STRENGTH

Vol. VI. No. 3

NOVEMBER, 1921

Price, 15 Cents

Eat and
Be Healthy

Athletics for Health
and Efficiency

By WALTER CAMP

Fifty Years of Football

Hockey a Popular Sport for Women

CAPTAIN STANLEY KECK, OF PRINCETON

The Magazine of Good Health

A New Invention That Finds and Corrects Your Mistakes in English

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S the result of thousands of tests, Mr. Sherwin Cody found that the average person is only 61% efficient in the vital points of English. In five minutes' conversation, or in an average one page letter, from five to fifty errors will appear. It is surprising to see how many experienced stenographers fall down in spelling such common words as "business," "abbrevi-ate," etc. It is astonishing how many business men say "between you and I," instead of "between you and me," and use "who" for "whom" and mispronounce the simplest words. Few people know whether to use one or two "c's" or "m's" or "r's," whether to spell words with "ie" or "ei," and when to use commas in order to make their meaning absolutely clear.

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what was wrong.

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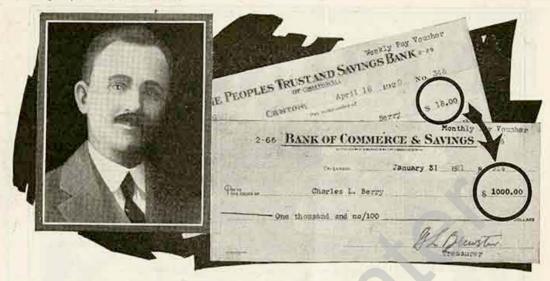
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The Inspiring Story of Charles L. Berry

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

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

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I owe my success to the day I wrote to this great organization for particulars of their system of Salesmanship Training and Free Employment Service. The auswer I received absolutely assumided no—It was nothing short of a revelation. I read how hundreds of men after slaving; for years at small pay, suddenly stepped to magnificent earnings. There was Warren Hartie of 4525 N. Robey

St., Chicago, for example. After ten years in the railway mail service earning \$300 to \$1,000 a year, he became a Master Salezman and made \$1,000 in thirty days.

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

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

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STRENGTH

Vol. 6

NOVEMBER, 1921

No. 3

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HY 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?"

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Why he amone this class who must

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?

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

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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.

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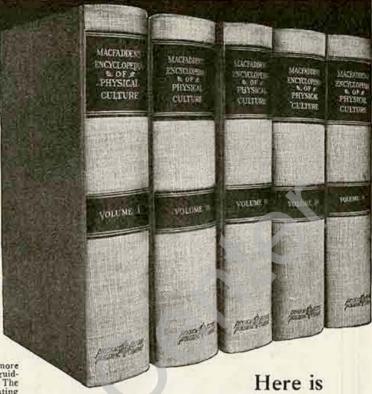
Vol. III.—Fasting, hydrotherapy, first aid, spinal manipulation, mechanical diet and regimens.

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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. Maciadden's lifetime of experience. Its worth to you cannot be over-estimated unless you wish to under-estimate the glorious daily health it will show you how to gain. to gain.



How to - -

possess exhilarating health every day in the year. know your own body eas for health diet for the cure of disease know the art of food preparation build a powerful physique correct physical imperfections become a physical director avoid unhappy marriages avoid disease fast as a curative measure fast as a curative measure cure by hydrotherapy (heal by the use of water) apply all methods of drugless

healing give first aid in emergencies apply home treatment for disease recognize diseases by manifests

treat the common forms of disease understand the process of reproduction

benefit by laws of sex and mar riage treat diseases of women

diagnose diseases have healthy and vigorous chil dren treat female disorders

treat male disorders obtain virility and manhood care for the complexion manicure; care for the hair and cultivate the mind

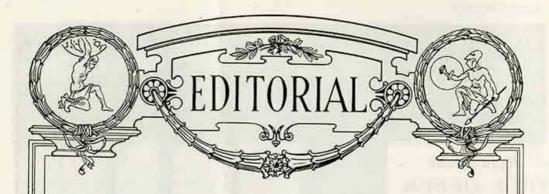
These are only a few of the mat-ters explained in the Encyclo-pedia. build nervous energy

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NE of the remarkable phases of our present-day existence is the steady and substantial progress in almost every line of human endeavor. We now have comforts and conveniences that were unthought of by our forebears. Science and the industries have shown wonderful advancement. The hardships of our ancestors are unknown to us. There is no longer any necessity for enduring the hardships that they endured. And yet, these very comforts and conveniences that we enjoy are our undoing.

Man now rides, where his grandfather walked. He does with machinery what his sire did with his hands. As a result, he is not as strong as he should be, because he uses his brains more than his hands, and his hands more than the other parts of his body.

There are, of course, compensations. One of the wonders of the age is the development of medical science and surgery, which have grown amazingly during the past few generations. Sanitation has been perfected to protect us against disease and epidemics. On account of these things, there has been a certain amount of physical improvement, but we are still a long way from the goal in this. If the development of health and strength had kept pace with the development of medicine, science and industry, then we would indeed be a race of super-men—and super-women.

Our newspapers related a few days ago of how the glands of a monkey had been grafted on a man in order to rejuvenate him (the man, of course). Only an experiment, perhaps, but a thing unthought of a few years ago. And yet, surgery is only trying to accomplish that which the man could have done for himself, by spending a few minutes daily in rational exercise. How like us! We neglect our bodies for years, and then expect our physician to make them new for us over night.

NDER normal conditions, there is no reason why anyone should be sick. Certainly no one desires ill health, though many seem to think it inevitable. And it is inevitable, too, when, through ignorance or neglect, we give no attention to the care of our bodies.

Good health is a state in which all the normal functions of the body are performed with regularity, efficiency and harmony. It is the birthright of every man, woman and child. It is a perfectly natural state, and one which is possible to everyone. The tendency to good health is a universal law of organic life, whether animal or vegetable. It is just as natural to be healthy as to be alive. Sickness and disease are unnatural, and are generally caused by neglect. They are the result of bodily weakness and the depletion of that vital energy so necessary to the

enjoyment of perfect health.

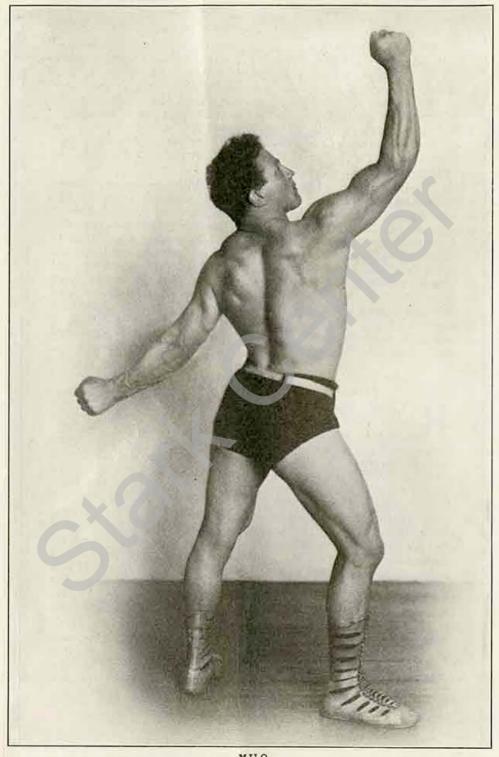
Life is action, and strength is the ability to do and to keep on doing. It is that quality which enables you to finish the day feeling fit as a fiddle, instead of with a weak, worn-out body that has no desire for recreation, self-improvement or for any of the better things of life, and which is doubly susceptible to sickness and disease. Health, strength and vitality are life itself. Without them there can be no life—only a drab existence that knows no happiness or comfort. Vitality, that mysterious force that marks the world's progress, is the quality that has enabled our great men to use their abilities to the common good. A perusal of the lives of men noted for their vigor of mind will show most of them to be possessed of great bodily vigor, and a great many of these same men began life as weaklings.

RATHER than the question, "Why should anyone desire to be strong?" it should be asked, "Why should anyone desire to be weak?" Each of us was endowed with certain muscles, sinews and organs. It is natural for these to be strong and healthy, and unnatural for them to be weak and sickly. And if artificial conditions created by man have deprived us of the necessity for using these muscles, then we must use other artificial means—sports and exercises—to develop them.

The man of to-day may not have the same need for physical strength as had his ancestors, because conditions to-day demand that he work with his brain rather than with his body. And yet these same conditions—the ceaseless energy of commercial and industrial life—demand more than ever unusual bodies that will stand the rack and strain of our busy lives. Perhaps we do not need actual physical strength as we did a few years ago, but we do need more than ever the vitality and energy that radiate from a strong, healthy, well-developed body.

Emerson says, "For the performance of great mark it requires extraordinary health," and Cicero, "It is exercise alone that supports the spirits and keeps the mind in vigor." And there is not one of us who has not sufficient time to devote the few minutes a day which are necessary to the proper growth and

development of a vigorous body and mind.



MILO

Athletics for Health and Efficiency

By Walter Camp

Editor's Note: This is the second of a series of articles by Walter Camp. The third will appear in the December issue.

Extract from "Proposals" which lead to the Founding of the University of Pennsylvania.

"THAT the Rector be a Man of good understanding, good Morals, Diligent and patient, learn'd in the Languages and Sciences, and a correct pure Speaker and Writer of the English Tongue; to have such Tutors under him as shall be necessary.

"That the boarding Scholars diet together, plainly, temperately, and frugally.

"That, to keep them in Health, and to strengthen and render active their bodies, they be frequently exercis'd in Running, Leaping, Wrestling, and Swimming, etc.

"That they have peculiar Habits to Distinguish them from other Youth, if the Academy be in or near the Town; as consisting in an Inclination join'd with an Ability to be the better observed."

And these "Prosposals" should be set up to-day in every educational institution and community, especially the second and third paragraphs.

I was once asked for an article on the subject, "No more athletics by proxy." In starting the article I quoted from *Outing* the following paragraph published in 1910—eleven years ago:

"THERE IS A NEW IDEA in college athletics which is spreading through the country, and Walter Camp is its impelling force. This idea is of amazing simplicity, yet of far-reaching import—that the man with an untrained body is only half educated. The corollary of this is TRAINING FOR EVERYBODY AS AGAINST TRAINING FOR THE TEAM."

To show that this article produced a strong effect, here is a copy of only one of numerous letters received at the time: "Dear Mr. Camp:

Your article, The New Conception of Athletics, was read in the Faculty Club last night, and I am sure from the discussion which followed that it will result in great good here. I desire this privilege of congratulating you on it. We are going to start some work on your suggestions in football just as soon as we can get on the grounds."

Every now and then, we seem to plunge into the Waters of Lethé and forget in a moment of public hysteria, the things this persistent old world accomplishes in its very slow but methodical progress. The American way (and perhaps it is somewhat unfair to call it the American way, for it is the way of the mob anywhere; however, in this instance we will call it the American way) is to be seized with a sudden enthusiasm, the crowd gathering impetus as it runs and adding to its numbers, and unfortunately at the same time losing everything like restraint and adherence to fact, until there is a tremendous outery, and no cautious voice can possibly be heard above the din. Then suddenly having accomplished somewhat of its purpose, the crowd disperses, the whole thing is forgotten and before long we have drifted into the old methods with perhaps upon some occasions just enough result in the way of advancement to show that the matter had been considered. Our War experience demonstrates this to a nicety. We were shocked beyond measure when a selective draft showed a third of our young men rejected for physical defects. We rushed to remedy it. Yet now a medical examination in the freshman class of a large university shows the same old story. these boys were fourteen when we supposably set out to correct these defects!

The politician to-day who wishes to be successful has only to go on the platform and promise his constituents that he will reduce the cost of living and increase wages. A man to make a popular furore in the athletic world has only to say that modern athletics are all wrong and that he proposes to have everyone an athlete instead of only the eleven men on a team. If one gets in front of the politician and

modestly suggests that it is a difficult thing to reduce the cost of living and increase wages at the same time, he is howled down by an indignant multitude. If anyone says that in modern athletics we haven't sufficient field room if every one wanted to play or that it is as difficult to make the sedentary student an athlete as to make the athlete a sedentary student and requests a formula for accomplishing this, he is regarded as a captious critic. In a crowd of this kind when they are listening to the statements of the speaker who is showing how excellent it is going to be for the world when there are no teams or nines but multitudes running hither and thither in athletic sports, when the bleachers, bowls and stadiums shall all be razed to the ground, when there shall be no spectator but only the contestant, any chairman of an athletic committee who should mildly suggest that this thing is a difficult accomplishment, would at once be ordered home to do it, and told that it was his business to see that it was done.

It is quite true that the more men we can get into good organized athletics the better. The question is solely how to increase that number. Intercollegiate and Industrial athletics help very much and there is little doubt in the minds of many but that all forms of carefully-organized highlyskilled athletic competition attract the rank and file who first see these contests as spectators and then endeavor to imitate the skillful ones, and thus embark upon a career of athletics of their own. The most vital thing of all is probably space, and this applies to the university, the college, the school, the city and even the village. One practically never sees a well-kept baseball diamond or a tennis court or a golf course that is not used to its limit in the time when the majority of men and boys can play, namely half holidays, or at college, the hours from 2 to 4. If we added more fields and more courts and more courses, if we had more boats on the river, more diamonds and more gridirons on the fields, we should get an increased proportion of men playing. Do any of these men who think it is purely by an edict of the faculty or the athletic committee that those who are sitting on the bleachers shall be made to go down upon the gridiron and play, stop to think of the enormous cost that would be

at once entailed if they accomplished their purpose? If there were 3,000 men in a university or a community and they all wished to play golf to-morrow afternoon, it would take no less than ten first-class golf courses to accommodate them. If they wished to play tennis it would take courts bigger in many cases than the entire public or university properties. If they wished to play football it would take a good hundred acres, and the same would be true of baseball. The same is true of all Industrial and community athletics. The first question therefore in turning the bleacherites into players is room. Most boys would be delighted to play five days in the week and see the pick and flower of their own crowd in a special with outside opponents on Saturday. The solution of the problem therefore begins with playing surface, leads us through the stimulus of intercollegiate contests or inter-city contests, and finally lands us in a position where we realize that like every millenium, this can not come all at once.

People are beginning to wake up and ask questions, not only about their recreation matter, but about general physical fitness not of the prodigy but of the average youth and man. It is impossible to force many of the old fetiches upon them any longer. They want to know why and they have to be shown. A man wrote me awhile ago, speaking most highly of the "Daily Dozen" for what he called "middle-aged men and women," but at the same time he sent me what he called a "Syllabus" containing something like one hundred and fifty or two hundred pages of formal exercises for children! These exercises largely involved the legs and arms which nature meant children to use in play rather than to be bored by so-called calisthenics. A short time ago an announcement was made of the death of a director of child hygiene in one of the states, from Acute Indigestion, at the age of thirty-seven! Another communication from a physician connected with state work of this kind was that exercises were valueless for children except those that were sufficiently strenuous to produce free perspiration. Another letter from a large institution engaged in this kind of work said that no man should take any exercise without the advice of his physician. Medical

(Continued on page 58)

How to Break a Record

By Norman Evan Price

NCE in a great while, or perhaps once in a lifetime, you go out and break an athletic record. Perhaps it's a world record that you crack, perhaps it is the local school record. Or perhaps it is only your own previous best record in rope climbing, or chinning yourself, or high jumping.

Now, just what happens when you break a record? How do you do it? How do you

get that way?

You have been doing a certain thing right along with a certain average standard of excellence. We will say that you have been high jumping around six feet when doing your best, sometimes one or two inches over or under. Then, one day, perhaps when you don't even expect it, you find yourself jumping unusually well, and with some happy combination of extra effort and doing the thing just right, you manage to clear the bar at six feet five inches. And

you've made a record for yourself. Of course, it was in you to do it. But why didn't you do it before? Why can't you do it again? Just how did you happen to do it?

One day this past summer the athletic world was startled by the announcement of a new broad-jumping record. Gourdin, the colored broad - jumper of Harvard, in the Harvard-Yale versus Oxford-Cambridge meet, went out to jump and in his first effort cleared 25 feet 3 inches. never was another jump like it. He tried again, but he was never able to do better than twentyfour feet. Gourdin was a great jumper last year, but he never before jumped twenty-five feet. He did it just the once.

Twenty years ago, over in Ireland, Pat O'Connor made just such a jump, a twentyfive-foot jump, lacking a quarter of an inch. That was the one exceptional jump of all athletic history, standing out not only for the twenty years since, but for all the preceding years of athletic endeavor. Year after year the crack jumpers the world over did their best, and seldom came within a foot of it, rarely within half a foot of it. A jump of twenty-three feet will usually win a national championship. And now comes Gourdin and with one freaklike effort bumps Pat O'Connor off the pages of the record books. We have wondered, and we are still wondering, what is the limit of human broad-jumping. Gourdin has demonstrated that a distance of twenty-five feet is not the limit.

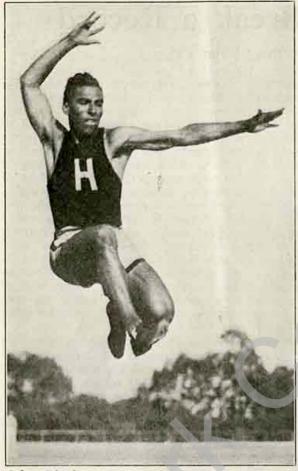
Athletic records have kept on falling, but will they continue to fall indefinitely? Obviously, the greater the record the harder

it will be to break it. Also, there must be limits. There is a limit to the capacity of the ordinary man, as we well know. Likewise, there is a limit to the capacity of the extraordinary man. The only question remains as to how close to that limit the present records lie. It looked as if Pat O'Connor's jump of 24 feet 113/4 inches was pretty close to that limit, considering that it stood for twenty years. Surely Gourdin's achievement is still closer. It may even be the limit. And then it may be a few inches from it, not many inches, we think.

