

STRENGTH

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AUGUST, 1921

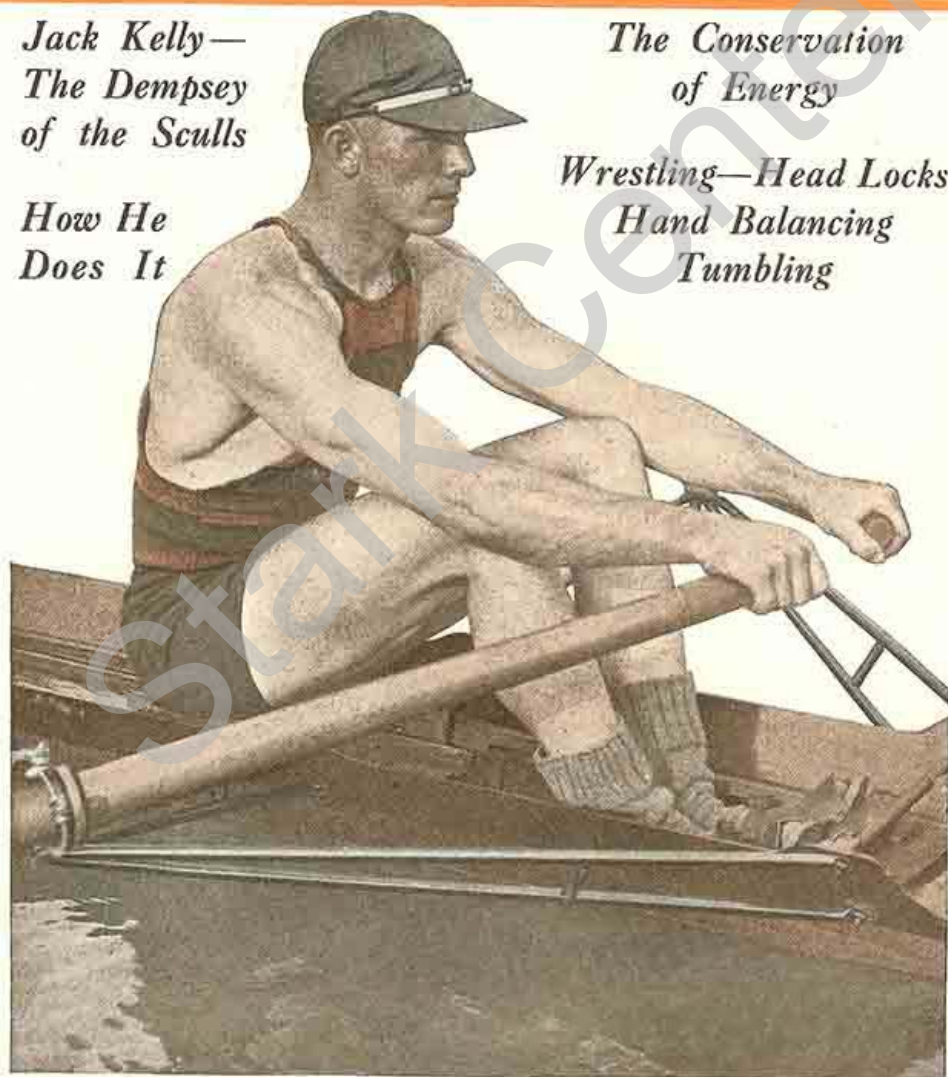
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*Jack Kelly—
The Dempsey
of the Sculls*

*How He
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*The Conservation
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*Wrestling—Head Locks
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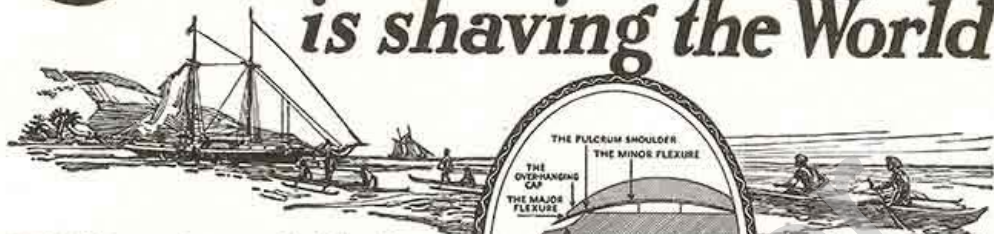
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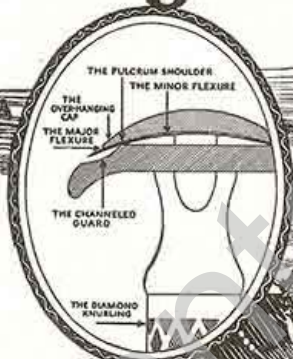
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STRENGTH

Vol. 5

AUGUST, 1921

No. 14

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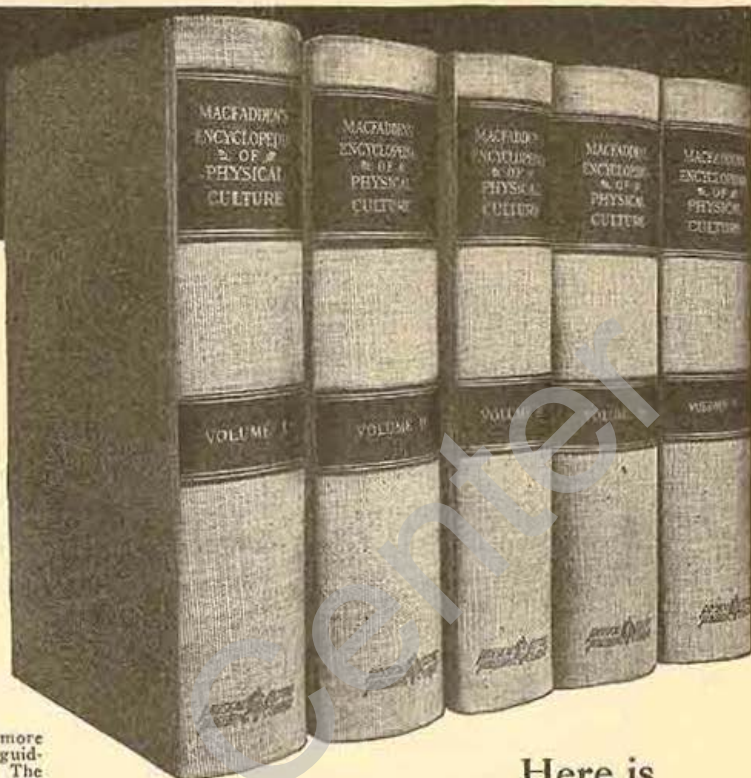
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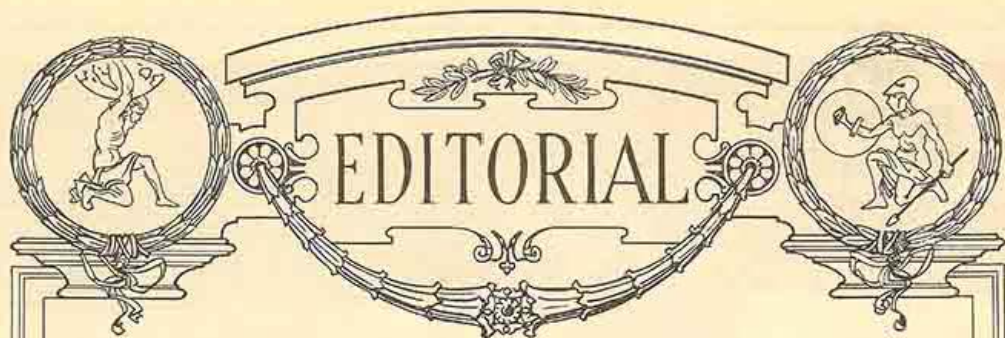
give first aid in emergencies apply home treatment for disease recognize diseases by manifestations build nervous energy treat the common forms of disease understand the process of reproduction benefit by laws of sex and marriage treat diseases of women diagnose diseases have healthy and vigorous children treat female disorders treat male disorders obtain virility and manhood care for the complexion manicure: care for the hair and feet cultivate the mind

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"MY HARDEST BLOW FAILED."

THERE is just one thing that the sporting world loves better than a winner—and that is a good loser. When Jack Dempsey knocked Georges Carpentier for the count on July 2nd, Georges did not rise up with alibis and explanations, following the precedent of many illustrious athletes who had gone before. He did not apologize for losing, and predict what he would do to Jack in the next encounter. When he injured his hand in the second round, he had every opportunity for framing an alibi. He hit Jack with everything he had, and it didn't stop the champion.

Georges knew then that he could not win, but he didn't quit. Not much. He was game to the end. He had the spirit and the courage but Dempsey was too strong for him, for a good big man can always beat a good little man. And when it was all over, he was disappointed, of course. But he took his defeat like the soldier and philosopher he was, and conceded that the best man won. "My hardest blow failed," he said, and offered no alibi. A defeat, but an honorable one.

Georges Carpentier lost his long sought opportunity for acquiring the world's championship. Of the esteem and regard of the world, he lost nothing. A gentleman, a soldier, and an athlete, he can well be emulated by the youth of France, yes, and of this country too.

Anyone can be a good winner, but it takes the real sportsman to be a good loser.

AN ATHLETIC LEAGUE OF NATIONS.

ONE of the things we need to promote welfare—mental as well as physical, is an athletic league of nations. Although our physical and mental qualities are more or less separate and distinct, the state of mind is absolutely dependent on the state of the body, and if a person has a diseased mentality, it is because his physical condition is impaired through neglect. Disease of the body and of the mind can both be prevented by proper care of the body.

So why not a new league of nations, a league to promote international athletic competitions and thus stimulate a healthy interest in things physical? Disputes between nations could hardly be settled in the same manner as was the controversy between the American champion and France's "Man of Destiny." But such competitions help to promote good will and understanding between nations, and do more to foster good will between nations than tons of armament and oceans of ink.

Give us more champions—more Jack Dempsey's—more Tildens—more Babe Ruths, more Jack Kellys. Not only that our youths may emulate their examples, but that older people may also be aroused to interest in things physical, and we will have a saner and better world. An invading band of athletes can do more for their country than all the armies ever assembled.

INTERNATIONAL ATHLETIC COMPETITIONS.

ALTHOUGH the Dempsey-Carpentier bout was the most spectacular international contest ever staged, international competitions are now very plentiful. A French track team recently visited this country, and now the combined track teams of Oxford and Cambridge Universities are to meet the united teams of Harvard and Yale, and the British teams will later meet Cornell and Princeton individually.

American golf, tennis and polo athletes have been competing in England. Japan recently invaded us with a team of embryo Babe Ruths. Things are on the move in the world of sports, and it's a good thing to keep them that way. What we would really like to see is a team of American weight-lifters compete against the lifters of Europe. It will no doubt come in good time.

①

PROF. E.T. WITHGUSTO, THE NOTED "DIE" TICIAN, SAYS THAT THE ONLY WAY TO KEEP FIT IS TO GIVE YOUR STOMACH A LOT OF EXERCISE



③

—AND OLD DOC. SLUMBERON ADVISES US NOT TO NEGLECT OUR VOCAL EXERCISES IN BED — (THIS IS GREAT STUFF FOR THE RESPIRATORY ORGANS!)



②

—WHILE THE ILLUSTRIOUS SAGE, DR. WHISKEYBEERO TELLS US THAT WE SHOULD CONSUME LARGE AMOUNTS OF LIQUIDS IF WE VALUE A ROSY COMPLEXION!



④

—LAST-BUT NOT LEAST — OUR OLD PAL NICKY TEEN, IMPLORES US NOT TO FORGET THE DAILY STIMULANT— ABOUT 47 CIGARS A DAY —



Good Morning! Have You Had Your Shower?

By JOHN MADISON JONES

TO many people, a bath is just a wash. But to those who have learned how to live, bathing is an art.

The keynote of this art is the shower. At least so it seems to me, for I have found that a good, practical shower, supplying both hot and cold water, offers everything that one wants in a bath.

I was a pretty consistent physical culturist for a long time before I really learned the art of bathing. And that means getting both benefit and pleasure from the water with the least inconvenience.

A bath may be almost anything from a Saturday night wash, using a little basin of warm water, a piece of soap and a wash-rag in an unimproved farmhouse, up to two or three hours in a Turkish bath establishment. You can get a bath by being caught in the rain, or by falling in the river, or sometimes even by talking back to your wife when she is drawing water for the coffee-pot. But the ideal bath, as I have said, is found in a shower.

I started out to tell you what I have learned about bathing just as if I knew all about it. But I was a long time in learning the few things, or what I would call the A B C's of the bath. In the beginning, a bath was just a bath, something to make you clean. And, of course, that is a great deal. How much it is depends upon, well, upon how much you need it. Instance your own favorite story about that bath twice a year, whether you need it or not. But in time dawned upon me the fact that there is a twofold purpose in bathing: first, cleanliness; and, second, the tonic effect. It is because of having learned this twofold use of the bath that I finally figured it out that it should be a daily morning affair, instead of the old-fashioned Saturday night proposition. If it is good once a week, it is seven times better once a day. I adopted the theory that it is better to do a little cleaning every day, that is, enough to re-

move one day's dirt, rather than to accumulate the dirt and sweat of seven days and then unload the whole lot at one fell swoop, that is, at one strenuous washing.

In the first place, I think it is a good thing to start the day clean. One has more respect for himself. And that very fact gives him poise and energy. The old saw that "cleanliness is next to godliness" is exactly expressive of the moral value of being clean. That is why in the army soldiers are compelled to polish their buttons, brush up, and to keep themselves presentable. Personal slovenliness predisposes to a sloppiness of character. Over in France, no matter how filthy the condition of the trenches, the men shaved every day because it helped to keep them "up to the mark" in respect to that curious but important thing which we call morale. And so I figured it out that the bath should be a practice designed not only to get one clean, but to keep one clean, and that means making it a daily affair. Along with this, I adopted the practice of a change of underwear every day. To do this you may need to buy more underwear at one time, but you will scarcely buy more underwear in the course of the year. It means more washing in respect to the number of garments, but, on the other hand, it means less washing for each garment.

Of course, a shower offers the only completely sanitary form of wash. I used to take a couple of warm baths a week—not both on the same day—in the tub. But I finally figured it out that by the time I had been in the water for a while it was dirty water. There is no such thing as a perfectly clean tub bath. Of course, it will serve, and it is clean enough for practical purposes. And also there is the advantage that a warm bath is very restful if it is not too hot. And yet if one is fastidious, the only way to get washed clean is to use a clean bath, and a shower is the only ab-

solutely clean bath, because it gives you the contact with clean water all the time. (To be confidential, however, the thing that interested me more than the sanitary aspect was the question of washing the bathtub before or after taking. While I like to wash my head and my feet, I do detest washing a bathtub. In a shower, you simply turn the water on, and there you are!) So far as the cleansing end of it is concerned, you merely turn on the water, get wet, soap yourself, then step under the warm shower, and when the soap is rinsed off the dirt and sweat have gone with it. Behold, you are clean! After that, cold water. And I hold that is all one needs for purposes of cleanliness, at least so far as the ordinary healthy person is concerned.

Of course, there are medical results to be secured from other forms of bathing: hot baths, sitz baths or moderately warm baths for relaxing the nerves and relieving excitement, as in the case of nervous people. There are vapor baths, dry hot-air baths, electric-light baths, very hot-water baths, and all that, for inducing copious perspiration to purify the blood. And there is the Turkish bath, a strenuous performance by which a man tries to make up in a couple of hours of skin activity for what he has lacked in muscular activity during the month past. If he had taken regular exercise and perspired a little every day and washed a little every day, his body would not be in a condition such that he would need a Turkish bath to break up his cold or otherwise give him the "house-cleaning" that he gets in that way.

