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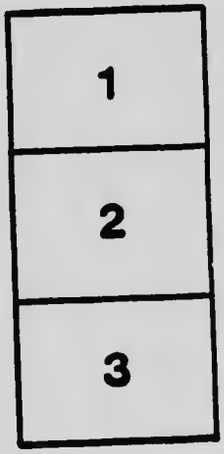
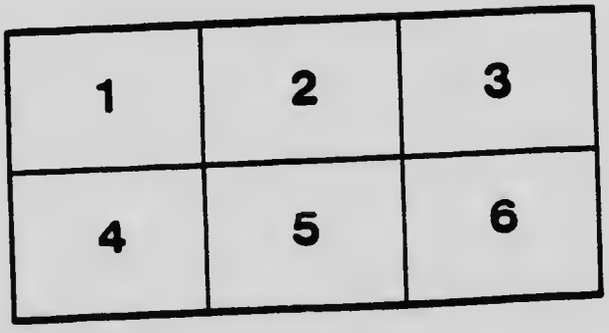




Swimming

BY

T. W. SHEFFIELD

HOLDER OF
KING EDWARD VII. TROPHY
HON. MEMBER ROYAL
LIFE SAVING SOCIETY

ILLUSTRATED WITH SPECIAL PHOTOGRAPHS

906.

75

Swimming

By

T. W. Sheffield

Holder of King Edward's Trophy, World's Competition, 1905,
Honorary Member Royal Life Saving Society.

"And I have loved thee, Ocean! and my joy
Of youthful sports was on thy breast to be
Borne, like thy bubbles, onward; from a boy
I wanton'd with thy breakers—they, to me,
Were a delight; and if the freshening sea
Made them a terror—'twas a pleasing fear,
For I was, as it were, a child of thee,
And I trusted to thy billows far and near,
And laid my hand upon thy mane—
As I do here."

—*Byron*

Illustrated with Special Photographs from the World's followers of the sport.

TORONTO
THE MUSSON BOOK COMPANY
LIMITED

T. W. SHEFFIELD.

T. W. SHEFFIELD

Holder of King Edward's Trophy, World's Competition, 1905
Champion Bedford County College, 1889

Honorary Member Royal Life Saving Society.
Vice-President Toronto Swimming Club.
Honorary Member Hamilton Y. M. C. A. Swimming Club.
A Late Member London Amateur Swimming Club.
A Late Member Manchester Swimming Club.
Captain Birkenhead Swimming Club.
A Late Member Durban Swimming Club, Durban, South Africa.
Founder Hamilton Swimming Club, Hamilton, Canada.
Founder Hamilton Centre Royal Life Saving Society.
Founder Lindsay Centre Royal Life Saving Society.
Holder One Mile Certificate of the Southern Counties' Swimming Association.
Award of Merit Royal Life Saving Society.
Holder of Proficiency Certificate and Medallion Royal Life Saving Society.
Member Executive Committee Canadian Amateur Swimming Association.
Organizing Secretary and Hon. Instructor Hamilton Swimming Club.

"The records, experience and observations of T. W. Sheffield, extending over fifteen years, qualify him as a leading expert in the Swimming World of Canada."
—Donald M. Barton, Canada's Greatest Exponent of Physical Training.

Dedicated

To the memory of those who have lost their lives in the great waterways of the world.

AUTHOR'S PREFACE

To First Edition

The author desires to express his thanks for the valuable help accorded to him by many friends in the swimming world of Great Britain, Australia, Canada and America. Mr. William Henry, Secretary of the Royal Life Saving Society ; R. Sandon, President L. A. S. C., and others, whose assistance has so materially enhanced the value of this publication.

The photographs of the writer in the book were taken by C. M. Cunningham, Hamilton. The other illustrations were supplied by courtesy of "Camp Temagami"; C. Norris, President of the Toronto Swimming Club, and Professor Corsan, of Toronto.

PREFACE

THE endeavor of the writer will be to present the subject from a practical point of view, explaining away many of the misconceptions that exist on the art of natation. These impressions are written from close observations of the sport during the last fifteen years, in association and competition with the world's leading exponents of the art, including D. Billington, the all-round champion of Great Britain; the late B. B. Kieran, champion of Australia; Hy. Johansson, of Sweden, the world's champion diver; C. M. Daniels, of America, the world's champion speed swimmer; Life Saving Section; Wm. Henry, founder of the Royal Life Saving Societ,. The practical experience is taken from sea, lake, river and public swimming baths in Great Britain, Europe, South Africa, America and Canada. The description of Captain Webb's great channel swim was obtained from the Captain's brother, W. Webb. The illustration of the course fills a long-felt want by swimmers.

All theoretical and complicated diagrams are dispensed with on the plea that they discourage the young beginner; preferring to simplify the explanation governing any particular stroke.

style or method of tuition in the art. The diagrams of the different strokes comprise some of the most unique ever published, many of which have not hitherto appeared in any book written upon the subject, and form a valuable treatise in themselves for beginners and swimmers.

From the early days of the Roman Empire, swimming has been recognized as the cleanest, healthiest and most serviceable form of sport, its application offering daily opportunities for saving life throughout the waterways of the world. Every day somewhere or other in every country many lives are sacrificed. Had the victims themselves, or any of the spectators, possessed even a little knowledge of swimming, combined with the art of life saving, by the methods of the Royal Life Saving Society, it is beyond contradiction the terrible death roll recorded in the press would be reduced to a minimum. The seriousness of this question was brought prominently before the public in a series of articles published by the writer in the leading newspapers throughout the countries alluded to. The encouragement received from time to time by the support of the press, and public opinions expressed on the subject, gave reasonable hopes that the experience related in the following chapters would further stimulate to some extent public opinion in the cause of Swimming and Life Saving throughout the world. Opinions differ on swimming, as in all other forms of sport, but it is reasonable to

expect the reader will obtain some measure of success in mastering the art from a careful perusal of the subject which has been cut down to expressions of practical experience with leaders of the sport, which has considerably enhanced the writer's views on the subject.

CONTENTS

ILLUSTRATIONS

SPECIAL SERIES

Specially taken for this book, many of the positions shown have not appeared in any swimming book hitherto published on the subject.

CHAPTER I.

TEACHING THE ART OF SWIMMING.

THE subject of teaching is treated under two conditions, as the methods of tuition in the bath must be modified to suit the altered conditions prevailing in the open waters.

BREATHING.

The main principle governing all good swimming is to acquire the correct method of breathing. The pupil should be taught this in the early stages, as it creates a feeling of confidence, which should be the endeavor of the tutor to foster from the first. Special attention will be drawn to this important feature, as it is very often neglected, even by tutors themselves.

TEACHING IN SCHOOLS.

FIRST ACTION—BREAST STROKE.

The pupils should stand in line, in extended order, with the hands held thumb to thumb, palms downward, near and in line with the chest, about six inches below the chin, thrusting them forward slowly to their full length; the lungs being filled by inhaling through the mouth, during this action, being the reverse order of ordinary deep breathing.

BREAST STROKE—First Position, Land Drill.

Photograph showing the first position of arms and hands in the Breast Stroke. This position is taken up by beginners in the Land Classes on the command First Position.

BREAST STROKE—Second Position, Land Drill.

Photograph showing the correct position of the arms with the palms turned downwards. This position is taken up on the command Two of the Land Drill.

SECOND ACTION—BREAST STROKE.

When the arms are at the fullest stretch, the hands should be held thumb to thumb, and a full, even sweep made slowly with the arms, until they form a straight line through the chest. During this movement the air should be exhausted slowly through the nostrils, care being taken not to overstrain.

BREAST STROKE—Third Position, Land Drill.

Photograph showing correct finishing position of the Breast Stroke. This position is taken up on the command Three in the Land Drill, all of which should be governed by well-timed breathing.

THIRD ACTION—BREAST STROKE.

On completing the arm movement, the hands should drop to the side, when they are ready to be brought up to the first position.

The movement should be executed on the commands, one, two, three, the pupil continuing them until the combined actions are perfectly even, with normal long breathing as directed. It is one of the most essential objects of the land drill to see that pupils have thoroughly mastered this

BREAST STROKE.

Photograph showing the combined and frog-like action of the Breast Stroke. The head is shown too low down, a mistake often made by beginners. The chin should just be above the water-line, which position governs the correct inclination of the body in the water.

sadly neglected action. There is no doubt correct breathing, during the cycle of the stroke, secures an easy turning movement, preventing at the same time any undue, jerky motion, distinguishing at once the more finished swimmer from the novice.

LEG ACTION—BREAST STROKE.

When the pupil has become proficient in the arm movements, he can follow on with the leg exercises, first bringing the heel of the left foot to the level of the right knee, and touching the inside of the same, with the toes pointing downwards, continuing this alternately with the left and right leg until the pupil has the full movements under complete control. In all these exercises, strict attention must be paid to see that each action is combined with a steady, full inflation and deflation of the lungs, this being one of the most important features of the land drill.

Whilst admitting these are good for class purposes and general tuition, it will be readily appreciated a few practical lessons in the water are worth many on land. It is therefore advisable not to prolong the drill beyond the stage of all-round proficiency in the arm and leg movements, combined with well-timed breathing, as the drills are apt to become stale. The legs play the most important part in relation to quick propulsion through the water; it is therefore advisable to pay great attention to their relative actions, bearing in mind that no two swimmers in a hundred acquire quite the correct action or kick. This question will be dealt with more particularly in its connection with the different strokes described in the following chapters. When the pupil has thoroughly mastered the breast stroke, the more

complicated strokes, such as the under-arm, over-arm, trudgen and crawl, may be taught. It will advance progress more thoroughly if they are taken in the order mentioned, as there is a close relation between them; the explanation for this is given in the chapters dealing with these particular strokes. These can be better shown by practical demonstrations in the baths, with the advantage

PHOTOGRAPH OF BREAST STROKE.

This photograph shows the legs fully extended for the inward sweep in the Breast Stroke. An original view on this simple, yet important, stroke for beginners.

that the correct action or kick can be shown with the body at its normal inclination in the water.

Many devices and inventions are favored by the beginner, such as "water-wings," "cork buoys," and different apparati in the baths. These and

all similar devices are practically useless, unless under the supervision of a qualified instructor. Many promising swimmers have been spoiled in their early career by placing a lazy reliance on these artificial means of support. If there is much difficulty in getting the pupil into the correct leg stroke, it is a good plan, in some cases, to secure a piece of wood about 3 ft. 6 in. long, 1 ft. broad and 2 in. thick, rounded at the forward end, letting the pupil lie on this with the arms stretched at full length along the sides, chest resting on the board, with the lower part of the body quite free. In this way the pupil can pay more attention to his legs, at the same time progress through the water will be fairly natural. Discard the board immediately the results are satisfactory. The best method, after the pupil has become proficient in the land drill, is to enter the water with him at the shallow end of the bath and show him the correct actions by taking hold of the rail with the right hand, allowing the left hand to press against the side of the bath some twelve inches or so below the level of the water. In this manner the body is brought to its normal position, and the different leg movements, when executed slowly, are shown to the highest advantage. After the pupil has been initiated in the mysteries of their relative actions, he should be put through the same course. On becoming fairly proficient, he should face the opposite side of the bath, and be assisted to swim across—the less assistance given the better; the best method being

to place the hand under the lower part of the chest, giving just sufficient buoyancy to keep the chin above water. Many instructors prefer to hold the chin, but in doing this it interferes with the breathing, one of the main actions which should be carefully guarded against. When the pupil has acquired the confidence to swim across alone, it is advisable to let him make further progress unaided, being encouraged at the same time to gradually increase the distance by swimming the length of the bath. On no account attempt to teach the different strokes until highly proficient in the breast stroke.

TEACHING IN LAKE, SEA OR RIVER.

The best procedure, after going through the land drills, is to select a sloping shore with a sandy bottom, the pupil being supported, as in the bath method, with the instructor on the outside, or deep side, walking in line with the shore, or towards it, *never away from it,* being careful not to stumble or in any way take his or her attention off the pupil, as the slightest suspicion of neglect induces nervousness, which must be avoided, as it deters good progress being made.

For teaching at the seaside, avoid rough weather or waves breaking over the pupil; many promising youths get a setback even from this seemingly small cause. Of course, this more particularly applies to juniors, whose *timidity* is the worst feature to overcome. It is always advisable

to ascertain which way the tide runs, *i. e.*, down or up the coast, at the same time selecting a spot frequented by swimmers. *Never* go to secluded places; there may be sand holes, or springs causing deep recesses, which are treacherous and dangerous, and the pupil, on trying to recover his standing position, would get a shock; and although he would be quite safe with an experienced swimmer, it leaves a nasty impression behind. The same precautions have to be taken when giving instructions in river or lake.

There are many side issues on this all-important question of teaching, but it may reasonably be assumed the simple methods advanced for learning the breast stroke will prepare the pupil for the more advanced strokes of the art. At the same time, it is well to bear in mind the breast stroke develops the chest and respiratory organs, which increases circulation and strengthens the body generally.

SWIMMING ON THE BACK.

The back stroke is one of the most useful a swimmer can learn, and should follow the breast stroke immediately the pupil becomes proficient in it. It is a regrettable fact that many otherwise fine swimmers neglect this particular stroke, its main advantage being that it is one of the most restful strokes during a long distance swim, as it brings into play more directly a fresh set of muscles—a very useful procedure when nursing

oneself for the last mile or so. The foregoing naturally only applies to certain cases, as many long distance swimmers prefer to start and finish on the stroke they have adopted throughout their training. The main function of the back stroke is for life saving work, being indispensable when passing the examinations for the certificate or medallion, many experts at the other strokes failing to pass through neglecting this easy method of progress through the water. It comes into service in all instances, when either giving assistance to a swimmer taken with cramps or rescuing a drowning person, being the only correct method when necessary to turn a struggling subject on his or her back in order to keep their nose and mouth above water, either by the first, second or third method described in the chapters dealing with the life-saving methods of the Royal Life Saving Society.

Quite apart from the foregoing important reason for not neglecting this stroke, it is the least fatiguing of all strokes, requiring very little energy, as the body is in the best position, displacing the minimum volume of water required to sustain the body in the position required. It is interesting to note that more attention is being paid to this particular stroke than hitherto, mainly on account of its direct connection with life-saving and speed swimming in the four style races, which are a very attractive item on any aquatic programme.

CHAPTER II.

SIDE AND OVER-ARM STROKE.

The reader will notice that the breast and back stroke have been dealt with conjointly, there being no doubt this is their natural sequence for beginners. Following these in their respective relation to each other, we come to the side and over-arm stroke, two strokes that have achieved splendid records in the latter day annals of swimming, these giving way to the modern fast speed strokes —the trudgen and crawl.

Many text books neglect to group the different strokes in this order, but it may reasonably be accepted this classification is suited to the pupil's progress, on the principle that it is best to take the easier and generally more useful strokes first. It will be seen there is a very close connection between the side stroke and over-arm stroke, the action of the legs being identical in each case. The same may be said of the arms, with the exception that in the over-arm stroke, the left or right arm, according to which side the swimmer uses, comes out of the water, making a complete circle, taking the hand from the point of entering the water to its complete evolution ready for the next stroke. It is a good practice to get the pupil to adopt the side stroke first, mainly because this gets the swimmer into the correct method of turn-

ing on the side with the advantage of giving him the correct method of breathing, not being necessary for the head to be submerged with each stroke, as in the over-arm stroke. Both these strokes require the quick scissors-like kick which has done so much to improve the style and speed of the fastest exponents of the day. The scissor stroke for the leg is quite of recent date, being perfected in the first instance by the leading swimmers in that home of the art—Lancashire, Great Britain. This centre has long been recognized as the school of the principle fast and long distance swimmers of the world, including such champions as I. H. Tyres, J. Nuttall, David Billington, E. Forsyth and many other record-breakers.

It is very important to teach the pupil, and even advanced swimmers of the art, the great advantages of paying particular attention to the leg kick. The action is somewhat difficult to explain clearly, or even illustrate, but may briefly be described as follows: The leg stroke in side or over-arm swimming is a very short, quick movement, both legs being kept absolutely straight as far as the knee, the under leg being always kept back sufficiently to give a powerful, yet steady, kick, the upper leg being kicked forward from the knee only, the legs, in their complete cycle, crossing each other similar to the action of opening and closing a pair of scissors. Before this all-important kick was developed, the legs used to be drawn

right up under the body, as in the breast stroke; this caused a pronounced *stop* or dead *point* at the end of each stroke, due to too much time being taken in pulling the legs back to their normal position. This stop or dead point is practically eliminated with the improved kick. It is imperative for the beginner or advanced swimmer learning the kick to become acquainted with its action by watching one who has become proficient with it in the water, following this up by emulating the example slowly in the water, with the instructor giving the necessary hints when following on the side of the bath, or in a boat in open water practice. It is only by perseverance reasonable proficiency can be gained in this kick, but it is well worth the extra time and patience that is required.

SIDE STROKE.

For the side stroke the swimmer may select either side, that is, right or left, according to the natural inclination. It is advisable to try a pupil on both sides before selecting a definite side, as it naturally follows the movements may be better suited to his particular build or action on the right side, or vice versa, although it is an advantage to be able to swim equally well on either side. In swimming the side stroke the body of the average swimmer is slightly lower in the water than in any other stroke, due to the body cutting the water sideways. The left or right arm, as the case may

be, shoots straight out under the water, slightly above the level of the shoulder, to its farthest reach, being brought down to the side with the elbow slightly bent, the hand being hollowed for the downward sweep on its return to the starting point near the left or right side of the body, as the case may be. The upper arm is shot forward along and in line with the chest to its farthest reach, when it takes a full downward sweep, completing the action, the palms of the hands being turned inwards in line with the legs ready for the next stroke. When completing the forward stroke alternately with each arm, the hands should be hollowed in order to get the fullest possible pull in the water. The combined movements, if evenly carried out without jerking any part of the stroke, make it appear one of the easiest to control, as the surface of the water is not broken at any part of the stroke.

OVER-ARM STROKE.

The similarity of the over-arm stroke is closely allied to the under-arm stroke, with the exception that the right or left arm, according to which side is submerged, makes a complete circle. The over-arm is the faster of the two, due to the fact that the arm is brought *above* the surface of the water in the line of least resistance, the arm making a complete circle, with the palms turned outwards, the hands being sideways when entering the water,

turning the palms downward when the under-sweep is made, completing the circle for the next stroke.

The swinging action and weight of the arm when suspended in the air during the time taken in making the top half of the complete circle, causes the head to become slightly submerged, regaining its normal position above water by the impetus of the upward swing at the commencement of the stroke. The lungs should be inflated by quickly inhaling the air during the upward movement, exhaling it through the nostrils on completing the stroke. The correct time and breathing action can only be acquired by practice. It is imperative to get this down to a fine point, always remembering the most power is got out of the stroke during the time the lungs are fully inflated, which is the psychological moment for getting the limit of speed out of the stroke.

CHAPTER III.

THE TRUDGEN STROKE.

The "trudgen" stroke is undoubtedly one of the fastest racing strokes of the time, and although suitable for this class of work, it is also a very useful stroke in long distance swimming. When the cycle of movements governing the actions propelling the body through the water are correctly carried out, it is one of the prettiest strokes the pupil or average swimmer can adopt. The trudgen is practically a double over-arm stroke combined with a scissor kick. It is the least tiring of the more advanced stroke, mainly because the body lies in a flat position in the water, obtaining the greatest buoyancy, the strength only being required to overcome the resistance of the body. Like all other strokes in swimming, there is only one correct trudgen, and this should not be confused with the generally accepted form of this stroke. For learning the trudgen, the pupil should take up the correct kick first. It is exactly the same as used in the side and over-arm, but requires more practice, as the different position of the body, combined with the alternate action of the arms, is very apt to distract your attention, and if not careful at the outset the pupil falls into a slovenly kick. The trudgen, although looking apparently simple when shown by an expert, is

in reality rather a difficult stroke to learn or teach, as the different movements must be executed without the slightest sign of jerking the stroke at any one point, which gives that steady forward progress, denoting a master of the stroke from the first action on entering the water. It is therefore advisable to take this stroke in stages, getting the correct leg kick, following on with the

TRUDGEN STROKE.