Records have a way of being broken now and again, not because we have better men, better athletic material now



O Underwood & Underwood. Arnold Desch of Notre Dame, who broke the world's record for the 440 yard high hurdles, setting the mark of 53-4/5 sec.



International.
 A remarkable action picture of Gourdin, of Harvard, who shattered the broad jump record which had been standing for twenty years.

than the preceding generation or the generation before that, but because there are more men in athletics, and a greater number have learned the secrets of training and of the technique or style of doing things. A man may have inherent running ability, but he may live his life out on the farm and never-test out his speed. That's what probably happened in the instance of many possible world-beaters in the past. They never went to college to enjoy the benefit of several years of training, so we don't know how fast they might have run, or how far they might have jumped. Probably they had among them the same percentage of men of championship quality, but a smaller number of these potential record-breakers went into athletics. Where they were represented by a thousand athletes on track and field in a given section, we now have ten thousand sprinters and jumpers and weight-throwers. Naturally, from among ten thousand we are more likely to find a record-breaker than from among their one thousand.

Gourdin is the one man not only from among the thousands of jumpers competing this year, but from among the many times that number which have been competing during the past twenty years. Maxey Long's record of fortyseven seconds flat for the quarter mile on a straightaway still stands after twenty-one years, suggesting that some of the champions of that day are not to be surpassed. We surpass their records when we do break them, because a difficult mark is more likely to get hit with a hundred men shooting at it than when only ten are shooting at it. Then, too, training methods have improved, and more of our young people have acquired the style or technique of jumping, weight throwing, pole vaulting, hurdle running and sprinting. A generation ago all the "cracks" were in the East, and it was thought that the western athletes were outclassed. Now they know the game in California as well as they know it in New England, and the

West is giving us more than its share of champions, it would seem.

However, there is one particular reason why a record is likely to be broken when there is a larger crowd of athletes assailing it. This reason is the law of chance, for the law of chance works out much like the law of averages, and the chance performance crops up more often in a big crowd than in a small crowd.

Now, it may seem a curious thing to speak of a record-breaking effort as a matter of chance, when it is so plainly a matter of cause and effect, the result of native ability, plus training and conditioning and skill. And yet there seems to be an element of chance in the game. Gourdin's big jump was a demonstration of that. Otherwise, why could he not do it again? Why did he not do it before? Same legs, same training, same energy, apparently, same spirit of do or die. But only in that one jump was there something that accounted for more than an extra foot of distance. What was it?

Let us say that through the building up of an apparently perfect physique, supplemented by special training and the practice of a particular athletic specialty, we have reached a certain standard of excellence. We can do about so much, and have done just that a number of times. We can always do just about that forty feet in the shot-put, we will say, if we are feeling right, and that forty feet seems to be about the limit. And yet there is always a possibility that some day, more or less by chance, we may somehow cook up an extra effort, by getting it just right, getting under or behind it a little better, getting the footwork a little smoother and so introducing a little more speed than usual, combined with the happy chance of getting it up just high enough, what one might call the optimum trajectory-and away she goes for the best throw in our young lives. She goes several feet farther than usual, and then we find that, try as we will, we can never duplicate that throw.

Or perhaps we never do succeed in cooking up that extra effort, and it remains only an elusive possibility. We might do it if we could coordinate in an unusual degree that happy combination of footwork, balance, speed and ideal trajectory. All these factors are involved, and they are all developed through training so that they all play their part with fair satisfaction in every throw, giving us what we call good form. But it is only as a matter of chance that we may once develop each and all of these factors in the maximum degree simultaneously, so that we surpass ourselves, as it were. Perhaps some day we happen upon that chance, once, and then, again, perhaps, only the possibility is there, but we never quite reach it. Any number of athletes feel that if ever they can get the thing just right, the happy combination, they can do better than they ever have done. Ask any hopeful golfer.

Of course, no one knows how many athletes of first-class caliber have had in them the possibility of that extra effort, but who have never happened to materialize it. They might have broken the record had they chanced once to develop the happy combination or the ideal blending of all the factors involved. Twenty years ago Pat O'Connor did it in that one jump. Others jumping twenty-four and a half feet have doubtless had it in them, but did not happen to quite get it. Finally, Gourdin got it in his first jump on that athletically historic day, but could not get it again.

But how is one to reach that elusive possibility? How make it likely that one will develop this chance combination of the maximum in each and all of the factors involved? How make it as little a matter of chance and as much a matter of cause and effect, as much a matter of precision

and certainty as possible?

Well, the logic of the matter is that one must simply strive for the highest development in all these different factors. The more highly developed each of them the more likely, or, rather, the more surely or the more nearly surely, will he coordinate them in maximum efficiency. And, of course, that is the object of all training and coaching.

The first of the factors involved in any athletic effort is physical condition, the basis of energy. Conditioning itself is made up of a number of factors besides the actual exercise which usually looms up first in the mind of the novice. Diet that is adequate, sufficiency of sleep, freedom from poisons and dissipations and even freedom

from worry are all important.

Anyone who has had even the least athletic experience knows that his strength and endurance varies from day to day, sometimes for reasons that he does not know and which he cannot even guess. We know that some days we can work better than on others, feel more like work, have more A boxer tries to attain his best "pep." physical condition for each and every fight. So far as he knows, he follows the same system of training for each fight. He goes in the ring at the same weight. And yet he knows, and even the public knows, that he is much better at one time than at another, not speaking of the occasional instance of carelessness in training or indifference. Perhaps he felt particularly good a few days previous, and he says after the contest, "I could have won that fight the way I felt Wednesday."

At an important field meet this past sum-

mer the hundred-yard sprint, participated in by a number of runners capable of doing ten seconds flat, was won in ten and twofifths seconds, with a slight wind at the backs of the men! If any one of that bunch had been just right that day he would have cleaned up in practically record time. But here it happened by the merest chance that it was the off-day for each and all of them,

resulting in slow time under the most favorable conditions. And so it goes. Perhaps we ought to know even more about conditioning and training than we now do, but certainly there seems to be variation in our strength and energy from day to day that we cannot understand in the light of what we know now. If the writer may venture a suggestion, however, it would be to the effect that probably a surplus of energywhich is the thing one most needs in an athletic effort-is best to be insured by a sufficientcy of rest just before the con-Think that test. over, prospective record-breaker. Sufficiently hard training should be followed by a rest such as will enable one to recuperate from the efforts expended in

training. Our own personal notion is that the athlete who is not quite at his best in a contest has not sufficiently so recuperated. Track athletes are much more intelligent in this regard than boxers, for sprinters and jumpers often rest a couple of days before a big meet, while boxers work their heads off in many cases even on the day immediately preceding a fight.

Another factor is persistence, both in conditioning and in acquiring the skill of technique, if we may so call it, that goes under the name of form. And usually it takes several years to reach championship class. One should not expect to approach record-making form inside of three or four years, even if he has special aptitude or native ability.

Another factor involved, and goodness only knows how important this is, lies in

the psychology of the case. The athlete who approaches his contest in a spirit of doubt, or of the least hesitation, is beaten before he begins. Of course, he is always determined to do his best, and he does try his hardest-or what seems his hardest-in any case. And yet there is something in the spirit of assurance confidence and which enables one to plunge into a contest with a sort of joyous energy. There is something very stimulating in that spirit. It seems to free the athlete from all inhibitions, and gives him a dashing quality that reveals him at his best, and without which he cannot do himself justice. You see it in the tennis champion, the hurdling champion, the winning sprinter. Do not, above all things,

forget to cultivate the psychology of the game.

Now, by cultivating all of these main factors and their sub-factors, you may hope to attain that elusive possibility of extra effort which goes into the making of a record. But after you have cultivated all of these, as did O'Connor and Gourdin, there still remains the element of chance in making the lucky jump. In (Continued on page 54)

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Charles Paddock, super-sprinter and athletic sensation of the season.

Eat and Be Healthy

By Wainwright Evans

THERE is a widespread tendency among physical culture enthusiasts, to place great emphasis on the subject of systematic exercise for the development of the body, and a very minor emphasis on the subject of what an athlete, or any other person who values his health, should eat.

Any man who exercises systematically, and tries to build him a strong, disease proof body by that means, without first giving careful thought to the food he eats is simply trying to construct a heavy building

without putting a foundation under it. The one thing you can say to a certainty about such a building as that is that it will crumble.

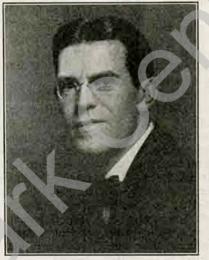
In this article I am going to put the emphasis on Food. That implies no slight to the importance of Exercise; it is merely a protest against this fatal practice of putting the cart before the horse. Exercise is a road to health for the man with a wellnourished body; it is a road to death for the man whose body cannot repair itself when exercise has torn it down. And I do not believe

that I am putting it too strongly if I sum the problem up by saying that so far as this question of bodily health and immunity to disease is concerned, the importance of the right Food as compared with the importance of the right Exercise stands in a ratio of about three to one. Food is three-fourths of the athlete's problem. Exercise and training is one-fourth.

The man who tries to exercise a badlynourished body without first attending to this question of nourishment is signing his own death warrant. Tuberculosis, for instance, is an example of what happens to the body in a condition of extreme malnutrition. What's the treatment for it? Exercise? Not a bit of it. The treatment is nourishment and rest, and a minimum of exercise. Only when the nourishment part of the problem has been attended to and solved does exercise enter in to any considerable extent.

The very first thing, therefore, that should be given serious attention by any person who contemplates making a systematic effort to develop his body, and to seek a maximum of good health by that means, is this matter of the daily diet. I know that word diet sounds complicated;

and that it carries with it visions of not eating this and not eating that. and denying oneself all the good things at the table and going in for those which are least tempting. But that isn't what it means at all. This whole subject is really as simple as ABC: it has been made hazy and complicated because for years the only people who have done much talking on the subject have been a lot of food faddists and dietetic cranks. Let me say at once that any man who will cat the right things will find himself living on the fat of the land:



Wainwright Evans

and that his food will cost him less and do him more good than any food less intelligently chosen has ever done him since he was weaned. I'll go into the details presently. In the meantime I can sum it up by saying that if you will eat vegetables in abundance, together with the juices that come from the cooking of them; fruits in abundance, stewed or fresh, eggs, cheese, etc., in moderation; meat in moderation; unrefined cereal foods, and whole wheat bread, made from 100 per cent, whole wheat, with nothing added and nothing taken away, you will have a diet that will knock colds, constipation, rheumatism, chronic fatigue, indigestion, and as

many other incipient ills as you may care to name, right out of your lexicon. If you already have them bad it will cure some of them, or else improve the condition. That depends on how far you've slipped down hill. Above all, it will make your daily Exercise give a return on the investment of time and effort that you put into it that will startle you.

To that dietary prescription let me add one thing before I go on. Don't eat too much. Don't eat till, when, and if, you are hungry. When I say hungry, I mean just that. When you feel as if a mad dog were gnawing at your stomach you're hungry. Hunger is a sensation with which few civilized men in this rich country of ours are even remotely acquainted.

It goes without saying that the man who takes abundant exercise is going to get hungrier than the man who doesn't, and that he will get hungry oftener. Naturally, he will need more food. This is obviously a matter of common sense and judgment. I bring it up here merely to warn against the notion some athletes have that because exercise calls for abundant food they must gorge themselves to repletion. That is as false as the old notion that a football team in training should be fed principally on beef. When the whole team begins to acquire boils, and when their cuts and bruises don't heal, and when they go stale, and when they become the victims apparently of chronic fatigue, trainers begin to wake up to the fact that there is something more to the job of running a training table than the contracting of a big meat bill-or for that matter, than the contracting of a big white flour bill.

To maintain that a man can eat the wrong food, and then escape the consequences by daily exercise is equivalent to saying that he can eat poison and escape the consequences by his daily visit to the gym. Yes, I mean it literally. The result of eating the wrong kind of food is some form of acidosis. That means acid poisoning. Too much meat, for example, or two much boiled potatoes, or too much white rice, or two much white bread, or two much of similar things, produces acids in the system-acids which kill as truly as carbolic acid kills. The only difference is that carbolic acid is quick and dramatic, and the doctor and coroner call it by its

right name, suicide; whereas the slow poisons from food take years to do the job. As a rule they get you by the time you are forty; and when you've passed on the doctor says its kidney trouble, or liver trouble. or rheumatism, or hardening of the arteries, or cancer, or anaemia, or tuberculosis, or neuritis, or any of a score more items on the mortality list. When I say that they get you by the time you are forty, I mean that the actuarial tables show that most of us die before we are forty; and as for those of us who don't, why, we are busy taking liver pills, kidney cures, rheumatism remedies, and other things that will help us along toward the undertaker, next March, say, when his busy season comes around.

Exercise, then, does not make up for unwisdom in this matter of food. It may enable you to stave off the coming trouble a little longer than would otherwise be possible, but that's all. So don't try to build your house till your foundation is right.

I said that the rightly-ordered diet does not include a lot of "don'ts" I can go farther than that, and say that a rightly-ordered diet, either for an athlete or anybody else, may include practically any recognized article of food. There is just one capital limitation which should be applied as rigidly as possible all along the line. That limitation is on foods which have been tampered with by commercial methods of manufacture in such a way that they have been deprived of their mineral content.

Every natural food is rich in certain mineral elements which the body has to have if it is to live. Among these elements are vitamines, about which so much has been said of late. And then there are such things as potassium, iodide, calcium salts, and so on. When these materials are present they are in part used directly in building the body, and in part as chemical reagents. Suppose, for instance, that you have eaten some protein food like meat. When that protein, or muscle-building material, gets into your blood, and is carried to the tissues that need it, it can be absorbed by those tissues only when the needful mineral elements of which I have spoken are present. In the absence of those min-

(Continued on page 60)

Hockey-A Popular Sport for Women

By George W. Orton, Ph. D.

N these days, when we find women in Congress, in our law courts, on our police forces, and in scores of lines of business where formerly men alone were to be seen, it is not at all surprising to note that women are fast invading the athletic field and with wonderful success. From the individual and political standpoint,

this is the era for women. Some of old - fashioned medical practitioners decry the fact women are that more and more taking to athletics and prophesy all kinds of disaster for them. This is not surprising, as many of these doctors would cut out all athletics for men except those that are not liable to tax the heart in any way: We shall not take up the matter of the physiological effects of athletics on women, merely stating that the benefits accruing from the participation of women in athletics so far outbalances any harm that there is really no argument in the matter for those who have made a study of it. The

testimony of such men as Dr. Sargent, of Harvard, Dr. R. Tait McKenzie, of the University of Pennsylvania, and scores of doctors connected with our women's colleges is all to the effect that athletics for women, when sanely conducted, is fast raising the standard of womanhood in our country.

Those conversant with the general status of athletics in America are a unit in stating that the big feature of athletic development in the past fifteen years is found in the great strides that have been made by women in athletics. Barring golf and tennis, only fifteen years ago women were practically unknown in athletics. Since that time they have branched out until now we find not only that in golf and tennis have the women advanced to a standard un-

dreamed of fifteen years ago, but that they are to be found in all kinds of athletics, especially swimming, hockey and basketball. At the modern woman's college, such as Vassar or Wellesley, we find the athletic curriculum covering practically all the sports practised by their brothers in our large colleges. Wellesley has a rowing squad that from the standpoint of form would make a very good showing against the best of the college crews. Track and field athletics are making immense strides in these women's colleges, with the standard of performance improving each year. In tennis, golf and swimming, the only reason why the

women's records are not fully up to the men's standard is because the men have more strength. As far as form and technique are concerned, the men have nothing on the women.

The season just drawing to a close has been one of the greatest in the history of women's athletics. Miss Molla Bjursted Mallory went abroad and engaged in the championship tennis matches in England and France and was beaten only by Miss



© International.

Miss Cecil Leitch, queen of Britain's women golfers.

Susanne Lenglen, of France, considered as one of the greatest exponents of tennis in the world. Later on, Mrs. Mallory defeated Miss Lenglen in the American tennis championship in a match that has caused more discussion than any that has ever taken place in the annals of the sport, due to the breakdown of Miss Lenglen during the match. There is no doubt that on the day in question Mrs. Mallory was playing a brand of tennis such as had never before been played by a woman in this country. Miss Sterling, of Atlanta, the golf cham-

pion of America, also went abroad, and it took the supergolf of Miss Leitch, the British champion, to keep her from winning the British crown. Miss Leitch is now in this country and has shown herself as the greatest woman golf player that the world has ever seen. She is every inch an athlete, having golf technique down to a fine point, the strength both physically and temperamentally to carry her through important matches and courage of the highest order. It is no disgrace for Miss Sterling to be considered second to player.

© International.

Miss R. C. Nalle of the All-Philadelphia Hockey Team.

such a magnificent

America has been fortunate in seeing Miss Lenglen and Miss Leitch in action in this country this season, as these two are considered as two of the greatest women athletes in Europe. We shall have the pleasure of seeing the third greatest woman athlete in Europe when the British lawn hockey team plays here. Miss Lidderdale, the center of the invading Britishers, is said to be a marvel at hockey, and she is slated to astonish the American public by her performance in her favorite game.

