

September 1922

# Strength

The Magazine of Good Health

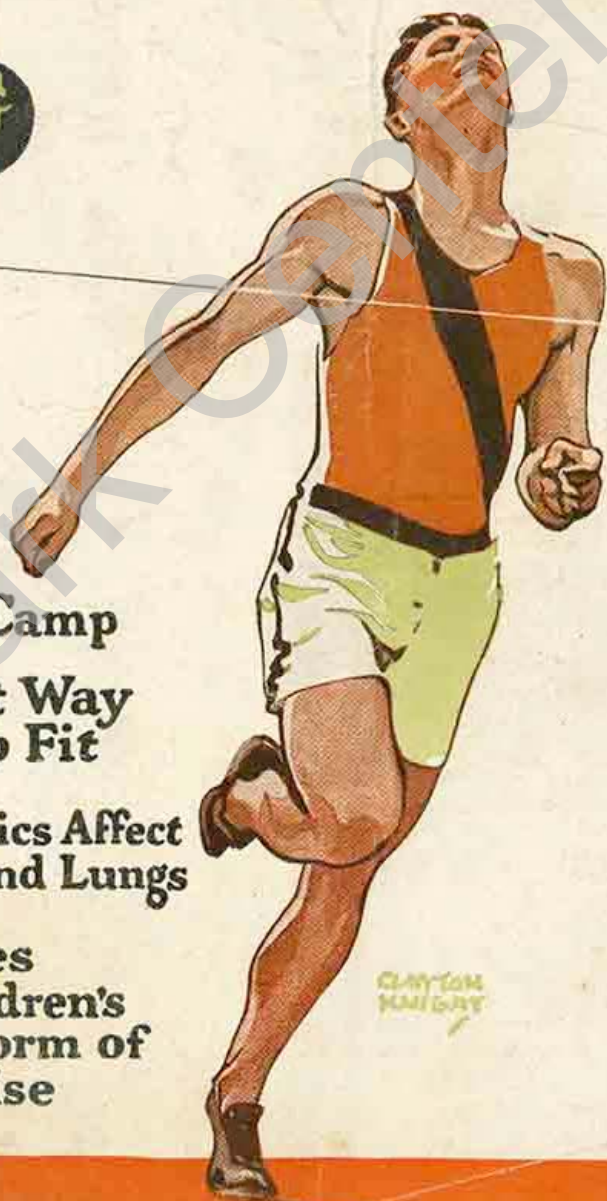
15¢

Walter Camp

The Best Way  
to Keep Fit

How Athletics Affect  
the Heart and Lungs

Games  
are Children's  
Natural Form of  
Exercise



# I NEVER FELT BETTER IN MY LIFE!

In a recent letter, Mr. Flick, whose photograph appears on this page, stated:

"When I enrolled among your pupils I tipped the scales at 200 pounds, and today I weigh 172 pounds, stripped. I can tear a deck of cards in two and then tear the halves, and I can honestly state that I never felt better in my life."

MR. FLICK has reduced his weight and increased his strength. The girth of his muscles has increased on an average of almost one and one-half inches, his chest going from 41" to 43", his upper arm from 14" to 15½" and his calves from 15" to 16".

When he enrolled he was in average physical condition and today he has a build of which anyone should be proud.

## WHAT HE HAS DONE, YOU CAN DO!

MR. FLICK is only one of scores of our pupils who have received just this sort of results. The knowledge and experience that have enabled so many of our pupils to increase their physical proportions in a truly remarkable degree in a period of from 30 to 60 days can be put at your service.

The success of our system is due to two factors:

1. Individual attention to our pupils, and
2. An apparatus that can be made to suit the needs of anyone.

By individual attention, we mean you get the benefit of twenty years of experience, and of all the knowledge that we have acquired during that time. No matter what your needs may be, you rest assured that we have had hundreds of pupils, just like yourself, and you can feel certain that the methods that have proven successful for them will prove successful for you.

By an apparatus that can be made to suit the needs of anyone, we mean our adjustable bar bells. Everyone must realize that the man who weighs 200 pounds and wants to reduce must do entirely different work from the man who weighs 120 pounds and wants to increase his weight.

So the man who starts his exercising with us after he has had a great deal of previous athletic experience and is in excellent physical condition and wants to make of himself a superb physical specimen must work out entirely differently from either of the alive man or from an undeveloped man seeking first health and later great strength.

It is also obvious that an apparatus which will provide resistance for the forearm and upper arms may not be suited to developing the tremendous muscles of the back and thighs.

Yet the man who starts out to develop his arms and neglects the rest of his body is making the greatest mistake possible.

We can and will lay out a course for you that will give you just such results as Mr. Flick obtained, and we are willing to guarantee that we can give you such results because we know from our experience how easily it can be done.

The half-hour's exercise three times a week, under our instruction, will give you truly astounding results.

Our booklet, "Health, Strength and Development, How to Obtain," will show you the way. It is free. Send for it today.



Mr. Jos. J. Flick, of Cincinnati, another Milo-Built Man.

Edward Gulbinville

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### Your One Chance to Make the Biggest Money of Your Life

Not one of the men, whose names appear in the column to the left, had ever sold

#### Read!

Charles Boery of Winterset, Iowa, stepped from \$18 a week as a clerk to a position making him \$1,000 the very first month. J. P. Overstreet of Dennison, Texas, read this amazing book, left a job on the Capitol Police Force at a salary of less than \$1,000 a year and in six weeks earned \$1,800. F. Wynn, Portland, Ore., an ex-service man, earned \$551.37 in one week. Geo. W. Kearns of Oklahoma City, found in this book a way to jump his earnings from \$90.00 a month to \$324.00 in two weeks, and C. W. Campbell learned from it how he could quit a clerking job on the railroad to earn \$1,632 in thirty days.

Sounds remarkable, doesn't it? Yet there is nothing remarkable about it. There are certain ways to approach different types of prospects to get their undivided attention—certain ways to stimulate keen interest—certain ways to overcome objections, batter down prejudice, outwit competition and make the prospects act.

### Simple As A B C

"Modern Salesmanship" tells exactly how the National Salesmen's Training Association will teach you these principles in your spare time at home.

As soon as you are qualified and ready the Association's Employment Service helps you to select and secure a selling position as city or travelling salesman.

### Now Free to Every Man Who Will Act At Once

We are not making any extravagant claims about what we will do for you. We don't have to. All of the amazing proof and many important features about Salesmanship are contained in our new salary-raising book, "Modern Salesmanship." It is yours—FREE. Send the coupon for it today. It will show you how you can quickly become a Master Salesman—a big money maker. It will tell you about the National Salesmen's Training Association system of Salesmanship training—about the National Demonstration method that gives you actual experience while studying—and all about the amazing opportunities that await you in the selling field.

This may be the one big chance of your life to leave forever behind you the low pay of a routine job for a sudden, brilliant success at a big salary.

Is it worth 2c to find out? Then mail this coupon NOW.

### NATIONAL SALESMEN'S TRAINING ASSOCIATION Dept. 21-M, Chicago, Ill.

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Street .....

City .....

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

# STRENGTH

Vol. 7

SEPTEMBER, 1922

No. 1

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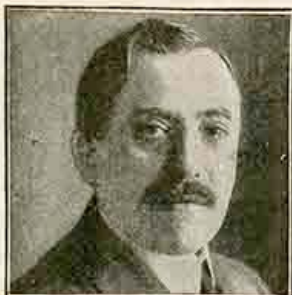
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### Eugene Feuchtinger, A.M.

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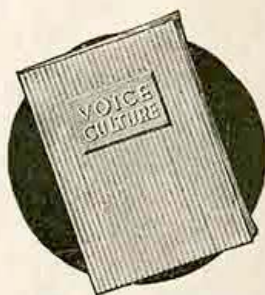
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### Perfect Voice Institute

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

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Thousands who are too fat or too thin, run-down, tired out; children who suffer from mal-nutrition are victims of impure, adulterated, denatured foods. Yet if they only knew the RIGHT foods to eat, they would be astonished at the quick return to glowing health and perfect physical condition.

# Let Alfred W. McCann Make a New Man or New Woman of You



*Are You Troubled With Constipation?*

*Do You Have Catarrh?*

*Is Your Blood Pressure High?*

*Have You Pyorrhea?*

*Are You Constantly Tired Out, Lacking in Energy?*

*Are You Too Fat or Too Thin?*

*Do Your Children Suffer From Malnutrition?*

*Do They Always Have Colds?*

**The Greatest Health Restorer and Vitality  
Builder Ever Discovered—Just Correct Foods!**



**H**UNDREDS of thousands of people do not know what it is to enjoy real health. They are utterly lacking in vitality, in energy, in bodily resistance. They are subject to a host of disorders. Catarrh, Pyorrhea, Bad Teeth, Constipation, Rheumatism, Diabetes, Malnutrition, Anemia, Neurasthenia, Hardening of the Arteries and High Blood Pressure are a few of the many maladies that are daily increasing at an alarming pace—all as the result of the foods we eat.

Three times a day the average table is loaded with foods that are nothing short of slow poisons—foods that are almost entirely lacking in life-giving elements. Alfred W. McCann, the great food specialist, has revealed facts about our foods that are absolutely staggering.

It seems almost inconceivable that our everyday foods should be causing ravishing disease, untold misery and premature death. Yet if people knew the truth about many of the foods they eat—foods considered pure and wholesome and the best the market affords—they would be shocked at the thought of putting such deadly substances into their stomachs. Alfred W. McCann has shown through extensive experiments that animals fed on many of our common foods die more quickly than if they had starved to death!

The fact is that we are not eating natural foods at all—but foods that have been commercially adulterated, denatured, devitalized, "processed" and treated so that they have not only been robbed of all natural nutriment, but impregnated with chemicals and substitutes that are ruinous to our bodies.

The amazing extent of malnutrition among children, the steady increase of disease, furnish startling evidence of this great food-crime against humanity.

## What Eating Correct Foods Will Do

Yet it is just as easy to eat the right foods as the wrong foods and to enjoy all the benefits of the life-giving elements that Nature has put into foods. By following Alfred W. McCann's principles of proper eating results are obtained that are little short of amazing.

His methods are literally making men and women over. People who had previously been constantly run down, tired out, and listless are astonished to find themselves bubbling over with the new energy, vitality and strength provided by proper foods. People who had been thin, anemic and emaciated put on new, firm, solid flesh, while those who had suffered from excessive, burdensome, dangerous fat quickly reduce to their normal weight.

A host of disorders arising from impure blood is eliminated. Symptoms such as skin eruptions, pimples and sallow complexions vanish like magic once wrong foods are replaced by right foods.

Constipation—one of the most common troubles caused by improper habits of eating, and the condition that keeps so many people feeling only "half-alive," that leads to auto-intoxication and other complications, is ended inside of twenty-four hours through Mr. McCann's methods.

Other troubles of the digestive tract—indigestion, dyspepsia, acid stomach are ended just as surely and easily when healthful foods replace harmful foods.

## Facts So Startling That You CANNOT Ignore Them

You owe it to yourself to find out the truth about the foods you eat. The facts are so startling that you should not continue for an-

other day habits of eating that are a deadly menace to your health.

Let Alfred W. McCann show you the way to glorious new health, strength and longevity through his revolutionary book, "The Science of Eating"—a book which will go down in history as the greatest exposure of food crimes ever made—the book of which Dr. E. S. Coleman, professor of Materia Medica, Flower Hospital, says: "Alfred W. McCann's book constitutes the most important contribution of a hundred years to the literature of health and right living. There may be many good books to die by, but here is the one great book to live by."

Do not think this remarkable book is for food faddists; it is for *everyone*. It does not advise any irksome diet. It simply shows you how to eat Nature's own foods as Nature intended you to eat them and how to avoid eating so-called foods that are not fit to be eaten. Once you start following this simple method you will be literally astonished at the improvement in your health. You will find yourself possessed of a new vitality, a new energy, a new physical fitness that will make you say that no miracle of medical science compares with the miracle of correct foods.

## SEND NO MONEY

Prove to yourself, without risking a single penny, that Alfred W. McCann's amazing book is the one best investment in health you could possibly make. Do not send any money now. Just mail the coupon or a postcard and "The Science of Eating" will be sent to you by return mail. Pay the postman \$3.00 when the book arrives. Then if you are not thoroughly convinced that it will literally make a new man or new woman out of you, return it at the end of 5 days and your money will be immediately refunded. Mail the coupon now, as the present edition is limited.

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### ONLY PART OF CONTENTS

A few of the 133 Chapters,  
Health or Disease

Red Blood Depends on Food  
Medicines Added to Sugar and  
Starch

Getting the Child Started

Denatured Foods Destroy Life  
Old at 25, Young at 60

The Human Body

Food Minerals Essential to Life

The Thyroid Gland—A Poison  
Destroyer

Digestibility and Indigestibility  
Constipation

Suspected Causes of Cancer

Stunting the Growth of the  
Young

Maternity and Tuberculosis

Thin Haired Women—Bald  
Headed Men

Honey and Fruit

Infantile Paralysis

Iron and the Ralsin

Rebiling Processes More Deadly  
than War

Preventable Tragedies of Milk  
and Meat

Anemia, Tuberculosis, Heart  
Disease

Ideally Balanced Menus





# Big Money

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**H**ARD times don't worry the Auto Expert. He is in constant demand. Did you ever know of an experienced auto engineer hunting a job? No, and you never will. The job hunts him.

Just consider for a moment that there are 9,000,000 automobiles in this country today. These millions of cars are in constant need for experts—repairmen and auto engineers.

A smattering knowledge won't get you very far in this line, but if you are willing to get down to brass tacks and really master this well paying line of work, then there will be no limit to what you can earn.

It is only one step from Auto Expert to Garage Owner, but think of the big money that is earned by the up-to-date garage. Here is your chance to become independent—to be your own boss with our help. Now don't say "Well, I'll think about it," but make up your mind right now to be a real success.

The coupon will give you full information on how to do it. Fill out and send it in right now while you are thinking about it.

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| ..... Cert. Public Accountant  | ..... Steam Engineer         |
| ..... Accountant and Auditor   | ..... Foremanship            |
| ..... Bookkeeper               | ..... Sanitary Engineer      |
| ..... Draftsman and Designer   | ..... Surveyor (and Mapping) |
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| ..... Electric Light and Power | ..... Telegraph Engineer     |
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## Hackenschmidt's Wrestling Course for \$2.00

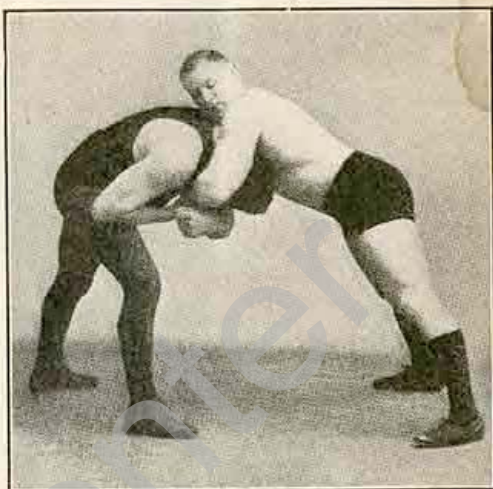
The Russian Lion has written a complete wrestling course which you can obtain for the ridiculously cheap price of \$2.00 postpaid.

*"Hack" as well as being one of the best wrestlers of all time was and is one of the outstanding strong men of the world.*

He can show you how to use your strength in wrestling and how wrestling will help you to gain more strength than you ever had before.

This book is by a man who knows. He was world's champion in both the Graeco-Roman and in the "Catch-as-Catch-Can" style of wrestling.

He is an authority on every phase of body building and he knows how to teach from the practical experience that he has gained.



Double Chancery Hold

## The Complete Science of Wrestling

by the master-wrestler. The name of the book coupled with the name of the author is a full explanation of the book's contents.

"Hack" wanted to write a book that would enable the veriest novice to begin at the beginning and work up to a full knowledge of the game. He wanted to include in his book *complete information* which would be of the greatest value to experienced wrestlers as well as to beginners.

He has covered the ground thoroughly, starting with methods of cultivating the "Physical Realities" necessary to make you a successful wrestler.

After he begins on actual wrestling you will recognize the grasp of a master hand, holds and counters and given in such complete detail that you cannot fail

to grasp not only the details but also the theory of wrestling.

You will know the *best methods* used by the *best wrestlers*; the *secrets of champions*; the *proper moves* to make and the *proper moment* to use them.

Many wrestling courses give you details and only very few give you a working knowledge of wrestling. No one can teach wrestling unless they know how to wrestle and no one can teach wrestling simply because they know how to wrestle.

You must have ability to make the other fellow understand and you must know what you want him to understand. Of Hackenschmidt's ability to meet both these qualifications there can be no doubt.

*The sixty-five illustrations, all poses by Hackenschmidt and his partner, are a course in wrestling in themselves.*

**Send Cash, Check or Money Order. Postpaid \$2.**

# THE ATHLETIC BOOK COMPANY

2100 N. Third Street,

Philadelphia, Pa.





### *Mlle Lenglen Vindicates Herself*

**I**N 1921 Suzanne Lenglen withdrew from a championship match when she seemed to be losing to Mrs. Mallory. As a consequence the American sporting writers were almost unanimous in picking our representative to win this year in England. Yet the French girl gains an overwhelming victory, and a lot of experts will have to do some tall explaining.

It is more blessed to review than to predict! We were so sure that the Yankees would win last fall that we put Babe Ruth's picture on our October cover. We would have bet fifty to one on the Athletics against the Braves in 1914. We simply could not see where Willard had a chance with Jack Johnson. At other times we have been able to proudly say "We told you so!"

Our greatest grief was when we picked Hackenschmidt to beat Frank Gotch. Hack was the world's champion Graeco-Roman wrestler. He took up the catch-as-catch-can style, beat a lot of English and Turkish wrestlers and came over here and used our champion, Tom Jenkins, as a floor-mop. Besides this Hack was one of the most magnificent physical specimens in the world, and believing that Gotch and Jenkins were about on a par, we stated, most positively, that Gotch would not last ten minutes with the Russian. After an hour of futile endeavor Hack resigned. Several people spoke to us about it.

A very noted authority on physical culture wrestling wrote an article saying that Gotch's outdoor life and smooth muscles made up health and a long life, and that Hack's enormous muscles and indoor training would shorten his life. Gotch died several years ago, while still a young man, and Hackenschmidt is still one of the world's strongest men.

### *Temperament, Surroundings and Encouragement*

**R**ETURNING to Miss Lenglen, it seems as though there was truth in her plea of heart trouble, in the 1921 match. Unquestionably the lady is of a highly-strung, nervous, excitable temperament. Doctor Faries, in his article in this issue, explains



the great advantage possessed by the cool, collected athlete over a nervous opponent. He says that the cool person starts an important contest with pulse at normal, but the excitable person's pulse is way above normal *before* the match. Now, granting that Miss Lenglen's pulse was probably way above normal at the start, it seems equally probable that it went to a dangerous rate by reason of the exertion *plus* the excitement in the first few games.

Any athlete or team of athletes thrives on encouragement and easy conditions. Most major league teams do better at home than on the road. Sleeping in their own beds helps the players a lot, but the rooting of the home teams help even more. When a college football team plays on a rival's field it is the coach who is most anxious for a lot of rooters to take the trip.