Now that we may assume that we have provided for cleanliness, let us consider the other purpose of the bath, and that is its tonic effect.

There was a time when I undertook to do an entire system of physical training the first thing in the morning. As I became stronger and undertook rather vigorous exercises, I came to the conclusion that I was using up too much energy in my exercises the first thing in the morning, considering that I needed all my energy in my work, and by experimenting learned that it was better for me to take my strenuous exercise, not necessarily every day, but two or three days a week, in the late afternoon. That is my present practice. I

can take this exercise either in the form of bedroom exercise for physical development, or in some form of outdoor athletics. As I studied the problem of working out the best keep-fit system, there came to me the notion that instead of a lot of exercise in the morning, I might make use of the "setting up" value of a stimulating bath. And I still think that is a great stunt. A little exercise in the way of bending and stretching, just enough to warm one up, followed by the regular shower, gives one a refreshing bodily "set up" for the day's work. Too much exercise in the morning is fatiguing. One may feel fine for an hour, but also he may feel tired at four o'clock in the afternoon. On the other hand, exercise at five-thirty p. m. is a welcome relief from the mental application of the day's work.

I read somewhere the comment that a cold bath could not do one any good unless he enjoyed it. That sounded rational, so I determined to get as much fun out of it as possible. I concluded that I had overdone it. In other words, that I had been too strenuous in attempting a reaction from a bath that was too cold or too prolonged. What one desires in a cold bath is simply the nerve stimulant, and with it the stimulation of the circulation that one secures in the *first reaction*. Therefore that first reaction is all that one desires. Of course, the cold water *feels good* under the circumstances, and one may enjoy remaining in the cold water because of that. In time the reaction passes off and one becomes chilled. That is the thing to avoid. Consequently, I found that, in my case at least, the art of cold bathing consists in making it short and sweet. In other words, the way to take a cold shower or plunge is to get into it and then out of it—just like that. Even those of poor circulation, and what one would call weak recuperative power, can take a cold bath in this manner and get away with it.

Among other things that I have learned about bathing, and which I would regard as the first principles of the *art*, are the following:

In order to feel warm after a bath, one should be thoroughly warm before taking it. If you are already chilly, it will re-

(Continued on page 44)

The Dempsey of the Sculls

By J. C. KOFOED

THIS country has developed a breed of specialists. All-around ability is no longer a virtue; "jack-of-all-trades" in athletics are abominated. While this may be an excellent thing for the accumulation of records and championships it is not necessarily for the good of the race. Each specialist strives to build up those muscles most vital to success in his sport—and neglects, to a certain extent, the rest of his body. You can see the bulging muscled wrestler, who seeks sheer strength without agility; boxers with powerful arms and shoulders and spindling legs; runners and jumpers who have gained leg power at the expense of the upper body. There are few champions who are well rounded—and the best of these is Jack Kelly world's champion sculler.

I am not in the habit of writing panegyrics, but Kelly is well worthy of all that can be said of him. He combines a perfect body with a keen brain and a personality that makes him a favorite wherever he goes. Not being a press-agent I won't continue to harp on personalities, but will tell you something about Kelly's career, and his training methods.

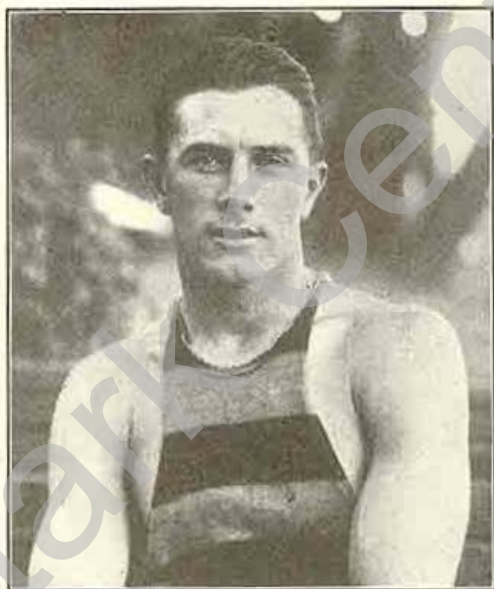
Rowing is, essentially a college and amateur sport. It cannot be conducted on a strictly financial basis as are baseball and boxing. Possibly because of this, and more probably because a close race on the river presents a blood-stirring spectacle rowing stands well to the front in public estimation. And to Kelly more than any other single

performer with the sculls is due America's prestige on the water. He is really the Dempsey of the sculls—or, if you prefer, the Tilden or Hoppe. At any rate, he is far ahead of his closest competitor.

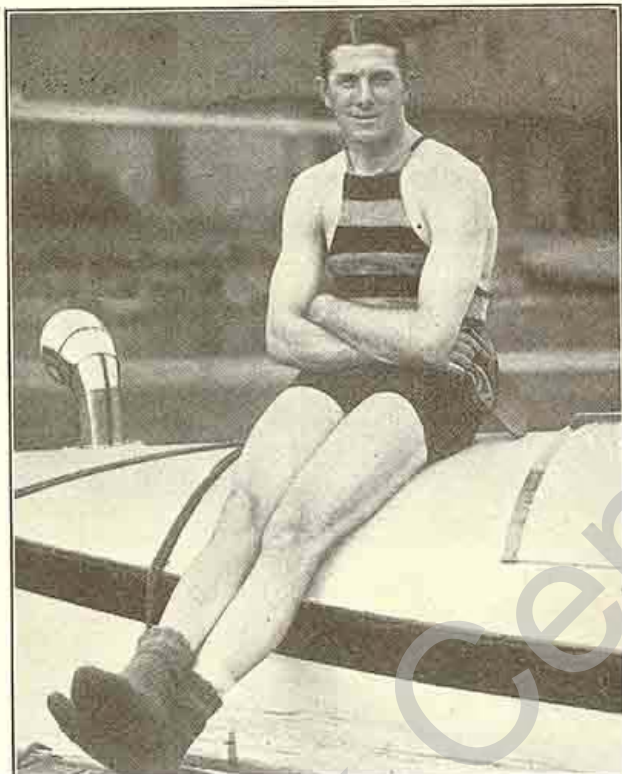
In one way, at least, rowing is different than any other sport. No phenomenon has blazed into prominence after only a year or two of effort. In golf Bobby Jones was a national figure when only fourteen, and the recent advent of Stephenson, the Cleveland second baseman, proves that there are some folk born with baseball instinct. But sculling requires longer and more continued effort, self-sacrifice and rigid training. Even Kelly, the superman of the oars, worked for years before gaining the degree of proficiency required in a champion.

Jack started his work on the river in 1909. In those days he was a tall, weedy youngster, who had outgrown his strength; six feet one as a matter of

fact, but weighing only 145 pounds. In the twelve years that have passed Kelly has developed into a magnificent athlete, scaling 175 pounds when in condition. Rowing is not the only sport at which he is proficient, though it is the one in which he takes greatest interest and pride. Football, basket-ball and swimming rank next in his affections. I recall that, after the Armistice, Jack played basket-ball with the Champion Tours five that trounced all their opponents in the A. E. F., and won the title in a walk. He had to be a corking good player to hold a regular position with that club, for it numbered



© International.
Jack Kelly, Olympic and National Sculling Champion.



International.
Kelly combines a perfect body with a keen brain and a personality that makes him a favorite wherever he goes.

Dave Kerr, the famous Eastern League professional, and other stars of the cage-game among its personnel.

A year represents about fifty weeks of athletics in John B. Kelly's life. About the first of March he starts training for the rowing season, which continues until Labor Day. Then, after a short rest, comes the football season, with its tense struggles and multitudinous bruises. That does not end until the first of December, when basket-ball and indoor swimming hold the stage until the rowing season starts again on the first of March. Thus runs the cycle.

Don't misconstrue this statement, please. Kelly is a worker, and athletics occupy only his spare time. His letterheads read:

**JOHN B. KELLY
BUILDING CONSTRUCTION**

and they mean exactly that. He is no diletante at business—playing at it to kid the public and himself. A full day's work is exactly what he gives to his work. Then

how does he train for his races, you ask? That is what I wanted to know, so I asked him.

"When preparing for a big race," said Jack, "I go to the river about five-thirty every evening and row for an hour and a half. This period consists of a quarter-mile dash for sprint purposes, and a mile and a quarter race, with something to pace me, for endurance. The balance of the time I spend in improving my form. I have dinner at eight, and roll into bed at ten.

"I continue this every day up until three or four days before the race, when I eliminate the mile and a quarter race, and just do the quarter mile dash. This, of course, is because I am sure of my endurance by that time, and want to add to my speed. Speed and endurance! Those two words sum up the entire need of the sculler.

"In illustration I will refer to my last race with Bob Dibble, the Canadian-American champion on the Schuylkill River, July 4th, 1920. Dibble had

beaten me three times in succession until I broke his winning streak in the 1919 regatta. He claimed that that victory of mine was a fluke, and I wanted to win this race more than anything else in the world.

"Rigling of Undine, and Duncan, of the Potomac Club of Washington, also started, but after the first quarter the race settled down to a battle between Dibble and myself. At the end of the first half mile there was not an inch to choose between us. We rowed stroke for stroke, with not three feet of water between our oars. Finally Bob spurted, and half a mile from the finish was a length ahead.

"I increased my power, though holding the stroke the same. When I had cut his lead in half I raised my beat two points, and was surprised to find myself even with him almost immediately. Then I laid into it. My head throbbed, every muscle in my body ached. I was working at the very top of my limit, and strive as I could an addi-

tional spurt was impossible. It seemed an eternity since the race had started, and the only consolation was in knowing that Dibble was, at least, as hard put to it as I was.

"At that moment the value of the long and careful preparation I had gone through was apparent. No oarsman not in the very pink of condition could have kept up that pace. But somehow or other I did, and as Dibble cracked a short distance from the line I shot over a winner by two lengths. It was a wonderful race, and it meant more to me than any other in which I ever engaged, with the possible exception of the final Olympic tilt with the Diamond Sculls winner, J. Beresford, from whom I won the world's title."

Condition! What a world of meaning there is in that word. It does not merely signify a spurt of hard work over a period of a few weeks or months—work that will harden a man's muscles and put a glow in his cheeks. Jim Jeffries proved that in his Johnsonian Waterloo. He was hard, no question about that, but underneath were the tissues, nerves and muscles weakened by years of soft living and dissipation. Real condition is the perfect coordination of every fibre in one's being. Kelly has so drilled his body that a short period of intensive training will bring him to the point. Though, naturally, every man cannot make of himself the sort of athlete that the champion sculler is, he can bring himself into better shape than he has ever been.

Last month I told you something of Pat Moran's training methods. One thing he demands of his men is that they get plenty of sleep.

And Kelly?

He says, "If I were asked to give just one line of advice to young and aspiring athletes it is this: 'Take plenty of sleep. It is the most important of all training features.'"

Sleep is the great revitalizer. It builds up the worn nerves

and burned out tissues that are the price of modern life. No athlete ever succeeded in getting into good condition without plenty of sleep. So, isn't it logical to believe that whether you are training for an athletic event or just for the daily grind of life that you should get plenty of sleep. John L. Sullivan tried training under the arc lights and doing his road work along the Rialto, and that, as well as whisky greased the slide for his descent into the Down-and-Out Club.

It has been Jack Kelly's business for the past ten years to keep in condition. It meant self-sacrifice. He had to give up a good many things that a young man craves. He has never smoked nor drank, and his adherence to the theory of plenty of sleep forced him to cut out many a jolly party. Yet Kelly has been well paid for his sacrifices.

Certainly the pride that swelled in his heart as he rested on his oars after winning the world's championship was worth many



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Jack Kelly shaking hands with King Albert at the Olympic Games.

an hour of hard work. The band played "The Star Spangled Banner," and the crowd shrieked their appreciation of this young man, who had beaten the Swedish and Australian champions as well as Beresford in the biggest event of his sport. He had brought another championship to America, and had accomplished everything he set out to do.

We cannot all achieve glory by keeping in good physical condition. Even though we keep fit and hard as nails we have neither the skill or stamina to compete with the Kelleys or the Tildens or Dempseys. That is not necessary. But Jesus spoke of "the temple of your body." Why should not that temple be kept as fine and clean as possible? That, in itself, should be compensation for the trouble it causes.

It is a long step from the thin, scrawny Johnny Kelly of 1909 to that acme of physical perfection—the Jack Kelly, of 1921. In those days no one outside of his immediate neighborhood had ever heard of him. Now his name is known wherever sportsmen congregate. Better, even, than his athletic fame, is his reputation for being one of the cleanest, best hearted men this good old world has ever seen. He is a good talker, which is natural as he is brother to Walter Kelly, the Virginia Judge of vaudeville fame. He is handsome enough and a clever enough actor to make big money in the movies, from which he has received more than one good offer. But Jack goes along in the contracting business and winning world's sculling titles on the side. Life—for him—is big and fine.

In few lines of sport is one man so dominant as is Jack Kelly in rowing. Another Philadelphian—Bill Tilden—holds an equivalent rank in tennis, but in golf, baseball, football, in all the grades of boxing save that dominated by Dempsey there are men close enough to the champion in skill to give him a desperate fight. Not so with Kelly. He is monarch of all his surveys in the single sculls. And to keep that supremacy in the family, he trains up with his cousin, Paul Costello, and sweeps the doubles.

Naturally enough, Kelly recommends rowing as the ideal sport for building up a man's physique. It is not necessary to take it up as he has done—to specialize in that

sport. Beyond a doubt it exercises every muscle in the body; it is a builder when done in moderation. But for a man physically and temperamentally unfitted for racing it would be suicide. Nearly every successful oarsman is big boned, muscular, or, with the foundations for solid coating of muscle.

Let me slip in a tip of my own. Take up some sport, whether it is rowing or golf, baseball or boxing. There is nothing in the world so calculated to keep the average business man in good health and spirits as a deep interest and participation in some form of athletics. And, if you live properly and get plenty of sleep you won't need to save up money for doctor's bills.

How Tall Are You?

Most men are quite positive as to their exact height and would become indignant if you questioned the accuracy of their statements in that respect, but, as a matter of fact, no man can say, unless he has just then been measured, exactly how tall he is at any particular time. If the original measurement on which he bases his statement was made early in the morning, he has been crediting himself with too much height most of the time, while he has not given himself all the height to which he is entitled if the measurement was made in the evening. This for the reason that all persons are taller in the morning.

The disks of cartilage between the twenty-four vertebrae of the backbone yield considerably to the pressure due to the weight of the body when it is erect, and expand themselves while the body is in a recumbent position. The effect in the case of a fairly heavy man of average height may amount to a half inch, and in the case of a policeman or postman who walks upon pavements all day, the difference in height at morning and night might amount to three-quarters of an inch.

These are facts worth keeping in mind if you contemplate a physical examination for some appointment requiring a certain height, and you are very near the minimum. Do not stand or walk much before the examination—and take it in the early morning.—*Phila. Record.*

Hand-Balancing

By ROBERT B. SNYDER, Jr.

Editors' Note:—This is the first of a series of articles on Hand-Balancing. It will be continued in the next issue.

HAND-BALANCING and weight lifting are twins; they help each other. The most famous weight lifters of the world to day (below the heavy - weight class) indulge or have indulged in the practice of hand - balancing to a greater or less degree.