Though the invasion of Europe by Mrs.

Mallory and Miss Sterling proved that they are both wonderful athletes in spite of their defeats, the American women swimmers showed in the last Olympic championships at Antwerp that in this sport they lead the world. Since then the women swimmers have improved and America now holds practically all the women's swimming records from 50 yards to the half mile. The recent performances of Miss Charlotte Boyle, of New York, proves that America has another swimmer whose records make her the best in the world. Her world's record of 2 minutes

record of 2 minutes 47 2/5 seconds for 200 yards would have been considered impossible only a few years ago. From the general standpoint, the future gives great promise, for Miss Boyle is closely followed by several other women swimmers in various sections of the country.

With fall and winter upon · us, the women are ready for a strenuous season at their favorite sports. Lawn hockey is becoming the fall and early winter sport par excellence for the younger and more strenuous. Golf will be played until the snow flies,

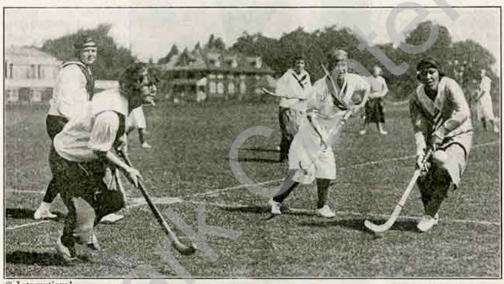
though all the big tournaments are decided. Swimming will, no doubt, be more popular than ever this winter, as the number of municipal, club and private pools is increasing rapidly, thus affording more opportunity for this very fine woman's sport. Basketball is also bound to be played more generally. This sport is confined mainly to the girls' schools and women's colleges, but there are more teams each season, and a larger percentage of teams are each year taking part in interschool or intercollegiate competition. The real winter sports, such as skating, coasting, skiing, tobogganing and snowshoeing, will be just as popular as

ever in those sections of country where the weather permits these fascinating forms of recreation. Ice-skating is becoming more general because of the artificial ice palaces that are being built in all our large cities. A start has also been made in ice hockey for women. This sport will probably develop slowly, mainly because of the fact that it requires real ability to skate well, in addition to acquiring the main points of the game, such as dribbling the puck, teamwork and systems of offense and defense.

The arrival here on the Haverford, sailing from Liverpool on October 5 of a team

the visiting team has in its ranks eight international players and is thus about as strong a team as England could well place in the field. Miss Lidderdale, spoken of above, is the star of the team, though she is closely followed by Mrs. C. J. Gaskill, who took the English women to Australia in 1914 and scored so many successes.

The introduction of lawn hockey in this country is directly traceable to Miss Applebee, physical director of Bryn Mawr College. Several years ago she spent practically a year in teaching hockey to the various clubs of Philadelphia, also intro-



© International.

All-Philadelphia Hockey Team in practice for coming games with British players.

of British lawn hockey players, is bound to draw attention to that game. Lawn hockey in this country is in the infant stage, as compared to the development of the game in the British Isles. For that reason, the coming invasion should be somewhat of a walkover for the British women. Their coming is directly due to the visit of an All-Philadelphia lawn hockey team to England this summer. It is true that the Americans won only one match on their tour, but they individually and collectively saw the game at its best, and the American game should be greatly benefited. The expected improvement in American play can hardly come so quickly so that the British team should have little difficulty in winning their matches. This is especially so because ducing the game at Wellesley College, Vassar and other American colleges, Bryn Mawr, of course, being included among the others. The game has become more and more popular and is played at scores of girls' schools and women's colleges, and also at many universities where coeducation is the rule. It has a very bright future before it, as the schoolgirls are becoming very adept at the game, and this means that the college and club teams are now getting additions of real hockey players to their ranks. But, in spite of the very big advances made in the sport, the American game is still several degrees below that found throughout the British Isles, where it has been played for many, many years.

The English invasion must, therefore, be

considered mainly in its educational aspects. The English team, in its matches throughout the East, will give an excellent illustration of how the game should be played and how a standard must be reached by our American teams. This English team is being brought over under the auspices of the Philadelphia Lawn Hockey Association, and it is a purely sporting proposition. The visitors are expected to arrive about the 17th of October. Quite a schedule has been arranged for them. On October 20, at Manheim, they will meet the All-Philadelphia team of 1920, and two days later the eleven that journeyed to England will give them battle. The next week they will journey to Baltimore, returning to play Bryn Mawr College on October 29. The following week they will go to Wellesley and Vassar and probably Radeliffe.

On November 7 the scene will shift to the Merion C. C., where the British players will meet the best team that can be found in Philadelphia. On November 9, Bryn Mawr will be played again, to be followed on November 16 by another game with All-Philadelphia.

The team will then go to Rosemary Hall, at Greenwich, Conn., where they will play their last game on November 18, as they sail the next day.

In spite of the fact that the British players come from a school of long experience,



© International.

Miss Lidderdale, the "first lady hockey player in the world."

they will have to play hard to keep their American opponents from winning. But their visit should give the greatest impetus to the game in this country and do more than anything that has happened to date to bring up the standard of American lawn hockey to the best heights.

The game in and around Philadelphia has a stronger hold than any place else in this country. The Philadelphia Hockey Association is the parent body, and they have organized a school league this season, with seven teams playing. This will arouse great interest in the game and develop future stars for the club and college teams. Bryn Mawr College. which has one of the best teams in the country, is not in the Philadelphia Hockey Association, as the girls are not permitted to play away from the college grounds. All the teams in the Phila-

delphia Hockey Association play Bryn Mawr, games taking place there every Saturday morning of the fall season.

The rules of the game are very simple. They are very much like those for soccer. The same number of players compose a team, and they are similarly placed, namely, a goal keeper, two backs, three half-backs and five forwards. The object is to knock the ball through the goal-posts, just as the ball is kicked through in soccer. The big difference to date between the American

(Continued on page 52)

Do Athletes Die Young?

By Ralph Hale

"T is better to live seventy or eighty or a hundred years in health and happiness than to die at thirty from lifting three thousand pounds, or running a mile in 4:10."

The above is the concluding paragraph of an article entitled "How I Got Health and Strength," by Julian Hawthorne, in the September issue of Physical Culture. The above sentiments are simply grand, and we can all agree with them; but in this article the author leads one to believe that

heavy exercises are detrimental to good health, and that they tend to shorten the span of one's life.

This is something in which everyone is vitally interested. If it is so that the development of strong, symmetrical muscles is but an illusion and a snare, and that the possession of a robust physique leads to an early grave, then all our preconceived notions of a healthy, vigorous, manly life are mistaken, and it is time for us to aboutface and resign ourselves to the lives of mollycoddles.

Fortunately, it isn't Although Mr.

Hawthorne presents apparently irrefutable testimony, on close examination the evidence in the case convicts the abuses, and not the uses, of heavy exercises. His article is written in a pleasing and irreproachable style, but is far from being the last word on the subject.

Mr. Hawthorne admits that he himself has used heavy exercise:

"I finally became able to curl and shove up two hundred pounds, but it did me no good. . . . It wasn't superior wisdom on my part-far from it-it was mere healthy instinct. Also, I think I owe much to my old friend, Dio Lewis, the apostle of free-hand and light exercises, when I was in my teens and twenties. . . . He (Lewis) would doubtless have been alive and in good condition to-day but that he had unfortunately died of blood-poisoning, which was certainly not the fault of his system.

Most certainly not, and neither can it be claimed that the men who are said to have died from the practice of heavy-weight exercises were the victims of the exercises themselves. It was the abuse of heavy

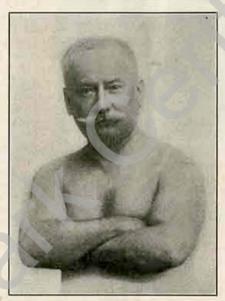
exercise, and not the use of it, that killed these men.

For instance, he mentions the fact that pended from his feet.

Dr. Winship, a renowned strong man of many years ago, who had trained himself to lift three thousand pounds, had died in his early thirties. This, of course, has absolutely nothing to do with the average man who uses graded weight exercises for body-building purposes, as a man of this sort has just about as much chance of lifting three thousand pounds as he has of flying through the air with that weight sus-

And, as a matter of fact, Dr. Winship was a "strong man" who lifted prodigious weights for exhibition purposes. His case has nothing whatever to do with evercises for body building. He simply overdid himself, and it was his folly, and not the principles of graded weight exercises, that brought on his end.

Another case that Mr. Hawthorne cites is that of a friend who was taken ill and died within a few days. He says this man "-kept a fifty-pound dumbbell in his bedroom, and would exercise with it for half an hour when he got up in the morning."



Oscar Matthes, an athlete from the days of his youth, is now past 58 and still in the best of health.

Nothing else was said of his training methods, but if these were in keeping with his habit of exercising upon arising the only wonder is that he did not die sooner. It is a well-known fact that exercise-especially if it be vigorous in nature-is productive of the best results when taken in the late afternoon or at night, for two reasons. It must be remembered that upon arising the body has been without nourishment for about twelve hours on an average, and is in no condition to stand vigorous exercise. Exercise should be taken when the physical powers are the strongest, which is certainly not in the morning. For confirmation of this, you have only to consider that most championship boxing matches and other athletic events are held in the afternoon or evening, when the athletes are at their best. And the man who indulges in vigorous exercise before breakfast is almost certain to eat a healthy repast, and this brings the mealtime close enough to the exercising period to interfere with the digestive process.

Of course, a few setting-up exercises are of benefit upon arising. They call for no great muscular effort, and will tune you up and "snap you out of it." Otherwise, exercise at this time will do more harm than good, as it drains the system of the vital energy needed for the rest of the day.

So much for this case. Mr. Hawthorne also mentions another friend who "—every evening before going to bed would take two ten-pound dumbbells and curl them for never less than an hour—sometimes for two hours continuously. No one else in the gymnasium could approach his achievement.

"But one day he didn't appear at the gymnasium as usual. He didn't come for two weeks, and then, one evening he slunk in; we hardly recognized him. His cheeks were fallen, his eyes were dull and sunken, his shoulders dropped, he stepped like a man exhausted. 'I'm all in, boys,' he said. . . He lingered for about a year, wasting away more and more, and then he died. Nothing could save him—he had overexercised. He had used up his vitality, and was a centenarian before he was five and thirty."

This may be an indictment of heavy exercise, but it fails to convince. How any man in his proper senses could make a practice of curling two ten-pound dumbbells continuously for two hours or for even one hour surpasses all understanding. I believe Mr. Hawthorne to be a most estimable gentleman, but am convinced that he numbered some exceedingly "strange people" among his friends. And then, too, exercises with ten-pound dumbbells can hardly be considered as heavy exercises, so perhaps it was light exercises, after all, that killed this man.

But if heavy-weight exercises cause an early death, then Mr. Hawthorne must be with us in spirit only. He mentions in his article that he could "shove up" two hundred pounds. Of course, he attributes his survival to the additional practice of light exercises, but his conscience must certainly trouble him for his perfidy in cheating the grave so justly earned by his foolhardy indulgence with the weights.

A few days ago I came across another article by Julian Hawthorne, entitled "The Philosophy of Rest." This was clipped from a newspaper, date unknown, but obviously of ancient vintage, which was attested by an advertisement on the back sheet offering women's tailor-made suits for \$5.00 and overcoats at the same figure. I quote from the article verbatim:

"I notice by a late newspaper paragraph that Dr. T. H. Andrews, a police surgeon, who has examined some thirty thousand men 'from all walks of life,' thinks that violent exercise is a bad thing, because it prematurely weakens heart and kidneys. He counsels rest, and declares we cannot get too much of it. He permits walking and, if we must have it, light gymnasium work, golf, horseback exercise and driving. He affirms that he believes all West Point cadets are anaemic from hard exercise and poor diet, and that all teamsters, draymen, expressmen and athletes are marked for early death.

"Every once in a while some brother arises in meeting and expresses views of this kind. When you come to examine closely what is said, it generally turns out to be so hedged about with qualifications that it amounts to little, after all."

Yea, verily! And even to this day some brother "arises in meeting and expresses views . . . so hedged about with qualifications that it amounts to little, after all." The habit does persist!

Further on, in the same article, he says:

"There is, for example, no exercise so violent as walking, if you walk fast. And there is no better way of attaining great muscular development than by light gymnasium work, systematically pursued. It was by such work that Sandow got his great strength, and nine-tenths of the other strong men whose photographs occasionally appear in the newspapers."

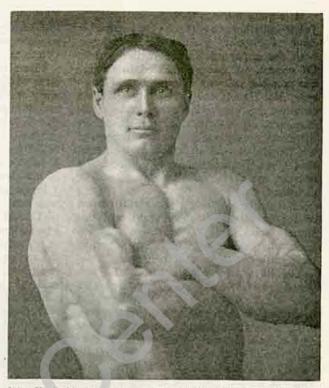
I do not know just what Mr. Hawthorne considers "light gymnasium work"; but right here I want to say to the "brother who arises in meeting" that if Sandow developed his strength through light gymnasium work, then Jack Dempsey owes his physique to the setting-up exercises he practiced in the army during the late lamented war.

Sandow, and all the other strong men whose names are familiar to the public, developed their strength through weight-lifting exercises. In Sandow's book on physical training, he says: "The dumbbell and the bar bell have been my chief means of physical training."

Further on in the same article, Mr. Hawthorne says:

"I could tell of an elderly gentleman of 60 odd, in northern New York, who drank whiskey every day and always had a clay pipe in his mouth, who slept when he could and took no sort of care of himself; who one day put on his left shoulder a plough weighing 200 pounds and carried it across country thirty miles, fording a stream on his way and reached his destination without having halted or shifted the plough all the way. He did not feel that he had made any violent exertion, and he lived to be 80. But he had been up and out and about, doing such things, since his boyhood. What he did every day as a matter of routine would kill an ordinary man, but so would his diet and general mode of life kill a man who had not strengthened himself, inside and out, by violent exertion."

There are no doubt certain envious ones who would attribute this man's hardihood to his daily bout with John Barleycorn; but as Mr. Volstead has precluded the possibility of us emulating the example of this worthy sexagenarian, we may pass up dis-



John Y. Smith, who, after many years of retirement from active athletics, made a wonderful record in lifting, thereby winning a bet made many years before.

cussion on this point as being fruitless. However, the "violent exertion" with which this man developed himself is a long way from the light exercises advocated by Mr. Hawthorne. In this newspaper article he also says:

"Then there is Ericsson, the man who built the Monitor, who exercised violently all his life, and died at 80 of an accident. But the woods are full of such instances, and they all tell the same story. Begin in childhood and exercise all your life as hard or as mildly as you please, only keep on exercising—never let up—and you will fulfill your utmost span. And meanwhile this habit of exercise will fortify your body against colds, fevers and all manner of diseases as no doctor's medicine chest can.

"Put your every muscle to its right use every day, and you will have the heart, lungs and liver and stomach of a demigod, while other men are creeping about bent and pale and ailing and drooping in the midst of their careers. But if you climb the Alps one week in the year and loaf and laze the rest of the time, no doubt you will be worse off than if you loafed and lazed from beginning to end."

It is quite obvious that the statement in Julian Hawthorne's article in the September issue of *Physical Culture* does not agree with the statements in the earlier article. Of course, we are all entitled to change our opinions as often as we choose. However, Mr. Hawthorne has admitted that he obtained his strength from heavy-weight exercises. It is debatable whether or not these were responsible for his longevity, but he proves without a shadow of doubt that it was the abuse of heavy exercise, and not the use of it, that killed the men he mentions.

As a matter of fact, a superficial review of the question will show many such instances of serious consequences and injuries chargeable to exercise, but which in reality are due to something else.

You have all probably heard of Prof. Dowd, who was a famous strong man years ago. As a boy he was a weakling, but succeeded in developing a physique that brought him fame and fortune. Yet he died of consumption. How terrible! Another victim of heavy exercises.

Not at all. Prof. Dowd became possessed with the dieting fad, and carried it to extremes. First he tried being a vegetarian, but this did not quite meet his needs, and he later tried ice cream as a diet. He then insisted that the functions of the stomach were not nearly so important as they were generally supposed to be, maintaining that mastication and the process of swallowing distributed nourishment to the system.

Convinced that such was the case, it occurred to him that the greater number of meals a man ate the stronger he would become. Instead of three meals he ate six, eight and even ten a day, having each meal removed in turn by a stomach pump.

These queer ideas on diet eventually led to his death. And yet, it might be said that here was an athlete who died at an early age.

And then back in 1879 there was a young man known as "Brooklyn's Strong Boy," who was said to have been able to carry a piano on his back, and who believed himself invulnerable. He tested his theory with carbolic acid—another athlete who died young.

If you are looking for such instances, you can find them by the score. But what of those who, by practicing proper methods and by moderation, lived to a ripe old age?

They are the ones in whom we are really interested—the normal chaps who used common-sense methods and did not go to extremes.

Those of you who read the September issue of Strength are acquainted with the story of Prof. Attila, who is "seventy-seven and still going strong." Prof. Attilla says that he began exercising with light weights, gradually increasing them till he was able to lift far more than the average man. He is still living and in perfect health, because of his exercises and not in spite of them.

In London, in 1912, an athletic carnival was held to honor the eightieth birthday of Donald Dinnie, the famous Scotch athlete and weight-lifter. The weights didn't hurt Donald any.