Fighters often complain that unfavorable comment in the sporting pages, previous to the match, prejudices the crowds against them. Few fighters care to meet a dangerous opponent in his home town. They fear the prejudiced rooting of the spectators as much as they do the prejudiced after-reports in the press.

### *Rivalry But Not Enmity*

**A**FTER all, what are we going to do about it? Fans *will* have their favorites—the home fighter, the home team, the dear old college. Half the fun is in anticipation, in the preparation, the discussion. College boys start in mid-September to discuss the November games. Most of us start casting up the baseball prospects before our teams go to the Southern training camps. There are tens of thousands of members of the "stove league" who talk ball all winter.

If there was no rivalry there would be no sport. All sport is news, else we would not have sporting pages in our papers; but big sporting events, the world's championship, the big football games and practically *all* international contest are news with a big N,—front-page stuff. And the most eagerly sought-for and widely-read papers are the ones that predict victory for the home team.

After the game is over most Americans try and make the best of it. They try not to crow too loudly if they win, and not to make excuses if they lose. When Hoover beat Beresford in July and won the Diamond Sculls for America, every one of us felt gratified when the English authorities generously proclaimed our representative to be one of the greatest of all oarsmen. And all of us were very proud to know that the first and heartiest congratulations to Miss Lenglen came from Mrs. Mallory.





HENRY STEINBORN MILO



# Two Heroes of Early Football

*Walter Camp played on the Yale team which won the first game of American Rugby and he has been closely in touch with the game from that day to this.*

*In this article he tells of Eugene Baker, captain of the first Yale team, and of the first team on which Mr. Camp played, and also of Arthur Cumnock, the great Harvard captain, whose team defeated Yale after an uninterrupted string of fifteen victories.*

*Training methods and playing methods were different in the good old days, but the same spirit that carried Baker and Cumnock to victory can and does carry modern teams over and around all obstacles.*

By Walter Camp

THE early prints of the college buildings at Yale show in front of them the students in tall hats playing football. The records show that in 1840 there sprang up an annual game between the sophomores and freshmen. There were no very definite rules, the game being a sort of free for all rush between the two classes, the football itself being the excuse. The following description gives a graphic picture of the contest:

"The many spectators, including ladies, occupied the steps of the State House and other points of vantage and displayed great interest. The sophomores were dressed in the most grotesque styles and had their faces painted in all imaginable colors. The game was started with the ball in possession of one of the Freshmen who, after making a punt, rushed into a wedge-shaped phalanx of his classmates which opened to receive him.

This phalanx then closed and rushed forward in close column until it was checked by fourteen picked sophomores. At this time, with the wedge held in check, other of the sophomores broke through the flank guard and seizing the men hurled them aside and broke up the wedge into individuals, the contest becoming one of mere physical strength. While the strife was going on the ball was extricated and falling into the possession of a sophomore, was carried off the field. This was pronounced a foul.

The ball was brought back and the game starting again the ball was carried off by a Freshman. The umpires declared the game a draw."

Later this annual contest degenerated even further, until it was forbidden by the Faculty. The last challenge issued by the Freshmen and accepted by the sophomores was posted on the door of old Lyceum and read as follows:

"Sophomores:

The Class of '61 hereby challenge the Class of '60 to a game of football, best two in three."

In behalf of the Class.

R. S. Chamberlain  
James W. McLane  
A. Sheridan Burt

Committee"

and the acceptance,  
"Come!

And like sacrifices of their trim,

To the five-eyed maid of smoky war,

All hot and bleeding will we offer you."

"To our youthful friends of the Class

of Sixty-one, we hereby accept your challenge to play the noble and time-honored game of Football, and appoint 2½ o'clock P. M. on Saturday, October 19, 1857, and the Football grounds as time and place."

In behalf of the Class of Sixty.

L. G. Post  
E. G. Massey } Committee"  
A. C. Palfrey }

In spite of this challenge and its acceptance the game was not played as the Faculty stepped in and forbade it.



Walter Camp



In the early seventies a mongrel game of football resembling soccer was played at the colleges, but Harvard journeyed to Canada and played Rugby with the Canadian collegians. They were so enamored with the game that they suggested to Yale the taking up of the sport. In the fall of 1875 representatives of the two colleges met and endeavored to draw up a set of rules that would be a compromise between the game as Yale played it and the game as Harvard wished it played. One may imagine what the code was like. The essential points of the compromise were that Harvard was to be allowed to run with the ball while Yale was permitted to bat it forward. The game naturally was a joke. The writer was in Prep school at the time and witnessed the game. Harvard ran through and over the Yale team while Yale futilely endeavored to bat the ball toward Harvard's goal. The Crimson players scored some half dozen touchdowns and kicked four goals from them. But this game had one excellent result in that the following year Harvard and Yale adopted the Rugby Union Rules just as they then stood, the copy of these rules coming from London. Eugene Baker of the class of 1877 was captain of the Yale team and played in the compromise team of the preceding year. He it was upon whom devolved the instruction of the Yale team in the intricacies of Rugby play and that too with no personal knowledge of the methods but merely the cold text of the rule book. But Baker was an enthusiast. He was indefatigable in his work. He alone taught every man what he was to do. The writer, then a freshman, was on the team and hence had intimate knowledge of Baker's work. He gathered us together nights, he worked us afternoons until we were ready to drop. He made us run three miles or more on the gymnasium track in the evening. He superintended our training diet. It was indeed a survival of the fittest, for no man could live through the hard work unless he were made of iron. But the final result was that Baker had about fifteen immortals by the time the game came who had been battered and bruised upon the curbstone of the Dixwell Avenue lot until, to be merely thrown on the soft greensward of Hamilton Park, was like falling into a feather bed. We had been unable to pro-

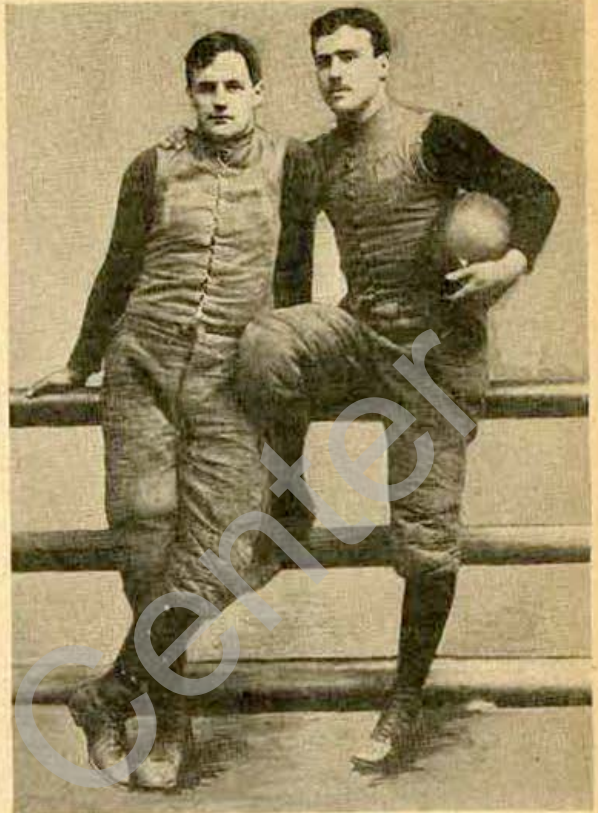
cure a Rugby ball and up to within a few days of the game, when Harvard kindly loaned us one, we had practiced with the old round ball of soccer memory. We actually thought that the Rugby ball should be kicked on its side instead of the end until some venturesome spirit tried kicking it on its end and found greater success. But Baker had made a team of us and we could tackle hard and some of us could use the straight arm. The great day dawned and Baker told us what he expected of us and led us out onto the field. The Rugby Rules of those days provided that goals alone scored, the touchdown merely giving a try-at-goal but scoring nothing unless the goal was kicked. After a most gruelling struggle Yale emerged a winner by one goal to nothing. Yale made her one goal by a drop kick by Thompson. Harvard made two touchdowns but failed in each attempt to convert them into goals. So Yale, thanks to Captain Baker, won the first game of American Rugby against Harvard. Thereafter, for a long period of years, Yale's victories were many and Harvard's indeed few, until a Harvard hero appeared who was destined to lead the Crimson out of the slough of despond into which they had fallen.

In 1887 a blond youth, named Arthur Cumnock, entered Harvard. At that time football in that particular university seemed to have reached its lowest ebb so far as victories were concerned and there was serious talk about abandoning the sport. The Cambridge teams had met with such a succession of defeats that even the work of such brilliant leaders as Manning, such persistent enthusiasts as Brooks and Holden, could not avail to stem the tide of disaster. It was said of Cumnock early in his course that he was a promising player. Those who knew him better said that he was a born leader. He himself had it in his mind to beat Yale. Two years of work gave him the captaincy of the Harvard team, and from the time of his election he left no stone unturned to bring out a winning team. He organized class elevens, appointed deputies to look after the detail of keeping up these organizations, brought out a second "varsity eleven" of the best men outside his own team, sowed here and there the seeds of enthusiasm, until he had more men at work on the football field than any



other two captains. He had already made a study of the game itself, had been brought up on the rudiments, had perfected the plays of not only his own position, but also of all the others on the field, and in spite of the croakers—a class of men ever ready to see only the depressing side—he was bringing out a first-class team. But there was one thing which he could not so soon or so easily give them, and that was the spirit of winners. Too many of them had seen Harvard's teams annihilated year after year to admit of any real confidence being instilled into them until they should have played at least one or two close matches with their old rivals and actually discovered that they were but human and could be whipped like any other men. Cumnock knew this weakness of his team as much as anyone, for he tried by all possible means to inspire them with more self-confidence. His first game of importance was to be that one with Princeton—that memorable one of 1889—from which dated an era of bitter feeling between the two colleges, and the after results of which prevented for so many years any further meeting of the two teams.

Without going into the rights or wrongs of that issue, it is enough to say that the team Princeton took up to Cambridge was composed almost without exception of the most-seasoned veterans of the football field that had ever been brought together. Such a team Captain Cumnock's eleven met and not only held, but at the end of the first half had them beaten by a score of 15 to 10. I never saw more brilliant work than Captain Cumnock and his team put up from the very start in that game with Princeton. But it was a faster pace than any team could possibly stand through two halves, besides being too rapid to be secure in its defense. Hence the free scoring by both sides. In the second half the Harvard line broke in two places, and not the almost superhuman efforts that Cumnock and one or two others made to bring them together could avail, and while Harvard never scored again, Princeton ran up no less than 29



International  
Vance McCormick and Lee McClung, captains of the Blue elevens of 1891 and 1892, led their men to records that have never been touched

points, making the final score 29 to 15 in Princeton's favor. A week later Captain Cumnock took the same team down to Springfield for the game he had set his heart on, that with Yale, and was beaten by a score of 6 to 0. But this last game and the closeness of the score gave him just that opportunity of convincing his men that Yale could be held and might be beaten of which the Harvard football element stood so greatly in need. The next season, that of 1890, after being re-elected captain, he pursued his same indefatigable work, but took even more of the conduct of it upon his own shoulders, for, as is always the case, as soon as any man has lifted a sport from its slough of despond and opened up before the eyes a possible vista of success, there were a number of would-be advisors and coaches, who, seeing a chance of great glory and no chance of dis-

(Continued on page 50)



# The Importance of Strong Hips and Thighs

By Alan Calvert

*Leg strength, and particularly thigh strength, is the prime requisite in both agility and endurance. If you hope to be a successful athlete, you must use your legs.*

*Every coach and trainer knows and applies this. Fighters do road work until they are sick of it, and then they do some more. Football and baseball squads in colleges get lots of work on the track and when overweight ball-players report in the South the club trainer sends them out to run it off.*

*Every lap they run takes off weight, hardens the waist muscles, puts spring in their legs and improves their wind.*

THE weakness of most of the so-called "bedroom" systems of training is the lack of developing work given to the thighs and hips. Most of you are familiar with such systems and will readily recall that the majority of the exercises given are for the arms, shoulders and upper body. There are a few movements for the abdomen, sides and small of back, and frequently one exercise each for the thighs and calves, while the hips are entirely disregarded.

As against this, we have the uncontestable fact that in most outdoor sports and in most kinds of heavy labor, the legs assume the burden of the work. Figure for yourself how much chance a lame man would have in any branch of track or field athletics. He naturally would be barred from all running and jumping events, and he would not even have a chance in shot-putting or throwing the hammer.

Again in such sports as baseball, tennis, football, lacrosse, the lame

man is automatically disbarred, and the man with weak legs cuts but a poor figure. For leg strength, and particularly thigh strength, is the prime requisite in agility and endurance. Furthermore the strong-legged man almost always has a strong back, especially in the region of the loins. A vigorous use of the legs in sport or work involves vigorous work of the hips. Free movements of the whole legs as in running, jumping and covering a tennis court, keep the waist trim.

Probably those who lay out these "bedroom" courses figure that the average man's

legs get some exercise, whereas his arms and upper body get little or none. Therefore, in prescribing exercise, they aim at the parts that are neglected in the daily routine of life. So they prescribe arm movements to enlarge the biceps, other arm movements to straighten the shoulders, and still another arm movement to enlarge the chest and strengthen the lungs. This seems perfectly reasonable in theory but how does it compare with the meth-



(Western Newspaper Union)

Spring and Dash count in tennis. Your strokes are valueless unless your legs are good enough to take you where the ball is



ods of those traiters whose vocation is the conditioning of professional and amateur athletes?

Such authorities know that if you want to rapidly reduce a man's weight you must make him use his legs. If you want to increase his endurance you make him use his legs; and if you want to increase his driving power you merely repeat the prescription.

Some professional ball players report for spring training, thirty or forty pounds overweight. Easy living during the winter months has coated them with a layer of useless fat. They can't move with their accustomed speed and ease, they can't cover ground fast enough to intercept a hard-hit ball, and two or three innings play has them puffing. Does the club-trainer set them to swinging indian clubs or performing free-hand evolutions? He does not! He claps sweaters on them and sets them to jogging laps around the edge of the ball field. He kills four birds with one stone, for at every lap his charges are sweating off adipose tissue, hardening their waist muscles, getting spring in their legs and improving their wind.

Take a prize fighter, who has been idle for a year, and through inactivity has, like the baseball player, accumulated many pounds of surplus flesh. How does his trainer condition him? Much as all other trainers do.—By leg work.

—A fighter's training quarters is about the furthest possible remove from a "turnverein gymnasium." Sometimes you will find a wrist-machine, and about the only time the fighter stands still is when he is using this piece of apparatus. The rest of the paraphernalia consists of a punching bag, medicine ball and the gloves. When punching the bag, tossing the big ball, shadow boxing, or musing it up with his sparring partners, the fighter is continually on the jump. Every movement not only involves his leg muscles but is practically started by his leg muscles. Sometimes he will do a special movement to harden the muscles along the front of the abdomen,



(Underwood & Underwood)  
Jess Willard getting in condition. Vigorous leg work is the quickest method to reduce weight and to gain pep and endurance

but more often he does road work. And how he hates it. He would rather punch the bag, skip rope or tackle his toughest partner; but the trainer knows that it is the road work that does the trick. The fighter must have endurance and he must have the driving power in his legs, that enables him to make terrific forward charges, and to add power to his blows. For it is the man who is most firmly planted on his legs that can hit the hardest blow. The great physiologist Legrange quoted a one-legged French soldier as saying, "I could hit a terrific blow with my fist before I had this leg cut off."



Leg strength counts when a man is standing toe to toe with his opponent and slugging away. And it counts still more when a man delivers a blow as he "steps in," that is, steps toward his opponent. In that case the whole power of the back and legs supplements the drive of the arm.

The fighter's training is for two things, form and condition; and of all the conditioning exercises, the road work is most important. When Jeffries lost his crown to Jack Johnson, the explanation given was that Big Jim was in poor condition, and that his lack of pep and endurance was due to the fact that he had greatly neglected his road work.

#### THE INTERDEPENDENCE OF ALL MUSCLES

In a recent article in this magazine, I tried to show how a heavily-muscled arm was practically useless, unless it was supported and actuated in its work by even more powerful shoulder muscles. I need not have stopped there. In every-day work or athletics, the big arm is mostly ornamental unless the whole body, including the legs, is equally developed. We have seen that the lame man is *positively*, and the weak legged man *partly* barred from competitive work. The man with puny legs may do well on the trapeze, or at doing evolutions on various kinds of gymnasium apparatus; but outside of that limited field, his weak legs are a fearful handicap.

Few young men realize the enormous proportion of work assumed by the legs in



Where the legs count. In moving or lifting heavy objects always keep your back and arms straight and do the heavy pushing with the legs

work and athletics. If they did it is safe to say that instead of spending the winter months at arm and shoulder movements, they would devote most of their exercise time to evolutions that develop the legs.

#### MAKE THESE TESTS

Stand on one leg and see how far you can throw a ball, or bat one either, for that matter. Or stand in the pitcher's box and see how much speed you can display if you hold your body and legs rigid and move only the throwing arm.

In all ordinary throwing and batting the swing of the arm is accompanied always with a body-swing, and usually with a step forward. The ease and power of your body-swing is dependent on the firmness of your standing position; your "stance" as the golfers call it.

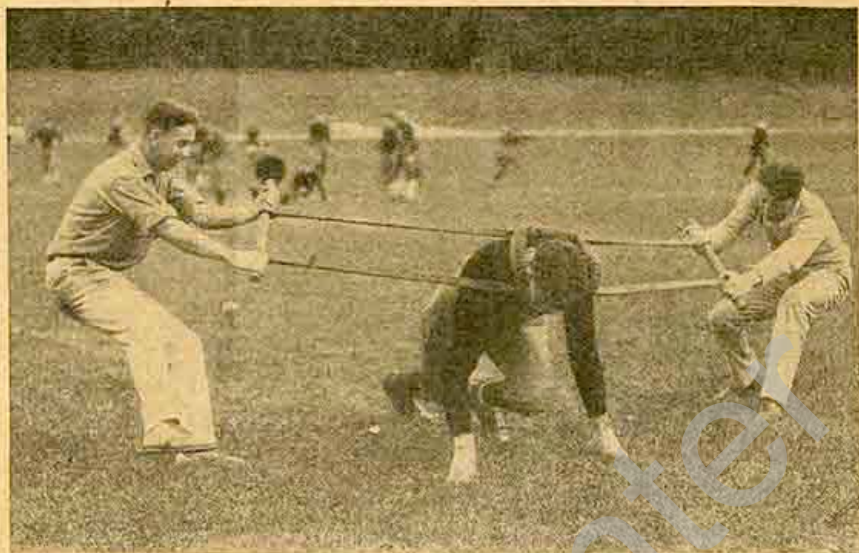
In weight-tossing the same principle holds; every muscle that it is possible to employ is brought into play to assist the thrust or heave of the arms. If you hold your body and legs rigid and use only your arm, you will cut down your shot-putting record about one-half. In fact the unassisted arm is of little use. Sit down on a chair and try to throw a ball or put the shot, you will be amazed at the short distance you get. All of which goes to show why a man with twenty-four-inch thighs and a fourteen-inch biceps makes a better shot-putter or ball player than the chap with a sixteen-inch biceps and thighs measuring but twenty or twenty-one inches. A big league pitcher's arm may wear out, and yet like Joe Wood he may become a star outfielder. A similar injury to the leg would have put him out of the game for life.

