

THE
Art of Swimming
RENDERED EASY ;
WITH
Directions to Learners.
TO WHICH IS PREFIXED,
Advice to Bathers,

BY
DR. B. FRANKLIN



GLASGOW :
PRINTED FOR THE BOOKSELLERS,

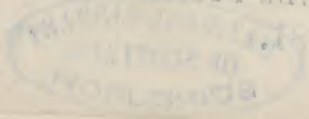
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ART OF SWIMMING.

SWIMMING being confessedly both an elegant and useful art, we would earnestly recommend its careful study to every person who has an opportunity of acquiring a knowledge of it. Besides being a healthy and delightful amusement, it has been the means, in the hands of Providence, of saving thousands of valuable lives from a watery grave.

It is entirely owing to the want of proper instructions and practice, that man cannot swim with the same facility as many of the inferior animals, which seem to be led by instinct to use the proper action for their preservation, while rational creatures, being aware of their danger, grow fearful or impatient, and begin to struggle, which has the effect of making them sink in the water.

The first thing that must be learnt, is to divest yourself of all fear; and then, if you follow the instructions given in this little Work, and practise them frequently, you will soon attain the pleasant Art of Swimming, which, once obtained, you can never forget.

The following instructions of the great Dr. FRANKLIN, are worthy of being studied and put

in practice by every one who wishes to acquire the art:—

DR FRANKLIN'S ADVICE TO BATHERS.

The only obstacle to improvement in this necessary and life-preserving art is fear; and it is only by overcoming this timidity, that you can expect to become a master of the preceding acquirements. It is very common for novices in the art of swimming to make use of corks or bladders to assist in keeping the body above the water. Some have utterly condemned the use of these; however, they may be of service for supporting the body while one is learning what is called the stroke, or that manner of drawing in and striking out the hands and feet that is necessary to produce progressive motion. But you will be no swimmer till you can place confidence in the power of the water to support you; I would therefore advise the acquiring that confidence in the first place, especially as I have known several, who, by a little of the practice necessary for that purpose, have insensibly acquired the stroke, taught as it were by nature. The practice I mean is this: Choosing a place where the water deepens gradually, walk coolly into it till it is up to your breast; then turn your face round to the shore, and throw an egg into the water, between you and the shore; it will sink to the bottom,

and be easily seen there, if the water is clear. It must lie in the water so deep as that you cannot reach it to take it up but by diving for it. To encourage yourself in order to do this, reflect that your progress will be from deep to shallow water; and that at any time you may, by bringing your legs under you, and standing on the bottom, raise your head far above the water; then plunge under it with your eyes open, which must be kept open before going under, as you cannot open your eyelids for the weight of water above you, throwing yourself toward the egg, and endeavouring by the action of your hands and feet against the water, to get forward till within reach of it. In this attempt you will find that the water buoys you up against your inclination; that it is not so easy a thing to sink as you imagined, and that you cannot but by active force get down to the egg. Thus you feel the power of the water to support you, and learn to confide in that power, while your endeavours to overcome it, and to reach the egg, teach you this manner of acting on the water with your feet and hands, which action is afterwards used in swimming to support your head higher above the water, or to go forward through it.

I would the more earnestly press you to the trial of this method, because, though I think I

have satisfied you that your body is lighter than water, and that you might float in it a long time with your mouth free for breathing, if you would put yourself in a proper posture, and would be still, and forbear struggling; yet, till you have obtained this experimental confidence in the water, I cannot depend on your having the necessary presence of mind to recollect that posture and the directions I gave you relating to it. The surprise may put all out of your mind. For though we value ourselves on being reasonable knowing creatures, reason and knowledge seem, on such occasions, to be of little use to us; and the brutes, to whom we allow scarce a glimmering of either, appear to have the advantage of us.

I will, however, take this opportunity of repeating those particulars to you, which I mentioned in our last conversation, as, by perusing them at your leisure, you may possibly imprint them so on your memory as on occasion to be of some use to you.

1. That though the legs, arms, and head, of a human body, being solid parts, are specifically something heavier than fresh water, yet the trunk, particularly the upper part, from its hollowness, is so much lighter than water, as that the whole of the body taken together is too light to sink

wholly under water, but some part will remain above, until the lungs become filled with water, which happens from drawing water into them instead of air, when a person in the fright attempts breathing while the mouth and nostrils are under water.