Photograph showing the left arm in the downward sweep, palms downward, of the Trudgen Stroke. Right arm follows on left arm completing.

arms. For the arm movement the body should rest on the water with the hands at full reach in a direct line from the shoulders, palms down, which is the first and last position of the alternate finish of the right and left arm action. When the right arm is making the downward pull the elbow should be quite rigid until it comes straight down

alongside the right leg, when the elbow is bent and the arm brought forward well above the water the hands coming out sideways, palms outward. The semi-circle described in the arm stroke of the trudgen is similar to the over-arm stroke. When it is at its highest point from the

TRUDGEN STROKE.

Unique photograph showing the full sweep of the left arm with right arm coming into action.

water it is nearly at right angles. When the right arm is in line with the legs, the left or under arm is just catching the water, beginning another stroke as the right arm lifts to go forward. Many swimmers give a slight roll, which adds to the

gracefulness of the stroke, if not carried too far. It is essential to see that particular attention is paid to well-timed and regular breathing. When the head comes up in its natural incline to the right or left, as the case may be, the head should turn from the shoulder to the side the upper arm is going to be, when a long, deep breath should be

TRUDGEN STROKE.

Unique head-on view showing the right arm action in the Trudgen Stroke, which comes into play immediately the left arm leaves the water.

taken. When the head is twisted back to its normal position, the breath being exhaled through the nostrils under the water, retaining the same until the stroke is nearly completed, *i.e.*, inhaled while the upper arm is pulling, exhausting while the under arm recovers. The improved trudgen

undoubtedly owes its popularity to Mr. T. Trudgen, who gave some wonderful exhibitions of speed swimming with this stroke for handicaps ranging from 100 to 160 yards. Many beginners imagine this is a modern stroke; this is not so, as it is believed to be a revival of an old and forgotten style used by the North American Indians. Strong support to this theory is given by the fact that the Indians of to-day are very poor swimmers, and although the canoe is part of their life, they are not fond of swimming. This more particularly applies to the Indians residing in or near the Great Lakes of Canada. It may be interesting to note that the Zulu, natives of Zululand, are also poor swimmers. The writer once gave an exhibition to some several hundred Zulus north of Durban, South Africa, and out of the whole bunch only two or three would enter the water in a vain attempt to emulate the styles of swimming; their methods following those adopted by ladies bathing at the seaside, *i.e.*, bobbing up and down; but instead of the accustomed hearty laugh or shriek, they uttered deep guttural sounds of surprise when the buoyancy of the Indian Ocean upset their centre of gravity.

The trudgen has many advantages over the over-arm stroke, and from records already established it is practically certain to become universally adopted for short and long distance swimming, although the single over-arm stroke will naturally retain a certain following.

THE CRAWL STROKE.

The great advantage and interest in the crawl stroke in Great Britain and America is undoubtedly due to the fine records established by the late B. B. Kieran, of Australia. Indeed, it is beyond contradiction that his fine performance was a revelation at the time, of what a properly

AUSTRALIAN CRAWL STROKE.

Photograph of T. W. Sheffield, showing the relative position of the left arm to the right leg on coming into action and left leg and right arm completing. This view gives a general idea of the complete cycle of movements governing the limbs. A careful study will convince the average swimmer there are practically no dead points or stops in the stroke, which accounts for the body's even progress through the water.

executed leg kick could do, both in speed and long distance swimming. The writer's observations were taken during the time of practicing for the King Edward Trophy in 1905. Some personal remembrances are given of this young and bril-

lant swimmer, whose career in the swimming world was all too short.

The crawl stroke is an abbreviation of the over arm, combined with a leg kick adopted by Australian swimmers from the aborigines of the South Sea Islands, who can, with this particular stroke, break through the heavy surf characteristic of these seas, the force of which would make many exponents of the art think twice before emulating their example.

The following points, taken from the style of the late B. B. Kieran, will no doubt make this somewhat difficult stroke more readily appreciated by the pupil and average swimmer than hitherto. The principal feature in the crawl stroke undoubtedly lies in the fact that it ensures good breathing, combined with the powerful leg kick, which is its chief characteristic, more so with this stroke than any other, as it is a continuous reciprocating motion or thrash of the leg from below the knee to the ankle, an extra flip being imparted immediately the leg commences its work, in exactly the same manner as a fish gives the first impetus through the water by a sudden flip of its tail, the movement of the body being quite even until the extra flip is given, being so powerful in the case of salmon that they can leap over weirs twenty feet high.

THE CRAWL'S MAIN ACTION.

The downward thrash of the left leg synchronises with the stroke of the right arm, which is bent from the elbow, the hands being slightly in advance of the face, palms outward, catching the

AUSTRALIAN CRAWL STROKE.

Unique photograph showing the right arm in full action, with left coming over, which would be slightly bent at the elbows before entering the water just in front of the head.

water with a decided sharp thrust until they reach the hip, lifting them clear of the water in the forward movement, with the elbow well up in the

air, the under arm starting just as the upper arm finishes. For the leg thrust, move the legs up and down, keeping them stiff at the hip, holding the knees closely together. The downward travel should be between fifteen to twenty inches from heel to toe, varying this to the travel which suits best and which can be sustained the longest without undue strain. The breath should be inhaled through the mouth only every two or three strokes by a quick twist of the head as the upper arm is being brought down, exhaling through the nostrils as the under arm goes forward.

The action of the right leg and left arm are synchronous, coming into play just before the right arm and left leg complete their part of the stroke. It is this quick taking up of the latter movement that propels the body continuously forward, there being no dead point or check during the complete cycle of movements governing the stroke.

Many swimmers who have adopted the Australian crawl make a perceptable check, which is due to incorrect leg thrust. This is very noticeable when the stroke is taken slowly, and should be rectified at once, as it is an action that is difficult to get out of. Indeed, it requires an expert coach to impart the correct timing and action of this stroke, requiring more direct supervision than any of the foregoing strokes. The crawl stroke will undoubtedly be the classic stroke of all leading exponents of the art, although many will pre-

fer the "trudgen" for its simple actions. It is not improbable the Australian crawl will undergo some slight modifications, while retaining its name and popularity. There are many varieties of the crawl stroke, each swimmer experimenting or making the action suit his particular build, which all leads to progress, as it will be found that

AUSTRALIAN CRAWL STROKE.
Unique photograph showing the right arm slightly bent.

through discarding some detail of the stroke it is not true in its style. This will eventually lead to recognized clubs insisting on its correct action being adhered to in all competitive and international competitions when competing with this particular stroke, on the principle that it is quite

imperative to have correct form and conditions in swimming races of a particular class or style, as it is to keep trotting ponies from galloping when running in a trotting race. It is very apparent from observations taken during the last five years that very few swimmers are following the lead taken by C. M. Daniels in this particular stroke, his world's record for the 100 yards being 55 2/5 seconds, which conclusively proves that it is well adapted for speed swimming by those who take the trouble and practice to overcome the initial difficulties.

YOU FIRST.

CHAPTER IV.

SWIMMING UNDER WATER.

It is very useful to be able to swim under water, as it can be brought into service when required to stay under the water in moderate depths to reach or find persons who have sunk through the body losing its buoyancy, due to the stomach and lungs becoming filled with water. It should only be undertaken by experts and those who have had long experience and practice, as there is a tendency for amateurs to overstrain themselves, which is inadvisable and not necessary. The ability to swim under water varies considerably, depending on the strength of the heart, lungs, and power of the swimmer. It may be interesting to record the best authenticated swim under water was performed by the author's friend, James Finney, who swam 350 feet. His feats under water are well known throughout the aquatic world, his daughters emulating his feats to a surprising degree of endurance under similar conditions.

To make a neat dive from the surface of the water, the swimmer naturally turns on the breast, taking a deep breath and suddenly depressing the head (much in the same manner as water-fowl do when searching for food. No better object lesson can be had than observing their methods of div-

ing from the surface). When the head is depressed, look downward, with the eyes wide open; throw the back part of the body up, making a powerful downward stroke with the legs and hands. The leverage and weight being in a semi-vertical position, will take the swimmer to any depth between ten and twelve feet. When under the water it is only necessary to keep the head depressed and swim with the breast stroke when required to swim along the bottom in search of an object. To raise the body quickly to the surface, incline the head back, and either push from the bottom or make a series of upward thrusts with the arms, using the legs at the same time. Under ordinary conditions the body will come up quite quickly enough without this exertion. On reaching the surface, exhale through the mouth and inhale through the nostrils. To make a neat re-appearance do this as quietly as possible. The natives of Teneriffe are experts in the art of diving, and boys between eight and nine years of age dive for small coins, very seldom losing one. The same can be said of the natives around Port Said and Suez, some making quite a nice living diving for money thrown overboard by passengers who enjoy the rivalry and aquatic feats of these expert divers. One of the most essential requirements for a beginner is to learn to open the eyes under water. It is a good practice to depress the head just under water, looking at the toes; this gives the knack of opening the eyes and at once assures

the young beginner that it is quite easy and not in any way painful. After this, small objects can be dived for from the surface. When the eyes have been trained to open automatically under water in this manner, it will come quite naturally when taking a header or dive off the spring-board or bank of a river.

HIGH DIVING.

Until quite recently high diving was considered a very dangerous practice, even by experienced swimmers, and for years the prevailing opinion was that if a person fell flat on the water from a height of say 50 feet, he would be killed on striking the water. This was forcibly impressed on the writer, who was once prohibited by local authorities from giving a demonstration of diving off a bridge 40 feet high at a regatta held in Bedfordshire during the Jubilee of 1887, and although old fallacies die hard, it is pleasing to record high diving is now considered one of the most interesting and sporty eveits in a swimming programme. We know from experience that a fall from forty or fifty feet is an unpleasant experience, although it does not prove fatal, or even serious, provided there are no projections in the space one falls through and the water is deep enough to offer the necessary resistance. A few bruises and a severe shaking up is the only disadvantage. Naturally,

when one gets above these heights the question of acceleration becomes one of importance, being more risky and dangerous. The recent impetus to the sport is undoubtedly due to that nation of high divers, the Swedes, some of the most notable being Hagborg, C. P. Mauritzi and Hy. Johansson, the two latter being old friends of the writer. The exploits of these three and their wonderful feats in diving having no equal in the world. Hy. Johansson, being one of the greatest exponents in Great Britain, having won the Swedish diving championship and the world's record, appearing by special request before H. M. the King and Queen at the Bath Club, London. It is interesting to note the feats of our Swedish friends have been successfully emulated by many members of the Toronto Swimming Club, Mr. Norris, their enthusiastic President, being quite an expert in the art, and his example bids fair to bring out some of the best high divers in Canada. The great dread of all beginners is timidity and nervousness when looking down at the water from, say, a height of 20 to 30 feet. Many a stout heart from below has gone up to this height, looked down, and come meekly to earth, to follow the ordinary diving from lesser heights. I advise novices (and we have all been in this catagory at some time or other) to brace themselves up with a good hurrah when getting to the top of these elevations, taking just sufficient time to gauge the distance for the dive and angle, but not waiting too long, as

this induces nervousness, which is to be avoided. When this is once overcome it seems quite natural, and gives an added interest to the sport. There

SWEDISH SWALLOW DIVE.

Photograph of C. P. Mauritzi taking the famous Swedish Swallow Dive. This may justly be termed one of the most perfect snap-shots of this dive in the world.

are many interesting and sensational dives, such as the back-front somersault, double-front somer-

sault, and double-back somersault, and various combination dives, one of these being a "double dive," in which one diver holds his partner upside

SWALLOW DIVE.

Photograph of Mr. E. Byrne, age 68, after just leaving the 40-foot diving board. One of the oldest and most experienced divers in the world.

down, and then, after posing in this position on the edge of a platform, the pair go flying down in

their headlong flight through space, entering the water head and feet first in a tight embrace, which is imperative, or the dive may end in serious dis-

HIGH DIVE.

Mr. Norris, President of the Toronto Swimming Club. Photographed in mid-air. Thirty-foot dive.

aster. This is one of the most weird experiences in diving, and I strongly advise all swimmers only to attempt it with an expert, even then carrying

out his instructions to the letter. The most graceful dive, and one that always takes at swimming galas, is the "Swedish swallow," or hollow-backed dive, with the arms extended to their full reach sideways during the flight, being suddenly brought together just before entering the water. The writer has seen and acted as judge at many diving competitions, but has never seen anyone to equal the style and perfect grace of C. P. Mauritzi and Hy. Johansson, the Swedish gentlemen previously alluded to. Their complete mastery of the art has given them a world-wide reputation.

The field of high diving is not without its lady champions. The diving feats of Miss Beatrice Kerr, the lady champion swimmer of Australia, has established some fine records in the annals of high diving, and she may justly be termed the best and most experienced lady diver in the world, being closely followed by Miss Annette Kellerman, of Australia, who is one of the neatest trick swimmers in the world. The question of diving takes up quite a field in itself, and although many side issues have been omitted, it will, no doubt, be readily admitted that high diving gives an added interest to the swimming world, and there is no doubt that greater interest will be taken in this branch of the sport than hitherto, for although it is not essential for swimmers to be high divers, it fosters courage and determination when caught

in some extraordinary circumstance calling for prompt action in the assistance of a fellow-being.

THE HAND STAND DIVE.

Photograph of Canada's Champion Diver, at Camp Temagami. One of the several difficult stunts of high diving.

CHAPTER V.

TRAINING.

The great improvement in speed swimming is no doubt greatly due to the improved style or stroke of the individual swimmer rather than to any prescribed form of training. In this connection the question of training becomes interesting, for there is no doubt that the swimming world has seen the fallacy of over-training, which is considerably overdone in other forms of sports. We are thus brought up to a fair pitch of excellence by a process of elimination and to the fact that increased speed is almost entirely due to alteration in the style acquired.

The writer recently had an interesting interview on this subject with Mr. W. Webb, of Liverpool, (brother of the late Captain Webb). He assured me his brother was always against the practice of overtraining; he believed in good, ordinary, plain living, with plenty of walking and several long distance swims, with corresponding intervals of complete rest. This was his general routine before undertaking any long distance swimming. The practice of taking a complete rest is specially suitable to a swimmer, as it is imperative that the muscles should be pliable, and not hard and knotty as in other forms of sport. A swimmer's prepara-

tion differs almost entirely from that which may be recommended for any other branch of athletics. In only one respect would I advise any similarity of treatment, and that is the way of massage, which is too much neglected by the average swimmer. The chief parts requiring constant massage are the chest and sides, the shoulder muscles requiring special attention. The question of diet is often treated under a special heading, invariably when there is no need for it, as I maintain a person who is strong enough to go in for a course of special training should be lead by the principle advocated by the late Captain Webb. A swimmer must, of course, keep in condition; that is to say, build up his strength and staying power, but in no case should he overtax his heart, and before going in for any long course of swimming would strongly advise consulting a doctor, for although short, easy spells of swimming strengthen the heart, if taken under proper conditions, it naturally throws a heavy load on this vital organ if the powers of the swimmer are over-strained, which in all good training is entirely eliminated. There are, unfortunately, many so-called experts in the training world who do not know the first rudiments of anatomy, and if one were to question them on the functions of the heart they would not be able to give the slightest idea of its size, let alone its relation to the blood-vessels of the system, preferring to use their own ideas and judgment, often with disastrous effects. Training is

really a science, and those desiring a good foundation should only consult leading instructors of some recognized institution, or those who have proved, by the health and success of their pupils, they are competent to undertake such important duties.

THE MORNING TUB.

This, although not quite coming under the heading of training, is relevant to it, as it has a great deal to do with the general condition and fitness of athletes and those who do not indulge in the sport of swimming. It is at one and the same time one of the most beneficial practices, and yet the one topic connected with water that is frequently overrated and abused, not only by the general public, but even by athletes themselves. One often hears the expressions from a devotee of the morning tub that he never has a cold, believing this is the cause of his normal immunity from this mild, yet often distressing malady.

This question is more significant than a casual reflection conveys. The morning tub does not necessarily prevent even the milder form of cold; if so, then the writer should have been free from this form of fever for the last fifteen years. The fact remains that I have had very severe colds, which, to some extent, explodes this absurd fallacy. I quite believe the morning tub prevents severe chills to the system, if the bath is taken under proper conditions, which is the crux of the

whole question. The advisability, or inadvisability, of taking the morning tub depends on the general health of the subject, and whether man, woman or child, as the following brief digest, after fifteen years' experience in temperate, tropical and cold climates, will prove.

In the case of young people in good health, possessing a strong heart and good circulation, they should enjoy their morning tub with water at 65 degrees, or even as low as 50 degrees, but should on no account take it at these low temperatures right off, but by working up to this stage by a long and gradual process from water giving 70 degrees or even 75 degrees. In this way beginners will get to a stage which suits their general condition best, and when that is reached it should be adhered to. I know there are many who like to feel a sudden shock to the system, when the same causes a sharp breath to be taken, which shows that nature resents this ill-treatment of its system. In fact, if you did the same with an ordinary iron kettle it would snap or break, due to unequal contraction of the metal, which is exactly what is in reality taking place with the heart. The rush of blood from the head is too sudden, momentarily overloading the heart, which, if weak or defective, would break or become permanently injured. This is not quite the expression of a doctor, but it serves to illustrate the point, *i. e.*, not to throw any unnecessary strain or load on the heart. There is just as much

danger attached to overdoing this in a hot climate as there is in a cold one, in fact, in some cases, more so, as the system is liable to become more relaxed, consequently has less vitality to stand the strain. When the cold tub leaves an afterglow and gives a general feeling of brightness, it may generally be accepted it agrees with the subject. In many cases I do not think it is quite a safe thing to stand in cold water during the very cold weather, or when the thermometer is anything below zero. Let the hot water run for a few minutes, then turn on the cold, in order that the feet are not immediately placed in cold water. Let the cold water run after this, sponging and rubbing yourself all over with it quickly, never staying in the bath more than a minute or so, remembering it is intended to act as a tonic, not as a soap and hot water toilet. Many people taking their morning tub lose the real benefit in skimping the use of a rough Turkish towel. This is the most beneficial part of the tub, and more likely to promote good circulation and healthy state of the pores than the bath itself. After promoting circulation with the towel one feels fit for anything, and the world has a bright aspect, although it may be broiling hot, snowing, or raining cats and dogs. To the business man it is more than medicine or tonics, and, followed, by a brisk walk, will brace him up to overcome the burdens of the day, and give him far better spirits than the man driven to business in his carriage or automobile.

To those who cannot take a cold tub, the tepid or warm bath is the next best thing, and this may be taken at anything between 70 and 75 degrees, using the loofah, or sana brush, which is preferable to the sponge, as the friction causes a pleasant glow. Following this, five or six minutes should be spared for the towel, which is a simple means of exercise and healthy friction at the same time. The air in the bathroom should be changed by the window being slightly opened after the bath, when long and deep breathing should be indulged in, during the finishing of the tub up to completing the morning toilet. In this way even delicate persons can build up a truly wonderful pitch of fitness.

In all cases of heart disease consult a doctor, and never take the tub unattended. Serious results have often followed this unwise practice. In the case of children it will be wise to commence with the water quite warm. On no account should they be put into cold water, the shock being too severe. It engenders a fear of cold water which sometimes remains with them until quite grown up. There are many details omitted, but from the foregoing it will be seen there are certain common sense rules governing this often neglected and overrated question.

SOME QUAINT CUSTOMS OF THE TUB.

The Japanese say the reason the white people catch cold is because they do not take their baths

sufficiently hot. In Japan the subject is almost scalded and obtains his reaction by stepping into the natural air to close the pores. Different countries have their different customs, and it is sufficient to make the saintly and sometimes prudish open their eyes at the common practice of the daughters of the Orient assisting the visitor in his ablutions. But the Japanese see no more wrong in this than we do in a chambermaid bringing a cup of tea or coffee into the bedroom in the morning, or ladies wearing a low-necked dress, a custom a Japanese maiden would deem very unbecoming.

RUSSIA.

In Northern Europe, certainly in Russia, Finland and Sweden, every peasant, no matter how small his abode, has a bath house or shed, in which all the family can soak themselves in steam heat. I have long been acquainted with the usual Russian baths, and recommend them to all those whose vocations take them out in cold and inclement weather. In Canada it is particularly invigorating, and especially if you rub the body with a good-sized snowball to induce rapid reaction, which gives that glow so valuable to the hardy.

