

LEARNING TO SWIM

How to Spend a Long Time Under Water Without Serious Results—Artificial Respiration.

Before considering the muscular problem I should like for one moment to revert to the fear of swimming under water. That's not the record at hand, but I believe one hundred yards have frequently been swum under water, and certainly more than four minutes have been spent under water without evil consequences. But it is quite useless to attempt the emulation of these feats unless you know the secret. If you desire to win a place in the record books by bringing up fifty or sixty plates from the bottom of a bath at one immersion you must first acquaint yourself with an interesting physiological fact. It is possible to produce in an anesthetized animal, by inflating the lungs with a pair of bellows. It will entirely cease to breathe for several minutes. There is simply no occasion. It is the production of this state, technically known as apnoea, which is the secret of successful long submersion.

The young man, almost alone amongst animals, has to learn to swim. Nevertheless he is at a great advantage as compared with such an animal as the dog, which has no such extended surface as the human hand. The secret of this simple mechanical fact is well afforded by an exhibition of swimming with large plates strapped on the hands and feet, whereby a single stroke will propel the swimmer for yards.

The art of swimming as a feat of nervous co-ordination, is a simple one for the obvious reason that it is symmetrical. Any pianist knows the difficulty of playing triplets with one hand and quavers with the other. So in all muscular action, in a symmetrical action, as swimming, the two halves of the brain act in entire unison, the left or "leading" cerebral hemisphere (in right-handed persons) accounting the right arm and leg, and the right hemisphere accounting the left arm and leg. This is assuming what is unproven, but probable, that the volitional center is the middle of the brain. Why control half of the brain should control the opposite half of the body is another question.

One of the virtues of swimming is that it tends to develop all the muscles equally. Herein it is superior to cycling or association football, which neglect the arms; to tennis, which ignores one arm and develops "tennis elbow" in the other, and even to cricket, which ignores the left arm, except in batting. Not that for one moment do I desire to support modern cranes which give appropriate exercises to develop every muscle—or every muscle known to the inventor, and which therein defy the flat of evolution which is relegating some muscles, now useless to a well-earned obscurity. The muscles of the foot were formerly indispensable to our arboreal ancestors, but are quite superfluous in a plantigrade primate. Swimming promotes the muscular development with some sense of proportion, but expends not time in raising about twenty times the ordinary action, scientific, and the means of resuscitating persons apparently drowned. The whole question of artificial respiration is now being expounded by the Society of Science, in Edinburgh, at the instance of the Medico-Chirurgical Society, of London, and we may hope for a final dictum as to the method which is most likely to restore the natural action of the respirator centre of the brain in such cases.

The high value of swimming as an exercise is complicated by the exposure of the skin to a medium of much lower temperature than itself. Generally speaking, it may be laid down that the value of a seashore bath is in inverse proportion to its length. The shorter the dip, the more marked is the healthy reaction of the circulation and the cutaneous functions. Of course, one is rapidly heated by water all the time, and beyond a certain point this is undesirable. The heat is immune to anthrax; but stand a bath with its feet in cold water and then inoculate the back, the heat will become infected. If this loss of heat be compensated by the evolution of much heat as a result of muscular action, as in swimming, one can afford to

stay in much longer. None of the salts of sea water are absorbed. The skin is absolutely water proof—one of its most important functions. It is not well to bathe after a heavy meal nor whilst perspiring; and cramp—muscular spasm induced by cold—may be avoided by not staying in too long. If you come out of your machine with blue lips and chattering jaws you have done yourself more harm than good. The human supply of fat is not sufficient to be as effective a non-conductor of heat as the blubber of the whale and the few other warm-blooded mammals whose ancestors were driven back to the sea—where all life began—by their competitors long years ago.—C. W. Saleeby in London Academy.

Japanese Doctors' Signs.
The June number of Man contains an article on two Japanese boku-to, or emblems of the medical profession, says the Lancet. These objects were wooden rods, used by medical practitioners in Japan before the revolution of the last century, which displaced so many of the old customs of the country. A man of rank was formerly entitled in Japan, as elsewhere, to wear a sword; indeed, in Japan he was entitled to wear two swords. The retainers of a daimyo or feudal lord also wore swords. The medical men's swords were generally of a somewhat fanciful description and were made in many forms; some contained lancets, others contained knives for cutting herbs, but the majority were quite plain.

