

The Magazine of Good Health


# Yes,WeDevelop Men Like This 

We have among our graduate pupils a number who are earning big salaries as professional "strong men." Proud of them? Of course we are! Who wouldn't be proud of taking men of ordinary mold and turning them into physical giants.

For the one professional at the golf club who earns his living by the game, there are several hundred members who play golf for the enjoyment and health they get out of it.

In our case, for every pupil who has gone on the stage, we have hundreds of others. Business men, college-men, lawyers, bankers, etc., who have made real men of themselves by our system of progressive dumbbell exercise.

## Our Business is Making Men

Men who are human dynamos for energy, and who have personality plus-who stand squarely on both feet and look you straight in the eye and who accomplish things-"go-getters" every one of them.

Men who owe their broad shoulders, big chests and great endurance to our system of training. Men who liked to exercise two or three times a week and preferred an exercise where they could "put their backs into it."

## First Impressions Count

Who gets the hearing when he introduces himself at your office? The little runt with the apologetic manner, or the big, forceful, upstanding fellow whose bearing commands respect and attention?

Remember! An impressive personality is largely a


A HUMAN DYNAMO matter of outward appearance and inward energy, both of which are developed by our system.

We issue a booklet entitled "HEALTH, STRENGTH AND DEVELOPMENT AND HOW TO OBTAIN THEM." A booklet so splendidly conceived and so beautifully gotten up that you will be glad to keep it permanently, with your standard works on physical culture. Among other things it contains an exposition of our training methods and a catalogue of our dumbbells.

You can get a free copy by writing to

THE MILO BAR BELL CO.

# Its a Shame for You Not to Earn'10.000aYear 

 - When Others Do ItSo EasilyTTHEN a farmhand steps from $\$ 50$ to $\$ 1,000$ a month - when a fireman jumps from $\$ 60$ a month to a job paying him $\$ 500$ for two weeks' workwhen a former rallway mail clerk at a yearly salary of $\$ 1,600$ changes his job and carns $\$ 1,000$ in thirty days-and when hundreds of others quickly jump from small pay to magnifficent earnings in the same way-then it's a shame for you not to earn your $\$ 10,000$ a year !

There is nothing exceptional about these men. They'd tell you that themselves, Many had been clerks, bookkeepers, mechanics. Some had been policemen, farmhands, firemen. And then in one swift stroke, they found themselves making more money than they had ever dreamed possible.

The grind of routine work-the constant struggle to obtain even a small increaseall this was left behind. To-day they know the thrill of making big money; they are no longer ruled by an office clock. There is genuine enjoyment in every hour of the day, for their work is filled with real fascination. They have found not only the most interesting, but the best paying branch of all business.

A fleld that they had never dreamed of as theirs they found to be easy and uncrowded. Earnings that they had always hoped to reach and that their old jobs could never have paid, were right there in this new field waiting for them. Hundreds of others have found success the same way. You can too -let us tell you how.

## How You Can Do It Too

## So Does He

"I had never earned more than $\$ 60$ a month. Last week I cleared $\$ 306$ and this week $\$ 218$."-George W. Kearns, Oklahoma Clity, Okla.


## And He-

"The very flist month I earned $\$ 1,000$. I was formerly a farmhand."Charles Beery, Winterset, Charies


And He-
"After spending ten years In the railway mail service at salaries ranging from $\$ 900$ to $\$ 1,600$ a year I decided it was necessary for me to make a change.
My earnings during the past thirty days were more than $\$ 1,000$."-W. Eartle, Chicago, Iil.

What these men have done, hundreds of others have done, hundreds are doing today, hundreds will do to-morrow. And you can be one of them! For now the same opportunity that put these men into the bigmoney class is open to you!

In the first place they discovered a vital fact about business. They discovered that the big money is in the selling end of business. In the second place they discovered a new and amazingly easy way that will make any man of average intelligence and ambition a salesman, no matter what job lie held before.

Salesmen are the very life blood of any concern-upon them depends the amount of profits made. The men who can put a product on the market and boost its sales are absolutely indispensable. No wonder that man for man Salesmen receive the highest pay. For the men who are Masters of Salesmanship-there is practically no Itmit to their earnings. Some receive almost fabulous amounts. And that is how these men and hundreds of others like them found
the way to their present handsome incomes. They are all Master Salesmen now !

Yet previously they had no idea of becoming Salesmen. If you had told them success awaited them in a field of Selling, they would have laughed at you. They would have told you that it was absurd to think of it-for they had never sold a dime's worth of goods in their lives ! Then they learned of a great organization of top-notch Salesmen and Sales Managers formed for the great opportunities in the field of Salesmanship and to help them to positions in the lines that most appeal to them. Step by step-in their spare time at homethis great organization, The National Salesmen's Training Association, took them through every phase of selling. Every underlying principle of salesmanship was made as simple as A B C. Then as soon as they were qualified and ready, the Free Employment Service of thls Ass'n helped them secure good Selling positions. Almost before they realized it they were in the big-money class.

## FREEBOOK

Starts You for Your \$10,000 a Year

The same opportupity that has brought hundreds of others their good fortune is open to you. Whether or not you have ever thought of becoming a Salesman, you should examine the facts about the tremendous possibilities for big earnings in this fascinating field. Mail the coupon below. This will place you under no obligation. It simply means that you will receive. entirely free, a remarkable illustrated book, "The Knight of the Grip," and the personal stories of men in every part of the country who to-day are enjoying splendid success and earning five, ten and fifteen times as much money as ever before. It'f a shame for you not to make big money when others do it so easily ! Make a start now for your $\$ 10,000$ Year. Mall coupon
at once to The National Salesmen's Training Association, Dept. 21-C, Chicago, III.

NATIONAL SALESMEN'S TRAINING ASSOCIATION,
Dept. 21-C. Chicago, III.
I simply want to see the fects. Send me FREE your Book on Salesmanship and Proof that I can become a Master Salesman. Also send list of lines with openings for Salesmen.

Name
Address
City

# STRENGTH 

Vol. 6
MARCH, 1922
No. 7

Entered as second class matter at the Post Office at Philadelphia, Pa., November 20, 1920, under the Act of March 8, 1879.

## Table of Contents

PageCover DesignBy Clayton KnightEditorial By Alan Calvert ..... 8
David Posed by Fred Rohde ..... 10
Athletes I Have Known By Walter Camp ..... 11
Let's Get Outdoors By T. Von Ziekursch ..... 14
Simple Strength Tests By Alan Calvert ..... 17
How to Use the Gymnasium....By Rev. B. H. Lange, C.S.C. ..... 21
Basket Ball To-Day and To-Morrow . . . . . By Mary Morgan ..... 25
The Self-Stoked Human Engine
By J. Madison Taylor, A. B., M. D. ..... 28
Pictorial Section ..... 31
Eat Right and Be Good By John Stone ..... 35
How to Develop the Muscles of the Abdomen
By O. R. Coulter ..... 37
Head Locks and Chancery Holds .....By Wm. J. Herrmann ..... 39
Prize Contest Announcement ..... 46
Readers' Service Department ..... 48
The Question Box. ..... 48
Published Monthly by The Milo Publishing Co.
Publication Offices, $\mathbf{s 0 1}$ Diamond Street, Philadelphia, Pa. J. C. Egan, Editor D. G. Redmond, Publisher
Subscriptions, $\mathbf{\$ 1 . 5 0}$ per year. Canada, $\mathbf{\$ 1 . 7 5}$. Foreigu, $\mathbf{\$ 2 . 0 0}$. Copyright, 1922, by The Milo Publishing Co.
w. T. EDGAR \& CO., Ltd. B. P. MADON
51 and 52 Chancery Lane, London, W. C. 2 Health Home; Santa Crux, Bombay, India
Exclusive British Agents

[^0]He Was a Musical Athlete


#### Abstract

Caruso's marvelous voice was due to a superb development of his Hyo-Glossus muscle. Your Hyo- Glossus muscle can be developed too! A good voice can be made better-a weak voice become strong-a lost voice restored-stammering and stuttering cured. Science will help you.




## Your Voice Can Be Improved 100\%

YTOU have a Hyo-Glossus Muscle in your throat. If it is large and vigorous, you have a beautiful voice, you are a "born" singer. If it is small, undeveloped, your voice is apt to be weak, or harsh, or shrill; maybe you stammer or stutter. Weaken and abuse this muscle by improper use and you lose what singing voice you have.

## Good Voices Made Better Lost Voices Restored

Through Professor Feuchtinger's methods you can develop your HyoGlossus Muscle by simple, silent muscular exercises, right in your own home, in the privacy of your own room.
Strengthen this muscle and your voice becomes full, resonant and rich. Your tones will have a color and purity surpassing your dreams. If you speak in public your voice will have vigor, expression, car rying power,endurance. All defects of speech will be remedied.

## A Real Money Back Guarantee

The Perfect Voice Institute does not ask you to take a chance. We absolutely guarantee that Professor Feuchtinger s methods will improve your voice $100 \%$ in your opinion-or refund your money. You are to be the sole judge; on your decision depends whether or not we keep your money.
You take no risk. We take no risk. Over 10,000 pupils have received the happy benefits of Professor Feuchting. er's methods. They alwaysimake good.

## Who Professor Feuchtinger Is

Abroad, the name of Feuchtinger is one to conjure with. The grandfather of the professor was Court Director for the Duke of Waldeck; his father was a great musical leader during the reign of Charles, King of Wurtemberg. Professor Feuchtinger, A.M., is well known in the musical world for the work he has done in discovering and perfecting a series of exercises that will develop the Hyo-Glossus Muscle in any throat-the same training that is being offered you through the Perfect Voice Institute. He has lectured before many universities and colleges here and abroad. His personal pupils run into the hundreds.
Great Opera Stars Among His Students
Mdme. Puritz-Schuman, Sofie Wiesner, Metropolitan Opera; Villy Zuern, Paul Hocheim, Julius Brischke, Mdme. Marg. Krabb, Paul Bauer, Magda Lumnitzer, Adolph Kopp, Ylva Magda Lumnitzer, Adolph stein-these are only a few of the operatic song birds who have studied under Professor Feuchtinger during his years as a maestro in Berlin.

## Practice in Your Home

There is nothing hard or complicated about the professor's methods. They are
ideally adapted for correspondence instruction. Give him a few minutes a a day-that's all. The execises are silent. The results are sure.
If ambitious to improve or restore your voice, you owe it to yourself to learn more about the function and the importance of the singing muscle-the Hyo-Glossus. Inform yourself about this new and scientific method of voice culture. The literature we send will be a revelation and an education.

## Send For FREE Illustrated Booklet Today

Every reader of this magazine is cordially invited to send for Professor Feuchtinger's great book on this subject. It's free if you fill out the coupon below. The number of these books is limited. Don't delay ! Don't wait ! Act today! Filling out the coupon below may be the turning point in your life. Send it right away.

## If You Are Interested in Body Building

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

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

We can cite the case of a noted au-


Edwin Checkley-The Man thor, who divides his time between writing stories, smoking a pipe, and driving a car. If you sit in a chair this man can grip a rung of that chair with one hand and lift you and it over his head-yet he never exercises.

Or this: The average full-grown Apache Indian will lift a two-hundredpound man overhead, or cover seventyfive miles a day over broken ground, and yet these same Indians never take a step nor lift a hand unless necessity demands it. How do you explain it? Inheritance, open air life or what?

## Take the Case <br> of Edwin Checkley

who was so extraordinarily strong that his achievements would read like a fairy tale, and who developed himself without laborious exercise and, moreover, tells you how to do it.

Educated as a civil engineer. At the age of thirty became dissatisfled with his physical condition. After trying all the usual methods of, body-building, evolved his "Natural System" and became healthy and strong by adopting certain physical habits.

He did not believe in daily exercise at fixed periods. He proved that a certain way of standing, a certain manner of walking. and a certain method of breathing would make anyone,-man, woman or child,healthy, strong and well built.

He never had to "exercise" because everything he did was an exercise. "Why," he asked, "should 1 'squat' fifty times a day to develop my thighs? Every day 1 have to climb three or four flights of stairs. By force of habit 1 climb those stairs in such a way that I get the best kind of exercise for my legs and back and lungs. If 1 pick a pin from the floor 1 do it in such a way that it., keeps my joints and muscles in condition.

Julian Hawthorne, a great authority on physical culture, says that he asked Checkley how often a man should exercise, and Checkley replied: "All the time." And yet neither Mr. Hawthorne, nor anyone else, ever saw Checkley exercising for exercise's sake. He didn't have to.

His habits kept his muscles flexible. He claimed that muscles should be firm, but inclined more to softness than hardness. He could, if occasion demanded, lift and carry hundreds of pounds of live or dead weight, and could snap steel chains as though they were pack-thread.

At the age of seventy-five, he retained all his youthful vitality and strength. He valued his strength principally as a proof of the truth of his theories. He only mentions his strength once in his book. He took more pride in perfecting the physique of one pupil than in his own marvelous physical powers. And yet for rugged health, ease of movement, prodigious strength and limitless endurance, Checkley was unequalled.

He was endorsed by leading physicians and medical journals, and was an honored lecturer at scientific societies. YOU SHOULD READ HIS BOOK

## "Checkley's Natural System of Physical Training" Price $\$ 2.00$ Post Paid

## "Great oaks from little acorns growgreat fortunes from Paper Shell Pecan Trees"



One of these sturdy trees pnotographed June 18, 1921, when only six months old. Man at left, J. P. Champion, prominent business man and bank director, Albany, Ga., who made the statement quoted at the head of this advertisement. Man at right, R. C. Berckmans, internationally famous authority on horticulture and nut growing, who certifies to the age and quality of these established year-old orchards.

Greater than the mighty oak that grows from the acorn is the long-lived, hardy, productive paper shell pecan tree.

From a food standpoint the pecan tree is noted not only for the quantity of food it produces, but also for the high quality of this concentrated of all natural foods, "Paper Shell Pecans of the improved varieties are the most delicious as well as the most nutritious nuts in the world. They are higher in food value than any other nuts either native or foreign," says Burbank, the Edison of Agriculture, who is also quoted as saying, "The longevity of the pecan orchard and its immense earning power make it one of the most profitable and permanent of agricultural investments."
"We are building an industry which for generations should yield its bountiful crops of delicious food and bring millions of dollars to our citizens," says page 1,478, Vol. 54; of the U. S. Congressional Record in speaking of pecan orcharding. in the United States," It explains the cooperative, profit-sharing plan fy which you can take advantage of this opportunity to grow pecans to meet th, profs-sharing plan by which you can take advansupervision of practical pecan experts of unquestioned ability. Explains the plan by which your orchards are planted for you with twenty trees on each acre unit, cared for, cultivated and fertilized, we assuming all responsibility for turning over a thrifty, growing orchard.

Shows trees of all ages. Explains how you plant your money where it grows, in

## One-Year-01d Established Certified Pecan Orchards

on a plantation in Southwest Georgia, which has established a widespread reputation for high fertility, bringing your profitable crops of pecans to market a full year earlier ; saving $\$ 40$ per acre unit if you act promptly enough to secure an orchard in the limited acreage on which this special discount is being allowed. Explains the plan by which your units are full paid in case of death without any further payments by your estate.

Get that book to-day, while you still have the opportunity to gain a year, to save $\$ 40$.

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

## Our Free Book Paper Shell Pecans

is full of valuable information on the pecan, its food value, its opportunities for profit. It tells how you

## GAIN A YEARSAVE \$40

by taking advantage of the present opportunity to secure one-year-old established, certified pecan orchards
on our orchard plantations in Southwest Georgia, where pecans thrive best. It shows by eminent food authorities the many advantages of the pecan as the purest, sweetest, most concentrated source of fat and protein. It shows by government statistics the increasing demand for nut meat and for the finest of all nuts the paper-shell pecan. It proves by leading agricultural authorities the long life and productivity of the pecan orchard, makes clear the facts which impelled E. Lee Worsham, famous entomologist, to say : "The.

## Secrets of

# Glorious Daily Health! 


#### Abstract

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


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

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

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

## Why Lose $\$ 4,100$ ?

$\$ 4,100$ is about what sickness costs the average person during his lifetime. The person who does not understand Nature's methods of preventing and curing sickness is ill an average of $211 / 2$ days each year-or a total of about $31 / 2$ years in his lifetime. Suppose that person earned the very moderate salary of $\$ 20$ a week-his total loss would be about $\$ 3,700$. Then think of the worry of sickness, the inconvenience, the doctor and hospital bills, the pain-whatever of this can be figured in mere money would bring the average person's loss because of sickness to about $\$ 4,100$.

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

## Feel 10 Years Behind Your Real Age

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

A Complete Edueation in PHYSICAL CULTURE This set of five volumes contains a complete education in Physical Culture and Natural Curative Methods-
(1) A complete work on Anatomy, fully illustrated.
(2) A Physiology in plain language, and embracing many illustrations.
(3) A reliable and comprehensive handbook on Diet.
(4) A complete Cook Book.
(5) A book on Exercise In Its Relation to Health.
(6) A Handbook on Gymnasties, with full instructions on drills and apparatus work,
(7) A book on every form of Indoor and Outdoor Exercises, Boxing. Wrestling. cises.
ete.
(8) Handsome colored charts and instructions for Developing a Powerful Physique.
(9) A most complete and extensive work on Fasting.
(10) A comprehensive work on Hydrotherapy, including water treatments of every variety.
(11) A book on Mechanical Therapeutics, giving full details, many illustrations of physicultopathic treatments.
(12) A thorough work on First Aid with drugless methods.
(13) A complete work on Dlagnosis, giving plainly writtee instructions for detecting diseases and finding their cause.
(14) A comprehensive, illustrated לook on Home Treatment for All Diseases.
(15) An Anatomy of the Sexual Organs.
(16) Sexual Weakness and Disease, Their Cause and Cure.
(17) Rules for Happy Marriage and Parenthood.
(18) A complete work on Child-birth-how to make it safe.

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

## The Daily Guide to Perfect Health

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

This great work is a complete "nat-ural-method" doctor. It tells how to build health, vitality and strength for every member of the household, young and old. It describes the symptoms of every known disease and gives detailed instructions for treatment. It contains invaluable information on fasting, diet, exercise and hydropathy for health and beauty building. A thorough and extensive treatment is given of the laws of sex, the attainment of virile manhood and womanhood, and happy, successful parenthood, together with details for the diagnosis and treatment of all sexual diseases. Handsomely illustrated charts on anatomy and physiology are given.
A reading of the two panels printed here will give you a better idea of the vast scope of this Encyclopedia of Physical Culture. In it is contained the equivalent of at least twenty complete books. The Encyclopedia contains more than 3,000 pages and 1,200 illustrations, besides scores of color plates.

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

# A Complete Guide-Course to Perfect Health by <br> Bernarr Macfadden <br> <br> Read Abovt <br> <br> Read Abovt OUR OFFER 

 OUR OFFER}

to Send for Free Examination any Volume You Select.