THE CHINESE.

In direct contrast to this, the average Chinaman is washed when he is born and has no other altogether wash until he is dead, when he is thor-

oughly washed before being embalmed. It does not necessarily follow because a person neglects the toilet of the average Christian that his skin is dirty, climatic conditions having a great deal to do with the whole question.

The Zulu, of Zululand, is most fastidious in his morning toilet, and will rub his flesh with a peculiar native grease that gives a gloss one can almost see his face in. It is a very interesting object lesson, and I have watched them massage and anoint themselves for hours, and found they paid particular attention to their muscles, their idea being to keep them flexible, and judging from the splendid condition of the Zulu rickshaw runner of Natal, who can pull a couple of Europeans weighing, say 180 pounds each, for ten or twelve miles without a stop, it is apparent their method is a good example to followers of outdoor sport.

The Indian Coolie is just as particular in his toilet, anointing himself with oil and rubbing himself under the scorching rays of a tropical sun. There is no doubt the two latter methods are preferable to clogging up the pores with any form of cheap soap, with its injurious alkalies, which is the outcome of modern civilization.

SWIMMERS' CRAMPS.

The many drowning fatalities recorded by the press during the swimming seasons invariably furnish us with numerous and thrilling accounts

of the loss of life by drowning. In these accounts we often read such statements as "the deceased was an expert swimmer," that he was seized with cramps, threw up his arms and disappeared, which statements do not convey the full facts of the case. In the first instance, those who drown are not as a rule expert swimmers. An expert, unless meeting with some unusual accident, is seldom drowned, and if seized with cramps will not throw up his arms and disappear from sight. The only form of cramps that can cause this sudden action is heart cramps or heart failure, which would cause the subject's death under the same conditions if running or undertaking any form of exercise on land. In the second instance, the only other form of cramps likely to drown a swimmer would be when the abdominal muscles are attacked with this form of contraction, and even in this case an expert swimmer would make a severe struggle for life before going under. In the case of average swimmers such a form of cramps would undoubtedly soon cause exhaustion, and, owing to taking large quantities of water into the lungs, he would naturally sink, although not so suddenly as generally described in the press. This leads one to the conclusion that these sudden disappearances are caused through heart failure, or despair of the novice or average swimmer, who, when seized with cramps, generally throws up his arms. This is the worst action for any swimmer, as the hands and arms, being out of the water, lose their

buoyancy, causing the body to sink. In this respect, it is interesting to note that the majority of deaths from this cause occur mostly at the commencement of the swimming seasons, which to a considerable extent verifies the foregoing explanations. The verdict of drowning through cramps is quoted too readily; in many instances it is based purely on supposition. The experienced swimmer, in all forms of cramps, with the exception of the first one alluded to, knows what to do and how to act when he finds himself in such a dilemma, as it generally attacks the arms or legs, which parts are most subject to this complaint among swimmers. There is no real danger in the milder forms of cramps, which is simply a contraction of the muscles, brought on by entering the water when the body is overheated, or getting a chill from a cold wind before entering the water. Either of these will bring on cramps, though there are other causes, such as poor circulation, suddenly overtaxing certain muscles, due to overstrain or weakness of the same, which bears out the statement that most of these cases occur with beginners, or those who have not taken reasonable precautions to work up gradually before commencing any continual swimming at the commencement of the season. The sharp pain brings fear to the novice, who, having read of the terrors of "cramps," takes fright and gives himself up for lost without making a determined fight for life, with the usual results, that he throws his arms up and sinks from view, whereas, if he made a fight

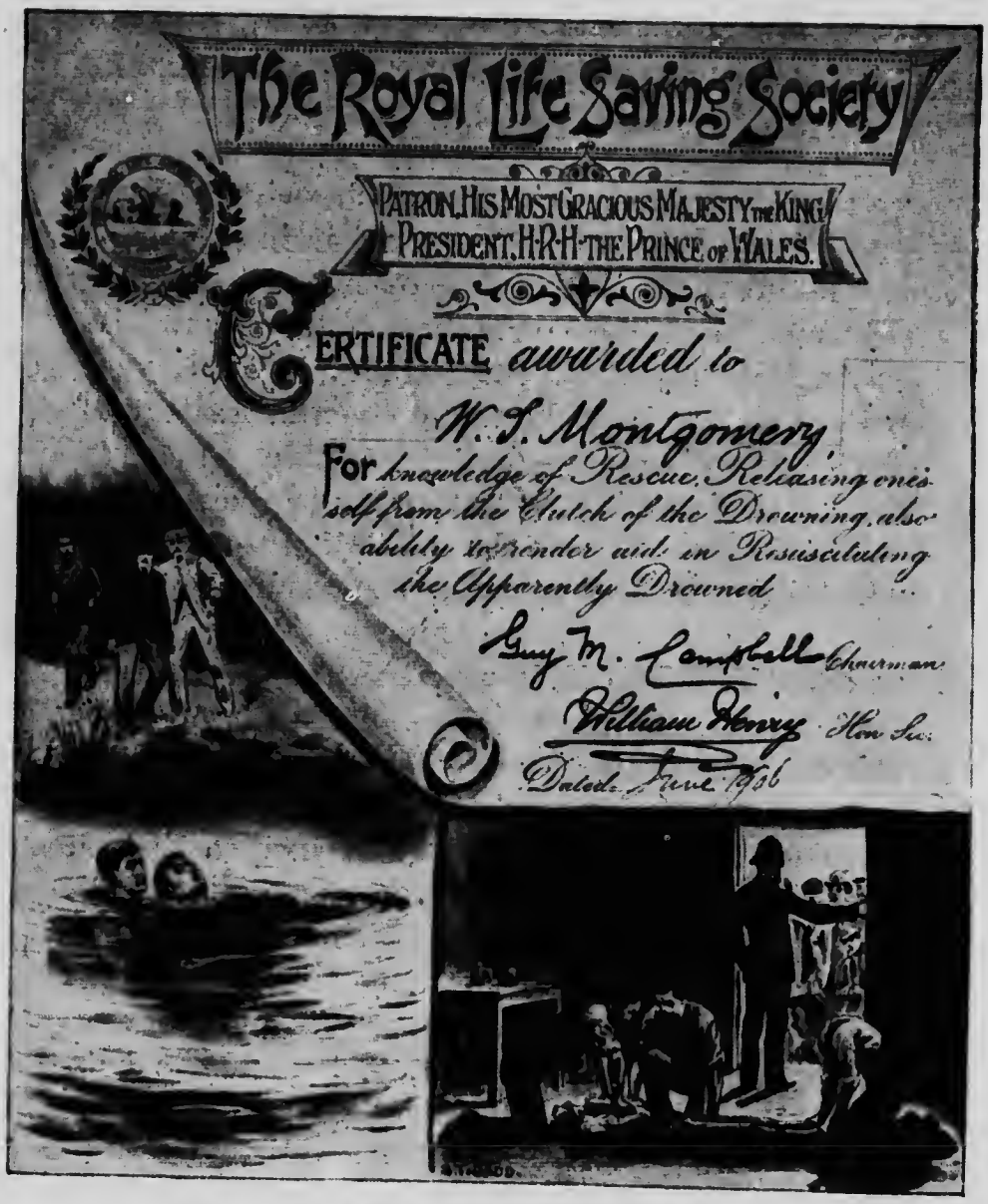
for it, he would certainly, in the milder attacks, manage to swim to safety or keep going until help arrived. The most effectual remedy, usually resorted to, is to turn on the back, throw the arm out vigorously, or kick the limb out of the water as far as possible. This will cause a momentary pain, as it straightens the contracted muscles. If the cramps are in the foot, it will give instant relief if the swimmer turns on his back and pulls the big toe backwards and forwards. In any case, commence long and deep breathing and keep as cool as possible, as it may go as quickly as it came. If it is very severe call for assistance, turn on your back and place both hands lightly on the shoulders of your assistant, who will be swimming on his breast, and in this way will be able to take his subject a considerable distance. If you are subject to cramps, practice swimming without legs, and then without arms. It gives one a feeling of confidence when this is accomplished; it robs the word "cramps" of most of its terrors.

The writer has gone somewhat lengthy into this matter, as it is important for swimmers and beginners to have as clear an explanation as possible. The foregoing is based on fifteen years' experience, and is the outcome of many interviews with several eminent Hon. Doctors of the Royal Life Saving Branches, particularly with Dr. Wickens, of the Hamilton Branch in Canada, who, being a keen follower of the sport, materially assisted the writer in his observations on this important subject.

LIFE SAVING.

"He that saveth a human life is greater than he that taketh a city."—CONFUCIUS.

THE most useful service to which swimmers can apply their knowledge of the art is in rendering service to those in distress, or in peril of being drowned. Until the formation of the Royal Life Saving Society of Great Britain, in 1891, very little was done to promote the essential feature of the art of swimming—that of rescuing persons in danger of drowning by swimming to their relief; and at the present time the society is the only body which exists for the purpose of providing instruction in the art of human salvage. In an empire which prides itself on its strength upon the waters, there should not be a person ignorant of these things, and yet it may safely be said that comparatively few have the skill to undertake a rescue in deep water, or the knowledge of how to restore suspended animation. Here is an admitted evil, the gravity of which is forced upon us in hundreds of cases every year. If only those who have learned by sad experience what it is to see a person struggling in the water, and unable to help him, could be moved to assist a national enterprise for the saving of life, this evil would soon disappear from out midst.



LIFE SAVING CERTIFICATE.

EASY TO LEARN.

The safety of the person who cannot swim may be imperilled at any moment when he ventures in, upon or near water. It may be safely said that there is no art in which it is easier to arrive at a moderate facility than that of swimming. There is none which is cheaper, and the pursuit of which conduces so much to health or confers more pleasure. A very little scientific teaching acquaints the pupil with the all-important fact that the body is buoyant in water, and that no one need drown, except as a consequence of panic, exhaustion or ignorance. A knowledge of swimming will prevent those ugly clutches through which scores of people have gone down, and through which even the strongest swimmer may be fatally submerged if he does not know how to free himself.

PRACTICE NECESSARY.

This self-control and knowledge will never come to one as the result of theory alone. The confidence and ability which are necessary can only be installed into the human being by practice and experience. It is earnestly to be hoped that it will soon be publicly recognized that it is a duty on the part of those who are charged with the education of the young to see to it that every boy and girl shall be taught swimming and life saving before leaving school. The method or system where-

by this knowledge may be easily and profitably imparted is in existence, and having regard to the wants of the rising generation, no educational body should leave it unemployed.

RISK OF RESCUE.

Everybody knows that man is not a swimmer by nature, but he may become an excellent swimmer by practice; yet, with the most admirable intentions and the utmost courage, may be unable to render efficient service to a drowning man. He may be clutched by the person he desires to rescue and the pair may drown together. There are hundreds of abortive efforts at rescue every year, and there are many in which a single tragedy is made into a double one through the absence of a little simple knowledge on the part of the intending helper. Even a powerful swimmer takes a great risk upon himself when he approaches in the water a person who has fallen into the natural state of panic, which so generally overcomes those who are in danger of drowning, unless he knows his business, in which case the whole thing becomes perfectly safe and comparatively simple and easy.

EXPERT HAS NO FEAR.

The person who has been trained undertakes the work of rescue with as complete immunity from

danger as if he were desporting himself in the water for his own amusement. He has no fear of the drowning man's clutch, which has been fatal

LIFE SAVING LAND DRILL.

Photograph showing Master Barton, son of Canada's leading Physical Instructor, age 14, weighing 70 lbs., going through the drills of the Royal Life Saving Society's second method of rescue. In this position in the water, he could effect a rescue of a man 170 lbs., this method being on the back, in which position he could bring in a man of this weight any distance up to a quarter of a mile. This forcibly points out to parents, authorities and instructors the simplicity of the methods.

in so many instances, for he has his guard, just as a practical wrestler has against a possible con-

tingency, and he has this advantage over the wrestler that he is at home in the element in which the other person concerned is in deadly danger. The drowning man is altogether at his mercy, and the wildest flurry and the most desperate embrace have no perils for the trained life-saver.

THE OBJECTS OF THE SOCIETY.

The main objects of the Society are:

(1) To promote technical education in life saving and resuscitation of the apparently drowned.

(2) To obtain public support in favor of adopting swimming and life saving as a branch of instruction in Government schools, colleges and institutions throughout the world.

(3) To encourage and improve the general knowledge of swimming, floating, diving and plunging, and learn the art and correct method of saving life.

(4) Promoting public lectures, demonstrations and competitions of life saving; to form classes of instruction, and issue printed circulars of the principles underlying the art of natation.

(5) To give lessons in throwing out life-buoys.

(6) To collect donations, bequests and subscriptions for the Society.

NEW METHOD OF RESTORING THE APPARENTLY DROWNED.

It is important to note the Schafer method was adopted by the Royal Life Saving Society, in preference to the Marshall, Hall, Sylvester or Howard methods, after experimental research extending over a period of 15 years. During this time forty dogs were experimented upon, by which means valuable information was obtained, proving the utility of the new system. It is worthy to note the dogs were anæsthetised before being drowned. One very essential discovery was the fact that the lungs were capable of absorbing quite a large quantity of water. This was not previously believed possible, as it was feared that water in the lungs would prove fatal. The writer has for years contended that water in the lungs was not dangerous, my reason being deducted from many accidents witnessed during my seven years' experience in the shipbuilding trade. In this connection I saw and assisted in many cases, one extraordinary case being that of a fireman who fell into the dock, remaining under the water some ten minutes before the grappling irons brought the body to the surface, when we immediately placed the stomach of the subject over an ordinary petroleum barrel, rolling it gently backward and forward, assisted by two persons, holding the head in order to prevent it from getting too low. The water came out of the mouth at each

SCHAFER METHOD OF RESUSCITATION.

Photograph showing the latest and most simple method of rescuscitation. Boys at Camp Temagami taking the land drills of the Royal Life Saving Society. This is the first operation on rescuing a drowned or apparently drowned person. Notice the position of the hands; the operator leans forward, throwing his full weight on the patient just below the last rib, causing a deflation of the lungs, which forces the water out and allows an inrush of pure air. The operator depresses the patient's body in this manner some 12 or 15 times per minute, and continues until animation is restored. In some cases prolonged application is advisable, not giving up hopes for half-an-hour or more.

movement. The quantity seemed in excess of what a normal stomach could hold, and led me to the natural conclusion that this was due to all open passages in the system being filled with water. It is essential in cases like this and long submersion, that the action of resuscitation should be prolonged for about an hour. The subject alluded to came completely around in 30 minutes, being able to proceed to the ship, where he was placed in the boiler room, when the ordinary methods of applying hot cloths and friction were resorted to; the only complaint of the rescued person being that his ribs were very sore. This is why this and similar crude methods should not be used, as there is serious risk of injuring the subject. The main advantage of the Schafer method lies in the fact that the most delicate organs of the body are in no way disturbed. The extreme simplicity of the method is a great feature; the older methods required three assistants, the Schafer only requiring one. The advantage of this will readily be appreciated; in the case of a boat accident, three persons could attend to three cases, instead of one, as hitherto. It may be interesting to note the writer was the first to demonstrate this in Canada, carrying out the method in the class formed at the Y. M. C. A., Lindsay, Ontario, February, 1908.

AUSTRALIA'S PROGRESS.

THE ROYAL LIFE SAVING SOCIETY has made great progress in New South Wales, Australia, since its

formation in 1893. This branch received the support of Parliament, which endorsed the action of the Cabinet in placing the sum of $2,500 upon the estimates as a grant in aid of the funds. The appeal for Parliamentary recognition of the Society's services was based on the grounds that:

(1) It is the only institution in the world devoting itself entirely to the teaching of life saving to swimmers.

(2) It is purely an educational, and not a sporting concern.

(3) Its drill now forms part of the physical training of the boys and girls in many of the schools and colleges in city and country.

(4) Its instruction has been largely availed of by members of the police, educational, tramway, ferries, and other public services.

(5) It is doing the work of the Government in the perservation of life.

(6) It is a practical work, creating a spirit of courage and self-reliance in the hour of danger.

(7) Its humane, self-sacrificing labors should commend the Society to the generous support of all.

The Society is fortunate in having in the present Ministry one of its Vice-Presidents, who could ably place before the Government the claims of the Centre for State aid. On behalf of the members, a grateful acknowledgment has been forwarded to the Premier, also the State Treasurer, and the Hon. C. W. Oakes. At a public lecture

MISS BEATRICE KERR,

The Champion Swimmer of Australia.

Miss Kerr is the longest distance lady swimmer in the world, having accomplished some of the most difficult swims in Great Britain and Australia, one of the longest being that of swimming round Hollingworth Lake, Lancashire, Eng., a distance of seven miles, with the water at 60 degrees, unassisted by tide or stream, which is equal to a swim in tidal waters of 20 miles or more. It is expected Miss Kerr will make an extended tour in Canada and America.

delivered in Sydney on November 6th, 1905, by Colonel Roth, D.S.O., the president of the Centre, the new method of resuscitation devised by Professor Schafer, of Edinburgh University, was first introduced to the State and demonstrated.

Since the formation of the Centre, over 1,500 awards have been issued to swimmers of both sexes, for various degrees of efficiency in life saving work and ability to revive the apparently drowned. The practical result of this instruction is shown by 31 of the members having distinguished themselves by saving life, regardless of all risks in the harbor, ocean or rivers of the State, or by restoring animation to persons brought ashore unconscious. Several of these cases have received public recognition by the Royal Humane Society's Certificate, or Medal being awarded for bravery. Instruction has now been given, and Certificates of Proficiency in Swimming and Life Saving awarded to members of the Swimming and Life Saving Clubs and district classes formed in the principal suburbs to Sydney; to the pupils of the public and private schools and colleges in city and country; to the employees of the Sydney Ferries, Morts' Dock, the Government railways and tramways, the hospital wardens, the Metropolitan Police of Sydney, and the Military at Newcastle. The Royal Navy Class has also affiliated with the Centre.

During the past season, 184 Elementary Certificates, 242 Proficiency Certificates, 54 Medallions, and 24 Hon. Instructors' Certificates have been

MISS ANNETTE KELLERMAN,

The lady Champion Trick Swimmer and Diver of Australia. Taken just after leaving the water.

granted, a total of 504, as compared with 366 in the preceding season; and an increase of 138. Of

the 1,533 awards issued for efficiency by the Centre since its formation, 1,055 have been gained during the past three years. This shows not only the up hill work experienced in popularizing the methods during the earlier years of the Society's existence in Australia, but also the rapidly extending sphere and work in recent years. The number of classes already formed for the 1908 season totalled 51 on the day the report was presented; this including 13 schools and 10 swimming clubs, a greater number than has ever been recorded in the history of the Centre.

The risks incidental to surf bathing have brought the necessity for life saving instruction prominently before the public, and resulted in the formation of organized brigades at the principal ocean beach resorts, on similar lines to America's splendid service corps. His Majesty, the King, as announced by cable on June 13th last, conferred on Mr. Anthony Henry an Hon. Associateship of the Order of St. John of Jerusalem, in England, in recognition of his many years' service to the Society, Mr. Hendry having been the founder of its first branch in Australia. This gracious action on the part of the King is regarded as a further proof of His Majesty's personal interest in the Society's work in this portion of the British Empire. The same honor was conferred upon H. L. Cochrane, of Toronto, Canada.

CANADA'S PROGRESS.

It is interesting to record this important question has been taken up by the public of the Dominion. The writer was present at the first meeting held in Toronto, Nov. 10th, 1908, when a committee of organization was appointed, consisting of prominent citizens. It was very difficult to make sound progress with the general public, prior to the advent of public swimming baths, although a certain amount of good work has been done in the lakes; progress being naturally retarded owing to the shortness of the season. However, the public and press of Canada are taking a keener interest in the objects of the Society, and it is safe to predict that in a short time the far-reaching benefits and noble work in the art of life saving will become general throughout the Dominion. In this connection it is pleasing to record the first publicly organized branch of the Society in Canada was founded by the writer in Hamilton, Ontario, which was enthusiastically supported by Government, military, city and public authorities, many members of the class passing the tests and receiving the Proficiency Certificate and Medallion of the Society.