2. That the legs and arms are specifically lighter than salt water, and will be supported by it, so that a human body cannot sink in salt water, though the lungs were filled as above, but from the greater specific gravity of the head.

3. That therefore a person throwing himself on his back, in salt water, and extending his arms, may easily lie so as to keep his mouth and nostrils free for breathing; and by a small motion of his hands may prevent turning, if he should perceive any tendency to it.

4. That in fresh water, if a man throw himself on his back, near the surface, he cannot long continue in that situation, but by proper action of his hands on the water. If he uses no such action, the legs and lower part of the body will gradually sink till he comes into an upright position, in which he will continue suspended, the hollow of his breast keeping the head uppermost.

5. But if, in this erect position, the head is kept upright above the shoulders, as when we stand on the ground, the immersion will, by the

weight of that part of the head that is out of the water, reach above the mouth and nostrils, perhaps a little above the eyes, so that a man cannot long remain suspended in the water with his head in that position

6. The body continuing suspended as before and upright, if the head be leaned quite back, so that the face looks upward, all the back part of the head being then under water, and its weight consequently in a great measure supported by it, the face will remain above water quite free for breathing, will rise an inch higher every inspiration, and sink as much every expiration, but never so low as that the water may come over the mouth.

7. If, therefore, a person acquainted with swimming, and falling accidentally into the water, could have presence of mind sufficient to avoid struggling and plunging, and to let the body take this natural position, he might continue long safe from drowning, till perhaps help would come. For as to the clothes, their additional weight, while immersed is very inconsiderable, the water supporting them, though, when he comes out of the water, he would find them very heavy indeed.

But as I said before, I would not have you or any one to depend on having this presence of mind on such an occasion, but learn fairly to swim,

as I wish all men were taught to do in their youth ; they would on many occurrences be the safer for having that skill, and on many more the happier, as free from painful apprehensions of danger, to say nothing of the enjoyment in so delightful and wholesome an exercise. Soldiers particularly should, methinks, all be taught to swim ; it might be of frequent use either in surprising an enemy or saving themselves. And if I had now boys to educate, I should prefer those schools (other things being equal) where an opportunity was afforded for acquiring so advantageous an art, which, once learned, is never forgotten.

I know by experience, that it is a great comfort to a swimmer, who has a considerable distance to go, to turn himself sometimes on his back, and to vary in other respects the means of procuring a progressive motion.

When he is seized with the cramp in the leg, the method of driving it away is to give the parts affected a sudden, vigorous, and violent shock ; which he may do in the air as he swims on his back.

During the great heats of summer there is no danger in bathing, however warm we may be, in rivers which have been thoroughly warmed by the sun. But to throw one's self into cold spring water, when the body has been heated by exer-

cise in the sun, is an imprudence which may prove fatal. I once knew an instance of four young men, who having worked at harvest in the heat of the day with a view of refreshing themselves plunged into a spring of cold water: two died upon the spot, a third the next morning, and the fourth recovered with great difficulty. A copious draught of cold water, in similar circumstances, is frequently attended with the same effect in North America.

The exercise of swimming is one of the most healthy and agreeable in the world. After having swam for an hour or two in the evening, one sleeps coolly the whole night, even during the most ardent heats of summer. Perhaps the pores being cleansed, the insensible perspiration increases and occasions this coolness. It is certain, that much swimming is the means of stopping a diarrhoea and even of producing a constipation. With respect to those who do not know how to swim, or who are affected with a diarrhoea at a season which does not permit them to use that exercise, a warm bath, by cleansing and purifying the skin, is found very salutary, and often effects a radical cure. I speak from my own experience, frequently repeated, and that of others to whom I have recommended this.

You will not be displeas'd if I conclude these

hasty remarks by informing you, that as the ordinary method of wimming is reduced to the act of rowing with the arms and legs, and is consequently a laborious and fatiguing operation when the space of water to be crossed is considerable, there is a method by which a swimmer may pass to great distances with much facility; by means of a sail. This discovery I fortunately made by accident, in the following manner.