#### LEGS AND LUNGS

Every vigorous thigh movement involves vigorous lung action. As compared to arm exercise, leg exercises are vigorous or even violent. You can swing Indian clubs for a quarter of an hour without breathing hard, whereas if you trot for one minute your breathing becomes labored. Every step in running means that you have lifted your whole body-weight and likewise advanced it. The number and size of the muscles employed is so great that a large quantity of carbonic acid is created in the blood and this must be eliminated by forced action of the lungs.

Every game and form of athletics which





(Keystone)  
Line-bucking practice. Notice how candidate keeps his back flat and employs the driving power of the leg and hip muscles

requires leg power requires equal lung power. The short-winded man never makes a place in a first-class football team or crew and never shines on the track or tennis court.

Obviously, the easiest way for the athlete to create and maintain leg and lung power is either to do road work or play the game itself.

#### THE INDOOR MAN

The health seeker who in winter has to exercise indoors, or not at all, what can be done for him? Does he realize that exercises, as usually prescribed, leave his thighs, hips and lungs almost without the vigorous work necessary to keep the whole body in condition? I doubt it! I have known young fellows to train all winter: conscientiously pulling the handles of a chest-weight for half an hour a day, or using a pair of five-pounders for the same length of time. And they thought they were keeping in condition. When spring came they would go to the ball field and put in a strenuous afternoon batting fungoes and chasing flies and grounders. The next day their backs and shoulders would be stiff, their shoulders sore, and at every breath their ribs would ache fearfully. All their winter's work apparently counted for nothing. You see they had done nothing to keep in shape the many muscles used in ball playing. If, instead of chest-weights,

they had gone to a gym and played a half hour's handball, twice or three times a week, they would have been in prime condition for outdoor work.

The trouble with home exercise lies in the flimsy construction of most private houses. You retire to your room, strip for work and proceed to exercise. You can swing your clubs, use your five-pound bells, and all is well. You can bend your body this way and that, flap your arms about and still no protest. But once start to jump around your room, as in shadow boxing, or fancy dance steps, and you know what happens. Sister says you gave her a headache, mother wonders what will happen to her ornaments and pictures, father wants to know if you will pay for any replastering and brother calls you a nut. What can you do? Well! you can practice the well-known "squat" for the thighs and you can raise up and down on the toes so as to develop the calves of the legs. But you must be careful to work slowly or you will start the family off again.

Both the above-named exercises are valuable leg developers, but they don't go far enough. All the movement is in a vertical direction and I can recall no sport where a purely vertical movement is desirable. Barring straight away running, every form of athletics requires many and varied leg movements, and running requires, above all



things, the use of the muscles of progression. None of these muscles are adequately developed by either of the exercises named.

If you must exercise at home I suggest that you retire to your cellar when it is time for leg work. Even with a low ceiling you can do countless leg exercises that are impossible in your bedroom. And I firmly believe that vigorous (but not violent) leg exercises in a cold damp cellar are more beneficial than free-hand movements in a warm, well ventilated room.

Just as it is the shoulder muscles which move and give impulse to the whole arm, so it is the muscles of the hips that give the impulse to the whole back.

Squatting develops the thigh muscles in the parts above the knees, but has comparatively little effect on the hips and upper parts of the thighs. The thigh and hip muscles are tremendously powerful. They can lift the weight of the body without conscious effort, can *propel* the body's weight as jumping, running, and, if properly managed, can

support and lift enormous weights in addition to the weight of the body. It follows that in order to develop these muscles to full size and power—something more than mere squatting is necessary. Either one must run, jump, dance and spring around, or else one must lift and move considerable weights.

In seeking to develop the hips and thighs, it must be borne in mind that their muscles work in concert with the muscles of the waist region. Various abdominal exercises bring into vigorous play the muscles on the front of the thighs. Exercises for the sides of the waist help build up muscle on the outside of the thighs, and vice versa. A man who habitually lifts heavy weights from the ground becomes very strong in the small of the back and also develops prominent muscles on the under side of the thighs and in the back of the calves.

**USE YOUR LEGS  
AND SAVE YOUR  
BACK**

Every man who has become adept, either in  
(Continued on page 46)



The Hip Lift. All the weight hangs from the belt around hips. The athlete starts with legs bent at knees and raises the weight by straightening the legs





(International)

## Children Build Health by Play

*The big thing that children gain from play is resourcefulness. Awkwardness and poor judgment in getting out of harm's way can only be remedied by games which demand quickness of thought and action.*

*The children who do not like to play are often the ones that need to play the most. Quick, agile children are good at all games and like to play them.*

*All children should be encouraged to play, as this is a sure way to overcome awkwardness and poor judgment. Slowness of thought and physical action can be most easily overcome by the speed and agility learned in games.*

By J. Leonard Mason

There was once a little girl in Boston who was caught in an upper story during a tenement house fire. There seemed no way of escape, but as she leaned from the window she espied a cable attached to the blazing building leading to an opposite house. She reached, grasped it and swung out over the heads of those watching her below. Slowly, hand over hand, she made her way across to safety. It was noted that during her progress her legs were straight and together, her toes pointed and chest carried high in splendid gymnastic form. She was a star member of a nearby playground and had learned to support and carry her own weight with

her arms. Gymnastic apparatus is really play apparatus and consequently should be considered a branch of play. On a well-equipped playground we find, in addition to the outdoor gymnasium, the swings, slides, giant stride, the merry-go-rounds and teeter boards. All this play apparatus contributes something to the pleasure and development of the child who uses it.

One of the chief causes of accidents is awkwardness and poor judgment in getting ourselves in harm's way and slowness of thought and action in getting ourselves to safety. It is true that many accidents are being prevented among city children through their ability to think and act quick-



ly, using excellent judgment in an emergency. These qualities can be directly traceable to training in games in the school yard and city playground.

Every race has its own play and game traditions. They follow as naturally as the seasons and are handed down from generation to generation. The country boy has had more opportunity to develop his play spirit than the city boy. He has learned to swim at the old swimming hole; has fished during the long, hot days and skated on the same stream in winter. He has hiked through the woods in all seasons; climbed the orchard trees and jumped from the high barn rafters into the soft hay beneath. His sister has been equally active romping in the fields and meadows.

Now, through the wisdom of our city fathers, the child of the city has many splendid school and municipal playgrounds where he may experience the delights of his country brother, though in a more artificial way. Swinging rings and bars take the place of trees; jumping pits replace hay mows; while the concrete swimming pool

is a substitute for the old swimming hole. Even the farmyard dog, as the boy's companion, has his counterpart in the corner pup. Back yards and corner lots have their part as playgrounds, but, alas, the streets which lure the children are most unsafe places because of the danger from passing trucks, automobiles and trolley cars. Unfortunately the dangers of the city street have also seriously handicapped such play as hoop rolling, roller skating, bicycling and playing horse and wagon, but the sidewalks are still being used, until some complaining citizen puts a stop to the fun. In some cities certain squares are used for roller skating. In Newark, N. J., it is a great sight to see large numbers of boys and girls roller skating on the cement area, even up and down the long rows of steps and around the Lincoln Statue at the Court House Plaza.

The modern city playground is an outgrowth of the necessity of giving the boys and girls a wholesome means of self-expression. A boy threw a stone through the grocer's window and a policeman chased him. He tried to make a home run but was caught before he got to the second corner. The judge said the boy's action was decidedly anti-social and sentenced Johnny to a Saturday holiday on the baseball ground throwing baseballs to a real catcher. This he termed as a perfectly social performance.

What splendid strides have been made in providing proper play facilities for city children! In the large cities where it is almost impossible to provide playgrounds for everybody, certain streets are roped off and used exclusively as play streets. Police officials testify to the fact that when boys and girls are given a chance for the right kind of play they have much less trouble with juvenile law-breakers.

Let the child become interested in playing active games while young and this interest in general kept up as the girl and boy develop through the various stages of youth into manhood and womanhood. I would rather that my boy would break a leg playing football than that the same leg, unharmed,



(International)  
Games in which there is much muscular action are of more value on the physical side than others having less action





(International)

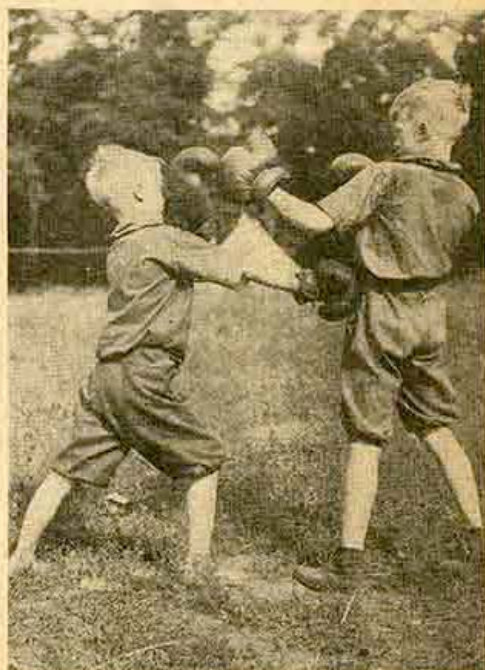
Competitive games teach the important lesson of life, to be generous in victory and brave in defeat

should carry him to the dens of iniquity. Broken bones are nothing compared to broken characters. to have fun or enjoy a game it is no longer play. The play spirit in the sim-

Snobbishness and petty prejudices will, to a large extent, be overcome as children mingle together in play. They find good traits in others that they did not know existed and learn to be charitable when the opposite characteristics appear. Thus the child gets its first lessons in the study of human nature, its actions and reactions.

Games, especially games having in them the element of competition, provide *expression* for the strong healthy body. They link muscles and body vigor with courage, endurance, self-control and good judgment; they develop an appreciation of the other fellows ability and teach the important lesson of life, to be generous in victory and brave in defeat.

Play and games are not synonymous as may appear in the minds of some. Play rather denotes the spirit in which something is done. The spirit of play indicates joy, happiness and is recreation. It may and should enter into our work as well as our games and sports. We often take the spirit of play out of our games by making them too serious. When we cease



Games like this link muscles and body vigor with courage, endurance, self-control and good judgment.



plest movement and action of small children naturally precedes the play of games. The game has some definite objective which grows out of the play actions of the infant into the imitative, imaginative and creative period of childhood through to the more purposeful and highly organized games of adult life. The more the play spirit is retained in the games of adult life the more beneficial they are to the players.

There are several accepted theories of play. First, that during our childhood we do over again in the form of play those activities which were familiar to the race in former generations and which have as their basis running, jumping, dodging, chasing, hiding, throwing and striking. These are the elements of our active games and upon their ability in these activities depended the very existence and survival of our early ancestors.

The instinct of craftiness and the necessity of tribe or clan co-operation in the early days are repeated in the trick plays and team play developed on the football and baseball fields.

Another theory gives us the thought that, as the basis through the various states of growth and development, mental as well as

physical, play is needed for the fullest development of the child. For example there are plays and games of *imitation* in which the boys and girls carry out the work of their elders in play. Then follows a period of play of *imagination* during which the child's mental vision grows rapidly; after this comes the desire to organize a team and compete against other teams.

Play and games may be divided into active, semi-active and quiet or passive groups. Again we may divide games into two branches, one, in which the player takes part as an individual unit; the second, the team games in which his action is linked with others. In early years the child plays by himself as a unit while the ability to fit himself into team play comes later after he learns to appreciate the principle of group or team organization.

#### ACTIVE GAMES

Active play is essential to the proper physical development of children. They need to run, dodge and leap, using the large groups of muscle that develop lung capacity and heart stamina. The acceleration of the chase, the excitement, all make up childhood's fullest experience.

Considering the value of play and games in the physical training of children we must look to the game itself to estimate this value. Games in which there is much muscular action are of more value on the physical side than others having less action.

The circle games in which the children hold hands, skip, walk and run at different periods of the play are moderately active and well suited to this stage of the child's development. So far as running and dodging are concerned nothing gives more action in the early stages of game development than tag, with all its many variations. The player must be ever on the alert and constantly moving. The heart and lungs including the whole circulatory and respiratory systems are worked to full capacity.

We often hear adults say that the present generation of children do not know how to play as well as the preceding generation. By this



Circle games are moderately active and well suited to this stage of the child's development.



they mean that not as much initiative is shown in children's play as formerly.

It may be true that the present day with its high pressure of living has reached the children and affected the play spirit and that parents are, in many cases, not only failing to encourage the right kind of play but are actually discouraging it and *actually frowning* upon it. Isn't it a joyous thing to hear a boy say, "Come on, fellows, let's choose up sides for a game;" or a girl call, "Come, girls, let's play tag!"

Such initiative is a thing to be desired and encouraged as our present "crop of kiddies" need some stimulation in this direction.

Strange as it may seem, we find children who, because of unusual circumstances, do not know how to play. No one is in a better position to watch over the child than the parent. Next comes the teacher. If the child is not getting a normal play experience then something is wrong. Parents and teachers should learn the reason. It may be on account of unsuitable companionship, physical unfitness or lack of initiative. Wise leadership and guidance does much to insure good results.

Discussion sometimes arises as to the relative merits of supervised and unsupervised play. Some say that play is so natural to the child he has only to be "left alone and he will get along all right." This is often true but there is an element of uncertainty in it, for not all play is helpful. Some children are extremely self-conscious and timid, needing encouragement and suggestion in their play activities. Their self-confidence needs stimulating. Others are so enthusiastic that they may over-do it and need restraint.

Mothers, think of the things you liked best to do when you were a girl and suggest them to your girls. Fathers, play with your boys and show them some of the games you liked to play when you were boys. If your memory is bad then get one of the many good books on games and see how many of them you are familiar with.

Let us all have a sympathetic attitude toward the play of children and do what we can, not only to see that our own children have the proper play facilities, but lend our aid and influence toward the creating and maintaining of municipal playgrounds and recreation centers.



Gymnastic apparatus is really play apparatus and should be considered a branch of play

A farmer boy was working in a field longing for a chance to go fishing. As a little hint, he remarked to his father that the fish were biting fine. "Stay right where you are, my boy, and they won't bite you" was the reply. That was the time Dad wasn't very encouraging to the cause of fun. He should have said, "All right, son, I'll help you dig the worms."

There is a time for work and a time for play and the more of the play spirit we learn to put into our work the happier we will all be.

### Prize Contest Announcement

We regret to announce that we were unable to verify the two best prize contest articles in time to print them in this issue.

Our readers may confidently expect a very interesting true story of the greatest feat of strength in either the October or November issue of STRENGTH.



# Fooling Fatigue

By Bertha Hasbrook

*There can't be a thoroughly sound body that isn't inhabited by a thoroughly sound mind—for that reason STRENGTH will offer a series of articles, by Miss Hasbrook, on the subject of NERVES. It is a subject now tremendously to the fore, under close scrutiny by physicians, educators—in fact, by everybody who makes a study and a business of GOOD HEALTH. The war roused us to the overwhelming need of such study, when our so-called "healthy" boys, in the prime of their bodily vigor, went to pieces with shell-shock and many other kinds of neuroses.*

I'M going to start out with a most offensive statement. I'm going to tell you that, in all probability, you're not tired at all.

Oh, yes, I know exactly what you're going to say. "What does *she* know about it?" You are demanding, elevating your chin and eyebrows and lowering the corners of your mouth. "Maybe if *she* had been up at six-fifteen, had got breakfast over a range that won't work, had started a husband to business and three children to school, had washed the dishes and dusted, had gone to market under a broiling sun, had made the plums ready for spicing and the cucumbers for pickling, after fighting three separate battles—with the vegetable man, whose pickle-cucumbers were outrageously large, with the ash-man, who lets the ashes blow all over the porch I've just swept, and with the wire-haired terrier from next door, who has a *penchant* for the monogram napkins that I leave out to bleach—oh, yes, if *she* had tried this sort of thing—!"

And I reply, my dear lady, that I don't blame you one bit for pitching into me. I know exactly how you feel. That's the way I felt once upon a time when

a great medical psychologist of New York City, a man whose name stands for the most profound knowledge of the human mind, looked me squarely in the eye with his own steady, stern ones which went clear inside and through me and came out at the back, and said to me:

"You're not overworked. Practically, you can't be. It's almost never that anybody overworks. In fact, I'm certain that you're not working enough."

Well—I sputtered. I told him what I thought of him; that I'd like to show him a thing or two. If he were to try *my* job of authorship with heavy household cares thrown in, such as a man doesn't know anything about, and so forth. . . .

And he only smiled at me, a very wise, kind smile, and did not reply. (I have since learned that, in addition to

a large and arduous practice, he carries the brunt of several organizations and does a vast amount of unpaid-for work, for pure love of humanity and pity for its sufferings.)

"Well—if I don't overwork, what, please tell me, is the matter?" I demanded at last.

"Over-thinking about your work," he replied. "Over-thinking the wrong way. You are



I'm tired all the time. Tired to death



suffering from what is known as simulated fatigue."

"Will you kindly explain?" I smugly believed that I was throwing a cutting sarcasm into my voice.

"No," he replied quietly. "I want you to go home and think it out for yourself."

It took me a full week to get over my indignation. I was so obsessed with the belief that I was cruelly overworked, that I felt tired all the time. I not only plodded from task to task all day and dropped like a stone into bed at night, "literally tired to death," as I insisted, but I even woke up tired in the morning. The yoke of working ready for me; there it was, the first thing my eyes lighted on after the alarm clock went off; that heavy, merciless yoke, never to be escaped. It fell upon my shoulders the instant I rose; it weighed me down through all the task-driven day. And yet, both by medical examination and by my own realization, I was in excellent physical health.

By the end of the week my temper had cooled, and when the doctor's words came back to me I began to think them over; to wonder just what he had meant. How could he have said that I was not overworked, after hearing that I was engaged in the arduous profession of authorship and was conducting a household as well? And what had he meant by saying that one practically never overworks? And what was "simulated fatigue?"

That was the beginning of my study. It started me upon a voyage of discovery that was like entering a new world. "I'm beginning to see," I confessed to the great doctor; and he smiled again, that wise, kind smile, and helped me see further. And so, little by little, I worked out a new control over my faculties. I learned to replace fatigue with a fresh, vivid energy; I came to the point where the work under which I had staggered was not half enough—I sought more and yet more—I "ate it up" as my nephew observes, and gleefully. And not to preach a sermon (heaven forbid!) but to pass on a good thing, I want to give you a few hints that may help you fool fatigue instead of letting it fool you.

First, The matter of physical health must be carefully looked to. This is true in any case that concerns mental health, for, as physicians are realizing more keenly every

day, the human being is a *whole*—you can't take him to pieces, and treat his body, his intellect and his soul as if they were unrelated parts, like the bobbin and pedal of your sewing-machine. They are one, and if any of them is to be made well the other must be. This article is not for the purpose of teaching rules of diet, ventilation, heating, bathing, open air, exercise, recreation, sleep, and dress; but make sure that you are scrupulously attending to the hygiene of every one of those nine points. Check up on them this minute. In particular, stress the open air and the "feeding-up," if you are a victim of nerves; the most up-to-date physicians handle a "nerve case" much as they handle a tubercular one—keep the patient out-of-doors during as many waking and sleeping hours as possible, and nourish him on milk and eggs. It goes without saying, too, that any bodily ailment must be given proper medical attention; in short, that the body must be as nearly as possibly a perfect tool where-with your new energy may work. Dr. Eugene Lyman Fisk says that disease is far more apt to be the cause of fatigue than the other way 'round, as so many have claimed. Having cleared the deck for action, let's proceed.