This subject forms a complete treatise in itself, and the author would strongly advise everyone to secure a copy of the Society's handbood, in which is published full information regarding the formation of classes. These books are supplied

at 25c. each to individuals and members of unattached clubs, and 12c. to affiliated clubs. The subscription for the latter, or associations, is $2.50 per annum. The affiliation fee for unattached schools, etc., is $1.50 per annum. Further information may be obtained from any of the Society's branches in Hamilton, Toronto, or the headquarters of The Royal Life Saving Society, 8 Bayley Street, London, England. The handbook alluded to is now translated into Swedish, Italian, German and Finnish, and is also in course of preparation for publication in India.

The Society has the direct patronage of His Most Gracious Majesty the King, H. R. H. the Prince of Wales being Honorary President, with Lord Desborough, of Olympia fame, as President, which support has greatly encouraged and assisted the Society to make swimming and life saving more popular with the people and schools throughout the Empire and the world.

It is interesting to record the founder of the Society was Mr. William Henry, its present Hon. Secretary, whose records in the swimming world and life-long devotion to the cause has brought him signal recognition from H. M. the King, Continental Europe and educational authorities throughout the world. The writer has had many pleasant times in this gentleman's company, and was fortunate enough in securing his strong co-operation in the organization of the Society's branches in Canada, and can assure all interested

HAMILTON LIFE SAVING CLASS.

Members of the Swimming Club who were the first to pass for the Certificate and Medaiilons in Life Saving under the Ontario Branch of the Royai Life Saving Society. Reading from left to right: Top row—R. McBirnie (Capt.), S. Job, T. W. Sheffield (Hon. Instructor), C. Bath. Bottom row—T. Fleming, C. Howcroft, H. Fleming.

Reduced facsimiie of photograph which was specially mounted and presented to His Excellency Earl Grey, Patron of the Ontario Branch, during his visit to Toronto, May, 1909. The Hon. Colonel J. S. Hendrie, President of the Hamliton Centre, arranged for T. W. Sheffield, Hon. Secretary, to make the presentation.

parties they will receive every courteous consideration when desiring his advice or any information on the subject.

Extract from the writer's article on the subject, taken from several leading newspapers throughout the Dominion and the United States:

In view of the public recognition of the objects and aims of the Royal Life Saving Society, the following brief review of Canada's progress will no doubt be interesting at the present time. The great interest taken in the Society's work at Lindsay in the early part of 1908 bids fair to eventually make it a progresseive centre for extending the work of the Society. Several demonstrations were given by the writer to members of the Y. M. C. A., and judging from the enthusiasm aroused it is reasonable to predict strong support will be given to the cause, which will no doubt be closely followed by Kingston, as the late instructor, who subsequently removed to take over the Y. M. C. A. in that city, was certain there would be some good life savers come up for examination from that quarter. The public and followers of the sport in Lindsay were the first in Canada to witness the demonstrations of the Schafer method of resuscitation for restoring the apparently drowned, which was carried out on the shores of Sturgeon Lake under the auspices of the Sturgeon Point Yacht Club. It was the general and enthusiastic support of the public and press in the art of swimming and life saving that convinced the

writer Canada would not be long in emulating the lead of Australia if the Society's methods were better known. With a view to bringing the question more prominently before the public, the writer wrote several articles on the subject, which were published in the Toronto Globe, Toronto World, Lindsay Free Press and other leading newspapers, which have always assisted this good cause. The work carried on during the last twelve years by the Society's representative, Mr. Cochrane, of Upper Canada College, Toronto, has been taken up by the students at the University and Y. M. C. A., although the sphere of influence was somewhat limited, as there was no publicly recognized branch until the formation of the Ontario Branch, which has just been so successfully organized and supported by Government and public officials throughout Ontario, including the Right Hon. Earl Grey, Governor of Canada, vice-patron, His Honor J. M. Gibson, Lieutenant-Government of Ontario, Lieut.-Col., the Hon. J. S. Hendrie, C. V. O. The two latter gentlemen's close association with Hamilton lends additional interest to the work of the local branch, and speaks volumes for those gentlemen of Hamilton who have come forward to support the cause. The honorary list of members includes many notable leaders of the sporting and philanthropic world, the latter expression being used in its widest sense, as no fees are deducted out of the moneys received for the

AN IDEAL SWIMMING HAUNT.

Photograph showing the swimming platform, diving board and water chute at Camp Temagami, Canada. The boys and girls are going through the land drills under the management of Camp Temagami. The arrangements are well carried out and serve a useful object lesson for campers, building a similar platform for swimming purposes.

officials of the Society, the different positions being purely honorary. It is this that has given everyone associated with the cause confidence for its future success in Canada. This was the course strongly recommended to the officials of the Toronto Swimming Club on the writer becoming a member of that distinguished club in the early part of 1908, when it was pointed out that in traveling about the country it was found that very few people were aware of the existence of such a society, and that it was strongly desired to form a Canadian society. This would have entailed a somewhat lengthy delay, as some arrangement would have to be arrived at with the Royal Life Saving Society of Great Britain. This has fortunately been averted by public opinion being aroused to further the progress of the good work already accomplished. When it is considered that twenty-four representative citizens of any Province of Canada can secure full powers to establish a duly constituted branch under their own administration, subject to certain rules of the Society, at a nominal cost of $2.50 each, it will be wondered why more sections of the community have not taken earlier opportunities of the advantages and inducements held out for extending the knowledge of life saving in the great waterways of the Dominion. It is, however, gratifying to hear that Montreal, Winnipeg and other important centers will shortly be establishing branches for furthering the noble work of the Society, as they are

already in direct communication with Mr. Henry, the Secretary and founder. Hamilton is an unqualified success, many of the members being proficient, having passed the examination in life saving for the Proficiency Certificate and Bronze Medallion of the Society. This is closely followed by the interest and records established at Brantford, where classes are being organized by Mr. Crocker, under whose management the Y. M. C. A. bids fair to produce some notable results in the near future. When the new organization of the Ontario branch of the R. L. S. S. is in full operation, there is no doubt several more branches will soon be added to the list of branches taking advantage of the Society's methods.

No review would be complete without reference to the Society's good work in Australia, New Zealand and among the nations of Continental Europe by engaging with them in the splendid work of teaching the best way of performing a rescue, and when the victims are brought to land apparently dead to treat them correctly and to restore animation. This work appeals to humanity, and prompts men to use real and active endeavors to make the art of swimming serviceable to the rest of mankind. For this reason the work of the Society advertises itself, whilst the knowledge that it imparts is so interesting as to induce one to take part in it. To-day it is known all the world over, not only by institutions or clubs which devote themselves entirely to swimming,

but also in most schools, as well as in military, naval and police forces. Another reason for its success is the fact that through its work the Society has created a strong tie between the teaching of swimming and life saving and the sport of swimming. Swimming in itself is not only a sport, but a useful and healthy accomplishment in which thousands upon thousands indulge, because of the good it does them, and it is amongst those who come into the latter category that the Society by its work has created an interest which has caused many to join a club and participate in the sport it provides. Unfortunately, however, classes in life saving are not so general amongst swimming clubs as one would be led to expect. Fixture cards are to be seen which contain a fine list of class meetings, but nothing tangible has resulted. Yet these fixtures have been used to induce people to subscribe, and the funds so obtained have probably been used for the promotion of the sport of swimming, the members remaining ignorant of life saving. Many clubs have never attempted to promote it, the whole season being occupied by swimming for prizes and playing water polo, their fixture list being such that no time is left for the study of a subject, which must always be associated with the ability to swim. Such clubs hardly ever care to have members who are non-swimmers, but prefer those who, because of their ability, will strengthen their swimming or water polo team.

It is because the R. L. S. S. has linked the teaching of swimming and life saving with the sport of swimming that it has had such a successful career, and for that reason I would most strongly urge all clubs that have not already done so to give it support and follow its advice by starting and conducting classes during the coming season. I have said that the knowledge promoted by the Society is in itself so interesting as not to need a prize to induce people to learn. The fact is proved by the number of awards that are annually granted to those who pass its tests. For 1892, the first year these awards were granted, only 86 were registered, but with each succeeding year the number has increased by such leaps and bounds that in 1907 no less than 7,169 were issued, and during 1908 nearly 9,000 were granted, making a grand total of 47,500 since the commencement. As will be gathered, the past season has been a very busy one, for, besides conducting numerous displays, lectures and competitions, the Society, after much study of the subject, was the first public body to adopt the new method of resuscitation of the apparently drowned, as devised by Prof. Schafer, of Edinburgh University. Its adoption necessitated the publication of a new Handbook of Instruction, which had to be rewritten because all the older known methods were discarded and substituted by one which is so easy that anyone can learn it in an hour. This new book, 10,000 copies of which were issued, also contains chapters on

the back, over-arm and crawl stroke, as well as conditions for the new award of merit which has become extremely popular because it requires the practice of swimming and life saving fully clothed, and is a step between the bronze medallion and the more difficult test known as the diploma of the Society. The writer recently passed for the award of merit and qualified for the first part of the diploma. Whilst admitting the latter is a somewhat severe test, it is within the grasp of all those who specially study and work up for this valuable recognition by the Society. It is earnestly to be desired that every Canadian swimmer will take full advantage of the Society's offer, as the nominal charge for book of instructions and affiliation fees place them within the reach of all interested in the noble service of rendering aid to the drowning or apparently drowned. America has many life saving stations, which are noble institutions; but here, in Canada's great waterways, no special attention has been given by our educational authorities to this subject, with the result that over 160 lives were lost through drowning during last season in Ontario alone, figures which call for immediate action to minimise this appalling loss of life.

Full particulars will be given to mayors of cities, shipping firms, fire brigades, port and harbor authorities, police, school authorities and the general public throughout the Dominion, on application to any of the Society's branches, or to the Hamilton branch of the Royal Life Saving Society.

THE FINAL FOR THE KING'S CUP.

VALUE $1,250.00.

WORLD'S COMPETITION, 1905.

RESULTS.

	440 Yds. Position.	150 Yds. Position.	P.T.S.
W. W. Robinson, Capt. Liverpool S. C.	3	1	23
D. Billington, Champion Swimmer G. B.	1	6	17
James Sims, Glasgow	7	2	12
. Krdger, Sweden	4	4	12
B. B. Kieran, Champion of Australia..	2	0	10
W. Passon, France	6	3	8
G. Wretman, Germany	0	5	4
C. M. Daniels, Champion of America...	5	0	4
T. W. Sheffield, Manchester, S. C.....	12	7	4
F. Gadsby, win'er 440 yds King'sCup, '04	11	0	2
A. A. Smith, Glasgow, S. C.....	10	0	2
Nils. Regnell, Swedish Champion	6	0	2

SOME OBSERVATIONS.

THE extraordinary improvement in the style and speed of swimming during the last few years is almost entirely due to swimmers paying more specific attention to the details of the action or cycle of operations of the movements of the body, relating to the particular stroke they adopt. No hard and fast rule can be laid down to ensure perfect form, as so much depends on the build and proportions of the swimmer. The finer points and finish of any particular stroke can only be acquired by experience, learning the correct turning movements, and by watching those who have

become proficient in their particular style or stroke. No better illustration of this practical method can be shown in recent times than the introduction of the famous crawl stroke by the late B. B. Keiran, of Australia.

BREATHING.

The principal point of interest in the crawl stroke undoubtedly lies in the fact that it ensures good breathing, an important factor in swimming that has hitherto been greatly neglected. Somewhat lengthy allusion is made to this point, and those interested will certainly appreciate what this means in long distance or open sea swimming. More particular reference will therefore be made to the crawl stroke, as it appeared to suit a running sea, for at the time there was a heavy sea running, with the disadvantage of the spray being blown into the face of the swimmers, making it extremely difficult for those keeping the water with the side stroke or over-arm stroke. Although it was only half a gale, many good swimmers had to leave the water after the first fifteen minutes or so; but this was not so with the Australian, and there is no doubt that Kieran was quite at ease during the forty minutes, or thereabouts, that he was swimming under these somewhat exacting conditions.

There is no doubt that the action of increased breathing is not appreciated by swimmers to the

extent is should be, for it is obvious that exhaustion in the water is more often due to insufficient exchange of air in the lungs than to any other cause. The old accepted theory that people are drowned through being seized with an attack of cramps will rapidly die out when it is found that there are fewer drowning fatalities when this question of vital importance to all swimmers is better understood and appreciated. It is agreed that if a person is of fairly good physique and can obtain the required quantity of air in the lungs, he will be able to retain his head above water although suffering from an attack of cramps, and ninety per cent. of the cases of so-called cause of drowning are directly due to insufficient air in the lungs. The body loses its buoyancy, the swimmer becomes exhausted, and the head is submerged; then faintness ensues and the action of swimming ceases. Then the body sinks through not being able to displace a sufficient volume of water to retain its natural position in the water.

To further emphasize this it should be noted that there was nothing extraordinary in Kieran's physique, as he had not fully developed and was only 19 years of age at the height of his success. There is thus no room to doubt that his splendid staying powers were entirely due to his regular and well-timed breathing. The same remarks apply to C. M. Daniels, who represents the finest American exponent of the art. Daniels' stroke is a particularly even one, not having the slightest

suspicion of undue force at any moment in the cycle of his movements through the water. It is this uniformity of action that leads to the grace of any particular stroke, and no doubt his example and those of the best British, Australian, Canadian and American swimmers, if imitated, will lead greatly to give the average swimmer more graceful progress through the water than they have at present. Apart from this grace and uniformity, it gives better breathing and longer staying powers.

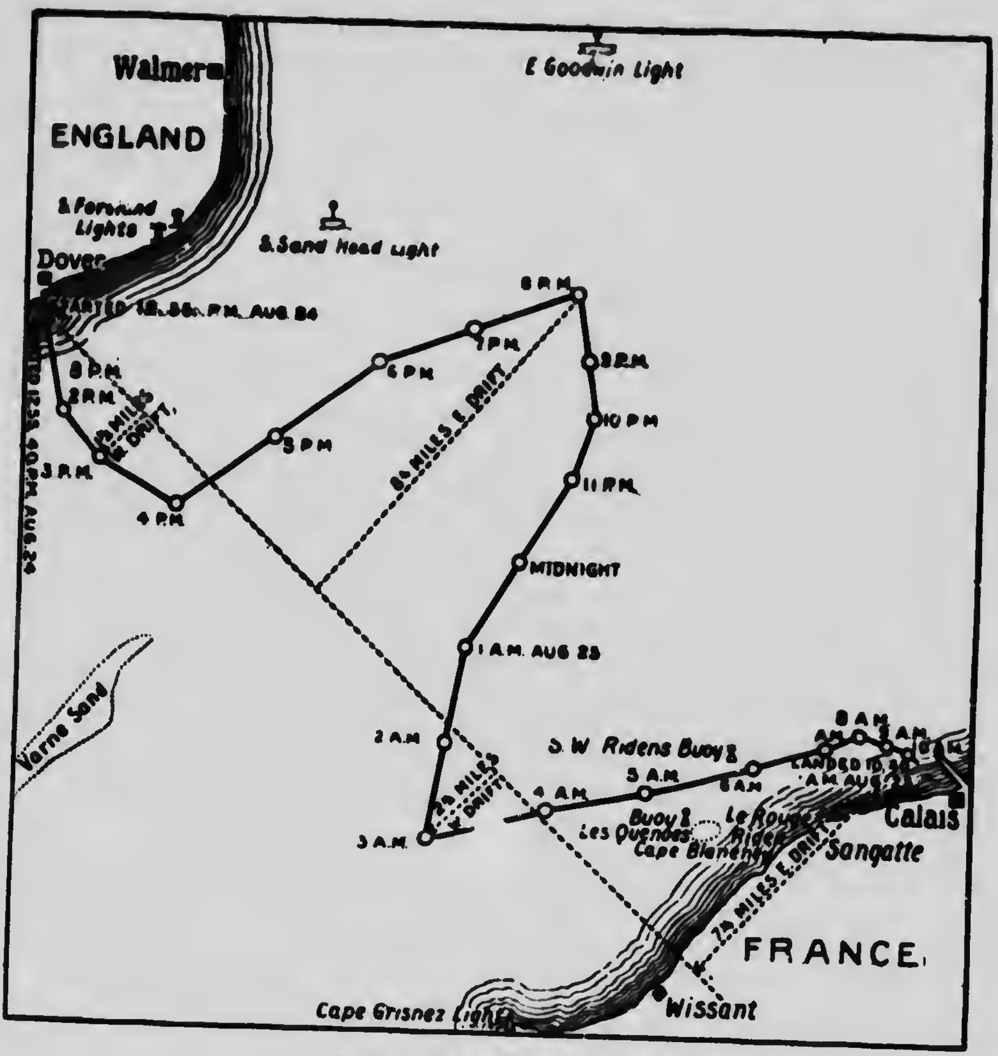
BATH, OPEN SEA AND LAKE SWIMMING.

The average swimmer from our large cities has few opportunities of trying his strength and powers in deep sea swimming, for it is obvious that this is quite a different class of swimming to smooth water swimming. Some idea of altered conditions to be met with can and should be gained before going away on summer holidays, when sea bathing is at its height. This can readily be obtained if two or three fellow-swimmers take hold of the rail at the shallow end of the bath and work the body backwards and forwards until the water has the appearance of a number of small waves. Regular practice under these conditions will give a very fair idea, on a small scale, of what sea swimming is like. Apart from this, it gives a feeling of confidence, and prepares the swimmer for a ground swell, or a back-wash from a passing steamer. The main benefit derived from exercise

under the foregoing method is that it teaches to breathe correctly under trying conditions and will be an enormous advantage when an emergency arises at sea. The writer has seen very good swimmers completely exhausted in a few minutes in swimming several lengths of an ordinary bath under the conditions alluded to. Too much importance cannot be attached to this question and those leading up to it. In the light of recent events, no doubt more attention will be paid to these seemingly small details of the art than has been the case hitherto. It may not be out of place to allude to one or two facts relative to sea swimming. Firstly, the swimmer should never overtax his strength when he has to regain the shore against an out-going tide. Secondly, it is imperative to know in which direction the tides flow in coming in and going out, *i. e.*, down the coast or up the coast. Thirdly, prolonged swimming after very fatiguing exercise or when the body is exhausted should never be indulged in, and can only be appreciated when two or more swimmers have full confidence in each other's ability, going a long distance out, and even then it is a wise plan to have a boat in attendance.

CAPTAIN WEBB'S SUCCESSFUL SWIM ACROSS THE ENGLISH CHANNEL.

THE following review of Captain Webb's great channel swim, related to the writer by W. H. Webb, brother of the Captain, may prove interesting.



CAPTAIN WEBB'S COURSE.

The dotted line shows a straight course from the shores of England to France, some 21 odd miles. The full line gives the time at different points on the actual cour[se] taken by Captain Webb, which still remains the most difficult and tortuous swim in the world. The dotted line intersecting the line from coast to coast shows the drift caused by the tides, which, in this case, was 8¼ miles, taking practically five hours before the tide set in the opposite direction towards the French coast; this varies from time to time, which forcibly points out the difficulty of swimming this otherwise easy distance to a long distance swimmer.

The first attempt of Captain Webb's was unsuccessful; the second attempt, which proved successful, took place on August 24th, 1875, under the most favorable weather conditions, the sea being quite calm, with no wind, and very little tide. With these kind moods of the elements in his favor, Captain Webb, well smothered in porpoise grease, dived in from the end of the Admiralty Pier, Dover, at one o'clock, swimming westwards in the direction of Folkestone.

2.45 p.m.—Webb was swimming down channel with the breast stroke, doing twenty-two strokes to the minute.

3 p.m.—A number of porpoise were swimming in close proximity to Webb, which were probably attracted by the smell of the grease which he was anointed with.

3.30 p.m.—The tide was turning and Captain Webb was being drifted a little to the west, being only four miles from shore.

4 p.m.—Dover Castle was just visible in the mist. It was about this time the Captain took light refreshments, consisting of strong beef tea. He rarely spoke, evidently determined to do or die, for he went on swimming steadily through the closing hours of the day until dark.