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

## Physical Culture

## The Most Valuable Health Course Ever Prepared

Bernarr Macfadden has had more than 30 years of experience in guiding thousands to renewed health. The methods that have brought exhilarating health and physical power to others will prove valuable to you. If you want to enjoy glorious health every day in the year-if you want your family to enjoy the health which makes home life radiate joy and happiness-if you want to drop a few years from your age and have more success-winning energy, power and vitality than ever beforeselect the volume of the Encyclopedia which you wish to examine, and mail the coupon for it to-day. The general contents of each of the five volumes are as follows :
Vol. I.-Anatomy, physiology, diet, food preparation.
Vol. II.-Physical Training, gymnastics, corrective exercise, physical culture, exercises for women, sports, athletics.
Vol. III.-Fasting, hydrotherapy, first aid, spinal manipulation, mechanical diet and regimens.
Vol. IV.-Diagnosis and detailed treatment for individual diseases alphabetically listed.
Vol. V.-Sex Hygiene, physiology, motherhood, pregnancy, maternity, baby care, disorders of men and women, beauty culture, mental culture.
Do not let the word "encyclopedia" give you the impression that it is dull or boresome. This is the only word which would describe the comprehensiveness and completeness of the work. This is the very latest edition and is the crowning effort of Mr. Macfadden's lifetime of experience. Its worth to you cannot be overestimated unless you wish to underestimate the glorious daily health it will show you how to gain.

## How to - .

possess exhilarating bealth every day in the year

## know your own bods

eat for health
diet for the cure of disease
know the art of food preparation bulld a powerful physique correct physical imperfections correct physical imperfections
become a physical director become a physical director
avold unhappy marriages avold unhapp
avoid disease
fast as a curative measure
fast as a curative measure
cure by hydrotherapy (heal by
the use of water) the use of water)
apply all methods of drugless healing
give first ald in emergencles apply home treatment for disease recognize diseases by manifestatlons
treat the common forms of disease understand the process of reproduction
beneft by laws of sex and marriage
treat diseases of women
diagnose diseases
have healthy and vigorous children
treat female disorders
treat male disorders
obtain virility and manhood
care for the complexion
manleure; care for the halr and feet
cultivate the mind
These are only a few of the mat ters explained in the Encyclopedia
build nervous energy

## Here is OUR OFFER

Decide which volume of Macfadden's Encyclopedia of Physical Culture you wish to examine. Then fill out the coupon and mall it at once. The volume you select will be sent to sou prepald for five days' free examination. Then if you decide that you want the Encyclopedia send a deposit of $\$ 2$ and the other four volumes will immediately be sent prepaid. Then pay only $\$ 3$ a month until the total cost of the Encyclopedia, $\$ 35$, is paid. If you care to pay cash, the price is only $\$ 31.50$. If, on the other hand, after 5 days' examination of the one volume you select, you declde that you co not wish the Encyciopedia, return the volume and the matter will be considered closed. If you decide to retaln the volume and purchase this Encyelopedia a full year's subserfiption to Physical Culture is Included. No offer could be fairer than thls. Pick out No offer could be rairer than this. Pick out coupon now.
Thls offer is conflined to persons residing in the United States or Canada.



## Exercise As a Prolonger of Life

IN recent issues of newspapers there were articles giving out most cheerful news. It seems that the average length of life is increasing.
There are no more accurate statistics on record than those kept by the big insurance companies. One insurance authority states that the latest figures show that the span of life is several years longer than it was a generation ago.

Whether this applies to the world at large, or only to this country, we do not know. Assuming that the figures are for this country, what are the likely causes? Probably these:
(a) The great decrease in infant mortality through hospital service, and campaigns to educate mothers.
(b) The great decrease in epidemic and contagious diseases through scientific quarantine and innoculation.
(c) The always increasing knowledge and skill of the medical fraternity.
(d) Improved plumbing and better hygienic conditions in crowded cities.
(e) Shortening of the working day.
(f) The widespread popularity of sports, games, outdoor life and all kinds of exercise.
(g) Rational clothing.

Strictly speaking, only the last two causes come within the scope of this magazine's teachings. Naturally the spread of exercise interests us most.

For the benefit of our younger readers let us reconstruct athletic conditions as they were in 1890:

Baseball-Very popular, but as a sport still in short trousers.
Football-Played by a few Eastern colleges and athletic clubs.

Track sports-Same as football.
Tennis-Still in its infancy and considered effeminate.
Golf-Practically unknown.
Winter sports-Skating and sledding in rural districts, but tobogganing and skiing unknown.

River sports-Rowing by a few colleges and clubs, but canoes were a curiosity.

Basketball-Unknown.
Hiking-Considered as a mild form of insanity.

Driving-A small percentage of the population owned carriages and drove for pleasure.

And so on-
The passing generation claims that it was much tougher than the present one. Apparently only the strong survived. Infants died off like flies. A grown man never consulted a doctor except as a last resort, and it was disgraceful to employ a trained nurse.

Granting that they were tougher, were their selected specimens any better than the champions of to-day? Is there an athletic record of the "eighties" still on the books?

Unquestionably a hundred young people take part in outdoor sports to-day to every one that was active a generation ago.

Unquestionably ten thousand middle-aged men get outdoor exercise to-day to every one in 1880. Where at that time only a few city people could afford to drive out in the country, untold thousands "air themselves" in autos to-day.

Unquestionably thousands of business men of our fathers' generation "rusted out" from lack of exercise and open-air life.

Notwithstanding the claims of the oldsters we believe that the average man to-day is far more vigorous than his grandfather was; that the average girl is a far finer physical specimen. And we believe with the insurance man, that conditions are improving.

## Clothing

THERE is still lots of room for improvement. Immigrant mothers, when autumn comes, still sew their children into underclothes that are not removed until spring. But visiting nurses and welfare associations are changing all that. We don't wear near as many clothes as our fathers did. You no longer see newspaper jokes about the "scratching month," i. e., November, when one donned his heavy flannels.

We dress as lightly as possible for indoor life and put on outdoor wraps in the quantity dictated by the weather.

## Indoor Exercise

THE number of public, private and school gymnasiums must have increased many times in the last thirty years. When it comes to home exercise there is simply no comparison. In 1890 few men took indoor exercise except in fully equipped gymnasiums. To-day multitudes of men and women exercise at home with dumb-bells, pulley weights or without apparatus.

In the monthly magazines you will see the advertisements of dozens of concerns that make home training apparatus or supply exercise systems.

This widespread desire for physical improvement is largely due to the persistent efforts of several magazines devoted to the upbuilding of the body. We are proud of our humble share in this up-lift movement.


# Athletes I Have Known 

By Walter Camp

THE heroes of our sports are many, some of them publicly heralded until their names are known to hundreds of thousands; others known only to the few who really appreciate their achievements. The writer has been fortunate enough to personally witness many of the great deeds, the making and breaking of records and the rising to some glorious triumph in an unexpected way. Every sport has had some characteristic experience of a remarkable nature through which a hero has come to the front.

The writer saw Arthur Duffy break the hundred yard record, saw Reidpath break the quarter mile record, then saw Ted Meredith displace Reidpath's mark; saw Caldwell break the half-mile record and then saw Meredith beat Caldwell's record; saw Shaw break the 120 -yard hurdle time at $151 / 3$, then saw Murray cut a fifth of a second off that, and then saw Thompson bring it down threefifths of a second further to a limit that it seems as if further reduction were impossible. But there are heroes more unsung than these and some that have been almost forgotten. We shall bring them to the front in this series of articles and tell something of their achievements.

The reader may get something of the thrill that the writer had when he lay on the turf along side the jumping pit and saw Gourdin, of Harvard, make his marvelous record last summer in the Harvard Stadium; if he will hark back to the time when the writer, then a prep school boy just preparing to enter

© Underwood \& Underwood TED MEREDITH

Yale, saw Willoughby, of Penn, in the firs: Intercollegiate meet at Saratoga, jump 18 feet $31 / 2$ inches! Then Stevens, of Williams, won the hundred in eleven seconds; and Greene, of Princeton, took the half mile in two minutes, sixteen and a half seconds! Indeed we have progressed far since those days and many are the heroes of broken records. But there is something beside breaking records-there is the undying spirit that drives men in the heat of competition when victory means more than mere selfish triumph. These come on track and field and river and they make history. Woodring's victory at the Olympics was of this nature.

Up in the Harvard Stadium, at the time of the try-outs for the Olympic games, in the finals of the 220 -yard dash, I sat with Tom Keane, of Syracuse, with Mayor Peters, of Boston, and another member of the committee. Of course we were all intent on the finish of that event and were just opposite the tape. Another trainer leaned over my shoulder and said to Tom as the men flashed by, "Did you see that finish?" "No," drawled Tom, much to my surprise. "I was not watching the first and second men. I was looking at a man farther back." It was such a singular remark to make that I was at a loss to understand it, and I asked Tom a minute later what man he was so wrapped up in. He replied, "Allen Woodring. Watch him." This whole incident occurred to me when reading the predictions for the 200 meter in the Olympics. The various comments, while for the
most part giving Paddock the victory, with Murchison and Kirksey close up, said that Woodring might have a possible chance to place. Why was Tom Keane so sure about Woodring being the man to watch? When the Saturday night cables came in saying that Woodring had taken first place, Paddock second, and Edwin England third, and Murchison fourth, I began to get some idea of the keenness of perspection of Tom Keane.

Youngstrom, of Dartmouth, performed a great feat up in Hanover a few years ago that will live long in the football annals of that university. Previous to the contest at Hanover between Dartmouth and Colgate, the two teams of both colleges put up good football, and in fact such good football that this contest was regarded as one of the big contests. Thousands of football enthusiasts journeyed up into the small town in New Hampshire for the football treat. Colgate opened up early on the Dartmouth team and during the first period in a series of line plunges in which their backfield, and notably Gillo, crashed into and through the Dartmouth line, finally succeeded in getting the ball to the Dartmouth 10 -yard line. It looked even as though they could carry the ball across the line, but they preferred to put it over by a forward pass, Anderson to Gillo, the latter catching the ball right near the goal post and being tackled as he swung over the line. West, Colgate's big tackle, kicked the goal, thus leaving the score 7 to 0 , at which point it continued through the second period, neither side scoring, and again through the third period, and by the time the fourth and last period was two-thirds over, it looked as if the game was settled and the visitors would depart winners. Dartmouth made many at-tempts-and some good ones-but seemed unable to get the ball across the line. Toward the latter part of the fourth quarter, they put up a desperate struggle and were forcing Colgate ; and finally a forward pass, Robertson to Murray, brought the ball to the Colgate 15 -yard line. Here they tried another forward pass; but it failed and Colgate had the ball. After one failure at center, Webster of Colgate went 7 yards through tackle. Two more attempts failed and Colgate was forced to punt. Youngstrom, who had already blocked one or two kicks, came crashing through; blocked the
punt; scooped up the ball and carried it across the goal line for a touchdown. Robertson, who made a try for a goal, was nervous, and the ball hit the goal post but dropped over the bar, tying the score.

Casey performed a similar feat for Harvard, but in another way. The PrincetonHarvard game of that year was one of those contests which not only go down into history, but which every spectator carries in his memory for years after. In the first place, it was expected that Harvard, with her record far superior to that of Princeton, would win without much difficulty. But the Tiger was a fighting tiger, and beginning with only a forlorn hope of preventing Harvard from getting over that goal line at all hazards, they gradually found that they could make gains against Harvard; and before long were becoming confident that Harvard could not defeat them. Suddenly, with two or three elements of good fortune, finding themselves in the lead and Harvard in a most awkward position at that moment ; the Princeton partisans-and probably the Princeton team-believed not only that victory was within their grasp, but that they might make it even a more impressive one. Then suddenly, to the dismay of Princeton and the surprise even of the Harvard supporters, the Crimson eleven came to life, and Casey in particular seemed endowed with a slipperiness that was unstopable. Before they knew it, Princeton found the victory which had been so assuredly theirs nipped in the bud and turned into a tie, but it was a great game.

Scheerer, of Princeton, joined the Poes and the Sam Whites in Princeton's honor column in 1919. The Princeton-Yale game of that year was another one of those nerve-racking contests which leave the crowd exhausted at the end of the game. In the last period, with the game practically a certainty for Yale and with the score 6 to 3 , it looked as though the game was settled, especially when Lourie lost 6 yards on the next play and Scheerer, who was substituted for Witmer, was thrown for a loss after juggling the pass from the center. On the next pass kicked to Yale in midfield, Yale tried a long pass on the first play, which Temple of Princeton picked out of the air and went back 30 yards, being downed on Yale's 40 -yard line. Princeton then made a first down, carrying
the ball to the 25 -yard line and Murray was sent out from the sidelines and kicked a field goal, thus tying the score. Even then it looked as though there was little chance of Princeton's getting any more, but immediately after the kickoff, with the ball on Yale's 31-yard line, Neville, starting on an end run, made a lateral pass towards Kempton; the ball hitting the ground and bounding behind the Yale quarter. Scheerer, of Princeton, picked up the rolling ball and ran the 20 yards necessary for a touchdown and victory.

Bernard Darwin, the man who last year wrote so entertainingly of the British Amateur Golf Tournament in which our

American stars were playing, was years ago the hero of an Oxford-Cambridge golf contest. He was a Trinity, Cambridge, man, and was born in 1876. He played for Cambridge three years on the golf team and was captain in 1897. His first year at Sandwich he played No. 2 on the team and beat his man. The next year at Wimbledon he played No. 1 on the team and beat his man, and in 1897 he played No. 1 on the team and turned the tide in favor of Cambridge when the score without him was 11 to 9 , by bringing in a lead of 7 holes on his man, making it 16 to 11 in favor of Cambridge; the match being played on the total number of holes up.

Lord Desborough was a hero in another way. Some sixty years ago there wat born in England, William Henry Grenfell. This same man became one of the most noted men in the world of great sportsmen as Lord Desborough. Desborough's life was a full one indeed. Undoubtedly he was known as one of the world's great sportsmen. In his college days he was a famous oarsman; later a big game hunter. He swam twice across the Niagara River, stroked an eight across the English Channel, was prominently identified with the International Intercollegiate games as well as
the Olympic contests, and was England's representative at the International Committee meeting in 1911, and President of the British Olympic Council in 1912. He was of splendid physique and a sportsman through and through.

And here is a golf case in which the hero did not finally win but in which he displayed the qualities that have upon other occasions returned him a champion. Those who abandoned the Fownes-Gardner match when Gardner was 7 down the turn for the final 9 holes, missed the greatest exhibition of the tournament, and one which might, but for Bill Fownes' steadiness on the 16th and 17 th holes, have brought off the greatest comeback of all. Some idea of what happened may be gathered from the fact that when the two stood up on the 10th tee for the final 9 holes, the match was practically over, as far as human vision could tell. Fownes had a 7 -hole lead with only 9 to play. In other words, all he had to do was to halve three holes, and that over nine holes which he himself had made in the morning in 38 . But at this point the fun began. Fownes got a 3 on the 10 th, (Continued on page 59)

# Let's Get Out-Doors 

By T. Von Ziekursch

AFEW years ago anyone who had advocated getting out of doors for sport during February or March would inevitably have earned the doubtful honor of being put down as mentally warped. At least, that condition ruled in many parts of the east, especially in the vicinity of the cities.
In the north, where, if anywhere, there was reason to get a strangle hold on the old fireplace, things were different. In the West also, the hardy breed of Americans had long ago learned to play in winter just as much and possibly even more than in summer.

It was all very well for the poets to rave and rant about the beauties of snow and fine to sit by a cheery fire and read about the adventures of this or that steel-jawed adventurer in the open places; but none of it for the average dweller of the eastern cities.
Your average Canadian long ago learned the fun, the invigorating, health-making exercise and pleasure that the great out-of-doors afforded during these months when the deity of the north sweeps down with his white blanket. So had the folk of many sections of the United States. And now, more and more, the idea that there is fun to be had, exercise and health for the taking, is gaining its hold. These months no longer must be regarded as the time of glumness and useless inactivity.
Perhaps it was a racial cause that had brought about such conditions. If any one has the right to the laurels, the Canadian must be given full consideration as an out-doors sort of a person. And the Norwegians, Swedes and Danes who settled so numerously in many western parts of the United States come under the same classification. These sons of the old Norsemen had conquered winter centuries ago, when their forbears sailed in the highprowed craft of the Viking race.

To this country they brought their skiing, their ski-joring sports and their love of winter and the open places. Inevitably, as they mingled with the descendants of other races, these things were spread. At
first they were not a sport, they were a necessity for getting around in sections where the snow was deep and it was a backbreaking job to navigate through it. In the same way ice-boating, or ice-yachting as it is now called, served a useful purpose before it ever became a sport.

But, in constantly increasing numbers, men -and women, too-learned the pleasure that these things afforded and began to practice them for sport. To-day the way they have grown is startling. They have even reached that stage where they are entering a wedge into the list of athletic activity practiced in the collegiate world. This year there will even be international intercollegiate competition in these winter sports between various American and Canadian colleges. There will be snowshoe races, skiing contests and leaping, ski-joring and everything that can properly come under the list of winter sports. What is more they will take in colleges all the way from the New England and Middle Atlantic states to the Pacific Coast.

And they are far from being only collegiate sports. Boston and Portland will have their ice-yachting races and all their other sports. Montreal, Quebec, Ottawa and Toronto will see their great winter carnivals in which thousands take part, and to which many Americans who formerly went to Florida for this season will go instead; to whip up the red blood during a mad chase down one of those miles of toboggans. Philadelphia and New York will have their ice-yachting with the club races on the Shark River, the Shrewsbury, the Delaware and Hudson, and all the other lakes and streams where thousands from these two big centers of eastern population are turning now each winter for the week ends and even for weeks of vacationing in the season that used to be barred.
In Chicago there will be many to go to the big carnivals given in that vicinity or to the great contests in the regions of Wisconsin, Michigan and Minnesota, where champions and world's reca ds are made with the skis and snowshoes.
Then there are the resorts. Any grown
person can recall not so many years ago when the only resorts that were open during the first three months of the year were those that could offer balmy skies and sun bathed orange groves with their attractive beaches and fishing.

Now, how about places of the type of Saranac Lake, Lake Placid and the great Canadian resorts? They have changed from summer to winter resorts in many cases and chiefly because of the healthy, out-door sports they have to offer.

Recently I received a surprise. In passing a sporting goods store in an eastern city I noticed a pair of bear's paw snowshoes in the window and stopped in. Snowshoes of the ordinary type were nothing new. Their usage had become quite common; but these bear's paw snowshoes were a distinct Indian type. Instead of being constructed along the lengthy lines of the usual type, they are somewhat rounded or egg-shaped; and the only place I have ever seen them used is in the back country where the brush is heavy and the other kind are apt to trip the wearer.

In reply to my questions the salesman remarked with an air of boredom, "Oh, yes, we sell probably twenty-five to thirty pair a year. At least, last year was the first time we had them, and there were a lot of men who seemed to know what they wanted when they bought 'em."

It has often been said that any big movement furnishes ample indication of its approach. If that be true then the average American is becoming a winter vacationist, a winter health and out-door seeker as well as a summer one. True, at this time there is no trout or bass fishing, and very little hunting, excepting bear and the big game hunting of


Making a turn at high speed. Ice yachting at Long Branch, N. J.
some of the Canadian provinces. But there are all the other sports, as many and as keen as anything the summer months have to offer.

The plain facts in the case are that getting a vacation in the great out-doors is merely a matter of going to it. The open places are waiting within easy reach of everybody. There is no mystery about it and no more appalling expense than is entailed by the most ordinary couple of weeks spent at some seashore resort, or a mountain resort hotel in Summer, or by a southern trip in Winter. Under ordinary circumstances the cost will probably be far less.