A good many years ago that wonderful psychologist Dr. William James of Harvard put forth the idea that we are constantly being fooled by fatigue—that a false, or simulated fatigue seizes us and leads us to believe that we are "tired out" when in reality we have a large amount of reserve energy stored and accessible if we could only learn to get at it. He cited the case of a man taking a walk and "giving out" after a number of miles; but, upon being required to go forward several more miles, he started at once and soon was walking with more zest than before, although he had been permitted no rest. The same thing, could be repeated, Dr. James found, a number of times; not *ad infinitum*, to be sure, for there is a limit to all things; but his tests showed that layer after layer of new energy was disclosed, after the walker believed himself to be fatigued or even exhausted. Experiment further showed that the same law applied to work, both physical and intellectual.

Now Dr. James brought forth this illuminating discovery somewhere around the



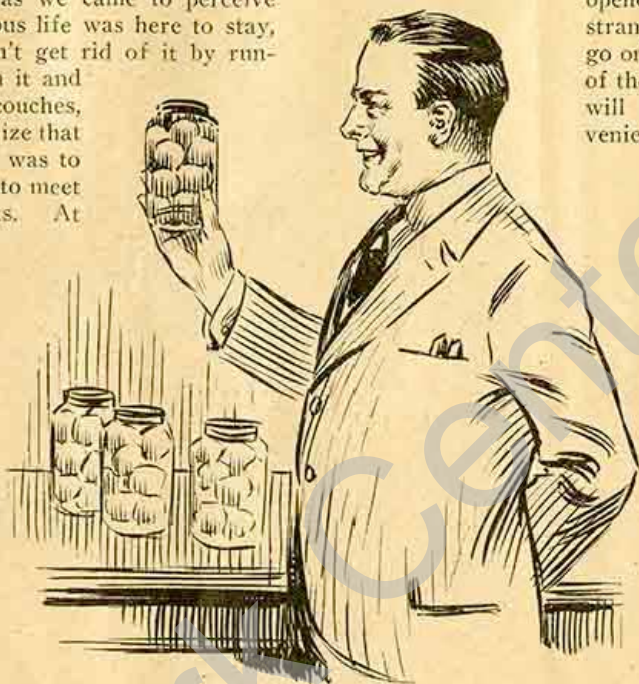
time that the "Rest Cure" was in vogue, if I'm not mistaken, and it probably didn't catch the popular fancy, which at that period was absorbed in "nervous prostration" (nicknamed "nervous prosperity"), its victim reclining upon couches and groaning under the burden of this "strenuous life." But gradually, as we came to perceive that the strenuous life was here to stay, that we couldn't get rid of it by running away from it and reclining upon couches, we began to realize that our only course was to adapt ourselves to meet its requirements. At last the war showed us, with terrible vividness, the full significance of this idea that Dr. James had put forth, when soldiers at the dropping point roused again and again to face new attacks, and with fresh power. At last our psychologists and advanced physicians are preaching to us this amazing, dazing, at-first-overwhelming but in-the-end-saving truth that the reasonably healthy human *does not work too much*. He merely *works the wrong way*.

Scientists state that there is no normal fatigue which is not disposed of during a normal night's sleep; that is, that the cells used up by a day's activities are fully restored during the eight hours (or perhaps less) of sound slumber. Therefore, there is no "holdover." The fatigue products, known as toxins, are not cumulative under normally healthy conditions. You are not tired because of what you did a week ago. You pay your bill in full to Nature each night and start fresh the next morning. If you wake feeling tired it is for one of three reasons: you are not well, physically; you have slept badly; or you are suffering

from false suggestion of fatigue. As Payot says, "The sensation of fatigue, like the sensation of hunger, is often imaginary. We can conjure the impression of exhaustion."

It is with this third cause that I want to deal to-day. The new psychology has opened our eyes to the strange doings that go on within that part of the mind which we will call, for convenience's sake, the

subconscious. It has been given various names: in general, it is that cellar of our minds in which we keep the memories and thoughts and feelings that we don't realize ourselves, or realize only very dimly. Now then: down in that cellar of your mind, stored carefully, you are *keeping the idea that you*



By George! Won't my sons tell their wives about the spiced plums their mother used to make

*are overworked, that your work is tiring you out.*

What I want to do is to help you put another idea in its place. The idea that you could carry twice as much work as you do now. That work is the biggest fun in the world. That you can't get enough of it. That you fairly "eat it up."

And the joke on you is that you know this law perfectly well, that you've known it all along, only you have failed to apply it. Why, only yesterday you looked out the window and observed: "See Johnny playing Fox. He'll run his legs off. He's been playing all the morning. And yet if I asked him to go just to the corner and get me a package of gelatine he'd say, 'Oh, I'm so tired!'"

There! That's the law of the thing, in a nutshell. Johnny hates going to the gro-



cery, and fatigue (simulated) is the result. He delights in the game of *Fox*, and he'll run at it all the forenoon and he comes in, red and panting, for lunch, only to rush back to it as soon as he's bolted his dessert. And mind you, I'm not saying that he pretends to be tired, any more than you do, at your housework; both you and Johnny are sincere in your belief of fatigue. The point is, fatigue is pretending to you. It's fooling you. Your return is to fool it.

Now: how are you to accomplish this?

Have you heard about Emil Coue of France who is teaching the law of auto suggestion? What he really is doing, is teaching people to put a new idea into their subconscious minds. For it is in the subconscious that our real feelings lie; from it flows forth the great current of desire that, like the stream carrying the mill-wheel, sets all our mental and physical machinery to moving toward achievement.

The current of desire!

There lies the secret that the new psychology has taught us. It is the desire, the wish, lurking in the subconscious mind, that pushes us on. (I am using "Wish" *not* in what has come to be termed "the Freudian meaning," for I hold that we are far worse than mere expressions of sex; but in the sense of any sincere urge.) It has been proved by scientists like Coue, Baudouin, and others, that, once the subconscious can be thoroughly imbued with a desire for anything, it will spare no effort to bring it to pass. It will find within you faculties that you

weren't aware of, faculties that you had been leaving dormant before. In simple language, want a thing hard enough and you'll get it.

Now let's see if we can't apply this law of the subconscious to your work. Up to now, you have been arguing constantly to yourself that your work was too hard for you. You have kept saying, "Here am I, a woman of only normal health, made to

do the work of three women. Of course I can't stand it! I'm mother, hostess, and Biddy all in one. I'm likewise a wife, which is some job in itself; and occasionally I'm nurse, when the children have little sicknesses. Naturally, I'm on the verge of breaking down—what could anyone expect? I'm tired all the time—tired to death!"

And your subconscious mind takes the cue from this complaint that you are dimming into its

ears, acts upon that cue. It carries out your orders. You tell it that you are fatigued, and it makes you fatigued. It carries the stream of your wishes.

And that stream is flowing *backward*.

It is flowing against the wheel of achievement, stopping its action, choking the machinery. Set to work to make it flow *forward*. Reverse its direction. Instantly you will get a reversal of the whole situation.

Your desire has been *against* your work. You have disliked it, seeing only aching feet, the heat of the oven, the headache from nervous hurry, the boredom of the dishpan. Now reverse the flow; set your desire to flowing *with* your work, toward its accomplishment. To do this, you must keep your eye upon the goal.

(Continued on page 53)



The key is at last ours, and it's the key that unlocks the gate to New Life



# How Athletics Affect the Heart and Lungs

By Randolph Faries, M. D.

*Dr. Faries was Director of Physical Education, Univ. of Penna., 1890-1897. He was also Inter-Collegiate Mile Champion in 1884-85-86 and Inter-Collegiate Half Mile Champion in 1887.*

*Speaking as a physician, a physical director and a champion athlete, Dr. Faries says: "It is my belief that any individual who has had the proper amount and kind of scientific training for athletic contests, cannot injure himself, because the amount of carbonic acid gas which collects in his system will be sufficient to compel him to give up his exercise before injury takes place."*

THE forced action of the heart and lungs in strenuous athletics is a subject of grave importance, especially to those who indulge in athletic sports requiring the keenest kind of competition seen at the different athletic meets throughout the United States and other countries. Before describing the effects of strenuous exercises of the heart and lungs, I feel it is best to acquaint the reader with the normal conditions of these organs, and explain in a general way their functions. The heart is a hollow muscular organ, having four cavities and four sets of valves. The blood is sent from the heart to the lungs and thence distributed throughout the body. The normal heart beats are seventy-two per minute in man and eighty in woman. During strenuous exercises, such as those pertaining to competitive athletics, the heart beats may be doubled without danger, provided the athlete has been carefully and well trained.

The lungs are the organ of respiration and consist of elastic tissue which go to make up innumerable air cells. The normal respirations are eighteen per minute, and during forced action may be increased with safety to thirty-six per minute. From this number per minute it will be seen that there is always a direct ratio between the number of heart beats and the number of respirations. This is absolutely essential in order that the lungs may eliminate its poisonous product consisting of carbonic acid gas. Just as soon as there is a disproportion the athlete is compelled to slow down with his exercise or in extreme cases becomes exhausted.

No one should engage in any athletic exercise unless they are sure they have a normal heart and lungs, and, furthermore,

should be positive the exercise is suited to their strength of constitution. The heart and lungs are the mainstay in all kinds of exercises requiring a decided increase in their action, such as running, rowing, boxing, wrestling, etc. The moment a forced action is brought upon the heart and lungs it makes itself felt upon the blood vessels, nerves, brain, muscles, liver, kidneys, skin and, in fact, every tissue in the body. It is really marvelous the degree of forced action the heart and lungs will stand when an athlete is well trained; this is especially seen in distance running. It is my belief that any individual who has had the proper amount and kind of scientific training for athletic contests cannot injure himself because the amount of carbonic acid gas which collects in his system will be sufficient to compel him to give up his exercise before injury takes place. I am aware of the fact that some physicians have views contrary to my own. My reply is that I am a living example among many I could mention who have been National and Inter-collegiate champions in their time and who have attained the age of sixty years or more and are still well and healthy and able to stand a fair amount of exercise.

Much has been written about enlargement of the heart, due to over exercise; this is spoken of as hypertrophy. A certain amount of muscular development always takes place during forced action and results in strengthening the heart just as any other muscle in the body is strengthened.

The weakest kind of a heart may become exceedingly strong when exercises are properly graded and a sufficient course prescribed, always remembering that the "dose" of exercise should be suited to the individual. It is not the fault of the exercise



which injures so many hearts, but the fact that so many persons engage in exercises calling for a forced action of the heart before they have received a proper preliminary training. The same is true of the lungs. Often the air cells are taxed beyond their strength by those who have been poorly trained, or what is worse, have not had any training whatever. On the other hand, those who have been properly trained acquire strong lungs, with a decided increase in their lung capacity.

The action of the heart and lungs in strenuous athletics, by increasing the circulation of the blood, makes the arteries and veins much stronger, because an extra amount of forced exercise is brought to bear upon them, and they respond more accurately and quickly to the demand put upon them, the arteries receiving the blood while the veins return it. Let us look more deeply into the forced action of the heart and lungs in strenuous athletics. During such a period a decided aeration of the blood takes place, that is, a tremendous amount of oxygen is inhaled and likewise a tremendous amount of carbonic acid exhaled. In this way every tissue in the body is ultimately affected, and the result is new life and the building of new bodily tissues. One must bear in mind, however, that there is great danger by overworking the heart and lungs in strenuous athletics, and that those organs will not respond vigorously

when overworked and will lose their power, the result being that the heart and lungs become weak and the athlete loses his "staying-power." This is a point every athlete should be familiar with, because if he is not he will retrograde simply because he has not allowed the heart and lungs sufficient time to regain their former power. Too often repeated forced action of the heart and lungs soon results in an athlete being overtrained or becoming "stale," as it is properly called, and nothing but a proper rest and a gain in weight will bring him back to his best form. More than one champion has been defeated by a second-rate man, whom he has defeated many times, simply because the champion has run too many races in too short a time or had also trained too hard in the meantime. There is a very important point to be remembered when bringing a forced action upon the heart and lungs in strenuous athletics, and this is that if this action is continued without any regard to proper intervals of rest, disease may follow, the most common being tuberculosis, valvular disease of the heart, kidney trouble, false typhoid, rupture of tendons, muscular strains, etc.

Every reader of this article should bear in mind that he may ruin his health for life if he disregards the care and preparation necessary for the heart and lungs to respond perfectly during decided forced and prolonged action, seen in championship

## DR. FARIES SAYS:

1. The normal heart-beats are seventy-two per minute, in man, and eighty in woman. During strenuous exercises, such as those pertaining to competitive athletics, the heart-beats may be doubled without danger, provided the athlete has been carefully and well trained.

2. The weakest kind of a heart may become exceedingly strong when exercises are properly graded, and a sufficient course prescribed, always remembering that the "dose" of exercise should be suited to the individual.

3. Every reader of this article should bear in mind that he may ruin his health for life if he disregards the care and preparation necessary for the heart and lungs to respond perfectly during decided forced and prolonged action, seen in championship contests.

4. Some athletes possess such a strong will-power that they are able to perform

wonderful feats in running, rowing, wrestling, boxing, etc., before becoming exhausted. When they are perfectly trained, they soon recover from what is termed exhaustion or collapse. In most instances they are so well trained that they do not become exhausted or collapse. In fact, I have seen many athletes after the severest kind of forced action of the heart and lungs recover in a few minutes, thus proving how beautifully they have been trained.

5. A normal heart at rest does not expend more than one-twelfth of the reserve energy, and during active life, with moderate work, from one-fourth to one-third of its reserve power. The full capacity is only required by the most severe forced action demanding great endurance. When the body is at rest, about two ounces of blood are expelled every time the heart contracts, and this may be increased six times with safety.



contests. I cannot lay too much stress upon the above, because I desire my readers to appreciate the fact that they may build the most healthy bodies if they will, only remember that they are dealing with a machine, the human machine, which will respond wonderfully to the most violent exercises, especially calling for the major part of the work by forced action of the heart and lungs, when properly trained. The brain is greatly benefited by this action, because it receives a constant increase in blood supply and in this way obtains more oxygen, which purifies it; this, in fact, applies to every organ in the body and hence new tissues are made everywhere, having received more oxygen than formerly. The moment respiratory and heart actions become defective or inefficient all the other functions speedily fail. All changes in the human subject, whether intellectual, muscular or sensorial, require in the blood the presence of oxygen obtained from the air. Oxygen is the means by which the compounds of the wasting organs are reduced to simpler and less harmful forms, distributed through the human machine. An abundant supply of the element, secured by wholesome exercise, gives to the system vigorous tone and elasticity, resulting in good health. If oxygen is withdrawn by contracting the respiratory capacity, immediately vital changes are interrupted and the power of the athlete begins to fail.

There is a great need, in forced action of the heart and lungs in strenuous athletics, for an extra supply of oxygen, and because of this all of the organs and tissues in the body, including the muscles and nerves, must unite in a common effort, thus aiding the respiratory and cardiac process.

There are two cardinal principles to be remembered controlling the amount of oxygen received throughout the body: first, the affinity of the blood and tissues for it, this varying with the strength of constitution of each individual, their habits, diet, temperament, environment and previous training; secondly, the cubic capacity of the chest and the degree of mobility of the chest walls. The power of an individual soon succumbs if the reserve capacity for respiration is hampered, limited or deficient, as is the case in deformed chests, pleurisy or bronchial affections, etc. The walls of the chest are very mobile and well adapted

so that they may be trained in a way that the pulmonary capacity becomes greatly augmented.

In order to understand this power to increase one's capacity by the forced action of the heart and lungs, it is necessary to be familiar with the boundaries of the chest cavity. The cavity is bounded below by the diaphragm, the most important muscles of respiration; this is convex upward during respiration, but by contracting becomes flattened, a space occurring which is filled by air rushing into a vacuum which is produced. The ribs form the sides of the chest with their muscular attachments; they extend downward and forward from the spinal column and are connected with the breastbone in front by elastic cartilages, with the exception of the lower two or three on each side, whose anterior extremities are entirely free. During forced action the diaphragm and the exterior muscles contract, thus elevating the extremities of the ribs, making a large space. The capacity of this space is in proportion to the degree of muscular action; hence it can readily be understood how essential it is to have these muscles well developed in order to obtain the largest capacity possible. From the foregoing we learn the amount of air revived during respiration depends on the amount of motion these walls of the chest possess. All exertion of voluntary power, especially the forced action of the heart and lungs, increases respiration. Great care should be observed, where forced actions are presented, to enlarge the chest capacity, since serious results will follow when this is neglected. Indiscriminate exercises should never be indulged in, especially those pertaining chiefly to the heart and lungs, because great congestion is quickly produced and injury is prone to follow.

A very important point to remember is that the same exercise that fills the chest with oxygen also causes the flow of venous blood, which is a depressant to the same locality; for this reason it is necessary for the lungs to receive a larger amount of arterial blood than venous blood, so that the exercise may be well sustained and prolonged. Here I may add that the power of the forced action of the heart and lungs is greatly augmented by the will-power of the athlete. Some athletes possess such a

(Continued on page 56)





## A Fascinating Hunt

*The man who goes into the woods with his camera may be justly proud of his sport for he brings back all the beauty and wonders of the far places.*

*Certainly hunting with the camera is one sport in which all seem to meet on a common basis. To many there are few things with the fascination that comes from hunting wild life in this manner.*

*We have heard men claim that the number of cameras in the woods now equals the number of rifles.*

*And, furthermore, this kind of hunting has no closed season.*

By T. Von Ziekursch

THE Us Company, which comprises all us common peepul, certainly does, individually and collectively, love to be dictated to. We simply hanker to hear self-established arbiters of our pleasures tell us where we can or should go and what we ought to do when we get there. Among us there is always that element who take it upon themselves to spend most of their time worrying about what the rest of us should set up as our standard. Probably it makes them happy and then we go right ahead and do just as we please in most things anyhow. But some day, well, some day a select few of us common peepul are going to rise in our wrath and pull the

hirsute adornment from off a lot of these birds, just to prove that it's all in fun.

This preamble brings us up to what we wanted to discuss. Being one of the peepul and having mingled with them considerably for varied years, in varied ways we "get" them, to use Oxford English.

Which again brings us back to the main topic of this discourse.

As a rule, we have found that Americans possess more of the elemental boy in their make-up than any other race. You can tell them what, when and why they ought to do as you tell them, and then they go and do just as they please and somehow manage to worry a pretty fair time out of it all.



Having come thus far without giving even a hint of what we started out to say, we might as well pitch in. The matter up for discussion before the meeting, at present, is just what is the thing that constitutes the lure of the outdoors.

With us it means anything, a conglomeration of possible ways of letting loose, and we pick out whatever way happens to present itself and do our thinking about it after it is all over.

In these columns we have taken up such matters as camping, fishing, the benefits of the outdoors, etc. Some of you have probably enjoyed one, some other, and now there is a common meeting-ground for all.