9 p.m.—Webb had now been in the water eight hours. It was just at this time he was severely stung by a jellyfish, which is a very painful ordeal, as sea swimmers well know.

12 p.m.—Webb took a little coffee and brandy. The moon had risen by this time, and we were about fourteen miles from Dover.

2 a.m.—We were drifting westward. with the white chalk cliffs near Cape Grisnez standing out in boid relief. Webb could see the light, which seemed to cheer him on his solitary course.

5 a.m.—Daylight, with a haze over the land. Webb took some refreshments, coffee and cod liver oil, treading water while drinking, refusing to even rest his hand on the boat, although told to do so by the referee. Webb had now been in the water sixteen hours. The tide had turned and carried him further and further away from the goal he so longed to reach.

9 a.m.—Webb takes a little beef tea and brandy; fearfully exhausted, but still toiling on. His hands now began to drop, and his fingers open, a bad sign, barely making headway.

9.30 a.m.—We had, however, drifted until we were directly off Calais Pier. We sounded and found we were in five fathoms of water.

10.15 a.m.—We were two hundred yards from the shore, Webb barely keeping afloat; it was now or never, Webb doing twelve strokes a minute. We were within one hundred yards of the shore; the men in the mail boat passing out of the harbor struck up "Rule Britannia," and cheered Webb on for the final struggle.

10.40 a.m.—Great excitement on shore. Webb had touched shore in about three feet of water, tried to stand up, but fell heavily forward. Willing hands rushed in waist deep and carried him to the carriage, when he was rolled in a rug and hastily driven to the Hotel Paris. Many of those on the boat had tears of joy in their eyes, after watching the terrible struggle of the last hour. The people of Calais looked upon Webb in the light of some extraordinary being—half man, half fish. The crowds increased hourly, and a ringing cheer went up as Captain Webb appeared on the verandah some six hours later, after completing the most difficult swim any swimmer in this world has yet accomplished.

SOME ENGLISH CHANNEL SWIMMERS.

Sixty attempts have now been made to swim the Channel. J. B. Robinson was the first to try, and Captain Webb's success, after one failure, was the third of the series. Since then great efforts have been made by Holbein, who, a few years ago swam to within half a mile of the land at St. Margaret's Bay, and Wolffe, who, on September 14th, 1908, actually succeeded in getting inside Calais Pier, when he rolled over exhausted. Last season Burgess made two characteristic efforts in the middle of August, and others who tried were James Mearns, of Aberdeen; Paulas, the French ex-champion; Jack Wolffe and Burgess did the best. Holbein was unable to make his usual an-

nual effort, the weather cheating him after he had made all preparations. It was also said that Jarvis would make an attempt, but that did not happen. Impossible as the task would appear to be, all the men who have tried—and Holbein, Wolffe and Burgess are one on the matter—agree that there is no reason why the Channel should not be swam. They say, give them the day and just the luck that is wanted and they will go through. The difficulty years ago was weathering the Varne. That does not worry the men now, but there is something else—the waters that swirl round both the English and French coasts. But for these the Channel would have been swam several times. It has been in fighting his way through these waters that the swimmer's strength has become exhausted and causes him to give in. I append a summary of the thirteen attempts made in 1908:

July 6th, 1908.—J. Wolffe made the first attempt of the season. He entered the water at the South Foreland, and for the first time in connection with Channel swimming was assisted by a French pilot, who was to map out the course in the event of his getting adjacent to the French shore. He remained in the water fourteen hours, by which time he was off Blanc Nez, and within four miles of the French coast. Then, as the easterly current was drifting him towards the North Sea, he retired, after having by swim and drift covered 35 miles.

July 23rd, 1908.—J. Wolffe made his first attempt from the French coast, starting from almost the identical place on Calais Sands where Captain Webb completed his swim. He was in the water thirteen hours and had got to within six miles of the English coast when, owing to his old leg trouble, he had to retire. At the time the current was driving him back into the Channel.

August 8th, 1908.—James Mearns, an Aberdeen swimmer, made his first attempt. He entered the water at the South Foreland, and swam for just over fourteen hours, when the weather changed and caused the water to become very choppy; he tired, and when four miles from the French coast was taken from the water in an exhausted state.

August 12th, 1908.—Paulus, a French exchampion swimmer, made an attempt. He started from the Admiralty Pier at Dover in a rough sea that at once swept him away from the tug. There was great anxiety caused by this, and from the outset there was no prospect of his succeeding. After four hours he became unwell, and when seven miles off Folkestone was hauled out of the water.

August 17th and 18th, 1908.—T. W. Burgess made an attempt from St. Margaret's Bay. After swimming in magnificent form for 20 hours and 11 minutes, and getting to within half a mile of Cape Grisnez, the offset prevented him from making further headway, and compelled him to retire when still fit and strong. A wait of six hours might have enabled him to succeed, but Burgess stated that he was not strong enough for that.

August 19th, 1908.—Jack Rees, a Welsh swimmer, made an attempt from the South Foreland, but after an immersion of three hours, during which he swam five miles from the land, he was taken ill and retired.

August 21st and 22nd, 1908.—T. W. Burgess made another attempt. He started from St. Margaret's Bay, and after a remarkable swim of 22¾ hours in which, with swim and drift, he covered sixty miles, retired one mile from Gravelines. The swim extended into five tides, three complete tides and two sections of ebb tide at the start and finish. A sudden change in the wind to the east spoilt his chance of succeeding in 24 hours, which is his limit.

August 23rd, 1908.—James Mearns made his second attempt. He swam well at the start, but after two hours a gale of wind came up, and on the advice of the captain of the tug the effort was abandoned. He had then covered eight miles in three hours and ten minutes.

September 7th, 1908.—James Mearns made an attempt from the beach at Shakespeare Cliff. He swam 6½ hours and covered fourteen miles. Owing to the choppy sea, he was seized with internal pains and retired.

September 8th, 1908.—T. W. Burgess made an attempt from the South Foreland. On this occasion he had swam ten miles in four hours, when the weather, having become so rough that the tug shipped numerous seas, he, on the advice of his pilot, retired.

September 8th, 1908.—Fred. Kearsley, of Lancashire, made an attempt from Sandgate, but owing to a change in the weather the sea became so very rough that after two hours he was prevailed upon to retire. He had covered five miles.

September 19th, 1908.—J. Wolffe made a magnificent effort, and in 14 hours and 55 minutes swam from Shakespeare Cliff to within a quarter of a mile of the French coast, being taken out of the water to the west of and inside Calais Peir. He showed excellent form, and in ideal weather made excellent progress until he became thoroughly exhausted, and had to be picked out of the water. He was kept going with oxygen for some time.

A competing team of British, Australian, French and American swimmers would no doubt bring out the man to defeat this torturous passage, and it is hoped Canada, from where the idea emanates, will enter the field in an endeavor to obtain this laurel of the swimming world.

CITY AND MUNICIPAL BATHING INSTITUTIONS.

It may be interesting to briefly touch upon some main facilities the public authorities in Great Britain afford the swimming world, and it can be stated without fear of egotism that their splendid example is being emulated by the Continental nations, especially Germany, Sweden and Switzerland. In these countries the writer has seen

great progress during the last ten years; and France, although not so well advanced as the former countries, is rapidly coming into the van of progress so far as municipally controlled bathing institutions are concerned. In qualifying the above statement, it may be worthy to record that Durban, South Africa, although only one-quarter the size of Toronto, had public swimming baths established some fourteen years back, and considering the time since they were erected, they compare favorably with many of the more recent baths of to-day. This speaks volumes for the authorities' wisdom and the architect's design at the time. It would be somewhat difficult to emulate the different classes of baths in Great Britain, for they are so widely different, and range from the Bath Club in London, where royalty goes, to the open-air free baths in our county towns.

The baths, wherever possible, are generally situated in the more densely populated districts, and are equipped with all the latest labor-saving devices, being in many cases electrically driven and lighted from the town's supply. The main buildings consist of first and second-class plunge baths, with Turkish baths for both classes. The more recent baths have large washing departments where all classes of people can, for a few cents, wash and dry their household linen and clothes. The charges for the first-class are twelve cents, including two towels, and one cent for swimming drawers. The second-class is four cents or six

cents, including one towel and one cent for drawers. The slipper baths are the same price as the swimming baths. The length may be anything from 100 feet, and the breadth 30 feet; the depth six feet at the deep end and four feet at the shallow end. They are furnished with diving platforms, springboards, sliding chutes and all necessary appliances for the use of junior and advanced swimmers. The latest style is so designed that those using the baths have to enter from their dressing boxes, thus preventing any dirt being brought in from the street, a very proper and sanitary measure, which adds materially to the comfort of those using the baths. Where this has not been done a barrier is placed at the entrance end, and the boots are placed in lockers. In some of the German baths it is compulsory for each person to take a warm or cold shower bath before entering the water. This is a very good rule, for however clean the body may be, it takes off all moisture or superfluous matter; and this, where the water is only changed once or twice a week, assists in keeping it in a clean condition. This wise practice will no doubt be better appreciated where swimmers are taught to consider each other's comfort, and there is plenty of room for education in this direction. The Victoria Baths, recently built by the Manchester Corporation, England, have a filter system, whereby the water in the baths is being continually filtered. The water is pumped to receivers on the roof, where

it enters specially constructed filter vessels, and after running over a series of weirs, in order that the air may get mixed with the water, it runs by gravity into the bath again. In cases where water is dear, it has been found to pay for itself in a few years, and the loss of water in the above instance is only a few gallons per week, as the water is used over and over again, and is always as clear, and even clearer, in some cases, than the original water supplied.

The Manchester Corporation control something like fifteen swimming and washing establishments, and the committee have granted exceptional facilities to the schools of the town. On certain days the scholars, on presenting their tickets, which can be purchased from their teachers, are allowed to use selected baths; the minimum charge for each ticket being about two cents, including towels. During the summer months it is estimated that quite fifty pear cent. of the scholars avail themselves of this privilege. The good results from this policy are more far-reaching than can be imagined, for not only are the children educated in the ways of cleanliness, but it assists in building up a healthy body of citizens. Not only is swimming enthusiastically indulged in, but every facility is given for the young to take up lessons in life saving, and it is a splendid and inspiring spectacle to see the young competitors going through their drills and rescue demonstrations

for the junior certificates issued by the Royal Life Saving Society of Great Britain. In many cases children of eight and ten years old have passed with all the confidence of their more advanced teachers. To what nobler purpose can their swimming abilities be applied than that of learning to save life? The good results accruing from this early education can be traced from the many splendid examples recorded in the books of the above Society. Many of the baths remain open during the winter months, and are largely attend ed by swimmers and members of polo clubs. The league matches are quite a feature, and the seating accommodation is often taxed to the utmost capacity. In this respect it is reasonable to prophesy the same conditions will prevail in the new baths recently equipped in Toronto, which are the first of their kind in Canada. The swimming tank is sixty feet long and twenty-six feet wide, being five feet deep at one end and seven feet at the other. The tank is so arranged that swimmers have to pass from the dressing rooms to a large shower room adjoining before going into the tank, which is a great improvement and more sanitary than the old style of dressing box leading direct from the bath. The swimmer can see his locker from the bath, but cannot get through without first going through the shower room. The building and equipment cost $40,000, and there is no doubt, from the general appreciation shown by the

public, much larger baths will be built in the near future, costing twice this amount, it being more economical to have one or two establishments centrally located to meet the growing requirements of a city possessing a population of 275,000. There is no doubt this splendid example shown by the authorities in Toronto will stimulate other cities throughout Canada to build public baths for the good of its people.

A CHAPTER FOR LADIES.

It is a regrettable fact that most text books published on swimming seldom allude to the art in its relation to ladies, the majority not even mentioning the fair sex at all. Why this is so it is difficult to explain, as it is quite clear to the most casual observer at seaside resorts or bathing places on the lakes of Canada, America and Australia that ladies enter into the spirit of the sport with far more zest and real enjoyment than many of the sterner sex. The writer has, therefore, devoted a chapter to ladies with the hope that the reader, be he father, brother or son, will bring the same prominently before their wives, daughters or friends, a brief perusal of which will no doubt prove interesting and beneficial.

Ladies and young girls are usually somewhat timid when taking to the water, their inducement to overcome this has been considerably retarded

by lack of experienced lady experts to teach them that they have all the natural advantages of man, when once the nervousness of entering the water

A PERFECT DIVE.

Photograph of Miss Beatrice Kerr, Australia's Lady Champion Swimmer, diving from a distance of 60 feet.

has been overcome. It is this, and this alone, that has curtailed the progress of many an otherwise promising career of the fair sex in the swimming

world. The same conditions prevail when boys are frightened and ducked in the early days of their beginning, which increases their timidity to such an extent that it remains with them for years. From this it will be gathered that every precaution should be taken to see that no cause is given for this state of affairs arising with beginners. The method of teaching ladies is exactly similar to that discussed in the chapter on teaching the art in the first part of the book.

The drills alluded to can be taken in ordinary short skirts, or gymnasium costume, or even in a lady's bathing suit, the best style being what is known as the combination suit, *i. e.*, drawers and waist being in one piece, the skirt, being an extra garment, to be taken off when entering the water. The short sleeves should be dispensed with, leaving the armholes simply like a gentleman's vest, with colored braiding added according to taste. This is the class of garment most usually adopted, as it gives greater freedom to the arms and shoulders whilst swimming. It is advisable to have pure serges in preference to woollen materials, as they do not hold the water. It is also advisable to have a pair of light shoes at hand in the event of the shore being rough or pebbly. This is especially desired in the case of beginners.

The writer has had many pleasant swimming excursions with Mr. Redmond and his sister-in-law, Miss Beatrice Kerr, the champion lady swim-

mer of Australia. It is no doubt due to the keen interest taken by the public in this lady and Miss Annette Kellerman, that has led ladies to take up the art more vigorously than hitherto. Swimming, as a sport for ladies, has recently become the favorite pastime of the fair sex in Great Britain. The most expert lady in the art is one of London's Mayoresses, who is the winner of five gold medals for diving and swimming, many ladies of title emulating her splendid example. Among the latter, out of some hundreds, are, Lady Constance Stewart Richardson, and quite a number of American leaders of fashion.

There are many expert lady swimmers in Canada and America, and it will be very interesting, when the different clubs send their representatives to compete for some national souvenir, such as the King's Cup. It would give ladies their due recognition in the swimming world and stimulate further progress being made in international racing, which would open out this field of sport to ladies of all countries.

SOME REMINISCENSES.

THERE are many interesting and sometimes exciting incidents in a swimmer's career, but as some may be considered somewhat of the "fish story" brand it will, no doubt, best suit our purpose to omit those calling for lengthy explanation. The

average swimmer has no fears for the monsters of the deep, who know by instinct that man is their natural enemy. Whether from this reason, or the uncanny appearance of his body in the water, most marine animals invariably seek waters deep at the sight of man. The most deadly to be feared are the shark and octopus. The latter is only found in tropical waters, and then very seldom do they come into shallow waters. The former is the most dreaded by swimmers in Australian or Mediterranean waters, where all swimming establishments around the coast have to be protected by piles or special protection. They also frequent certain places on the coasts of Africa. The writer once swam out into what they term the outer anchorage in Durban Bay, South Africa, and after a very enjoyable swim was informed the bay was literally infested with sharks, and it was on record that when a native fell off the lighters that carry the cargo from the liners not coming into harbor, they invariably went down after being bitten by one of these savages of the deep. Well, there was no long distance swimming in that locality after this. My informant, being a life-boat man of long experience on that part of the coast, convinced me it was no ordinary place; but, singular to say, I was swimming in this locality, but keeping well in shore, about one hundred yards out, when up came a number of porpoise, snorting like some farm yard pigs. There was

quite a shoal making for the deep waters; fortunately I was on their flank, not quite near enough to see the white of the lower part of their bodies. I immediately turned on my back and kicked out as in the propeller action, this being the old theory to frighten away sharks. However, nothing worse than a severe fright came of this adventure in the Indian Ocean, although I must confess there was always a sense of fear afterwards when swimming in these waters.

THE BAG TRICK UNREHEARSED.

The most exciting and exhausting experience I ever had was at the Durban Corporation Baths, South Africa. Having organized a gala, I was anxious to give some new items, one of which was the Monto Cristo bag trick, as they had not seen this before. I was very careful to see that everything was well carried out. Indeed, the Mayor expressed his opinion in high terms prior to leaving before this item, which was last on the programme. How it occurred I am at a loss to explain to this day. Everything was carried out to instructions, myself holding the ends of the string inside the bag, and after making some jocular remark, was thrown into the deep end to the dismay of the spectators; but, in this case, with dismay to myself also, for on pulling the strings the mouth of the bag would not open, and I could

not get out. Fortunately there was only a light weight in the bag, and I managed to push myself off the bottom, giving one terrific shout for help on coming above the surface. This caused a roar from the crowd, who thought I was joking, and it was not until I came up the second time two club men dived in and brought the helpless to the side of the bath. I have often performed this trick since, and when assisting at any carnival always take full charge myself of anyone doing it. It is quite simple when correctly carried out, but would strongly advise novices to give it a miss, or they may meet with an untimely end.

NEARLY LOST IN STURGEON LAKE, CANADA.

I had been doing a great deal of swimming with some friends of mine residing for the summer at Sturgeon Point, Lindsay, Canada, and as the season advanced I proposed endeavoring to establish a record swim for time from the first lighthouse to the point, a distance of 3½ miles.

I had arranged with a friend from Sturgeon Point to meet the S. S. Esturian, sailing from Lindsay and passing the lighthouse, where it was my intention to dive off the steamer at this point. It was given out in the press, and many enthusiasts came across with the boat. The day was somewhat breezy, but there was every indication of a fine swim. I dived off the stern amidst the

cheers of the people on board. It was not until I came to the surface that I realized the water was rough, and ough nothing to compare to a rolling sea, it was choppy, and broke continuously in my face. This in itself was trying, but expecting my friend's boat, I started a steady trudgen stroke towards the Point. I had been swimming for about half an hour when I became anxious at the non-appearance of my friends. Why? I do not know, unless it was the sense of loneliness in this vast expanse of water. The roughness increased and also the loneliness, and I became nervous for the first time in my life. My strength began to fail with the increasing terror, and I realized I was in a terrible predicament. No boat in sight and three miles in one direction and one and one-half miles in another from land. The only thing I can remember was repeating what a long way it was and why did not the boat appear. I swam on for perhaps twenty minutes more, when I stopped to tread water and consider my position. On looking to the east side I saw a white opening on the shore, which indicated to me that must be where there were no reeds or weeds, as all round the rest of the shore it seemed dark. Fortunately this direction was with the wind and broken waters following—two good points in my favor; so I altered my course and made a bee-line to the opening, but it seemed the longest swim of my life, as I never seemed to make any progress. However, I landed at last, in a terribly exhausted con-

dition. This particular part of the shore had some driftwood which had become dry and white, which made it possible for me to land; the remaining parts of the shore, however, were thick with weeds. The one redeeming feature of this shore was it was ladened with blackberry bushes, which enabled me to keep from feeling the pangs of hunger, though they could not shelter me from the burning sun, which scorched my skin. However, my nerves had cooled down and I scanned the waters once more, when, to my surprise, I saw the yacht appearing. I waved my hand, then plunged in and swam to meet it. The explanation was, it being so rough at the point he never thought I would keep my promise. I lectured him on breaking his promise, as an old sea dog would resent that swim being recorded. The yacht had been out four hours looking for me, and it was three o'clock when we arrived at the Point. The steamer had long since landed and all on board had given me up for lost. But not so with Lieut. Hopkins, whose belief in my staying powers was fortunately correct, or I might have been on that deserted mainland longer than I was. One reason they had missed me for so long was they kept rigidly to the course I should have kept under ordinary conditions, and therefore did not look for me on the mainland. This was my first little adventure in the great waters of Canada, and I can assure my readers I take no chances again, and strongly advise no swimmer to seek similar

experience. Always have a boat, and on no account dive off as I did without a boat in attendance. This experience gained proved to me how hopeless a swimmer would be who lost heart, and although the distance was short, under normal conditions, it proved very exhausting under the circumstances, and had I not nerved myself for the fight I would not have been giving this true narrative of one of the nearest escapes of a watery exit from this world.

SWIMMING IN A GALE.