Sandow at 54 is still a young man, as age is figured, but if all Julian Hawthorne has said of weight-lifting is true, Sandow should have been in his grave years ago.

Hackenschmidt is 43 and still in perfect health, but on account of his extreme youth is excluded from the argument. However, in his book, "The Way to Live," he mentions Dr. Krajewski, who began to exercise at 41, and who, at 63, was still hale and hearty, and who died from the effects of an accident.

Hackenschmidt further says: "Well was he styled the 'Father' of athletics, for it was on the system which he (Dr. Krajewski) first organized that every athlete of any prominence during the last twenty-five or thirty years developed his powers." He refers, of course, to graded weight exercises.

Then there is John Y. Smith, who is now about 55 years old, and who had never exercised until after he was thirty. Light exercise never appealed to him, and he began to practice with bar bells and dumbbells and developed enormous strength. About 1904, Smith, in the presence of witnesses, raised a bell weighing 2751/2 pounds from the shoulder to arm's length overhead with the right arm, and 247 pounds in the same manner with the left. At that time he weighed 168 pounds. After making this lift, it was predicted that Smith would not live longer than one year from that date. Smith wagered that on his fiftieth birthday that he would put over his head, with either hand, a 200-pound dumbbell.

On June 22, 1916, a few days after his (Continued on page 50)

How to Develop the Muscles of the Sides By O. R. Coulter

Continued from the October Issue

In the last issue, I explained the merits of some occupations and various forms of track and field sports that were conducive to development of the muscles of the sides. Some of these were very good developers, but the most of them were impractical for the majority of muscle builders. Sculling is about the most efficient of those mentioned last month, and would perhaps fit into the program during the vacation or camping season, but it would be inconvenient for most of us and impossible for some

of us at other seasons of the year. Of course, many of us could make use of a rowing machine in a gymnasium, but the best possible exercise for the sides on a rowing machine would be using one arm at a time and even this would not be nearly as efficient for our purpose as sculling, properly performed.

If one has the facilities of a well-equipped gymnasium at his service, he has the means of developing his side muscles in many different ways, quite as efficiently and perhaps in a more interesting manner. Rowing with one arm at a time exercises the side muscles, but there are many forms of gymnastic work of equal value for the purpose that develop balance, agility and the ability to do things that could never come from practice on a rowing machine.

The parallel bars afford a means for many exercises requiring a vigorous use of the side muscles. The simple movement of supporting the body on the hands and swinging up between the bars and over one bar and off to the side demands considerable action on the part of these muscles. There are hand-stand possibilities on the parallels that I will deal with a little later in connection with hand-balancing.

The climbing rope, climbing poles and overhead ladder furnish a further variation in exercise for the side muscles. The results accruing from their use depend mainly upon how you use them. Climbing

a rope exercises the side muscles at each attempt of the hand to reach for a higher grip, but does not require as intensive efforts on the part of these muscles as climbing the poles, taking a position between them with the poles somewhat farther apart than the shoulder breadth climbing hand over hand with one hand on each Traversing the horizontal overhead ladder in a sidewise manner. reaching the farthest rung possible each time is also good but merely hanging on the ladder with the hands far apart. moving the feet in as large a circle as possible and using the waist as the center of revolution will give much better results for our purpose. The circles should be described in both directions so as to give each side an equal amount of work.

The rings afford a means of many exercises similar to those on the overhead ladder. Where there are several rings in



One of the exercises possible in handto-hand work to use in developing the sides

a row, swinging from one to the other until the last one is reached, is very active work for the sides, especially if an extra effort is made to gain as much momentum as possible from the sidewise sway of the body. The single pair of roman rings furnishes equal possibilities for side development in a little different way. Perhaps some of you have seen the one arm "roll up" performed or have witnessed one of those marvelous lady gymnasts, Lillian Leitzel or Ruth Budd throw her body over her arm several times in succession. This is one of the most strenuous side exercises that can be performed on any overhead apparatus, but unfortunately this advanced work is only possible to a few and it takes considerable time before anyone can do much of anything on the rings as they are the hardest of gymnasium apparatus to use.

The perpendicular ladder is about the best of the gymnastic apparatus for exercising the sides as it affords an opportunity for more strenuous exercises of these muscles. Its possibilities in this particular are superior to those of the overhead ladder.

The feat of holding the body out at right angles to the perpendicular ladder while keeping the arms and legs straight requires considerable strength in the sides for its proper execution. This stunt, so far as difficulty of accomplishment is concerned, is about on a par with the "cross" on the

rings or the "chin" executed with one arm and is a better all-around test than either of the others. This can be worked either by holding to the ladder by the hands or using the feet and securing the upper foot to the ladder by means of a loop. Perhaps some of you have seen some of this work performed at the circus on a rope or web fastened to the top of the tent and held at the bottom by assistants. This is indeed strenuous exercise for the sides, in fact, it is so difficult that few can accomplish it with the hands holding to rope or ladder. The trouble with these exercises is that those who need them the most are

unable to do them. They are suitable for gymnasts but there are other means of developing the muscles in question that are more practical than the use of any gymnastic apparatus.

Tumbling is one of the finest exercises for our purpose. In fact the abdominal. lower back and side muscles of expert tumblers become so highly developed that they are set up for life. Tumbling is almost an ideal exercise, as it uses about all the muscles except the arm flexors. It is like ballet dancing in two ways, namely, the variety of positions possible and the years required to properly master the art. It is, however, in my opinion, superior to ballet dancing as a means to side development. Of course, the back and forward handsprings and the back and forward somersaults use the muscles of the small of the back and of the abdomen and use those of the sides scarcely at all. However, the simple cartwheel uses the sides instead of back or abdomen and some of the difficult side twisters depend upon strong and flexible side muscles for their successful accomplishment. Attend most any of the leading circuses and watch some good acrobatic troupes in action and notice some of the wonderful side twists and turns that are difficult to describe and seemingly impossible to perform. Observe the side muscles of those men and see if any further proof

that tumbling is a developer of the sides is necessary Unfortunately tumbling, while difficult to learn, appears so extremely so that it discourages many from ever attempting to practice it. All in all, tumbling is a great exercise for tumblers but, the average man will require something more closely related to his condition to use for developing his side muscles.

Hand-balancing affords an opportunity for exercise of the sides but needs a high degree of ability before one is enabled to do much of the work that involves the side muscles. The one-arm hand-stand requires considerable strength



O. R. Coulter

and perfect control of these muscles but one cannot bring them into play to any great extent by practicing the onehand balance until he has it near enough to accomplishment to feel the lock in the side muscles and that comes only after years of practice. Some few experts can lower the body to the side part ways and then press back up. This develops strength and great control of the side but few men in a life time can attain it. Perhaps some of you have seen what is known as the "alligator" walk. It consists of walking on the hands with the body nearly parallel to the floor. This is accomplished by swaving the body sideways

from one arm to the other. It is extremely difficult and no one would be able to involve the side muscle action until advanced enough to hold a nearly horizontal hand These hand-balancing feats just mentioned are those referred to in the paragraph dealing with the parallels and are quite as difficult to perform on the floor. Another somewhat similar exercise performed by expert hand equilibrists is building up two stacks of spools or blocks under the hands by swaying from one hand to the other. Hand to hand affords some variation to floor and pedestal balancing. Some of the "up and arounds" involve quite vigorous work on the side muscles of both participants. The understander would use them if he performed the bent press with his partner or laid down and arose to a standing position with him balanced on his one hand, but unless he performs the feats mentioned, he is not likely to attain much side development from its practice. Floor or pedestal balancing and hand to hand will combine advantageously with weight lifting and is worthwhile exercise for real strength athletes but it is too advanced to be practical for the average muscle builder to adapt for the sole purpose of developing the side muscles.

I consider wrestling the best of all for our purpose except progressive weight work. Nearly all gymnasiums have a wrestling mat and someone can always be found as an



O. R. Coulter, showing unusual development of the muscles of the sides

opponent if one is interested enough to seek. Anyone who has practiced wrestling knows that it is real exercise for the side muscles. Notice the drawings illustrating the fine wrestling articles that are appearing regularly in STRENGTH. How many are there that do not indicate action of the side muscles or lead one to believe that they would be brought immediately into action by the attempt of one or the other participants to change his position?

In fact, strength of the sides is of more importance in wrestling than it is in most any other sport or exercise. The positions possible are innumerable so that every position of

the anatomy is vigorously exercised.

The contractions are so strenuous and the side muscles are in such constant use that a wrestler's side muscles simply must develop. Wrestling combines quite well with training with weights. It does not use the muscles in the same manner as handbalancing and for that very reason may work some improvements not usually accomplished by weight work or hand-balancing, and has the added advantage of fitting one for self defense. I think any healthy man who so desires can advantageously include wrestling in his training program,

Before I take up the subject of weight training as applied for side development, I think it is quite fitting that I mention some of the possibilities for developing the muscles in question that are afforded by advanced horsemanship. The mere riding of a horse would never promote any especial development of the sides and the advanced feats of horsemanship are perhaps too difficult for the average equestrian to be of practical use to him. But the possibilities in connection with the game of equestrian polo and some of the feats of horsemanship performed in circuses, wild west shows, mounted police exhibitions and the like are such that I shall discuss them briefly for the use that they may prove to some and for the interest that they may be to others. Equestrian polo certainly affords an oppor-

(Continued on page 56)

Fifty Years of Football

By Jack Hazlitt

HAVE just come from a big college football gace. I sat in the stand with the thousands upon thousands of cheering men and women—many of whom had no connection in any way with the colleges involved—and marvelled at the grip this wonderful sport has taken on the public. Back in 1880 even the great Yale-Princeton game in New York was of interest to only a few thousand faithful, and a public and

private nuisance to the rest of Manhattan, because, as Richard Harding Davis said, "it disturbed the peace of Broadway at night, and left a vacant chair at the dinner table of every family in which there was a boy worthy of the name."

It was my good fortune to see the first game of intercollegiate football ever played in the United States, the famous Princeton-Rutgers contest of November 6th, 1869. I was but a little fellow at the time, and recall the game only dimly, but I have a clipping from the Rutgers Targum, which says in part:

"On Saturday Princeton sent 25 picked men to play our "25" a match game of football. The strangers came up at ten o'clock, and brought a good number of backers with them. After dinner and a stroll around town, during

which billiards received a good deal of attention, the crowd began to assemble at the ball grounds. Grim-looking players were silently stripping, each surrounded by sympathizing friends, while around each captain was a little crowd, intent on saying as much as possible. . . To describe the varying fortune of the game would be a waste of time, for every goal was like the one before. There was the same headlong running, wild shouting and frantic kicking. We finally won 6 goals to 4. After the

match the players had an amicable 'feed' together, and at eight o'clock our guests went home in high spirits, but thirsting to beat us next time."

Could anything be farther from the present game of football, where high-salaried coaches gather their men together early in September; put them through rigorous training for months, and play their games before crowds sometimes mounting as high

as 60,000?

Football in those old days was entirely different in form than the game of to-day—it was closer to what is known as "soccer." The ball was batted with the hands, head, feet, anything to get it along. There was very little team play, except in "nursing" the ball in a free field.

Each of the bigger colleges had their own rules, and, in consequence, refused to meet each other. Princeton's matches were with Stevens, Rutgers and Columbia: Harvard confined its schedule to McGill University, All-Canada and Tufts; while Yale played only the New England colleges. Eventually, however, delegates from the various universities met, and arranged the new "Rugby" rules, under which there were fifteen men to a side. The first match under these rules was played

at Germantown, Philadelphia, between the University of Pennsylvania and Princeton—which the latter college won by the score of 6 goals to 0.

It was under these rules that Walter Camp, Yale '80, the most famous athletic authority in the United States and a contributor to Strength laid the foundation of his remarkable career. It was only in his last days at the New Haven institution that the second period of the game developed. Previously the game was essentially



W. W. Heffelfinger, of Yale

"football," for kicking was the most important item in it. Its second phase developed the "scrimmage"—though in a much less scientific style than to-day.

There was still no thought of highlydeveloped organization in preparing for games such as we have to-day. The players used to practice for an hour at noon, and run at a jog trot from a half to threequarters of a mile in the late afternoon. No training table existed, and though every man was cautioned not to go to excess in the pleasures of life he was otherwise allowed to do as he liked. There were no graduate manager or coaching staff, trainers or rubbers. The men obeyed their captain, who, with the help of a committee, picked his players, and stationed them where he pleased. Under those conditions such training was sufficient. No college could make a showing to-day if it followed out those ancient ideas.

In 1883 the system of scoring by points was introduced. A goal from a touchdown counted six points, a goal from the field five, a touchdown without a goal two, and a safety by opponents one. The reporters did not understand the system very well, and, in consequence, the newspaper accounts were seldom correct. It was also in this year that Princton put their team in charge of a professional trainer—o!d limmy Robinson.

At this time a general feeling against football as thoroughly brutal began to generate in the public mind. The Yale-Princeton game of 1884 had more to do with this feeling than any other single occurrence. And no wonder!

"... Then came a crush about midway of the goals. All the maddened giants of both teams were in it, and they lay heaped, kicking, hitting, choking, gouging and howling. A smaller man-Captain Richards, of Yale-lay under them, his lips drawn wide apart, showing his teeth tightly clenched, and his face as white as chalk. When the pack split apart some of his companions caught him by the shoulders, and lifted him into a sitting posture. Suddenly he threw out his arms, tore himself away from those who were supporting him, and rolled over on his stomach, rubbing his face in the muddy turf. In an intant he was on his back again, clutching his breast, and gasping as though each breath would be his last. Big Peters, of Yale, and Adams, of Princeton, who looked like butchers in their blood-stained uniforms, carried Richards to the sidelines. His thigh had been broken, and he suffered other serious injuries.

"The game went on. DeCamp, of Princeton, ploughed through the blue line, with a Yale man on his back, and was thrown so hard that his head seemed to be driven into the earth. It was several minutes before he regained consciousness and went back into the game. Five minutes later he was carried off the field with a dislocated arm.

"Then Toler, of Princeton, slugged Marlin, a Yale substitute, so hard that Marlin's jaw was broken. Finally the game broke up in a violent dispute over a ruling of the umpire. One of the Yale players said afterward that every man on the field was covered, under his clothing, with plasters and appliances for strain and rupture. . ."

That was the sort of football they played in the eighties!

The three years from 1888 to 1890 witnessed five great changes in the style of play: 1st.—The perfecting and general use of the "V" trick, and the consequent contracting of the line. 2nd.—The development of interference for a runner. 3d.—The bringing of one of the half backs into the line on the defensive. 4th.—The bringing up of backs close to the line on the offensive, thus doing away with long passes. 5th.—The use of interference in protecting a runner from behind,

It was at this period that two of the most famous football players that ever lived were developed—Hefflefinger, of Yale, and Johnny Poe, of Princeton. Hefflefinger is still looked on as the greatest guard of all time. He had enormous physical strength, and, in adition, possessed those other necessary attributes, quickness and an uncanny sense of always doing the right thing.

Poe was the most picturesque of them all, and he lived up to his vivid reputation after leaving college. The wild spirit of adventure was in his blood, and a dozen South American Republics commissioned him at various times in their Armies of Revolution. When the World War began Johnny Poe enlisted with the famous "Black Watch," and died in the hell of the

Western Front long before America entered the maelstrom. Dead and dust, though he may be, there are hundreds of old grads who remember his wonderful runs on the gridiron. His two brothers, Edgar A. and Arthur Poe, were also star players in their day. There came a revulsion of feeling toward football.

The public began to take the game seriously. Over 40,000 people packed Manhattan Field for the Princeton-Yale game of '93—a contest that was entirely free

from every objectionable feature.

In a general way, the game after 1890 by gradual development changed from an individual one to one of teamwork. The old idea of one side of the line resting while the other went into play was changed by making the entire eleven men a machine, the failure of one part to coordinate causing

a collapse of the whole.

"Interference," from the early nineties until the present day, is one of the most essential elements of football, Under a strict interpretation of the old Rugby rules modern interference would be "offside," and foul. However, the officials in those days were never sure of the rules, and quite a lot of "interference" was allowed. It was not until '87 that Quarterback Dick Hodge devel-

oped the first organized "interference;" certainly one of the big steps forward in football

It is not necessary to go into details of the modern "open" game, because it is so well known. In my opinion, the forward pass has done more to popularize football with the public that has no interest in any specific college team than any other single factor. It has made the game faster, and more spectacular, and placed a premium on accuracy and speed. The old mass plays made it possible only for giants to play football with any degree of success. A little man, no matter how clever or fast,

was swamped in an ocean of brawn. The real popularity of the modern gridiron game can be attested by the presence of many professional football teams that have sprung up within the past few years. And this popularity can be attributed essentially to the "open" game.

Football is, at root, a college sport. No matter how brilliantly a professional team may play, there is not the color and vivid feeling behind it. The *Philadelphia Press* commented in this wise on a Yale-Princeton

game some years ago:

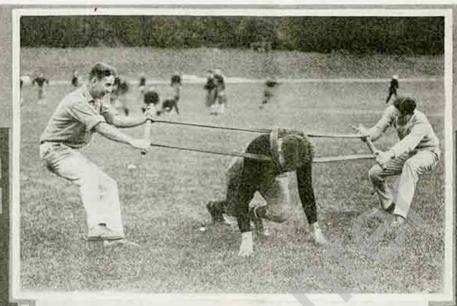
"As the great game of the Princeton season neared its end, and the sons of old Nassau saw victory slipping from the grasp of their team, though there were tears in many eyes and sobs in many voices, no man faltered. Following the swinging arms of the leaders, cheer followed cheer, even while the blue clad warriors pushed the Tigers down the field. . . . The relentless figures on the scoreboard stared the Tigers in the face, but the steady, deep pulsation of the 'locomotive' throbbed across the field. . . And when the game was over the Princeton boys, cheeks stained with tears and hats in hands, sang huskily, but enthusiastically, "Old Nassau."