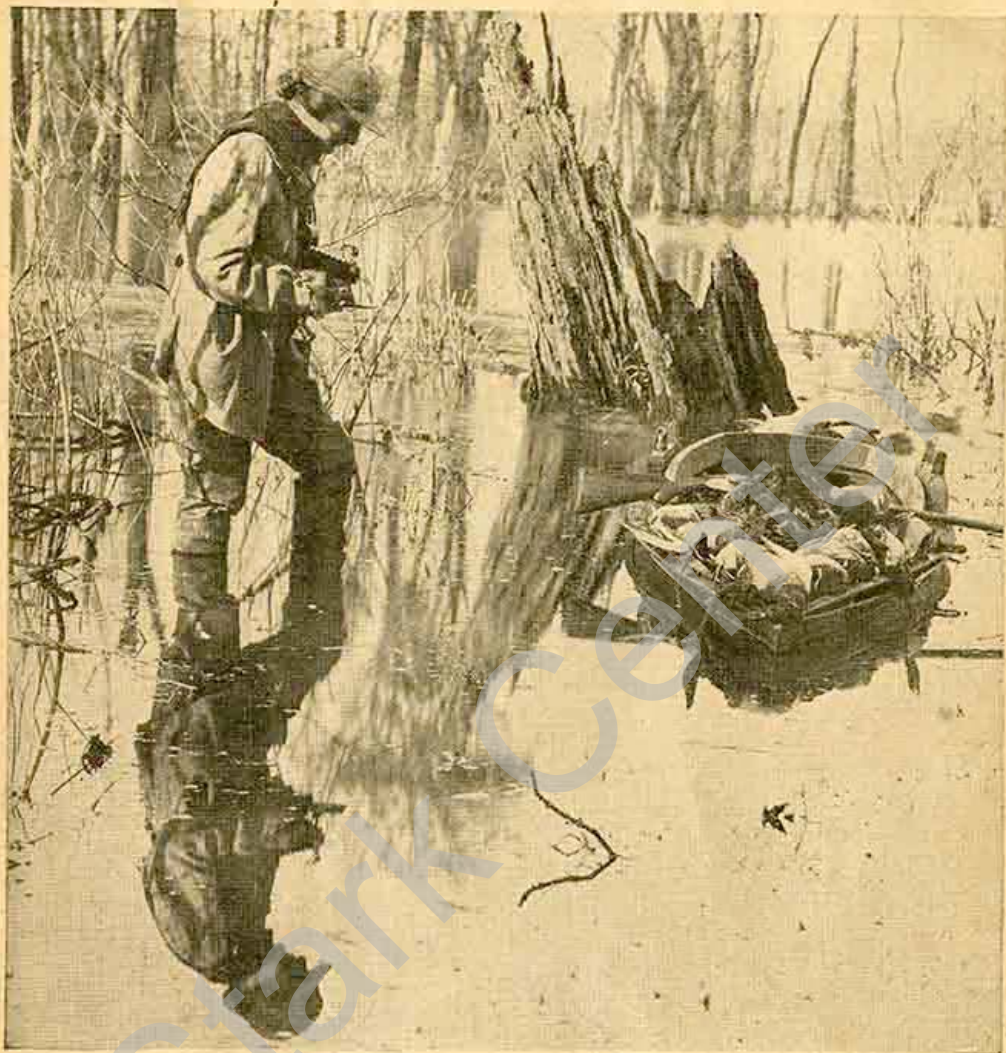
Personally we have hunted and fished, canoed and tramped a great deal and gotten a heap of fun and invigorating health out of them all. But we realize that there are many who would be bored to death by fly-fishing for trout, or by huddling on a fallen tree trunk for hours waiting for a buck to come out of the brush, or to whom a hike of several miles on snowshoes, just for fun and with no objective, would seem like the height of wasted time.

To return for a moment to those self-established arbiters of our pleasures in the out-of-doors, the vast majority are those who have an iron in the ashes somewhere. Some of them will tell you that a gun is the only thing that makes a trip outside of the city worth while. Others will talk a swamp land real estater into a comatose state with dissertations on the why and wherefore of fishing. And so it goes. And if you buy what they try to sell you then they played you right.

But there is one sport in which all seem to meet on a common basis. That is the camera. You hear of the prowess of this man or that man with his high-power rifle bringing down grizzlies or elephants in tight places; you listen to tales of the skill of this or that man with his greenheart or split bamboo rod, deftly lifting out those princes of the fresh water or battling for hours with giant tuna and tarpon; and you hear very little of the man who goes out into the woods with his camera and films or plates and brings back all the beauty and wonder of the far places for those less fortunate to look at.







Is camera-hunting sport? Does it compare with the thrill that comes over a man when he lines the sights of his rifle at a shaggy hide or at some monster moose with far-flung tines and shovel?

Permit us to arise and state that we think the camera in the woods is sport to the ultimate degree. Nine men out of ten want to hunt, to feel the contact of the trigger on one of their fingers, to kill some wild thing. It is the elemental side of our natures coming to the surface. And there is a thrill connected with the stopping of a running deer or a charging bear that no one who has experienced it can forget.

But it is far easier to stop a wild thing

with a rifle than to stop it on the film of the camera. With the rifle you can calmly pick an advantageous position and wait. Perhaps four or five hundred yards down the mountain side or across the lake your game will appear and you will get it if you are expert enough with the rifle.

Four or five hundred yards away with the camera would probably bring you some nice scenery on the developed photo and then you could point vaguely at it and say, "Don't you see him, right in the middle at the back? Man, he was some moose!"

And whoever you happened to be showing it to would probably agree out of politeness and put you down as a charter mem-



ber of the Ananias A. C., and a nery one at that.

To us there are few things with the fascination that comes from hunting wild life with the camera. In the time that we have been doing it we have made a collection of some four hundred specimens. Looking back it seems that each one of those four hundred had its own particular thrill. And our equipment has consisted of one cheap camera which has, as its greatest asset, the fact that you could throw it at serenading felines on the back fence

any time without injuring delicate mechanisms. For ammunition we tote rolls of film of six exposures each.

If hunting with a rifle requires skill, hunting with a camera requires a great deal more. Unless they happen by accident, really worth-while photos of wild life require enormous patience, a knowledge of what you are going to photograph and its habits, in addition to knowing something about the actual art of photography. Personally we know next to nothing about the latter; sometimes we get excellent results,

sometimes the result is funny, but we are little concerned about that.

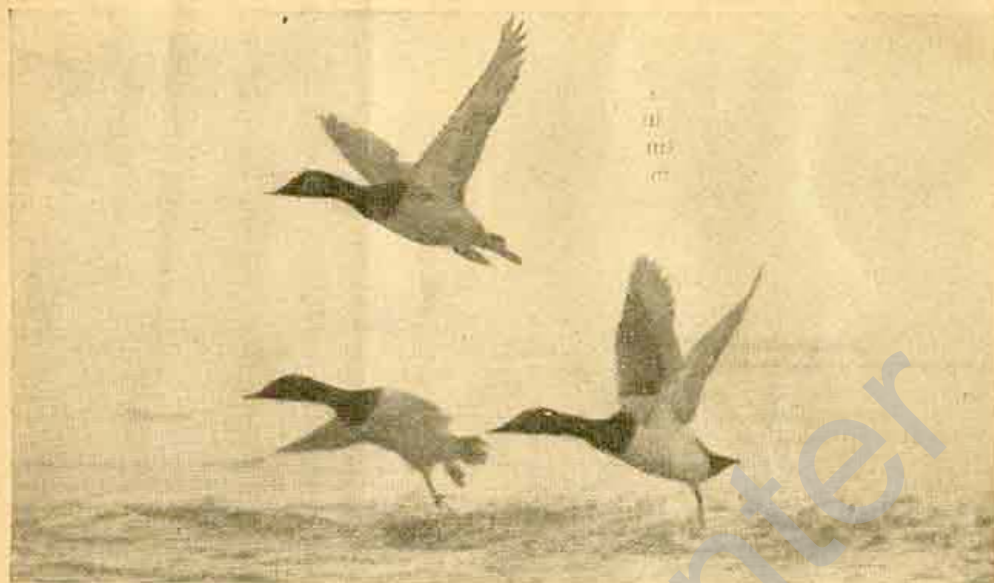
And there are a lot of others like us. It is surprising to learn the vast numbers of outdoor fans who are camera hunters. Some of them are converts from the gun or merely carry it as an accessory, others have never used a gun and never will.

Last year a game official told the writer that the number of cameras in the woods now equals the number of rifles. And all this does not apply solely to big game—birds, streams, mountains, small wild life, everything, in fact, affords a target for the camera. As this same game official expressed it: "You can't shoot a mountain with a rifle, but you can with a camera, and there are a lot of people who don't have the patience for real hunting. They turn to the camera instead."

The most fascinating hunt we have ever had came last year, and the accompanying photograph shows part of the results. As a killer of wild life, we confess to being rather lukewarm, unless it happens to be a lynx or







some other destroyer that crosses our path.

At the time we were hunting deer, or, rather it was a deer hunt we had started on, and if a legal buck had jumped in front of us we might have let go because fresh meat was plenty absent in the cabin.

We hunted over one high ridge and crossed the valley in back of it, in which the deer tracks were a perfect network at places. On the opposite side of the valley a steep slope mounted, covered with pine and spruce but with very little brush. At the top of that slope was a small plateau of probably two hundred yards diameter each way and most of it entirely free of growth other than scattered trees.

Near the edge we picked a fallen tree and sat in the crotch of it waiting, with the rifle cocked and ready. For an hour nothing stirred and we opened our camera and placed it on the log beside us. A little later we heard a crackling among the dead leaves over the edge of the plateau and it came from the direction where the only brush on the entire hillside afforded protection from the valley bottoms to the plateau.

There is a certain thrill that comes with listening to a wild animal approach through brush when you cannot see it. The feeling is one that defies description. We held the rifle across our knees, still waiting, listen to that crackling of the brush. At last

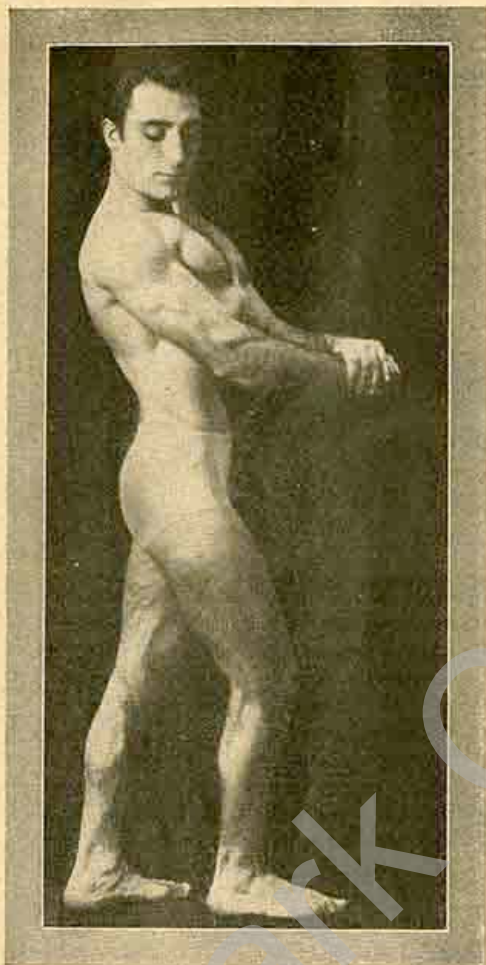
something moving just within the edge of the brush caught our eye, vague, shadowy, magnified by its surroundings to appear like a monstrous thing. Then we saw another form and tensed for a quick shot.

Now their eyes were plain as they swung their heads from side to side, watching for the motion that would betray any danger. We "froze" and waited, and out they came into the open—two tiny, yearling does. Our grip on the rifle released and our hand moved toward where the camera rested, facing them. We knew that the first sharply-defined move would send them scampering back down the hillside, and it must have taken a full five minutes to move our hand over the foot of the log to where the camera was, and the accompanying photo shows the result. A moment after it was taken two white flags of tails could be seen disappearing over the edge of the plateau. It was mere chance that gave us that photo, one of the very best we have ever taken.

That fixed us for the day. We proceeded to make ready for an orgy of photography, but an hour or more passed before any new game hove into sight. Back at the cabin they told us the hunting in the vicinity of that plateau was not worth a whoop, but we figured where there were two does there ought to be more, and waited patiently.

(Continued on page 48)





## The Best Way

*Life isn't just a thing of working, eating and sleeping. Doubtless you have found this out long ago.*

*Mr. Campion did, and in this article he tells you just what else there is that plays an important part in life and how to attain it. Are you one of those who*

strength and vital energy, we can also sit back and take life easy, without a single worry about sickness or disease. This state can be reached at any time—you do not have to stick at it until you are old or middle aged. And it is of just as much importance, and perhaps more, for real enjoyment in life is absolutely impossible when vital energy is low and worry and disease are hovering in the background.

And this holds good at any time of life. Life isn't just a thing of working, eating and sleeping. That is not life, but mere existence. Life is not doing things in order to eat and live. It is a great and never-ending game, in which we all must play whether we will or no. And he who enters into the game willingly with the pep and energy afforded by a strong, healthy body, is the one who wins.

But I didn't start out to preach. Nor am I a writer by profession. A chance meeting with an old friend, a few days ago, was responsible for these thoughts. He is one of the fortunate ones who have achieved financial retirement. But when I saw him the other day he wasn't feeling well. No pep or ambition. Didn't sleep so well at night. Physical condition not so good. "I'd give anything to have your health and strength, Nick."

"Look here," I said, "you know what sort of a build I had when I began to exercise. Wasn't I of just ordinary physique, or a trifle less than ordinary? There was nothing wrong with me, just as there is nothing wrong with you, except that your body is rusting from lack of use. Snap out of it. Get some exercise. Put some muscles on those bones of yours. It will tone up your whole system, and rejuvenate you mentally and physically."

"That's all right, but you have to keep everlastingly at it in order to keep up your strength. If you were to stop exercising you would go to pieces, and be even worse off than me."

**M**OST of us have a vision tucked away somewhere in the back of our heads of a golden day somewhere in the not too distant future when we shall have accumulated enough of the goods of this world to sit back and take life easy for the rest of our days, a day when financial worries are relegated to the past. A tempting picture, and one that should be possible to each and every one of us.

Now, I am a comparatively young man, and have not reached that happy state as yet, and so cannot tell you much about that; but I have acquired something equally desirable, and I am going to pass it along to you.

I wonder how many of us ever think of a state of physical retirement? A state akin to financial retirement, where, when we have accumulated a goodly array of health,



# To Keep Fit

*never feel well, who have no pep or ambition, who can't sleep? Well, if you are, be sure to read what Mr. Champion has to say.*

*If you try out his methods, the odds are ten to one you will feel like a new man, healthier and happier in every way.*

**By Nicholas Champion**

I asked him just what he meant by that, and he went on to explain that if one developed a strong physique and then stopped exercising that his strength would leave him and that the big muscles would feed on his vitality, leaving him worse off than before.

Well, I put him right, but it started me to thinking. How many thousands were there, like this chap, laboring under the same delusion? How many who did not know that it was possible for anyone to better his physical condition through the right kind of exercise? And having proved these things to my own satisfaction, I determined to set down my own experiences, in order that those who choose to do so might profit thereby. For I feel that those of us who have been fortunate in this respect should not hesitate to pass whatever information we may have gained along to others. Not that I consider myself one of the world's strongest men, or anything of the sort. But my photographs will show that I have achieved a fair degree of strength and development, and what is more, I have kept it over a long period of years.

I suppose that when I began to exercise I was pretty much like the average young fellow of eighteen. Not any weaker, but certainly not any stronger. If anything, perhaps not quite as strong as the average man, for it was the desire to be stronger than any of my chums that started me exercising.

At first I exercised in a desultory sort of way. I wanted to be strong and healthy, but didn't know just how to go about it. And perhaps I took more interest in games than in exercise, which was perfectly natural and is the way of any normal, healthy boy. But with school days over, the play instinct was restricted somewhat by the more serious game of making a living. And it is perhaps fortunate that I had a serious

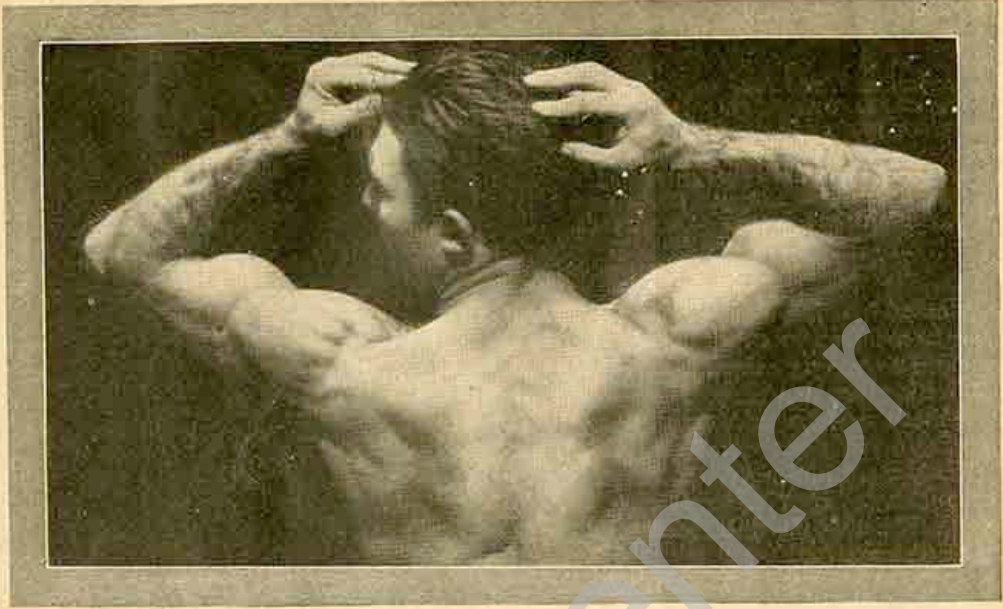


illness at that time, for it impressed on me the necessity of keeping fit if I wanted to make good in that.

So I began casting around for some means of keeping fit. Various methods suggested themselves, but the only thing that really appealed was outdoor sports, which were obviously unsuited because of lack of time. I tried many different ways of keeping fit, some with good results, but none that were entirely satisfactory.

And then the thought occurred to me—why not use the same methods in developing your body as were used in developing your mind? The Power to think was developed by beginning with simple tasks and gradually going on to more difficult ones. Why not do the same in developing your body? Start with simple, easy exercises. As your strength increased, progress by





This is the photograph of a man who has achieved and retained the development that he wanted. He was never the world's strongest man, and certainly never will be one of the weak brothers.

making the exercises harder. It sounded reasonable, and I resolved to try it.

At first it was difficult of application. I knew only a few simple exercises, and it was perplexing to devise means of making them harder. About the only means I had was to increase the number of repetitions I was using. This took more time than I could spare, was wearisome and used up too much energy.

One day, while exercising in a gymnasium with a pair of 10-pound dumbbells, one of the dumbbells slipped out of my hand and landed on the floor near a big 150-pound bar bell. As I stooped to pick it up I remarked to a friend: "Now, if this little shrimp of mine could only grow until it is as heavy as that big fellow, I could be a pretty husky chap."

"Then why don't you make it grow?" And my friend explained how, with adjustable bar bells and dumbbells, you could begin with a light weight, and instead of increasing the repetitions indefinitely, to gradually increase the weight used. And then, instead of having strength sufficient to use a 10-pound dumbbell, you could be really strong and well developed in all parts of the body and could handle the 150-pound bar bell and heavier ones with ease.

Now the only bar bells I had ever seen previous to that time were solid ones—huge, unwildly affairs that only the strongest could handle with impunity. And it had always seemed to me that any man who could put up a 150-pound bar bell was pretty much of a man, and certainly far stronger than the average man could hope to be.