The man or woman who is enough interested in his or her general health and physical condition to take proper exercises and care of the body during the major part of the year inevitably longs for some genuine out-of-door work and recreation in order to enjoy the body and physical power that has been developed. Health and physical condition must of necessity breed a longing for the sunshine, the winds, the stream and forest. It is much the same as the runner who trains for months to develop muscle, speed and lung power, the football player who works for long weeks to reach perfection. The former longs for a race to use the energy that has been piled up, the latter wants to get in the game he has been trained for. Without some form of outlet both are apt to go stale. And, in a measure, the same thing applies to the ordinary individual who values health enough to maintain bodily efficiency. The outdoors holds out the lure that probably more than anything else can force a realization of the necessity and value of building up anc
retaining the bodily standards Nature originally intended.

As to the expense, the places to go for anything down the list from a mere week of camping out to a quest for the tasty trout or a few weeks on the trail of big game, all that is easy. Recently I met an old friend, a dentist who is also a teacher at the University of Pennsylvania. His practice is a large one and, combined with his duties as an instructor, places enormous demands on his time. He is a quiet sort of a man, rather thin to the casual observer, but to a careful glance it is apparent that his rangy figure represents real condition.

He explained that he had just taken two weeks off because he had been worked to the raw edge. His wife and himself with another couple went up into the mountains of New Hampshire, camping and doing some ice fishing. They spent the first night in a hotel that charged what they thought to be an exorbitant rate, and the entire outing cost them exactly seventy-nine dollars. That included gasoline and oil for one of those familiar little things that form the basis for so many jokes in the auto world. Without the hotel their expenses would have been fiftyfive dollars or approximately fourteen dollars each for two weeks.

I merely cited that case as an answer to the fear that the out-door vacation is an expensive thing. Of course, there was the initial outlay in their case of the tent, cots and other equipment. But, once bought, those things last for many, many years. And an auto is far from a necessity.

This is the time of year when the call of


The "Chateau Slide" at Quebec.
the out-doors may be the call to hunt; the call to tramp, on the better days; or the call to snowshoe, ice-skate, ski, ice-yacht, coast, toboggan or any of the other forms of sport offered by the months that used to be classed as dreary and dead.

The places to go should probably come in for discussion before the matter of expense is gone into. In pointing out these and the things to do, some discussion of sports that belong to other seasons may be gone into. But they can be regarded as incidental, because the same things would apply during their seasons. For in stance, I know of many excellent places to go for further winter sports where trout fishing, a comparatively few weeks from now, will be excellent. And, in talking over the matter of expenses entailed by the out-door man or woman, it should be permissible to speak of such things as trout flies and bass lures in such an article, because, a few more tons of coal and the Chinook breezes will be opening the streams.

The idea that it is necessary to go into the Northwest Territory for any real hunting and life in the wilderness is all wrong. Neither is a trip to Maine or Alaska compulsory. There is no big city or center of population in the country that does not have in its vicinity some stretch of wilderness to afford a taste of the primeval, a bit of hunting or of other sport. It is not necessary to figure on an initial outlay of fifty or a hundred dollars in train fare.

It is unnecessary to go into any discussion of the opportunities held out to resi-
(Continued on page 56)

## Simple Strength Tests

These tests can be performed just as well in street clothes. They have been photographed in costume in order to show the muscles employed in the tests.

## By Alan Calvert

MOST healthy young men have a fairly good opinion of their own strength. Few of them are willing to admit that they are weaker than the average. Most of them resent it, if a personal friend claims to be stronger.

Funny, isn't it? Suppose you are of average size. If you have a husky sixfooter among your acquaintances, you will probably cheerfully concede that "Big Bill is as strong as a horse."

But for the rest of them, the friends of your own size-stronger than you? Perish the thought.

Friend Tom may really be terrifically strong, but if you see him juggling with big dumb-bells you mutter, "All Knack! If I had the knack I'd lift as much as he
does." And perhaps you could, too.
Friend Jim may "chin the bar" twentyfive successive times, and you cannot possibly do it ten times. "Huh," you say, "practice, that's all. If I practiced as hard as he does, I would do more than twenty-five."

If you are pinned down to it, you will grudgingly admit that perhaps Jim's constant "chinning" has developed his biceps, but then practice would develop your biceps even more.

All the time in the back of your head you feel perfectly sure that if you only had some simple strength tests, man to man, you would prove to be just as strong as Tom or Jim. "Probably stronger," you say to yourself.


Fig. 1


Fig. 2

Man to man! There you have it.
That is the reason why crowds flock to track meets and boxing-matches, and stay away from gymnastic exhibitions. People like to see one man striving to outdo another in direct competition.

In college gyms, there are sets of machines, apparatus of the dynamometer type, to try out the strength of every student.

You do a back-lift on one machine, and a dial registers your back strength in pounds lifted.

On another machine you do a leg-lift. On still another machine, you push, or pull, to ascertain the strength of the arm flexors and extensors.

All of which is quite necessary, is un-
questionably scientific, and is darned uninteresting. Students may flock to see these tests, although I doubt it. Certainly you never heard of a college making an event out of it. Why, you couldn't sell enough tickets to fill a small room. Why? For two reasons. First, because the man to man element is absent. Second, because the spectators have a feeling that familiarity with the machines, and practice in their use, and not strength, is the deciding factor.

There are exceptions. Mike Dorizas of Penn was conceded to be the strongest 'varsity man of his team, but then his records on the testing-machines were backed up by his records as a champion heavyweight wrestler, a cham-


Fig. 3 pion weight thrower and a capable football player.

Outside of Dorizas can you recall a case where the winner of the strength lists was hailed as a great athlete and "strong man?"

Now that that's off my chest, let us get back to you, and Tom and Jim and the rest of your crowd.

You are all together. An argument starts. Sub-ject-which is the strongest fellow in the bunchnever mind what starts it. It may be a friendly scuffle, it may be a story
from the sporting page, or a picture in this very magazine.

After five minutes, only one thing is settled. You are the strongest. Well ! maybe not that bad-but all the same none of the rest of them are stronger than your are. Everybody is positively from Missouri. Jim springs his record at chinning the bar. Ed sarcastically says that while he and Jim are the same height, Jim weighs but 135 lbs ., while he weighs 170 lbs . and being used to real heavy work, he Ed, may not chin himself as often but will undertake to throw Jim over a brick wall. You remind them that anyway there isn't anything on which to chin oneself.

Tom states positively that he can "putup" a bigger dumb-bell than anybody in the bunch. The bunch promptly reminds Tom that he left his dumb-bells at home.

By this time you are all ready for a friendly competition, but where are your tests? Here are a few. None of them are new or original. They have been selected because they require little or no apparatus. Because strength will count for more than skill. Because they test the strength of different groups of muscle and because one or two of them test all-round strength.

And that is what it should be. If you are going to give everybody a chance, you must bear in mind that leg strength acquired by running hurdle races, back strength acquired by digging ditches or rowing a boat,


Fig. 4
or gripping power acquired by pitching hay must be given just as much chance as arm and shoulder strength developed by Roman Ring work in the gymnasium. Now peel off your coats, roll up your sleeves and get ready to take your turns in pairs.


Fig. 5


Fig. 6
First. "Wrist Wrestling." Clear off a solid table. Sit at side squarely facing your opponent. Rest left forearm on table, palm of hand down. Do not hold on to edge of table. With your right hand grip-your opponent's right thumb. He likewise grips yours as in Fig. 1. At word "go" attempt to push opponent's arm down until back of his right hand touches table top.

It is a foul and disqualifies you, (a) if you rise from your seat, (b) if you move elbow of wrestling-arm, or (c) if you try to assist yourself by gripping table with your free hand. Of course, you can try out your left arm if you choose, in which case arm positions are reversed.

Zbyszko, the wrestling champion, is reported to be unbeatable at this test. He carries around a 16 in . forearm and 20 in . biceps, which helps a good deal. George Zottman and Joe Adolph Nordquest are all wonders at wrist wrestling.

This is a test which involves not only the muscles of the forearm, but of the upper arm as well. Sailors, oarsmen and blacksmiths are particularly good at it, but that does not bar the rest of you out.

If you have a crowd, match the men in
pairs by weight, and let the winner of one pair take on the winner of another pair, until you get up the finals between the two best. You had better put a time limit of one minute on each bout. A draw at that time means you must match the man with other opponents.
2. Back and leg test.

This is the old lumbermen's game of "pulling on an axe-handle." Two men are seated on floor, facing each other, and with soles of feet braced against each other as in Fig. 2. Use a heavy strong stick; something that will stand the strainan axe handle, rake handle, or any strong piece of wood not more than $11 / 2 \mathrm{in}$. in diameter. A piece of iron pipe will serve if no wood is available.
As soon as you pull the other fellow off the ground you win. Here I want to make an innovation. The custom has been for each to pull fiercely at the word "go." In my opinion that places too much value on a quick attack. I have seen a quick man pull his opponent clear over on top of him by merely beating the other fellow to it. Let's make a rule of counting two. At "one" you brace yourself, tighten up and pull steadily. At "two" you pull for all you're worth. I think it will work out and make the game more a test of strength than of speed.

I see that Farmer Burns, the wrestler, says that he can outpull any man in the world. I have a friend, one James Juvenal, ex-champion oarsman, who has never b/en defeated at this test.

Jim is a 200 -pounder, with wonderful back and shoulders. I am inclined to think that he would give the "Farmer" a rare tussle.
3. Leg Test.-"Knee wrestling."

Here is a fine test of strength that is but little known. Two men sit in chairs facing one another. "A" puts his knees between (Continued on page 50)

# How to Use the Gymnasium 

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

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

THERE is another common variety of paralle! bar known as the "low" or "floor parallel bar." As its name indicates, it is near the floor; the bars are just about one foot above the floor. It is used chiefly for learning many feats that involve more or less risk and which would be dangerous if they were attempted on the regular or high bars. The more common usage to which this type of parallel bar is put is the practice of the "dip," that is, the ordinary floor dip, wherein the toes and the hands alone touch the floor; or, as in this particular instance, the hands rest on one end of the parallel. You dip down till the chest touches the floor, and you keep your back perfectly rigid, knees also should be held stiff. When you push up, be wre you push up as high as you can, that is, until the arms are straight. Repeat until you begin to feel the effects of the dipping. The same holds good for the dip as practiced on the high parallels.

There is a third kid of parallel bar known as the "Travelling Parallel." Briefly, it may be described in this fashion: There is a carriage so arranged that it slides up or down on strong steel rods. Some styles differ in that instead of having two barsone on each side, they have a pair of bars on each side; and the sliding motion is facilitated by having attached to the carriage little pulley-like wheels which run up and down between the bars opposing each pair of bars. To this carriage, and projecting out from it, are two strongly-braced hickory handles, about twenty inches in length. To the top of the carriage is fastened one end of a two-inch-wide strap, which strap runs over a rollerlike pulley, continuing down to the floor where the
> $T^{\text {HIS }}$ is the second of a series of articles on gymnastic apparatus and how to use it. The third article will appear in the April issue.

> The photographs illustrating this article were posed by "Buck" Shaw, of the University of Notre Dame, All-American and All-Western right-tackle, and winner of the first-place gold medal for being the bestbuilt student in the University, as described in the October issue of STRENGTH. The photographs, however, do not do him full justice, as they are intended to illustrate the gymnastic apparatus and not his physique.
other end of it is attached to the weights.
The weights are also detachable, so that the machine may be weighted as desired. This apparatus is very beneficial for those desiring exercise for the shoulders, base of neck, triceps of the arm, back of the chest, rib muscles and the abdominal muscles to some extent. As to the method of procedure in this exercise, it is as follows: Stand facing the bar, close enough so that the shoulders almost touch it. Now grasp the handles and push down until the arms are down straight. Allow the weight to slide up again, then push it down repeatedly. A very simple exercise, but one that produces good results, especially in the muscles enumerated above.

We have noticed in the most well-equipped gymnasiums a piece of apparatus known as the "wrist roll." This is one of the simplest and most effective machines devised. It consists merely of a wooden roller with a hole at one end through which a rope is fastened. The rope is in turn passed over a pulley, usually eight feet or more from the floor, descending then between a pair of sliding rods to a set of detachable weights. The weights slide up and down as the rope is rolled up or down upon the roll. To use this machine proceed as follows: Take your position in front of the apparatus, facing it. First, we will try to roll the weight to the top of the sliding bars by using the hands in the overhand style, that is, knuckles up. Now proceed to turn the roll, turning away from you. When you have reached the top, allow the weights to slide gently to the floor.

Now try to roll it up again, using the underhand style of grip, turning the roll away from you. In order to do this you
will be obliged to stoop over a little.
There are other ways, or rather, other positions which can be assumed in the performance of this exercise. For example, with the overhead style of grip as well as the underhand grip, try and turn the roll towards you instead of away from you. These movements should be done slowly and fully; that is, give your wrists as complete a turn as is physically possible. otherwise the exercise is of little value. The muscles involved in the use of the wrist roll are chiefly those controlling the fingers, the muscles of the forearm, both the flexors and extensors. Practice of this exercise will give a man a strong set of fingers, a strong grip and a beautiful forearm.

To return to our chest-weight apparatus. In connection with this piece of apparatus can be used another piece known as the "quarter circle." As its name implies, this is a contrivance, so built out of strong but light material in the shape of a quarter circle, the back of which is just high enough to be on a level with the center of the top pulley of a chest machine. Some quarter circles are made to be attached to any chest-weight machine, others are more of less a distinct and separate part in themselves. There are two very beneficial ways to employ this quarter circle. One way will deepen the chest, the other will broaden it. In the first instance do as noted. Having pushed the quarter circle back against the chest-weight machine, place your feet in the footstraps that should be in the footboard. Lie back upon the circle, grasp an upper handle of the chest machine in each hand and with arms stretched out straight back of the head, elbows stiff, bring them forward until the front of the knuckles strike the thighs. Return them then to the back of the head position; repeat. Do this slowly and evenly. Inhale as hands assume back of the head position, exhale as they come to the thigh position. Repeat antil you begin to feel the


The travelling parallel-bar
effects of the movement. In the second instance after getting the position as just described and having grasped the handles, do this. Instead of bringing the arms from overhead to thigh position, bring them from straight-out-from-shoulder position to the side of the thigh position, elbows stiff, however. Repeat until the effects are felt. Never continue any exercise to the point of exhaustion.

The most ordinary and most meagerlyequipped apparatus room possesses a pair of rings. Most gymnasiums have a set of travelling rings, rope ladders, climbingropes, climbing-poles, and vertical horizontal and inclined ladder. The muscles used in each of these named pieces of apparatus are practically the same. For the sake of arousing more interest it may be to the point to enumerate them. The muscles of the arms, neck, shoulders, chest, all around; abdomen, along the spine and side muscles are very vigorously employed in using any of the above-mentioned apparatus. These pieces of apparatus should be found in every gymnasium that desires to lay claim to the title of a well-equipped gymnasium. Their chief asset lies in this,-that one's own body weight is used to increase the resistance, and the more resistance employed or applied, the more work put upon various muscles or muscle groups, and the more and greater results obtained.

It is hardly necessary to describe the exercises or uses gotten out of these various pieces of apparatus. On the Roman rings many stunts can be done, but stunts are not so much value by way of the exercise that can be gotten out of them as they are of value in the way of producing confidence; and besides, one must have strength and development before one can perform stunts; as has already been said. Such simple but highly effective exercise as chinning and the simple swing on the rings are very familiar to all and need no further words here.

Just reaching from one ring to the next in the travelling rings gives the upper body and arm muscles a splendid workout. In doing this exercise one point is very important, because it is so helpful and it is this: After swinging or pushing off to reach for the second ring, pull up or "pump up" sufficient force to go the entire length of the apparatus room. The efficacy of the climbingpole or rope, or rope ladder lies in the vigorous tax the use of these pieces of apparatus impose upon all the upper body muscles, especially the arm muscles, both biceps and forearm muscles. The inclined ladder exerts the same muscular influence as does chinning the bar or rings.

Here is a point to keep in one's head whether one is climbing a rope, a rope ladder or inclined ladder: It is the writer's contention that the aforesaid action is nothing more or less than a series of chinnings performed with more or less speed. Here is what we might call the technique of the exercise: Supposing a ladder is being used, or a rope or a pole, it makes no difference. You grasp the ring or rope or pole with both hands, you pull up just as in the overhand grip chinning; then when you have pulled yourself up till your chin is on a level with your hand, you suddenly reach up either your left or your right hand and get a new hold. You must not, however, let the other arm lose its vantage, that is the big difficulty in climbing a ladder or a rope; the student, as soon as he goes to reach for a new grip, allows his other arm to let go, whereas he should have enough strength and will power to hold it an instant until he has gotten a fresh grip with the first or reaching hand. You must sustain the entire body weight with one arm until the other has obtained a new hold; then you use both arms to again pull up to a new high point; then hold again for


Swedish Stall-Bars
an instant with one arm till a new grip is procured, and so on until you are able to climb to the top of a ladder, rope or pole, without using the feet.

In order to climb up a pole properly and with good form, you must keep the legs spread out so that they do not touch the rope or pole at all. This exercise is very strenuous, but if persevered in will produce wonderful results. The writer has prescribed this exercise and the ladder also for numberless young men; and although many could not make even two rungs on the ladder or three feet on the rope or pole when they started, at the end of three months all could climb the ladder or the rope or pole and do it in perfectly proper form and grace.

Another article of apparatus-room furniture found in all gymnasiums is that known as the "Stall Bars." Briefly, a stall bar is a sort of ladder with the rungs about six inches apart rather than ten or twelve inches, as is found to be the case in the regular ladder. The length of these rungs is about three feet. The width of an individual stall bar is three feet approximately. From the floor to the top rung, which rung by the way is so adjusted that it projects out six inches or more beyond the others, the height is sufficiently lofty to permit a very tall man to hang at arms length without touching the floor. A complement too, and a part of the stall bar, is a small bench for each stall; usually about twenty or twenty-four inches in width and about fourteen inches in height. Some are padded, others not. They are used in the abdominal exercises. Placing a bench in front of a stall, at a distance to be regulated according to the length of the user's legs, he hooks his toes under the lower rung of the stall bar; the user is sitting on the bench, of course. Placing his hands back of his head he leans back-
wards as far as possible, even to the extent of touching the floor. This done, he rises to a sitting position again and continuing, hands still clasped back of his head, he bends forward as far as possible-do not bend knees in doing this. Repeat. Inhale as you bend backwards, exhale as you bend forwards.

This is an extremely efficient exercise for strengthening the abdominal muscles. For men with enlarged waist lines and globular middles, there is no better exercise to relieve and to reduce that sort of condition. It has the added excellent quality of putting one's digestive and eliminatory system in first-class condition. Another and easier form of the exercise is to sit on the floor with the toes hooked under the bottom bar, hands clasped back of the head and come to a sitting position, lower slowly and repeat.

Another exercise for this same set of muscles and also a few more, the thighs and even the buttocks and arms, may be performed on the "stall bars." Reach up and grasp the topmost and outstanding bar, and turn around so that your back is against the bars. Now let yourself hang full length from the out-jutting top bar. Now slowly lift the legs, which should be held stiff at the knees, and bending only at the hips; up until they are straight out in front of you, that is, until your toes are about on a level with your front chest muscles. This exercise is somewhat more strenuous than the preceding, and should not be indulged in too much or too zealously at first. One repetition is sufficient when first tried. The next day try two, and so on; always go easy in exercise as in everything else, especially when just starting.