When I was a boy I amused myself one day with flying a paper kite; and approaching the bank of a pond, which was near a mile broad, I tied the string to a stake, and the kite ascended to a very considerable height above the pond, while I was swimming. In a little time, being desirous of amusing myself with my kite, and enjoying at the same time the pleasure of swimming, I returned: and loosing from the stake the string with a little stick which was fastened to it, went again into the water, where I found that, lying on my back, and holding the stick in my hands, I was drawn along the surface of the water in a very agreeable manner. Having then engaged a boy to carry my clothes round the pond to a place which I pointed out to him on the other side, I began to cross the pond with my kite, which carried me quite over without the least fatigue, and with the greatest pleasure imagin-

able. I was only obliged occasionally to halt a little in my course, and resist its progress, when it appeared that by following too quick, I lowered the kite too much; by doing which occasionally, I made it rise again. I have never since that time practised this singular mode of swimming, though I think it not impossible to cross in this manner from Dover to Calais. The packet-boat, however, is still preferable.

B. Franklin.

GOING INTO THE WATER.

Such persons as do not know how to swim, should go slowly into the water; but those who are expert swimmers, may leap in at once, with their head or feet perpendicular; or they may hold their right hand, or both hands, behind their neck, and throw themselves from the bank, head foremost, striking the water with the calves of their legs one after the other.

The only inconvenience attending these methods, is the danger of taking water at the nose and ears which may easily be prevented, by holding in the breath. Caution is requisite to all learners, as it sometimes happens in expert swimmers that they strike against the bottom, which is very disagreeable, and that in a great depth you are obliged to hold in your breath a long

while; but this you may remedy, by turning on your back when you begin to get near the bottom, as you will cease to descend when you begin to turn yourself. The coldness of the water is a little troublesome at first, but in a short time it wears off.

HOW TO BEGIN TO SWIM.

When you have gone so far in that the water reaches your breast, you are to put yourself in a right posture for swimming, by lying down gently on your belly, keeping your head and neck upright, your breast advancing forward, and your back bending; then withdraw your legs from the bottom stretching them out in imitation of a frog; stretch out your arms also, and spread them open, then draw them in again towards your breast: strike forward as may strokes as you can, first with your hands, and then with your feet, and you will find this way easy and pleasant. Be not at all afraid lying along the water when you know the bottom. It will sometimes happen that you drink down some water, but that ought not to discourage you, nor need you imagine that you are not as capable of learning to swim as well as others, for the same thing happens almost to all beginners; for it is common at first learning, in lying along the water, to sink down, and be ready to be stifled in

holding your breath. It is usual at first, for these reasons, to administer sundry helps ; as, to be assisted to hold up the chin, or procure a bundle of cork or bladders, which are the best helps for young beginners.

Take special care that the water be not higher than your breast, nor shallower than up to your belly.

FLOATING.

When you are upright in the water, lie down on your back very gently ; elevate your breast above the surface of the water ; and, in the meantime, keep your body always extended in a right line, your hands stretched to the outside of the thighs, striking out and drawing in your legs successively, and keeping them within two feet of the surface of the water, and govern yourself accordingly. It is true, there will always be a great part of the head under water, which makes most beginners not care for this way ; notwithstanding which, it is the most easy and safe method of swimming, and that wherein we may continue longest, for it least tires, and one is not forced to drink so much water as when swimming on the belly : besides, we more easily cut through the waves, and run not so great a risk of being entangled among weeds as on the belly. At the

beginning it will be found difficult, as you can scarce forbear using your hands. Take especial care that you do not, through fear, put down one of your legs to feel for the bottom: for, though you need not fear sinking, such a motion of the foot is the ready way to make you do so. You must also take care not to lift your knees too high, nor sink your hips and sides too low, but keep your body extended in the same straight line as already directed.

The great evil in floating is, that one cannot see properly what direction they are taking, and if one floats a long time without turning, he may come in contact with some substance and be injured; therefore, it is necessary to turn on the belly frequently, and by changing from the back to the belly alternately, it will afford such relief as to enable him to continue a long time in the water before he is exhausted.

FURNING.