The weight lifter who is able to "Dip" on his hands, is never without means

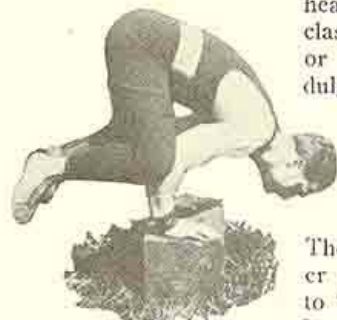


Fig. 1

of keeping in weight-lifting trim, and always has a "terrific two hands-press" at his command. So if the aspiring young weight lifter really wants to make some respectable lifts, it would be well for him to devote a little of his time to the study and practice of hand-balancing and he should have at least four periods weekly of a half hour's duration; in fact, a half hour daily would not be too often, although it is not how much time one exercises daily that counts so much as the regularity with which he exercises; that is, a half hour's exercise per day for thirty days is by far more beneficial than a daily period of an hour for fifteen days. From my own experience as to my practice periods, I devote a half hour every other day to weight lifting and the other days to hand-balancing, making a total of six practice periods weekly, and excepting the time of a year and a half spent in the army, I have exercised quite regularly for over a period of ten years, beginning to practice hand-balancing when thirteen years of age.

The Two-Hand Stand

In learning the simple two-hand stand, it is imperative that the beginner place the hands directly on the floor preparatory to pushing or throwing up to the full arm balance. The hands should be placed on the floor, the distance between them approximately the width of the shoulders; the hands should point straight forward, the fingers spread wide apart, so that the subject may feel his balance from the beginning of the palm of the hand, at the wrist, to the tips of each finger. A beginner who has had no instruction is apt to start out by placing his hands so that they point sideward instead of forward in attempting to strike a balance. I myself started that way and was six months correcting my error.

Figure 1 shows the beginning of the "push-up" hand stand; the knees resting upon the elbows, the subject is ready to push up to a full arm balance. Figures 2, 3, 4 and 5 show the stages. There is another method of performing the hand stand, and that is the throw up. I know of several athletes who use this method, and are quite proficient, but for the maximum efficiency the push-

up is by far the better.



Fig. 2

The throw-up hand stand is accomplished by placing the hands correctly on the floor and picking up the feet, we might say, until the balance is attained. I do not think that the "throw-up" hand stand is of any benefit at all to one who wants to acquire arm

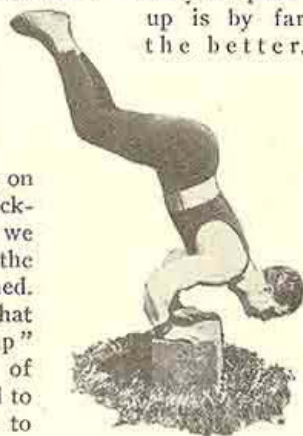


Fig. 3



Fig. 4



Fig. 5



Fig. 6

strength, for the throw-up hand balancer does all of his balancing with the straight arm, and does not develop his triceps by pushing, as compared with the athlete who practices the push-up "hand stand." Furthermore, the "push-up" hand-balancer retains his equilibrium at all stages of the movement, whereas the "throw-up" hand-balancer, when he becomes over-balanced, has not developed the strength to plant himself, so can not regain his balance.

In trying to attain the hand balance I do not advise practicing against a wall.

The Dip

The next feat to master after having attained the simple hand stand as shown in Fig. 5, is the dip. This is accomplished by lowering the body until the chin touches the floor, as shown in Fig. 6, then pushing back to the position of Fig. 5.

(To be Continued)

Fatigue is Like a Dose of Poison

(From the Scientific American)

When Gaston Chevrolet climbed from his little green racing car after winning the 500-mile International sweepstakes automobile race at Indianapolis recently, after having driven steadily for nearly six hours at the average speed of 88.16 miles per hour, his eyes were almost lifeless. In medical phraseology they were "dead." His face was haggard and drawn. The muscles of his legs and forearms were cramped and knotted. His head drooped and his steps faltered.

In fact he looked like a man who had just taken a dose of poison.

And that is exactly what happened!

The strain of clutching the wheel of his car for more than five hours and forty minutes, never once relaxing his hold or taking his eyes off the dizzy white stretch

of white pavement always ahead of his speeding machine, had caused physical fatigue equivalent to poison, for fatigue is defined as poison by prominent medical authorities. And fatigue poison is just as effective in its action as arsenic or carbonic acid. An overdose of either would be fatal.

"The extreme exhaustion suffered by Chevrolet from physical exertion and severe strain of driving 500 miles without a stop at the terrific speed he maintained," declares Dr. Clyde Leeper, a medical expert of Akron, Ohio, "caused certain chemical changes to create poisonous decomposition in the muscles of his body—in other words the production and accumulation of waste substances such as carbon dioxide and lactic acid. In large quantities these are typical fatigue poisons."

Canoeing

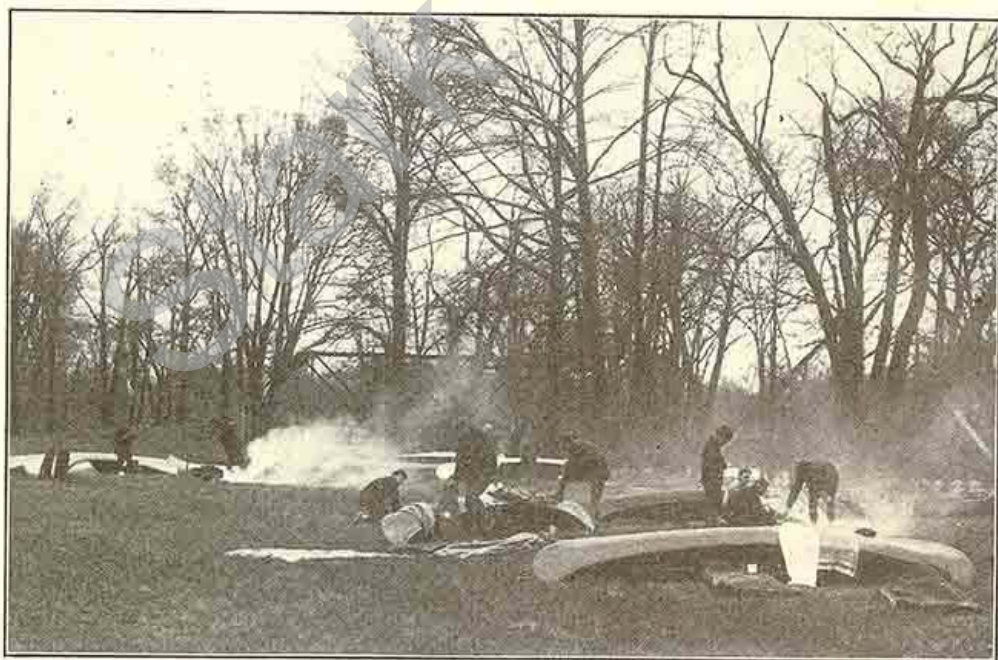
What to Take, and How to Paddle

By L. E. EUBANKS

I AM sure that canoeing as an exercise and sport needs but little argument; merely to watch a person paddling, to see the graceful little craft glide through the water, is to want to try it. As a vacation for physical culturists, nothing could be more appealing than a canoe trip. Any kind of boating is agreeable, because of its being a complete change from our daily routine; but canoeing has some virtues all its own: It is inexpensive. Its requirements for condensation of equipment, discrimination, etc., teach the canoeman economic principles that have general as well as specific application. It is quiet and clean; none of the chugging and vibrations of the power-boat, none of the awkwardness and sloppiness of a rowboat, nor painful neck-twisting to see where one is headed. And don't forget this, gentlemen: a canoe will appeal to your wife or sweetheart. I have

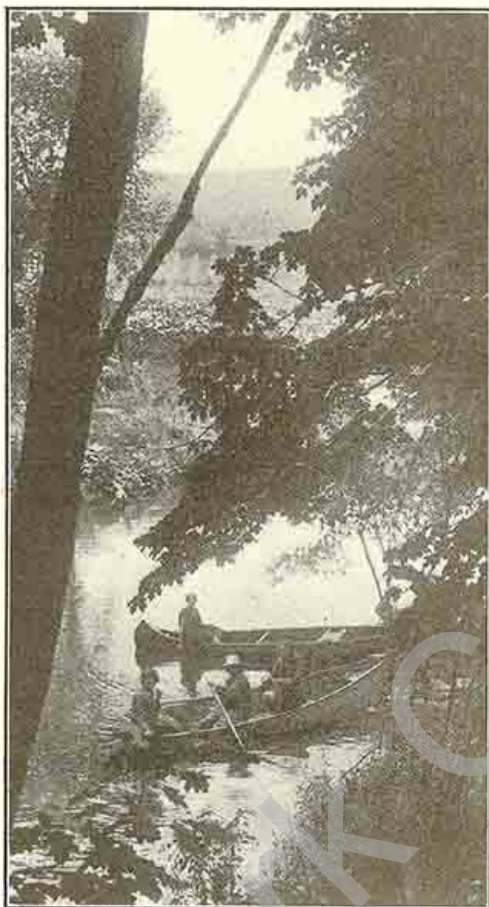
never seen an exception—women like canoeing; and since it is preeminently a game for two, and its setting most romantic—well, you can see the possibilities as well as I.

Obviously, the kind of water one will meet, and the character and amount of the necessary equipment, are leading considerations in the choice of a canoe. The birch-bark, because it is the original Indian craft, is commonly regarded as the best canoe. But this is not true; the birch has many excellent qualities, the chief being its unequaled ability to weather a gale, but it is slower than a wooden or canvas canoe. A new birch-bark is very satisfactory, but as it is used it gets a bit logy from soaking, and springs leaks easily. Also, it warps and twists—you seldom see a straight birch boat. Further, the Indian-made craft



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The end of a perfect day. One of the pleasures of canoeing is the goodfellowship of the camp fire after a strenuous day.



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A canoe will appeal to your wife or sweetheart.

is too high at bow and stern; it is fine for running rapids, but a poor all-round boat.

The wooden canoe, the favorite in Canada, is smart in appearance and satisfactory for most ordinary purposes while it is new. Like the birch, it absorbs water and becomes frightfully heavy for a portage. Of the two woods generally used, cedar and basswood, the latter is the tougher, but it more than loses this advantage by its over-susceptibility to heat. It must be left in the water all the time; exposure on a sunny shore will open it up.

The canvas canoe is the master craft of its kind. It has the grace of a birch without the weight; the smartness of the wooden canoe without the latter's rigidity. The canvas canoe is a thing of life, pliant yet strong, buoyant yet stable. It has most of the virtues of the other two, plus dis-

tinctive ones of its own. It is decidedly faster, being of the general model of the birch, but with a smooth surface, instead of rough bark, to glide through the water. Secondly, it is delightfully light for portages. Thirdly, it is easily mended when it suffers a tear. It cost more than a birch, but less than any of the rib canoes.

Whatever material you prefer, there are other considerations: you would not attempt to carry a ton in a little 13-foot canoe built for one man and his pack. You would require a freighter weighing four times as much as the little boat and some twenty feet long. Between these extremes you can get nearly anything, and it pays to insist on suitability to the prospective use. For three men and equipment to start out on a rough lake voyage in a 14-foot canoe is apt to end in disappointment, if not disaster. Their craft ought to be 18 feet long, thirty-six inches wide and 13 inches deep. Two men could use a 17-foot canoe and yet have good capacity by selecting one with good width and depth, but, as a rule, three men require a long boat for satisfactory paddling.

Sixteen feet is the all-purpose length, with width from 31 to 36 inches, depending on the degree of stability required, and depth from 11 to 14 inches.

As for shape, a flat-bottomed boat is more stable but slower than a round bottom. It has a peculiar advantage, though, in the fact that a load increases its speed. You can't have all the good qualities of canoes in one boat, and it requires some thought to determine the best combination, just how much speed you want to sacrifice for stability and capacity; just how much style for service, etc. The best river canoe will not be as good on a lake, and *vice versa*. For "mixed going," lakes, rivers, rapids, etc., we want a boat that is strong and capacious, yet fairly light for portaging. Such an all-purpose canoe must not be too long nor too short; we will select a 16-footer, with 36 inches' width, and depth of 14. The ends must be high enough for running rapids, so the current does not grip them; yet low enough to give us sufficient "wet keel" for safety on wind-swept lakes.

I doubt there being any sport that has received more attention from professional outfitters than canoeing. The watchword

from first to last is elimination; leave everything you possibly can spare, and carry but minimum amounts of the things taken. If the weather is warm you can depend solely on blankets or sleeping-bags, and do without a tent. Sportsmen often carry just enough canvas for sides, and count on the inverted canoe, propped up at one end, for a roof. If you take a tent, and you should for a fall outing, select light-weight material, balloon silk or khaki. Duck and drill tents are too heavy for canoe outfits, especially after they have been soaked a few times.

Perhaps the very best tent for two canoeists is the 7 by 7 "A" of Tatelec process waterproof zephyr sailcloth. It weighs seven pounds. Another good one is the sportsman's compac, weighing only four pounds.

A standard size all-wool blanket, weighing about six pounds, is essential for each of the party. If you take a packcloth or two of waterproof canvas these can be used at bedtime; in connection with the blankets, they make very comfortable sleeping-bags.

The cooking utensils are the canoeists' big problem. The tent and bedding can be reduced to a small, compact roll, but kettles, pots and pans have a stubborn way of retaining their original dimensions. I recommend the Wearever aluminum; you will need one pot with cover, $7\frac{1}{4}$ by $5\frac{1}{2}$, capacity, four quarts; coffee pot with folding handle and bail, 5 by $7\frac{1}{8}$, capacity two and a quarter quarts; one pan, 9 by 3, with folding handle, for mixing and serving; one frying pan, $10\frac{1}{2}$ by 2, with folding handle; two plates, 9 inches in diameter; two cups with handles attached only at the top so they nest; two each of knives, forks and spoons, and a large mixing spoon. Unless you carry a belt-knife or a large jack-knife, you should take a butcher knife for the heavy cutting. All these utensils will nest nicely, and in a waterproof bag make a handy package of five or six pounds. Also, there is a dandy aluminum reflecting baker, 16 by 18 inches, which will be appreciated if you stay as long as a fortnight. It folds down into a flat pack, and with its case weighs but four pounds.

How about a cook-stove? Sounds absurd for the canoeist, eh? But the stove I have in mind will go in one's pocket!—

virtually a little griddle, with folding legs which can be thrust into the ground, making the stove-top any height desired. It's a convenience, but not a necessity. In canoeing weather the open fire is always practicable. Make it as the Indians advise, "Small, so you can get close to it, instead of so big that you can't get near enough to warm or cook." Live coals, without any blaze, is the fire for cooking.

The following items of provender are only suggestive, based on a two-weeks' stay for two persons. Diet is such an individual matter that each outer has to settle the question of his own requirements. Find out beforehand what you will be able to procure on the way, from villages, camps and farmhouses. Also, game, fish and berries, if obtainable, will simplify the food problem. Flour, 10 pounds; cornmeal, 3 pounds; baking powder, $\frac{1}{2}$ pound (you will need more for outdoor cooking than is required at home); bacon, 8 pounds; rice, 2 pounds; sugar, 5 pounds; raisins, 1 pound; ground coffee, 2 pounds (or some tea if you prefer); plenty of salt; a few cans of condensed milk; 2 pounds of butter; beans, 2 pounds; some dried fruit, whichever you like.

Your clothing for a summer canoeing trip can safely be left to you. Khaki trousers are good. A coat or sweater is sometimes troublesome on portages; the former flaps, the latter clings to everything. A cruiser shirt, the lumberman's favorite, a short, heavy outside shirt, worn tail out, is fine. A vest, any old discard that yet has its pockets, is about the handiest article of apparel; it sticks right to you, and has a pocket always ready.

For the feet, in a canoe, there is nothing like moccasins, though if not used to them you will want heavier shoes or sportsmen's boots for the portages. Of course, the outer must have extra clothing in his pack; the weather may change suddenly.

Other things to be included in the outfit are an axe, handle 28 inches, for cutting firewood (a belt axe, too, will often be useful); a file and whetstone to keep the axe sharp; a carbide lamp, with a 25-cent can of carbide, or an old army lantern, with a dozen candles for it (this lantern folds up to small dimensions); a handful of nails; a ball of twine, and some pliable wire.