One of the objects now described and figured is in the shape of a large bean pod. Its beaklike curvature approximates to that of a Japanese sword. It is seventeen and a half inches in length and of a nearly uniform circumference of four and a half inches or thereabout. It is made of some fairly hard wood which takes a polish, and it is carved to indicate seven seeds inside. Wrapped around it is a silken cord. Together with this cord it weighs six and three-quarter ounces. On the side there are representations in lacquer of a grasshopper and another large insect. On the other side are similarly represented a wasp, a small fly, a cock, and a frog. The other boku-to is more interesting. It is a rough piece of willow, eighteen inches long and broader at the bottom than the top. Japanese characters meaning spider boat have been deeply cut upon it. At a distance of three and a half inches from the top it is pierced with a hole an inch long and a half inch wide, which is utilized to attach a small cord or tape and toggle for convenience of hold it in the girdle. The cord is of pale red color now, a little faded. The boku-to, cord and toggle weigh together under four and a half ounces avoirdupois. The two specimens now described were bought at Akima, in Japan, a few months ago.

Steam Boilers as Purifiers.
The boiler is a steam producer and nothing more, yet one of the surprising features of power plants constructed in the constant use of the boiler as a water purifier. Time and again consulting engineers have protested against the formation of scale in boilers, but the fact is that the cost of removing this scale and the loss of the use of the boilers is sufficient in many parts of the country to warrant the installation of purifying apparatus, yet they are rarely seen. Suspended matter can be removed by filtration and dissolved substances can be precipitated by heating so that the water reaching the boiler will be practically pure. The apparatus for the purpose is not expensive, and its introduction will effect the removal of the scale-producing substances in a part of the steam plant designed particularly for the purpose and not in the boilers. Intended for a wholly different service.—Engineering Record.

Ovalworked.
N. Y. Times.
"Yes," remarked the sawmill owner, "We're so busy now we have to keep our plant running day and night."
"Why," returned the visitor, "I thought this was your dull season."
"Well, it is usually; but we've got a rush of orders from the breakfast food companies."

Why is a dead doctor like a dead duck? Because they both have done quacking.



Each Pill Contains

all the medicinal qualities of one and one-half ounces of the best Holland Gin. As a positive cure for all kinds of Kidney trouble.

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stand unrivalled. It is not necessary to wait for days for beneficial results, you know at once that Gin Pills are helping you. Sold by all Druggists at 50 cts. per box, 6 boxes for \$2.50 or direct from

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HE COULD NOT
LACE HIS SHOETill Dodd's Kidney Pills Drove
Away His RheumatismStory of W. J. Dixon has set the Rainy
River Settlement Talking.

Barwick, P. O., Aug. 10.—(Special.)—Amongst the settlers of the Rainy River settlement, the story of the cure of the cure, as told by Mr. Dixon himself, is as follows:

"During the summer of 1901 I had an attack of Typhoid Fever, and after I got over it Rheumatism set in. I had pains in my back and in my right hip so bad that I had to use a stick to walk and had no comfort in sleeping.

"I could scarcely dress myself for nearly two months, and for three or four weeks I could not lace my right shoe or put my right leg on my left knee.

"My brother advised me to try Dodd's Kidney Pills, and after taking three boxes, I began to walk, to my work, and lace up my shoes. And the best of it is, I have had no Rheumatism since."

Dodd's Kidney Pills take the uric acid out of the blood, and the Rheumatism goes with it.

Where He Lost.

Chicago News.

Hixon—You are certainly one of fortune's favorites. You have succeeded in everything.

Nixon—Yes, everything except love.

Hixon—How's that?

Nixon—The first woman I ever loved gave me the front mit, the second I married, and the third I married.

Hixon—What did she do?

Nixon—She married me.

Always the Same.

The present King of England, when Prince of Wales, once asked a pretty woman her age. She replied:

"Just 25."

Five years later he met her again and asked the same question.

"Just 25," she again replied.

The Prince smiled and said:

"Five years ago you made the same remark."

"Ah, Your Highness," was the rejoinder, "surely you don't think I am a woman who says one thing today and another thing tomorrow."

Lever's T-Z (Wise Head) Disinfectant Soap Powder is a boon to any home. It disinfects and cleans at the same time.

That Settled It—And Him.

Philadelphia Press.

"She ain't at home, sor," said the new maid, returning from the floor above.

"Are you sure of that?" demanded Mr. De Trop, suspiciously.

"Faith, Oi am not, but she seems to be."

SCROFULOUS HUMORS, ECZEMA and all other eruptions may be conquered in their hideous infancy by Dr. Chase's Ointment, assisted externally by Weaver's Ointment.

An Eternity to Him.

Chicago Tribune.