There is one other very important piece of apparatus without which an apparatus room is not an apparatus room. And that is, the punching-bag. There is no need here to describe


The inclined ladder with troublesome eyes can gain wonderful relief if he spends a few minutes, first in practicing the "leanback," "bend-forward" exercise as described in the preceding paragraph relative to stall-bar exercises, and then spend a quarter or half hour punching the bag. In bag punching, always try and do as much footwork as possible. It is just another reminder, to try always to get as much exercise, to use as many muscles as possible in every exercise. Make the most of everything; get the most out of everything, whether it is the simplest or the most complex exercise; whether it is play or whether it is work. If you are going to do a thing, do it right, or do not do it at all. So in (Continued on page 62)

# Basket Ball Today and Tomorrow 

By Mary Morgan


#### Abstract

Miss Morgan formerly held the world's record in the 100 -yard dash for women, and now holds the American record at 11 seconds. She also holds the record for the 100 -yard hurdles for women.


ATHLETICS for the fair sex is going forward by leaps and bounds. International contests in golf, tennis, swimming and hockey have boosted feminine interest in all these sports. The overwhelming superiority of the American girl in the first three mentioned has been a source of gratification to all those interested in her and her achievements. As for the defeat of the American hockey players by the All-English team which recently toured the country, the fact that the game is a comparatively recent one in this country accounted for a great many of the errors and lack of polish in the play of the Americans, while hockey is the national game of the English girls. They all at one time or another play it or have opportunities to play it.

Basketball without a doubt occupies the position with the American girl that hockey does with the English girl. For a period of about twen-ty-five years, the game has been a popular one with young America. However, the last five years have seen an exceptional increase in the growth of the game, and this month sees in the eastern part of the country an open tournament for high schools. Th's tournament, the first sectional one of its kind in the country, is being held under the auspices of Temple University of Philadelphia.

© Underwood \& Underwood.

## ALMOST A GOAL

A goal, nearly made in an outdoor interclass basketball game at Bryn Mawr.

This tournament is an open one and is for the high school basketball championship of the Atlantic Seaboard. The state of West Virginia for the past three years has been holding a state high school girls' tournament and claims the honor of being the first state to hold such a tournament. Oklahoma also holds a similar tournament.

In three years time the popularity of the game has greatly increased, and the growth from eleven to thirty-three teams in the West Virginia tournament in that time is more than proof of its unqualified success.

Girl's athletics as a whole are just now receiving the boom necessary and the schools and colleges are broadening policies and letting down bars at the right time.

For years all the athletic activities of girls in the schools and colleges have been intra-mural. The wise saw "All work and no play makes Jill a dull girl" was not seen in its true light until recently. Various excuses for noncompetitive games weregiven. "Too much time from studies makes the girls too mannis' and boisterous," were among the leading ones. Many of the big women's colleges to-day do not permit any sort of athletic contests with outside teams. Of course, these colleges are without a
doubt a hindrance to the progress of organized girls athletics in America.

The visit of the All-English hockey team is a shining example of what a little outside interest in a sport can do. In exactly two months time after their departure for England, the American girls have organized a United States Field Hockey Association, which means that hockey is booming as a national game. Colleges, schools and independent clubs from coast to coast and from the border to the gulf are interested in the Association. Where there had been opportunity for but one sectional contest in previous years, now there will be a chance for teams from all over the country to meet one another. It is the plan of the Association to choose an all-American team which will represent the United States Field Hockey Association in a series of international contests with all-England, all-Scotland, all-Ireland, French, Belgian and Swiss teams.

There is no better way for the girls, both in basketball and in hockey, to improve their playing ability than to meet teams which are as strong if not better than they are. Just as an opponent in tennis or golf who is of superior calibre will pull up the one who is weaker or make him extend himself.more, so it is with the team game. The players in a game like basketball certainly will not improve as individuals or as units of the team unless competition is such as to make them more keen and to keep them up to top form the whole season.

It is to be hoped that the near future will see the scattered teams of girl basketballers throughout the country organized into some sort of a national body. Undoubtedly, if


Onderwood \& Underwood.
BLOCKING A GOAL
Forward and guard clashing in an attempted shot at the goal.
some sort of organization like that of field hockey were effected this sport would take the leading place in the field of women's athletics. One big factor in its favor, and one that has accounted for its growth and popularity, is that accommodations for playing may be easily gotten. With hockey this matter of playing space is one of the great drawbacks of the game; for a level field approximately one hundred yards long and sixty yards wide is often quite hard to find. Then the keeping of the field in condition is quite another item.

The English girls praised the American fields very highly, saying they were by far better than those abroad. With basketball there are a great many places available for playing and the upkeep is little, once the baskets, backboards and ball are purchased. The playing space may be thirty-five feet by seventy. The Y. W. C. A.'s, the churches, banks, business houses and industrial plants throughout the country, realizing the importance of sport as a factor in the life of the girl of to-day, have devoted spare space once used for strawberry suppers and clubs, to basketball floors. Hence there are Y. W. C. A. leagues, banks' leagues throughout the country, and a great many independent teams getting games whenever and wherever possible. Basketball is not like golf, tennis, hockey and swimming; open only to a favored few, but it is for the average girl to enjoy. There is no age limit, all that is needed is a good heart and lung capacity.

The average girl is very fit to play basketball and in so playing makes herself more fit and keeps in perfect condition.

As a winter game, this is one of its best benefits; for the team and the contest will keep the girl interested at least twice a week. There is no need for the basketball girl to sit around and hug the radiator.

Many studies have been made on the subject of girls' athletics. Tests have been made as to whether this or that branch of sport is harmful. The two foot, six inch hurdle for the hundred yard hurdle race has been condemned as too strenuous for the fair athlete; water polo is frowned upon by many; the pole vault also has been under the ban. But basketball is beneficial.

The technical opinion of the beneficial results of basketball is that it "has the advantage of securing widespread hygienic results without a disproportionate demand on the heart. This is accomplished because it requires the activity of large groups of muscles for a moderate length of time without requiring maximum effort of any one of them."

The exercise afforded the big muscles of the trunk in bending and twisting, and the movement of the arms, and the back too is helped. Like other forms of exercise, it is good for all such ills as backaches, nervousness and the like.

In discussing the good done by basketball, there looms up the subject of girls' and men's rules. Basketball, as played under girls' rules, is played on a lined court. The guards and forwards are in the two separate territories under each basket and the centers in a territory in the center of the floor. Big brothers are apt to criticize and say, "Oh, can't you get the ball if it is on the other side of the line?" And when a negative reply comes, they say, "That's a dumb thing."

Basketball as played under the present girls' rules is a step between captain ball and basketball as played by men. In captain ball, the girl is taught to jump, catch a ball, pass a ball and guard. In basketball she uses these same movements, and if she is a forward, shoots for the basket. She also is allowed to bounce the ball once. The team work and passing, of course, is more highly developed. However, in the game under girls' rules, the science of play cannot be developed as it can be under men's rules.

The West Virginia state tournaments
are played under rules less rigid than the majority of girls' games. These are given as: Five players only constitute a team; the playing floor is divided into two equal courts by a single line across the center; centers are allowed to play the entire floor and throw for both field and foul goals. The halves of games are twelve and a half minutes, and in the finals of the series, fifteen minutes. The official comment on these rules is they "have proved to be ideal for tournament use, as they insure a faster and far more interesting game than would be possible under any other rules, and yet with good officiating the games never become rough."

Roughness in the game as played under the men's rules is the chief objection, together with the claim that it is too exhausting. One authority states that because they have longer trunk, shorter legs, heavier thighs, broader, deeper hips, narrower shoulders, lighter bones, women must "resort to skill rather than brute strength" in a game of basketball.

Anyone who has seen and thoroughly understands the game as played by the leading men's teams, particularly those of the Intercollegiate League, realizes how little "brute strength" is needed in such a game. Skill, agility, endurance and team work are the main factors. The average girl playing under average girls' rules uses much more "brute strength" in the pass-and as she often pauses before passing, she adds the strain of tense muscles-than does the average man.

Regarding "brute strength," it might be cited that the English hockey team-to mention them again-criticized this "brute strength" as one of the big faults of American play. Instead of using skill and ingenuity, the American girls tried to batter their way through the English defenses.

Another lesson may be learned from the English invasion and may be applied not only to hockey but to basketball. That is that the English game of hockey as played to-day has largely been developed by the men players in England. Miss C. J. Gaskell, captain and coach of the invading English team, often talked during her stay of the men's game in England and how the proficiency of the game had increased through their interest and help. She told,
(Continued on page 52)

# The Self-Stoked Human Engine 

This is the first of a series of articles by Dr. J. Madison Taylor, an eminent physician and Professor of Physical Therapeutics and Dietetics in the Medical Department of Temple University.

Dr. Taylor, a former college athlete who still maintains the top-notcln condition of his college days, is a recognized authority on body building and human conversation.

Each article will present some phase of the subject in an interesting and nontechnical manner, together with rational suggestions that should prove helpful to any reader in building and conserving health, strength and vitality.

## By J. Madison Taylor, A. B., M. D.

THE greatest of all engines is, indeed, the human power generator, transmitter and transformer. It is unique in that it depends on itself to run itself, whereas a steam, gasolene, electric or any insentient engine needs, and usually has the benefit of, an expert to guide and adjust its mechanism and to feed, to regulate its fuse source of power and other economies of energy transmission.

Of course you can learn to run your own body engine by yourself; most people dosomehow. The majority run it so ill as to impair the nicety of its adjustment till something goes wrong, or lame, long before it should cease to do its maximum work.

It will keep going and in a most wonderful manner, when you come to think of it, with no more care or direction than the urgings, impulses, so-called instincts, such as "to eat when you are hungry and drink when you are dry," the refrain of a song devised and popular with those most primitive of men, the Tennessee Moonshiners.

The one point we shall here consider is the element of stoking, or distribution of the fuels. Now stoking is something of an art as well as a science, even for the crudest of engines. Prizes are bestowed by some industrial and railroad organizations in England for the best engine stoking. This means not only the selection of fuels-or feedings-but also their preparation, distribution in the furnace, regulation of the drafts, rakings, special cleaning of tubes, getting rid of dirt, or elimination, and the like economies.

The human or self-guiding engine has many close points of similarity or analogy to the other kind, but is at the mercy of the driver who may be wise, but is often otherwise.

The plain fact is that by far the majority of human ailments, disorders, diseases, perils of decrepitude or death great and small, also fluctuations and depressions in energy and productivity, are due to errors in the stoking. This involves not only supplying enough coal, gasolene or other fuel to give the necessary foot pounds of power, but also a number of factors having to do with nicety of adjustment. Such as magnetoes, carburetors, and the like. This shows plainly that there are no engines, however simple, wholly fool proof-even to merely keep them going.

It should be plain then that the best work, output, product, artistry and structural survival, can only result from an engine in nicest, most economic adjustment.

There are plenty who claim that man is so well provided with instincts, aided by experience, that he is fully capable of doing as well by eating what he likes, when he likes, as much as he likes, of the best grub available. While this is true within certain limitations, it is so fallacious in others that, when the safety point is passed, it is imperative to learn a few points of engine economies and to be guided by sound rules or the game will beat the man every time.

This safety of instinctive guiding is true only of an animal in a state of nature, under normal and entirely favorable surroundings. In such animals their instincts are, when kept clean, keen, bright, constantly adjusted, exercised, to be relied upon to do their work at all times, in accord with design. Also the organs of special sense are thus kept up to their best by use, by exercise, and by rest in due proportions. Of the domesticated animal this power of self-adjustment is far less true, as every one knows. Yet this dependence upon nurture
or applied common sense, and less on nature, or luck, is the only safe course, and has ample compensations in the kind and character of the results, in capability and of the work to be done.

Man is distinguished from the beast by his power to reason. He must and does get some results infinitely better than he did when he was more nearly an animal, but not all. He becomes capable through knowing, learning, comparing, deducing; in short, by using his judgment. He gets more out of himself in his civilized state of refinement or sophistication than he could if he relied entirely on those instincts or primal impulsions. The safety points must be carefully distinguished and learned.

Certain experiments in feeding animals reported by Prof. Osborne (in the Atlantic Monthly, 1920) tend to show that the most omnivorous, gluttonous and gross feederthe common hog, or "Sus domesticus"-actually fares better when permitted free choice of foodstuffs, as contrasted with those that have been given exact amounts of carefully selected different food essentials, when these were offered to them to choose from in separate containers.

Can we draw safe conclusions from such scientific experiments or findings with the equally omnivorous man? Only if that man or group or race were to be remanded back to the cultivation of, and reliance on, their primal instincts; and only when or until clear hunger trends and impulses should be freed from the confusions of artificialities.

Such reports might be triumphantly quoted by those writers who argue in favor of following one's heart's (or stomach's) desire; the wishful thought, to eat and drink whatever your fancy declares and you can then keep well.

The only way to recover the safe guidance of our God-given or primal instincts, and to be able to rely on them, would be for each one to go back also to entirely natural and absolutely simple conditions of living. Even then it would take some thousands of years to retrace our steps and reach that primitive level of self-determination. It wouldn't be worth while. Hence no group of people could be induced to adopt such an exceedingly "simple life."

The whole trend of mankind, of "homo sapiens," is to cultivate his distinguishing sapience, the consciousness, or purposive control, or self-mastery in his doings, his selections and rejections; above all, his preferences, cravings, tastes, fancies. In short he should not be guided solely by his feeling reactions. If man is to advance in accord with expectation, he must steadily subordinate his emotions, whims, moods, feelings, to his gumption or reasoning faculties. We have only advanced to a very moderate position as wise men or "sapients," even the best of us; and they are few enough indeed.

To be sure primitive peoples now existing as savages-and few enough there are now -do get along pretty well nutritionally in their relatively narrow range of foods, but

only until they come in contact with and adopt the ways of civilization. Whereupon they deteriorate and, as a rule, rapidly and completely; oftentimes they wholly die out or disappear. Various causes are assigned for this fading away of races from the map, but-if you take the problem of the infectious diseases-it is well established that susceptibility to infection depends largely, if not chiefly, on food errors or deficiencies. No one factor is so destructive to the primitive man as attempts to adapt himself suddenly to the dietary customs of an overelaborated race.
Among the most cherished privileges of civilized man is to "do as he damn pleases," to enjoy the fullest liberty of conduct and behavior. In many directions he must, in order to save his skin or life, conform to customs, laws and rules devised and adopted for the good of the group. These have formed gradually and slowly from exercise of personal restraints, controlled emotions, impulses; and are revised and contrasted with each other through many bitter experiences. In the larger despotic urgings to action or impulse, such as to seize and hold a female mate, this instinctive restraint develops caution, strategy, the makings of judgment and finally social wisdom. In the lesser directions of urge as to eating and drinking, primitve man permits himself to go the limit. Experience teaches civilized man something but, to judge from evidences of restaurants today, not much, too little. Any expert in the simpler points of economic dietetics could improve the health, the productivity, the comfort and the survival powers of these feeders on an average of at least twenty per cent.
Equally does man resent any "interference with sumptuary laws," compulsion, such as is shown to-day in the world wide revolt at prohibition, restraint in poisoning himself with the most destructive narcotic and habit-forming poison, alcoholic drinks. Booze or "hootch" is destructive alike to body, mind, soul, productivity and to the integrity of future generations. So soon as man's liberty-really his license-is threatened or thwarted, he flies in the face of his own self-made, long verified, invaluable sanctions, taboos, and laws. If you demand proof of this I adduce the refrain of a popular music hall
strain: "I want what I want, when I want it." As a matter of plain fact Prof. Osborne's pigs choose their food far more wisely.
This song epitomizes the true animus of our citizens of "the land of the free," this government of the people, for the people, by the people. No cognizance seems to be taken of the fact that if they all-or the majority-functioned along this level of infantile wish-fulfillment, the race must speedily degenerate into worse than a primitive society, and as individuals they would speedily come to all sorts of grief.

How much has this sapient homo advanced towards his assumed perfection? Why, not more than $30 \%$ or a bare $40 \%$, and only in spots, localities and areas. Fully one-third the candidates for our citizen soldiery were found unfit to fight for their country, and mostly because of entirely preventable causes. They and their parents enjoyed full liberty and stupidity and self-determination with a vengeance. Science has shown conclusively that faulty food and drink habits, customs, sanctions, are responsible for this deplorable state of imperfection.

Certain popular, clever and amusing writers on this topic of stoking the human engine would convey the impression that well established and verified facts of science can be lightly disregarded. In particular they declare that any one would get along just as well when governed by the remnants or feeble echoes of one's primal instincts, to eat what tastes good and as much of it as one can get, like Prof. Osborne's pigs. Well, you are welcome to do so, provided you are willing to take the full consequences, to live a merry life but a short one, whether you become disabled, decrepit, or dead on your legs or from the neck up.

It is true some people, of the overanxious, apprehensive type, do give themselves unwarranted misery and self-punishment by stoking their body engine in accord with their own misinterpretations of science and guided by advertisements, propaganda of the makers and merchants of faddish breakfast and other foods or of second-hand, partial and misleading echoes from "authorities" on dietetics. Few have the sense to select, or have access to, or (Continued on page 54)



The Sunny South - to those who play -



# Eat Right and Be Good 

By John Stone

SICK persons find it hard to be good. It is hard to have a headache and smile. It is hard to feel chronically "tired" without acquiring toward life an attitude that suggests a chronic yawn. It is hard to have acid-poisoned nerves without having acid reactions when your children make a noise or when your wife disagrees with you along with your dinner. It is hard, in short, to maintain a sound mind in an unsound body. One's body is the instrument by means of which one does one's work in the world. If it be unsound the owner is like a workman with a broken tool. From the body must come that sense of well-being and energy without which nobody can generously and completely fill his place in life. Nature intended everyone of us to have a sound body. Most babies are born with sound bodies. We start life with a perfect mechanism. The engine runs without knocks; the spark plugs are clean; there is no carbon in the cylinders; there is adequate oil and inexhaustible fuel; the tires are sound; the wheels don't wobble; and the whole machine shines till it is a joy to look at.

But apparently there is something wrong. By the time the engine has been in use a few years, various parts of it begin to make trouble. If you are rash in coming to conclusions, you very likely conclude that the maker of the machine put some mighty poor stuff into it, but if you are thoughtful, it is borne upon you that the machine was given to you to use and to take care of; and that the fact that the human machine breaks down, instead of running till it wears out, is simply a monstrous indictment of the treatment we give it. And the most monstrous part of it is that a very large number of these machines go to pieces while they are still brand new; a tragedy to which we give the euphemistic name of "infant mortality."

Of course, the Maker of the machine has cheated nobody. He has merely given us a share in the making and in the running of the machine; and not being conscientious workmen, we shirk our share of the job.

And so it is, that, lacking a true sense
of well-being almost from the cradle to the grave, a very large proportion of us are hampered in the effort to live right. Nerves, bad temper, laziness, want of energy, the sour nature that goes with a sour stomach, the acid tongue furred with an unhealthy "coat," the inability either to work heartily or to play heartily, the total want of surplus energy, the lack of ability either to start or stop, bad balance everywherethese things in one form or another afflict most of us at one time or another. They disable us for long periods of time, they reduce our productive energy, and they are an economic loss to ourselves and to the human race. And they are, 99 times out of 100 , avoidable.

