may go on day after day enjoying your meals and yet eating correctly without having your mind constantly upon the question as to whether or not you are eating the right thing? Since tastes differ, this is a matter that you can only determine for yourself, and yet it seems comparatively simple. It is not so much a matter of making up lists of foods that you should eat; rather it is a matter of elimination. After you have once acquainted yourself with the fact that certain foods are not for you, then you may have an understanding with yourself on that point such that you need never again give it any thought. By simply cutting them off the list you then permit yourself to eat anything else. Correct habits are as easily formed as bad habits.

There is, however, a system of eating which will work out very easily and satisfactorily. It is that of eating a more or less stereotyped and very light breakfast and lunch, of an unobjectionable nature, and then allowing for a hearty dinner as the evening meal. The heavy breakfast is a thing of the past any way. With many people now it is a matter of only coffee and rolls. It could just as easily be an orange and a dish of oatmeal or shredded wheat, or nothing but fruit. The too heavy luncheon is still a conspicuous American vice, with a big meat entree, and trimmings. One can do a better afternoon's work on nothing but a baked apple with a glass of milk, or if he wishes something more filling, a plate of soup, with fruit salad or a green salad, and buttermilk. In other words, he has eliminated white bread and

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meat and stimulants from his first two meals, both being very light. And if he has done that he can eat almost anything he wishes, and almost as much as he wishes, at the third meal, and get away with it. If he knows that whole wheat bread is the real thing, that one needs very little meat, that fruits and salads and vegetables keep his blood alkaline and his system chemically well balanced, then he does not need to be eternally conscious of what he is eating, in its relation to his health. He will automatically pass up the certain items that he has mentally eliminated from his diet, and he will eat anything else, and digest it, and all will be well.

The truth is that any truly satisfactory scheme of health must be one that is more or less unconscious or automatic in its operation, one that has become "second nature." Very few of us are capable of being such health cranks that we can never make a move without thinking the rightness of it from the standpoint of hygiene. The problem for us is to analyze our habits and conditions of life, while we are thinking about our health and efficiency, and to determine how we are going to live — so that we can live to the utmost degree. And then, having engineered our scheme of daily life to be what it should be in relation to outdoor life, sleep, exercise, food, recreation and work, let us proceed along those lines so that we may partially forget the rules we have made for ourselves, and yet function automatically in the right direction.

Winter Trails

(Continued from page 21)

further than the farthest reaches of any city and nothing marred the gorgeous beauty of the scene. I was fit again, every sense sharpened, my body thinner from the ordeal but hard and lithe. I laughed at the things that had seemed so difficult, at the work that had loomed so taxing when I went away. A slight physical ailment in my throat had about cleared up and I was ready to tackle anything once more.

As I came southward it seemed as though the train was heading straight for Florida. The contrast in temperature from an average of 25 below zero to the weather of the States was extremely uncomfortable. I am afraid I was slightly impatient with everybody I

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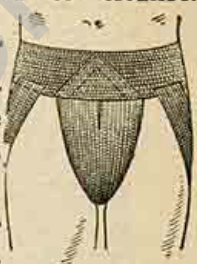
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saw huddling and shivering. My blood was running fast and strong. I knew I was physically fit once more and gloried in it.

And I had one lesson driven home deeper than ever before. I thanked my stars for having maintained fairly good condition in the city, by getting a normal amount of healthy exercise. When the big test came my body was able to stand up under it. If I had been soft and permitted myself to slip hopelessly in a physical sense, there never would have been any Wednesday for me to find a trail. The wilderness would have claimed what the city had undermined. If you do not think it is a man's size job to navigate through brush for three days in snow that is knee deep and with the thermometer working downward instead of up, try it some time on one frozen orange and a ten cent bar of chocolate.

Comfort and Health in Winter

(Continued from page 36)

large quantities of oxygen—thus becomes an important part of any "keep warm" régime.

Muscular exercise warms us because it increases oxidation; but besides this, it has a direct and very great mechanical effect on the circulation; it not only makes better blood (more heavily oxygenated), but causes that blood to circulate far more vigorously than when we are idle. Wherever the circulation is strong and constant you will find warmth; so true is this that I have found persons with chronically cold feet who never had known cold hands, and vice versa. An athlete of my acquaintance who had given his upper extremities years of training, and never exercised his legs, suffered every winter with cold feet, but never felt the need of gloves even on the coldest days! So much for exercise and its value to the "cold blooded."

In order to insure a proper feeling of warmth the depurating organs must be in good working order. Constipation will generally produce a sensation of cold. If the bowels are sluggish, the liver inactive, the blood anemic and the kidneys overworked, while the lungs breathe in an insufficient supply of air and life-giving oxygen, it is small wonder that the body should feel cold and miserable, and that it should be sensitive to every change and variation of tem-

perature. It is only what we might expect.

Naturally, the bodily extremities, particularly of the lower limbs, are the hardest parts to keep warm. There are anatomical reasons for this: the feet are farthest from the trunk and its heat centers, and the blood in its passage down the legs comes near enough to the body's surface to be somewhat cooled by the air.

