

A
L E T T E R
T O
L O R D C A T H C A R T,
PRESIDENT OF THE BOARD OF POLICE IN SCOTLAND,
C O N C E R N I N G
T H E R E C O V E R Y O F P E R S O N S
D R O W N E D A N D S E E M I N G L Y D E A D.

By D R. W I L L I A M C U L L E N,
H I S M A J E S T Y ' S F I R S T P H Y S I C I A N A T E D I N B U R G H.

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L E T T E R,

F R O M

Dr. C U L L E N,

T O

L O R D C A T H C A R T.

MY LORD,

YOUR Lordship does me a great deal of honour, in asking my opinion about the recovery of drowned persons, and I shall be very happy if I can contribute any thing that may second your Lordship's humane and public-spirited intentions in this matter. With that view, I have drawn up the following reflections, submitting to your Lordship's judgment, how far they may be of service to the public.

It may be generally observed, that few endeavours are used for the recovery of

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drowned persons; because the by-standers, and even physicians and surgeons, from conclusions too soon with respect to their death and irrecoverable state. The many instances, however, which have occurred of the recovery of persons, in whom all the ordinary signs of death had appeared, should correct the mistakes on this subject, which are too common, and which, it is hoped, may be entirely removed, if we can engage men to consider, that, from the reason of things, drowned persons are more generally in a recoverable state than has been imagined.

To this purpose, I would have them observe, That in men, and other animals, life does not immediately cease upon the cessation of the action of the lungs and heart, and the consequent ceasing of the circulation of the blood. Though the circulation of the blood is necessary to the support of life, the living state of animals does not consist in that alone, but especially depends upon a certain condition in the nerves, and muscular fibres, by which they

they are sensible and irritable, and upon which the action of the heart itself depends. It is this condition, therefore, which may be properly called *the vital principle in animals*; and as long as this subsists, or though much weakened, as long as it can be again restored to its activity and vigour, while, at the same time, the organization of the parts remains entire, it is presumed, that the action of the heart and lungs, the circulation of the blood, and therefore all the functions of life, may also, though they have many of them long ceased, be again entirely restored. That, in many cases, the vital principle subsists for some time after the circulation of the blood has ceased, is ascertained by many experiments; and that it can be again restored to all the purposes of life, although its activity has seemingly ceased for some time, is also ascertained by many observations. During what length of time this vital principle may subsist in the human system, after its seeming extinction, cannot be ex-

actly determined. But analogy allows us to suppose it may subsist very long; and the many well-attested facts of the recovery of persons who had been long in a seeming state of death, should prevent our rashly setting bounds to the possibility of the recovery of drowned persons.

FURTHER: From the dissection of drowned men, and other animals, it is known, that very often the water does not enter into the cavity of the lungs, nor even into the stomach, in any quantity to do hurt to the system; and, in general, it is known, that, in most cases, no hurt is done to the organization of the vital parts. It is therefore probable, that the death which ensues, or seems to ensue in drowned persons, is entirely owing to the stopping of respiration, and to the ceasing, in consequence, of the circulation of the blood, whereby the body loses its heat, and with that the activity of the vital principle. But as this heat and activity in many cases is again recoverable by various means, so as long as
this

this can be done, it must be possible also to recover drowned persons. Experience, especially of late years, has fully confirmed this opinion. We have now authentic accounts, that since the institution of Societies for the recovery of drowned persons at AMSTERDAM and PARIS, a large proportion, no less than three-fourths of the whole number, to whom the remedies directed by these Societies were applied, had been recovered.

It must be acknowledged, that there are cases, in which, from the destruction of the organization, and perhaps from other circumstances, the recovery of drowned persons may not be possible. But, as it is seldom that such cases can be certainly distinguished, so they are very seldom to be supposed; and although the drowned persons have lain for several hours in the water, attempts ought to be made for their recovery. Even supposing the case very doubtful, the labour of many fruitless attempts is not to be put in competition with one in-

stance of success, where a person is recovered, who must have certainly died, if great pains had not been taken for his recovery.

· WITH respect to the particular means to be employed for the recovery of drowned persons, it is to be observed, in the *first* place, That such as were recommended and practised, upon a supposition that the suffocation was occasioned by the quantity of water taken into the body, and therefore to be evacuated again, were very unhappily advised. The hanging up of persons by the heels, or setting them upon the crown of the head, or rolling the body upon a cask, were generally practised, upon a supposition altogether false; or upon the supposition of a case, which, if real, is apprehended to be irrecoverable. At the same time, these practices were always attended with the danger of bursting some vessels in the brain or lungs, and of rendering thereby some cases incurable, that were not so from the drowning alone. All such practices,

tices, therefore, are now very properly disapproved of and forbid.