This adventure occurred in the Irish Sea, off Blackpool, during a westerly gale. I had been swimming here during the summer months in all conditions of weather, and was in good training for heavy sea swimming, frequently going in when it took ten or fifteen minutes to get an opportunity to take a plunge through the heavy waves breaking on the shore. When I say heavy, I mean four to five feet high. They may sound feeble to the uninitiated, but you can take it from me it is just about as heavy as any man will tackle, and very few at that. It's all O. K. when you once get well out, but when these powerful waves break they are difficult to negotiate. Before getting out I was frequently thrown stern or shoulders first on the sands. Fortunately there was no shingle, or I could not have stood it; as it was, it was very trying. However, I managed to get

out, and taking a long breath, with the breast stroke got through the breakers, after which it was a grand sensation to be lifted to what seemed mountains high from the hollow of the waves. It was my intention on this occasion to return after a brief spell, as I knew I should require all my strength to land, and started with a good steady breast stroke, but try as I would I made no progress. On looking at a fixed point each time I came upon the crest of a wave, I found to my dismay the tide was drifting me down the coast; so seeing it was no good taking it at right angles, I turned with the tide, swimming in a slanting direction toward the shore, on which I landed some four miles down from my starting point, where a great crowd gave me a hearty reception, and I landed no worse for my rough experience, although it will be a quarter gale the next boisterous experience I want. The experience gained points out that a swimmer, under all circumstances, must endeavor to keep his head and do what seems best after carefully thinking it out.

EXTRACT FROM THE BLACKPOOL HERALD.

Mr. T. W. Sheffield, one of the successful competitors at the Life Saving demonstration at Blackpool a few weeks ago, had an alarming and unusual experience on Saturday morning. Mr. Sheffield is at present staying at Norbreck, and it

is his daily custom to have a practice in the sea. On Saturday morning, though a gale was raging, he went out for his customary swim. Mr. Sheffield entered the water at Norbreck, and after he had been in the water about an hour, he discovered that he had got in a channel and was being taken out to sea. He struggled manfully with the waves, and eventually reached the shore at Cleveleys. Whilst he was in the water, he noticed a gentleman running along the cliffs and frantically waving his arms about, apparently dismayed at the imminent danger in which he thought the swimmer was in. Last night a "Herald" representative spoke to Mr. Sheffield, and he denied the statement that he was in difficulty. "I was all right," he said, "I was only in two feet of water. I will take anyone on from Blackpool to Cleveleys," he laughingly added. "I was carried out to sea, but I got with the tide and came out of the water at Cleveleys."

JELLY FISH THE SWIMMER'S ENEMY.

There are several forms of this parasite of the seas; some are very small, being about three inches in diameter, while the larger ones average anything between six to even twelve inches. The red species are the most deadly; they seem to spray the surrounding water, when in danger, with a glutenous fluid, which makes quite a perceptable white mark on the body. The irritation

caused by this, on coming out of the water, is intense. The more you rub it the worse it gets, until the whole body is as if it had been rolled in a bed of nettles. The best way to alleviate the irritation is to apply neat brandy to the affected parts, taking a moderate dose internally at the same time. The spirits seem to kill the pain immediately; it is also advisable to run in order to keep up the circulation. There is no real danger, but the irritation is so severe in some cases that the swimmer feels quite feverish for a day or so. It is singular that fair people suffer more than dark people from this disagreeable form of sting. The sting of the sting fish is most painful and far more lasting than that of the jelly fish. The writer once had a painful experience of this class of sting. It was during a long sea swim, when, towards the end, my left foot just felt as if someone had run a gimblet into it. The pain was very acute, even in the water. On gaining the land, the foot seemed fifty times its natural size, and was as heavy as lead. It took several days before the foot could be put down. Shrimpers have been known to be off from their calling for a couple of weeks from this form of sting. The fish itself is like a large mud cat, with one long projection near the head, which it stiffens when frightened or before it prepares to strike. The best remedy is to take a strong aperient and bathe continually in hot water.

WATER POLO.

THE game of water handball, or, to be correct in the aquatic sense of the game, water-polo, has done more during the last four or five years to improve the standard of swimmers than any other branch of the sport. It is splendid practice for keeping afloat, improving speed, and quick changes of movement in the water. Water-polo may be played in any bath, open sea, lake or river.

SOME OF THE MAIN QUALIFICATIONS.

The following arrangement of the team may be taken as the standard governing the game, although certain modifications may be made by the association furthering the sport. The office of captain is always an important one. It is essential that he must be well up in all the rules of the game, and also in all competitions for his club or team, and should organize frequent practices and take particular notice of the merits of each player, always being careful to enforce the strictest adherence to the rules. His advice should be taken on all the points of the game, and each player should have the position best suited to him. No selfishness in scoring should be allowed, and the need of a skilful combination should always be carefully pointed out. The captain should impress his team that walking or standing in shallow water must be avoided, as a foul may be committed and the whole game lost. The team should

always play the ball and never duck an opponent, unless he deliberately holds the ball. Quick passing should be the rule and not long shots, as time does not allow for getting into the correct position for a long shot. It is the captain's duty to insist upon strict obedience to all rules and orders, and

THE TORONTO SWIMMING CLUB,
Headquarters for the Annual Swimming Carnival.

should examine each man when admitted to his team as to quick action with the ball and exactness of throw.

FORWARDS.

All forwards should be good swimmers, quick at catching the ball and judging distances, pass,

dribble and shoot well, exactly from any portion of the field of play. One should take up a position either right or left of the opponent's goal, but outside the recognized limit. The other should take the opposite side, and be a little distance away from the goal. Both players should be on the lookout for the ball, and instead of holding it should make quick passes to each other, or to the centre forward. At all times the ball should be passed to the furthest side of the goal, and not straight into the other's hands, unless uncovered by the opponent's back. The forwards should always be ready for a sharp stroke or two so as to clear; this should be practiced, as once this is acquired the forwards will find that they often get a free throw at the goal. When dribbling the ball, the forwards should clear on the outside and pass quickly, in case they are caught by an opponent. They should keep well up towards goal, and if the centre forward gains possession, one of the other forwards should at once take his place, because if the attempt at goal be defeated he will then be in a position to make another attempt. It is the duty of forwards to keep clear, as far as is possible, from the opponent's side, and should there be defence play, get back into position as soon as possible. They should take care not to take advantage of the rule forbidding a player from taking up a position within a yard of the opponent's goal, and should be careful not to get too far over to the side of the water in which they are playing.

When engaged in attacking, if the ball should be in danger of crossing the line of goal, care should be taken to avoid touching it. The opponent's back should at this time be pressed, preventing him from getting a long shot, and if possible be compelled to yield to a corner. No time ought to be lost in taking the corner throw, because, although the rules do not allow a change of position between the blowing of the whistle and the taking of the throw, delay allows the backs to get their bodies well balanced for a quick start, and the advantage gained by the free throw is counteracted.

CENTRE FORWARD.

Upon the centre forward falls the task of guiding the forward play, and should their chance of scoring look more open than his, pass out to them, never being selfish in his play; keeping a good lookout on the opponent's half-back, and in open play tire him by dribbling the ball in a forward direction, from side to side, and if there is any chance of it being taken, pass quickly forward to the nearest forward. All forwards and centre forwards should be expert swimmers, especially quick and sure, with plenty of staying power and strength.

HALF-BACK.

The most troublesome post in a team is the half-back. The forwards have some separate play, but the half-back must make combination the feature

of his play, and be ready to assist the attack, and be as much in touch with his backs as the centre forward is with the forwards. The centre forward of the opponent's team is the one to be most watched, and whose play he must try to make useless. He should always be cool; do no rash shooting at the goal; in this way he will prove a great service to his side. The forwards should be well supplied by him and left to score when able. It is not often the half-back can score. He should be a good swimmer, well able to dribble, and throw or pass with either hand under any conditions. At the commencement of the game, the half-back or centre forward should be told off by the captain, according to speed, the fastest swimmer is best, to sprint for the ball, and if he can get it to pass it back. If the centre forward is given this duty, he should pass to the half-back, and then swim to his position, the wing forwards also taking their places. If the half-back has to go for the ball, he should pass to his backs, and return to his proper place, some two or three yards in front of the backs. As soon as the backs receive the ball it should be held until the forwards are in position and then passed to them. The success of the team depends greatly upon the play of the half-back, and only an expert swimmer should fill this post. He must learn distinctly the place of every man in the team, and always be ready to take a pass, however fast it may come.

BACKS.

The backs should take a position near their opponent's forwards, in order to prevent them from scoring, but they should never allow these forwards to be between them and their own goal. They must closely watch them, and always be ready to move quickly if there is danger. The heaviest men as a rule are chosen as backs, their captain understanding their best abilities. Strong defence is the essential feature for the backs. This is particularly worthy of notice when the game is played in open water. The backs are very often called to save under awkward circumstances, as when hard pressed by quicker swimmers than themselves, and it is very necessary that they should keep close watch of their opponents, at the same time keep from holding them. They should be smart and well up to the art of passing to their goal-keepers. When the goal is in danger quick work is the most essential qualification under all circumstances.

GOAL-KEEPER.

This is one of the most trying positions of the whole team, and is generally a cold spot of honor, as he cannot exercise himself in swimming like the others. The goal-keeper should be an all-round man, well up in treading water and raising himself out of water. He should keep cool under all circumstances, and when the ball comes near, with

the forwards well up, should pass out to his backs or give away a corner, his decision on this matter being governed entirely by his own judgment. Constant practice with the ball is necessary. No hard and fast rule can be given for handling the ball, each swimmer acquiring the knack by experience.

WATER-POLO RULES.

1. Ball.—The ball to be round and fully inflated. It shall measure not less than 26½ inches nor more than 28½ inches in circumference. It shall be waterproof, with no strapped seams outside. The ball to be furnished by the home team.

2. Goals.—The width of the goals to be ten feet, the crossbar to be three feet above the surface when the water is five feet or over in depth, and to be eight feet from the bottom when the water is less than five feet in depth. The goal-posts and goal-nets to be furnished by the home team.

3. Caps and Flags.—One team shall wear dark blue caps and the other team white caps. Both goal-keepers shall wear red caps. Each goal-scorer shall be provided with a red flag, and the referee with a dark blue and a white flag and a whistle.

4. Field of Play.—The distance between the goals shall not exceed thirty yards, nor be less than nineteen yards; the width shall not be more than twenty yards, and shall be of even width

throughout the field of play. The goal-posts shall be fixed at least one foot from the end of the bath, or any obstruction. In baths the halfway lines and also the four yards penalty lines shall be marked on both sides.

5. DEPTH.—The water shall not be shallower than three feet.

6. TIME.—The duration of the match shall be fourteen minutes, seven minutes each way. Three minutes to be allowed at half-time for change of ends. When a goal has been scored, the time from the scoring of the goal to the re-starting of the game, or time occupied by disputes or fouls, shall not be reckoned as in the time of play.

7. OFFICIALS.—The officials shall consist of a referee, a timekeeper, and two goal-scorers.

8. REFEREE.—The referees' duty shall be to start the game, stop all unfair play, decide all cases of dispute, declare fouls, goals, half-time, and time, and see that these rules are properly carried out. He shall decide upon all goals, whether signified or not. The referee's decision is final.

NOTE.—A referee may alter his decision, provided such alteration be notified before the ball is again in play. A referee has power to stop play at any period of the game if in his opinion the behaviour of the players or spectators or other exceptional circumstances prevents the match from coming to a proper conclusion.

9. Goal-Scorers.—The goal-scorers shall stand at the side near each goal, and when they consider that the ball has passed through the goal, at their respective ends only, they shall signify the same to the referee by means of a red flag. They shall not change ends, and shall keep the score of goals of each team at their respective ends.

10. Teams.—Each side shall consist of seven players, who shall wear blue and white caps respectively, and drawers, or costumes with drawers underneath the costume. In baths no grease, oil or other objectionable substance shall be rubbed on the body.

11. Captains.—The captains shall be playing members of the team they represent; they shall agree upon all preliminaries, and shall toss for choice of ends. If they are unable to agree upon any point, the referee shall decide for them.

12. Starting.—The players shall enter the water and place themselves in a line with their respective goals. The referee shall stand in a line with the centre of the course, and, having ascertained that the captains are ready, shall give the word "Go," and immediately throw the ball into the water at the centre. A goal shall not be scored after starting or re-starting until the ball has been handled (viz., played with the hand below the wrist) by an opposing player or by a player on the same side, who shall be within half the distance of the goal attacked. The ball must

be handled (viz., played with the hand below the wrist) by more than one player before a goal can be scored.

13. SCORING.—A goal shall be scored by the entire ball passing beyond the goal-posts and under the cross-bar.

14. ORDINARY FOULS.—It shall be a foul: (a) To touch the ball with both hands at the same time; (b) To hold the rail or side during any part of the game; (c) To stand on or touch the bottom during any part of the game, unless for the purpose of resting; (d) To interfere with an opponent or impede him in any way, unless he is holding the ball; (e) To hold the ball under the water when tackled; (f) To jump from the bottom or push off from the side (except at starting or re-starting) in order to play the ball or kick an opponent; (g) To hold, pull back, or push off from an opponent; (h) To turn on the back and kick at an opponent; (i) To assist a player at the start or re-start; (j) For the goal-keeper to go more than four yards from his own goal-line; (k) To throw the ball at the goal-keeper from a free throw.

NOTE.—Dribbling or striking the ball is not holding; but lifting, carrying, passing under water, or placing the hand under or over the ball, when actually touching, is holding. Dribbling the the ball up and through the post is permissible. Deliberate splashing in the face of an opponent is a foul under clause (d).

15. Wilful Fouls.—If, in the opinion of the referee, a player commits an ordinary foul wilfully, the referee shall at once order him out of the water until a goal has been scored. It shall be considered a wilful foul to start before the word "Go," to deliberately waste time, or for a player to take up a position within a yard of his opponent's goal.

Note.—In the event of a referee ordering a player out of the water, and such player refusing, the game shall be stopped, and the match awarded to the other side, and the offending player reported to his Association. The International Board has recently decided (1903) that the player moving from his position after the whistle has blown is to be deemed guilty of a wilful foul.

16. Penalties.—The penalty for each foul shall be a free throw to the opposing side from the place where the foul occurred. A goal cannot be scored from a free throw unless the ball has been handled (viz., played with the hand below the wrist) by at least one other player.

17. Penalty Throws.—A player wilfully fouled when within four yards of his opponents' goal-line shall be awarded a penalty-throw, and the player who commits the offence must be ordered out of the water until a goal has been scored. The penalty throw shall be taken from any point on the four-yard line. In the case of a penalty throw it shall not be necessary for the ball to be handled by any other player before a goal can be scored,

but any player within the four-yard line may intercept the penalty throw.

18. Declaring Fouls.—The referee shall declare a foul by blowing a whistle and exhibiting the color of the side to which the free throw is awarded. The player nearest to where the foul occurred shall take the throw. The other players shall remain in their respective positions from the blowing of the whistle until the ball has left the hand of the player taking the throw. In the event of one or more players from each team committing a foul so nearly at the same moment as to make it impossible for the referee to distinguish who offended first, he shall have the ball out of the water and throw it in as nearly as possible at the place where the fouls occurred, in such a manner that one member of each team may have equal chance of playing the ball. In such cases the ball must be allowed to touch the water before it is handled, and must be handled (*i. e.*, played with the hand below the wrist) by more than one player before a goal can be scored.

19. Goal-keeper.—The goal-keeper may stand to defend his goal, and must not throw the ball beyond half-distance; the penalty for doing so shall be a free throw to the opposing side from half-distance at either side of the field of play. The goal-keeper must wear a red cap. He must keep within four yards of his own goal or concede a free throw from the four-yard line to his

nearest opponent. The goal-keeper is exempt from clauses (a), (c) and (f) in rule 14, but he may be treated as any other player when in possession of the ball. Except when injury or illness compels him to leave the water (when Rule 23 shall apply), the goal-keeper can only be changed at half-time.

NOTE.—In the event of a goal-keeper being ordered out of the game, his side cannot appoint another goal-keeper except at half-time, as defined in Rule 19, and any player defending the goal in his place shall be considered an ordinary player and not come under the special limitations and exceptions attached to a goal-keeper.

20. GOAL AND CORNER THROWS.—A player throwing the ball over his own goal line shall concede a free corner throw to his opponents, and such free corner throw shall be taken by the player on the opposing side nearest the point where the ball leaves the field of play. If the attacking side throws the ball over, it shall be a free goal-throw to their opponents' goal-keeper.

NOTE.—In the event of the ball having become dead by being thrown over the goal line, it must not be considered in play until it has left the goal-keeper's hands. If a goal-keeper puts the ball in play, and, before any other player has handled it, takes it again and allows it to pass fully through his goal, a corner throw shall be awarded to the opposing side.

21. Out of Play.—Should a player send the ball out of the field of play at either side, it shall be thrown in any direction from where it went out by one of the opposing side, and shall be considered a free throw. The player nearest the point where the ball leaves the field of play must take the throw. Should a ball strike an overhead obstruction and rebound into the field of play it shall be considered in play, but if it lodges on or in an overhead obstruction it shall be considered out of play, and the referee shall then stop the game and throw the ball into the water under the obstruction on or in which it had lodged.

22. Declaring Goals, Time, Etc.—The referee shall declare fouls, half-time, and time by whistle; goals by bell. The timekeeper may notify half-time and time by whistle.

23. Leaving the Water.—A player leaving the water, or sitting or standing on the steps, or sitting on the side of the bath in which the match is being played, except at half-time or by permission of the referee, shall not re-enter it until a goal has been scored, or until half-time. Should a player leave the water, he can only re-enter at his own goal-line.

EQUIPMENT OF LADIES' SWIMMING CAMP.

The bathing place should be selected by an experienced swimmer, care being taken to select a sloping shore. A thorough inspection should be

made by walking all over the proposed place, going in up to the arm-pits, to ascertain that there are no holes or dangerous piles hidden under the water. A stake should be d·iven a little distance from the water's edge, from which a line should be taken to a buoy, indicating the danger distance for non-swimmers and beginners. This should not be taken out further than the waist line of an average person. The buoy, or baulk of timber with a piece of red flannel tied to a stick, will keep in position if a piece of rope is tied to it with a large stone at the other end, due allowance being made for the lift of the tide, where the same exists. It is always advisable to have a life-line, about twenty or thirty feet long, with a large piece of cork or timber tied to one end, just heavy enough to throw out in order to pull the line after it. The cork or piece of wood serves the double purpose, as it keeps the end of the line up. These are very simple and inexpensive materials, and there is no excuse for not having them. They may never be wanted, but are invaluable when anyone is in temporary distress, and will prove useful under all circumstances

SOME STUNTS OR SCIENTIFIC SWIMMING AND FLOATING.

THE art of motionless floating on the surface of the water practically governs all other stunts in the water. It appears comparatively easy when watching an expert, but it requires a great deal

MOTIONLESS FLOATING.

Photograph showing the correct position of the body when floating. Notice the position of the arms and legs, extended, without straining to their full reach, to counteract any tendency of the legs sinking. This photograph is unique in more ways than one, being taken from a vertical position above the subject, who is floating on the waters of Lake Temagami, Canada, and shows in every detail the correct balance of the body, the careful study of which will materially assist beginners and even fairly good swimmers in this useful art.

of practice and patience to acquire the power which, when once gained, enables the swimmer to perform many feats with ease and grace which otherwise seem difficult. Floating is a graceful pastime and should be the ambition of every swimmer to excel in. Unlike swimming, it cannot be learned by any given methods, as the relative buoyancy and displacement of each individual body varies. It is necessary at the beginning to find the exact position in which the body must be placed in order to float properly, which allows the subject to breathe correctly with the mouth above the water. Theoretically every person can float, which is fairly correct as far as salt water is concerned, especially in the Black Sea, Caspian Sea, or Salt Lake City, but in the great fresh water lakes cases frequently occur in which the chest capacity is not sufficient to counteract the specific gravity of the body, and owing to displacing too much water the body gradually sinks, although it appears to be in its correct position.