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Beaching a canoe in the surf.

Forty or fifty feet of strong clothes-line should be taken; you can often use it, particularly in line-running the canoe down a bit of swift water that you don't like to ride. A bowline with which to tie the canoe is necessary. So is an anchor, if you count on fishing. A four-pound folding anchor of the "Dirigo" pattern is good.

You should have a duffle-bag for your personal kit, clothes and odds and ends. Depth of 36 inches and diameter of 12 make a good size. "Everything in waterproof bags" is a good rule for a canoeist; then, before running any dangerous water, he can fasten a rope to the bow, run it through all the bags' handles and fasten other end to the stern. In case of a spill he will be able to salvage everything, and all will be in good shape.

Properly, paddling consists in reaching forward with the paddle, catching the water and pulling the craft up to and past the paddle. Thus the stroke starts at a point well away from you and proceeds straight back along the canoe's side. Do not carry the stroke far beyond you in an effort to "sweep" yourself along; in canoe-

ing, short, rapid strokes are far more effective than long, slow ones. Some of the Canadian experts dip the paddle forty-five or fifty times a minute. The strokes are short, but they leave far behind those canoeists that try to push themselves along with twenty-five long "sweeps" a minute.

Devote most of your energy to the first part of the stroke, and finish it quickly after the paddle passes your side. You lose more than you gain by the instinctive effort to "push," and this detracts from the effectiveness of that final little snap to the paddle that experience in the proper method will teach you. As the paddle passes your side, turn the blade—not too suddenly—so that the inner edge leads the outer one and leaves the water first. A slight addition of force just as it leaves the water, together with a springy paddle (maple is the best for this), gives the "snap" and lightning recovery that mark the work of a skillful canoeist. Do not lift the paddle far from the water; it is a waste of energy, spoils a graceful recovery, and may throw water into the boat.

(Continued on page 45)

The Development of the Calves

By O. R. COULTER

(Continued from last month)

LAST month I dealt with various forms of exercise efficient for calf development and now I will endeavor to explain the part that training with weights plays in developing the calves and give some hints about how to train to get the best results for this purpose.

Training with weights affords an opportunity for an accurate scale of progression that can be adjusted to the strength of anyone's calves, something impossible with any other "system" of exercise. Yet weightlifters as a class do not possess the development here that they could. It seems that many regular trainers with weights use a bar-bell as something to be raised above the head rather than as the most practical means of all-around development of the physique ever invented. True, weightlifters as a class have well developed calves, but after one sees those of Novikoff, Mordkin or some of the other noted members of the ballet one realizes for a real worth while development of the lower legs, embracing both size and contour, that the average lifter's calves are not near what they ought to be. The majority of lifters take more interest in anything else pertaining to training with weights in preference to exercising the lower legs.

That it is possible to obtain the very best results in calf development from training with the weights is proven by the results obtained by men who realized on their possibilities. The development that these attained would lead one to believe that there must be some superiority in their training. With this idea in view, I am going to give the methods of some of these men with the object that you may derive something of value to apply to yourself. I shall select Hackenschmidt, Elliott, Lurich, Prof. Dowd, Rollon, Weber, Bankier and Sandow. There are other just as noteworthy examples, but some of these will be more convenient to illustrate some of the points I wish to call to your attention.

Hackenschmidt is very well known to the most of us as both a wrestler and weight

lifter. Nearly all of us know that he practiced all-around lifting and possessed a wonderful physique. He also performed some jumping, bicycle riding, and sprinting, and only those who are personally acquainted with him or have read his book "The Way to Live" can realize how much he believed in training every part of the body and know that he used special exercises with weights for calf development.

Elliott is not so well known to us, but he was one of the greatest examples of manhood extant. His calves were extremely muscular for a man of his great size. He was a champion of England in his day in the clean style of lifting, but in addition to the ordinary weight training he practiced jumping with weights. Nature was very kind to him, yet I consider that he performed more training that had a bearing on calf development than many of his followers did and proper directed efforts develop their own reward.

Lurich, like "Hack," is exceedingly well known as a strong man and wrestler, but I find that the average student of weightlifting is not so well informed regards his all-around athletic ability and his popularity as an artist's model. Lurich was a first class jumper and something of an acrobat. His muscles, while not especially large as compared with some of the bulky continental lifters, were exceedingly well developed and he possessed fine proportions and a beautiful outline from head to foot. I do not know if Lurich directed any special work on the calves, but I know, judging from his attainments and the personal pride he took in his physique, that he would not have let the want of special exercises to interfere with the attainment of his magnificent physique.

Prof. Dowd was perhaps the most noted American physical culturist of his day. He did much to popularize light dumbbell work. For some reason or other, perhaps best known to himself, he strongly advocated light exercise in his book and his teaching. His own magnificent physique was an out-

standing example of physical culturists of his day. Considering his slight physique at the start, the development that he attained was quite a notable achievement.

His physique for sheer muscularity is seldom equalled. Many physical culturists of his time tried to duplicate his development, but none of his so-called followers ever attained a physique equal to his.

Possibly they lacked his persevering thoroughness in training but I believe the main reason was that few really understood how Dowd trained himself. Although he used the "specialization on the individual muscle" idea as well as the more important one of training the muscles in groups, yet he was by no means a practitioner of the light-weight system. He used medium heavy weight work to develop his own muscles. He constructed a progressive set of pulley weights for his own use. The training with these was supplemented by dead-weight lifting and exercising with heavy dumbbells and he attained his own development in this

way. Whatever superiority in calf development he possessed over the average weight-lifter was, in my opinion, due to his more persevering and better directed efforts.

Fred Rollon is noted throughout Continental Europe as one of the best developed men living. His muscles appear as if piled on him for anatomical exhibition. His control of his muscles is marvelous and he has few equals at posing for muscular display.

He has been a practitioner of progressive chest expander training for years and is unequalled at this work. In fact he stretches an expander across his back which a horse pulling at each end is unable to stretch the same distance. Undoubtedly the development of his arms and torso is due as much or more to this work than it is to weight-lifting but his thighs and calves were developed by training

with weights and the reason that he attained better results in calf development than the most of his contemporaries is due to his more properly directed efforts. Rollon undoubtedly possessed a high potentiality of development, but I consider his tremendous ambition to have been of equal importance in the attaining of his physique. At the start he was a comparatively slender young man but he possessed the desire to become the world's marvel of muscular development and had perseverance enough to stick to his purpose. The statue of him at Berlin is one of the greatest examples of physical de-



Elliott

Elliott was one of the greatest examples of manhood extant. His calves were extremely muscular for a man of his size.

velopment in existence and depicts wonderful calves.

Clarence Weber is so well developed that he can with good reason be used as an example of development of any portion of the human anatomy. He is an ideal model possessing proportion, size and contour. His muscle is exceptional. He practices running and jumping and is or was the champion wrestler of Australia. He is an enthusiastic follower of progressive train-

ing with the weights and owes his magnificent physique mainly to their use. Weber is a very intelligent man and has a thorough knowledge of physical training. In fact he is a recognized authority on the subject and is very practical in everything that he does. His calves, neck and biceps each measure 18 inches and are the result of progressive weight work properly applied.

William Bankier, better known as "Appollo," has a very heavily developed physique and is noted among athletes for his calf development. He possesses a 17-in. calf and is only 5 ft. 6 in. in height. In his book, "The Ideal Athlete," in the chapter dealing with calf development he writes as follows: "My own favorite exercise is going upstairs on tiptoe as lightly as possible and carrying a weight on my back, stiffening the muscles every time the foot falls on a step and relaxing them the moment the foot leaves it. To get the full advantage of this exercise it must be done slowly. The last and what I consider my best exercise, as every muscle of the body is at work, is to take a hand cart with a weight in it and pull it up a hill digging the toes well into the ground."

Such exercises would seem rather "heroic" to the average physical culturist but they are certainly good ones for the calf and because "Appollo" was ambitious enough to practice them, had something to do with his superiority in calf development over the majority of his fellow weight-lifters.

Sandow's strength and physique so incite admiration and desire for emulation that we are apt to lose sight of some of the more important characteristics of the man that made his physique and reputation possible. Few men were more persevering than Sandow and he has few equals for thoroughness. He was very practical and painstaking in his training and this reason alone would explain why his calves were quite in keeping with the other parts of his wonderful physique. He used special exercises with weights in perfecting his wonderful development. The most of us have much to learn from Sandow. Only a very few can become champion "strong-men" but any and all can reach or at least approximate the limit of their possibility by

a consistent application of properly directed efforts. If there is anything worth while to us in Sandow's life it is his example of making the most possible of one's talents and opportunities. Sandow never was the strongest man in the world. Nature did not make this possible for him but he cultivated his strength and physique to the best of his possibilities and what was of at least equal importance, developed his own personality so that it became a dominant factor in his popularity. The popularity of the man stimulated interest in his work and did much towards promoting interest in weight-lifting as a sport and as an exercise. In elevating weight-lifting, he elevated himself. He probably did more for the "iron game" than any other lifter. Likewise he perhaps received a greater, certainly a merited success. He will be remembered after many men stronger than he are forgotten. If special training for the calves was worth while for a man of Sandow's capability, I leave you to draw your own conclusion of what need the average lifter may have for it.

I think from the foregoing that it is quite evident the leading examples of calf development attained their superiority in these parts partly because of doing better exercise. At least the majority of weight-lifters do not perform much special exercise for the calves and do not possess near as good calves as the men I have mentioned, who have as a class devoted considerable attention to their lower legs, even in some cases devising special exercises for the purpose. At any rate we must judge by results, and the natural conclusion is that to attain the maximum development of the calves it is best to give them some special work. The best results in anything come from the best directed and most intense efforts. Weight-lifters as a class train the thighs more than they do the calves and if they practice any exercise for the calf, they usually slight the movement.

The most common exercise with weights for the calf is to place a bar bell across the shoulders and rise upon the toes. Very few who use this movement make effort enough to rise as high as possible. To get the best results from this exercise, take a stout stick and nail each end to a block of wood or a box about 8 inches high and stand with

your toes upon this when performing the exercise. This will enable your heels to go to a position lower than the toes, thus making a more complete movement. Vary the positions and besides the common one of the feet together, try them about two feet apart, also heels together and feet apart. It will be found that these variations in position reach portions of the calf not used so much in the ordinary position. To get the best results stand a little distance from the wall and holding the weight on the shoulder with one hand place the other against the wall and carry the body forward as well upward with each movement. Another exercise that should be practiced for our purpose is the deep-knee bend with a bar bell on the shoulders, keeping on the toes throughout. This works the calf in conjunction with the controlling muscles of the thigh and buttocks. It is quite well known among close students of weight-lifting that those who are good at lifting off the ground usually have large calves, so the bar bell lift off the ground and the hands and knee lift can be included to the advantage of the calves. Another good exercise is to carry a bar bell on the shoulders while walking on the toes but do not make over a hundred steps at the very most as an increase in weight will give better results than will come from making the distance any greater. If the weight is carried upstairs the thighs will be exercised considerably also and the exercise will embody the principle of exercising the calf in conjunction with its controlling muscles. An exercise that is very efficient for developing the adductor and abductor muscles of the lower legs, which are usually neglected is to stand in the attitude of walking, with one foot directly in front of the other and standing on the toes of each foot. Now turn directly around until facing the other way, keeping the feet stationary except to allow them to pivot on the soles. Try this without a weight until you gain the proper control, then place a bar bell on the shoulders or hold weights in the hands.

When practicing these exercises be sure not to use too heavy weights or you will not make full movements and will lose some of the effectiveness of the exercise. Use soft-soled shoes or none at all as high heels or stiff shoes interfere with the muscular

action and restrict the radius of movement. Make the contractions as complete as possible and as your strength increases use a heavier bar bell but go slow and without strain, for a steady progression of arduous effort is the best for results. Perform your leg exercises first while you are fresh and you will not be so likely to slight them. Of course, the amount of calf exercise to do for the best results depends on the individual conditions such as amount of other exercise taken recuperative power, present strength and endurance of the calf muscles and the amount of work that they have been accustomed to perform. As a general rule it is best to use a weight with which you are able to make complete movements, yet heavy enough to tire but not exhaust the calf muscles in about ten repetitions. Do not, especially if you have been exercising your calves for some time, expect big results in too short a time but remember "practice makes perfect" and in due time you should attain something worth while to stand on.

Finis.

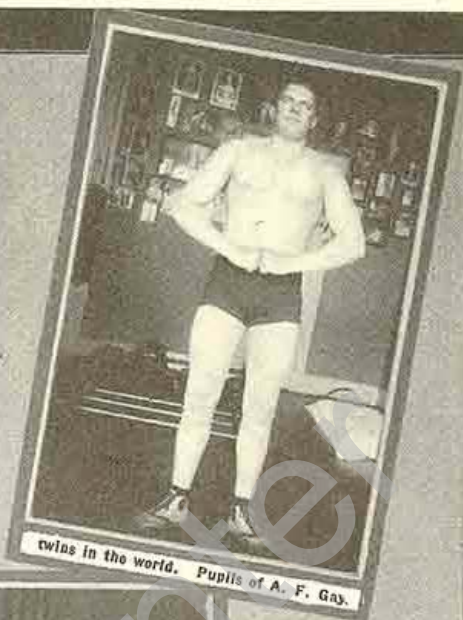
Nature's Acrobat

The weasel has been called the acrobat of Nature. It performs every kind of acrobatic feat. It does not, however, perform merely for the pleasure to be obtained from the performance, nor yet to give pleasure to others. There is a far more deadly purpose behind its somersaults.

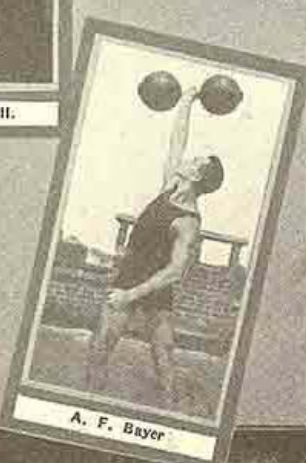
The weasel adopts this method of approaching its victims with a view to attacking them. It does not attempt to hide itself from its prey, but gradually performing all the time, approaches nearer and still nearer until within striking distance of its unsuspecting prey.

The blood-thirsty little villain is by no means a coward. It will attack human beings; and cows that trespass for the purpose of feeding on grass within the vicinity of the home of one of these little creatures.

The weasel can climb as easily as run along the road and it is equally at home on any surface. The top of a hedge presents no difficulties to the weasel; it will travel along this as quickly and easily as along the smoothest pathway.



Robert B. Snyder, Jr., with a human dumbbell.

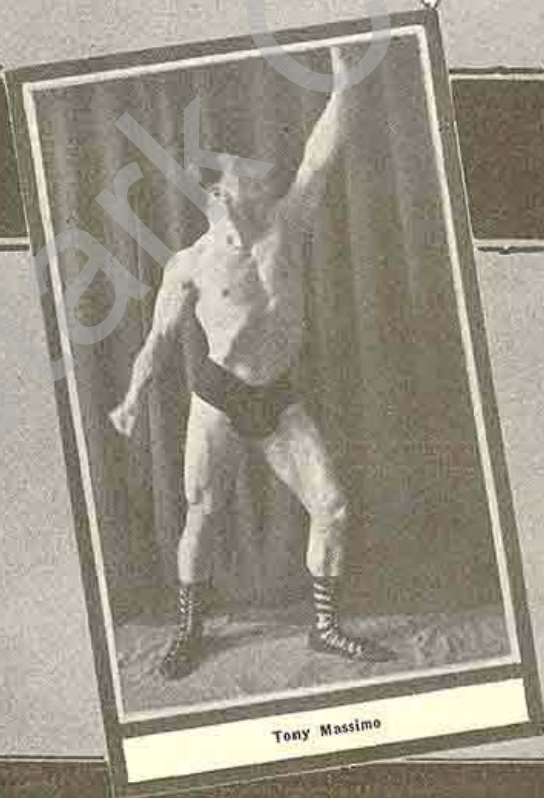




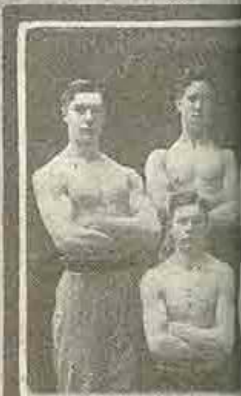
Martin Nelson
Ruthven, Ia.