Habitually warm feet are a good sign of health, for all the vital functions have to be doing their duty if the feet are to stay warm in very cold weather. If your general health is fine and you do not suffer with cold except in your feet, look for a local cause. It may never have occurred to you that a tight belt could have anything to do with the temperature of your feet; it is generally understood that tight garters may be a cause of "chunks of ice in the shoes," through their interference with a free circulation of the blood; but the fact is that constriction at any point may produce the same effect. Of course, this applies to any portion of the body, but especially to the feet because of their distance from the organs which make and pump the blood.

Avoid hosiery that "fits too soon." It is not enough to guard against overtight garters and shoe-laces; tight stockings or socks are the unsuspected cause of many cases of cold feet. One of the most important points is to cure any tendency of the feet to perspire excessively. With some persons this is a nervous trouble; the feet actually sweat when they seem cold; then the least chill when they are damp makes one miserable indeed! The real cure for perspiring feet lies in making the general health perfect, with special attention to the relief of nervousness.

Mental attitude toward winter has much to do with its discomforts. Each season has its charms, if we care to look for them. Two or three years of uninterrupted summer would be decidedly distasteful; we should long for that invigorating influence of cold air which nothing else can supply. With thorns come the roses, it is Nature's way. Darkness and light, winter and summer, each of these is because of its opposite; big things of life and nature are measured in antitheses. There is no cold; what we describe as cold is an absence of heat. Yet we measure heat from a basis of no heat—cold; one is because the other is. So it is throughout life and nature.

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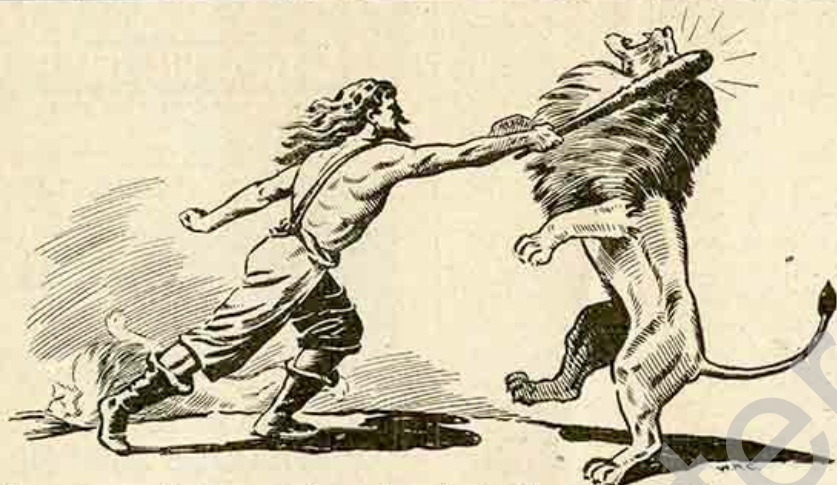
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How many of our men and women are making the mistake of neglecting the one precious possession they have—their health. This mistake has led many to a vast amount of self-inflicted suffering. Everyone should know how to make the most of themselves and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

Have You a Sound Nervous System?

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



The Gal-Far Battery

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

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

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

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

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

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

How John J. Decker put down \$10— —and drew \$100!



Not only did John J. Decker pick up \$100 for every \$10 he invested, but after a few short months he stopped putting down the ten-dollar bills—and he kept right on picking up the hundred-dollar bills.

Nothing extraordinary about Decker's plan. He simply invested in the safest proposition in the world, and the one that yields the biggest dividends—specialized training. Actually within six months of his enrollment with LaSalle Extension University, he had added to his income ten times what the course had cost him.

* * * * *

If you have been putting off the time when you were going to do the one thing necessary to fit yourself for a bigger job, at least do *this* one thing TODAY—*find out the facts!*

Find out, for example, why it is that not a day goes by at LaSalle but what a score of statements such as these are scattered thru the morning's mail:

- "Promoted to General Manager."
- "Now Service Manager, with 476% increase."
- "Passed C. P. A. Examination. Now partner in \$20,000 firm."
- "LaSalle training enabled me to save our firm \$3,988 on a single shipment of freight."
- "Passed bar examination with highest grade

in competition with many resident school graduates."

"The most efficient and most rapidly promoted men in our whole organization are LaSalle-trained."

Ask any member of LaSalle Extension University (and LaSalle enrolls about 60,000 every year) and he will tell you that the reason such results are not at all unusual is because of the *LaSalle Problem Method of Training*. By the Problem Method, the member handles the same problems, comes face to face with the same situations, has the same questions to answer, as he would if he were actually sitting at a manager's desk. Under the personal direction of some of the ablest business men in their respective fields in America, he prepares for duties which years of everyday routine experience could not have fitted him to handle.

Mail the Coupon

Find out today about this training—learn how you can get it in the quiet of your own home, without losing an hour from work or a dollar of pay—see if it is not just what you need to increase your earning power. The coupon, mailed today, will bring you all the facts, together with particulars of our convenient-payment plan; also your free copy of the inspiring book, "Ten Years' Promotion in One." It places no obligation on you, but it brings you—*opportunity*. Mail the coupon NOW!

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- Railway Accounting and Station Management:** Training for Railway Auditors, Comptrollers, Accountants, Clerks, Station Agents, Members of Railway and Public Utilities Commissions, etc.
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- Industrial Management Efficiency:** For Executives, Managers, Office and Shop Employees and those desiring practical training in industrial management principles and practice.
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