Mamma—But, darling, you should not be angry when Daddy gets the larger piece of pie—he's the older.

Bessie—Yes, that's just it. He's been eating pie two years longer than I have already."

ENGLISH SPAVIN LINIMENT

Removes all hard, soft or calloused lumps and blemishes from horses; blood spavin, curbs, splints, ringbone, swellings, stifles, sprains, sore and swollen throat, coughs, etc. Save \$50 by use of one bottle. Warranted the most wonderful blemish cure ever known.

No Getting Away.

Allice—Yes, Jack Hastings kissed me several times yesterday, and really I had no redress.

Maud—How was that?

"He had a sprig of mistletoe fastened on his forehead, and then in a twinkling he was kissing me. I was so surprised I couldn't get away."

August 11th. Excursion to New York.

What the people have been looking for has been put within their grasp—an excursion to New York. Tickets will be sold on Aug. 11, from Suspension Bridge or Buffalo, and good for return for fifteen days via New York Central and West Shore, with privilege of trip down the Hudson River by boat at \$9.00 by West Shore and \$10.25 by New York Central. Address L. Drago, No. 89½ Yonge street, Toronto, for further information.

Tipping the Wrong Men.

Boston Transcript.

Some one in canvassing the tip subject has discovered that we tip the wrong people all the time. Particularizing, the discoverer declares that it is the cook, not the waiter, who should receive this material expression of our favor, and that it is the engineer, not the conductor, who should have the extras for getting us about on time, when we travel in haste. Of course, this discovery will not result in the searching out of the man behind the man who reaches out his hand for the tip.

Still in.

Chicago News.

Green—Jones came a few months ago, and offered to let me in on the ground floor.

Brown—And of course you went in.

Green—Yes.

Brown—How did you come out?

Green—Didn't come out at all. There were no exits.

GIRLS WHO BORROW MONEY.

Complaints in London That Bridge Is
Making Them Forget Modesty.

Bridge seems to have been more destructive in England, at least on the spinster side, than ever "it" was here. They are lamenting the disappearance of young women to borrow money to pay their debts as one of the most regrettable effects of the game.

"Young girls who have suffered heavy losses at the game," said a man who was recently interviewed in London, "show no hesitation now in writing to men friends, and sometimes to mere acquaintances, for loans because they dare not appeal to their fathers or brothers. I hope I shall not appear wanting in chivalry when I say that I myself have been the recipient of several of these begging letters from girls whom I have met only once or twice. As a nation, we have always prided ourselves on our womanhood, so this sort of thing comes as a shock."

Another London complaint against the prevalence of the game has been heard here. It is a protest against the long hours spent indoors that are injurious to women's health and looks. Here bridge has been discouraged most in the summer. But in Westchester and at Tuxedo women have bridge clubs for almost every day, and they sit indoors during the entire afternoons, when they might be thought willing to give up bridge for golf, tennis, driving or some of the diversions not possible in the winter in New York when bridge is always in abundance.—N. Y. Sun.

\$10 SEASHORE EXCURSIONS \$10

Atlantic City, Cape May, Sea Isle City, Ocean City, via Lehigh Valley Railroad, August 4, 18 and 25. Tickets only \$10. The round trip from Suspension Bridge; stop-over allowed at Philadelphia. Tickets good 15 days.

For further particulars call on or address Robt. S. Lewis, Passenger Agent, 33 Yonge street, Toronto, Ont.

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"Pure soap!" You've heard the words. In Sunlight Soap you have the fact.

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Ask for the Octagon Bar

Sure Cure For Seaisickness.

Naan—Is there any infallible cure for seaisickness?

Tom—Oh, yes; when you feel the symptoms coming on all you have to do is to go out and sit under a tree.

Minard's Liniment Cures Garget in Cows.

Dismal.

Chicago Record-Herald.

"Remember," said the optimist, "every day'll be Sunday by and by."

"Yes," groaned the pessimist, "and I'll bet there'll be morning and evening services right along, too."

Minard's Liniment Cures Distemper.

The Strenuous Life for Boys.

And do you suppose that a boy is any the less a gentleman and a good citizen, from having learned to stand up for his rights, and to resist improper interference with his affairs? Do not these qualities contribute to his success, and will they not, when properly directed, contribute to the success of your son and mine?

Let your boy learn to box, to wrestle, and fence, and so develop every muscle. I never yet saw a boy who knew how to box, strike anyone with a club, a stone, or a dangerous weapon.—Judge Smith's "A Few Real Boys," in Leslie's Monthly for August.