E. W. Goodman, Ia.



Tony Massimo



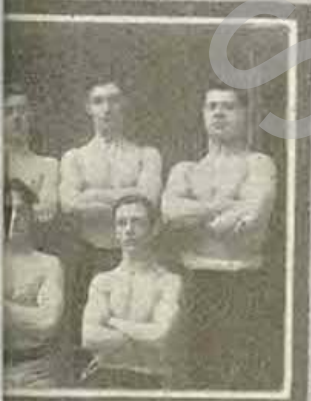
Members of the Sheffield Wrestling Team



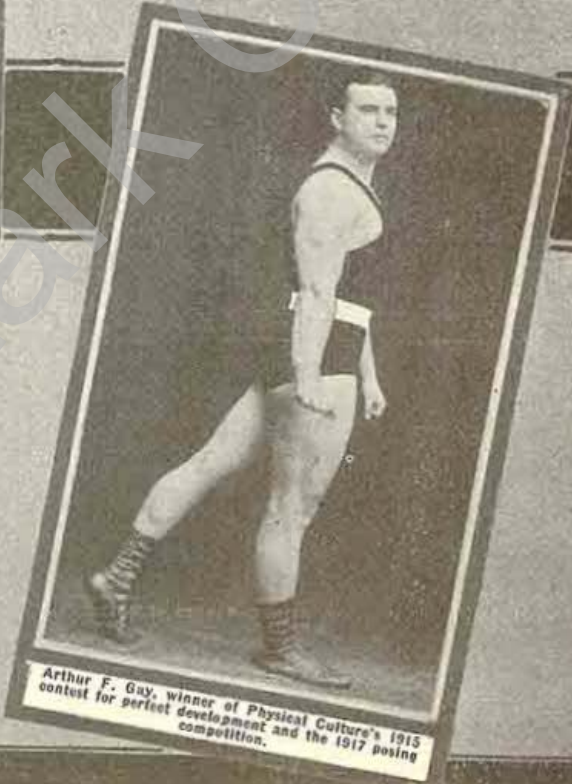
Difficult tree-climbing stunt.



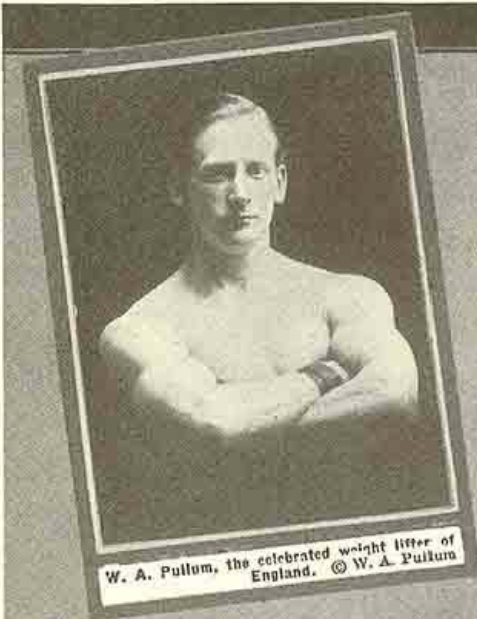
C. V. Wheeler, of the Camberwell Club.



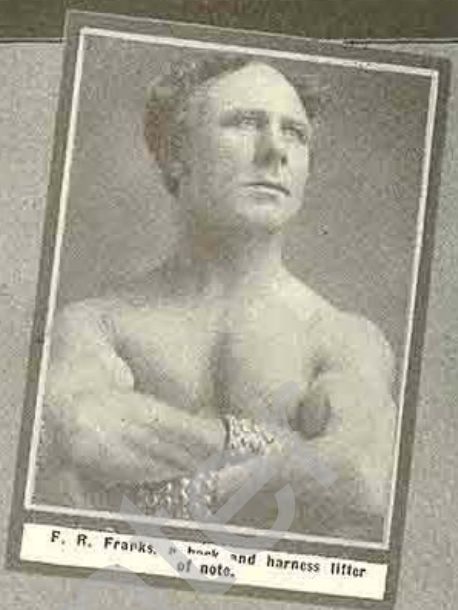
Lifting Club, of Scheffeld, England.



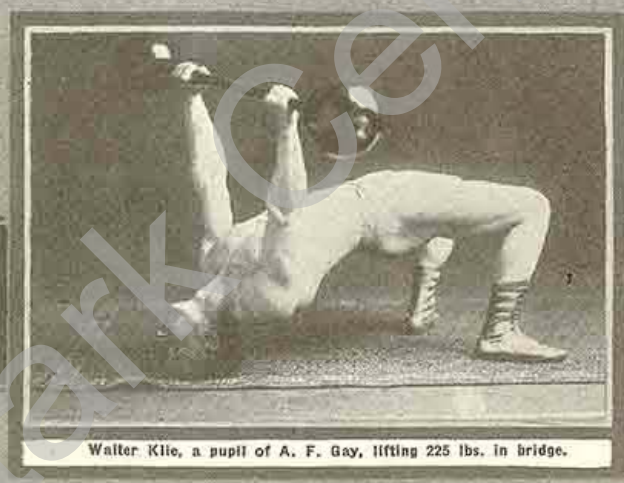
Arthur F. Gay, winner of Physical Culture's 1915 contest for perfect development and the 1917 posing competition.



W. A. Pullum, the celebrated weight lifter of England. © W. A. Pullum



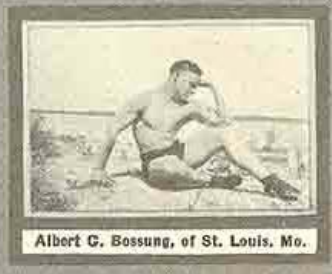
F. R. Franks, a hook and harness lifter of note.



Walter Klie, a pupil of A. F. Gay, lifting 225 lbs. in bridge.



Walter Rosenberg, sixteen—but some boy.



Albert C. Bossung, of St. Louis, Mo.



E. I. Bean, Phys. Instr. U. S. Marine Corp.

The Conservation of Energy

By GEORGE F. JOWETT

WHEN training for strength, too much stress cannot be laid upon the building and conservation of energy, which is the corner stone and sole foundation of strength. Energy or vitality is best described as that intense feeling which pervades the body and makes life worth living. It tingles thru the veins and seems to place everything physical within the realms of possibility. It is strength itself and without energy weights cannot be lifted with any gratifying results. For it is energy that lifts weights.

It is this vitality from within that allows a man at the supreme moment to call into action such a supply of energy, and when cooperating with the muscular system, makes it possible for him to accomplish feats that otherwise would be impossible and which astound and bring forth the admiration of the commonplace public.

Without it a man cannot expect to accomplish much, for it is the one dominant factor that electrifies the muscles into action.

The conservation of energy is also as important as is the building up of the same. Many an athlete fails at the critical time to accomplish what he knows he should do and can do. The reason for this is that he has gone stale, in other words, he has depleted his vitality by wrong methods of training, or his over-enthusiastic zeal has made him imagine that he cannot do too much training. Both are dangerous. I hope to be able to help show how energy can be made and conserved, in order to give the results in strength and being successful in lifting weights.

There is a class of men who by nature have a very energetic body and there is another class of men who are big and husky and endowed with a splendid natural muscular physique.

To give you an example of these two types of men, I will relate the following fact.

Not long ago two young men came to me, both with a desire to be able to accom-

plish something big in the lifting world. Both were men who stood well over the ordinary man in their abilities, but neither had any training. One weighed 210 lbs. and the other about 145 lbs. There happened to be a bar bell of 135 lbs. near by and I asked them to lift it with two hands overhead anyway, but not jerking it. They commenced by trying to get it overhead in a mixture of a push, press and a military press, as I did not show them how. The result was that after much effort the big man got it there, but with more strain than the other did, tho it was his limit. You will, no doubt, be surprised at this and wonder why the big man did not do more. The reason was this: The big man had strength, but no energy and the smaller man had a greater supply of energy and placed the weight overhead quicker, lifting with a combination of strength and energy.

Both these men when trained will accomplish much, as they are progressing fast. Therefore, by following a careful system of judicious training any average man can build up his physique so that it will supply him with an abundance of vitality that will allow him to take up the more progressive method of acquiring strength and will enable him to accomplish feats in lifting weights and to follow the practice with weights that give a combination of greater strength and energy than anything else.

When training with weights you should always keep yourself warm, for a man is much like any race horse, he cannot do much until he is warm, as the muscles respond quicker. Therefore, when commencing to train with weights it is wise to wear a sweater and take it off when you feel you are warm enough. After the completion of a lift, never sit down, but always walk up and down your room, and keep the blood circulating with the breathing organs inhaling and exhaling deeply, but not breathing in an unnatural forceful manner.

A splendid practice to follow prior to

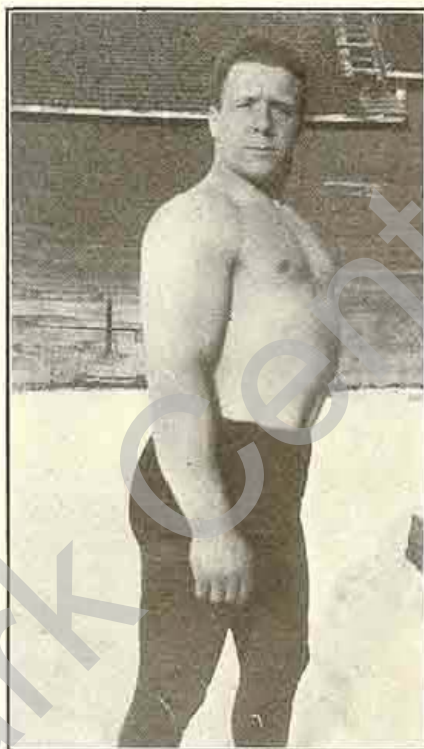
commencing lifting, is to take a hot cupful of Bovril, also during the lifting practice, it is wise to take a little. There is no better builder of vitality than this beverage and by taking it prior to lifting it does away with the old method of warming up with weights. A famous lifter I know said that after taking a drink of Bovril he was ready to go right out to his top lift. But I would not advise any one to go out to their top lift, but by adding Bovril to his training, a man is able to start higher than he would be otherwise, and he has got his vitality where it responds. During the lifts it has been found an aid to prevent any heart strain and throughout the lifting practice it conserves and adds to a man's lifting energy.

Bathing is another important factor in the building and conservation of energy. After every practice it is advisable to take a bath and you should study your muscular condition in order to know what method of bathing you should follow. If your muscles are of the supple variety, a cold bath is recommended, but where a man's muscles are of a hard nature, too many cold baths are not advisable. A few hot baths will make them supple and pliable, but once you have got the muscles to that condition, stop the hot baths and continue with cold baths.

Another bathing practice which was very strongly advocated by Hackenschmidt was to jump out of the bath and not dry himself with the towel but he would commence exercise until the body was dry and then take a rub down.

Another important factor in training, more important than many seem to think, judging by the little attention they give to

it, is the massage of the body. This is not what many seem to think, just a rub down with a pair of flesh gloves and then some kneading of the muscles. Massage is a science and in order to do it right a person should give a little study to the anatomical order of the muscles. You will find that all the muscles run in different directions and that the muscular lobes all run to the sweat glands. Out of these sweat glands comes the broken down tissue which is cast off by the building up of the new. Much of this broken down tissue and carbonic excrement remain in the glands and in order to get this out the muscles should be massaged in their proper order, with a rubbing outward or downward tendency, according to which way the muscle runs to the pores of the skin. Therefore, it will become apparent that the rubbing down, which many seem to think the proper manner of rubbing, is wrong, for while it would rub some tissues out, in other muscles it would only keep it from coming out.



Geo. F. Jowett

By ridding the pores of the excrements, stiffness and soreness is prevented. After the rubbing down process, a little kneading of the muscles loosens them up. Care should be taken not to massage the muscles too much as when they are massaged too much it weakens them. Once the proper practice of massaging is known and followed, it will only take about half the time that is involved in the old way and with 100 per cent. better results.

Massage should be done before bathing. The bathing washes away the waste. Then a quick vigorous rub with flesh gloves completes the day.

It is never wise to do much massaging

of the muscles prior to a contest, owing to the weakening influence it may have on the part of the contestee, for it must be remembered that there is no broken down tissue to get rid of then. Massaging before a contest is more for the loosening up of the muscles. Many like to rub the muscles over with some embrocation both before and after a contest.

Next we will touch upon the care of the seat of vitality, the heart. This organ is like the rest, it is a muscle and the most vital object in our body. When we are discussing how to best relieve this organ of strain, we are touching upon the most important subject in physical training and one which should concern all athletes.

As we are concerned with weight lifting, we will discuss how the heart should be treated in order to keep it the energetic seat of vitality, and give out its best when lifting, without strain upon it.

Oxygenizing of the heart is a fact that some lifters know and some don't. Some of those who know seem to find it difficult to master. Whilst they do it in the first place, in its continuation they fail and yet I will say that in its continuation, under a lifting strain, it is difficult to do, unless proper attention has been given to developing the lungs in the first place.

Oxygenizing the heart is done by breathing. Place a novice over a weight and tell him to lift it, having the weight near his limit and the first thing you will hear will be a sharp "ah" caused by the exhaling of breath. As he continues to lift the weight to his shoulder and then elevate overhead, you will notice his face go red with the exertion and towards the close of the lift he will be taking short gasps for breath. There you have an example of the natural manner in which any untutored man will lift who does not know the fundamentals of breathing. When he makes the first gasp and thrusts out his breath his lungs are empty. His face growing red shows you under what strain the heart is laboring. The lungs being closed, the blood is thrown back on the heart and goes to the head, causing both the heart and veins to swell under the abnormal pressure. The consequences that must result from any person lifting in that manner are evident, and yet we see it among many

good lifters, when they come to their limit. This is weakening. For so much carbon is left that there is not enough oxygen to burn it up. So the correct method to adopt is to place more oxygen in the heart so that at the completion of each lift or effort more oxygen is left in the heart that will burn up the carbonic excrements.

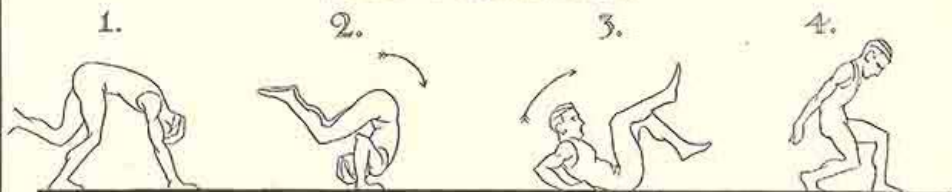
In order to do this, when ready to lift the weight to the shoulder, force the air into the lungs and out as fast as you can and as deeply as you can without feeling any forcing. Do it natural, but fast. The idea is to burn up what excrements may be in the lungs and heart and force a larger supply of oxygen in. After you have breathed forcibly for three or four times, with the next intake pull the weight in to the shoulders and as the weight rests there, exhale some, not all. This takes the jar off, and when thrusting overhead do so in unison with another deep intake. Never hold the breath. In lowering the weight, when it strikes the breast, exhale and take a sharp breath and exhale in lowering to the floor. Once mastered you can breathe as fast as you can lift or lower a weight. The hardest strain will be found when doing a military press as this is a slow lift and the difficulty will come when you have the weight nearly to arms length. You will find your lungs are full, when at your limit, then you will feel the blood pressure, and by quickly exhaling a little and as quickly inhaling you will find you will be able to finish the lift. When you are at the striking point of this lift, I would advise not to grip the weight with the hands, as there are two pulling down muscles in the forearm which, when you exhale to take in air again, will surprise you how they will work against you. Concentrate more on the triceps and shoulders which will help you in the completion of the lift.