But it all sounded so reasonable the way my friend put it to me that I was convinced that by trying this method I also would be strong and healthy. I wasn't making any startling progress with the methods I was then using, and resolved to give this new method a trial.

I got an adjustable bar bell and began exercising with a moderate weight—one that I could handle with ease. And then, instead of increasing the repetitions indefinitely as I did with the 10-pound dumbbells, I gradually increased the weight I was using.

The results were so evident and pleasing that exercise was no longer a necessary evil, but a pleasure—something to look forward to. My enthusiasm was aroused, and I stuck to it. I never tried to break any records, but was content to develop a strong,



symmetrical physique. You can see the results in my photos.

To be sure, there is nothing very startling about all this. But here is the point: Suppose that you have done just as I have done, have developed a fine physique; you are strong and healthy and active—do you have to keep everlastingly at it in order to keep that strength?

If you happen to have a copy of the March, 1921, issue of *STRENGTH*, you have the answer. In this issue you will find some pictures of the writer that were taken about seven years ago, when he was in the pink of condition and was still exercising regularly. Now compare those pictures with the ones shown here. See much difference? Not bad for seven years of little or no exercise.

It was a big surprise even to me. For two years I did no exercise of any kind. And then one day it occurred to me to test my strength, in order to see just how strong I was, and how much strength I had lost through my inaction.

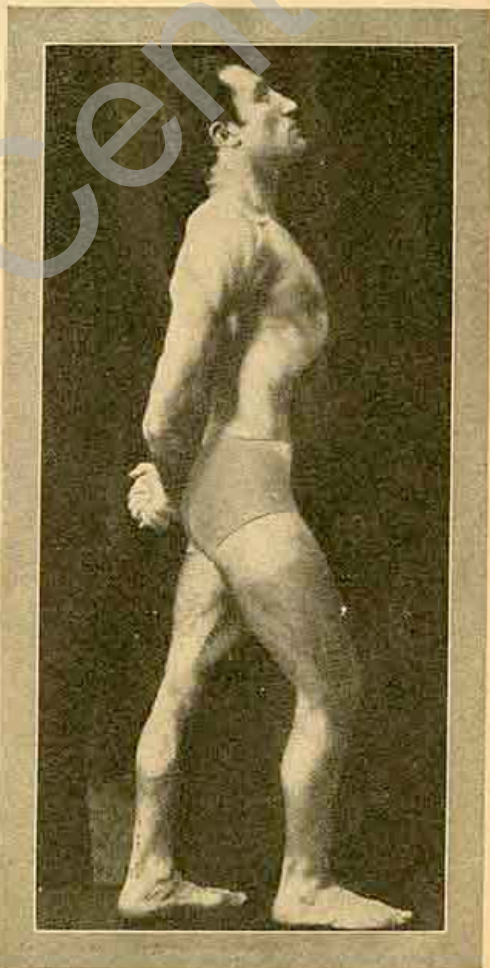
It surprised me mightily to find that there was little or no loss. And I decided right there that I would not waste that strength by continued inaction, but would guard against its loss by adding to it regularly. During the past five years I have averaged from ten to twenty minutes' exercise per week—and I am just as strong as I was five years ago—if anything, a little stronger.

Now the point I want to impress on you is this: You do not have to keep everlastingly at it in order to keep strong and healthy. Any man or boy who is willing to devote a half hour or so every other day to the right kind of exercise, and to continue this for three or four months or perhaps a year, until he has built a good, solid physique as a foundation, can virtually "retire" and draw dividends from this for the rest of his life.

Of course, I do not mean to say that you can remain inactive for the rest of your days. But it does take a surprisingly small amount of exercise to keep your strength after you have developed it. You already have a strong and vigorous body. By putting strength and vigor into everything you do, you eliminate the necessity for a great deal of exercise. If you are walking, don't slide along listlessly and aimlessly. Keep your shoulders back, body erect. Step out

with pep and vigor. Make that walk an exercise—and a pleasurable one. Everything that you do, do it as you would an exercise. This requires a little will-power at first, but soon you will be doing these things naturally and mechanically and will benefit thereby. And then, get out your bar bell once a week or so, and use it for ten or twenty minutes. That's all any man who has already developed a good, sound physique needs to keep fit.

Together with this, it requires sane and normal living. Excessive smoking, continued loss of sleep, overeating, or constant dissipations of any sort will do much to undermine the strength of the strongest. Live normally, and keep your strength. So much for the man who has already devel-



Mr. Campion's development to-day is indeed "fair"





Keeping in this sort of condition requires only a very moderate amount of exercise on Mr. Campion's part

oped a strong physique. He can keep it, as I have kept mine.

But what of the man or boy who is weak and undeveloped, and who has not yet developed his strength? The person who is below normal in strength and development? What must he do to bring his body up to that state of perfection where he can coast along and take things easy?

First of all, he must develop a strong body. This does not merely mean strong arms, or a strong back, or strong legs, but real strength in every part of the body—sound nerves and organs, as well as strong muscles.

From my own experience, and from what I have learned from the experience of others, I recommend graduated weight exercises. There is nothing in these that can harm the veriest weakling. Moderation, of course, should be the watchword. And progression. Begin with a moderate weight—one that you can handle comfortably. Don't continue any exercise until you are

exhausted, although you should feel tired after exercising; if you don't feel tired, it's an indication that you haven't given your muscles enough work. Gradually increase the number of repetitions you are using. Ten is enough in most exercises. When you have reached this drop back to five, increasing the weight five or ten pounds, and again work up to ten repetitions.

And don't specialize. Don't try to develop one part of your body and neglect the others. To do so means that the neglected parts are going to be weak links in your chain. If specialization is at all necessary, let it be on the parts of the body most in need of development.

One of the things to be guarded against is over-enthusiasm. After you have been at it three or four weeks, a pleasant surprise is in store for you. You will wake up to the fact that your muscles are expanding slowly but surely. That you are full of pep and energy. That your food tastes better and that you require more of it. You will be delighted with the results, and may be tempted to accelerate them by doubling the amount of work you are doing. Let moderation be your watchword. Gains that are made slowly but surely are more lasting than a mushroom growth. Be content with a slow but steady gain. Real and lasting strength cannot be acquired in a hurry. And with this method, there is no danger of over-exertion or strain.

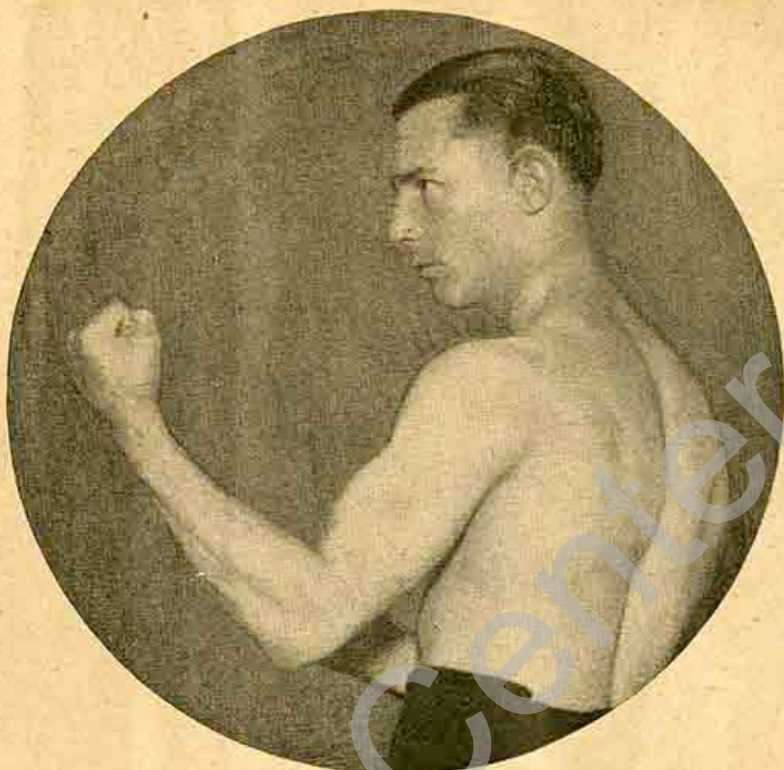
Now you may question why I have harped so much on the development of strength. Isn't the man who develops speed, or the man who develops stamina, just as healthy as the man who develops strength?

He undoubtedly is—for the time being, at least. Of the three qualities—speed, stamina and strength—speed goes first, stamina next, but strength lasts the longest. Take track and field athletics, for instance. Who lasts longest—the sprinters, the distance man or the weight man? The weight man every time, because his development is not merely in the legs or arms, or in the lungs or the heart, but in each and every part of the body.

That is why I advocate the development of strength. I do not mean enormous or disproportionate muscles. But each and every muscle—and nerve and organ—developed as nature intended it should be,

(Continued on page 59)





International

Benny Leonard

## Hints on Boxing

*No amount of theory will make a good boxer, and yet a man without a proper appreciation of the game's theoretical side will seldom become a real top-notch.*

*In many points the average boxer is apt to have mistaken notions, almost everyone has over-estimated the power of extremely short blows. Short blows require greater strength because the boxer has his chance to work up momentum and speed.*

*Mr. Eubanks has given many hints and suggestions in this article that will be of great help to anyone interested in boxing.*

By L. E. Eubanks

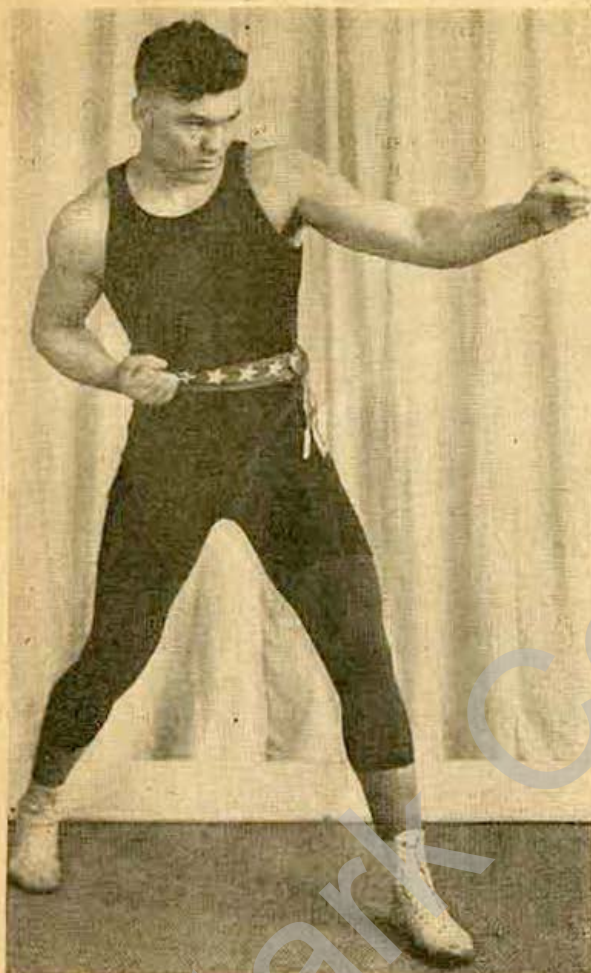
**T**HIS article is not meant exactly as a boxing lesson; there is little information given that will be new to accomplished boxers, and there is far too much to be grasped by the beginner in several lessons. The remarks are simply miscellaneous comments based upon years of experience and observation.

There is some truth in the saying that no amount of theory will make a good boxer. Yet a man without proper appreciation of the game's theoretical side will seldom become a real top-notch. To suc-

ceed requires both theory and practice—you can't tell whether a maneuver will work till you try it on an opponent, but how are you to know how to try it without preparatory study?

Benny Leonard has said, "The day of the boy with a strong back and a thick skull has gone by. You have to be a student to get to the top and stay there. I'm champion and any other lightweight could make a fortune by beating me, yet nothing can induce the best of them to meet me in the ring. I'm in a funny position as a





International

There is only one Jack Dempsey. No one has ever given him a battle since he has been World's Champion

champion without a real contender for his title. Tendler, Jackson and the others know I can beat them, but they don't know why. They think it's because I have an awful 'kick.' They think I'm bigger and stronger than I am. They don't realize that I can beat them because I'm a better student."

One of the questions most frequently asked by neophytes is why a right-handed person should lead with the left hand. This is easily explained. The position of the left lead with left foot in front gives additional power to a right hand blow because it enables one to throw in the bodily weight. A little experiment in comparing

the positions will elucidate this better than a verbal explanation. The same principle applies here as in baseball pitching.

To show that we don't all agree on this matter of position, however, and to present both sides, I quote the following from a well-known writer on sports: "It is a mistake to have the best hand, in boxing, held in reserve for a finishing punch. The fighter who can fight with his best hand extended has a great advantage, because a dozen blows are struck with that hand for one with the hand that has to travel two feet farther to land."

If we go by "natural impulse," the weight of argument is on my side, because nine men out of ten will *naturally*, that is, without any training, hold back the stronger hand for a heavy blow. I think that writer's assumption that the stronger hand is always the quicker unjustified. Many boxers, like Jim Corbett and Kid McCoy, are faster with the left hand and "heavier" with the right. Further, the fact that nearly all boxers who lead naturally with the right hand are left-handed men is insignificant.

One thing is undeniable—with reference to the position of a boxer's hands: if a man is leading with his knock-out arm (assuming that he carries his punch in only one hand), and is opposed by a skillful fellow who is clever at getting in close by a duck or a sidestep—like Mike Gibbons—he is in danger of finding that man "inside" most of the time, that is, too close for a punch from the leading hand. If a man steps inside a left hook, for instance, you can still clout him and drive him back with your right, if it has the necessary power for short-arm work; but if your pose is reversed and your left arm is weak, you are in danger of a "one-two" rip to your stomach.

Avoid the habit of leaning backward; in such position you are unable to land effectively and are easily toppled over by a sudden rush of your opponent. Your position should incline a trifle forward, giving just



enough bend at the left knee to enable you to spring easily backward if necessary. Do not regulate the distance between your feet by some other fellow's rule; your attitude must combine strength and agility, and the length of the leg is a determinative factor.

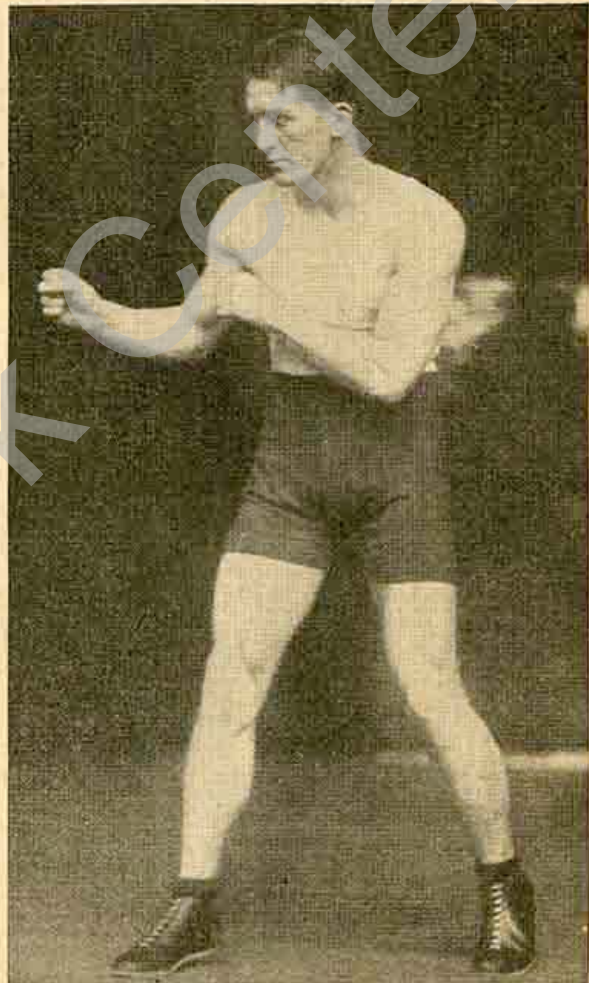
Some of the best boxers ignore the rule of an "orderly retreat," but it is always a dangerous thing to do. You should keep the same relative position of the feet, that is, the right foot should move back first and be *followed* by the left. Never pass one foot with the other as in walking, unless the distance from your opponent makes sudden attack impossible; a light blow will floor you when your feet are close together. Similarly, advance with the left foot constantly in front.

By all means avoid tension. Somehow the impression prevails with some beginners that the arms are to be held tense and rigid, that this static contraction adds force to a blow. This is a great mistake. Let yourself go loose and supple until rigidity is called for. Do not close the fist tightly except in the act of striking. Avoid holding the neck muscles contracted, and do not clench your teeth. Keep your mouth closed, however, for several boxers have had their jaws broken while chewing gum.

A boxer's temperament will always modify his style. Some cannot play a defensive part; they must push and bore in even when discretion forbids it. Terry McGovern and Stanley Ketchell were so constituted. Some boxers can hardly be induced to take the aggressive. Neither policy should be carried to extreme; the circumstances must always be considered. If your opponent is greatly your superior in height and reach you should work in close and thus nullify his advantage. Close quarters give the best chance for rough work, and when overmatched in boxing science one only becomes a target if he stands at long range. When the advantages of physique and skill are on your side you ought to be able to adapt your style to

these conditions and "outpoint" your man.

Use feints. Why so many ignore this feature of the game has always been a mystery to me. Practice soon develops cleverness in feinting, and you will never be a really first class boxer without it. Carpentier and Leonard are two of the best hand feinters of to-day. I say "hand" feinters because there is another kind. Anyone who ever saw Jack Johnson at his best must recall how the black marvel could puzzle his opponent with the movements of his body. He had Willard guessing several times when his hands (Johnson's) were motionless. Jack Dempsey's shifting, swaying style is virtually a series of feints—and



International

Georges Carpentier is a good man, but not good enough or big enough to have a chance with Dempsey



incidentally I will say that the "knock-out king" will make a great mistake if he ever gives it up for some reputedly better method. The shift is as natural for Jack as it was for old Bob Fitzsimmons, and he would never do as well on any other plan.

The virtue of a body feint is that it misleads an antagonist as to the real position of your hands. A swaying body has a punch, especially a hook, under headway all the time. The necessary momentum is already up so that the blow goes home with incredible speed and force.

Evasion of a blow by slipping, ducking, etc., is better than any kind of parrying or blocking. It saves your strength and expends that of your opponent; he must recover his balance after missing entirely. Inability to land even on your guard is dis-



International

Bob Fitzsimmons, one of the hardest hitters the game has ever known

couraging and soon rattles a boxer. He admits defeat to himself, and in that moment is more than half beaten. It is decidedly "showy" and appeals to the crowd. More important yet, it impresses the referee. This complete evasion is one of the last lessons in boxing, but when mastered is invaluable. Do not attempt to use it exclusively; there are different kinds of blows and certain positions which make guarding the better course.

But all boxers get hit. When evasion or guarding is impossible you should receive the blow like a ball player catches a ball—give under it just as the hands are drawn back in meeting a ball. You will be astonished, on trial, to find how much this lessens a blow's force. Timing is of inestimable value if you would "fall away" successfully. You must train the eye to gauge the speed of the blow accurately. Good judgment of time and distance is the very substratum of scientific boxing.

Other hints that may be of value in a bout are:

Never shut your eyes in a round, but close them during the intermissions. Boxing is a decided tax on the eyes, and the minute's rest improves their quickness for the succeeding round.