No matter how wonderful the game they played no professional organization could stir a crowd so deeply, for

even the greatest of professional teams has not the traditions made holy in the smallest of colleges.

Having watched the development of football since its very earliest days, and having witnessed hundreds of games, I naturally have my favorites among the wonderful players I have watched. More than one person has asked me to pick an All-Time All-American team. Frankly, this is an impossibility, but I would like to mention those men who stand out in my memory as the equal of the best. Among the ends I have never seen a better man than Tom (Continued on page 54)

Chas. Brickley, of Harvard



BUCKING THE LINE An unique training apparatus used by Cornells coaching staff. The harness has a greater resistance than the average 200 pounder.



AL RITCHIE, the dare-devil movie star, pulling 8 loaded Overland autos, in a benefit for wounded war veterans. © KEYSTONE VIEW CO.



Jos. Dion Northompton, Mass.



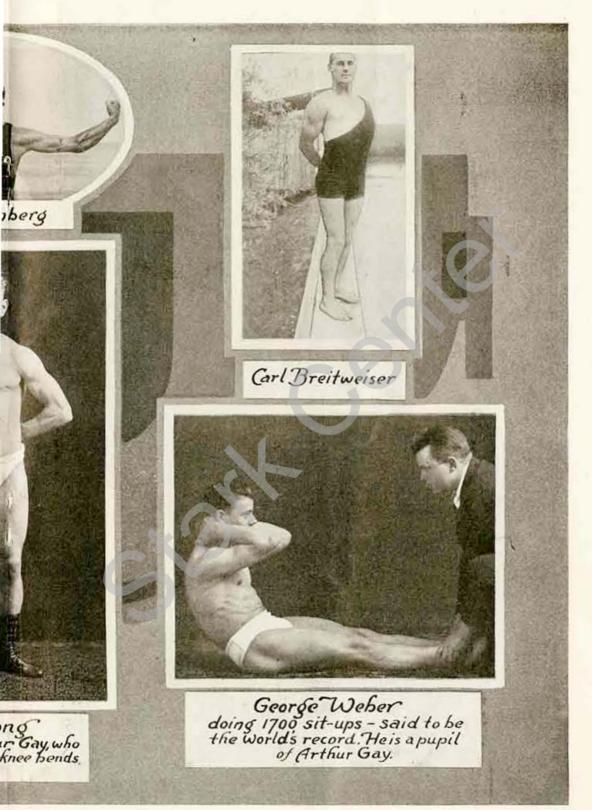
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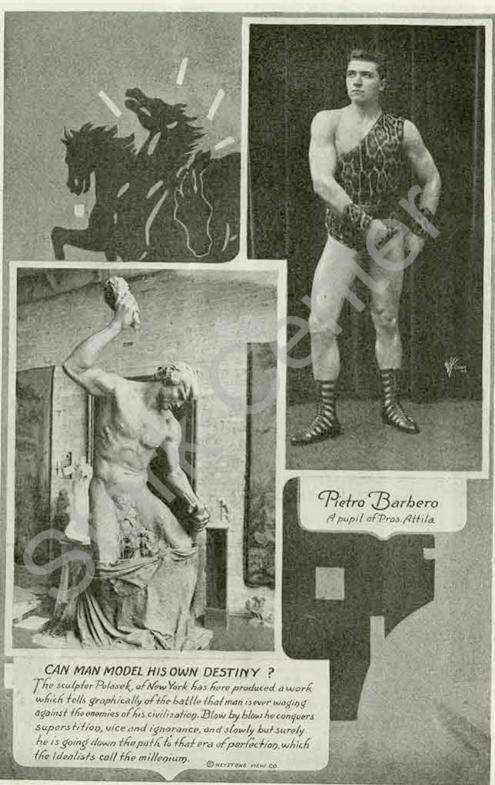


John Hilger



Harry Ho Apupil of Arthu does 4500 deep





Milo

The Rising Star on the Lifting Horizon

By Alan Calvert

POR years I have trained, interviewed, photographed and written about "Strong Men," but never have I been so impressed as by the Herculean young gladiator who is the subject of this article.

Here is a man, Milo by name, who fills every requirement of the heavy-weight athlete—small, well-shaped head; regular, attractive features; close-curled light brown hair, columnar neck, massive shoulders, tremendous chest, powerful back, compact waist, arms that are masses of supple muscle, and legs like the pillars of Hercules.

Milo has world-wide reputation as a lifter. He has met and defeated the greatest European stars, and as he is still in his first youth he has greater future possibilities than any lifter I have seen in years.

I talked to Milo a few weeks ago at

Herrmann's gymnasium in Philadelphia. This gym is the meeting-place of the best athletes, amateur and professional, in this district; and here Milo is daily amazing the regular patrons with prodigal displays of strength feats. On being asked to show his powers for my benefit, the big chap immediately obliged by making three successive "one-arm snatches" with a bulky bar bell weighing 170 lbs.

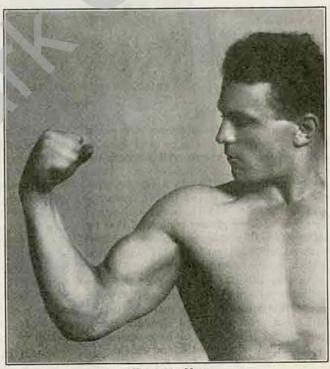
As far, as I can recall I have never seen an athlete in America snatch more than 175 lbs., and that with a bell suited to the lift. For in the snatch the experts use a bar bell with a slender springy steel handle; one that can be easily encircled by the hand, and that has a certain "whip" to it, when heavily loaded.

The bell snatched by Milo is the one shown in the ac-

companying pictures and has a rigid handle 15% in, thick. For a man with big hands the handlebar should be 11/16 in., while a small-handed man can use a 1/8-in, handle to the best advantage.

I mention all this, because Milo tells me he has raised 206 lbs. in the Snatch. I believe he is fully capable of such a feat, and furthermore, I expect to see him create a new American record for this lift within two weeks from the time I am writing these words.

Before going into further details regarding his lifting records, I would like to speak of his physical development, which I believe, is of the greatest interest to all of you. For while a great proportion of the readers of Strength are skilled lifters, each and every one of you is interested in superb development.



Ursus-the Man.

His Physique

I superintended the taking of these pictures, but after the prints were made I realized that I had made one omission. I should have posed Milo alongside of another athlete to show you how he completely dwarfs other welldeveloped heavy-weights.

Milo is so extremely well proportioned
that in these pictures
you get no idea of the
great size of each individual group of
muscles. I have since
seen him exercising
alongside of celebrated
lifters and wrestlers
and he makes them
look like pygmies.

His measurements follow:
Height, 5 ft, 8 in.
Weight, 200 lbs.
Neck, 18½ in.
Chest, 48 in.
Waist, 32 in.
Upper arm, 16¼ in.
Forearm (st.) 14½ in.
Forearm (flex.) 16 in.
Wrist, 7% in.
Thigh, 26 in.

None of these measurements are world beaters. There are bigger and heavier men, but few who are so well proportioned and as well knit. Milo has unusually large bones, as is shown by his wrist measurements. I was interested in the comparative measurements of the wrist and flexed forearm. I have always contended that by using bar bells a man can develop a flexed forearm twice as large as his wrist, and Milo proves my point.

Another thing—I have claimed that for an athlete—a man who can really make use of his strength—it is more important to have a great wrist and shoulder and a good upper arm, than to have enormous biceps with moderate wrist and shoulder.

Milo's deltoid muscles (on points of

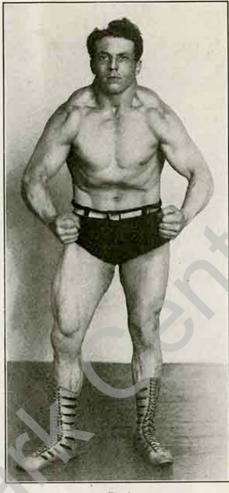


Fig 2

shoulders) are simply marvelous, and it is these muscles that give the tremendous sweep and power to his arm movements, enabling him to toss 200 lbs. from floor to arms' length above his head in one motion. And if that means nothing to you, just see how far you can raise 200 lbs, from the ground in one motion. using one hand only.

His upper armmuscles are very loose and supple. There is not the slightest symptom of his being "shoulder bound." His striking-power is almost beyond belief.

If you want to get an idea of what an 18½ in. neck is like, study the picture where he is posed on one foot, Fig. 3. Throwing his head back brought out those neck-muscles rather prominently, didn't it? But in the same pose, look at his arms, legs and body.

You will fail to see any of the "knotted muscles" which are so deplored by advocates of "rocking chair" exercise. Standing easily in this position, Milo's muscles are as smooth as those of the boys you see on the bathing beaches.

But—when Milo wants to contract his muscles he can do so with the best. Note the full-length front view, Fig. 2, where he is displaying the trapezius muscles, which lie between base of neck and points of shoulders. Also at the picture, Fig. 4, where he is shown with the bell in both hands and the arm-muscles are standing out as he commences to slowly "curl" the bell to his chest,

Wonderful as are his arms and shoulders, they are matched by his back and thighs. I doubt if any man alive has stronger back and legs. With a little practice he should create world's records; (first) in lifting a heavy weight off the ground with one hand; (second) in "squatting" with a weight on his shoulders.

The muscles on the outside of his thighs (externus vastus) show unusual development. Milo excells in all lifts like the "snatch" and the "jerk" where the work is shared by the muscles of the arms, shoulders, back and legs, and mark this—the initial impetus in all such lifts comes from the muscles above the knees and those along the spine. No spindle-shanked, hollow-backed man can hope to equal Milo's records, no matter how big his arms are.

I have no doubt that there are more agile men than Milo, but I have rarely seen a 200-pounder as quick as he is. When executing a quick lift, his foot-work is dazzling and his arm-thrusts lightning fast.

and his arm-thrusts lightning fast.

His bodily carriage is superb. He has a swinging, balanced, jaunty step, and I would rather see him stride across a stage than see most strong men pose in the cabinet. He is so darned easy in everything he does—his muscles respond

One-arm snatch, 207 lbs.
One-arm clean and jerk, 240 lbs.
Two-arm clean and jerk, 352½ lbs.
Two-arm press, 260 lbs.
Two-arm curl, 165 lbs.
Deep knee bend, 530 lbs.

Milo gives me the above as his best European records—that is, all except the two-arm curl. When I questioned him about that lift he said that he never tried it much, but was sure he could do 165 lbs. Half an hour later, after posing for the picture showing the start of the curl, he straightened up and curled the bell to chest without visible exertion—and the bell weighed 170 lbs.! I should say that 200 pounds would not stop him.

The foregoing list of lifts contains at least one world's record—the two-arm clean and jerk. No man of Milo's weight has equalled that.

Taking the list as a whole it is extraordinary. I doubt if any other lifter could equal it, except perhaps the late Arthur Saxon. Milo is still a very young man,

> France. Vasseur alone can beat Milo, and it took Vasseur several years to reach

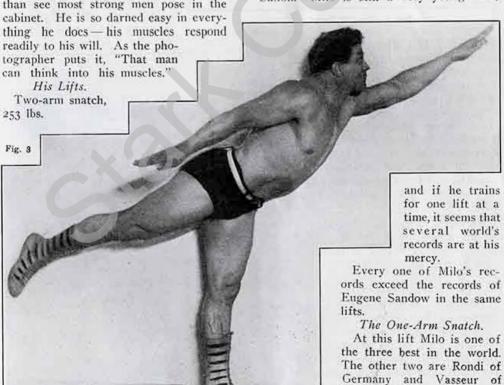




Fig. 4-Start of Two-Arm Curl.

his limit. This lift is Milo's favorite, and in the lifting world he is acknowledged as a master of the art. He tells me that when touring Australia, at every town there would be a large number of lifters in the audience. At the completion of his act these spectators would shout for an exhibition one-arm snatch, and would not allow him to leave the stage until he had snatched a bell weighing 190 pounds.

Figure 5 shows the completion of his snatch with 170 lbs. It gives you a faint idea of the action he puts into his work.

Two-arm Clean and Jerk.

His 352½ is a top-notch performance. In continental Europe they allow the lifter to raise the bell and rest it on his stomach and then shift it in two movements to his chest, and then jerk it aloft. In France and England they require the bell to be lifted in one movement from ground to chest—

which is Milo's style. I have searched the French and English records but have failed to find a lift equal to this lad's.

Two-arm Press, 260 lbs.

Marvelous, when the style is considered, for Milo holds his body erect. I saw him sit in a chair, pull 170 lbs. to his shoulder and press it aloft half a dozen times while in seated position, and he did that merely to warm up his muscles for a big lift.

The Deep-Knee Bend (or Squat)

Figure 6 shows the first position Milo adopts when squatting with a big weight. When this movement is performed as an exercise, it is customary to lift the heels from the floor, but when a big weight is used it is necessary to remain flat-footed as in the picture.

Milo tells me that he has taken 530 lbs, across shoulders

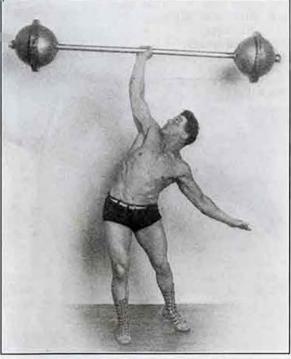


Fig. 5-Completion of One-Arm Snatch,

and bent his knees until he was almost sitting on his heels, and then stood erect, and he admits that it was hard.

I did not test him, but at Herrmann's Gym I saw him hold on his shoulders 410 lbs. (a 225-lb. bell and a 155-lb. man) and do the deep-knee-bend three times. At the third repetition, the upper man lost his balance and fell off, or we might have had a few more repetitions.

What I like about Milo is his attitude about lifting. He is very modest and always willing to lift. He will oblige a novice by showing him how to manage a big weight, and he is so sure of himself that he does not hesitate to do his lifting before the best professionals. He fears no competition and does not indulge in "goget-a-reputation" tactics.

In considering Milo's records you must bear in mind that they were all made in weight-lifting tournaments where Milo took part in several events. Under these conditions record making is almost impossible. If you happen to be a star one-half mile runner, you have a chance of breaking a record, if that was the only race of the day; but if you entered an all-around competition where you would have to run in the 100 yard, the one-half mile, the one-quarter mile and also in a couple of hurdle races, you have not got a chance of making a record in the one-half mile unless it happens to be the first event on the program and you run while you are fresh.

All of Milo's records except the "squat" were made in competitions. His form in lifting is so perfect that he can always make wonderful lifts, but naturally he, no more than any other man, can do his best unless he is in the very height of physical condition.

I have suggested that he try for all records and train for two or three weeks for each lift and never try to break more than one record on any one day. I have an idea that if he follows this program that he will hang up records that will be unbroken for some time.

If Milo comes to your town, don't fail to see him.

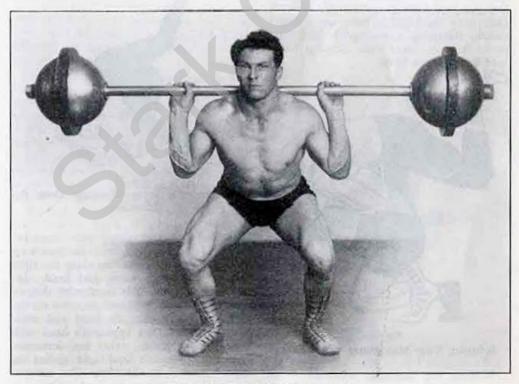


Fig. 6-Beginning of the deep knee bend.

Head Locks and Chancery Holds

By William J. Herrmann

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



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

Stanislaus Zbyszko

Dear Herrmann:-

June 3rd, 1921.

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

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

(Continued from last month)

Standing Chancery Over the Shoulder

This hold is described on the supposition that you intend using a Standing Chancery Hold over the Right Shoulder as a direct attack, following a successful feint that paved its way, made while sparring for a hold during Free Play.

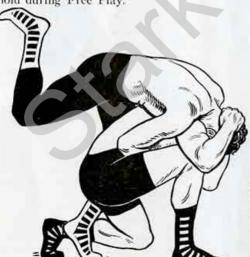


Fig. 37 Bringing Your Man Down to the Mat.

Without any hesitation whatever, "turn in," a full-half turn, on your man like a



Fig. 33
Fall Imminent from Chancery Over the Shoulder.

flash; for a slow or unsuccessful "turn in" may be fatal. As you "turn in," reach up quickly with your right arm along the right side of opponent's cheek and head. Instantly join your right hand with that of your left. Lock them both together on the back of your opponent's head and neck. This move encircles opponent's head with both of your hands, wrists and forcarms. Imprison opponent's head tight against the top of your right shoulder. The moment you catch your opponent's head in Chancery



Fig. 39 Chancery Hold Over the Shoulder. Dashing your man to the mat.

over your right shoulder, yank his head and chin down close to your chest and bend your body forward in order to check any effective resistance or countermove on the part of your opponent.