This method of breathing will always keep in the heart and lungs an abundance of oxygen that will burn up all the carbon and leave you fresh after a strenuous lift.

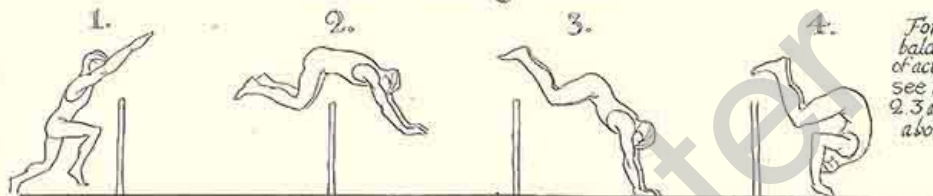
When not training for a contest or for competition, it is not wise to try your limit more than once every two weeks, that is on the whole standard lifts, but it is wise to

(Continued on page 42)

The Front Roll



Dive and Roll

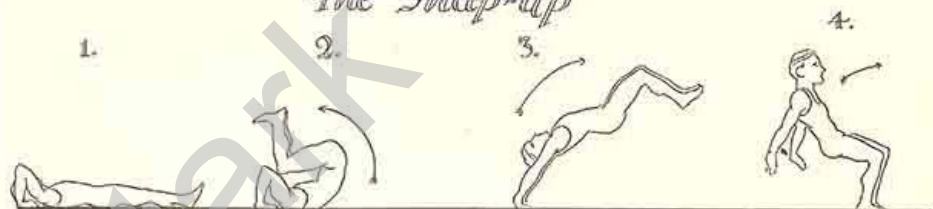


For balance of action, see Fig. 2, 3 and 4 above.

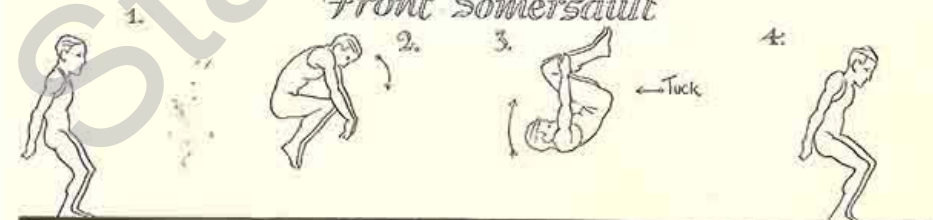
The Handspring



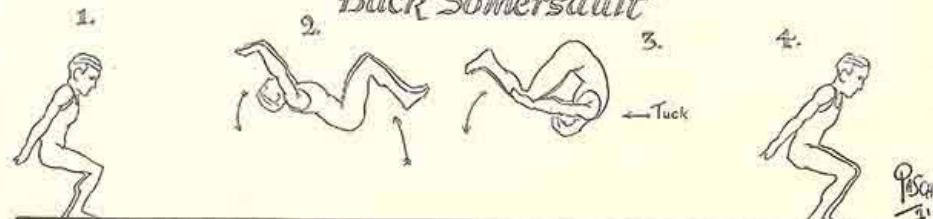
The "Snap-Up"



Front Somersault



Back Somersault



POSCAW
2

If You Want Fun—and Health— Tumble!

By HARRY B. PASCHALL

NOTHING to it! All you need to practice this sport is the inclination and a back yard. And if you follow it for any length of time you'll be surprised at the health, strength and development it brings.

Do you know what makes Doug Fairbanks the popular and spectacular movie star that he is? No? It's because he tumbles—and his infectious smile! And I half believe that tumbling gave him the smile!

Then, too, there's another reason why all you Physical Culturists should take up this exercise. Just suppose that you wish to demonstrate the benefits of Physical Culture to some of your friends. How are you going to do it? Roll up your sleeve and say "Feel that"? That's a rather weak demonstration, compared to the string of cart-wheels and hand-springs you could throw for them if you knew just a little about tumbling. And wouldn't their eyes stick out if you threw in a couple of back "flips" or somersaults for good measure? It's bad advice to "show off," but there are times when it pays, and then you want to be ready.

Even simple tumbling can be made spectacular by putting the right "snap" into it. Take, for example, Douglas Fairbank's feat of diving head first over a fence which may be in his way. This always draws a prolonged "Ah!" from the audience, particularly from the feminine fans. But this feat in itself is extremely simple, and anyone should be able to learn it in a short time.

At first you practice the simple forward roll-over or "summerset" of your youth, learning to tuck your head under you, and taking the weight on your shoulders and back as you roll over, with enough impetus to carry you on up to your feet again. Then you place a stick a few inches from the ground and try doing a roll-over that, making a slight jump so that your whole body leaves the ground for an instant.

Once you get the knack of it you can rapidly increase the height of the obstacle to be cleared until it is nearly as high as your head. This dive, followed by a roll, is just about as spectacular a feat as you could find. And as easy. Analyzed, it goes as follows: You leap into the air as if diving into water, hands before you. When the hands strike the ground they absorb some of the shock; but you must bend the arms almost instantly, tuck the head down on chest, and roll over on neck and back. The momentum of your leap will carry you right up on your feet again.

After the roll comes the hand-spring. This feat is familiar to everybody; and it, too, is very simple if instructions are followed. The most important thing for the beginner to remember is to keep his arms stiff. If you do this there is no danger of a heavy fall, because your feet are certain to strike the ground first. Here's how you do it: Take a few brisk steps, place hands on ground before you, arms stiff, throw feet over, one following the other (if you keep the feet apart, that is, one leaving the ground before the other, as in walking, it makes the stunt much easier to perform). Throw feet over hard, and just before they land give a slight push with hands, and you'll find yourself standing upright. Simple, wasn't it?

Then there's the "snap-up," which is simply a knack. You lie flat on the ground on your back, place hands on ground behind head, bring knees up close to chest, and kick them upwards and outwards vigorously, at the same time giving a push or snap with hands and neck. This action, if properly timed, will land you in an upright position squarely on your feet. This stunt, mixed in with front and back rolls, makes quite an interesting performance.

Lastly—for amateur tumblers—we have the somersaults in the air. These should never be practiced unless a belt is pro-

(Continued on page 48)

Head Locks and Chancery Holds

By WILLIAM J. HERRMANN

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



Stanislaus Zbyszko

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

Dear Herrmann:—

June 3rd, 1921.

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

STANISLAUS ZBYSZKO,

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

(Continued from last month.)

Lewis' Head Lock and Hip Lock Combination

A powerful hold in which Lewis' Head Lock and a Hip Lock are used in effective combination. Strangler Lewis' favorite Head Lock Combination Hold. This hold is purposely described on the supposition that both wrestlers are in the Referee's Hold, with their left hands on each other's neck, because the majority of professionals, in taking a Referee's Hold, favor catching neck hold with their left hand in preference to catching neck hold with their right.

In reading the following description of this Head Lock and Hip Lock Combination, substitute the word right for left and the word left for right in case the Referee's Hold be held with the right hand instead of the left hand on neck of opponent.

Turn in on your man like a flash, throwing your hips across the front of his body. At the same time slip your left hand and arm along over the back of your opponent's neck and around his head in order to get his head under your left arm in a Standing Side Chancery Hold. Grasp your left chancery wrist with your right hand to reinforce your hold, as illustrated by Fig. 16. Weaken the position of opponent's body by quickly pulling his head and chin down and

across your chest and body. Lower your left shoulder. This also helps to increase the effectiveness of your Head Lock by holding and pulling his head still further in and across your chest and body. At the same time, bring your chancery elbow down and

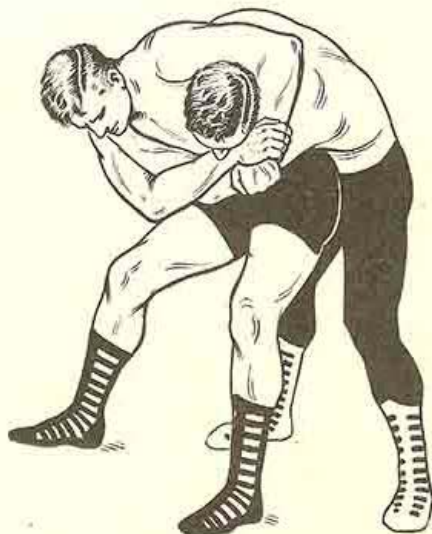


Fig. 15

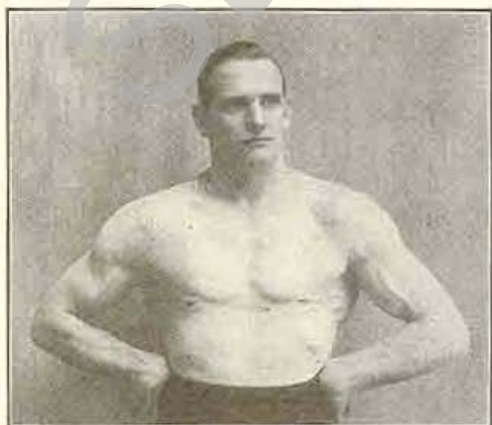
Lewis' Favorite Head Lock and Hip Lock Combination.



Fig. 16

Side-Chancery and Hip Lock—Bringing your man over your hip.

in closer to your body to still further enhance the effectiveness of your Chancery Hold. Pull his head down and under as you swing him clear over and across your left hip and fall heavily with your man to the mat with your weight on his chest. This sequence of moves, properly performed, will develop Lewis' famous Head Lock and Hip Lock Combination Hold. A direct, positive, heavy and jarring fall can be secured from this effective combination hold, if properly used and applied without the necessity of changing your hold or the



Eivaz Johnson, light heavyweight wrestling champion of America.

need of applying some other additional assisting hold or holds.

In throwing your man, it is advisable to bring your opponent directly over your hip. A clean throw in this manner will undoubtedly result in a far more effective, spectacular and heavier fall. The "turn in," "throw" and "follow" to the mat must be performed with the greatest speed, accuracy and precision. Bringing your man properly over your hip by means of this powerful Head



Fig. 17

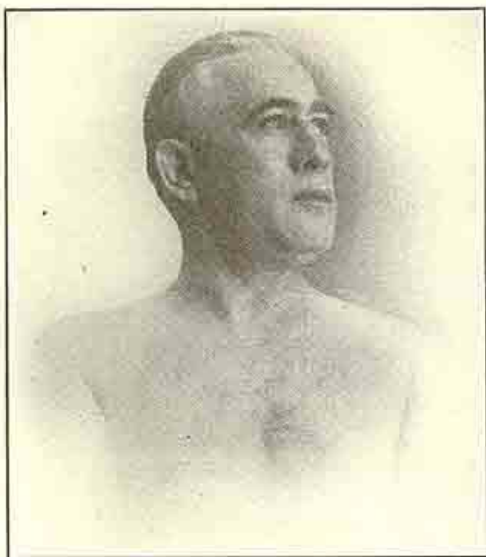
TRIPLE COMBINATION
Side-Chancery, Arm Hold and Outside Leg Grape Vine Combination.

Lock and Hip Lock Combination will be sure to score a direct fall in your favor.

A heavy jarring fall in this manner will shake up your man to the extent that he momentarily cannot offer much serious resistance against your final efforts to pin his shoulders down flat to the mat for a fall.

However, on the other hand, it is not always advisable to attempt a full "turn in" unless you are quite sure of not missing the Head Lock, as otherwise you are likely to turn into danger instead.

A clever wrestler, especially if he anticipates your move, can readily stop or block your move and turn your miss to his advantage, or he may escape by backing out



Joe Lustig of New York, former middleweight wrestling champion of the world.

of danger, or may "sidestep" and bring you heavily down to the mat by means of a clever trip or get you with a Full Back Body Hold or catch you in a dangerous Outside Crotch Hold as you "turn in" that will instantly put you on the defensive.

A notable instance of how an error may be fatal was illustrated in the recent World's Championship match between Ed Strangler Lewis and the wily veteran Polish wrestler, Zbyszko. On this occasion, Lewis lost both the match and the championship when he missed, in a supreme effort, to get a Head Lock on the Pole. Lewis' attack was so energetic that he completely lost his balance when he missed on his "turn in." The force of this miss spun Lewis clear off his feet. He tried to catch his balance in order to save himself, but failed to make his feet. As he helplessly turned, he toppled headlong over, falling dead weight flat on his back and shoulders. In a flash, Zbyszko was on him like a panther. The sheer weight of Zbyszko's body landing just right on the prostrate Kentuckian's body, flattened Lewis' shoulders tight to the mat before the bewildered and surprised Strangler really realized what happened. An unusual and unexpected occurrence that lost Lewis his titular honors. In fact, Lewis

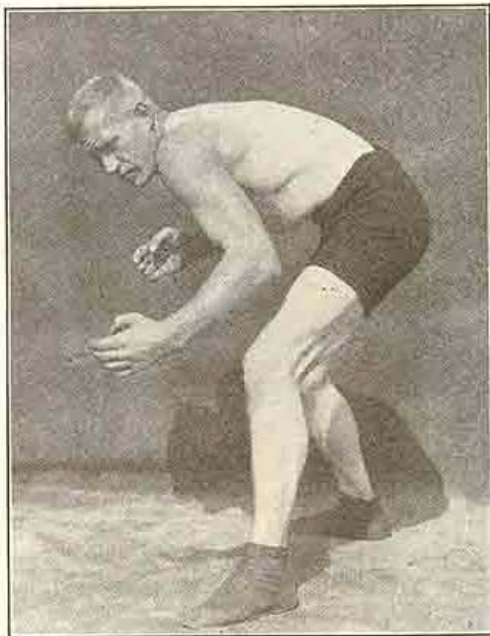
both won and lost World's Championship honors by respectively getting and missing the Head Lock he made famous.

Side Chancery, Arm Hold and Hip Lock Combination

Get your man on your hips and secure your opponent's head in Chancery under your left arm, as described in the preceding Lewis' Head Lock combination, with the following exception. Instead of grasping your left wrist with your right hand or using the finger-foil method of reinforcing your Chancery Hold, grasp instead your opponent's left upper arm well up near his left shoulder with your right hand. Pull his left arm well down and across your chest. Hold all holds tight and follow up precisely in the same manner as in the foregoing Lewis' Head Lock and Hip Lock combination. A powerful triple combination hold sure to bring your man down for a fall if properly used and applied.

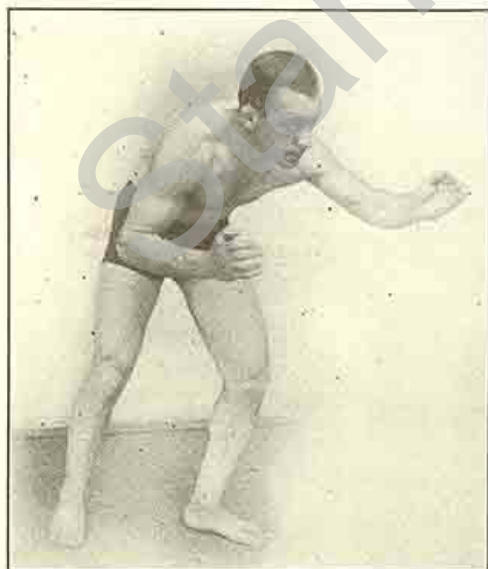
Side Chancery, Arm Hold and Outside Leg Grapevine Combination

Develop this triple combination hold in the same manner as in the preceding Side



Charles Olsen, former wrestling champion of Sweden.