Don't drop the head too far over, as this lays you open to a dangerous uppercut. Look your opponent in the eye.

Never cross the legs or get the feet too close together.

Do not hold your breath.

Hold your temper, for your own good as well as that of the sport. "Whom the gods destroy they first make mad."

Conceal your injuries from your opponent.

Try to keep your back to the light.

Remember that a blow landed on an advancing opponent or a counter is far more effective than the blow that overtakes him in retreat. Carpentier depends greatly on counters, and this is one reason why his famous right-hand wallop carries such force. He knocked Beckett, the English champion, cold with his right counter, and planned to serve Dempsey the same way, but—

Don't "pose" when boxing. Keep your hands slightly on the move, that your adversary may not have too good an opportunity to study your defense, and that the



muscles of your arms and shoulders may remain warm and supple.

If you are knocked down do not lose your head, rest in a comfortable position till the count of nine, and protect yourself as you rise. Wolgast, in his memorable fight with Rivers, made a foolish mistake. When he was floored in the sixth round he jumped up instantly, though he was needing rest badly.

About hitting. I favor the position of fist which brings the palm of hand parallel with floor. This abstracts nothing from the strength of the triceps (the striking muscle of the upper arm), and protects the weaker joints of the fingers, guards the thumb, and makes the elbow joint less liable to strain.

In striking do not depend too much on quick, snappy blows. This was Jim Corbett's weakness. He was too anxious to get away. When you put in a hard blow throw a certain amount of push into it. In spite of what some may say, this positively does add a crush to the impact. It was this style of punch that made Fitzsimmons famous, and the great little fighter Young Corbett struck the same kind of blow.

Never "telegraph" a blow, that is, do not draw back the hand. "Shoot" the blow from wherever the hand is at the second straight at the target. Depend on straight blows until your antagonist is "groggy" or until you discover that you are easily his master. A swing is essentially a finisher, and is too slow a blow to land on a fast man with any certainty. Hooks and uppercuts are less objectionable; some skillful boxers rely on them principally. Kid McCoy and Joe Gans brought the hook to a high point of perfection, and Jack Johnson "carried" a wonderful uppercut. But the shortest distance between two points is a straight line, and the beginner can well work on this plan.

Large persons do not always strike the hardest blows. With other things equal, the heavy man will do so, but often the lighter man has a valuable advantage in greater nervous energy. Doubtless you have seen striking machines at outdoor entertainments, fairs, carnivals, etc. There is some knack and an element of chance in striking these things with a sledge; but of two men equally ignorant of the apparatus usually



International  
Jack Johnson was one of the cleverest big men that ever fought and he could hit, something many clever men fall down on

the tall, rangy fellow, if he is well-muscled, will register higher than the short, thick-set man. The former usually has more nervous energy, snap, looser muscles, and a longer swing. Being taller, his swing with the hammer describes a greater arc. It gathers more momentum, just as the long-armed pitcher puts a baseball over the plate with greater speed than a dumpy player. The heavy-set man usually makes the better lifter, because of thicker muscles and better leverage (shorter bones), but on tests that involve a swing (except swing lifts) he is handicapped.

The hardest blow boxers strike (though the slowest) is a swing; and the farther it travels before landing the harder the impact—that is, within reasonable limits. A fellow loses more than he gains by trying to start a blow so far back that he has poor control over it. The greatest mistake, as I  
(Continued on page 59)



## The Importance of Strong Hips and Thighs

(Continued from page 18)

heavy athletics or heavy labor, has learned by experience the absolute necessity of making the thighs take their share of the work of the moment.

In doing this the first rule they observe is to keep the spine as straight as possible and by bending the knees shift the working strain to the thigh muscles. This position makes for power.

Consider the line-man in football. When about to charge he does not prepare by standing straight-legged and arching his back. Instead, he crouches down and leans forward from the hips, keeping his spine as straight as a poker, for from that position he can launch his body forward like a thunder bolt. Study the position in the picture of a candidate practicing against the "charging machine."

Consider the "understander" in a hand-balancing act. He has his partner in a full straight-arm hand-to-hand stand. The "top" man sways slightly out of line. The under man does *not* arch his back in the endeavor to hold his partner in position. Instead, he quickly bends both legs at the knees, keeps his own back straight and offers a firm balanced support to the upper man. Watch him and you will see his thigh muscles bulge as they assume the strain.

In dead weight-lifting no professional bends the spine if he wants to move upward of a half ton. I once saw a man bend over and lift about seven hundred pounds creating a world's record. The same man in the hand-and-thigh lift could easily do fifteen hundred pounds, because in this latter lift he kept the spine straight and used his thighs.

In dumbbell and bar bell lifting, the so-called "knack" consists eighty per cent in the scientific use of the hips and thighs. In certain bar bell lifts the skilled lifter raises aloft twice as much as possible for a husky workman or gymnast of equal size and weight.

That is because the lifter's training has been along these lines. The laborer, however, cannot complain because he has a "knack" of his own. It is a positive treat to watch a really skillful "goods handler," be he truckman, porter, longshoreman, lumberman, or day laborer. The way some of

these men juggle huge crates, logs, castings, etc., is nothing short of amazing. They seem to get such tremendous results with such little expenditure of energy. And always they are using their thighs and loins.

If a huge and heavy box is to be moved, a skilled porter never stands right against it and tries to propel it by straightening the arms. The correct practice is to keep the arms and back straight and get the motive power of the hips and thighs into operation, just as shown in the illustration. That is but one instance. The really skillful workman, always knows how to "use his weight" no matter what size, shape, weight or awkwardly-placed object is to be moved.

If you come to think of it, this is sheer self-preservation on their part, as well as a triumph in the conservation of energy. In nine hours a porter or longshoreman will shift, lift and move an incredible number of tons of stuff, and the nearer to quitting time the harder he has to work. A poor method of lifting and shoving would leave him exhausted long before the noon whistle. Hence it is necessary for him to practice a method of working that enables him to deliver the great muscular power with the least effort and exhaustion.

A man of this kind will do the heaviest kind of work day after day and *thrive on it*. By always keeping the spine as straight as possible and by always employing the thrust of the thighs, they become incredibly strong in the loins, hips and thighs. They may not be able to chin the bar with one hand, but they *can* shoulder a trunk or crate and walk upstairs with it, and keep it up all day.

Do you remember the story of "Ben Hur"—Lew Wallace's famous book. For a supposed crime Ben Hur was condemned for life as a galley slave—to spend his hours plying a huge oar and Roman Battleship. Such work was supposed to kill the strongest man inside of a year. After three years Ben Hur developed the strength of a champion gladiator, and there is an interesting description of the way he conserved energy and actually developed himself by applying *method* to supposedly killing work.

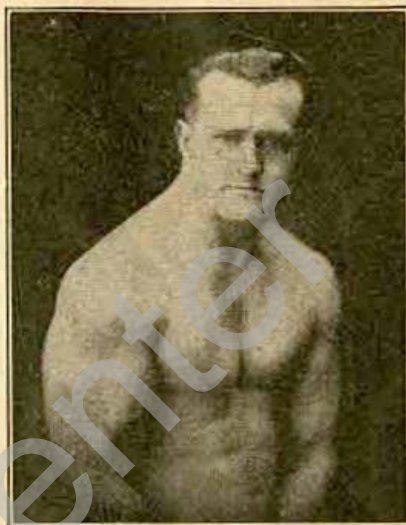


# If you were dying to-night

and I offered you something that would give you ten years more to live, would you take it? You'd grab it. Well fellows, I've got it, but don't wait till you're dying or it won't do you a bit of good. It will then be too late. Right now is the time. To-morrow, or any day, some disease will get you and if you have not equipped yourself to fight it off, you're gone. I don't claim to cure disease. I am not a medical doctor, but I'll put you in such condition that the doctor will starve to death waiting for you to take sick. Can you imagine a mosquito trying to bite a brick wall? A fine chance.

## A Re-built Man

I like to get the weak ones. I delight in getting hold of a man who has been turned down as hopeless by others. It's easy enough to finish a task that's more than half done. But give me the weak, sickly chap and watch him grow stronger. That's what I like. It's fun to me because I know I can do it and I like to give the other fellow the laugh. I don't just give you a veneer of muscle that looks good to others. I work on you both inside and out. I not only put big, massive arms and legs on you, but I build up those inner muscles that surround your vital organs. The kind that give you real pep and energy, the kind that fire you with ambition and the courage to tackle anything set before you.



Latest photograph of Earle E. Liederman taken February, 1922.

## All I Ask Is Ninety Days

Who says it takes years to get in shape? Show me the man who makes any such claims and I'll make him eat his words. I'll put one full inch on your arm in just 30 days. Yes, and two full inches on your chest in the same length of time. Meanwhile, I'm putting life and pep into your old back-bone. And from then on, just watch 'em grow. At the end of thirty days you won't know yourself. Your whole body will take on an entirely different appearance. But you're only started. Now comes the real works. I've only built my foundation. I want just 60 days more (90 in all) and you'll make those friends of yours who think they're strong look like something the cat dragged in.

## A Real Man

When I'm through with you, you're a real man. The kind that can prove it. You will be able to do things that you had thought impossible. And the beauty of it is you keep on going. Your deep full chest breathes in rich pure air, stimulating your blood and making you just bubble over with vim and vitality. Your huge, square shoulders and your massive muscular arms have that craving for the exercise of a regular he man. You have the flash to your eye and the pep to your step that will make you admired and sought after in both the business and social world.

This is no idle prattle, fellows. If you doubt me, make me prove it. Go ahead. I like it. I have already done this for thousands of others and my records are unchallenged. What I have done for them, I will do for you. Come then, for time flies and every day counts. Let this very day be the beginning of new life to you.

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It is chock full of large size photographs of both myself and my numerous pupils. Also contains a treatise on the human body and what can be done with it. This book is bound to interest you and thrill you. It will be an impetus—an inspiration to every red-blooded man. I could easily collect a big price for a book of this kind, just as others are now doing, but I want every man and boy who is interested to just send the attached coupon and the book is his absolutely free. All I ask you to cover is the price of wrapping and postage—10 cents. Remember this does not obligate you in any way. I want you to have it. So it's yours to keep. Now don't delay one minute—this may be the turning point in your life to-day. So tear off the coupon and mail at once while it is on your mind.

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## A Fascinating Hunt

(Continued from page 35)

There were. They began to come up over the edges of that plateau from all sides, bucks, does and half-grown fawns. To us the prize photo of our collection was the next one, in which the camera caught a herd of sixteen deer browsing in a space of probably twenty yards square. As a picture for reproduction purposes it is not of much value, but to us personally it is one of the finest we have ever seen.

Furthermore we made no effort to kill. Instead we spent a full half hour watching them until some motion on our part was caught by one of the does, not more than twenty feet away. Her head came up, ears forward and the question plain in her eyes as she studied us. Then she stamped viciously several times with one of her forefeet. The message of that stamping was so obvious. She was trying to frighten or startle us into making some motion that would betray what we were, for despite their remarkable senses deer cannot distinguish a motionless hunter from a tree-trunk. When she repeated the performance again we could not hold in a laugh, and immediately every deer disappeared in great, terrorized bounds.

Our personal experience has been that outdoor photography for one's own amusement is one of the finest sports that exists. To do it commercially it becomes a laborious task.

When hunting with a camera you learn more about the inside workings and laws that govern outdoor life than you do by tramping with a rifle. One of the most amusing and interesting incidents we have ever seen came at a time when we were out after photos. We sought a secluded little mountain lake and constructed a blind of some brush on the western shore to have the light just right, while we did not have to worry about the wind which was coming down from the north. Late in the afternoon three does appeared from the brush into the open space near the lake. Two of them came on to drink while the third hovered near the edge of the forest, parading back and forth like a sentry. When the other two had finished they returned and took up the task of patrolling the forest

edge, permitting the third doe to drink. We wondered at the peculiarity of this performance and watched intently. When the third doe had finished drinking all three browsed along at the fringe of the brush, and then we saw the reason for their actions. Just inside the brush-line were three fawns. Sounds like a nature faker's tale, doesn't it? Even now we laugh at times when we think of it and wonder whether we really saw it or were merely having a day dream.

Another illustration of the things that happen while hunting with a camera was that of a bear cub. We found a bear tree, stripped of its bark and with the marks of many claws in it, and immediately took up our position in a pile of rocks above it. Soon along came a female black bear with one cub and the little fellow went up that tree. The mother bear could not see us hidden among the rocks from where she was, but the cub could and did, just as soon as we snapped the shutter of the camera. He immediately began to grunt at us and apparently forgot everything else. We remained motionless and so did he, except for his wrinkling nose, that tried vainly to catch our scent. At last the mother prepared to move on and we heard her calling grunt; but the cub refused to come down. At first her grunts were soft; you could almost be sure of the coaxing in them. But when the cub still refused to descend she waxed angry, and at last started up after him. About that time we began to figure on getting away as quickly and quietly as possible, for she would have been sure to see us, with probably unpleasant results, if she had to go up to cuff the youngster. She did start up and her offspring began to whimper like a kid expecting a whipping. He came down without further argument and we heard a thud like a heavy paw taking its toll, but we scampered away ourselves, for that cub might have been perverse enough to have sought us out with the mother at his heels.

Well, that's that. If you like to hunt but don't want to kill, try it with the camera, and you will find it worth while. Furthermore, *this* hunting has no closed season.



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*yours contains more real "meat" than any of the others. If this letter will help you, you may use it in any way you see fit. Arthur Keener, Pittsburgh, Pa.*

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## Two Heroes of Early Football

(Continued from page 13)

honor, clamored for an opportunity of teaching Cunnock's team to play football. When these men found that Cunnock intended to teach his own men his own game in his own way, they set up a hue and cry in the college papers and the Boston press that would have shaken the nerve of almost any captain. Cunnock was overworking his men, Cunnock was killing off his best players, Cunnock hadn't a half dozen sound men left, and so on ad nauseam. But Cunnock was bringing out a team to beat Yale, not a team to be the pet of the graduates or the idol of the reporters. He didn't care one snap of his fingers whether he satisfied or gratified any old athlete, or old fog, any promising candidate or veteran player. He meant to beat Yale this time, and he felt that he was on the right track. He was laid up himself; there were many times when several of his men were so sore that they had to be put by for a day or two, but when the week before the final match came Cunnock knew one thing for a dead certainty, and that was that he had no team that would weaken on his hands as they had done the year before. If they secured the lead it would take more than a Yale eleven to take it away from them.

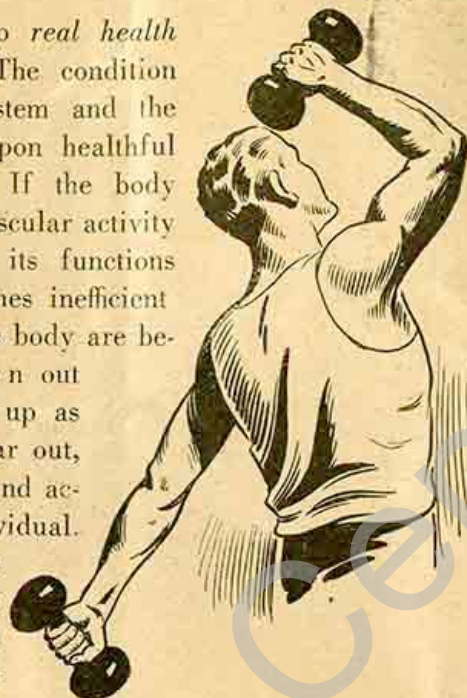
With the 22nd of November came the day of Cunnock's triumph. I saw him at noon that day, and I remember that as I looked into his face it was pale and actually haggard with the worry of the last few weeks and the intensity of his desire for a victory which should repay him for the two years of unremitting work. There flashed through my mind, as I chatted with him for a few moments, the thought of how much this afternoon's struggle would mean to him. The outsider, and even the collegian who has not been himself a player, or more particularly a captain, can have but a faint conception of the obstacles that his earnestness and courage had been called upon to overcome. Harvard had not beaten Yale at football for 15 years, and when he had failed to do it last year many had charged the defeat to his work, counting the Harvard team—which had been made what it was by him—as a nat-



# Why We Should Exercise

There can be no *real health* without *exercise*. The condition of the nervous system and the brain depends upon healthful muscular activity. If the body does not get this muscular activity it cannot perform its functions properly and becomes inefficient.

The tissues of the body are being gradually worn out and must be built up as quickly as they wear out, to keep the health and activity of the individual. There is only one way to build tissue and produce firm and healthy muscles



and that is through exercise.

If you are constantly working your mind and body you need the beneficial results that are obtained through exercise. Particularly if you are a brain worker you should have some active exercise that will build up healthy tissue, sound nerves and firm muscles.

## Give Yourself Fifteen Minutes Every Day

If every man and woman would practice a few simple exercises with a pair of dumbbells suited to your own physical condition for *fifteen minutes daily* you would greatly improve your physical condition. You would expand your lungs, invigorate your circulation, strengthen your digestion and nervous system and give every muscle and joint of the body vigorous action, thus keeping the body toned up and strong enough to be *free from danger either of incurring serious disease or any lighter ailments*. It would also increase their usefulness and, needless to say, happiness would be greatly enhanced.

Instead of getting up at the last minute and eating a hasty distasteful breakfast and

rushing off to work, get up fifteen minutes earlier. It will make only a slight difference to you at first and in time you will learn to enjoy getting up earlier and taking your exercise. After all your health is the most precious possession you have, and through it you either obtain or lose success and happiness.

We make the best quality dumb-bells obtainable. They are of the best workmanship and material, are evenly balanced throughout and are attractively finished in black enamel.

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urally winning team if properly managed. All the men whom he had offended by sticking to his own views were to be lined up at the side of that field with their lips ready and moving to say, "I told you so" in case he failed to win. Perhaps there were men even among his substitutes ready enough to join in the cry in case of defeat. And yet, I don't believe Arthur Cumnock thought of all this, because he was so whole-souled in his single purpose of beating Yale.

The game was played at Springfield as in the preceding year, and the crowd was wild with excitement. Yale won the toss and took the west goal, from which a stiff wind was blowing. Harvard started with the wedge and forged ahead a few yards. Then followed three-quarters of an hour of stubborn fighting in which the wind aided Yale, although Trafford, Harvard's back, time and again, by his long low drives into the wind, kept the ball out of the danger ground for the Crimson. The half finally ended without score. In the second three-quarters, the wind, although still blowing, had moderated considerably, and Harvard did not enjoy so much advantage from it as had Yale in the first half. Yale, by superior team work, forced the ball down into Harvard's territory, and McClung had a try at the goal but failed. A little later Lake, one of the Harvard halves, after a good run which landed the ball in Yale's territory, was injured and his place was taken by Lee. Lake had lost the ball at the conclusion of his run, and Yale forced it steadily back by short runs until it was in Harvard ground once more, finally losing on four downs. Harvard tried Lee, but even with him were unable to secure the distance and Trafford punted to Morrison. Yale then ran the ball up, but Bliss, after a pretty run, repeated Lake's error of losing the ball just beyond the center field. The two teams lined up. Cranston snapped the ball. Dean, the Harvard quarter, made a line pass which Lee took on the run, going over toward the right at Hartwell, Yale's end. With a sharp turn he came in, Hollowell, the Harvard end, pocketing his man, and in another second Lee was skimming along just inside the touch line. He was too fast for his Yale half or back, and came down with a magnificent stride, and in another moment had

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landed the ball behind the Yale goal. The entire Harvard side of the field rose up in a Crimson mass of banners and men, and for a few moments it seemed as if the field would not be cleared. Soon it was, however, and Trafford kicked the goal. The Yale men brought the ball out to the center and hardly had the echoes of the Harvard cheers died away when a bad fumble in the Yale center was taken instant advantage of by Dean, the Harvard quarter, who dashed through as the Yale quarter was reaching for the poor snap, seized the ball and like the wind was for the Yale goal. Hartwell, the Yale end, was the only man near enough to stand the slightest chance of overtaking him, and he dashed on in pursuit. But it was useless. The 5-yard lines flew under Dean's feet and before even the Harvard men could realize it Trafford had added another six points to the Harvard score. I suspect that at this point Cumnock must have felt that his reward was sure, for no captain is really easy until he is more than six points ahead in a football match. From that time on Yale played a desperate game, sending her men recklessly and without regard for individuals, but although they kept the ball in Harvard's ground and most of the time well down into the goal, securing one touch-down from which a goal was kicked, they could not overcome the lead, and Cumnock was carried off Hampden Park on the shoulders of his friends, as deserving a victor as ever wore a canvas jacket.