When you mean to turn while swimming in the ordinary way, it requires no farther trouble than to incline your head to the right or left side which ever you wish to turn on, and throwing aside the water with the arm and leg that is undermost, in the same manner as one would do were he wishing to turn himself in bed, or on the floor:

and in turning from floating to swimming one has only to lower the side that he means to turn on, and embrace the water with the arm and leg that is uppermost; another way is, when you are swimming bring your knees towards your belly and let your body fall in the water till it come to the perpendicular, then stretch out your hands behind you, the feet are then to be forcibly struck downwards, and at the same time you are to throw yourself on your back; and in turning from floating to swimming allow the body to drop into the water as above, stretch out your hands before you, and pressing your feet downwards, throw yourself on your belly.

SWIMMING BACKWARDS.

When lying on the back we push ourselves onward with our feet and legs; but to do the contrary, and proceed forward, we must, lying always on the back, keep the body extended at full length in a straight line, the breast inflated, so that the part of the back which is between the shoulders must be concave (or hollow) and sunk down in the water; the hands on the belly. Being in this posture, you must lift up your legs one after another, and draw them back with all force you can towards your hams, letting them fall into the water, for thus you will return to the

place whence you came. This way is not only very pleasant, but also, when you find yourself wearied with swimming, and far distant from the shore, it may be useful to rest yourself.

DIVING.

If men sink to the bottom of the water it is their own fault, nature having laid no necessity on them of doing so; nay, there is not only occasion for force and strength, but also art, to do it safely, speedily, and handsomely; but those who are expert at swimming do it, on occasion, as swift as an arrow, and descend perpendicularly or obliquely as they please. The first way of doing it is, to begin standing on your feet touching the bottom; then afterwards rise up, your head bowed down, so that your chin must touch your breast, the crown of your head being turned towards the bottom, holding the backs of your hands close together, right before your head, and sinking or striking them down first with all the swiftness and exactness you can: and thus you may dive to the bottom.

SWIMMING UNDER WATER.

In the first place, you are to determine whether you are to swim at the bottom of the water, or near the surface, or in the middle. You first of

all dive down, the two hands must be turned back to back, and close to one another; after which you must extend them with all the swiftness you can, your thumbs turned upwards, and your fore-fingers towards the bottom; and if you have a mind to deseend yet lower, you must, as your hands are extended, still strike them down lower in the water. If, eantrariwise, you would reasceend towards the surfaee of the water, you must keep the palms of your hands open, and your thumbs towards one another, as when you swim on your belly; the palms of your hands being towards the bottom, and your two thumbs, as I have just now said, towards one another. He that would swim in the middle, or between top and bottom, must grasp with both his arms the water before him, attracting it towards him, keeping in the mean while his thumbs turned more towards, the bottom of the water than the rest of his hands. You may have occasion to swim thus, when you are to seek for any thing at the bottom of the water, or to pass unseen from one shore to another; sometimes to help one in danger of being drowned: But in this last case, you must take eare not to come too near, neither under water, nor on the surface, to any one in that danger, for if such a one takes hold of you, you are in great danger of being lost.

To proceed therefore in that case safely, you must keep at a distance, as ten or twelve feet off; your best way will be not to lay hold of him till he is quite sunk down, and lost the use of his sight; and if you have observed the place where he is, you may endeavour to take hold of him by the hair, and so draw him on your back, taking care always that he does not lay hold of you, or otherwise hamper you. You may thus draw him to some shallow place: or if you have any string or rope about you, leave one end on the shore in the hands of your companions, and fasten the other to him, and so let them draw him out.

SWIMMING LIKE A DOG.

You are not to imagine that this way is difficult, for it is so far from it, that several who never knew how to swim before, by practising it by chance, have kept themselves above water. To swim like a dog, you must lift up and depress one hand successively after another, and do the same also with your feet, only with this difference, that with your hands you must draw the water towards you, and with your feet drive it from you; begin with the right hand and right foot, and afterwards with the left hand and foot, and so successively. This way of swimming is very useful for disengaging yourself from weeds under water.

TO BEAT THE WATER.