Chancery, Arm Hold and Hip Lock Combination. However, instead of using the Hip Lock in order to bring your man down to the mat, apply instead an Outside Left Grapevine on your opponent's left leg. Although this powerful triple combination hold, if properly used and applied, is good for a sure fall, nevertheless we prefer the use of the Hip Lock instead of the Leg Grapevine in order to bring your man down to the mat for a fall, unless combat conditions would warrant otherwise. Strangler Lewis' exceptional results in using his famous Head Lock and Hip Lock Combination bears out our contention. However, combat conditions at times may warrant using the Outside Leg Grapevine in preference to that of the Hip Lock or some other effective method. The Outside Leg Grapevine is particularly effective in blocking your opponent's efforts to nullify your attempts to trip him by overstepping your left leg with his, or in case you prefer to twist your man out of position. Under such conditions the use of the Outside Leg Grapevine is obviously more preferable than the use of the Hip Lock. Fig. 17 illustrates this effective Side Chancery, Arm Hold and Leg Grapevine Combination Hold.



Cyclone Green, the popular lightweight wrestling champion.



Wm. J. Herrmann, demonstrating a front chancery and front hammer lock.

Side Chancery and Leg Trip.

If when holding a Standing Side Chancery Hold, popularly known nowadays as Lewis' Head Lock, combat conditions are such as not to warrant the use of a Hip Lock, a Leg Grape Vine or any one of the other previously described methods, used in combination with a Side Chancery Hold; in order to more readily and effectively bring your man down to the mat, you can, instead, apply one of the following effective Leg Trips.

Although in a general way the Head Lock and Hip Lock combination is practically the best Head Lock combination if properly secured and applied, nevertheless, combat conditions often are such as to warrant the use of a clever Leg Trip instead.

Side Chancery and Kick-Away.

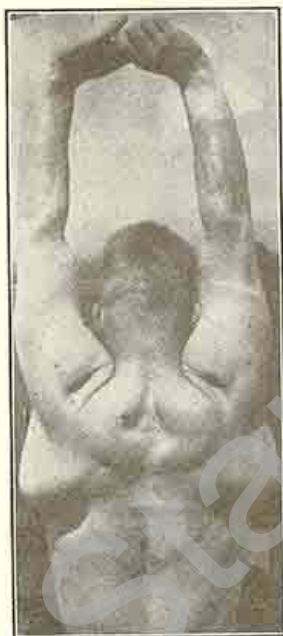
Under the supposition that your opponent's head is securely held in a Standing Side Chancery Hold, bring your man down to the mat by means of a sharp stroke—a

(Continued on page 40)

Records and Weight Lifting

To the Editor:

Inclosed find P. O. Money Order for \$1.50 as payment for one year's subscription on **STRENGTH**. I have been reading it for one year now, and it sure has done me a world of good. I think it is one of the finest Magazines for a weight lifter or any other athlete to read. I can tell you that I am getting along fine with my weights. Have been exercising regularly for about four months and I have sure gained in



Victor C. L. Johansen

health and strength. My present lifts are as follows:

Bent Press	R. 147 L. 142
Side Press	R. 112 L. 112
Snatch	R. 120 L. 115
Jerk	R. 132 L. 122
Swing	R. 95 L. 85
Military Press	R. 65 L. 65
Two Arm Press	162 lb.
Two Arm Press Military	142 lb.
Two Arm Press Snatch	152 lb.
Two Arm Press Jerk	207 lb.

Lying Press	232 lb.
Shoulder Bridge	252 "
Wrestler Bridge	182 "

I am not very proud of this record, but I am gaining very rapidly now. My weight at the present time is 160 lbs.

Enclosed find a few pictures of myself. You have my permission to publish these in **STRENGTH** if you wish to do so.

Hoping to enjoy the **STRENGTH** Magazine as much or more in the future as I

have in the past, I remain a reader of **STRENGTH**.

Respectfully yours,

Corporal Victor C. L. Johansen,
R. D. D. Marine Barracks,
Mare Island, California.

To the Editor:

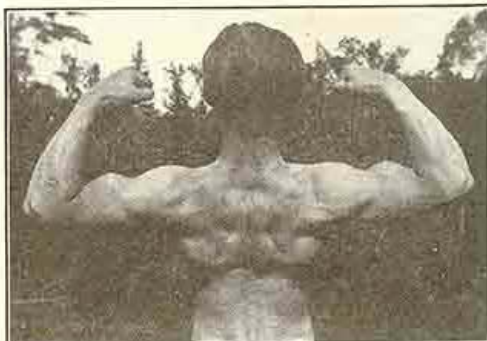
Your record department is a grand idea. Any man looking up the lifts for his certain weight knows just where he's at, and can correct his weak spots. Following is a list of a few of my lifts, measurements and a photo showing my back muscles. It is not a good pose but I wanted to show my muscles out full. I hope you will reproduce the picture in the Magazine. My lifts:

Two arm press	135 lbs.
Two arm jerk	180 "
One arm jerk	120 "
One arm snatch	90 "
One arm military	60 "
Back lifts	1100 "
Hand and knee (about)	750 "
Side press	120 "

Measurements:

Neck 15 inches, shoulder under armpits 15¼ inches, biceps 13¼ inches, forearm 11 inches, wrist 7 inches, chest (normal) 37½ inches, chest (expanded) 42 inches, waist 27½ inches, thigh 21 inches, calf 14¼ inches, ankle 8¾ inches, weight 113 lbs., height 5 feet 2 inches.

J. Fogarty,
228 Floor St.
Sault Ste. Marie.



S. Fogarty

TO THE EDITOR:

Please express your opinion as to the advisability of practicing hand-balancing and wrestling in addition to the bar-bell exercises.

I am sixteen years old, weight 128 lbs. and have accomplished the following records:

- One arm Jerk—125 lbs.
- One arm Press—50 lbs. Military.
- One arm S. Press—75 lbs.
- One arm Snatch—70 lbs.
- Two arm Jerk—145 lbs.
- Two arm Press—105 lbs.
- Two arm Snatch—95 lbs.

I have a friend who exercises and lifts with me, and as we are about equal in some lifts, we hold frequent competitions between each other, which creates amusement and interest in weight-lifting and, incidentally, leads to the lowering of former records.

We practice some other stunts in connection with the exercises, one of which I perform by pulling the 100 lb. bell over my head, pressing it to arms length and supporting in addition to the bar-bell, a grown man, making a total weight of about 275 lbs. I can also do the knee dip on one leg while supporting 45 lbs. on my shoulders.

My present body measurements are:

- Neck: 14½ in.
- Biceps: 12 in.
- Forearm: 11 in.
- Chest: 32 in. (Contracted).
- Chest: 38 in. (Expanded).
- Waist: 30 in.
- Thigh: 20 in.
- Calf: 14 in.

Marling McClellan.

Hand Balancing and wrestling can be practiced to advantage in conjunction with weight lifting, but of course, you should be careful not to over-do it, as too much exercise is as bad as too little.

TO THE EDITOR:

In regard to weight lifting activities in Germany I would like to let you know that the Austrian World's champion, Karl Swoboda, of Vienna, made a new world's record by lifting

242 German pounds, holding his body erect and with perfectly straight arms.

Picture will follow in a month or two. With best wishes for your health and success,

Yours truly

Arnold Schieman,

Konigsberg i Pr.

Hintere Vorstadt 54. Germany.

TO THE EDITOR:

I would like very much to be with some one who is training to be a strong man so we could train together, as Fairfield is now my home. In fact as any place I hang my hat is home, I will be willing to go any place, so that I could be with fellows who are training and interested in the lifting game. I am interested in the lifting game and want to be a strong man and would like to be with fellows who are of the same mind. Any one who feels interested in me to have me come and train with them, please write me.

I am sending you two pictures under separate cover and my measurements at present are as follows:

- Height: 5 ft. 5½ in.
- Thigh: 20¼ in.
- Calf: 13½ in.
- Ankle: 9 in.
- Neck: 15½ in.
- Weight: 150 lbs.
- Upperarm: 13½ in.
- Forearm: 11½ in.
- Waist: 30½ in.
- Wrist: 6½ in.

Lifting Records

- Two arm jerk—195.
- One arm jerk—105.
- One arm Press—175.
- One arm B. Press—125.

Two arm curl 170—5 times. Bending body and knees, can sit on a stool, bend over, and pull over 150 lbs. across to chest and sit up 4 times. Can hold over 1,000 lbs. on my shoulders while standing up.

George Reiss,
200 W. Briggs St.
Fairfield, Ia.



The Question Box

To the Editor:

Taking advantage of your kind permission to use your question box, I wish to be enlightened as to what constitutes correct Chest Measurement.

In measuring a friend of mine, I find variations according to the position on chest around which the tape is placed.

(1) He measures 36 inches by placing the tape directly under the armpits (close to arm as possible) and bringing the tape as low as the nipples on breast.—Inhale deep as able, now pull down with arm, and together with arms to flex back muscles (the tape slants downward somewhat).

In this tape position normal chest 33¾.

(2) But, in measuring across the nipples and directly under the apex of shoulder blades (straight across) not including the apices he measures 34 inches only.

Normal, this way 31½ inches.

(3) Around nipples and including the apices or shoulder blades, he measures 35 inches. Normal this way 33½ inches. Small this way 31½ inches.

(4) Lying on back, tape around ribs directly below apex of shoulder blades and around nipples, 34½ inches expanded.

Now then, if around the chest across nipples and under apices of shoulder blades is correct, then those practically cheat who use the chest measure under the armpits closely fitting against arm.

There should be one or two Standard Ways—that is one to include the muscles and the other to exclude—but the subject should inform the reader how he took the measure.

Now 36 inches and 34 inches are worthy of some remark on the difference.

Also by allowing the tape to be loose, or tight fitting, a variation is gained.

If your pages are to be of value to us, the athlete whether professional or amateur should state exactly how he took the measurement.

In article on measurements would be interesting to me.

Also, in the Biceps measurement. By placing the upper arm close against side of ribs, the measurement is increased inch-wise.

By first—flexing Pectoral, arm straight

front bent, and below shoulder level, then flexing Catissimus and back muscles raising arm a little, then pressing against side, the biceps increasing greatly.

But when held away from body, one can not help it by auxiliary muscles.

Now I noticed Tampke pressed his biceps tightly against his chest in measuring in a pose in one of your numbers of *Strength*.

Since a few inches mean so much why not get an honest, clear, straight forward system. You see, those who are trying to develop themselves are usually a "kind of" worried as to their measurements.

I have been measured in draft examinations, enlistment examinations, insurance examinations, and no two measured me alike. One measured me by having my two arms straight above the head. One even took my measurements with shirt on (enlistment locally).

You have plainly stated how to measure.

You have plainly stated how to make lifts for your magazine now state distinctly just how to measure.

Respectfully

Ellis J. Walbert,
111 N. 11th Street,
Allentown, Pa.

Lack of space forbids giving detailed answer. There will be an article on measurements by Alan Calvert in the September issue.

W. G. C.—Cyr's Records. Prof. Des Bonnet, of Paris gives Louis Cyr credit for a back lift of 1645 kilos (3619 lbs.) at the Aquarium, London, Jan. 19, 1892; before 5,000 spectators.

At St. Louis Hall, 1406 Custer Ave., Chicago, on May 7, 1896, he made a back lift of 1875 kilos (4125 lbs.).

L. J. W.—Measurements—You can calculate what your measurements should be by the following:

Normal chest: 63 per cent of height.

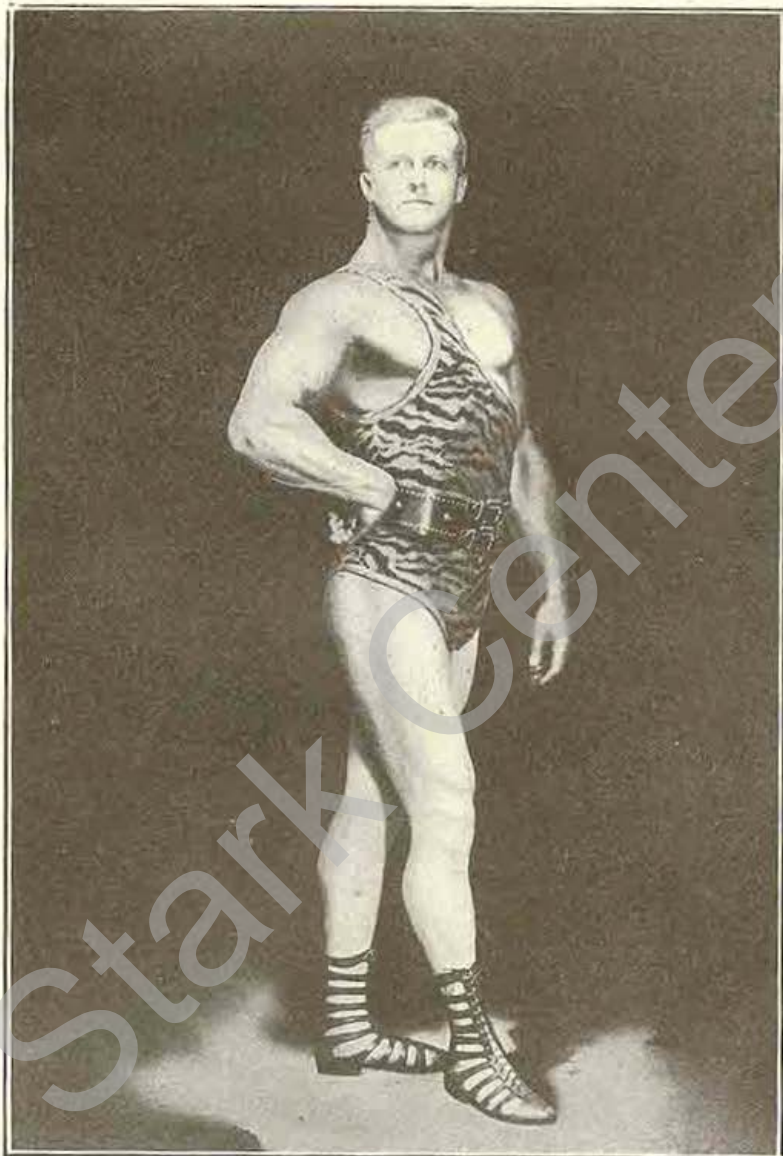
Waist: 8 or 9 inches less than chest.

Forearm: 17/8 times as much as wrist.

Biceps: (flexed) 20 per cent more than forearm.

Thigh: 35 per cent of height.

Calf 7 to 8 inches less than thigh. You should weigh about 170 lbs.



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Head Locks and Chancery Holds

(Continued from page 35)

kick-away—applied on the outside of your opponent's left leg between his calf and heel, with the inside of your left lower leg



Fig. 18

Left Leg Stroke or Kick-Away in Combination with Standing Side-Chancery

between your own left calf and left heel. This unanticipated stroke of your left lower leg against the outside of your opponent's left lower leg, will, if properly used and applied, remove the support and brace of your opponent's left leg. Suddenly kicking his supporting leg aside to the right and off the mat, obviously removes your opponent's support, on the chancery side, and gives you a decided advantage. This will enable you to easily and readily bring your man down to the mat and score a fall in your favor, providing you instantly availed yourself of your opportunity and decisively followed up your advantage in position.

Fig. 18 illustrates a Left Leg Stroke or Kick-away used in combination with a Standing Side Chancery Hold held under your left shoulder.

Side Chancery and Ankle Clip.