The curious thing about the whole mixup is that it comes from ignorance of the two or three simple laws of health, obedience to which would eliminate nearly all the sickness in the world. Some of this ignorance comes from indifference, but most of it comes, apparently, from a failure on the part of our educational system to inform everybody about the first principles of health.

I am aware that hygiene is taught in our schools, but I am also aware that it is taught very ineffectively and half-heartedly, and that many of the persons who teach it have nothing more than a superficial knowledge of the subject themselves.

One reason for the inadequate way in which the schools have met this question has been the fact that the medical profession as a profession has not turned its full attention on the problem. Of course, school boards are not composed of physicians, and they are not generally alive to just what is needed. But there is every reason to think that school boards in general would make adequate provision for hygienic instruction of the most thorough and practical sort if the medical profession as a whole were to work out a programme of health instruction for all schools, to be conducted under the supervision and guidance of local physicians, one of whom should be on every school board.

Another logical instrument for extending
such instruction, not merely to school children, but to the whole adult population as well, is the insurance companies of the country. Just to give one instance of what the insurance companies, with their great business organizations, their advertising facilities, and their wealth, could do in this direction, take the subject of diet-that being the most fundamental single item in the whole question of health: The life insurance companies, if they could but be made to see the opportunity, could combine in an advertising campaign which would not only advertise insurance and sell insurance, but which would sell, along with it, the sound doctrine of diet. They could, by such a means, both increase their business, and decrease their losses. They could sell more insurance, and because of the lower mortality rates that would result, they could ultimately sell it cheaper, so that more persons could buy it.

Of course, the medical advisers of every insurance company know that most of our diseases come from the presence of acids in the tissues of the body; and that those acids are present because of the excessive consumption of refined and bolted and sifted and processed foods whose end products are acid-acid because the neutralizing alkaline salts and solubles have been processed out of them. Instruction to the public on that point alone would çlear up an enormous percentage of degenerative disease in the United States.

What a chance to reach the imaginations and convictions of the people! Apparently no insurance company has yet come to see what a field for humanitarian service lies before it for the taking. The insurance companies so far have contented themselves with a few efforts to instruct their own clients, in a very inadequate and often halfhearted fashion, on how to take care of themselves, but it isn't a drop in the bucket beside the service that might be rendered.

I put the question recently to the head medical director of a large life insurance company.

He heard me out, and then said, "It may be practicable for insurance companies to undertake some such programme sometime. But not now. There are several reasons against it. One is the fact that the medical profession would have to be brought to see the desirability of the insurance companies
entering their field. It would have to be carefully done; otherwise it would have the appearance of prescribing with a view to encouraging people to treat themselves. The evils of self-medication are already very great.
"I don't mean that this involves any question of medication, but it does amount to saying to Jones that he should eat certain things. As a matter of fact, what is one man's meat may be another man's poison. Meat may be good for Smith and very bad for Jones. You can't prescribe even Jones's food for him unless you have examined Jones individually so that you may find out what he individually needs. It means testing the urine, the blood, the feces; it means trying the patient with this food and that; it means, in short, gradually working out a diet for him."

I have recorded the conversation because it brings out what seems to me to be an error in the point of view of many physicians. It is all on the assumption that Jones is already a sick man. It is quite true that individuals here and there need just such intensive examinations and prescriptions as the kind here laid out for the unfortunate Jones. But how about Smith? There is nothing particularly the matter with Smith except that he perhaps over eats, or over works, or doesn't exercise, or worries. Smith, let us say, has persistent colds every winter. If he gets a case of the snuffles, he doesn't throw it off as another man would do. He goes on with it, and for the next three weeks he is in for it, till the cold finally works itself out. And a few weeks later he gets another. I give that as an example, because it exactly describes the case I was in all my life till this winter. This winter I have been free from colds to an extent which I have never before experienced. If I get the snuffles, they peter out. Nothing happens. Why? Simply a change of diet. Lots of vegetables and fruits and whole wheat bread; meat relegated to a minor position in the diet. That's all. There was no exhaustive medical examination. I didn't need it. All I needed was some horse sense mixed with what I ate.

The point is that if the average man can only be shown something about the chemistry of food-not in terms of calories, (Continued on page 57)

# How to Develop the Muscles of the Abdomen <br> By O. R. Coulter 

(Continued from the February issue)

IN the last issue, I explained the part played by some occupations and various track and field sports as a means of attaining abdominal development. Some of these were very good for the purpose, but few people would change their occupation for the sole purpose of abdominal development and many do not have the facilities for doing much of anything in the way of outdoor sports.

Many exercises valuable for the purpose of abdominal development can be practiced on many of the various apparatus commonly found in well equipped gymnasiums. The ladders, bars and rings afford about the same opportunity for abdominal exercise as they did for éxercise of the side muscles. Many of the exercises that involve the muscles more correctly classed as the side muscles also exercise those on the front of the abdomen. The results attained from the use of gymnasium apparatus depends mainly upon the exercises practiced.

I know that but few of the members of public gymnasiums attain any worth while abdominal development. This is due mainly to the half-hearted manner in which the average gymnasium member takes to his physical training. Few apply much of any idea of progression to their gymnasium work. The majority of them are quite content to continue practicing the easy stunts that they did at the beginning, apparently unaware of the idea that insomuch as the efficiency of the

o. R. COULTER
muscles has not improved to any great extent, it is quite likely that the muscles themselves have gained but little.

The overhead and perpendicular ladder, the parallel bars, horizontal bar and rings afford excellent opportunities for abdominal development. It is simply a matter of knowing how to use them and following a plan of giving the abdominal muscles harder work to do from time to time. The exercises possible for abdominal training on these various forms of apparatus are somewhat similar and the chief merit of using several of them for this purpose would be for variation, which promotes interest. Also any variation in movement of an exercise gives a variation in the location of the effort.

The overhead and the perpendicular ladders afford somewhat similar possibilities for attaining abdominal development. Traversing the overhead ladder hand by hand, while keeping the legs at right angles to the body, involves work of the abdominal muscles; and jumping from one ring to the next, using both hands together, affords more vigorous work for them. To get the best results for our purpose from this exercise, the arms should be kept as straight as possible and the jump accomplished by the forward and upward swing of the legs. The most common exercise on the- perpendicular ladder for the abdominal muscles is to hang at full stretch with the back to the ladder, and keeping the legs
straight at the knees, raise them as high as possible. This movement can also be performed on the overhead ladder, but the location of the maximum contraction is not quite the same, as the perpendicular ladder fixes the position of the hips. Placing one foot on one rung and hooking the toes of the other under one of the rungs higher up affords an opportunity for very vigorous abdominal exercise; but should not be attempted unless one has very strong shin muscles or uses a loop as a safety for the upper foot.

The parallel bars seem to be more popular than the horizontal bar, probably because the most of the work associated with the use of the former requires less muscular effort than that practiced on the latter. There are many exercises for the abdominal muscles possible from the use of this apparatus. In fact, much of the work on them is accomplished by working with straight legs and performing all the fast movements with a swing of the legs; and all forward swinging of them is accomplished by the contraction of the abdominals.

One of the very first exercises taught on the parallels is the "Half Lever," which is nothing but a sitting position with one hand on each bar, with the arms straight by the sides, body perpendicular and legs straight out and parallel to the floor. Another similar but more strenuous exercise known as the "Half Backward Balance" is accomplished by raising the legs and hips as high as possible from the "Half Lever" position. The "Front Plant from Shoulders" is a very strenuous abdominal exercise. This is executed by resting the back of the shoulders on one bar and gripping with the hands on the other bar, sustaining the body in a horizontal position. Another very vigorous exercise is to sit on one bar, place


The development of Mr. Coulter's abdominal muscles speaks eloquently of the methods he advocates.
the feet under the other, lean as far backwards as possible and then return to a sitting position.

There are many other exercises on the parallels involving the abdominals, but the foregoing require little technique and give the best results possible from practice on this form of apparatus.

The horizontal bar is one of the most useful of all gymnasium apparatus for developing the muscles of the arms, chest and stomach. It is especially good for the abdominal muscles, as nearly everything performed on it brings them more or less into action. Every forward swinging motion is accomplished mainly by the contraction of the abdominal muscles. The raising of the legs into a horizontal position while hanging at arms length by the hands can be performed as conveniently on the horizontal bar as on the overhead ladder. This exercise can be made more difficult by raising from this position of straight arms below the bar until the arms are straight above the bar, keeping the legs as nearly at right angles to the body as possible. This exercise is known by various names such as "Breast Up," "Full Mount," or "Both Hands Leading," and is one of the most difficult stunts possible on this apparatus if performed slowly. Another difficult feat on the horizontal bar involving the abdominals is the "Front Lever." This is performed by hanging with the arms straight below the bar with the body and legs in a straight line parallel to the floor. It is often held at an angle of 45 degrees and the gymnast finishes red in the face; but when properly performed it looks smooth and easy.

The rings are usually considered the most difficult of gymnastic apparatus to use, but they do not have any especial advantages as compared to the others, so far as abdom(Continued on page 61)

## Head Locks and Chancery Holds

By William J. Herrmann

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



Stanislaus Zbyszko

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

Dear Herrmann:-
Advance proof sheets of "Head Locks and Chancery Holds," also proofs of "NELSON'S-How to Take and How to Break Them," are the most thorough and instructive articles on these wrestling holds I've ever seen in print. STANISLAUS ZBYSZKO,
World's Champion Catch-as-catch-can Wrestler. (Continued from last month)

## Reverse Chancery Holds

IN a Reverse or, as it is also termed, a Back Chancery Hold, its victim's head is held imprisoned in such a manner that at the time of taking the Reverse Hold the back and not the front of your opponent's body is directly towards the mat. In other words, in a Reverse Chancery, as its


Fig. 73
Front Chancery Hold.


Fig. 74
Reverse Front Chancery Hold.
name implies, your opponent's body at the moment the hold is secured is in exactly the reverse position of a regulation Chancery Hold. A Reverse Chancery is also often referred to as a Back Chancery Hold because of the fact that your opponent's back is directly towards the mat at the moment the Back Chancery Hold is secured.

## Reverse Front Chancery

A Reverse Front Chancery Hold is a

Front Chancery in which its victim's head is held and imprisoned in such a manner that the back, not the front of your opponent's body, is directly towards the mat. A position in which your opponent's body, at the moment the hold is secured, is exactly the reverse of that of a regulation Front Chancery Hold. Fig. 73 illustrates a regulation Front Chancery Hold, whereas Fig. 74 illustrates a Reverse Front Chancery Hold.

## Reverse Side Chancery

A Reverse Side Chancery Hold is a Side Chancery in which its victim's head is held and imprisoned in such a manner that the back, and not the front of your opponent's


Fig. 75
Side Chancery Hold.
body, is directly towards the mat. A position in which your opponent's body, at the moment the hold is secured, is exactly the reverse of that of a regulation Side Chancery Hold. Fig. 75 illustrates a regulation Side Chancery Hold, whereas Fig. 76 illustrates a Reverse Side Chancery Hold.

A Reverse Chancery Hold over the Shoulder does not lead to a direct fall. The same holds true with a Reverse Chancery over the Arm. Both of these holds merely bring your man down to the mat. They don't directly score a fall in your favor. This is due to the fact that each of these

reverse chancery holds brings your man down with his face, not his back, towards the mat. In consequence, a change of hold is necessary in order to pin your opponent's shoulders down on the mat for a fall.

A Reverse Chancery over the Arm as well as a Reverse Chancery Hold over the Shoulder, in fact every form of a Chancery Hold, can theoretically be secured in a Reverse Chancery Hold providing your opponent's body at the moment of securing the hold is in a reversed position, depending on the particular form of Chancery Hold


Fig. 77
Chancery Over the Arm.


## OU will win big success through vocational guidance because there is one kind of work or profession that

 you can do better than any other.Your experience and natural ability fit you for it. You will make more money in this line than in any other. But to find the right position is often a difficult task. Most men never find their true vocation-that is the reason why there are so many failures.
You have heard lots of talk about "fitting workers to their tasks" -about men who were advised to quit their jobs for something entirely different, and then, in these new jobs, success came their way at once. A few men have by luck or chance found their true vocation. Take for an example John D. Rockefeller. Would he have become the richest man in the world if he had stayed behind the counter of his grocery store? He won success by changing into the oil business. John N. Willys started as a laundryman; he achieved a remarkable success in the automobile business. You can find thousands of like cases where men barely eked out a living-often failed-in one line, and then suddenly won conspicuous success by getting into that line for which they had the talents necessary for success-in a line where their natural talents worked for instead of against them. Where a few men won success by stumbling into their true vocation, you, every normal man, can easily gain Success Through Vocational Guidance.
Your Failures will come without planning-but Your Success is determined by two big factors-knowing what abilities you actually possess and knowing in what line of work or profession to use them so that they will bring the highest price or salary. Thousands are spending time, energy and money in trying to fit themselves for what they guess will bring success. Hard statistics show however that $90 \%$ guess wrong, and life passes before they can guess again. Every change of work is a crisis-making changes wisely is the secret of progress. You have in you the qualities necessary for success. It is all a question of putting these talents to the right use. Failures are turned into amazing successes and successes into even greater successes where natural talents and inherent abilities are properly applied.
ANALYZE YOURSELF-find out your strength. Find out what you are best fitted for-then find the market where your peculiar abilities will bring the highest salary. That means success. You will find the exact method of doing this in "SUCCESS THROUGH VOCATIONAL GUIDANCE." This great work will come to you on approval, all charges prepaid. Send no money. Merely fill in and mail the coupon. Test it in every way you can think of. Keep it five days. Then if you feel that you can do without it send it back, and you will owe nothing, But if you realize, as you surely will, that this work will prove to be a tremendous factor in helping you win big success, then remit five dollars in full payment. It costs you nothing to find out just what this great work "SUCCESS
THROUGH VOCATIONAL GUIDANCE" is and what it will do for you So THROUGH VOCATIONAL GUIDANCE" is and what it will do for you. So fill in and mail this coupon now while you are thinking about it.

##  <br> Chartered as an Educational Institution 1897

-     -         - TEAR OFF HERE - - - — 一


## FREE EXAMINATION COUPON

American School, Dept. V-3203 Drexel Ave. \& 58th Street, Chicago
You may send me "Success Through Vocational Guidance" on approval, all charges prepaid, I agree to either remail the work to you within 5 days from its receipt, or remit five dollars in full payment.

[^1]

Fig. 75
Reverse Chancery Over the Arm.
secured. Nevertheless, they are not all practical holds and, in consequence, don't really warrant a more detailed description. Besides, they are more or less impractical, what wrestlers term "impossible holds"so called because opportunities to secure them so seldom present themselves. Besides, in wrestling with a man your equal, there


Fig. 79
Chancery Over the Shoulder.
is no decided advantage in particularly working for a Reverse Chancery over the Arm or for a Reverse Chancery over the Shouider, as direct attacks. Although a Reverse Chancery Hold over the Arm, or a Reverse Chancery Hold over the Shoulder, are not holds that lead directly to a fall, nevertheless it is wise to be up on these holds in order to be thoroughly familiar with them, so that in case a good opportunity should present itself, you will be able to instantly apply such a hold to good advantage, as combat conditions may warrant.

Fig. 77 illustrates a Chancery over the Arm while Fig. 78 illustrates a Reverse Chancery over the Arm.


Fig. 60

## Reverse Chancery Over the Shoulder-

Fig. 79 illustrates a Chancery over the Shoulder while Fig. 80 illustrates a Reverse Chancery over the Shoulder.

Fig. 81 illustrates a Double-Front Chancery while Fig. 82 illustrates a Reverse Double-Front Chancery Hold.

## The Back Chancery Hold

Exactly the same form of chancery hold as the Reverse Chancery Hold described. A Reverse Chancery Hold is often referred to as a Back Chancery Hold, because of the fact that you opponent's back is directly to-

# " $N$ E R <br> A subtle and dangerous malady which is undermining the vitality of the American Nation By PAUL VON BOECKMANN <br> Lecturer and Author of numerous books and treatises on Mental 

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

sub-normal Nerve Force, and consequently suffer from endless organic and physical troubles, which make their lives miserable. What is meant by "Nerves?" By "Nerves" is meant

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

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

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

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

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

The symptoms of Nerve Exhaustion vary according to individual characteristics, but the development is usually as follows:

FIRST STAGE: Lack of energy and endurance; that "tired feeling," especially in the back and knees.

SECOND STAGE: Nervousness; sleeplessness; irritability; decline in sex force, loss of hair; nervous indigestion, sour stomach; gas in bowels; constipation; irregular heart; poor memory; lack of mental endurance; dizziness: backache; headaches; neuritis, rheumatism, and other pains.

THIRD STAGE: Serious mental disturbances ; fear; undue worry; melancholia; dangerous organic disturbances; suicidal tendencies, and, in extreme cases, insanity.

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


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

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

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

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

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

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

This, of course, applies to women as well as men. And, on the other hand, WITHOUT Nerve Force no person of either sex in any walk of life has ever reached the top has ever achieved success, or has ever gotten the fullest enjoyment from life itself. WITHOUT an abundant supply of Nerve Force our lives are wrongly adjusted, we fail to utilize our full powers, and we cheat ourselves of our birthright of health and vigor.
"A sound mind in a sound body" depends upon sound nerves. And to be a WINNER, even in a small way, demands, first of allNERVE FORCE. If your NERVES have reached any of the three stages of depletion, you ought to take immediate steps to determine the cause and to learn what to do to build up your Nerve Force.

I have made a life study of the mental and physical characteristics of nervous people, having treated more cases of "Nerves" during the past 25 years than any other man in the world (over 90,000 ). My instruction is given by mail only. No drugs or drastic treatment of any kind are employed. My method is remarkably simple, thoroughly scientific and always effective. I shall agree to send you further information regarding my system of treatment FREE and without any obligation on your part. Everything is confidential and sent sealed in a plain envelope, You should read my 64-page book, "NERVE FORCE." The cost of this book is only 25 cents (coin or stamps). The book is not an advertisement of any treatment i may have to offer. This is proved by the fact that large corporations have bought and are buying this book from me by the hundreds and thousands for circulation among their employees-Efficiency. Physicians recommend the book to their patients-Health. Ministers recommend it from the pulpit-Nerve Control, Happiness. Never before has so great a mass of valuable information been presented in so few words. It will enable you to understand your Nerves, your Mind, your Emotions, and your Body for the first time.
Read the book at my risk, that is, if it does not meet with your fullest expectations, I shall refund your money PLUS your outlay for postage. My advertisements have been appearing in this and other standard magazines for more than $20^{\circ}$ years. This is ample, evidence of my integrity and responsibility.