IN these cases, in which the body has not been long in the water, and in which, therefore, the natural heat is not entirely extinguished, nor the irritability of the moving fibres very greatly impaired, it is possible, that a good deal of agitation of the body, may be the only means necessary to restore the action of the vital organs ; but in other cases, where the heat and irritability have ceased to a greater degree, it is to me very doubtful, if much agitation can be safe, and if any degree of it can be useful, till the heat and irritability are in some measure restored. In all cases, any violent concussion cannot be safe, and, I believe, is never necessary. It may be proper here to observe also, that, in transporting the body from the place where it is taken out of the water, to the place where it may be necessary for applying the proper means of its recovery, all postures exposing to any improper compression, as that of the body's

being carried over a man's shoulder, are to be avoided. The body is to be kept stretched out, with the head and upper parts a little raised; and care is to be taken to avoid the neck's being bent much forward. In this manner, laid upon one side, and upon some straw in a cart, it may be most properly conveyed; and the agitation which a pretty brisk motion of the cart may occasion, will, in most cases, do no harm.

FROM the account I have given above of the causes, or of the appearances, of death in drowned persons, it is evident that the first step to be taken for their recovery is, to restore the heat of the body, which is absolutely necessary to the activity of the moving fibres. For this purpose, the body, as soon as possible, is to be stripped of its wet cloths, to be well dried, and to be wrapped up in dry, and, if possible, warm coverings; and it is to be wished, in all cases, as soon as the report of a person's being drowned is heard, that blankets should be immediately

ately carried to the water side; so that, as soon as the body is got out of the water, the change of covering, just now mentioned, may be instantly made; or, if the body has been naked when drowned, that it may be immediately dried and defended against the cold of the air. Besides covering the body with blankets, it will be further of advantage, if it can be done without loss of time, to cover the drowned body with a warm shirt or waistcoat immediately taken from a living person.

WHEN, at the time of a person's being drowned, it happens, that the sun shines out very hot, I think there can be no better means of recovering the heat, than by exposing the naked body, in every part, to the heat of the sun, while, at the same time, all other means, necessary or useful for the recovery of life, are also employed.

WHEN the heat of the sun cannot be employed, the body should be immediately transported to the nearest house that
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can be got convenient for the purpose : The fittest will be one that has a tolerably large chamber, in which a fire is ready, or can be made ; and, if possible, the house should afford another chamber, in which also a fire can be provided.

WHEN the drowned body is brought into such a house, and care is at the same time taken that no more people are admitted than are absolutely necessary to the service of the drowned person, every endeavour must be immediately employed for recovering the heat of the body, and that by different measures, as circumstances shall direct.

IF, in the neighbourhood of the place, there be any brewery, distillery, dyery, or fabric, which gives an opportunity of immediately obtaining a quantity of warm water, and a convenient vessel, there is nothing more proper than immersing the body in a warm bath. Even where a sufficient quantity of warm water cannot be had at once, the bath may be still practised, if the accident has happened in

or very near a town or village, when a great many fires may be at once employed in heating small quantities of water, for in this way the necessary quantity may be soon obtained. To encourage this practice, it is to be observed, That one part of boiling water is more than sufficient to give the necessary heat to two parts of spring or sea water, as it is not proper to apply the bath at first very warm, nor even of the ordinary heat of the human body, but somewhat under it; and, by the addition of warm water, to bring it gradually to a heat very little above it.

If the drowned body be of no great bulk, it may be conveniently warmed by a person's lying down in bed with it, and taking it near to their naked body, changing the position of it frequently, and, at the same time, chafing, and rubbing with warm cloths, the parts which are not immediately applied to their warm body.

If none of these measures can be conveniently practised, the body is to be laid upon a bed before a moderate fire, and frequently

frequently turned, to expose the different parts of it; and thus, by the heat of the fire gradually applied, and by rubbing the body well with coarse towels, or other cloths well warmed, pains are to be taken for restoring its heat. This will be promoted by warm cloths applied and frequently renewed under the hams and arm-pits, and by hot bricks, or bottles of warm water, laid to the feet.

IN the practice of rubbing, it has been proposed to moisten the cloths applied with camphorated spirits, or other such stimulating substances; but I think this must prove an impediment to the rubbing; and I would not recommend any practice of this kind, except, perhaps, the application of the vinous spirit of sal ammoniac to the wrists and ankles only.

FOR recovering the heat of the body, it has been proposed, to cover it all over with warm grains, ashes, sand, or salt; and where these, sufficiently warm, are ready at hand, they may be employed; but it is very seldom they can be obtained,
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and the application might often interfere with other measures that may be necessary. All therefore that I can propose with respect to the use of these, is to observe, that bags of warm and dry salt may be amongst the most convenient applications to the feet and hands of drowned persons; and the quantity necessary for this purpose, may be got pretty quickly, by heating the salt in a frying-pan, over a common fire.

WHILE these measures are taking for recovering the heat, means are, at the same time, to be employed for restoring the action of the moving fibres. It is well known that the intestines are the parts of the body which, both from their internal situation and peculiar constitution, retain the longest their irritability; and therefore, that, in drowned persons, stimulants applied may have more effect upon the intestines than upon other parts. The action, therefore, of the intestines is to be supported or renewed as soon as possible, as the restoring and supporting

supporting the action of such a considerable portion of moving fibres, as those of the intestines, must contribute greatly to restore the activity of the whole system.