Still another form of trip to use in combination with a Standing Side Chancery

Hold in order to effectively bring your man down to the mat, is as follows. Clip or crook the front of your left ankle around the back of your opponent's left heel. Quickly lift your opponent's left heel forward up, by means of your crooked left ankle, hooked around the heel of your opponent's left leg. This form of Leg Trip on your part, if properly secured and applied, will obviously remove the support and brace of your opponent's left leg. Instantly avail yourself of your advantage in position by pushing him over backward. Lifting his left foot forward up by means of your crooked ankle in combination with the backward push given with your head and shoulders, will obviously put your man backward

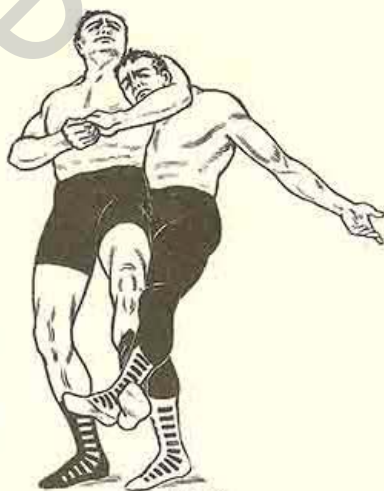


Fig. 19

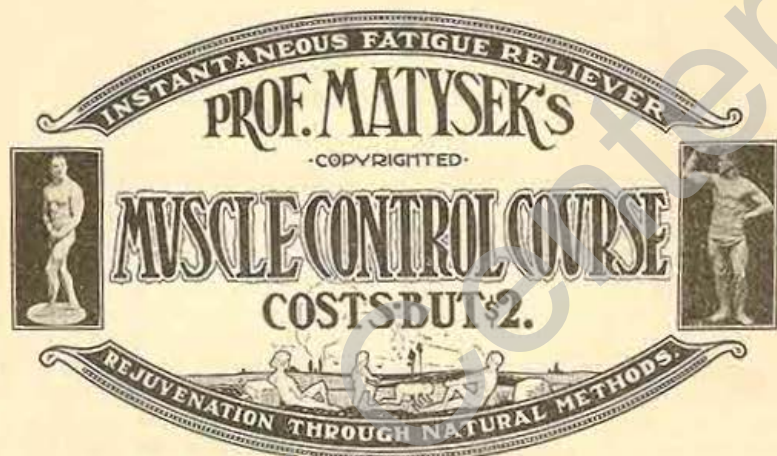
Ankle Clip in Combination with Standing Side-Chancery Hold.

off his balance. As your opponent falls backward, turn and fall with him in such a manner that your weight lands heavily on his chest and in position to readily pin your man's shoulders down tight to the mat for a fall.

Fig. 19 illustrates this Ankle Clip or Ankle Crook in combination with a Standing Side Chancery Hold.

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Two handsomely finished charts containing twenty-one large, beautifully produced pictures of myself showing every detail as to how to perform the movements with absolute correctness. The instructions are "straight thru the shoulder" such as only an expert who went thru the mill himself could ever possibly produce.

In addition to the above you have the privilege to ask any questions pertaining to your physical training and to these I will gladly write a *personal* reply. This feature alone is a mighty valuable one as I give you the benefit of my many years of experience and you will find it worth much more than the price paid for the full course.

The Subjects of This Course Are of Tremendous Interest to Everyone

How to quickly make respond the inactive bowels—easily correct the rounded shoulders—in no time expel the bothering gas out of the stomach—promptly chase away the staleness of the body—strengthen the nerves and internal organs—control every muscle of your body—store up energy for feats of strength, also: Complete relaxation and contraction—Effective breathing—the best way to arouse your inactive nerves—creation of better blood circulation—

easiest way to increase your chest circumference—the famous shoulder-blade control—how 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 pectoralis (chest muscles), the biceps, triceps, thighs, calf and all other muscles—how to train 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 co-ordination 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.

Prof. Matysek

Muscle Control Dept. 210

523 North Charles Street, Baltimore, Md.

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The Conservation of Energy

(Continued from page 29)

try out once a week on one lift only and then you will see how you are progressing. This method will test you better and will enable you to pay proper attention to the groups of muscles that do not seem to respond to certain lifts.

When training for a competition or contest, strict attention should be paid to position and style. Master these and then you have mastered the two essentials that go to make a successful lifter. Practice with a very light weight the positions that suit you on the set of lifts that go to determine the contest or competition and once a week go nearly all out on all the lifts, and then as I described in a previous issue, you can form a schedule of how you will lift in order to give you a winning average. It is not necessary for a lifter when training for contest or competition to go through his regular set of exercises as he will do for body building, for this would involve too much time. For it must be remembered that practice has to be given to positions and there is road work to do. So what is wanted is a set of exercises that will call into action all the groups of muscles involved and using a set of exercises that will be few in number, with few repetitions and yet giving action to these groups, building strength with seemingly less effort, by saving time and thereby conserving strength and energy and alleviating strain.

The following are a set of exercises that are considered the most efficient for the desired purpose and practiced by many of the world's leading lifters:

Commence with a dead lift of about two thirds of your limit in this lift. Lift in the following manner:

Stand well over the bar bell, stoop down as you would when going to sit down, keep the back straight, knees spread well apart, with the arms grasping bar inside of the thighs, breathe deeply and obtain all the oxygen possible as described in this article; then slowly raise the weight until you are in a perfectly upright position, breathing in at the same time. Lower

the weight while exhaling. Commence with three movements, adding one repetition every second night until six movements are made and then add ten pounds.

This exercise accustoms you to handling a heavy weight and calls into action the most muscles in one movement. The lifting benefit derived from this is that when you come to lift to the shoulder, it makes this smaller weight, tho near your limit, appear lighter to handle after using such a heavy weight.

Lay on the back and pull over your weight and then push to arms length three times. Increase one movement till six is reached every second night, then add five pounds.

By laying down less strain is felt on the heart and the whole system, and the action calls into force those powerful pushing muscles, which are so important in elevating a weight overhead.

The next is the common knee bend, which develops the thrusting muscles of the leg, with the following difference which intensifies the thrusting power.

Place the weight at the back of the neck, slowly make the dip and instead of slowly rising, thrust up quickly to standing position, thus training the legs to act quickly when under a large weight for lifts such as the jerks, and the one and two-hand snatch and swing. Add one movement every second night until six is reached and then add five pounds. Commence with three movements.

The fourth and last requires the help of a friend, unless you have a stand built the right height to hold weight. Presuming you have a friend to help, load the bar bell about ten or fifteen pounds more than the rest of your best two-hand overhead lifts. Stoop down as tho you were going to do the two-hand pull in. Let your friend stand in front of you and let him grasp the weight also. Then both together lift the weight to your shoulders. Do not let the weight rest on the breast if possible, in fact, you must not let it rest there at all, but hold it from you for, say, two seconds,

What Kind of a Man Will You Be at Fifty?

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

The Answer Is Entirely Up to You

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



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

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

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



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

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

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

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

then your friend helps you with it down to the ground.

Just as the first exercise gets you accustomed to lifting a big weight off the ground, which makes the pull in easier, this exercise gets you accustomed to holding a much heavier weight at the shoulder than you could possibly get there. So that when you come to lift a weight overhead you do not find your limit weight so dead as it would be otherwise. Do not make any increase in this weight with poundage, but

every second night count one extra, until you make six counts, and stop at that. Always keep ten or fifteen pounds ahead of your best two-handed lift. So as you make an increase, do so in the exercise accordingly. Never forget the breathing part and thus save yourself all the strain possible.

Will conclude by saying that by presenting these practical facts before the reader, that I have presented before him the best methods in conservation of energy.

Good Morning! Have You Had Your Shower?

(Continued from page 8)

quire a much greater effort on the part of your system to react. If you are thoroughly warm, even too warm, the water will feel good and you will have available enough vitality to react easily and promptly. Therefore see to it that you are comfortably warm and that your hands and feet are warm. If your feet are warm that means that your heart is in the right place, and all is well.

Another important principle is that of taking a cold bath in a comfortably warm room. If you are strong enough or vigorous enough, you may not need to consider this point. If you are delicate and trying to build health, it is very important. You can react easily after a cold bath if the air is warm. If the air is cold, then mere exposure to the air itself is in the nature of a cold bath, and the cold water is a still further tax upon one's vitality.

The value of exercise in conjunction with the bath lies in the fact that it provides the bodily warmth necessary to enjoy and benefit from the latter. One needs, however, only enough exercise to set his blood in circulation and warm him up. After that the warm shower with soap for cleanliness, followed by a quick cold shower, gives one that feeling of being all primed, energized and toned up for the day's work, ready for anything.

Of course, most of these considerations apply to any kind of a cold bath. They apply to the use of a cold tub. This was for goodness knows how long the favorite practice of the well-groomed Englishman. It may possibly be that you prefer the tub to the shower. Personally, I find that the shower has the bigger kick, if the water is of the same temperature. In the tub the water no longer feels cold after the first contact. In the shower, by reason of the freshly spraying water, it continues to be cold. In other words, of the two the shower is the more stimulating. But do not stay in it too long. The shower is stimulating also, because of the friction or light percussion on the skin. There are so many nerve endings in the skin, perhaps millions of them, that the gentle pounding of the spray of water from the shower is in itself mechanically exciting. That is why the shower bath, just a moment of it, is a tonic for the nerves, even apart from the question of the temperature of the water.

I know of a number of my men friends who would not live in an apartment or a house that did not have a shower bath. They feel as I do that, having once enjoyed the pleasures of a shower, they would never again go back to any other form of bathing.

CANOEING

(Continued from page 18)

At either end, bow or stern, you need a cool head and a thorough understanding with your partner. Try to get your teamwork down to a perfect system; confusion may end in a spill. For instance, in a sudden squall, when the waves are breaking badly, it is best to head the canoe slightly into the wind, and one man will have to do considerable balancing. For both to try this, will result in trouble. The bowman should sit calmly and paddle, leaving the rest to the stern man. The sternman does most of the steering, all of it in open, placid water. Perhaps the hardest fault for him to correct is the tendency to drag his paddle at the finish of a stroke, using it as a rudder to hold the craft in a straight line. The regular sternman stroke makes this unnecessary; he learns to end his stroke with a slightly outward shove, so turning the blade that the inner edge leads.

If you are the bowman, there are two strokes, besides the regular straight ahead dip, which you should master. Near shore, where there are snags or logs, or among rocks, either above or below the surface, in twisting currents or on small streams where there are many sharp bends, in such cases the bowman has to do as much or more steering than his pal. The "draw" stroke enables you to alter the course of the boat very quickly. Reach straight out to the side, dip the paddle, and pull the boat over. It is not hard to learn, but care must be taken not to reach too far; with your paddle too nearly horizontal it takes too long to start the boat over, and seconds may be precious.

The "throw" stroke makes it possible to do all one's paddling on one side if he so desires. Suppose you have "drawn" your course to the right, but now want to spring back to the left, to dodge a log. The beginner passes the paddle over to the left side and uses the draw again. Often there is not time for this, and it is not necessary; use the throw, thus: Hold your paddle perpendicularly in the water, edge of blade to the front. The lower hand must hold the paddle firmly while the upper hand does the twisting. Now, with the sternman propelling the boat, turn the forward edge of your paddle-blade slightly toward the canoe. Do not turn the blade full broadside, as



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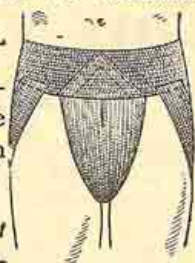
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Phila. Public Ledger.

this tends to stop the boat or "jump" it too suddenly. A few trials will show you how to gauge it.

Kneeling is the best position for a paddler. It is a fundamental principle of canoeing to carry all weight as low in the boat as possible, and this applies to paddler as well as to pack. Sitting on a seat virtually makes a lever of the body; the canoe is tipped this way and that by the paddler's movements, and his figure offers unnecessary resistance to the wind. When alone, one paddler should kneel in the middle; he has no business at either end, unless he has the other end loaded, or has to let the bow ride high temporarily to prevent shipping water.

Usually, a lone canoeist soon learns the knack of tipping his canoe over on its side. Gradually he works nearer and nearer to the side on which he paddles, till the craft seems about to capsize. Really, it travels more smoothly and rapidly in this position, the paddler reaches the water more easily and can work longer without fatigue. But this is not always practicable in a storm.

Beaching a canoe is often a task. With two paddlers, the bowman can guide and the sternman can furnish the power. For one man alone, it is much harder. He should watch his chance, and go in with a wave, just a little behind the crest, so that the wave will break under the bow. Once started, he must not hesitate; to drop into the trough gives the next wave a chance to swallow him. But neither will it do to get ahead of the wave you are riding; when it combs over the bow will have no support and the boat will go under. If you are successful, the send of the wave lands you high on the beach.

Always take a pole in your canoe. Have it about ten feet long and shod at one end with an iron spike. In a shallow, boulder-filled stream the pole is more effective than a paddle. Usually the bowman does the steering (using paddle), while the stern man stands erect, ready with his pole to stop the canoe or swing it across the current. In traveling against rapids the pole is essential. As the poler passes the point where his implement rests on the bottom, he puts his weight and strength into a steady push. The recovery must be quick, so that the pole can be again placed before loss of headway permits the current to

swing the bow around. Poling a canoe or raft is splendid exercise.

Most canoe trips of any considerable length will require occasional portages; when you see evidence that others before you have thought best to carry the boat around a dangerous place, it is well to do likewise. Unless your canoe is quite heavy, it can be left to one man while the other carries the duffle-bags, etc. Tie the paddles to the thwarts in such way that when you hold the inverted canoe over your head a paddle is on each shoulder. The front thwart should rest on the neck and your head should move easily between the paddles. You can balance the burden with one hand and have a hand left for something else. Or both men can carry the boat on their shoulders and the rest of their outfit in their hands. In this two-men portage, the man at stern usually lets the gunwales rest on his shoulders, while the man in front has the front thwart on the back of his neck and shoulders. It is much easier than it sounds, and both men can see their way without difficulty.

Care for your canoe. When it is to be idle for a few days, elevate it in some shed or garage. At home, ropes, pulleys and canvas slings should be fixed up for this. In leaving it on the beach, seek shade; the sun may warp and open it up in a surprisingly short time. Never step into a canoe while it is fast on a rock or the shore. Never sit in it or on the gunwales when it is on the ground. A canoe is like a fish, its natural habitat is the water, and it requires special care to exist in any other place. Always repair an injury promptly; neglect permits it to grow worse, and you cannot tell when an extra strain may cause a trifling weakness to prove serious. Never load both ends of a canoe very heavily without placing some weight in the middle. It is easier than you may believe to break a canoe in this way when it is riding big waves.

And the paddle. If it is varnished or oiled, it will split if left too long in the sun. Unless it is metal-tipped and made for poling as well as paddling, it is best not to use it as a pole. Always carry an extra paddle for emergencies. Trim the tip of the paddle when it becomes ragged. Scrape off the varnish where you grip the shaft; this makes it easier on your hands.

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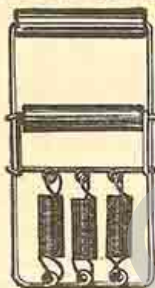
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TUMBLING

(Continued from page 31.)

vided for the athlete, with persons holding him on either side. Of the two, front and back somersaults, the back somersault is much easier to perform. To do this, swing arms well down and back and bring them up vigorously, carrying them right up and back over head, jumping upwards as you swing the arms. If you jump high enough and swing the arms properly you'll go right on over and alight on your feet again. The front somersault requires more of a "tuck" (gathering the body into a ball). You leap high into the air, and at the top of your leap snap down head and hands, your hands clasping knees. This tuck whirls you over in the air and you land upon your feet. When you learn just when to "tuck" you have mastered the front somersault.

When you have reached the point where you can perform the few simple feats here mentioned, you've got the foundation of tumbling. All of the spectacular circus feats are founded upon these. I believe that almost anyone can master these basic stunts if they'll devote just a little time to them. They'll want to, too, after they practice a little, because it's great fun.

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