The following extracts are quoted from letters written by people who have read the book:
${ }^{\text {"I }}$ have gained 12 pounds since reading your book, and I feel so energetic. I had about given up hope of ever finding the cause of my low weight."
"I have been treated by a number of nerve specialists, and have traveled from country to country in an endeavor to restore my nerves to normal. Your little book has done more for me than all other methods combined."
"Your book did more for me for indigestion than two courses in dieting."
"My heart is now regular again and my nerves are fine. I thought I had heart trouble, but it was simply a case of abused nerves. I have reread your book at least ten times." A woman writes: "Your book has helped my nerves wonderfully. I am sleeping so well and in the morning I feel so rested."
"The advice given in your book on relaxation and calming of nerves has "cleared my brain. Before I was half clizzy all the time."
A physician says: "Your book shows you have scientific and profound knowledge of the nerves and nervous people. I am recommending your book to my patients." A prominent lawyer in Ansonia, Conn., says: "Your book saved me from a nervous collapse, such as I had three years ago. I now sleep soundly and am gaining weight, I can again do a real day's work."

## The Prevention of Colds

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

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

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

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

## PAUL von BOECKMANN,

110 West 40th St., Studio 463. New York, N. Y.
Dear Sir: I desire to investigate your method, without obligation of any kind. (Print name and address plainly.)
Name
Address
Enclose 25 c , if you wish the book.


Fig. 81

> Double Front Chancery Hold.
wards the mat at the moment the Back Chancery Hold is secured.

## Reverse Chancery, Arm Hold and Back Heel

An effective combination hold secured while working up-standing with your opponent in a Referee's Hold, with left hand on opponent's neck and right hand holding his left elbow, as illustrated by Fig. 83.

A good combination to use in case your opponent works in too much of an upright position. Don't attempt this hold on a man who works low, in a well-defined crouch, or you are likely to run into danger instead.

Under the supposition that you are working on an opponent who stands up too straight, step quickly to your right side,


Fig. 82
Reverse Double Front Chancery Hold.
placing your left heel outside and in back of your opponent's left foot. Hold on to your opponent's left arm with your right hand just above the elbow. As you step in to back heel your man, quickly trap your opponent's face in the bend of your left arm. Push his head well back while at the same time you trip him backward over your left heel. Hold tight his left arm as you forcibly thrust your body weight for-


Fig. 83
Referee's Hold.
ward towards your man; while at the same time you back heel him. Properly using this triple combination will force your man to topple over backward down to the mat. As he falls backward, give him your weight so that he falls heavily on his back with you on top on his chest, in good position. Follow up your advantage and pin his shoulders tight down to the mat before he can offer any effective resistance against you.

Another method of bringing your man down to the mat is by twisting your man over your left heel, while at the same time twisting his head and shoulders well towards your right shoulder. Twist your man in such a manner that he falls directly at your side with his head on the mat close to the spot originally covered by your right foot when first going for this hold. Fall heavily on top of your man in such a manner as to give him your weight while maintaining your superior position. Hold and pin your man's shoulders to the mat before he can offer any effective resistance against you.

In the latter method you depend on twisting your man towards you and on your right in order that he falls directly at your original right side. Whereas, in the method first described, you take your man over di-


Fig. 84
Reverse Chancery, Arm Hold and Back Heel.
rectly backward in such a manner that he topples over directly backwards down to


Fig. 85
Fall from Reverse Chancery and Back Heel.
the mat. In either case, fall heavily with your man, giving him your weight as he falls, but be sure you keep the top position. Both methods are equally sufccessful, depending on combat conditions.

This combination at times is termed a Face Hold and Outside Back Heel. Strictly speaking, it is a Face Hold at the preliminary stage of this combination, and develops into a Reverse Chancery by the time your man is on his down trip to a fall. Fig. 84 illustrates a Reverse Chancery and Back Heel while Fig. 85 illustrates a fall scored by means of this combination.
(To be continued)

## Prize Contest Announcement

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

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

## The Best and the Worst.

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

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

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

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

Let's hear why you like or dislike the articles, and the reasons for your preference.

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

## Live Ones and DeadOnes

All the dead ones are not holding up tombstones. You find them mingling with the populace in everyday life, shuffling along, void of ambition or the energy to throw out their chest or straighten their round shoulders. They drag their tired feet after them. They are the people we naturally avoid.
The Live one, however, shows pep in every' step. His head is erect, his chest thrown out, his shoulders back. He radiates the thrill of life within him. People notice him, even turn around and stare at him, for they admire the fire of youth which they themselves lack.

## That Is Not All

Imagine the personal joys of such a man. No one can fully realize them until they have acquired them. Beneath those clothes are the powerful, muscular arms, the strong back and mighty legs that give confidence, with the feeling that this world was made for him, and he to conquer it. There are thrills in an athlete's life that others never know until they, too, have taken up some scientific system of training under an experienced LIVE instructor.

## Would You Listen to a Mummy?

If an Egyptian mummy could return to life and teach physical culture, would you listen to him? No! His method would be 2,000 years old. You desire more modern methods than those of the ancient Egyptian. You want the advanced methods of a live up-todate specialist. Old school methods took three or four years to build up a powerful physique, while I have actually accomplished this in a few months' time. You may become an entirely rebuilt man with a personality that will make you an actual leader of men.

## A Doctor Who Takes His Own Medicine

My own body is an excellent example of my methods. An instructor should show results on his own person before teaching others. I am not a "has been," but am now living the best years of my life. If I developed myself from a frail weakling to the athlete I am today, I am sure you will be convinced that there is a lot behind my methods.


EARLE E. LIEDERMAN

I DEVELOPED MY OWN ARM FROM 10 to $161 / 2^{\prime \prime}$, my present measurements.
I DEVELOPED MY CHEST FROM 34 to $48^{\prime \prime}$, I DEVELOPED A $17^{\prime \prime}$ NECK FROM A NECK THAT USED TO WEAR A $13^{\prime \prime}$ COLLAR, which it measures to-day.

## A Message for You

What I have done for myself, I can do for you if you will put forth a little effort each day and follow my instructions. In my files are thousands of letters from gratifying pupils all over the world. If you want the energy and pep that only a real athlete knows, if you want to earn more money by developing a clearer brain from a better supply of blood, if you want to stand out among your associates like all my pupils do, make up your mind to-day. Turn over a new leaf and become aLIVE one. Do not remain a DEAD one any longer. The live ones will send for my booklet-the dead ones will pass this message by. In what class do you belong?

# A New Edition of My Book Is Just Off the Press "MUSCULAR DEVELOPMENT" 

It tells the secret. Handsomely illustrated with 26 full-page photographs of myself and some of the world's best athletes whom I have trained. Also contains full particulars of my splendid offer to you. The valuable book and special offer will be sent on receipt of only 10 c . stamps or coin, to cover cost of wrapping and mailing. Don't miss this opportunity. Sit right down now and fill in the coupon. The sooner you get started on the road to health the easier it will be to reach perfect manhood. Don't drag along one day longer-mail the coupon to-day.

## EARLE E. LIEDERMAN

Dept. 703, 305 Broadway, New York City

EARLE E. LIEDERMAN,

Dept. 703, 305 Broadway, N. Y. City.
Dear Sir: I enclose therewith 10c, for which you are to send me without any obligation on my part whatever, a copy of your latest book, "Muscular Development." (Please write or print plainly.)

## Name

Address
City.

## Reader's Service Department

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

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

If you want Indian clubs, chest-weights,
rings, parallel bars or any gymnastic equipment, let us know.

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

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

## The Question Box

## To the Editor:

I am a young man twenty years of age and would like to know what is chicken breast. I was told by my doctor that I have chicken breast, and I would like to know if chicken breast can be developed. I am little worried over my chest, as it measures 36 in . expanded. Kindly let me know if chicken breast is harmful.

> A. B.

Chicken breast cannot be developed. It is a deformity caused by the prominence of the sternum, or breast bone. Any deformity is more or less harmful, the degree depending on the extent of the deformity. The condition cannot be overcome by exercise, but you can render it less conspicuous by developing the pectoral muscles, on the front of the chest. For this purpose, practise dipping on the floor.

## To the Editor:

I would like to see in your columns some information as to the present whereabouts of Arthur Saxon and Eugene Sandow. Am also curious to know as to W. L. Travis's ability as an all-round lifter.
E. L. M.

Sorry we cannot give you the present whereabouts of Arthur Saxon. He died during the past year. Sandow is still living, and is conducting a gymnasium in London.
W. L. Travis has considerable ability as an all-round lifter, although his specialty is dead-weight lifting and harness lifting.

## To the Editor:

Is there any exercise that will increase the size of the hand?

## Pitcher.

Practise dipping on the floor, with the fingers spread far apart. This will not lengthen your fingers, but will make the hand thicker and broader.

## To the Editor:

Please give me some exercises that will make my calves wide from side to side. My calves have obtained good depth from front to back, but have not broadened any. M. L.

The best exercises for developing the calves from front to back are hopping on one foot, and raising on the toes.

## To the Editor:

Is there any possible way of widening the chest and shoulders, and if so, how ? Should the hips be smaller than the shoulders?
W. G.

It is of course possible to widen the chest. One of the best chest-developing exercises is the two-arm pull over, which was described in the July issue. It is performed by lying flat on your back on the floor, with arms extended, and raising a moderate weight barbell, to a position above the chest, keeping the arms perfectly straight.

The only practical way to broaden the shoulders is to develop the deltoid muscles,

## Have You Read Checkley's Book?

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

## Checkley's book shows how you can

## BECOME HEALTHY, STRONG and GRACEFUL BY FORCE OF HABIT

He puts health first. He states that health of the internal organs is the only true basis of enduring muscular strength. Here are a few quotations from the Book:
On page 18 -"In fact, it is stating a simple truth to say that a man or woman should get good health and sufficient strength and perfection of form in the ordinary activities of life if those activities, however meagre, are carried on in obedience to right laws."

On page 54-"The highest state of health and power in a muscle will always lie in its flexibility rather than in its hardness. A man trained until his muscles 'feel like iron' is really in a dangerous condition. He soon gets out of 'training,' and is then immediately at a loss. His muscles feed upon his vitality, and, especially when he has passed middle life, threaten his general health. 'A man so 'muscle bound,' as the saying goes, is not in possession of a power. The power owns him."

On page 56-"It will not do, as 1 have-sug. gested, to sit, stand, and move badly for ninetynine one hundredths of the time and then hope to make things come out even by one per cent. of right exercise. The muscles will have the greatest health, strength and 'staying' power that are kept flexible and full of blood by continuous use in every-day life. To expect them to keep healthy by an infrequent fifteen minutes at some machinery is as unreasonable as to think of preserving the .. comfort of the stomach with one meal a week.:"
On page 142-"Interesting as are the changes produced in a man by proper physical training, the change in a woman is more striking and significant. I have witnessed simply marvelous changes in the complexion, form and disposition of women under light training."

On page 146-"A cheerful fact is, that nobody need consider himself unfit for training. I was born a weakingling. Nobody thought 1 was really worth rearing. To-day 1 can lift three men, each weighing one hundred and fifty pounds, and trot with them for a hundred yards. If i had not been born a weakling my family would never have taken the trouble to make me, and 1 would never have taken the trouble to make myself, physically what 1 am . If Demosthenes had not been a stammerer he might never have made himself the greatest orator of Greece. If you

are weak to-day let your resentment of the fact give you the mental strength to make yourself physically sound and strong. If you are what you are, it is scarcely an exaggeration to say that you can become what you wish to be."

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

The book includes exercises for those who wish to reduce flesh, and for those whose joints have become stiff, and muscles weak through inactivity. But remember, such exercise is only temporary. Once you have put yourself in condition, then by Checkley's methods you no longer have a daily grind of exercise. Your physical habits will convert you into a perfect physical specimen.

Not a big book. It is cloth bound, over 200 pages, fully illustrated, but it can be carried in your pocket.

The 14 chapters start with "THE BUGBEAR OF TRAINING," and end with "ON RETAINING YOUTH." YOU SHOULD READ IT!

## "Checkley's Natural System of Physical Training" Price $\$ 2.00$ Post Paid

THE CHECKLEY BUREAU, Dept. I 2109 N. ORIANNA STREET, PHILADELPHIA, PA.

which cover the points of the shoulders. If you increase your deltoids one inch, you are increasing your shoulder measurement two inches. For this, practise the one- and
two-arm press, military press, bent press, etc., also holding weights out at the side.

The hips should be smaller than the shoulders.

## Simple Strength Tests

(Continued from page 20)
"B's" knees, as in Fig. 3. At word "go," "A" tries to force "B's" knees apart. If he succeeds then he puts his knees outside "B's" and lets "B" do the forcing apart, if he can! This is a dandy. It tries out first the muscles on the inside of your thighs and then those on the outside. Wrestlers, football players and fancy dancers usually excel at it, but you never can tell.

You are likely to find among your friends some chap who will give you the surprise of your life. When you try to hold his knees together he will push your knees apart without apparent effort; and when you try to push his apart you find your legs locked as though in a vise. I do not know of any test that brings more unexpected results.
4. Arm and Shoulder Test.-"Muscling out."

The most time-honored of all tests. But here I fall down. You can't do it in pairs; you have to take turns. Get a coal-scuttle, bucket or strong basket, and load it with stones, bricks or even heavy books. The stunt is to hold the weight out in front of you as in Fig. 4.

Stand with right foot slightly advanced, arm straight out in front (no bend at elbow), knuckles up, and you must not lean backwards at waist line.

If no scuttle or basket is handy, tie a lot of big books together and hold them by the string.

Assuming that you have the bucket, load it up to about 20 pounds and let everyone "muscle it out" in turn. Then put in another brick or book and start all over again. As soon as a fellow fails he drops out. It does not take long to eliminate the weaklings; 25 pounds will stop many of them, 30 pounds most of the rest, and only a few will ever master 40 pounds; that is, in the average crowd.

This is a much better test than the usual method of "muscling out" with arm at side and palm up.
5. "Tug - of - War." - General strength test.

Any piece of rope with a man at each end. I recommend a thick rope which can be gripped with the hand. A clothes-line is so thin that you have to wrap it around the wrists, which sometimes proves painful.

Competitors must face each other throughout. No turning your back on your opponent, throwing rope over your shoulder and tugging him that way. Simply grip the ground with your feet, arch your back and pull. If you can walk backward and pull your opponent forward you win. If out-doors, pulling your man ten feet forward will win for you. In-doors, you will have to decide according to your space.

In this test I recommend that you start off as in Test 2. Count two-get into position and well braced at "one" and pull hard and steadily at "two."

This is a game for the thick-backed and sturdy-legged. Watch yourself if you are paired off with a man who has a big development below the knees. These fellows with 16 -inch calves are tough customers in the standing tug-of-war. The man who has cramped his feet by habitually wearing tight, pointed shoes, has little chance at this game.
6. Chest and Upper Back Muscles.

Stand erect, feet about 12 inches apart. Hold your arms straight out in front of you, palms of hands towards each other. Your opponent stands facing you, extends his arms, and puts the palms of his hands against the back of yours. You try to force his arms apart. If you succeed, then put your hands outside of his, and keep him from forcing yours apart.

Now, there is one strict rule. You must not bend your arms at the elbows; each contestant must keep his arms stiff and straight.

When you are doing the forcing apart, you are testing the strength of the muscles

# The famous Marshall Stillman BOXING Course 



Think of it ! The famous Marshall Stillman course, that cuts the time of learning boxing in halt, can now be had for only $\$ 3.85$. Six volumes, hundreds of pages, and over 200 photographic illustrations.

The greatest secrets of the ring, the best blows and guards used by the top-notchers - the Jack Dempsey Triple, the Benny Leonard Triple, the Fitzsimmons Shift, the Mike Donovan Leverage Guard, the Miske Twist, and all the rest. All the fine points of boxingfeinting, ducking, clinching, breaking ground, judging distance and timing. Three rounds of Shadow Boxing. combining all the best blows used by professionals. Instructions on how to train, with questions and answers. The International Sporting Club Rules for Boxing. A history of 69 of the world's greatest prize fighters, with pictures and "inside" stories, Muscle building and other special exercises for development. Suggestions on how to put weight on or take it off.

Wrestling and Jiu-Jitsu also-how to subdue an armed opponent, how to break a strangle hold, and many other tricks of the Orient and Occident. The best wrestling holds-the Gotch Toe Hold, the Stecher Scissors Hold, etc.

It's just as though you had several teachers, each one an expert in his part of the game.

Mike Donovan, former Middleweight Champion of the world and teacher of boxing at the New York Athletic Club for over 30 years, devised the scientific principles used in the course, and which all the best professionals use to-day. Based on these fundamental principles, Marshall Stillman teaches you all the good blows and guards used in the ring.

It would take months to learn these blows by the old method of teaching. But in the Marshall Stillman "Short-cut" system, they are reduced to the simplest movements, each movement described in detail, and every blow posed for by two experts. Pupils have outboxed older and bigger opponents within 2 weeks after getting the course.

You practise before a mirror, starting with motions you are already famillar with, such as reaching your hand out for a coin, the breast stroke in swimming, etc. And from these familiar movements, Marshall Stillman leads you subconsciously into striking heavy blows, blocking, feinting, etc. You're not pounded while learning, as in other methods of teaching. You master the fundamentals first.

When you've mastered the fundamentals, you're taught
all the good blows and guards-when and where to land them, and how to guard against your opponent's counter. And to further prepare you for your first encounter, Marshall Stillman has cleverly combined these blows and guards into three lively rounds of Shadow Boxing -great exercise for producing speed, wind and confidence.
In addition to your Boxing, Jiu-Jitsu and Wrestling Lessons, you'll be given a complete set of building-up exercises, which, if followed faithfully, will improve your physique and health wonderfully.

The value of this course cannot be measured by fts price. Some students tell us it's worth $\$ 25$; others, $\$ 30$. When Marshall Stillman first produced it, it sold for $\$ 10$. As sales increased, we cut the cost to $\$ 5$. And now we are able to let you have it for only $\$ 3.85$-on this liberal offer.

## Send no money

Simply fill in and mall the coupon. The course will come to you at once. On its receipt, hand the postman $\$ 1$, merely as a deposit. Then use the course for 10 days-try it out thoroughly. At the end of that time, either send us $\$ 2.85$ more or return the course, and we'll send your dollar back.

Mail the coupon now to MARSHALL STILLMAN ASSN., Dept. $1722-\mathrm{C}, 42 \mathrm{~d}$ Street and Madison Avenue, New York City.

## Mail this coupon NOW

## Marshall Stillman Asseciation,

Dept. 1722-C, 42nd St. and Madison Ave., New York City.
You may send me on approval the Marshall Stillman Course, price of which is $\$ 3.85$. Upon its receipt, I agree to pay the postman $\$ 1$ as deposit. It is understood that I am to pay the balance $(\$ 2.85)$, or return the course within 10 days after I receive it. If I return it, you are to refund my dollar.
Note: Canadian and foreikn orders must be accompanied by cash ( $\$ 3.85$ ), subject to money back, if not satisfactory.

## Name

Address
on your upper back. When you are keeping the other man from spreading your arms, you are testing the big muscles on the front of your chest.

Surprises occur in this test also. Friends whom you suppose to be easy marks will astonish you by spreading or holding your arms without difficulty. (When I say holding, I mean holding together. You must never grip the other man's hands.)

Remember this is not a test of the muscles that bend the arm at the elbow, but of the muscles that move the whole arm forwards and backwards. A man with smaller arms than yours may beat you, if his back and chest muscles are stronger than yours.

There are lots of other good tests, but most of them require apparatus of some kind. For instance, dumb-bell and bar-bell lifting. In the "two-arm press," where you push a barbell slowly aloft, nothing will send that barbell up but pure unadulterated strength of arms, shoulders and back. But the barbell is not always conveniently at hand.

