



DEVOTED TO TEMPERANCE, SCIENCE, EDUCATION, AND AGRICULTURE.

VOLUME XVI., No. 16.

MONTREAL & NEW YORK, AUGUST 15, 1881.

SEMI-MONTHLY, 30 CTS. per An., Post-Paid.

SWIMMING.

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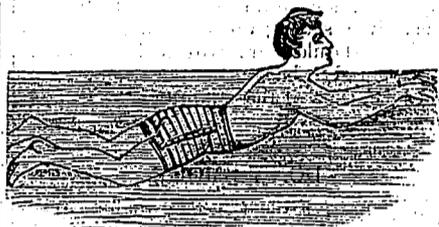
The art of swimming is moving on or through the water. Swimming is not natural to man, as he has less lung space to float the dead weight of the limbs and head than most animals. Therefore, the different ways to apply muscular force and keep the body afloat must be acquired. The art of swimming is probably co-existent with the human race. Man being in the most primitive state the most imitative of animals, would acquire the motions and skill necessary to self-pro-



pulsion through the water by watching the animals, who nearly all swim naturally. In the pre-historic age we find the lake-dwellers in Switzerland chose the water as the safest place to erect their dwellings, and were no doubt proficient in swimming, as to-day the rude and uncivilized nations who live by the water become semi-amphibious in their habits, and are equally at home on sea or land.

As swimming is a healthy exercise and pleasant amusement, and as proficiency gives the expert the power to save his own life as well as the lives of others, the acquirement of the art should be encouraged by parents, teachers, and also by the authorities. In France it is considered a necessary part of the boy's education, and the regular soldier is trained to swim, not only that he may save himself and comrades, but be more useful in building bridges and all other work in the water incidental to military life.

Females can and do learn to swim as easily as males, and their physical education should not be called complete until they have been taught to swim, because the expert male swimmer is often drowned in the attempt to save the female when she does not know how to support herself in the water, and cripples



him by her frantic efforts to cling to him. Happily this has been considered of late years in New York, and the free swimming-baths for both sexes have not only educated a generation of experts among that class who are most exposed to the perils of the water, but have been the means of conserving the public health in a marked degree. Every day in the papers we see accounts of persons being saved from drowning. To-day the newsboy or bootblack of a dozen summers, waiting his turn to get into the free bath, saves a comrade who has fallen off the dock; to-morrow the uniformed policeman risks his own life to save the would-be-suicide or the helpless inebriate. Upon enquiry you will nearly always find he is a graduate of the New York docks or the free swimming baths.

There are several methods of swimming, the most common is forward on the belly, being illustrated by the accompanying cuts. The theory of swimming depends upon the simple principle that if a force is applied to



any body, it will move in the direction where there is the least resistance. This is seen in the motion of vessels and takes place in swimming, whether the animal be man, quadruped, bird, or fish. Directions to acquire the art have been elaborated until the persons who cannot swim is appalled by their number, and concludes it must be a very difficult thing to do, and therefore dreads the water and never tries to learn.

Caution! Do not undress and dash into the water after a long walk, or run, or when much heated. Do not enter the water when the stomach is entirely empty nor when you are fatigued by either hard mental or physical

labor. The most common cause of cramp in the legs and arms is due to ignorance of or neglect of these simple precautions. Do not go into the water sooner than two or three hours after a hearty meal, as it interferes with digestion and nullifies any good to be obtained by the exercise. For beginners especially: Do not stay in the water too long. Ten minutes or at most twenty will be enough for one not accustomed to the water.

Walk gently into the water breast-deep, wet the head and neck with the hands, lie down gently on the belly, holding head and neck well up, keeping the eyes fixed upward. Strike out with both feet from the bottom,



at the same time shoving the hands forward, palm-to-palm, to the full length of the arms, sweep the arms around not quite a quarter circle (as seen in illustration) turning the palm of the hand gradually outward to get the largest pulling power against the water, the arms are drawn back quickly, elbows close to the ribs, hands together as before, feet drawn up as close to the body as possible, and the motions repeated as before. The stroke of the feet should be in time with the pulling sweep of the hands, to get the most speed with the least waste of strength. The stroke of the feet should be also a little downward, thereby lifting the breast upward and making the breathing easier. Don't try to do too much at one lesson! If you can swim three strokes without going under, it is a fair start.

A great many become discouraged and say, "Oh, I can't learn to strike out right, I can't keep time with my legs and arms." The best example of a natural swimmer is the frog. Catch one and put him in a tub of water or an aquarium-tank, and he will teach you more about the way to do it easily than all the professors of swimming. There are many appliances, such as life-belts, cork-jackets, inflated bladders, &c., recommended as aids in learning to swim. They should not be used, as the person learning even the

motions perfectly by their use is nearly always timid without them. A better way is this: The teacher stands on a boat or dock holding a pole from which a line goes to a



padded belt buckled not too tightly around the waist of the pupil. He can then give the pupil what little support is necessary to allay his fear of sinking, and instruct him as to the movements of the limbs. This plan is used with success by many professors. Diving, floating, swimming on the back, on the side, &c., are all easily learned after the pupil has acquired the method described above.

A recent English writer well says, Man is the only animal that drowns unnecessarily. He does so because the knowledge he ought to possess does not come to his rescue, as does the instinct of the brute. A dog or a horse, or any other quadruped, when it finds itself out of its depth, swims away with its head above water, and usually gets safe to land. Man, not finding himself in his natural position, is filled with terror, stretches his hands out of the water, which helps him to sink, or opens his mouth to scream, which fills his lungs with water instead of air. The result is obvious. If we could only have faith in the natural buoyancy of the body, and when cast unexpectedly upon the water, remain passively upon it, with the mouth tightly closed, many lives might be saved that are now annually lost.—Illustrated Christian Weekly.