You can score a clean, direct fall by pulling your man bodily, somersault fashion, directly over your head and shoulders to the mat. You can also follow up your advantage by dropping on one or on both knees in order to help you bring your man over and down on the mat to a fall, as illustrated by Figs. 37 and 38. This method gives you a better chance to hold your man down in order to pin his shoulders tight to the mat because of the pressure you can bring to bear on your man's head and shoulders, providing you maintain your superiority in position and use your own head and shoulders to good advantage against him. Besides, dashing your man bodily in this manner will momentarily incapacitate your opponent to the extent of preventing him from offering any serious resistance against your final efforts to press his shoulders tight down on the mat in order to score a pin fall in your favor.

If powerful enough, you can dash your man bodily down to the mat, even though you still remain upstanding on your feet, as illustrated by Figs. 39 and 40. This method is useful in case of self-defense or when you intend to heavily dash and throw, shake up and jar, not hold or pin down your man. Although a fair amount of strength is necessary to effectively use this hold in such a spectacular manner, nevertheless it by no means requires as much strength as its effect would suggest. If the stoop be correctly made and the pull properly timed, it is more a matter of good leverage than mere brute strength.

However, if physically unable to pull your man bodily over your head and shoulders, you nevertheless can still score a fall in your favor by means of a Head Twist, in which you hold his head tight while twisting your opponent's head in order to turn his body over to the Chancery side. This will enable you to twist, turn, force and finally pin your opponent's shoulders tight down on the mat so as to score a fall in your favor. A direct and positive, although not as jarring, severe nor spectacular a fall can be secured by this "Head Twist" or neck and side twisting method. Besides, it is possible that combat conditions may be such as to momentarily make this latter means the more preferable method.



Chancery Hold Over the Shoulder.

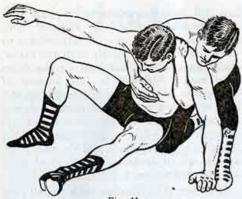


Fig. 41 Going into a Sit out.

Standing Chancery Over the Shoulder Used as a Counter Against a Full Back Body Hold

This Chancery Hold over the Shoulder is described on the supposition that you are using it as a counter against a standing Full Back Body Hold held on you by your opponent.

Should your opponent, while holding you in a Full Back Body Hold, carelessly or unguardedly let his head be near or over your shoulder, within reach of your hands take advantage of his error in the following manner: Reach up like a flash with both of your hands and encircle opponent's head, either over your left or over your right shoulder, as combat conditions may warrant. Get his head tight in a vise-like grip. Instantly yank his head and chin forcibly down to your chest and stoop your body over forward in order to check any possible resistance or counter-move on the part of your opponent.

As described in the direct attack by means of this hold, you can score a clean fall by pulling your man bodily, somersault fashion, directly over your head and shoulders as illustrated by Figs. 39 and 40, or you can instead, follow your man to the mat, by dropping on one or both knees in order to bring your man over. If physically unable to put your man bodily over your head and shoulders, you nevertheless can still score a fall in your favor by means of a "Head Twist" in which you hold his head as tight as you can while twisting your opponent's head under, while at the same time turning his body over on the Chancery side.

Fig. 32 illustrates a Chancery Hold over the Right Shoulder used as a counter against a Full Back Body Hold, while Figs. 37 and 38 illustrate following up your hold by dropping on one or on both of your knees in order to more easily bring your man down to the mat on his back for a fall.

Sitting Chancery Over the Shoulder

A Sitting Chancery Over the Shoulder, Used on the Wrestling Carpet as a Counter Following a "Sit Out"

This describes a Chancery Hold over the Shoulder when used as a counter following an escape on your part by means of a "Sit Out," as illustrated by Fig. 41, or when momentarily in a "Sitting Position" during a mix-up.

Explanatory: A "Sit Out" is a defensive measure used as a means of escape especially against holds that involve the use of a Nelson. Professional wrestlers are partial to the use of this chip. Fig. 41 illustrates a "Sit Out" used as an escape against a Near Side Half Nelson, while Fig. 42 illustrates a Chancery Hold over the Left Shoulder following a "Sit Out" used as a defense against a Full Back Body Hold.



Fig. 42

Chancery Hold Over the Left Shoulder. A counter following a Sit Out against a Full Back Body Hold.

The Fountain of Youth -and How I Found It By C. FRANK DILKS

HIS is a true story of a weakling who became strong. A story of a man who at one time thought he had to stay 'put' because he was told so and thought so.

"I had most everything that could be in the make-up of a coward. As a lad I was very timid, was make-up of a coward. As a lad I was very timid, was always alone and, as a rule, did not have the courage to join other children in their games. If a would-be bad boy gave me a look I would quake within. I was afraid of everything. If I went swimming it was usually alone. At the age of 14 years I was a sick boy, and always had a headache from morning until night. I usually walked along like a dog; that is, always expecting to be kicked. I grew that way to manhood (if you can use that word) manhood (if you can use that word).

"Then mother died and I was alone, for no one else understood me and this meant a struggle, for I was afraid to undertake a job. Rather than take a better job I would work for half wages. Being handy with tools I did a lot of various things. I would figure in my mind what I should charge for my work when I was to be paid, but when the time came I would always do it for nothing, then go hide and lament because I had not the courage and strength to ask for what was due me. Oh, the hell of it all! I was afraid to die, was afraid of the world, afraid of the dark, afraid of the water, afraid of a crowd and afraid to be alone.

of a crowd and afraid to be alone,

of a crowd and atraid to be alone.

"As I stated before, I had everything that makes a coward. And why? Because I was a weaking. Things dragged along until I was 30 years old. I had secured some courage by then, that is, courage enough to read a Milo catalog that was given to me, and after reading it a thrill ran through that weak body of mine. Could it be possible for a weakling such as I was to be a man? Trembling, and with about as much faith in what I had read as a Quack Doctor has in his dope, I bought a bar bell. Of course, I knew it would do me no good. Wasn't I 'put'? Wasn't the other fellow big when he started? He was born that way.

he started? He was born that way.

"However, I started. I had a ten-inch upper arm. Imagine a man 5 ft. 10½ in, tall with a ten-inch upper arm! I went according to instructions and put in it every bit of enthusiasm I had. Then and there I discovered what I had always wanted—Strength and Poise. As if by magic my chest made a gain of five inches within six weeks. I then became like a man who had discovered a gold mine. I remember one evening going out into the yard. It was about dusk, and as I looked beyond the setting sun and away into space, I walked through the gates of a new life with a feeling of being well and strong. My breath came fast and a feeling came over me that I was master of the world. I had at thirty-two years what I did not have at twenty. I was old at twenty and young at thirty-two. I stood there, I don't know how long, with that joyful feeling surging through me.

"What the average man leaves behind at my age, I am just taking."

"What the average man leaves behind at my age, I am just taking up; for instance, wrestling, throwing the disc, putting the shot, etc. There are lots of men who are strong and well when they read this and who will say that I am over-rating bar bells, but they were never the weaking that I was, and they know only one side

C. Frank Dilks, of Bridgeton, N. J., the weakling who became strong, and who says: "I know that I got results, real results, with Milo bar bells."

"Just one more word, a word to the weak; you, my sick friend, can do the same thing. I know what you think and how you feel. Get a bar bell and life will start anew."

Do you desire health and strength? We can help you as we have helped Mr. Dilks, who, in spite of a weak, unhealthy body, succeeded in developing health and strength far beyond the powers of two or three ordinary men. During the past eighteen years we have developed thousands of men and boys. The experience we have gained during this time is yours for the asking. We do not ask you to take our word for what we can do for you. We give you an absolute guarantee of satisfactory results or your money will be refunded, without question. You owe it to yourself to be healthy and strong. Send for our illustrated catalog to-day.

The Milo Bar Bell Co.

Physical Culture Specialists and the largest manufacturers and distributors of bar bells, dumbbells and kettle bells in the world.

Dept. 21, 301 Diamond St.

Philadelphia, Pa.

Should your opponent carelessly hold his head too near your shoulder, instantly take advantage of his error by reaching up like a flash with both of your hands, encircling his head with your hands, wrists and forearms. Yank his chin and head down close and tight to your chest. Stoop forward in order to enable you to more readily pull your man bodily over your shoulder down to the mat on his shoulders. If properly used and applied you can score a direct fall without the aid of any other assisting hold or holds.

You can also secure a positive fall in your favor by twisting his head under while at the same time turning his body over on to the side on which his head is imprisoned. In either case follow up your advantage in order to pin your opponent's shoulders tight down on the mat so as to score a fall in your favor before he can offer any effective resistance or counter-move against you.

Should you intend to attack direct from this position, work so as to get your opponent's head within reach of your hands so as to enable you to quickly reach up and imprison your man's head in a Chancery Hold over the Shoulder in order to either pull him bodily over your Shoulder, as illustrated in Fig. 44, or to twist him over on the chancery side in order to force his shoulders on the mat for a fall.

Fig. 43 illustrates a sitting position.

Various methods of interlocking the hands in order to strengthen your hold are



In a Sitting Position. A good chance to secure a Chancery Hold Over the Shoulder.



Fig. 44

Sitting Chancery Hold Over the Shoulder

in vogue as shown by the line cuts illustrating the preceeding Chancery Holds over the Shoulder, also the Chancery Holds over the Arm, as well as the Original Head Lock, In Holding Head Locks and Head Chancery Holds in any of their many variations, don't get the fixed habit of always interlacing your fingers. Interlaced fingers are more difficult to suddenly disengage than fingers held hooked or crooked in what is popularly called the finger-foil method which to a great extent prevents any possible attack on your fingers on the part of your opponent. Besides, hook-joined or crook-joined hands can be far more effectively used for gruelling or punishing purposes than interlaced fingers which practically have no punishing value. At first your hold may seem stronger when held with interlaced fingers. However, in time and with practice you will prefer using the finger-foil method so as to "cover" them instead. Once the habit of inter-crooking or inter-hooking the hands in the so-called finger-foil method is acquired, you will rarely go back to using interlaced fingers except in case of a few isolated instances that, as a rule, don't involve the use of a Chancery Hold. In consequence, it is best in a general way not to interlace your fingers in applying Head Locks and Chancery Holds unless combat conditions should warrant otherwise. Interlaced fingers do at times admit of a more unbreakable hold. It enables one to cling on firmer and also exert more pulling power. Although one can cling on closer and exert more pulling power, this advantage is more then offset because it is so much more difficult to instantly release one's hold in case opponent's defensive measures suddenly demands it.

NERVE EXHAUSTION

How We Become Shell-Shocked in Everyday Life

By PAUL VON BOECKMANN

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

HERE is but one malady more terrible than Nerve Exhaustion, and that is its kin, Insanity. Only those who have passed through a siege of Nerve Exhaustion can understand the true meaning of this statement. 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 means Nerve Bankruptcy. The wonderful organ we term the Nervous System consists of countless millions of cells. These cells are reservoirs which store a mysterious energy we term Nerve Force. The amount stored represents our Nerve Capital. Every organ works with all its might 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 cat or even the air we breathe.

If we unduly tax the nerves through overwork, worry, excitement or grief, or if we subject the muscular system to excessive strain, we consume more Nerve Force than the organs produce, and the natural result must be Nerve Exhaustion.

Nerve Exhaustion is not a malady that comes suddenly. It may be years in developing, and the decline is accompanied by unmistakable symptoms, which, unfortunately, cannot be readily recognized. The average person thinks that when his hands do not tremble and his muscles do not twitch, he can not possibly be nervous. This is a dangerous assumption, for people with hands as solid as a rock and who appear to be in perfect health may be dangerously near Nerve Collapse. One of the first symptoms of Nerve Exhaus-

One of the first symptoms of Nerve Exhaustion is the derangement of the Sympathetic Nervous System, the nerve branch which governs the vital organs (see diagram). In other words, the vital organs become sluggish because of insufficient supply of Nerve Energy. This is manifested by a cycle of weaknesses and disturbances in digestion, constipation, poor blood circulation and general muscular lassitude usually being the first to be noticed.

I have for more than thirty years studied the health problem from every angle. My investigations and deductions always brought me back to the immutable truth that Nerve Derangement and Nerve Weakness is the basic cause of nearly every bodily ailment, pain and disorder. I agree with the noted British authority on the nerves,

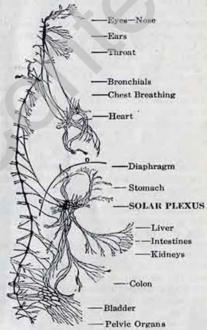


Diagram showing the location of the Solar Plexus, known as the "abdominal brain," the great center of the Sympathetic (Internal) Nervous System. Mental strains, especially grief, fear, worry and anxiety paralyze the Solar Plexus, which in turn causes poor blood circulation, shallow breathing, indigestion, constitution, etc. This in turn clogs the blood with poisons that weaken and irritate the nerves. Thus Mental strain starts a circle of evils that cause endless misery, aches, pains, illnesses, weaknesses and generally lower mental and physical efficiency.

Alfred T. Schofield, M. D., the author of numerous works on the subject, who says: "It is my belief that the greatest single factor in the maintenance of health is that the nerves be in order."

The great war has taught us how frail the nervous system is, and how sensitive it is to strain, especially mental and emotional strain. Shell Shock, it was proved, does not injure the

nerve fibers in themselves. The effect is entirely mental. Thousands lost their reason thereby, over 135 cases from New York alone being in asylums for the insane. Many more thousands became nervous wrecks. The strongest men became paralyzed so that they could not stand, eat or even speak. One-third of all the hospital cases were "nerve cases," all due to excessive strain of the Sympathetic Nervous System,

The mile-a-minute life of to-day, with its worry, hurry, grief and mental tension is exactly the same as Shell Shock, except that the shock is less forcible, but more prolonged, and in the end just as disastrous. Our crowded insane asylums bear witness to the truth of this statement. Nine people out of ten you

meet have "frazzled nerves."

Perhaps you have chased from doctor to doctor seeking relief for a mysterious "something the matter with you." Each doctor tells you that there is nothing the matter with you; that every organ is perfect. But you know there is something the matter. You feel it, and you act it. You are tired, dizzy, cannot sleep, cannot digest your food and you have pains here and there. You are told you are "run down" and need a rest. Or the doctor may give you a tonic. Leave nerve tonics alone. It is like making a tired horse run by towing him behind an

automobile. Our Health, Happiness and Success in life demands that we face these facts understandingly. have written a 64-page book on this subject which teaches how to protect the nerves from every-day Shell Shock. It teaches It teaches how to soothe, calm and

care for the nerves; how to nourish them through proper breathing and other means. The cost of the book is only 25 cents. Remit in coin or stamps. See address at the bottom of page. If the book does not meet your fullest expectations, your money will be refunded, plus your outlay of postage.

The book "Nerve Force" solves the problem for you and will enable you to diagnose your troubles understandingly. The facts presented will prove a revelation to you, and the advice given will be of incalculable value to you.

You should send for this book to-day. It is for you, whether you have had trouble with your nerves or not. Your nerves are the most precious possession you have. Through them you experience all that makes life worth living, for to be dull-nerved means to be dull-brained, insensible to the higher phases of life-love, moral courage, ambition and temperament. The finer your brain is, the finer and more delicate is your nervous system, and the more imperative it is that you care for your nerves. The book is especially important to those who have "high strung" nerves and those who must tax their nerves to the limit.

The following are extracts from letters from people who have read the book and were greatly benefited by the teachings set forth therein: "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. 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

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

A prominent lawyer of Ansonia, Conn., says: "Your book saved me from a nervous collapse, such as I had three years ago. I now sleep

soundly and I am gaining weight. I can again do a real day's work.'

Publisher's Note: Prof. von Boeckmann is the scientist who explained the nature of the mysterious Psychophysic Force involved in the Coulon-Abbott Feats; a problem that had baffled the leading scientists of Amer-ica and Europe for more than thirty years, and a full account of which has been published in the March and April issues of Physical Culture Magazine.

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 favor-able comment than my sixteen-page booklet

entitled "The Prevention of Colds.

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

No ailment is of greater danger than an "ordinary cold," as it may lead to Influenza, Grippe, Pneumonia or Tuberculosis. More deaths resulted during the recent "FLU" epi-

demic than were killed during the entire war, over 6,000,000 people dying in India alone.

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

PAUL VON BOECKMANN

Studio 460 110 West 40th Street, New York

The Question Box

- O. S. The Continental two-arm press differs from the two-arm military press in that the lifter is allowed to move the feet and to step backwards in order to get under the weight, and is allowed to bend from the waist. In the two-arm military press, the heels must be kept together, feet stationary, and no bending at the waist. The arm not used in lifting must be held straight and pressed against the side.
- J. B. We have no statistics on what you should measure from the heel to crotch. Your tailor should be able to give you some information on this.

The slow lifts are hardest for a longlimbed man to accomplish; while the quick lifts, such as the jerk, snatch, etc., are easier of accomplishment. You can have a symmetrical development by paying special attention to the legs, practicing exercises that will develop all parts of the hips, thighs and calves.

- B. C. B. Unable to give Dempsey's and Carpentier's exact wrist measurements, as we also have seen them quoted as 7¾, 8¾ and 9 inches. As a rule, the bones stop growing at about 19 years of age. Your 7½ in. wrist, is the average size for a man 6 ft. 1¼ in. in height.
- E. R. S. Stationary running in your room, with windows open, is not as beneficial as training on a track or out of doors, principally because your efforts would become too mechnical, you would be unable to concentrate on form and would be unable to develop endurance. Shadow boxing is not as good as road jogging to develop the wind.