Or dead-weight lifting. You fasten a bar to a very heavy piece of iron, straddle the crowbar, grab it with one hand in front of you and the other behind you. Bend your legs at knees, keep back straight up and down, and arms straight. Then lift weight by straightening your legs. If you keep your back straight you can't hurt
yourself. The chances are that your grip will yield first. How often do you find a chunk of iron suitable for this test?
Or take the greatest strength test in the world-the annual wheelbarrow contest in Paris, open to the world; no one barred.
A course about 40 ft . long, with a raise of a foot or so. They chuck 1,100 pounds in the wheelbarrow to start. Each contestant grasps the handle in turn and wheels the barrow up the slight grade. Then they put in another 110 pounds and have another try. All the big Frenchmen try it, and there is one husky porter who can consistently trundle that barrow and 1,760 lbs . of iron the length of the course. No man with one weak spot in him dare try that stunt.

Grip, back, arms, shoulders, back, legs and lungs-all are tried to the utmost. I do not recommend it to the untrained.
For it is the average man I have in mind. The lad in the school, college or shop.

The six tests I suggest can be tried almost anywhere, and with such apparatus as the average house or shop affords.
They are for men or boys who drift together of an evening-or for the crew of one shop who want a little excitement in the noon-hour. Try them with your friends.

## Basket Ball Today and Tomorrow

(Continued from page 27)
too, of how when playing with her brothers, they had helped her and how they had broken her of several fouling habits.

An important figure in girls' athletics today is the "all round" athlete. Not necessarily a "Star," she is but one of many developed in colleges, schools and camps. A girl of this type has natural ability, a sound physique and most likely a lot of advice from brothers or cousins. The problem of this all-round girl is one which needs to be met by the organizers of sport in this country.

As for roughness, it is possible they do not notice it as a few years of basketball hardens a girl-without injuring her either
mentally or physically, and in the writer's opinion there is very little more roughness in a well officiated game under men's rules than under the girls. Of course, the officiating in either case is extremely important.
The enthusiasm that girls put into team games is one of the most important factors in their success. The spirit of the team and the good sportsmanship that it is necessary to bring to the game and keep all through it are going to make basketball more popular than sports calling for individual ability.

It is a hope of the future that there will be an All-American basketball which will

## YOU Can Live a Supreme Life

## Radiant Health, Great Strength and 100\% Mental Efficiency Can Be obtained Thru Taking Advantage of This Wonderful Offer. PRACTICE Muscle Control

## and Be the Man You Should Be! Admiration

## always follows the robust, graceful and alert man,

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

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

## "Body Beautiful" Maker

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

## Matysek's Muscle Control Course Consists of

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

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

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


## ANTONE MATYSEK

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

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

## I Want to Assist YOU to Get Healthy and Strong

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

## Prof. Matysek

Muscle Control Dept. 218
523 North Charles Street. Baltimore, Md.
Detach and mall Now while it is on your mind. PROF. MATYSEK, Muscle Control, Dept. 218,

523 N. Charles Street, Baltimore, Md.
I want bulging muscles and yet I want them to have fine outlines. I desire to increase my strength, my internal activity, my eneris. I want to be more than I am now and I want to achieve my "chief aim" in a short and efficient manner. For these reasons send me your wonderful Muscle Control Course, Illustrated with 21 high-grade pietures of yourself. If after 5 days of honest practice 1 am not completely satisfled, my money will be promptly refunded if course is returned at expiration of that time.

Name
Address
City.
Strength, 3-29
 simply constructed from biue steel; can be dismantled and reassembled in a few seconds. REGULAR
VALUE $\mathbf{\$ 3 5}$ $\begin{array}{ll}25-C a 1 . & \text { No. } 893 . \\ 32-C a 1 & \text { No. }\end{array}$

## Replar $\$ 35$

Thls 835 SWINQ CYITNDER of the finest revolvers ever made; double action, solid frame. Nickel or Blue finish. Shoots 8 k W long cartridges. Order one NOW. 32 Cal No, $493, \mathrm{Q17} 00$

surely show to all comers the superiority of the American girl in this branch of sport at least.

## The Self-Stoked Human Engine

(Continued from page 30 )
would even read-much less rememberthe essential points on the true nature, character and resourcefulness of food materials and cookery.

One final but important point, and that is: what foods help most in securing a full, complete, prompt and revivifying evacuation of the left-over material? By all odds the best laxative food is whole wheat bread, made of the entire grain and baked slowly for an hour and a half. We learned about this practically during the war, but alas! ancient prejudices in favor of "fine white bread" brought back the old demand -especially by the humbler folk, and also those who ought to know better. While we ate "war bread" as in duty bound and acquired merit in our own eyes by doing so, our bowels also acted vastly better, our eyes became clearer, our brains nimbler, our teeth prospered, our bones, ligaments and muscles improved-though we may not have given the praise where it belonged. None the less we mostly drifted back to "the fine white loaf." Plenty of foods are good enough, "nourishing," "digestible," "they consort happily with our tissues" after being appropriated. Well and good so far, then what more can we want? Very much more indeed, no less than a suitable form and kind of course residue to help mechanically in carrying off the softer, stickier, gummier, left-over stuff from the more completely digested and delicate materials. All concentrated foods such as meats, cheese, eggs, beans, refined starchy foods, mashed potatoes, white rice, white bread, etc., leave extremely little residue. In order to encourage evacuation and extrusion we need bulk, the massive strawlike material cellulose. Among the better sources of bulk are skins of potatoes, of apples, pears, grapes, even of oranges, lemons, etc., omitting the coarsest ones as of melons, bananas, etc., although even in them there is virtue when properly prepared. But the best regulatory dietbar none-is whole wheat bread.

Hereisan opportunity to secure a genuine perfect cut, steel blue white diamond at a great saving and without feeling the cost. Only by examination can you appreciate this wonderful value.
No Red Tape No Waiting Simply send \$2 and receive this genuine steel blue white diamond ring exactly as illustrated. Send strip of paper fitting snugly over knuckle for ring size.

## $\$ 2.25$ A MONTH

Send only $\$ 2$ and the ring goes to you, charges paid. Pay balance $\$ 2.25$ a month for 10 months. Price only $\$ 24.50$.
tion-the newest design in diamond rings. The diamond is absolutely perfect in cut and steel blue whitein color-setting is the popular 18K. solid white gold which resembles platinum. Shank of ring is 14 K . solid green gold hand carvedand hand engraved on both sides-perfectly proportioned. Biggest ring offer ever made.

Written legal guarantee bond supplied with each ring attesting to true value and high quality.
Special exchange privilege allowed guaranteeing an annual increase in value of $8 \%$, in addition to full purchase price.
30 DAYS' FREE
TRIAL
You take no chance. If not satisfactory for any reason whatsoever or if you ccan duplicate this offer in any jewelry store for less than $\$ 35$, your deposit will be refunded to you.

## WRITE FOR "ROYAL" FREE CATALOG

Write for a copy. You willfind hundreds of attractivearticles you are interested in foryourself and for gifts. And you can buy any article on 30 days' free trial.

You save money and don't feel the cost when you buy the Royal way-Diamonds, Jewelry, Silverware, Rings, Lavallieres, as well as Men's and Ladies' Watches. Our new 2 Million Dollar stock, one of the finest in New York City, is beautifully illustrated and described-at prices in plain figures-in this handsome book.

Royal Diamond Wateh Co., (490) 35-37-39 Maiden Lane, New York City
Enclosed find \$2.00. Send methe perfect cut, steelblue white genuine diamond ring for 30 Days' $^{\prime}$ Free Trial. Ifnot satisfied 1 will return it and you will refund my deposit. If I keep it I will pay $\$ 2.25$ per month for 10 months until $\$ 24.50$ has been paid.
Please include also your free jewelry catalog.
Name
St. Address.
Box No. or R.F.D.........................
Town.
State

# MIZPAH No. 44 



Gives you a feeling of real comfort and the assurance of perfect protection while exercising or playing games of any kind.
All elastic. Perfect fit. Will not chafe. Perfect pouch. Patented opening in front. May be boiled to cleanse. TWO WEEKS TRIAL If not satisfactory return and money will be refunded. Mailed on receipt of price, \$1 State waist measurement


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


Smoking robs men of their virility; it is destructive to the nerves and deprives you of the good things in life. My SAFE, SURE, GUARANTEED Tablets positively remove the Smoking Habit within 14 days or MONEY REFUNDED. Contain no "dope." As pleasant to dissolve on the tongue as candy. Write to-day, enclosing $\$ 1.00$ for sealed package containing 100 tablets.

PROF. I. ANDREWS
Dept. A,
328 West 72nd St., New York

## Let's Get Out of Doors

(Continued from page 16)
dents of the cities of Maine. They are within gunshot of some of the finest big game country in the world. As for Boston, the Maine woods are within easy access; and the mountainous sections of New Hampshire, Vermont and western Massachusetts are only a few hours' ride distant. The same thing applies to all the New England states. I have seen deer on the public roads within a couple of miles of New Haven, Connecticut.

As for the residents of New York City, who have a hankering for a few days beyond the glare of Broadway, there are unlimited opportunities. They have the vast stretches of the Adirondacks, wonderful deer and bear country with plenty of wild cats, a few lynx and an occasional panther; the Catskills, the Hoosac and Taconic mountains, all only a few hours' ride, and the rivers and lakes of their own state and New Jersey for ice sports.

And they can join with Philadelphians, Pittsburgers and Baltimoreans in enjoying that great territory in mid-western Pennsylvania, the merits of which are so little sung, yet which is undoubtedly one of the finest wilderness sections east of the Ca nadian reaches.

A few years ago only a few stray hunters from the cities went into these sections. Now, in Summer, they are the playground for constantly increasing numbers of city dwellers, for those whose hobby is casting the dainty fly as a lure for trout, and for campers; while in Autumn thousands of hunters flock in and there is room for thousands more. Only a month ago, 400,000 acres of this became a federal preserve similar to Yellowstone.

As for the city folk of Virginia, the Carolinas and nearby southern States, there is unlimited opportunity for fullest enjoyment of the wild places in the Alleghany mountains with their spurs, under various names, that extend far down into Alabama and over into Tennessee and Kentucky.

In the mid-West, Chicago and cities in its vicinity have but a few hours' ride to be in the vast lake regions of Wisconsin or among the forests of Michigan. And these afford a paradise to those who feel the
need of the out-doors. In Milwaukee, which is only a matter of ninety miles or so from Chicago, it seems that every man and many of the women are either ardent devotees of fishing or hunting or both, along with the other out-door recreations.

Then, down in St. Louis those who want to get out for a few days in the open places have the Ozarks. As for the Pacific Coast cities, a few miles inland from all of them are the Sierras and the various other ranges, all wonderful hunting, fishing, camping and tramping territory.

Lightly that furnishes an idea of the proximity of the woods and streams to our big cities. Nowhere is there a city so far removed from the wild that fifteen dollars will not cover the cost of a round-trip railroad ticket into the heart of the outdoors, and ten dollars will usually suffice.

## Eat Right and Be Good

(Continued from page 36)
grams, and long words, but in terms of what kinds of foods neutralize each other and avoid acidosis, he has all the dietetics he needs. There is no reason why the doctors and the insurance companies should not combine to give him that, and other instruction like it. Unfortunately, the medical profession is conservative; and it is often too "ethical" for the good of humanity.

People didn't use to know anything about blood tests, and about calories and all that. They simply ate coarse food which was as nature made it, and which had not been processed by anybody. And they throve on it. On processed foods we do not thrive, as the steady increase of heart disease, cancer, anemia, and other degenerative diseases shows.

It is true, of course, that there are individuals among us who by reason of certain idiosyncrasies cannot eat certain foods. Some can't touch strawberries, for instance. But the average person, in fair health, can live, thrive, and grow old on a diet which can be prescribed with as much confidence for the entire human race as milk from healthy mothers can be prescribed for babies.


# \$100.00 a Week 

## He Doubled His Pay

and now enjoys the comforts and pleasures of a real income
Why not double your pay? Thousands of our students have done it and thousands more will do it. You can be one of them. Do not think for a moment that it is luck or poill which brings fuccess and real money-far from it. It it preparing for the big opportunity and knowing what to do when the itight time comes point does it the men who have mado succeses for themselves were ready when their main chance came. Your main chance, too, will come. Are you ready for it?

## Remember the Empty Lot?

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

## You Can be the Man "Who Knows"

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

## AMERICAN SCHOOL

Dept. G3203 Drexel Ave. and 58th St., Chicago

## AMERICAN SCHOOL

Dept. G3203 Drexel Ave. and 58th St., Chicago Send me full information on how the PROMOTION PLAN will help me win promotion in the job checked.

$$
\begin{aligned}
& \text {........Arehilding Contractor } \\
& \text {....... Automing Contractor } \\
& \text {........Automobile Engineer } \\
& \cdots \cdots . . \text { Autotnobile Repairman } \\
& \text { ….. Civil Engineer } \\
& \text {...... Business Mangineer } \\
& \text {.....Business Manager } \\
& \text {..... Cert. Public Accountant } \\
& \text {.... Accountant and Auditor } \\
& \text {.....Bookkeeper } \\
& \text {......Draftaman and Designer } \\
& \text {.....Electrical Engineer } \\
& \ldots . . . . \text { Electric Light \& Power }
\end{aligned}
$$



## Name

# TOBACCO or Snuff Habit Cured or NO PAY 

SUPERBA TOBACCO REMEDY is positively guaranteed to remove all craving for tobacco, no matter whether smoked in pipe, cigars, cigarettes, chewed or used in the form of snuff. If it is successful, costs One Dollar. If it fails, costs nothing.

## A SAFE AND HARMLESS REMEDY

Contains no dope, poisons or habit forming drugs of any kind. Cannot harm anyone. Its object is to destroy the craving for tobacco or snuff, eliminate the nicotine in a healthy natural manner, build up and repair the damage caused by nicotine.

## UNSOLICITED TESTIMONIALS

SUPERBA TOBACCO REMEDY is not a new or untried treatment. It has been sold by us for years, and our files contain thousands of letters from men and women who of their own free will state our remedy has brought them better health, added years to their lives, saved them money, and freed them from a foolish, harmful and useless habit.

Mr. R. L. Chalk, Trough, S. C., writes: "After taking one treatment of your Tobacco Remedy, 1 am relieved of all craving for tobacco. I smoked from 40 to 50 cigarettes per day and chewed a great deal, too, and I want to thank you for your wonderful remedy.'

Mr. W. J. Haygood, J. P., San Augustine, Tex., says: "I have been using tobacco for 40 years. I am certainly proud of the results I have had from the use of your Tobacco Cure. 1 do not feel like the same person since I have quit the use of tobacco and snuff."

## OUR NO CURE NO PAY OFFER

What this remedy has done for others it is now waiting to do for you. Send us your name and address. We will at once mail to your address, a full and complete treatment of SUPERBA TOBACCO REMEDY. If it removes all craving for tobacco or snuff, it costs $\$ 1.00$. If it fails, or is not satisfactory in every way, it costs you nothing. Surely nothing could be fairer than this.

SUPERBA COMPANY,P4, • Baltimore, Md.



## Dr. Isaac Thompson's LYE WAFR

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

JOHN L. THOMPSON SONS \& 147 River St.s Troy, N. Y.

To find out what that ideal is, all you have to do is to figure out what you would probably be eating if you had built yourself a pioneer cabin seventy-five years ago, out somewhere along the reaches of the Santa Fe Trail, a safe distance from the commercial, the strictly commercial gentlemen, who prepare in attractive-looking packages the soft and dainty foodless foods which form a predominating part of our "American" diet. Figure it out for yourself. What would you have eaten in those days, under those conditions? The pioneers in Daniel Boone's day could travel the wilderness under conditions calling for the greatest stamina, on what-why, on parched corn and maple sugar!

I talked the other day with an old man who till recently had lived in an isolated and primitive region, and had lived throughout his early life on the usual pioneer foods.
"We used to grind our corn meal," he told me, "by taking the corn and pounding it up in a mortar. It made a kind of corn bread that I have not tasted for years. This corn meal you buy-it seems sort of different and tasteless, I guess they must take something out of it." (They do-the germ, because it doesn't keep quite so well.) "We got our wheat flour the same way. Just ground it up and used it as it was. Of course, we'd heard of white flour, but a lot of us had never tasted it. Well, well ; times have changed since then. We never had indigestion when I was a boy; and both my parents lived to be very old with hardly a sick day in their lives; but I've got stomach trouble, and rheumatism, and hardening of the arteries, and I guess my time's short. And yet I am not much over sixty-five. Since things has settled up in this community we've been getting in all sorts of queer things that we eat for breakfast, dinner and supper; and my daughter that I live with-she won't let me tell her no different. As for a garden with a lot of good truck in it, she won't bother with it. And look at her youngsters. No roses in their cheeks, are there?"

For the individual whose machine refuses to work right, but who has nothing really serious the matter with him, the way out is probably simple. I have already indicated it. Let the cornerstone of your diet be whole wheat bread, made from the whole berry of the wheat. You probably can't buy the bread, but you can make it. Don't ac-
cept a flour from which the smallest part has been removed. Eat it three times a day. It will be the cure of constipation if you have it, and it will nourish you better than any food you have ever eaten. For breakfast, try cracked wheat, oat meal, or milk toast, with hot whole milk; and include fruit, such as oranges, prunes, baked apple, etc. Coffee in moderation if you want it. For lunch, if you are where you can get it, whole wheat bread, ' with butter and honey; an orange. If you can't get the orange, try a salad. Vegetable soup is good for you at noon or any other time. But the whole wheat bread, butter, honey, and orange is in itself a complete and perfect meal. It's as simple as that. For dinner, anything in reason, if you don't eat too much, if you use no white bread, if you go slow on meat, if you go slow on starch foods like boiled potatoes, tapioca, spaghetti, and the like, and go strong on vegetables with their juices, and fruits. Carrots, baked potatoes, beets, turnips, and so on ought to be standbys. Meat should flavor your meal, not be made the bulk of it. Above all, don't overeat. Try it, and you'll be happy, and probably good.

## Athletes I Have Known

## (Continued from page 13)

Gardner got 2, thus reducing the lead to 6 . Gardner repeated on the 11th, getting 4 to Fownes' 5, bringing the lead down to 5 . Fownes, however, beginning to see himself slipping, was grateful for a half on the 12 in 4. Gardner came back again on the 13th with a 4 to Fownes' 5 , reducing the lead to 4. He then made a 3 on the 14 th and won another hole, bringing it down to 3 . The 15th he put down a par 4 to Fownes' 5, bringing it down to 2. Everybody who has played the course knows something of the dangerous character of the 16 th from experience. Fownes took a 6 there in the morning, but with the full pressure on, and feeling the match slipping down to level, he gathered himself and halved this hole in 4. The 17 th is none too certain a 4 on account of the undulations in the green, but when Fownes sank his put for a 4 here and halved with Gardner's 4 , he was mighty glad that it was over, for Gardner had played these 8 holes in 29 strokes and taking his in-round of the morning, which was

## Do You Want to Develop A Grip of Steel?

In the short period of ten days, you can double the strength Cf your grip and increase the size of your forearm from 1 to 2 inches with the

## New Improved VICTOR MASTER GRIP

This apparatus will not only improve your grip and forearm development to its maximuin, but can be used as a grip tester by any one. It registers from 1 to $100 \%$.