The following explanation, if correctly carried out, will, in the majority of cases, overcome this. In the first instance, frequent practice is necessary, even if it results in partial failure. I have known some swimmers to give it up in despair to eventually return to the attack of the proposition and become experts at it, even to reading newspapers on the bosom of the waters.

The fundamental principle of floating is merely the balancing of the body on the surface of the

water so that neither the arms or legs sink downwards. In taking up the position in the water it is well for the beginner to take in all the breath possible and push off gently from the steps with the feet, being careful to practice when the water is still. If the legs sink on leaving the steps it proves that the arms have not been extended far enough back or sufficiently wide apart, or the head has not been thrown low enough, or the chest properly extended. The mere defection of either hand may prevent sinking. Once this fact is grasped floating comes as naturally as ordinary swimming. Ladies learn to float more quickly than men, because their bones are lighter. A thin person can float quite as well as a stout person, although a stout person usually has the advantage.

The writer strongly urges his readers to take up this question, especially if they go where there is salt water, as it is undoubtedly the easiest to learn in and can be accomplished in a few trials. To a swimmer who really enjoys the art, there is nothing so enjoyable as floating in the open sea or lake; the sensation in a running sea as the body is momentarily buoyed up on the crest of the waves is one of the delights seldom forgotten, for although the waves may only be some five or six feet high actually, they look like veritable mountains as one sinks in the trough to be caught by the on-coming wave.

TREADING WATER.

No swimmer can lay claim to being an expert until he can float, after which scientific or trick swimming becomes fascinating to him. The feat of treading water is not so easy as most people imagine, when it is done properly, without any undue exertion. The first methods call for the hands to be placed on the hips, with the head thrown well back, chest fully inflated, and the body brought in a perpendicular position; the legs are then moved alternately, striking the water with the sole of the foot, kicking the legs outward from the knees to the front and then drawing them backwards, which action causes the body to move forward. The body can be propelled in the same manner by feathering the hands when turned palm downwards, the arms being extended to their full reach in line with the chest.

THE ROLLING LOG OR REVOLVING.

When the swimmer has learned to float, this is one of the easiest and most effective tricks from a spectacular point of view. Assume floating position, locking thumbs together; incline the body to the left or right side without moving the hands or legs; keep the body rolling, executing it without any splash or undue motion of the body. After a little practice you will be able to turn quite rapidly, imitating the rolling of a log.

SWIMMING LIKE A DOG.

This is what most swimmers begin with if not under the guidance of an instructor or some friend who knows the art. It is a very simple trick; in fact, it should not come in this category

TRICK SWIMMING.

Photograph showing the correct position for turning somersaults in the water. Notice the curved and closed fingers for getting the best pull out of the water before turning either backwards or forwards, which is accomplished by bringing the knees close up to the chest, combined with a sharp twist of the hands from the wrist.

at all, but it illustrates what a simple movement of the arms and legs is required to propel the body forward; and, if anyone could concentrate their

mind on this action when falling into the water it would materially assist to save life in case of accidents or sudden immersion of people who cannot swim.

The hands and legs are moved alternately up and down, with the arms slightly bent, palms downwards; the legs are kicked out straight to the rear, the front and toes of the foot striking the water separately, instead of the legs working together as in swimming on the breast. The alternate position of the up and down motion of the legs and arms closely resembles the action of a dog swimming.

SCULLING.

To a swimmer accustomed to the back stroke, this is a very easy method of propelling the body through the water. The swimmer turns on his back, the head slightly bent forward, eyes looking at the toes, which should be just under the water; the arms lie alongside the thighs, palms downwards, fingers closed, slightly pointing toward the surface; the hands are then turned alternately from right to left, which motion will propel the body head foremost in a very graceful action. To reverse the action, that is, feet first, the hands should be turned slightly towards the bottom, giving a slight pull in a downward motion. This manner of propulsion looks very effective if the toes are kept just above the water line.

SWIMMING ON THE BREAST, FEET FIRST.

Assume the ordinary position of the breast stroke, with the legs and arms closed at full stretch, moving the feet alternately from the knees; the toes should be pointed downwards, care being taken to keep them under the water; the action of the hands is similar to the "propeller," but the palms point downwards as the body is on the breast, with the arms extended in a straight line with the head; the slightest turning of the hands from right to left will move the body backwards, and when the hands are kept well beneath the water it looks a very neat and effective trick.

SWIMMING WITH 40-POUND STONE ON CHEST.

This is a very effective trick, or rather feat of strength. The swimmer assumes the position as in swimming on the back, holding the stone or weight well down below the chest, this being the portion of the body giving the greater buoyancy, from which position it can more easily be controlled. It requires an expert to do it neatly, and then only by those who have practiced it constantly. Quite apart from the interest of the feat, it illustrates in a most forceable manner the tendency of the body to keep on the surface, even under these exacting conditions. The writer invariably includes this in an out-door regatta, and finds it one of the leading items of comment, and

although doing more difficult tricks, it always strikes the spectator, or even average swimmer, as somewhat uncanny.

THE TOP.

Commence with treading water, then bring the knees up to the chest, stretch the arms out to their fullest extent, keeping them under water, drawing them backwards and feathering the hands, palms downwards. If executed rapidly this looks very effective, as the body revolves in a small compass.

THE SHIP OR ONE LEG TRICK.

This is practically the same as sculling, but not quite as easy. The body takes a floating position, with arms touching the thighs. When you get speed on, lift one leg straight into the air, so that it sticks out of the water at right angles to the body, as a funnel on a steamer. You can propel the body in either direction; it looks best with the right or left leg going forward. The more difficult feat is to stick both legs into the air. Care must be taken to see that you get a good balance; when you have this, the rest is comparatively easy, but always throws a severe strain on the abdominal muscles, and should only be attempted by those in good form.

MONTE CRISTO SACK DIVE.

This is always a good show trick at regattas, where there is a sloping shore, and can be accom-

plished by anyone used to underwater work. A good canvas sack, large enough for a man is required; at the neck, where the fastening is made, a hole is made, through which two pieces of cord are passed. On the swimmer getting into the sack he takes the two loose ends of the cord in his hand, while someone closes the mouth of the sack, binding it up a couple of times before putting in the knots. After asking the imprisoned swimmer if he is ready, the sack is thrown into the water. It is always advisable to ask if the swimmer is ready, or have a pre-considered signal, in orde to give him time to inflate his lungs. The writer was once caught in this trick in a very nasty, yet simple manner, which is fully explained in "Some Reminiscences." In any case, see that no tampering or joking is done when preparing the sack for this trick, or disastrous results may follow. Always place a heavy weight in the sack; it assists it to sink.

PLATE DIVING.

This is always an effective trick for the spectators to follow. The judge, who knows the merits of the swimmers, uses his discretion, throwing the plates in a small or large circle, in deep or shallow water, according to the qualifications of the diver. The feat of bringing up the most plates is always an interesting one. This class of diving for objects can also be done with a wire basket, collecting pot eggs or stones from the bottom.

THE STEAM TUG.

This is accomplished by turning on the back, as in sculling, then raising one leg until at right angles, bringing it down with all the force possible, the other leg going up as the first one enters the water. It is one of the simplest tricks, and can be performed by any average swimmer.

SMOKING UNDER WATER.

The swimmer should smoke a cigar or pipe until it is well alight, then place the lighted end or bowl of the pipe rapidly in the mouth, care being taken not to draw inwards when taking the dive. When in the water, blow gently; this will cause the smoke to rise towards the surface. After swimming slowly for a few yards come up to the surface and reverse the pipe or cigar, taking care to remove it quickly without wetting it. Return to the starting point, smoking as you proceed.

EATING UNDER WATER.

This is seen to the best advantage in a bath, when the water is about three feet deep. Take a sponge cake or ordinary stale bun in the left hand, which is kept out of the water, as the body sinks below the surface, one knee resting on the bottom, when the right arm should be brought out of the water for a piece of the bun, returning it sharply to the mouth, exhaling gently as it is placed in the mouth to keep the water out.

DRINKING UNDER WATER.

Take a small bottle of milk and exhale a small quantity of air before going under in order to keep in the proper position. Withdraw the cork near the mouth, keeping the thumb on the top until it gets in the mouth. Be careful to let a little air out when swallowing, otherwise there will be a sudden rush of water up the nostrils, caused by the partial vacuum, which is a very unpleasant experience. It is easier if the swimmer wears a weighted belt for this trick, which looks well if carefully carried out.

HEARING UNDER WATER.

Many people imagine it is impossible to hear under water; this is so if the swimmer is going along under the water in ordinary baths, but when swimming in sea or lakes a steamer can be heard quite distinctly, even to the striking of the propeller on the water or the noise in the engine room, the water being a good conductor of sound. In the case of bath swimming, the swimmer should lie on the bottom and place his ear against the side of the bath. The person speaking should give his question or number from the edge of the bath, immediately over the head of the swimmer; the words can then be heard quite distinctly when they are pronounced slowly. It makes a very interesting trick for the spectators.

There are a great many stunts or tricks that can be carried out on the surface and under water, such as picking up a small coin with the mouth, swimming with arms or legs tied, spinning wheel, lying flat, or balancing on the hands. There are possibly thirty or forty scientific tricks, but those mentioned may be considered the most usual ones, coming within the reach of even the average ambitious swimmer, all more or less requiring constant practice; and whilst no particular advantage is gained by performing the same, they add considerably to a well organized swimming regatta, in open or closed water competitions. Care should be taken to select those suitable for each condition.

PLUNGING.

LONG DISTANCE PLUNGE.

There are four main points to be considered in plunging. The correct take-off, which should be from a solid foundation, not a spring-board; the angle of the body, when entering the water, depends on the depth of the bath, but in open water plunging the angle is not quite so great, as it is safer to keep near the surface of the water. The body should be kept fairly relaxed, with the arms extended to their full reach, the hands being turned palms downwards, thumbs locked. The body is immediately straightened on entering the water. The incline of the head and arms governs the position of the body under water. The swim-

mer should take three or four long deep breaths, with the lungs filled to their normal capacity, that

WATER-CHUTE.

Photograph of water-chute showing position of swimmer about to shoot the chute. The arms are laid out at their full reach on the sliding board, when the body rushes into the water at a great speed; a slight dip of the head before leaving board governs the angle of entering the water. This forms a very fascinating and useful form of amusement either in swimming baths or camps.

is, not to over-straining point. All the force possible should be given to the body at the time of the

spring forward; a great deal depends on this, as no motion can be imparted to the body once it has left the platform.

It is a very interesting competition when there are a number of good swimmers taking part, and It requires constant practice to cover the average distance, which is between forty and fifty feet. A great deal depends on the angle taken, but at no time should the body be more than two or three feet below the surface of the water. On the body rising to the surface of the dive, care should be taken to see that the head and arms are in line with the water, exposing them as little as possible, otherwise the impetus imparted to the body by the dive will be greatly lessened, which will curtail the distance of the plunge. The plunge finishes at the spot where the plunger lifts his mouth from the water to breathe.

The feet foremost plunge is also very interesting, but very little practiced, it being considered more in the form of a trick. It is difficult to make a neat one and requires considerable practice to do it neatly. The swimmer leaps forward as far as possible, strightening the arms out beyond the head, with the legs stretched and stiffened to their fullest extent. Care should be taken to gauge the distance from the side in order to avoid striking the head on the side.

MANAGEMENT OF A SWIMMING CARNIVAL.

ALL unaffiliated clubs should obtain a permit from the governing association of their respective coun-

tries before holding a race meeting, otherwise amateurs disqualify themselves from taking part in races held, under the laws of the association. In this connection it is imperative for all Canadian clubs to write to the Secretary of the Canadian Amateur Swimming Association, Montreal, the Hon. Secretary of which is Leon-

PLUNGING.

Photograph showing position of body in the long distance plunge.

ard G. Norris, 183 Versailles Street, Montreal. Permits should be applied for, which fact, when granted, should be on every entry form, posters, etc. The responsible officials of a meeting should be well acquainted with swimming. Everything possible should be done for the comfort of com-

petitors, especially when coming from a distance. Always remember to look after them even better than your own club members, and show the best of good sportsmanship throughout the meet. If a team come a long distance, always select some courteous members to meet them at the station. These little courtesies are always remembered and go a long way to make a club popular. All officials should be appointed some time before the carnival, and an official programme gone through carefully before the races. All races should start on the crack of a pistol. The course should be carefully explained to visiting competitors before the races start. If the races take place in open water, see that a patrol boat keeps the course clear of all small craft, and should it be necessary to cross the course of a swimmer, always keep *behind* him. The writer, in a recent long distance race, was severely handicapped by the President of the Club running the gasoline launch right across the course, directly in front, and those who have had experience of inhaling the exhaust gases from this class of craft, know it is not calculated to improve one's chances. It was no doubt unintentional, but displayed bad management, and is an incident to be carefully guarded against in out-door racing. No pacing should be allowed. When boats are required for any assistance that may be wanted, they should follow up each swimmer. If there are any protests they should be made at the time and adjusted fairly and impartially to all concerned.

Give all possible particulars and rules on the programme. The following is a fairly good specimen:

Invitation—100 yards handicap—4 lengths.

Three prizes—1st Leather Grip.
2nd Clock.
3rd Match Box.

8 p.m. First Heat.

	Sec. start.	Go at
1st, G. Davies, Toronto Swimming Club.	25	5
2nd, S. Job, Hamilton Swimming Club.	5	25
3rd, F. Hopton, Montreal Swimming Club	Scr.	30

And in this order until the heats are run off, with the words First in each heat to start in final.

9 p.m. First Heat.

Winner of Heat 1 .....
Winner of Heat 2 .....
Winner of Heat 3 .....

1st F. Hopton.	2nd S. Job.	3rd G. Davies
Time, 60 sec.	Time, 61 sec.	Time, 64 sec.

From this example it will be seen that the competitor gets his correct starting number by deducting the time given in the handicaps from the scratch man's limit, who concedes 25 seconds to the slow man, who goes at five, which is called out as the second hand comes to this figure on the watch. This makes it appear somewhat complicated, but it is the most practical way of handicapping, especially when there are seven or eight in a heat.

With reference to the arrangement of the programme, it is best to arrange it to suit the par-

ticular class of spectators. If they are young people and college boys, some simple stunts should be performed, always getting up something to create a little fun, such as blind-fold race, tub race, tilting on improvised horses, such as two barrels fitted with the head of a horse cut from wood and painted some fantastic colors, labelling them with the name of some well-known racer. This is always a source of great amusement. A team race is very good for giving exhibitions of speed swimming, and usually consists of seven members, although this may be varied to suit different conditions. If the distance is two lengths, one man from either team goes at the word "Go," and swims two lengths, touching the feet of the next man on his side, who at once plunges. This goes on until the last man on either side has started, and the team whose last man gets home first is declared the winner. When both sides are well matched this race proves very exciting. The judge should be careful to see that no one leaves his mark before he is touched by the swimmer in his team. Boxing and wrestling in the water are also very good sport and amusement. In wrestling, the stronger man walks on the bottom, bearing the wrestler on his shoulders. When well matched, this proves a very exciting contest. When diving displays are given, they should be representatives of the club's best exponents. In the case of clubs having a small membership, the events should be so arranged as to give the most possible rest to com-

petitors, who should be well rubbed down with rough towels, waiting for the next event in a dry bathing suit. Under no circumstances stand or wait about in a wet bathing suit; it is apt to give chills, and will take more out of a swimmer than actual swimming. All competitors should keep off the starting platform until their numbers are called, and should carry out the commands of the Secretary or Captain promptly.

CLUB COMPETITIONS.

COMPETITIONS should should be held each week, as it trains the members into the art of getting a good start. A great deal depends upon this in short distance racing. Marks should be given each practice evening, which should be totalled up at the end of the season, and the one gaining the most marks has the honor of having his name inscribed on the Club's Cup, a small silver medal, suitably engraved, going with it. In large clubs it is advisable to give out six to the first six gaining the highest average. There should be no lack of competition events, which should be the ambition of every member to excel in. In some of the clubs the writer was a member of, test certificates were issued to those completing certain tests in a specified time. The one I generally get a club to accept is as follows: The certificate is designed to represent a trophy being held out by two figures representing swimmers in their

costumes, the same being suitably printed in colors and well mounted. The following was the seniors' first-class test certificate: Each candidate must swim at the same attempt, 500 yards, as follows:

1st. Dive from a platform or diving-board at deep end and swim 20 yards under water.

2nd. Swim 130 yards breast stroke.

3rd. Swim 100 yards over-arm stroke.

4th. Swim 100 yards trudgen stroke.

5th. Swim 150 yards on back.

6th. After completing the distance required, the candidate must, before leaving the water, dive for an object at the end, float without using the arms or legs for one minute, and tread water for one minute.

The time limit to secure the certificate is fourteen minutes.

The time should be duly vouched for by the President, Captain, Secretary, or duly appointed official of the club. It is a fairly good all-round test. The time may be lessened if the club members are above the average. The entrance fee for the certificate should be nominal, say twenty-five or fifty cents at the most.

RULES OF THE CLUB.

The rules of the club should be carefully drawn up. It is advisable for a new club, with inex-

perienced members, to ask some well established club to lend them a copy of their rules, arranging it to suit their particular conditions. In any case, always have one night a month set aside for a social evening, inviting some member to read or give a lecture on the subject, throwing the meeting open for discussion. Afterwards, always look after new members by getting one of the club to teach or instruct beginners. When possible always obtain the services of a qualified instructor. He is indispensable in improving the speed or style of the club's best members, and will bring the club on more in one season than many half-hearted lessons given by the ordinary swimmer.

THE EARS AND THEIR RELATION TO SWIMMING.

THE writer has for years advocated the careful protection of the ears when swimming, and advised followers of the sport to protect the same by inserting plugs of cotton wool, which was somewhat a rule of thumb method; however, since going into the matter fully, I am convinced that this was wrong, in fact, dangerous. Cotton plugs in the ear should never be tolerated for a moment, as the small fragments become attached to the ceruminus fluids (ear wax) and remain in the ear when the cotton is removed. These small fragments become attached to the ceruminus fluids (ear wax) and work their way through the wax

until they come into contact with the delicate membrane of the inner canal, where, owing to the very sensitive terminals of the auditory nerve which ramify throughout the walls of the canal and drumhead, they not only produce an unpleasant sensation, but quite frequently set up an acute irritation and septic conditions. I can positively vouch for one case in particular, which came under my observation, of the dire effect of wearing cotton in the ears while bathing. It was that of a friend of mine who had been in the habit of spending his summer vacation at Newport, U.S.A. He was very fond of the water, and naturally went in swimming with such regularity that he found it necessary to wear something to protect his ears, not only from the injurious effect of the cold sea water, but also from the dangerous impact of the surf, which, if it catches one just right, will frequently cause rupture of the drumhead and defective hearing, similar in its results to the pernicious habit of boxing a child's ears. Many a child whose ears have been boxed by a thoughtless parent or teacher, has been compelled to go through life handicapped with a defective hearing. So my friend, upon becoming aware of some of the foregoing facts, immediately consulted with the bath attendants as to the best thing to use to keep the water out of his ears. He was advised that cotton was the usual preventative, so he proceeded to stuff his ears with cotton, with the

result that part of the cotton, as above described, remained in the ear for nearly ten years, finally setting up septic conditions, from which medical treatment gave him little or no relief, until one day, boring in his ear with a hairpin to allay the terrible itching, he accidentally dislodged the cause of the trouble. It was a small, concaved piece of cotton that had become saturated and hardened with wax. It appears that the specialist whom he had consulted from time to time, either through carelessness or thoughtlessness, had failed to examine with due care that useful little *pit or catch-basin* that nature in her wisdom placed in the floor of the auditory canal just in front of the drumhead for the identical purpose, for which it served only too well in this case, of intercepting any foreign objects, such as cinders, small stones, or insects, from reaching the delicate drumhead, upon which should an insect crawl for the short period of thirty seconds the patient would become a nervous wreck. I need only say, that the trouble caused by the impact of the surf, or the more inexcusable habit of ear-boxing, is produced by the sudden and lateral condensation of air into the external canal. This sudden forcing of air into the ear by a curved hand or a concaved wave, compels the delicate muscles of the drumhead to give way, permitting the latter to sag inwards, causing paralysis and deafness, the degree being determined by the extent of the injury. There are other reasons, almost too numer-

ous to enumerate, why swimming, bathing or diving, should not be indulged in without proper ear protection. It is a well-known fact that water of a low temperature, especially sea water, is exceptionally injurious to the human ear, as it causes congestion of the blood in the small capillaries of the drumhead, often producing abscesses and other complications that frequently prove fatal. Another menace arises from sand and other extraneous matter which is held in suspension in all water, and is carried into the canal, becomes lodged, and remains behind when the water runs out. The vegetable matter thus deposited in the canal, beyond the reach of soap and water, decomposes, setting up disorders that may be hard to overcome. A little grain of sand has also been known to destroy the drumhead by becoming lodged in the crevice of the canal surrounding the drum, the contraction and expansion of which keeps it turning until it cuts its way through that membrane, causing deafness. The large per cent. of salt in sea water is another dangerous factor to the delicate mechanism of the ear, and must be seriously considered. The excess of salt in sea water is washed into the canal of the ear, where it becomes adhered to the wax, incrusting the entire surface of the canal and drum, just as a rail becomes incrusted with frost in the early fall. This incrustation, it will be seen, closes the mouth of the ceruminous ducts, and, of course, checks the normal flow of the ceruminous fluids into the ear,

leaving the outer canal and drumhead without the necessary lubricant, exposing them to several serious forms of ear diseases. For further information on this important question, I would refer my readers to the Frank Ear Stopple Co., Ohio, U.S.A., or their agents, for their booklet on the subject, which will be mailed free on receipt of a post-card.