## Fooling Fatigue

(Continued from page 27)

Let me show you what I mean. Johnny, as you said, hates to go to the grocery for a package of gelatine, and therefore the walk of half a block fatigues him. But suppose you say, "Johnny, if I make fruit jelly for dinner, wouldn't you like it, with whipped cream?" "Betcher life," Johnny improperly replies. "Then, if you'll just run down to the grocery for gelatine, I'll make it right away!" And whizz! he's off in airplane time. Do you see the difference? Instead of the walk to the grocery, you have drawn his attention to the goal. His desire is moving straight toward that fruit jelly with cream, and it's carrying his legs along with it. And he's not thinking of his legs at all, and they are not fatigued at all—and there you are.

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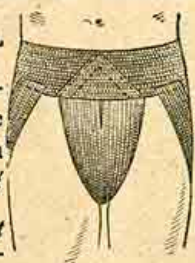
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Bainbridge, in discussing the physiology of muscular exercise, calls financial gain, emulation, and other stimulating influences preventives of fatigue." "Stimulating influences" you note. If, when you begin the task of preparing your plums for spicing, you will fix all your mind upon those delectable jars of fruit on a dainty pantry shelf; on the way John Senior will smack his lips and say, "By George, won't my sons tell their wives about the spiced plums their mother used to make?" and the way that poor little invalid, Miss Smith, across the street will brighten when you take a jar, all decorated with ribbon and holly, over for her Christmas stocking; if, I say, you can hold your entire mind to the goal of this work, can turn the whole current of your desire toward the delight in its outcome, instead of choking your machinery by desiring to be overworked, to be "tired to death;" then you will see at once how to focus upon the charm of an orderly room instead of the dreariness of dusting it; upon the fresh, sweet daintiness of piles of fresh *lingerie* instead of the tiresomeness of the washing-machine; upon the pleasure of a chat with neighbors while marketing instead of the ache of your feet. And you will find that layer after layer of false fatigue can be peeled off, like the skins of an onion, only to find fresh energy lying ready beneath. Frequent change of occupation helps greatly in this process of fooling fatigue—as soon as the false fatigue sets in, change if possible from indoor to outdoor work, or from kitchen to library. Thus the appetite for work is sharpened. You may come to lunch panting, like Johnny from his game of *Fox*, but smiling and keen to get back to work—"Won't it be great if I can get the whole pantry cleaned to-day—and I have the prettiest lace paper for the shelves!"

Don't you see? It's all so simple that it's almost too good to be true. And yet it has taken years of blundering, years of profound study by great man of science, to show us the trick. Scattered individuals had mastered it, but only of late has it belonged to the world. The key is at last ours; and it's the key that unlocks the gate of a new life.

To sum up. Keep physically fit. Work steadily and calmly, and avoid nervous rush.



# Do You Want a Bulging Biceps

## OR A SYMMETRICAL WELL-DEVELOPED BODY?

The desire for strength as a safeguard for health is spreading so rapidly to-day that it is wise to stop and consider what strength really is.

It certainly is not merely the acquisition of bulky, protruding muscles, although they are apparently accepted as an indisputable evidence of strength.

On the contrary the really strong man is the man whose body is symmetrically developed and who has not developed one part at the neglect, and in all probability, at the expense of this body as a whole.

### THE BEST METHOD OF DEVELOPING PERFECT PROPORTIONS

is to set, for yourself, an ideal.

Do not decide that you want to have a sixteen-inch biceps! Do not decide that you want a fifty-inch chest! Do not decide that you want great pectoral muscles!

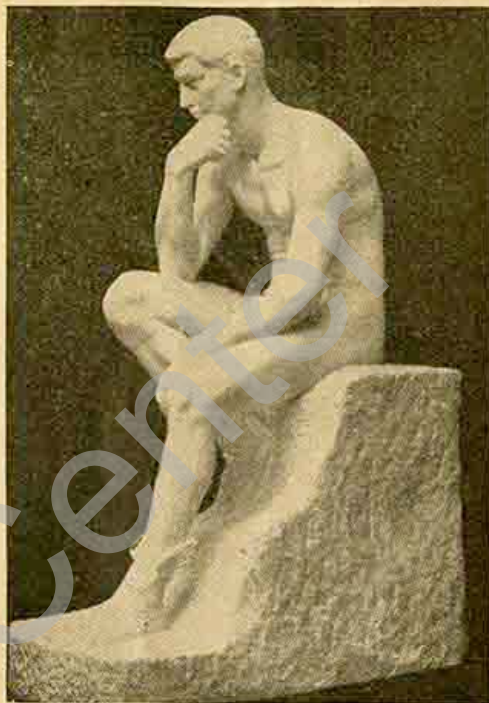
*Make up your mind that you will have a well-developed body. Decide to acquire a good build!*

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And when we say learn to pose we mean learn to pose with discrimination. Use your knowledge to assist you in developing your body to the physical perfection that you desire.

We all know any number of men who would be a laughing stock if they attempted to pose after any of the old Greek statues, and yet we all know that the figures on these old statues come very near to being physically perfect. We all know that a man who is well developed and has a slight knowledge of posing should be able to approximate these works, at least.

"How To Pose," by Monte Saldo, contains thirty-six illustrations of classical examples, actual poses and explanatory diagrams. Anyone who hopes to develop himself symmetrically should not be without this book.



*It is a practical text-book on posing and is the foundation on which you must build if you care to really make the most of yourself physically.*

No one has developed a good body unless they can see for themselves that it compares favorably with the generally accepted standards of physical perfection.

No one can tell how well they compare unless they know something about posing their bodies. It is not easy to take and hold any pose unless you really know how.

To denote action in posing you must have not only the necessary physique, but also the ability to use it and the knowledge of how to use it.

When you know how to pose you will instantly recognize your bodily defects as well as your real achievements and you will know how and why you want to build your body for the future and to assure yourself of obtaining "Physical Perfection."

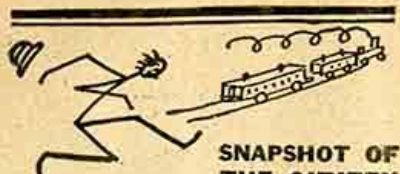
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### How to Save Your Hair And Grow New

You can have a fine head of hair. I am close to sixty years of age and my hair is stronger than it ever was. A short time ago my hair started to get thin and fall out. I did not want to get bald, because a bald headed man always reminds me of a house without a roof. So I started to exercise and massage the scalp. Very soon I noticed new hair growing and I tried my discovery on some of my pupils in my new gymnasium. Their hair also got new life and started to grow thick, strong and luxuriant, so I decided it was my duty to let the public know of my new discovery. My book "Strong Hair" will show you how to keep your hair and grow new hair. Every reader of this magazine should have a copy of "Strong Hair." The first edition will be sold at the special price of 25c in coin postpaid.



**Prof. Anthony Barker, D. C.  
865 Sixth Ave., Dept. 630, New York City**

## How Athletics Affect the Heart and Lungs

(Continued from page 30)

perform wonderful feats in running, rowing, wrestling, boxing, etc., before becoming exhausted. When they are perfectly trained they soon recover from what is termed exhaustion or collapse. In most instances they are so well trained that they do not become exhausted or collapse. In fact, I have seen many athletes after the severest kind of forced action of the heart and lungs recover in a few minutes, thus proving how beautifully they have been trained. Such a quick recovery is conclusive evidence that every function in the body has performed its work perfectly or recovery could not have taken place in so short a time. The writer during his college career was champion Inter-collegiate miler during the years 1884, 1885 and 1886, and also Inter-collegiate Champion Half-miler in 1887, and speaks from experience. In none of the foregoing races did he ever become exhausted or collapse, because he paid the strictest attention to every detail governing the laws of training.

Now let us study the pressure of the blood closely. There is always a certain amount of cardiac efficiency in relation to exercise. From my foregoing remarks it is clearly evident that the cardio-vascular system depends greatly upon the musculature of the heart, and the arterial system must be in perfect tact. Individuals who suffer with kidney or cardio-vascular defects should never engage in exercises calling for a decided forced action of the heart and lungs; this does not imply that the presence of kidney, vascular or cardiac defects precludes indulgence in sports or exercises; in fact, the physician well knows that judicious exercise, well prescribed, for such cases is extremely beneficial.

A normal heart at rest does not expend more than one-twelfth of the reserve energy, and during active life, with moderate work, from one-fourth to one-third of its reserve power. The full capacity is only required by the most severe forced action demanding great endurance. When the body is at rest about two ounces of blood are expelled every time the heart contracts, and this may be increased six times with safety. The whole question of heart strength



strong will-power that they are able to practically depends upon the degree of reduction in heart reserve compared with the demand for the expenditure caused by forced action in strenuous exercise. The physical power of an athlete depends upon his cardiac reserve and physical fitness. No hard and fast rules can be laid down in this respect for the guidance and control of every individual, because the strength of constitution is of an exceedingly variable quantity. Mature judgment of the individual, who indulges in competitive sports calling for a very strenuous and forced action of the heart, is worth its weight in gold. The same also applies to the lungs. Every athlete who engages in severe competitive sports should have his urine examined and a study of his blood pressure made, especial care being taken to note variations in the contraction, relaxation and pulse rate under changing conditions of rest and exercise. When an abnormal blood pressure is discovered great care should be taken in order that the exercise may not be too strenuous. In such cases it should be prescribed by a physician.

Age plays a very important rôle in reference to the forced action of the heart and lungs, and no boy under eighteen years of age should be allowed to train with the same severity an athlete may do after that age. In fact, it is much better to prepare him gradually until he is 21 years old, and then he may indulge in the most strenuous exercise calling for an extremely forced action of the heart and lungs. There is one very important danger when bringing the heart and lungs into forced action by strenuous athletic exercise, especially running, rowing, bicycle riding, etc.: this is dilatation of the heart. The moment dilatation begins to appear the staying-power of the athlete begins to fail and a good rest is needed, sometimes for a month or more.

One should have at least a general knowledge of the effect of blood pressure upon the arteries, veins and capillaries (the vessels connecting the arteries and veins). These vessels are very elastic and anything which interferes with their elasticity affects the heart and lungs, causing an alteration in blood pressure. There must be a perfect relation between the blood vessels mentioned above and the heart and lungs in strenuous athletic exercises calling for a forced action, or fatigue comes on very



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quickly. Athletes who are of an excitable nature are more easily affected by high blood pressure than those who are cool and collected; this explains the reason why the latter will defeat the former in a severe contest. Any athlete who possesses a nervous system that is easily excited always becomes fatigued long before an athlete who has perfect control over his nerves. We have all seen men whose heart-beats increased considerably before entering a contest, and we have also seen those who are cool and collected, their heart-beats remaining normal until the contest in which they are about to compete begins. Mental effort plays a most important part in exercises calling for a decided forced action of the heart and lungs, and in this way the brain pressure is decidedly affected, great changes taking place with lightning like rapidity in the brain cells. The degree of muscular exertion bears a direct ratio upon the brain and causes an immediate rise in blood pressure. This fact should never be lost sight of by athletes, and they should always realize that sudden exertion of any kind is very dangerous unless the athlete is well trained, and even then he should "warm up" before entering a contest calling for a severe forced action of the heart and lungs. In so doing he increases his blood pressure equally throughout his whole system, and prepares every tissue in the human machine for the exertion which is to be put upon it. Failure to do this has often resulted in permanent injuries, such as dilatation of the heart and rupture of a tendon in a muscle.

Very violent exercise, even for a few seconds, such as that seen in sprint racing, has caused a ruptured tendon in many a good athlete, simply because he had not "warmed up" sufficiently. I have seen this in numerous cases, and when this once occurs the athlete who has been a champion is done forever, because his injuries will return even after a period of long rest the moment he makes an effort to regain his old-time form.

In conclusion, may I add that I have tried to give my readers a practical knowledge which I hope will be of great value to them, and I trust the article has been presented so that every one interested in athletics who reads it may thoroughly understand it and profit by it.



## The Best Way To Keep Fit

(Continued from page 40)

firm and sound, and functioning properly.

And I advocate it because it is something practical and possible for each and every man and boy, from fifteen or sixteen years up. The "up" is of necessity, I have known some men fifty and sixty years of age who started to exercise with a bar bell, and who got excellent results.

I do not mean, of course, that anyone can be turned into a Hercules over night, merely by wishing for it. But it is something within the reach of everyone. Earnest efforts and an adjustable bar bell are all you need.

So here is what I have to pass along to you. If you want to achieve a state of physical independence, where you can retire and take things easy as far as a lot of exercise is concerned; if you want to keep the wolf of sickness and disease from your door; if you want to have the energy and vitality to really enjoy life, let the foundation for all this be a good, strong physique.

## Hints on Boxing

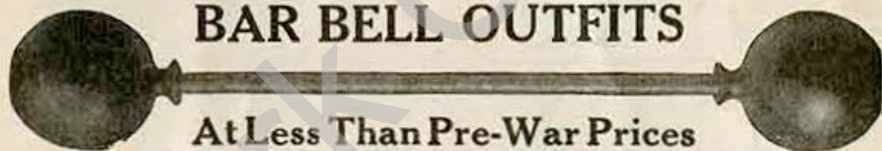
(Continued from page 45)

have said, is consciously to tense the muscles in striking; this wastes your energy. Let the contraction take care of itself, and try to put *speed* into it. As the blow lands go with it—your whole weight, and cultivate the knack of "pushing the blow home."

The general public has overestimated the power of extremely short blows. Allow me again to quote Champion Leonard: "I have heard hundreds of people tell of my knocking fellows out with a six-inch punch, the way they used to say Bob Fitzsimmons did. I never knocked anybody out with a short punch. I don't believe any other fighter ever did. What I do is fool the eye. The speed of your arms in feinting counts. I feint rapidly with my arms well advanced, and suddenly I strike. The feinting is intended to fool my opponent so he won't know when my real blow starts, and if it fools him it fools the spectators, too. You

(Continued on page 60)

## BAR BELL OUTFITS



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To advertise my latest Strength Maker Model Bar Bell outfit I am going to sell a limited number at less than half price. This outfit sold at \$35.00 during the war, at \$25.00 before the war. Today I am selling it at \$17.00, which is 32% less than pre-war prices.

The Strength Maker is interchangeable. You can make it into a long bar bell that weighs about 40 lbs., empty, or a short bar bell that weighs about 35 lbs., empty, or two ring weights that weigh about 20 lbs. each empty. You can load them with sand, which will make the weight as heavy as you should ever need for all purposes of health and physical powers. Should you wish a very heavy bell you can use lead shot, which will make the long bar bell about 210 lbs., short bar bell about 200 lbs., and ring weights about 100 lbs. each.

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This offer is liable to be withdrawn at any time. I believe in the near future I will be compelled to charge \$30.00 for this outfit, so here's your chance to obtain the complete course in physical culture for home training and the remarkable bar bell outfit at the bargain price of \$17.00. I would strongly suggest that you send a post office money order for \$17.00 before the bar bells are all sold. Send your order today, now, before you forget.

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see me feinting and hitting, and what your eye catches is the general effect, because my arms are moving as fast as I can move them. You don't know that when I struck the blow my elbow was drawn farther back that one time, and instead of striking six inches or a foot, I really drove my fist two feet or more. They say Dempsey uses short punches. Dempsey takes twice as long a drive as he seems to take, and as for Carpentier, I watched him beating Levinsky, and he puts the punch into the finish of a blow that travels a yard or more."

The blow most frequently used when one strikes on the spur of the moment is straight from the shoulder. If one has time he should first advance the left foot, then as he strikes out with right arm throw his right shoulder, from the rear to the front, putting his bodily weight into the lunge. Uppercuts and hooks are not very useful as emergency blows; they belong rather to the scientifically governed boxing contest.

Where to hit an opponent is not so easily decided as some people suppose. It is not merely a matter of picking out a vulnerable spot and blazing away at it. The knock-out points, such as the jaw, solar plexus, etc., are easily determined by anyone who cares to give an hour's study to anatomy, and every boxer should have this information; but in actual practice a fighter finds that every contest is an independent problem. To specialize closely on one target in your training may mean trouble later. You might knock out half a dozen men with a right to the jaw, then meet a fellow with such perfect defense for that particular point that you couldn't hit it with a handful of shot. Or you might land your favorite punch and find, like Carpentier with Dempsey, that your opponent possessed "an iron jaw." In either case, it would be up to you to change your tactics, and if you know nothing of body attack it is hard to do.

Further, the physique of your opponent must be considered, whether he is tall or short, etc. As a rule, I have found tall men rather susceptible to stomach punches, and I suggest your playing for the mid-section when you meet a boxer of superior height. Also, a tall man is more inclined to "fold up" when hit in the wind, and as he sags toward you get a chance at his jaw.



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said one of his disciples. "He could use more of his muscles than any man I ever saw. I remember one of his lectures when he devoted an unusual amount of time to the muscles which control the shoulders. To show their great power when properly developed, he gave two practical demonstrations. First: Lying flat on his back he allowed a 200-pound man to stand on each of his shoulders; then, while keeping his head and spine in contact with the floor, he shrugged his shoulders forward, raising both men several inches in the air. Second: having shown that the muscles which move the shoulders forward were capable of moving against 400 pounds resistance, he then gave a most interesting proof of the equal powers of the muscles which spread the shoulders apart.

"Across the back of his neck he held a short chain capable of sustaining 500 pounds. Turning his back to the audience, he showed how the average athlete would attempt to break the chain by tugging violently on each end of the chain, but using only the strength of his arms. He confessed that he was unable to break the chain in this way, but called upon us to notice the difference when he used the upper-back muscles which control the shoulders. He squeezed his shoulder blades together (that is toward the spine) and took a firm grip on each end of the chain; then without disturbing the position of his arms, he slowly spread his shoulders and the chain parted.



EDWIN CHECKLEY

"And the rest of his body was just as wonderful! When he was seventy years old he could pick up three men each weighing 150 pounds and trot with them for 100 yards. He was forever talking about the way people neglected training their hips, and said that the Old Testament writers knew what they were about in continually emphasizing 'the strength of a man's loins.'

"And the wonder of it was that he never 'exercised' nor trained. He used to say, 'If you breathe, walk and stand incorrectly 90 per cent. of the time you can't get either healthy or strong by exercising the other one per cent.'"

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