Two new patented features make the IMPROVED VICTOR MASTER GRIP the most scientific as well as the most practical and useful grip and forearm developer ever constructed. It is a marvel of simplicity, yet produces results that are astonishing.

It is the only progressive grip and forearm developer. The tension is regulated as you pro-gress-mild, medium, and strong-making three exercisers in one. It also enables you by means of a gauge, to test the strength of your grip, as well as that of your friends.

Can be used by every member of the familyweak or strong. Used by the hundreds in gymnasiums. Endorsed and used by professional strong men, boxers, wrestlers and oarsmen. Made of the finest steel, highly nickeled. No parts to break or loosen, nothing to get out of order; it is indestructible and will last a lifetime.

> FREE Complete Course of Instructions for developing grip and forearm muscles with each VICTOR MASTER GRIP

## Money Back Guarantee

I cannot praise the NEW VICTOR MASTER GRIP and Forearm Developer too highly. I stake my whole reputation on it. If you are not entirely satisfied after you get it, return it and your money will be refunded without question. Five dollars would be a cheap price for this big new grip developer and strength tester, but to introduce the new patented features, the price for a limited time is only $\$ 3$. Send for one today. You cannot buy any other grip and forearm developer that will do the work of the VICTOR at any price. Be sure to get the genuine NEW VICTOR MASTER GRIP.

## Sead for FREE Book, "How to Get a Grip on Life"

# Strength mil Vigor SIXTY DAYS' TRIAL 



 If you teek that peri | tect hathith strength and |
| :--- |
| vior which makes men | all powerful and mag netic, or, if gou want to get rid of Rheumatism, Nerve Weakness, Lame Back,

Lu Send for FREE
FREE

Circulation, Dyspepsia.
Circular Wealoness, or other Sleeplessness, Kidney, Liver, Bladder Weakness, or other distressing Chronic Complaints, then send right away for our Free Book telling all about the famous Sanden Electric Belt and how it is sold on 60 days' trial, with no cost to you unless you are absolutely satisfied. This is your opportunity to become well. strong and capable without the use of drugs, and with no risk of losing your money. The Sanden Herculex Belt is the best in the world and has thousands of satisfled users. Our Trial Offer is absolutely genuine-no catch in it whatever-so send for Free Book and list of references to-day. Address.

THE HERCULEX CO. 1416 BROADWAY, Dept. N, NEW YORK



## CLASSICAL PHOTOGRAPHS of FAMOUS STRONG MEN Including all the celebrated lifters of the world-renowned Camberwell Club <br> SET OF 21 <br> $\$ 2.00$ POST FREE <br> ONLY OBTAINABLE FROM <br> George F. Jowett, Inkerman, Ontario, Canada (Special Representative for W. A. Pullum in the United States and Canada.)



Become
Rapid.Fire
a Rapid.Fire
Any one caick turn spare time into mones-become popular-be an artistbe called clever. Our Course- 30 Cleever Cartion Stunts-Complete Instructions. How to Give a Public Performance, and a system showing "How to Orikinate Your own 1deas" makes you competent. There is alwass a demand for petent Thero is alwass h demand for vaudervlle artists and this line of art. No talk or chater required. COMLETE COURSE S1.00. SMMples 15 C .
Dept. C. 296 Bergeen St., B'klyn, N, Y.
BE A DETECTIVE Earn Big Money
Travel. Great demand everywhere. Fascinating work. Experience Unnecessary. Particulars Free. Write, Dept. M. 19. AMERICAN DETECTIVE SYSTEM
1968 AMeadway
a 35 , showed a 64 for the 17 th holes of the 2 inward rounds, or an average of 4 under 4's for these 17 holes.

Morris Risley, the star amateur of Atlantic City, upheld America in the International struggle by playing a remarkable match in putting out the tall Englishman, Worthington, with an extra hole in the tournament at the Shawnee Country Club. Risley's work was good enough to deserve more than a passing word of comment; for Worthington, who now is the Westchester County Champion from Siwanoy, started off with a rush, taking the first three holes and then adding to this lead by taking a three at the 8th and thus with a half at the 9 th, turning for home no less than 4 up on Risley. Then the Atlantic City champion went after his man and won the 10th, 11th and 12 th, only to be disappointed and put back to two down by Worthington's Birdie three on the 13th. It looked then as if the match were all over but Risley won the 15 th and brought the lead down to 1 . Risley squared the match on the 17 th and after they had halved the home hole, Risley made a remarkable three on the first extra hole, winning to Worthington's par 4.

The victory of Miss Cecil Leitch in the British Woman's Championship attracted most unusual attention on this side of the water on account of the presence of Miss Alexa Sterling, Miss Hollins and other of our representative woman players. Those who had seen Miss Leitch play, and who knew her past history, as a golfer, were far from confident that any of our woman Americans could succeed in defeating her, and the result proved that they were right; although they made an excellent showing and later some of them defeated her over here. But perhaps nothing describes the quality of Miss Leitch's play better than a reference to one of the hardest matches in which she ever participated, and that was over ten years ago when she was under twenty.

There had been much talk in British circles on account of her excellent play, as to how she would compare with the plus players among the men, and finally after considerable discussion a match was arranged between Miss "Cecilia" Leitch, as she was then known, and Harold Hilton. In order to decide what odds a first-class amateur should give a first-class woman player, a match was arranged by one of the golfing
generals who offered a cup, the agreement being that Hilton should give Miss Leitch a half stroke a hole in a match of 72 holes. Miss Leitch at that time held the record for the men's course at Carlisle and Silloth Golf Club with a 74, and she had held also the woman's record drive of 275 yards. The match was to be played, the first 36 holes at Walton Heath and the second 36 at Sunningdale. Hilton played well at Walton Heath, but even then secured a lead of only 1 at the end of the 36 holes. His score was a 78, and Miss Leitch's was a 90. Sunningdale suited Miss Leitch better, but in the morning Hilton was going particularly well and things were breaking his way so that at the end of 18 holes he was no less than 4 up, and in the afternoon at the third hole he holed out an approach shot which made him 5 up. Miss Leitch then started in with the determination for which she was noted, and played at the top of her game, winning 9 holes straight and becoming 2 up. Hilton won the 13th, which brought her lead down to 1 and succeeded in halving the 14th, but Miss Leitch won the 16th and halved the 17 th, thus winning the match.

## How to Develop Muscles of the Abdomen

(Continued from page 38)
inal exercise is concerned. The "Full Mount" can be performed with as good results for abdominal development on the rings as on the horizontal bar, and has the advantage of being possible to more gymnasts, as it is not so difficult on the rings as it is on the single bar. Of course, it must be executed with the legs at right angles to the body to exercise the abdominals. The "Front Lever" is fully as difficult on the one as it is on the other, and gives the same results so far as our purpose is concerned. These exercises are all good up to a certain degree for abdominal development, but once the ability to perform them with a fair amount of ease is attained, then the development comes to a standstill as there is no urgent need for any further increase.

To be continued next month with more efficient forms of exercise for developing the abdominals.

# SendNoMoney 

 for this 25 Cal regulation blue steel Automatic Revolver

Keep one of these brand new safety revolvers in thleves and hour home and be fully protected against burglars, night-hear noises down stairs or in the next room- and realize your neglect has left you wholly


Shoots Quick-7 Shots in 3 Seconds Just pull the trigger. Each shot automatically ejects the cartridge and loads ready for the next shot. This revolver HAS DOUBLF SAFETY and is practically "fool-proof" against accidents. Perfect grip, accurate aim. Handsome blue steel gun metal finish. Riffed barrel, checkered grips, safety lever. Holds 7 cartridges. Small, compact, fits in vest pocket, lies flat and will not bulge out pocket. Shoots any Colt Auto Cartridges. Fine for target practice.

## SEND NO MONEY

Order to-day. Just send your name and address and say which revolver you want.
Genuine LUGER

Absolutely the best value offered. Highest standard of workmanship and material in these guns make them the best offer.

No. 591, 32 col . automatic military model, 10 shot,
extra maz. FiREE, 19
shots in all. Special price shots in all. Special price Write clenrly. Order these bargains today. (You take no risk. Write clearly your name, address and the Number of the Revolver on arrival our price, plus postage. Send for free catalogue. Postman on arrival our price, plus postage. Send for free catalogue.


## HOLSTER for any of above revolvers. Genuineleather, 81.50

GUARANTEE We guaranteo abafter examination or your moncy back. Rush your order today.

## PARAMOUNT TRADING CO. 34 West 28th St., New York, N. Y

## Stop Using a Truss

 STUART'S PLAPAO-PADS are different from the truss, being medicine applicators made self-adhesiye purposely to hold the distended muscles securely in place. No straps, buckles or spring attached-cannot slip, so cannot chafe or press against the puble bone. Thousands have successfully treated themselves at home without Buduad Fac-Fimllo hindrance from work-most obstinate Gotd Modal. cases conquered.


Soft as velvet-easy to apply-Inexpensive. Awarded Goiu Medai and Grand Prix. Process of recovery is natural, so afterwards no
further use for trusses. We prove it by sending Trias of Plapao absolutely

Write name on Coupon and send TO-DAY ITCC

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

Name

## Address

## Return mail will hring Free Trial Piapan

## Special Subscription Offer

## Why Die So Young?

By John B. Huber, M.D.
A non-technical book which will show you how to pass the danger point in each of your "seven ages" of physical development . .................................. \$2.00
One Yr's. Subscription to Strength.. 1.50
Special offer for both................. 2.75

## How to Get Strong and How to Stay So

By Wm. Blaikie

A practical common sense treatment of the subject. A complete and healthful system of exercise is given with careful attention to the needs of the young, the middle-aged and the old, both male and female........ \$1.75 One Yr's. Subscription to Strength. . 1.50
Special offer for both.................... 2.50

## Keeping Fit All the Way By Walter Camp

The system of physical culture evolved in this book supplies the needs of every man between the ages of fifteen and sixty. 200 illustrations
\$1.75
One Yr's. Subscription to Strength.. 1.50
Special offer for both.
Any of the above books may be ordered separately at the prices quoted. The prices include all postage charges in the U. S., and the combination offers apply only to subscribers in the U. S. Foreign and Canadian combination offers $\$ .50$ and $\$ 25$ higher, respectively.

Book shipment on receipt of order and subscription started with issue requested.
MILO PUBLISHING CO.
301 Diamond St., Philadelphia, Pa.

## How toUse theGymnasium

(Continued from page 24) punching the bag, do not do as so many bag punchers do-just stand in front of the bag and strike it and keep striking it in the same are with the same force continually, so that they conld be blindfolded and still strike it just as well. When you get that way, you lose most of the good out of your work. It is too automatic, too mechanical, too monotonous. Vary your attack, use your feet, shoulders; bend, twist.

The reader may or may not have noticed in his reading of this article thus far, that there has been no mention made of exercises that directly concern the legs. We will now describe apparatus and exercises that give the legs work to do. In every gymnasium there should be at least two, one each, pieces of apparatus known as the "Horse" and the "Buck" respectively. Briefly, the horse is composed of legs and body and a pair of handles. The styles vary. As is always the case in purchasing gymnasium apparatus, the best, the most expensive, pays in the long run. The standard horse now manufactured is composed of a heavy widespreading metal base which merges into an upright or leg to support the upper part or body. This body is generally about ten or twelve inches square, by from five to seven feet in length, being entirely covered with durable heavy leather. The body is attached to the legs by means of mechanism which permits its being raised or lowered to the desired height. The handles placed in a middle point of the body are about average shoulder width apart. These are detachable.

The buck in design and in mechanism is practically the same as the horse. The chief difference in this piece of apparatus is that it is much shorter in body, being only about two feet in length, and its base being accordingly less in size. The newest design is supported by but one leg or upright, though it is merged into a fourbranch base. The exercises or movements executed with the aid of these two pieces of apparatus are various and numerous. Like all the other various gymnastic articles of furniture, they lend themselves both to developing exercises pure and simple, or to stunt work. Here we will try to give the most common and easiest exercises to develop the legs.

First position: Stand behind the horse, that is, stand facing it, at one side or the other, we call this standing behind it. Now grasp the handles, firmly but not stiffly, and squat down as far as possible. Now spring up suddenly, still holding fast to the handles, and vault over the horse swinging the legs, held together at the knees and ankles, over to the right. In doing this, as you go over you must suddenly let go your grip with the right hand and just as you clear the horse and before landing on the mat, grasp the handle again. This exercise should be done vaulting to the other side, left side. Besides the spring exercising the leg muscles, the side muscles are also used. Then too, this movement tends to cultivate quickness and gracefulness. It also lays the foundation for a light, springing carriage.

In regard to the general use that the buck is put to, we might say that its big efficacy lies in this,-that it is highly valuable as a developer of the calf and thigh muscle. Assume position in front of it, put your hands on the top of the buck,-we are supposing that it is elevated no higher than the shoulders,-now rise on the toes and with a good springy leap and with the aid of your hands, jump clear over the buck. In both the buck and the horse-leaping, whenever you light, try and land on the toes as much as possible, not on the heels. Try and land, not on one foot first with the other following, but land on both simultaneously. The idea is to do it gracefully, to acquire gracefulness. Another point, do not land stiffly, that is, do not land with a sudden stiff halt, but rather, sort of give at the knees and then rise to a straight standing position. This method acts on the calf and thigh muscles also.
(To be continued in the April issue)

## How to Become A Master of English

is a valuable FREE booklet which proves that the Kleiser Mail Course in Practical English and Mental Efficiency will teach you to Write Stories that Sell-Literature that will Compel Attention: it will show you how to Enlarge Your Stock of Words-Use the Right Word in the Right PlacePrepare Sermons, Addresses, Advertisements, Letters, etc.

BOOTH TARKINGTON
Distinguished Novelist:
"Your Course is almost painfully needed by many professional writers and speakers. A student who intelligently follows your Course will know what he is talking about when he talks or when he writes.'

Famous Writers, Business and Professional Men, Speakers, and others are sending enthusiastic letters telling how the Course has enlarged their mental capacity, increased their incomes. It will do the same for YOU, Bend TO-DAY for the FREE bopllet to Funk \& Wagnalls Company Dept. 562 New York, N. Y.

# PILES 

 DON'T BE CUT Until You Try This Wonderful TreatmentMy internal method of treatment is the correct one, and is sanctioned by the best informed physicians and surgeons. Ointments, salves and other local applications give only temporary relief.

If you have piles in any form write for a FREE sample of Page's Pile Tablets and you will bless the day that you read this. Write to-day. E.R.Page, 350-B Page Bldg., Marshall, Mich.

## Best Quality Dumbbells

THESE dumbbells are of the best materials and workmanship, are evenly balanced throughout, and are attractively finished in black enamel.
5 lb . dumbbells, per pair.
10 lb . dumbbells, per pair.
.$\$ 1.00$
${ }_{15}^{10} \mathrm{lb}$. dumbbells, per pair. 2.00

$$
3.00
$$ Spalding's Indian Club and Dumbbell Manuel given free with each pair of dumbbells.

Sent on receipt of price, F.O.B. Philadelphia.

FAIRMOUNT FOUNDRY<br>15th Street and Indiana Ave.,<br>Philadelphia

## For FUN or MONEYVENTRILOQUISM

taught almost anyone at home. Small cost.
Send Today 2 c stamp for particulars and proof.
GED. W. SMITH, Room M-162. 125 N . JEFFERSOM AVE, PEORIA, ILL

# IF YOU HAVE DECIDED TO BECOME A DRUGLESS PHYSICIAN OR A 

Chiropractor, Osteopath, Psychologist, Mechano-Therapist, or Electrical Therapist, etc., send today for our new catalog which is just out

## Our forty-eight page book saved many students from a lifetime struggle

Write NOW. Address Executive Secretary *
BLUMER COLLEGE OF NATUREOPATHY

Hartford, Conn.

## It Is The Healthy Man That You Admire

Big, broad shoulders, deep chest, powerful arms and back, legs that never seem to tire, he is really deserving of your admiration. Nature may have given him the good foundation on which he built a marvelous physique, but you know that without exercise he would have had no better build than the average man. Exercise is necessary, but the real strong man knows that cooperation between the mind and the muscles is necessary to produce satisfactory results. This cooperation is only possible after you have control of all the muscles. It is not work, but nourishment that makes strong muscles. Exercise, if done propérly and not degenerating into a mechanical movement, will help the muscles to obtain nourishment. Why not learn to use groups of muscles at a time and allow the relaxed muscles to obtain the nourishment which will build strength. Until you do, exercise will simply


MAXICK tire you without increasing your strength.

## Muscle Control by Maxick

This course teaches you the control of all the muscles of the body, explaining thoroughly the way Muscle Control will bring health and strength to you. Why spend your time at the doctor's office. The man who regularly uses a small portion of his spare time in rational exercise will be amply repa id by increased health and relief from the fear of sickness.

## Learn How To

control every muscle of the body-easily correct round shoulders - increase the depth of the chest-add inches to your chest expansionstrengthen the back and abdominal muscles - overcome nervousness and strengthen the internal organs. Learn

## COMPLETE SCIENCE OF WRESTLING <br> By HACKENSCHMIDT

The name of the author is sufficient explanation of the contents of this book. Its preparation has been spread over a considerable time and the photographs- 70 in number-have been taken and retaken so as to insure not only accuracy, but a perfect illustration of the subject. The photographs are full-page size. The contents are as full, and as detailed as they could possibly be made and the book will serve as a thorough guide to the science with which it deals.

Sent Post-paid for $\$ 2.00$

## Send \$2.00 Check, Cash or Money Order to

 THE ATHLETIC BOOK COMPANYto control all muscles large or small, for without development of all parts of the body, you cannot obtain a perfect physique,

For the Woman
Fresh, youthful glowing complexion and a perfect skinbeauty that is more than skin deep. Soft, lustrous, glorious hair and eyes that sparkle with health.


# For the Man 

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

## Do You Make the Most of Yourself?

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

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

## Have You a Sound Nervous System?

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


## The Gal-Far Battery

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

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

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

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

# D 19 This Need Not InterRuptured? fere With Athletic Sports or Your Enjoyment of Life If You Wear a BROOKS RUPTURE APPLIANCE 

When you wear a BROOKS APPLIANCE you are perfectly safe from mishap at all times - for no matter how much you may twist and turn - whether at workorplay-the Brooks patented soft rubber cushion will always hold and never slip out of place.

You will find the BROOKS the most comfortable, safest, coolest, smallest, and altogether satisfactory appliance ever invented for the retention and treatment of rupture.

FREE Information Coupon

BROOKS APPLIANCE COMPANY,
244C, State St., Marshall, Mich.
Please send me by mail, in plain wrapper, your illustrated book and full information about your Appliance for the cure of rupture.

Send your name and address on the coupon and receive full particulars of our FREE TRIAL PLAN and kow we send our appliance for you to TEST and TRY FREE.

The Brooks Appliance Co., 244C, State Street Marshall, Mich.


[^0]:    RENEWALS-When your subscription expires we will place a subscription blank in your final copy. Renewals should be sent in promptly in order to receive the next issue. Please use the subscription blank for this purpose so that we may extend your subscription in our files. Changes of address should be accompanied by the old address as well as the new.

[^1]:    Name.