You strike the water with your right and left legs, when swimming on the back, at each extension of the legs, lifting them up out of the water one after another, you strike the water so that it starts into the air. Those who are most expert at this bring their chins towards their breast at each extension. There are some who, not satisfied with going so far, only, to perform the business more gracefully, lift up their legs higher than others, strike the water at each extension, sometimes with the right leg, sometimes with the left, and at the same time turn the whole body. This is the most agreeable manner of all. To perform this, you must keep your body extended on your back, expand or inflate your breast, and keep it almost out of the water, the palms of both your hands extended and turned towards the bottom; for it is the office of the hands to keep up the body while you strike and open your legs; but if at the same time you have a mind to beat water, and turn yourself, in that case, supposing your right leg is up out of the water, you must strike the water with that, and at the same time lift up the left leg, and by the same action turn your whole body. This agility makes swimming very easy, and does not require so much force as the following.

TO SHOW BOTH FEET OUT OF THE WATER.

One may swim holding both feet out of the water, and this is very easy; you may also not only remain so in one place, but also make advances forward. You must place yourself on the back, and bend the small of it contrariwise to what is practised in other ways of swimming; your hands must be on your belly, the palms of them open, moving them to and fro, like oars, which must sustain your body while your feet are shown. This way of swimming serves to show you whether your feet are clean or not, after having taken them from the bottom.

TO TREAD THE WATER.

By this way you remain upright in the water without making any motion with your hands, only you move the water round with your legs from you, the soles of your feet being perpendicular to the bottom: you may make use of this if you are cast into the water bound hand and foot. Swimming on the belly is also serviceable in this rencounter. Treading the water is very advantageous, for it leaves us the free use of our hands. One may make use of it in defending one's self; but it ought not to be practised where the bottom is full of rushes or weeds, for they

may entangle one or even both of the legs; and in such case you may use the following method.

TO SWIM HOLDING UP ONE LEG.

This way seems at first to be the same with that of showing the feet out of the water, which we have already taught, but it is very different from it; for while you hold up one of your legs, both your hands must embrace and gather together, as it were, the waters, striking them under you, and driving them off; the other leg must not be lifted up above half-way, beating the water frequently therewith, by quick and short strokes. This is an easy way to carry any thing from one side of a river to the other, by fastening it to your great toe: but you may perform the same thing more easily, as follows:—

TO SWIM HOLDING UP BOTH HANDS.

While you swim on your back, it is easy to put your hands to what use you please, but it is difficult to hold them upright, and swim at the same time too. It would appear at first sight as if this were the most easy method we have yet taught. You must take care, lest while you lift up your arms, the thorax or breast be not contracted, for in that case you sink. The whole art of this way

of swimming consists in heaving up the breast as high, and keeping it inflated as much as possible, while your arms are held up.

TO SUSPEND YOURSELF BY THE CHIN.

You cannot easily imagine how this manner of swimming is performed, as it is indeed very surprising. By this means you may stand upright in the water, though ever so deep, without fear of sinking. To make you comprehend it, you are to remember, that when you swim on your back, you lie still, your legs being extended; when you find yourself in that posture, you must let your legs go down or sink; and when they come to be perpendicular to the bottom, you must take them up again, bending your knees, and inflating your breast; and as to the arms and hands, whereof the back parts lie flat on the water by the shoulders, you must sometimes extend them on the one side, sometimes on the other, sometimes shut them, turning the palms towards the bottom, the fingers close to one another, holding your chin as upright as possible. This way, which seems so surprising, is sometimes very useful; suppose, at any time, the ice should happen to break under your feet, this way will be of vast advantage to secure yourself from the danger.

It may also be very advantageous in case a man is obliged to save himself from some enemy pursuing him, by leaping into the water in a dark night; for in that case one may wait, without making any noise, till he has passed by, and then go again on shore.

TO SWIM ON THE BELLY, HOLDING BOTH HANDS STILL.

This is easily performed in the following manner. You must keep your breast advancing forward; your neck upright on the water, both your hands fast behind your head, or on your back, while in the meantime, your legs, and thighs push you forwards by the same motions you make when you swim on your belly. This mode of swimming may be useful in case of any accident, as the cramp, &c. should happen to your arms, or if you were forced to swim with your hands tied behind you, and your life depended on it. The same thing may be performed by placing yourself on your back, but the other way is most advantageous, because you may see your way before you; and those that swim on their back are obliged to turn themselves often for that purpose. Besides the hands are here at rest, but must be employed if you turn yourself on your back.

FINIS.