The constant dull ache at the lower part of your back may be caused by your kidneys if you are past middle age. Otherwise, it may be overcome by standing with your back to the wall, with heels about 15 inches from the base board, and leaning back and touching the wall with the tips of your fingers.

A man weighing 150 lbs. and who can two-arm press 100 lbs., should be able to press 150 lbs. in about four months. C. R. T. In the bent press, you will find it to your advantage to experiment for foot position until you have found the position in which your body can be lowered beneath the bell in ease and comfort. Also practice using the left arm as a support in lowering the body beneath the bell when lifting with the right arm. Why not read Alan Calvert's article on the bent press, which appeared in a recent issue.

C. H. J., Jr. In "What's Wrong With the Skinny Man," in the October issue, whole milk refers to milk in its natural state, i. e.; from which nothing has been removed, as contrasted with skimmed milk or cream.

Owing to numerous request from readers to tell them what they should measure, we are reprinting Mr. Calvert's system of measurements:

In a number of books on gymnastics you find a heading, "How much you should measure," and under it, in tabulated form, "ideal measurements" for a man of 5 feet 1 inch, a man of 5 feet 2 inches, and so on, up to 6 feet. Apparently a man over 6 feet has no right to an ideal, for I at least have never seen any measurements given for very tall men. Again, the ideal measurements are supposed to be of fully developed adults—the growing boy is never considered.

Personally, I do not take much stock in such tables. Men differ too much in inherited physique. The only rule that applies, so far as I know, is that usually the bigger the bones, the bigger the muscles they will support. I say "usually" because some of the best developed athletes such as Sandow and Thomas Inch, have been rather small-boned men; and some very powerful athletes with very large bones have had comparatively small muscles.

Therefore, in figuring out how much you should measure, it is wise to consider the size of your bones. On the principle that the ends of a bone are in proportion to its diameter, it is considered that the joints—particularly the wrist—indicate the size of the bones. The average man's wrist is from 6¾ inches to 7¼ inches in girth.

Let us make comparisons in the case of a man 5 feet 8 inches tall, with a 7-inch wrist. Understand, my standard is merely my personal opinion based on results secured by my pupils. I have pupils whose height and wrist are 68 inches and 7 inches, respectively, who exceed my standard in every part of the body, so I am not exaggerating the effect of progressive weight-lifting, nor am I selecting one isolated case, as a standard.

1000 C 10	Carlos Maries - Commission
"Ideal" Table	My Standard
Height 5 ft. 8 in.	5 ft. 8 in.
Weight155 lbs.	165-170 lbs.
Wrist 7 in.	7 in.
Forearm12 in.	131/8 in.
Upper arm141/2 in.	153/4 in.
Neck	16 in.
Chest	43 in.
Waist	
Thigh	
Calf	

I believe that any one of my adult readers can calculate what they should measure by the following rules.

Normal chest: 63 per cent. of height. Waist: 8 or 9 inches less than chest.

Forearm: 17/8 times as much as wrist. Flexed upper arm (biceps): 20 per cent. more than forearm.

Thigh: 35 per cent. of height. Calf: 7 or 8 inches less than thigh.

It is not quite as easy for a lightly built man to acquire a perfectly developed body as it is for his heavier brother to do so. There are some men whose frames are so very light that even if they develop to the proportions I have given, they will be far from Samsons.

The average sized wrist is about 63/4 inches. Occasionally I get cases of full-grown men whose wrists are only 61/4 or 6 inches; but even the man with a 6-inch wrist can develop an 111/2-inch forearm, 14 inches upper arm, 39-inch chest, and other measurements in proportion; that is, he can do it if he takes progressive exercises with gradually increasing weights.

There are compensations in everything. The man who starts with a very slender frame, develops along very graceful lines, and presents a fine appearance when fully developed. Nowadays, the favorite type of Strong Man is Sandow, Carr, Matysek type—a build which combines maximum

strength, with maximum agility, and, consequently, gives a maximum beauty of figure. In some lifts men of this type have actually raised more weight than the ponderous Cyr could raise at his best.



To the Editor:

For the first time I have today seen a copy of your publication.

Some 45 years ago, when a schoolboy, I used dumbells for three years

that I am past 60 years of age, will be 62 and developed splendid strength for a small boy, which has remained with me until now next birthday, many seem to think my strength quite remarkable; it occurs to me you might wish to publish the small photos taken recently of my form, with some comments on same.

I will inclose copies of same, front view standing, and view of back standing.

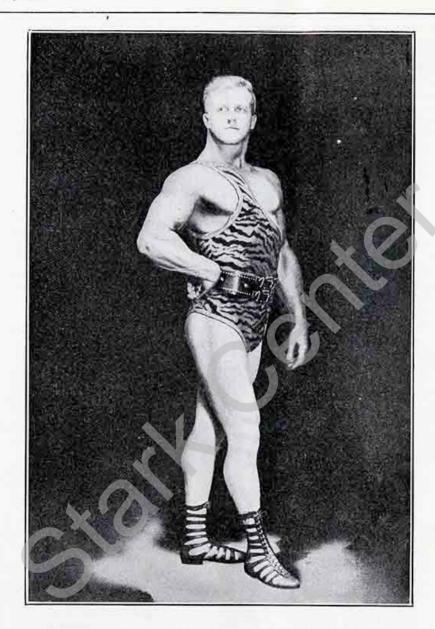
As a child I was sick much of the time and not considered well built or made; I took up dumbbell exercise when 14 and continued same for three years developing health and strength and have been a healthy man since then; at 17 I took the Amateur College record on chinning the bar, 58 times.

I can yet chin the bar once with one hand which as you know is not often done

by men past 60.

The other day a bunch of strong young men were lifting the front wheel of a Ford automobile with one hand, as I came by; they asked me to try it; I had four adults get into the car and then lifted the front wheel with one hand two inches from the ground, and did it the second time and held it a few seconds, as some had not seen it done. Is not this a pretty good stunt for a man weighing less than 135, and being 61 years of age? I would be willing to post \$1,000, that I could do it any time when in ordinary health or condtion.

Yours very truly, Chas. L. Hyde, Pierre, S. Dak.



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Personal consultation by appointment only To the Editor:

After witnessing an occurrence the other day, I am moved to write a letter on the value of strength for the benefit of STRENGTH headers. Many people say, "The average man does not need strength." How much strength does it require to push a pen around, etc.? Aside from the health side of the question a strong man will often find his strength useful no matter what sort of business he is engaged in. Well, the occurrence I mentioned was this: As we (some friends and I) were going along a road on Long Island in a car, we came upon the wreck of another car. The car had turned turtle, one man being pinned under it, and because his three friends were too weak to turn that car up, he had burned to death. Some people may say three men could not turn over a car, but I have seen three strong men lift a pretty large car right off the ground. By "pretty large" I mean the size of a Hudson. This accident had happened on a lonely road, far from help. If those men had been bar bell experts trained strong men, lifting that car would have been a cinch for them and a man's life would have been saved. Who knows but what the same thing or a similar accident may happen to them sometime? These things may not happen often, but they do happen. If one is prepared for such things no lives need be sacrificed so foolishly.

This may sound like a far-fetched reason for becoming strong, but there are many other reasons. Think of the grand and glorious feeling that must go with a man of strength. For instance:

Last week a friend of mine (a bar bell user) had some laborers working on his walk. The walk from the front of the house to the yard was stone and he wanted it removed and cement substituted. was watching the laborers at work and he happened to see one of them tugging at a large stone. The man lifted it about a foot, but dropped it again. He was just about to break it up and carry the pieces to the wagon when my friend interposed, wanting to test his strength. He was "all dressed up," and the workmen could not repress a snicker and a few humorous remarks. He leaned over and grasped the stone and carried it to the wagon, then threw it in. The workman looked at him in amazement, then said. "Say boss, you must have some muscles." He then felt his arm and uttered a loud "GEE!" of admiration. Imagine what a grand and glorious feeling that must be, to be stronger than a laborer, whose strength is often praised.

I could go on telling many instances of why strength is not only a necessity, but a source of pleasure, but these two instances have served my purpose. The strong man is most certainly "a king among men."

Yours Sincerely,
HAROLD POPPE,
228 Driggs Ave, Brooklyn, N. Y.

Do Athletes Die Young?

(Continued from page 24)

fiftieth birthday, he pressed aloft a dumbbell weighing 203½ pounds, first with the right hand and then with the left.

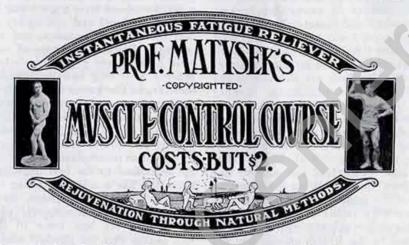
Oscar Matthes, a close friend of Mr. Smith, past 58 years of age, began to practice heavy-weight exercises at 14 years of age. He is a small man, but has raised 150 pounds right and 142 pounds left, in spite of the fact that he only weighed 108 pounds. Both he and Mr. Smith are still in the best of health and expect to continue so for many years to come.

And then we have Zbyszko, "the grand old man," who, at the age of 45, staged a comeback and annexed the world's catch-ascatch-can wrestling championship. He is perhaps the only champion, in the athletic world at least, who ever "came back" at that age. Zbyszko was surely never an advocate of light exercise.

It would be quite possible to give an almost endless list of men who have practiced heavy-weight exercises and who have lived far beyond the average age. But I don't think it is necessary to look for further evidence on this subject. If a man is determined to make a fool out of himself nothing can stop him, but for every man who suffers from over-indulgence in exercise we have thousands, perhaps even millions, who go to an early grave for the want of it.

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to thicken the shoulders—how to learn the art of making your shoulders supple from only three days' practice—development and control of the neck muscles—spreading of the back—depression of the abdominal muscles and wall—control of the of the abdominal muscles and wall—control of the pectoralis (chest muscles), the biceps, triceps, thighs, calf and all other muscles—how to greatly assist in training the abdominal regions to be immune from rupture—how to master correct posture—simple yet positive cure for insomnia—how to pose for good pictures—advantages of perfect cordination of muscles and mind thru concentration which brings success and all the good things that go with it, and many other vital pointers you need every day, too numerous to mention. The exercises in this course cause no strain on the heart and do not create nervousness, but build vitality and nerve force. and nerve force.

Prof. Matysek
Muscle Control Dept. 214
523 North Charles Street, Baltimore, Md.

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Hockey-A Popular Sport for Women

(Continued from page 20)

style of play and the British is that the Americans have been hitting the ball much harder, thus making real team play difficult. The British teams use the short-passing game and thus work the ball up to their opponents' goal. This is the style of play that the American teams must develop, as, after all, just as in soccer, ice hockey, college football and basket-ball, team play, when well carried out, will beat individual brilliancy nine times out of ten. The development of team play and superiority generally in stick handling are the two points that distinguish the British teams. In other respects they are no whit better than their American rivals. For this reason, the visit of the British team should have a decided effect in raising the standard of American play.

In one respect the visit of the All-Philadelphia team to England last summer has already been effective. When the American team took the field in England the British spectators were rather surprised at their costumes, as the skirts were longer than those worn by the British players and did not permit the same freedom of movement. This season, the Philadelphia players are adopting the British costume, which consists of bloomers, with an easy-fitting tunic that comes only to the knees. This costume is even more chic and natty-looking than those previously worn by American hockey players and it gives the fullest freedom of movement in running, dodging and hitting the ball.

Those who have never seen a lawn hockey team in action should make it a point to see some of the coming international games. They will then admit that in this game the women have a sport that requires deftness of hand and eye, agility of foot, real sprinting on occasion, and no little courage. Physical directors of our large girls' high schools, preparatory schools and colleges have long bewailed the fact that there are so few games in which the women have the same opportunity to develop courage and especially teamwork as in the different sports of the men. Men through their playing on various teams develop a team spirit and an unselfishness, a submerging of the individual to the best interests of the team that has a real and lasting effect on their characters and makes them good sportsmen. This development of sportsmanship in the best sense of the term is a quality that the physical educators of girls and women desire greatly for their charges. In hockey and such sports, the women have the chance to develop these qualities of fairness, democracy, and respect for the ability of their opponents that are always admired in a man and doubly so in a woman.

Are not the majority of women to-day, especially in the town and city, physically weak? The writers on nervous disorders speak of the astounding increase of such diseases among us, of late years, in both sexes; but especially among the women. General debility is heard of everywhere. Most of our women think two miles, or even less, a long distance to walk, even at a dawdling pace; while few of them have really strong chests, backs, or arms. If they wish to test their arms, for instance, let them grasp a bar or the rung of a ladder, and try to pull themselves up one till the chin touches their fists. Not two in fifty will do it; but almost any boy can.

There is no calling of the unmarried woman where vigorous health and strength -not great or Herculean, but simply such as every well-built and well-developed woman ought to have-would not be of great, almost priceless value to her. All who work are confined for many hours a day, with exercise for but a few of the muscles; and with the trunk held altogether too long in one position; and that too often a contracted and unhealthy one. Nothing is done to render the body lithe and supple; to develop the idle muscles; to deepen the breathing and quicken the circulation-in short, to tone up the whole system. No wonder such a day's work, and such a way of living, leaves the body tired and exhausted. It would, before long, do the same for the strongest man.

-How to Get Strong, Blakie.



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How to Make a Record

(Continued from page 14)

this particular instance. Gourdin perhaps uncorked just a little extra speed, for granting a certain rise in the air, it is speed that carries one over the distance. All good broad-jumpers are necessarily sprinters. Then he must have enjoyed a particularly fortunate stride in reaching the take-off. That is a most important feature, sometimes a slightly baffling feature, of the running broad jump. One measures his strides in advance, very carefully, so as to reach the take-off, always to jump from the same foot, just so, or as nearly just so as he can contrive to make it. Of course, his calculations of his stride, careful as he is, are at best more or less approximate, never exactly precise. If he finds that he must either shorten or lengthen his stride even ever so little on the last couple of steps, it may interfere slightly with the success of his jump. Well, in this instance Gourdin, going faster than usual, must have reached the take-off just right for a good jump, and then probably got a particularly good rise in the air. Given the particular speed at which he was moving, it follows that the higher he jumped the farther he would go before he landed. So, in this instance, Gourdin chanced to hit upon the happy combination of the maximum of these and other factors, including probably his own psychology at the moment, and, behold-a tremendous jump, a leap such as was never made before in all athletic history. It was a leap such as Gourdin will very likely never make again. And one can only speculate as to whether anyone will ever surpass it.

Other records have gone this year. Desch, of Notre Dame, set a new mark for the 440-yard hurdle race, and Porohla, a big, blonde giant of Finland, who won the shotput at the Olympic games last year, recently eclipsed the fifty-one-foot record of Ralph Rose, made in 1909, by nearly three feet. Porohla, like Ralph Rose, did it partly because he is so phenomenally big.

But the real athletic sensation of the year is Charley Paddock. His achievement in running the 220 yards in 20 4/5 seconds is comparable to Gourdin's jump, displacing a record that had stood for twenty-five years. That record may stand for the rest of our lifetime; we'll be surprised if it doesn't. But who can tell, who can tell? However, Paddocks is the super-sprinter. His consistency in running more than once faster than other sprinters have ever run before, would seem to indicate that he has developed such proficiency as to take most of the element of chance out of the game. And yet, even he has only excelled himself on two or three occasions. Though he holds a number of records, several of these, for various intermediate distances, were made in one race of 300 metres.

Fifty Years of Football

(Continued from page 30)

Hinkey, of Yale, who was fast, powerful and a deadly tackler. For four years he was chosen as All-American end, an honor, which, to the best of my knowledge, no other player ever achieved. Other wonderful wingmen were Kilpatrick, of Yale, Campbell, of Harvard, Shevlin, of Yale, and. . . . Oh, there have been dozens of them. I should not forget Sam White, the Princeton flash, either. Twice in one season Sammy raced two-thirds of the field for touchdowns, after having recovered fumbles; his individual efforts beating Harvard and Yale.

Other famous linesmen, whose deeds stick in my memory are Hefflefinger, the greatest guard of them all, Hickok, of Yale, Buck Wharton and Hare, of Pennsylvania, Hillebrand, Bloomer, Cutts, Cooney, Piekarski; the list extends on indefinitely in my mind. Over a period of fifty years the style of play in football has changed so radically that one can hardly make a just comparison between the old players and the new.

The backfield men have always had the greater opportunity for brilliancy, and in consequence the most famous names in football are enshrined there. Johnny Poe, I

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mirror, and subconsciously you are led into striking hard blows with the weight of the body behind them, guarding, ducking, etc., in true professional style.

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have already spoken of. There follows an overwhelming crush of famous backs—the Indians, Seneca, Thorpe and Mount Pleasant; those great westerners, Eckersall and Heston; Corbett, Mahan, Brickley, Brooke, Mercer, Minds, Jack DeSaulles. . . To pick the best of the backfield men is even a bigger job than picking the greatest linesmen. I shall leave that task to others.

Close your eyes and go back, in imagination, even to the days before the first intercollegiate football game—say to Princeton of the '40's. On a blowy fall afternoon after thirty or forty fellows who had chipped in to buy a leather cover for a beef bladder would gather at the Cannon for a game of "football." There was no organization; no rules, except that the ball must be kicked, and not carried. By some scheme of allotment the crowd was divided into sides, and play began. The side won which succeeded in kicking the ball against East or West College.