Minard's Liniment Cures Colds, etc.

The Music Cure.

Dr. John T. Crippen, of Waterloo, Iowa, a pioneer in the Methodist Church, will this month celebrate the fifth anniversary of his entrance into the ministry. In forty-five years he missed but one Sunday, that being on account of illness, and in the entire half century he has missed out four, three of them coming in succession. He has dedicated ninety-two churches. Dr. Crippen always looks at the bright side of things. During the illness which kept him away from church four weeks, his physician had given up hope of his recovery, but he had not. His wife in all seriousness asked what songs he wished sung at his funeral, and he said if she had no choice they might sing, "When Johnnie Goes Marching Home," and Dr. Crippen's recovery dated from that moment.

Minard's Liniment Cures Diphtheria.

Adam's Dream.

There are no exchange tickets on the road to success.

Hamilton's Great Carnival and Reunion of Old Boys.

Thousands are sure to attend the great Carnival and Reunion. It is only fair to say of the people of Hamilton, Ont., that when they undertake anything it is always well done. They have that reputation, and this coming month, with their monster Carnival and Old Boys' Reunion, they are going to eclipse every previous effort. The dates are August 17th, 18th, 19th and 20th, and there isn't a minute of the whole time, according to the program, when there won't be something doing. On Monday, the first day, the Old Boys will be welcomed home. There will be athletic sports, massed hand concerts and boxing tournaments. On the second day, the Old Boys and Veteran Firemen will parade. There will be sailing regattas, and grand fairyland illumination of the far-famed Hamilton Beach. In the city parks, and at night in the Armory building, there will be band concerts. On Wednesday there will be a monster floral parade of carriages, a Gymkhana parade and Gymkhana sports at the Jockey Club grounds, and a reunion of Central School pupils of the past fifty years. On the evening of this day there will be a magnificent fireworks display in Dundurn and Harvey Parks. Thursday, the last day of the Carnival, is Civic Holiday in Hamilton. It will be a great day. There will be a Trades Parade in the morning with decorated floats, and a work horse parade and competition. In the afternoon there will be a grand Military Review in which American Regiments will march with the soldiers of the King, and artillery and Infantry of many corps will join in producing a spectacle, the like of which has never before been seen in this Province. This will take place at the Jockey Club grounds, and will continue all afternoon and evening, closing the Carnival in a blaze of enthusiasm.

Added to the attractions named is the Midway and Street Fair, held in the centre of the city, in which there are no less than fifteen wonderful shows, as follows:

Trained Wild Animals in a Steel Arena.

The Streets of India.

The House Upside Down.

The Ferris Wheel.

Dog and Pony Circus.

German Village.

Down in Dixie.

Arctec Twins.

Garden of the Gods.

The Girl from Up There.

Buckskin Ben's Wild West.

Trip to Melodia.

Aquatic Circus.

Moving Pictures.

Night in the Orient.

If you want to forget your troubles; if you want to renew your youth; if you want to have a week of unadulterated, pure enjoyment, you will visit Hamilton during Carnival week. The railways are all issuing return tickets for the great show at single fare rates.

ISSUE NO. 33, 1903

Mrs. Winslow's soothing Syrup should always be used for Children's Coughs. It soothes the child, softens the gums, cures wind colic and is the best remedy for Diarrhoea.

50 GIRLS WANTED FOR BISCUIT FACTORY, good wages, steady employment. D. S. FERRIN & CO., London, Ont.

OFFICIALLY AUTHORIZED LIFE OF Pope Leo by Mgr. Bernard O'Reilly and the famous "Business Guide." Both in English and French; makes positively the strongest proposition ever offered to agents; no book ever had such a phenomenal sale as the "Business Guide." If you have any interest in making money honestly and very rapidly, write quick for territory and be first in the field. Experience not necessary. To run all risk. Don't sleep till you write. The J. I. Nichols Co., Limited, Toronto. Mention this paper.

LIFE OF POPE LEO XIII.—OVER 800 pages; nearly 200 illustrations; full account of funeral ceremonies; books on credit; freight paid; special terms; published in five languages; endorsed by eminent Catholics; colored portrait and outfit; containing 100 illustrations, makes free, dress Catholic Book Company, 1017 Chestnut street, Philadelphia, Pa.

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840 students enrolled last year. 184 young ladies and 156 young men. One of the best equipped and most largely attended colleges in Ontario. Music, Commercial, Fine Arts, Education, Physical Culture, Domestic Science, Matriculation and Teachers' Courses.

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