DONT'S FOR SWIMMERS.

THE many drowning fatalities recorded by the press during the summer seasons call for more care being taken by the average swimmer and beginners generally, and it is earnestly desired that the following don'ts for swimmers and pointers for non-swimmers be *posted* up in a *conspicuous place* at the bathing place or summer resort the reader visits, thus helping to minimize any undue risk being taken by followers of the sport:

Don't bathe shortly after dining; wait at least two hours.

Don't sit in a boat or stand about undressed after being in the water.

Don't swim far after a hard day's work, or over-exertion after other forms of exercise.

Don't bathe in unfrequented or secluded parts.

Don't bathe alone if subject to giddiness or faintness.

Don't dive into the water without first ascertaining the depth.

Don't take fright if you fall into the water with your clothes on; remember, clothes float, and assist you to float. Make for the shore, swimming with the tide or stream.

Don't swim too far out in the sea or lake unattended by a boat or an expert swimmer.

Don't take fright if seized with cramp; keep cool; turn on the back and endeavor to rub the place affected. If the leg is drawn up with pain, swim slowly with the arms only. All swimmers should practice this.

Don't swim without some recognized signal to give your fellow-swimmers, if subject to cramps, such as lifting one arm or shouting for help. Don't abuse this; leave the water as soon as possible.

Don't dive out of or try to get into a boat from the side; dive from the stern and get in from the stern, but only then from a boat with a broad beam.

Don't swim near dams, waterfalls, or where reeds are growing.

Don't swim without company if you have a weak heart, and only then after consulting a doctor.

Don't swim against the stream if you come across weeds.

A COMING EXPONENT OF THE ART
AGE 16 MONTHS

"COME ON IN."

SOME DON'TS AND POINTERS TO BEGINNERS AND NON-SWIMMERS.

Don't go beyond the depth of your hips if you can't swim.

Don't plunge or struggle when you find yourself in deep water.

Don't throw the hands or arms out of the water.

Don't grasp any person who approaches you; do what he tells you.

Don't attempt to get into a boat coming to your rescue; catch hold of the stern until assisted to get in.

Tread water by keeping the legs moving up and down, as in walking up-stairs. Hold an oar or canoe paddle, plank or branch of a tree in the middle when thrown to you; an oar or paddle with the blade flat on the water will keep you up if you don't struggle. Take in long breaths through the mouth and exhale slowly through the nostrils; this makes the body more buoyant and keeps you warm.

If you follow out these directions when in distress in the water you will help yourself and others coming to your assistance.

THE OLYMPIC GAMES.
1908.

The swimming section of the great games at the Stadium were arranged by Mr. Harry Benjamin,

the A.S.A. representative on the British Olympic Council, who had been hard at work for two years

C. M. DANIELS, N. Y. A. C. OF AMERICA.

Champion speed swimmer of the world. Time for the 100 metres, Olympia, 1908, 55 2/5 seconds. One of the leading authorities on speed swimming. World's record, 220 yards, East Liberty Aquatic Club, Pittsburg, March 27th, 1909. Time, 2.25 2/5.

previously; Mr. William Henry, director of the Stadium; Mr. G. W. Hearn, the President of the

A.S.A.; and Mr. J. C. Hurd, the Hon. Secretary. Fine weather allowed of the good sport being seen to advantage. The only drawback lay in the fact that the pond, which was exactly 100 metres (109.3 yards) long, was some distance from the onlookers.

The A. S. A. are to be congratulated upon the highly efficient management. The judging and timekeeping were excellent. Every visiting nation went away satisfied, whilst only once throughout the fortnight did the officials have to consider an objection—from an American diver.

The United Kingdom had every reason to be satisfied with the results, for of the nine events decided five were won. As was expected, both diving competitions were lost; but the U. K. easily won the water-polo and four of the six swimming contests. The hero of the meeting was Harry Taylor, who took back to Chadderton with him three gold Olympic medals, thus equalling the performance of Sheppard, the American runner. Taylor has never been seen to greater advantage, or swam in finer form than ever previously during his career. His 5 min. 36 4/5 sec. in the 400 Metre Race was a splendid performance, and was at the time as good as English record for the Quarter-mile; but he had to do even better than that to win the 1500 Metres. This he took in the wonderful time of 22 min. 48 1/5 sec., which is a new Olympic record.

SOME OLYMPIC RECORDS.

100 METRES—1st, C. M. Daniels; 2nd, Z. de Halmay; 3rd, H. S. A. Julin. Time, 63 3/5 sec.

100 METRES (BACK STROKE)—1st, A. Bieberstein; 2nd, L. Dam; 3rd, H. N. Haresnape. Time, 1 min. 24 3/5 sec.

200 METRES (BREAST STROKE)—1st, F. Holman; 2nd, W. W. Robinson; 3rd, P. Hanson. Time, 3 min. 9 1/5 sec.

400 METRES—1st, H. Taylor; 2nd, F. E. Beaurepaire; 3rd, O. Scheff. Time, 5 min. 36 4/5 sec.

1500 METRES—1st, H. Taylor; 2nd, T. S. Battersby; 3rd, F. E. Beaurepaire. Time, 22 min. 48 2/5 sec. (Battersby swam on for a mile and broke record, his time being 24 min. 33 sec. The record was not accepted, as the bath was short of the required distance, 109.3 yards instead of 110 yards.)

WATER POLO—United Kingdom beat Belgium (9—2).

HIGH DIVING—H. Johansson, K. Malmstrom, A. Sprangberg.

FANCY DIVING—A. Zurner, R. Behrne, G. W. Gaidzik and G. Walz tied for third place.

CHAMPIONSHIP COMPARISONS.

The table that follows explains itself, and is produced merely to show at a glance whether the times are better or worse than previously. Ten

events come under this category. Four were swum in faster, five in slower, and one in the same time as in 1907. Unwin's time in his heat of the Back Stroke Championship is taken as a guide. Compared with 1906 the improvement is very marked.

CHAMPIONSHIP COMPARISONS, 1906 TO 1908.

100 YARDS, MEN—1906, Daniels, 58 3/5 sec. 1907, Daniels, 55 2/5 sec. 1908, Meyboon, 1 min. 3/5 sec.

100 YARDS, LADIES—1906, J. Fletcher, 1 min. 24 sec. 1907, J. Fletcher, 1 min. 18 sec. 1908, J. Fletcher, 1 min. 18 sec.

150 YARDS, BACK—1906, Unwin, 2 min. 4 sec. 1907, Unwin, 1 min. 59 1/5 sec. 1908, Unwin, 2 min. 1 sec.

200 YARDS, BREAST—1906, Naylor, 2 min. 58 2/5 sec. 1907, Courtman, 2 min. 55 2/5 sec. 1908, Courtman, 2 min. 47 1/5 sec.

220 YARDS—1906, Healy, 2 min. 37 2/5 sec. 1907, Malmay, 2 min. 34 sec. 1908, Beaurepaire, 2 min. 37 sec.

440 YARDS—1906, Taylor, 5 min. 42 3/5 sec. 1907, Taylor, 4 min. 43 sec. 1908, Beaurepaire, 4 min. 39 2/5 sec.

500 YARDS—1906, Taylor, 6 min. 24 3/5 sec. 1907, Taylor, 6 min. 22 sec. 1908, Taylor, 6 min. 14 sec.

ONE-HALF MILE—1906, Taylor, 11 min. 25 2/5. 1907, Taylor, 12 min. 16 1/5 sec. 1908, Beaurepaire, 12 min. 44 sec.

ONE MILE—1906, Taylor, 27 min. 9 sec. 1907, Taylor, 25 min. 4 3/5 sec. 1908, Beaurepaire, 25 min. 15 3/5 sec.

LONG DISTANCE—1906, Jarvis, 63 min. 40 sec. 1907, Radmilovic, 69 min. 15 1/5 sec. 1908, Springfield, 70 min. 57 sec.

AUSTRALIA.

The feature of the swimming in Australia was the remarkable success of F. E. Beaurepaire, a Victorian youth, who gained the soubriquet of "Bogey." Prior to the races for the Australasian championships, there was nothing in his form to indicate that he would win, but, showing remarkable form, he took the Quarter, Half, and Mile, and finished second to Healy in the 100 and 220 Yards. The championships were decided at Perth, and at the time it was said that Beaurepaire, who had done most of his swimming in the sea-exposed Freemantle Baths, was favored by the rough conditions, but, as he subsequently proved on his visit to this country, his victories were no fluke. As a result of his success Victoria won the Kieran Shield. New South Wales, although sending the best swimmers, again secured second place, Springfield having won for Queensland in 1907. Springfield is said to have done too much training.

Beaurepaire's best win was in the Half-Mile, in which he swam right away from the field. Matson was the only man to retain hs title, that being in the breast stroke race, in which he put up a new record. It is said that Healy's 55 sec. for 100 yards will not stand, as it was swum without drawers.

AUSTRALASIAN CHAMPIONSHIPS.

100 YARDS—C. Healy, F. E. Beaurepaire, R. Garland. Time, 57 1/5 sec.

220 YARDS—C. Healy, F. E. Beaurepaire, F. Springfield. Time, 2 min. 34 1/5 sec.

440 YARDS—F. E. Beaurepaire, C. Healy, F. Springfield. Time, 5 min. 28 2/5 sec.

880 YARDS—F. E. Beaurepaire, O. Dickman, R. Garland. Time, 11 min. 58 3/5 sec.

MILE—F. E. Beaurepaire, O. Dickman, R. Garland. Time, 24 min. 29 sec.

220 YARDS (BREAST STROKE)—W. Matson, —. Richardson, —. Finlay. Time, 3 min. 14 sec.

DIVING—W. Howson, H. Bennett, G. Anderson.

AUSTRALASIAN RECORDS.

50 YARDS—24 3/5 sec. A. Wickham, March 26, 1904, at Rushcutters Bay.

100 YARDS—55 sec. C. Healy, Nov. 7, 1908, at Doman (0).

120 YARDS—1 min. 13 sec. C. Healy, Feb. 24, 1906, at Manley (2).

200 YARDS—2 min. 13 3/5 sec. B. B. iKeran Feb. 21, 1905, at Coogee (5).

220 YARDS— 2 min. 11 1/5 sec. C. Healy, Jan. 20, 1908, at Lavender Bay (4).

220 YARDS (ABREAST)—3 min. 14 sec. W. Matson, Feb. 12, 1908, at Perth (4).

300 YARDS—3 min. 31 4/5 sec. B. B. Kieran, Feb. 25, 1905, at Domain (6).

440 YARDS—5 min. 19 sec. B. B. Kieran, Jan. 4, 1905, at Lavender Bay (8).

500 YARDS—6 min. 10 3/5 sec. B. B. Kieran, Feb. 18, 1905, at Bronte (14).

880 YARDS—11 min. 11 3/5 sec. B. B. Kieran, March 18, 1905, at Rushcutters Bay (17).

1000 YARDS—12 min. 52 1/5 sec. B. B. Kieran, Feb. 11, 1905, at Rose Bay (19).

1320 YARDS—18 min. 7 2/5 sec. R. Healy, March 23, 1907, at Drumoyne (39).

MILE—23 min. 16 4/5 sec. B. B. Kieran, March 4, 1905, at Drumoyne (52).

500 YARDS TEAM—5 min. 4 sec. East Sydney, Nov. 18, 1905, at Rushcutters Bay.

PLUNGING—69 feet. W. F MacDonald.

The figures in parenthesis indicate the number of turns.

NEW ZEALAND.

(Decided at Napier on Saturday, March 21.)

100 YARDS—M. E. Champion, E. J. Dawson, F. E. Dodge. Time, 1 min. 13 sec.

220 YARDS—M. E. Champion, B. G. Freyburg, F. E. Dodge. Time, 2 min. 30 sec.

220 YARDS (BREAST STROKE)—A. M. Russell, G. L. Bull, F. Truscott. Time, 3 min. 17 1/5 sec.

HALF-MILE—M. E. Champion, B. C. Freyburg, H. H. Rich. Time, 15 min. 4 sec.

NEW ZEALAND RECORDS.

100 YARDS—1 min. 4 1/5 sec. R. C. Murphy, July 27, 1903.

220 YARDS—2 min. 43 sec. B. C. Freyburg, March 27, 1906.

HALF-MILE—13 min. 21 1/5 sec. G. L. Bull, Feb. 17, 1906.

ONE MILE—28 min. 56 sec. B. C. Freyburg, Championship Meeting, Nelson, 1906.

220 YARDS (BREAST)—3 min. 26 1/5 sec. F. Truscott, Championship Meeting, Nelson, 1906.

A LONG SWIM.

THIS was in the summer of 1895, when Tommy Burns, the crack all-round swimmer of England, was at the height of his fame. He had previously dived from Runcorn bridge, some 100 feet high,

and swam to the Liverpool landing stage, a distance of over 20 miles. I became acquainted with him, and after having several long swims with him in the Mersey, he proposed making a long-distance record, a feat not quite as common in those days as at the present. Several gentlemen wanted to make a wager, but, owing to the strict laws governing the qualifications of amateurs, I was debarred from joining in such a scheme, as Tommy Burns was a professional, so we decided to swim for the record, of course, Burns having all his expenses paid. We dived off the steam tug "Swallow," which had a good crowd of spectators on board at 11 a.m., on leaving the Liverpool landing stage. We swam steadily with the tide towards New Brighton. We went out on a full tide, which would be running about 5 knots an hour. The first difficult point was when reaching the lighthouse, where there seemed to be a strong back current running to the entrance of the Queen's channel, for try as we could we seemed to just keep abreast of the lighthouse. After being in this position for about 20 minute, we headed towards Seaforth, and evidently had struck the channel, having been in the water one hour and twenty minutes. There is no doubt had we had a pilot on board we should not have been so exhausted at this point. We could feel the tide, which seemed to encourage us, and as the log was thrown overboard we realized our task had begun. We both swam the breast stroke until fac-

ing the mouth of the Dee, after which Burns used his favorite side stroke and I changed to the over-arm stroke. We passed the bar lighthouse at 12.30, having then been in the water one and a half hours. At this point a rope was thrown to us and we partook of refreshments, Burns having two bottles of Bass's beer (which to my mind was a doubtful stimulant), whilst I had chicken sandwiches and hot milk. We then swam with a steady breast stroke until 3 p. m.; the tide was setting in, making it hard going, and the paddle-wheels seemed hardly to be going round. There is no doubt Burns was still fairly strong; personally, I was feeling very hungry, but thought it best to keep on. The calls of the captain, after reading the log, seemed to be less frequent, and when he called 25 miles I was quite ready to signal for a rope. Allowing for the 23 miles by the log and the 4 miles from Liverpool landing stage, we had covered 28 miles in the six hours, being just after 5 o'clock when I got on board. The only part of my body that gave me any pain were the knees; however, after a good rub down and an acceptable stmulant, I felt all O. K. Burns, by the way, continued his swim, and came on board after swimming 30 minutes longer. He was game to the last, and tried to hoist himself up the rope, but his strength failed him half way, and he was hauled on board apparently very fresh, as he soon got over the exertion of his climb, which is the hardest

thing to do after being in the water for any length of time, as all long-distance swimmers well know.

BATH CLUB EQUIPMENTS.

The club usng the bath should have one or two old suits of clothes to practice swimming in full dress; it gives members a feeling of confidence when called upon to dive in to the assistance of anyone in distress in the open water. No club would be complete without two improvised polo or tilting ponies, made out of barrels, with a grotesque head of a horse attached to one end and a somewhat fantastic tail at the other; painted a gorgeous color and named after some famous racehorse. The tilting poles can be made from two ordinary staves, well protected with binding at one end. The contestants approach much in the same manner as canoe tilting, but astride, the one remaining longest on his steed being proclaimed the winner. This is always a source of amusement, and will assist in making the sport popular.

SWIMMING CLUB EQUIPMENTS.

The out-of-door clubs should be careful to see that a small boat is at hand during practice, one or two duly appointed officials being held responsible for this. It is advisable to see that the boat is always equipped with suitable life buoy and lifelines before commencing practice races. When long-distance trials are taking place a suitable

boat should always follow. The club house should be furnished with one or two life buoys, long poles, and life-lines, which should be inspected once a month. The constant practice of throwing the buoy should be taken during the meets in the week. The life-lines should be from 30 to 40 ft. long, with a small piece of timber or cork attached to the end, which assists the throw-out and always indicates where the end of the line is.

No club would be complete without a diving platform, which should be well built and have two ladders running up the sides to the top platform, which should be thirty feet from the water level. The intermediate stages should be twenty and ten feet. Each platform should run well out, the top one clearing the intermediate one by at least five feet; the latter clearing the bottom platform by two or three feet. The spring-board should be away and quite distant from the diving platform. The diving chute can be built in any position where there is five or six feet of water; the incline should be at an angle of twenty-five degrees and thirty feet long. If well made and supplied with a stream of water it affords a constant source of amusement to the club members generally.

SELECTION OF PRIZES.

Great care should be exercised in the selection of suitable prizes for junior races. It is always advisable to give small silver or gold medals, as they can be worn and often give an incentive to

other persons to take up the sport. For important events suitable trophies, such as well designed cups or shields, should be presented. When the cup is for annual competition a gold medal should be presented to the winner, silver ones to the first three or six doing the distance in a given standard of time.

MAN VS. DOG.

MANY people imagine animals are better swimmers than men, which theory is incorrect, and was verified by the writer to a gentleman holding this opinion, which nearly resulted in his losing a favorite and valuable water-spaniel. He maintained his dog would swim longer than I would before getting distressed. It was what one might term choppy at the time, a point no doubt in my favor. We dived in, that is, Sam, the dog, and I, and after swimming for about two hours the dog persisted in climbing alongside the boat in an endeavor to get in. He put his paws on my shoulder, evidently showing he had had sufficient, so we got on board. When I dived in a second time Sam would not follow, notwithstanding all the persuasion of his master, showing, no doubt, on this occasion at least, to have more wisdom than his master.

A LADY'S OUTFIT.

Whilst there is no need to procure an elaborate outfit, it is advisable to have two complete cos-

tumes, comprising a tunic, or waist, and drawers combined, with an additional skirt, which can be taken off when desired before entering the water. The best material is thin serge or cashmere, with additional trimmings to taste. In all cases, the tunic should not have sleeves, which allows for the full movement of the arms. A suitable bath gown is desirable, and slippers or sandals should be worn when the beach or shore has stones or shingles.

A SWIMMER'S OUTFIT.

Before leaving for the sea-side or lakes, a swimmer should provide himself with two under-slips and duplicate bathing costumes. In this way there is always one dry set ready, which makes it more pleasant than putting on a wet or half-dry suit. It is also advisable to have two or three good Turkish towels for the trip, and a suitable dressing gown if walking any distance to the water. A pair of specially light rubbers are also useful.