Those games constituted the Birth of football in the United States. Now special trains pour their thousands into New Haven or Cambridge or New York; the enormous stands are packed with forty, fifty or sixty thousand people, who pay high prices to see college boys who have trained for months under \$10,000 a year coaches play the modern form of football.

Oh, yes, the wonderful old game has kept pace with the modernization of every other industry and sport. It has grown, in a business sense, to a point where it "carries" all the other sports in a university; for tennis, track, rowing, soccer, golf, gymnasium and all the minor sports suffer financial losses that the football team bears for them. It is not unusual for Yale, Harvard and other large institutions of learning to clear from \$50,000 to \$100,000 in net profits from the gridiron team.

These large sums of money added to an intense rivalry between the colleges has developed a "scouting" system, not dissimilar in principle from the one carried on by the professional baseball leagues. who star on their high school teams are coaxed to go to certain colleges. They are given "athletic scholarships" and their financial road is smoothed by those interested in football. A few years ago a scandal developed over certain footballers playing three or four seasons at one institution, and then going to another to continue the The rule barring Freshmen from becoming a member of a varsity team, and another preventing a man from playing more than four years of college football has put a stop to what might have become a very nasty situation.

There is nothing to be ashamed of in being a professional athlete—the shame lies in pretending to be an amateur, and accepting money or its equivalent under cover. Professional football is excellent in itself, but we do not want to mix it with the college game. So long as the sport is kept clean just so long will it continue to develop.

Football has not yet reached its apex ir popularity. It is still growing.

How to Develop the Muscles of the Sides

(Continued from page 27)

tunity for considerable action of the side muscles, but the nature of the game makes it financially prohibitive for the man of average means. No doubt, nearly everyone has seen some of the feats of horsemen picking up objects from the ground while their steeds were on the run. Of course, no one but an experienced rider could sensibly attempt such a stunt, but for anyone who is fitted for the work by reason of previous training and experience, it will prove a very strenuous exercise for his side

muscles. I realize that few have the opportunity for or care to practice such stunts, but the subject of exercise as applied to the sides would not be complete without mention of its possibilities; so I give it for what it is worth and next month, I will explain a method positive in results and practical to apply.

To be continued next month with a discussion of the best possible method of exercise to use for developing the sides.

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Athletics for Health and Efficiency

(Continued from page 10)

examination of a class in one of our large universities showed over a third of these men flat chested, and the majority of the men had had ordinary athletics and the socalled calisthenics that are developed in the schools-the same kind that showed over thirty per cent. rejects at the time of the selective draft. Now it is pretty hard for the average citizen and parent to discover under all these suggestions and advice and comparing them with results, just what he ought to do for himself and for his children. The problem is one of simplification and amounts to this, that the average child, the average man and the average woman is not so situated as to have a special private physician in constant charge. Such formulae as we have acted upon when deciding it by selective draft proved unsatisfactory. We must have something so simple and so short that it is possible to carry it on. One of the cardinal features is to get something that will be done. Another very important feature in respect to children, as well as boys and girls of college age, is that nearly nine-tenths of the exercise should be in the form of play, but in view of our experiences it is well worth while to have onetenth of it in the form of simple postural exercises which shall improve the carriage, deepen the chest and supple the body. With the younger children a minute or two three or four times a day of stretching exercises will suffice, devoting the attention to those which answer the above requirements. With youth of twelve or fifteen longer periods once or twice a day will answer the purpose, and when it comes to the more mature, six or seven minutes once a day, taken in connection with whatever play the individual has the opportunity for, will suffice.

The most pathetic figure in life is the middle-aged man, who has proven unable to keep up with the rapid advance of the times, whose inability to change his habits, whose inelasticity has landed him in a rut, who has failed to observe that the horse-car has been superseded by the trolley, whose eyes blink under electricity, and who in a dazed way wonders why people think he is a "has been" and want a younger man, whether he is in a profession or in business,

That man's body has been growing old. He has not renewed his youth. He is rusting more and more. His brain partakes of the quality of his body and that body's parts have forgotten what it was to be supplied with fresh arterial blood several times a day. He has his easy chair and his newspaper, but a good deal even of that newspaper does not appeal to him because it is too modern. His children forget to consult him. Every new move comes as a surprise to him, and finally he is pushed to one side, even in his business or profession, and is looked upon with pity by all who surround him.

One cannot let the human machine grow rusty without the same or similar consequences that follow the neglect of any machine. This man did not need to let himself become such a pathetic figure. He simply became first careless, then indifferent and finally woke up to find that he could not "come back" and so let himself drift.

Then the thousands of carefully-nurtured women, British, French, American, who exchanged the ball-room frock for the nurse's garb, who donned the overalls of the machine shop, and the mothers who saw their boys leaping from school books to the call of war, what new thoughts went through all these strangely stimulated brains? Ah indeed, this has not only "made men of us," but it brought a kindled consciousness to women, placed some strange values upon society long surfeited with the weaknesses of an over-civilization. A girl found that she admired a man more for his strength and courage, a mother found herself anxiously wondering whether her boy could stand exposure and hardship. If her boy was a weakling, she found herself wishing he were like her neighbor's son-sturdy and deep-chested.

And now why should we not profit by all these lessons? Must we slip back to old fetiches that failed us when the emergency came? When we found in a selective draft that one boy out of every three was unfit, we then and there made up our minds that something was wrong somewhere. Our sports had developed courage, discipline and

adaptability, but not stamina. We had flat chests too generally. We had round shoulders too frequently. We had flat feet where we had no thought of it. Now these defects are wholly unnecessary. Those thirty-three per cent, rejects can be brought well under ten. Nor is it necessary to spend any more time upon calisthenics or exercise or sport than we were spending before the war. The matter is perfectly simple and the proof is readily at hand. The only question is are we willing to apply the lessons? We should give up no part of our sports and we should even extend them. But we should simplify and even curtail some of our so-called calisthenics. We should make them concern the trunk and the vital organs and not the always efficient legs and arms. Here is what a surgeon has said:

"In the way of set-up exercises what we really need for practical use is something in which the individual loses every suggestion of strain. He should become perfectly supple in body. All strains and tensions should be missing, and his muscles and trunk work like an oiled machine. This produces a mental effect of freedom and confidence, an exhilaration of spirit which takes the place of the old jaded and tired-out feeling that comes from over-muscular effort at exercises that are tedious and exhausting."

And we need these postural exercises for our boys and girls as we never needed them before. Many of our young people may have opportunity for sports but one or two days a week. They can have a few minutes of the other work once or twice a day. And this set-up will make them better ready to enjoy their sports, to be more successful then and finally to be far more efficient in their work, whatever it is, and to be less prone to illnesses and disease.

EDITOR'S NOTE: Owing to circumstances beyond our control, the last of the series of articles on Hand-Balancing, by Robert B. Snyder, Jr., was omitted from this issue. It will appear in the December issue.

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Eat and Be Healthy

(Continued from page 16)

erals the protein can't be absorbed. The body simply does not assimilate it, and there it is, coursing in the blood till it can be eliminated. Under such conditions that protein becomes a poison; and when it is finally converted into an acid, with no alkaline substances present to neutralize it, you have something whose continued presence can eventually break down the whole system.

On the balance which is maintained by nature between these acids that are produced by some of the food we eat, and the alkaline substances which are produced from other foods we eat, depends the normal functioning of the body. The minute you introduce into your diet, therefore, foods which have been deprived, in the process of manufacture, of these indispensable base-forming minerals, you knock the whole works into a cocked hat; you throw a monkey wrench into the machine.

Your whole problem is to choose foods which will best maintain this balance between the acid and the alkaline products on whose reactions so much of the body chemistry depends, and to remember always that unless those reactions take place food can't be assimilated by the tissues, and that it then becomes an active poison instead of a food.

Of course the rational thing to do in this matter is to eat largely of foods which naturally contain both acid forming materials and the base-forming materials in the best possible proportions. Milk is one good example of this, The whole berry of the wheat is another. Unpolished rice is another. The egg is another.

But if you throw away the outside of the wheat berry and keep the starchy inside of it, in the form of white flour, and eat it as white bread, you have the acid forming part of the wheat. If you take the brown berry of the rice, and polish it till it is white, you have left the acid forming part of the rice. If you eat the white of the egg and throw away the yolk you have kept the acid forming part of the egg. Crackers, tapioca, cake, cornstarch, refined cornmeal, and the like, are other examples of the devitalized foods of commerce on which most of us live so largely without realizing the effect they have. Even our white sugar has been refined till nothing but the acid forming elements are left from what was once brown sugar, a real food.

The key to the dietetic problem lies largely in the consistent avoidance of these products of modern commerce, and the substitution for them of articles of food which have simply been left in their natural state. Follow that rule, and old Mother Nature will be so good to you that you'll have a better opinion of the old dame than you ever did in the past, particularly if she has ever punished you for your sins.

In a later article I shall try to give some specific information on what foods to look for and where to find them. In still another I shall want to go into the subject of whole wheat bread, the real article, and how to make it and have it on your home table. That is the most important single item in the whole diet question.

But in the meantime, here are some suggestions on what to eat, based in part on the menus given in Alfred McCann's "The Science of Eating." For breakfast, fruit, cereal, whole wheat bread, and coffee if you care for it. Avoid most of the patented breakfast foods as you would a plague. Use natural brown rice; old-fashioned oatmeal, as distinguished from ordinary rolled oats; cracked wheat; or corn meal porridge made from whole corn meal, and not from the demineralized product that passes for such. If you want eggs for breakfast, go slow on the cereal. You will find that the orthodox breakfast of cereal, bacon and eggs, and white bread is a sure road to constipation and other trouble. With regard to dried fruits, at breakfast or other meals, see that they are unsulphured. The people who manufacture foods have a way of bleaching their dried apricots, and the like in sulphur fumes to make them pretty; but they don't care much about what the sulphur will do to your insides. have to look out for that yourself. Pancakes are good for breakfast if you'll use whole wheat or whole corn meal to make them with, and sweeten them with honey or open kettle molasses. The honey, richin mineral properties, you can easily get, The open kettle molasses you probably can't. We get a refined demineralized, sulphured, worthless product in the north which is called molasses by courtesy,

This, of course does not cover all the possibilities for breakfast, but it gives suggestions that point in the right direction, and your own common sense will carry you the rest of the way.

Dinner is a more elaborate problem, but the theory of it isn't particularly complicated. Vegetable soup, made of four or five fresh vegetables and greens ought to be one of your standbys. It contains those needful mineral elements in abundance. Don't throw away the juices of the vegetables that are served with the dinner. They, like the soup, contain the minerals your body needs. Thrown down the drain, they won't do you much good. Don't boil the potatoes. Steam them or bake them. If you boil them, the mineral elements go out into the water, and your potato becomes a soggy mess of acid forming starch. like the white flour from the wheat. Eat the potato skins and all. The skin is the bran of the potato, and is rich in minerals, and base-forming elements. Potatoes, carrots, beets, turnips, and parsnips are a combination that will furnish you with an admirable variety of mineral salts at all times. Make them your staples.

Of course you will go in strong for fresh green things like lettuce, endive, onions, tomatoes, and the other things that make a good salad, and you'll never fail to have a salad of this kind with your dinner. If you've never learned to like salad, begin, Most people don't know how to make a good salad dressing, and consequently don't like salads. Find out. Lemon juice, olive oil, salt, mustard, and paprika will turn the trick if you mix them well,

"The weaker the body, the more it commands; the stronger it is, the more it obeys."

"Strength of body and strength of mind; the reason of the sage and the vigor of an athlete, exhibit the most perfect model of a man, and the highest refinement of the mind."-ROUSSEAU.

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FRESHMAN SEES MAHAN PUNT, ADVISES HIM TO TRY FOR TEAM

Cambridge, Mass., Oct. 1.-Although the football fame of Eddie Mahan, considered by many the greatest football player of all time, may live after him it does not attach to him now with all students at Harvard. his alma mater. Eddie came back to Cambridge to coach this year, trying to teach the young gridiron idea the details of his famous triple threat. A freshman in training for a manager's job saw him kick several of the twisting punts that formed one of his several specialties. The freshman approached him and remarked: those are great spirals you are getting away." Mahan's answer was the smile known on every gridiron on which he has played. The freshman stayed to see some more, then blurted out: "Say, do you know, I'd advise you to go out for a back on the freshman team. You might make the eleven. Have you played football much?"

SCIENTISTS SAY EXPERIMENTS REVEAL RUTH AS SUPER-MAN

Science has discovered why Babe Ruth is the greatest home-run hitter in the history of baseball. Further, it has found that Bambino could surpass every record he has made so far by eliminating his present waste of energy.

The experiments on Babe were conducted by two Columbia University professors-Albert Johnson, M. A., and Joseph Holmes. M. A., of the Psychological Department. Hugh S. Fullerton, writing in Popular Science Monthly for October, describes how they measured Ruth's bodily efficiency, his intelligence, as demonstrated by quickness of understanding, and his coordination of eve, brain, nerves and muscle. It was found that:

Ruth is 90 per cent. efficient, as compared with the human average of 60 per cent. His eyes are about 12 per cent. faster than those of the average person. His ears function at least 10 per cent. faster than those of the ordinary man.

Even more interesting than these facts

is the reported discovery of how, breathing scientifically, Babe might hit the ball much harder and farther than he does.

"Baseball employs hundreds of scouts to explore the country and discover baseball talent," concludes Mr. Fullerton. scouts are known as 'ivory hunters,' baseball owners take the hint from the Ruth experiments, they will organize a clinic, submit candidates to the fest undergone by Ruth, and discover whether or not other Ruths exist"

The scientific ivory hunters, dissecting the home-run king, found brain instead of bone, and showed how little mere luck or even mere hitting strength has to do with his phenomenal record.

PUBLISHER'S STATEMENT

Statement of the Ownership, Management, Circula-tion, etc., required by the Act of Congress of August 24, 1912, of Strength, published monthly at Philadel-phia for October 1, 1921.

State of Pennsylvania, County of Philadelphia,

Before me, a notary public in and for the State and county aforesaid, personally appeared J. C. Egan who, having been duly sworn according to law, deposes and says he is the Editor of Strength and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication, for the date shown in the above caption required by the Act of August 24, 1912, embodied in section 443, Postal Laws and Regulations, printed on the reverse of this form, to wit:

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1. That the names and addresses of the publisher, editor, managing editor and business manager are: Publisher, Milo Publishing Co., 301 Diamond St., Philadelphia, Pa. Editor, J. C. Egan, 301 Diamond St. Managing Editor, none. Business Manager, none.

2. That the owners are: (Give names and addresses of individual owners, or if a corporation, give its name and the names and addresses of Stockholders owning or holding 1 per cent. or more of the total amount of stock.) D. G. Redmond, 301 Diamond St.

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How Captain Smith Discovered the Greatest Secret of Jujitsu

Captain Allan Smith, for three years chief instructor of Jujitsu in the U. S. Army, has instructed thousands of our men in Infantry Camps throughout the country in this most effective method of hand-to-hand combat. Today Captain Smith is the greatest exponent of Jujitsu in America. You will welcome the opportunity to learn his wonderful secrets.

OR years Japanese teachers have attempted to introduce Jujitsu into this country. Highly skilled themselves, they nevertheless could not seem to impart the skill to their pupils. They lacked the knowledge of the fundamental secret of Jujitsu-a secret that now enables you to easily master this mysterious science.

Captain Allan Smith for ten years studied and taught Jujitsu in Japan. He wrestled with the cleverest Jujitsu artists in Kodokwan (Central

Jujitsu College), in Tokyo.

In 1915 Captain Smith won the Black Belt-a mark of the greatest distinction and an unassailable evidence of his supreme skill. In Japan, Captain Smith is known as the only foreigner who really mastered Jujitsu.

But Captain Smith went beyond becoming expert in Jujitsu. He analyzed the source of this power which Jujitsu gives over men. And out of his years of research, he brought to light the greatest secret in this science of Jujitsu-The Stahara.

Jujitsu Gives Mastery Over Men

This elusive "secret principle" of Jujitsu, Captain Smith brought back to the United States. He tested it in the army during the war. Its success was sensational. This secret and the art of in-structing Jujitsu which Captain Smith developed made it possible to train entire regiments at one

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An Army official in commenting on Captain Smith's course said, "Jujitsu is a clean fascinating sport, training not only the muscles but the nerves and brain. By combining it with physical training, monotony is avoided, the interest of the pupil being kept at a maximum all the time.'

Captain Smith's Service to Civilians

So phenomenal was Captain Smith's course in the army that it was urgently sought outside of the service. In response to this popular demand, he published the "Secrets of Jujitsu."

This Course contains an explanation of Captain Smith's all-important basic "Secret principle." All the secret holds, breaks and tricks of Jujitsu are described and illustrated by over two hundred and fifty actual photographs. The method of instruction is brought to such a point of efficiency that even a child can easily understand and practice the tricks.

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Lieutenant Oliphant, former All-American choice in football, baseball and basketball, wrote to Captain Smith, "I am very much impressed with your course, 'The Secrets of Jujitsu,' on account of the very scientific principles on which it is based. It provides an effective weapon of self-defense, which one can always carry around. Your system of body training, which is learned not by calisthenics, but by doing the tricks marks a new era in Physical Training."

Benny Leonard, lightweight champion of the world, says with regard to Stahara Training, "I do not think there is any other method of training so beneficial to the body. This training teaches men to put their weight into their blows and to use their body when punching instead of their arms alone.

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