For exciting the action of the intestines, the most proper mean is, the application of their ordinary stimulus of dilatation; and this is most effectually applied, by forcing a quantity of air into them by the fundament. Even the throwing in cold air has been found useful; but it will certainly be better if heated air can be employed; and further, if that air can be impregnated with something, which, by its acrimony, also may be powerful in stimulating the intestines.

From all these considerations, the smoke of burning tobacco has been most commonly applied, and has, upon many occasions, proved very effectual. This will be most properly thrown in by a particular apparatus, which, for other purposes as well as this, should be in the hands of every surgeon, and, at least, should, at the public expence, be at hand, in every
part

part of the country where drownings are likely to happen. With regard to the use of it, I have to observe, that till the tobacco is kindled in a considerable quantity, a great deal of cold air is blown through the box and tube; and as that, as hinted above, is not so proper, care should be taken to have the tobacco very well kindled, and to blow through it very gently, till the heated smoke only passes through. If, upon certain occasions, the apparatus referred to should not be at hand, the measure however may be executed by a common tobacco-pipe, in the following manner: a common glyster-pipe, that has a bag mounted upon it, is to be introduced into the fundament, and the mouth of the bag is to be applied round the small end of a tobacco-pipe. In the bowl of this, tobacco is to be kindled; and, either by a playing card made into a tube, and applied round the mouth of the bowl; or by applying, upon this, the bowl of another pipe that is empty, and blowing through it, the smoke may be thus

thus forced into the intestines, and, in a little time, in a considerable quantity.

IF none of these means for throwing in the smoke can be employed, it may be useful to inject warm water to the quantity of three or four English pints. This may be done by a common glyster bag and pipe, but better by a large syringe; and it may be useful to dissolve in the water some common salt, in the proportion of half an ounce to an English pint; and also to add to it some wine or brandy.

WHILE these measures for recovering the heat of the body and the activity of the moving fibres are employed, and especially after they have been employed for some time, pains are to be taken to compleat and finish the business, by restoring the action of the lungs and heart.

ON this subject, I am obliged to my learned and ingenious Colleague, Dr. MONRO, who has made some experiments for ascertaining the best manner of inflating the lungs of drowned persons. By these experiments he finds it may be more conveniently

conveniently done, by blowing into one of the nostrils, than by blowing into the mouth. For blowing into the nostril, it is necessary to be provided with a wooden pipe, fitted at one extremity for filling the nostril, and at the other, for being blown into by a person's mouth, or for receiving the pipe of a pair of bellows, to be employed for the same purpose. Dr. MONRO finds, That a person of ordinary strength can blow into such a pipe, with a sufficient force to inflate the lungs to a considerable degree; and thinks the warm air from the lungs of a living person, will be most conveniently employed at first; but when it is not soon effectual, in restoring the respiration of the drowned person, and that a longer continuance of the inflation is necessary, it may be proper to employ a pair of bellows, large enough at once to contain the quantity of air necessary to inflate the lungs to a due degree.

WHETHER the blowing in is done by a person's mouth, or by bellows, Dr

MONRO observes, that the air is ready to pass by the gullet into the stomach; but that this may be prevented, by pressing the lower part of the larynx backwards upon the gullet. To persons of a little knowledge in anatomy, it is to be observed, that the pressure should be only on the cricoid cartilage, by which the gullet may be straitened, while the passage through the larynx is not interrupted.

WHEN, by blowing thus into the nostril, it can be perceived, by the raising of the chest or belly, that the lungs are filled with air, the blowing in should cease; and, by pressing the breast and belly, the air received into the lungs should be again expelled; then the blowing and expulsion should be again repeated; and thus the practice is to be continued, so as to imitate, as exactly as possible, the alternate motions of natural respiration.

It is hardly necessary to observe, that when the blowing into the nostril is practised

tised, the other nostril and the mouth should be accurately closed.

IF it should happen, that, in this practice, the air does not seem to pass readily into the lungs, Dr MONRO informs me, it is very practicable to introduce directly into the glottis and trachea a crooked tube, such as the catheter used for a male adult. For this he offers the following directions: The surgeon should place himself on the right side of the patient, and introducing the forefinger of his left hand at the right corner of the patient's mouth, he should push the point of it behind the epiglottis; and using this as a directory, he may enter the catheter, which he holds in his right hand, at the left corner of the patient's mouth, till the end of it is passed beyond the point of his forefinger; and it is then to be let fall, rather than pushed into the glottis; and through this tube, by a proper syringe applied to it, air may be with certainty blown into the lungs. I observe,

posed by Monf. LE CAT in France; but I have not learned that it has ever been put in practice, and I am afraid it may be attended with several difficulties, and must be left to the discretion of surgeons, who may be properly provided and instructed for this purpose.

FOR throwing air with more certainty into the lungs, it has been proposed to open the wind-pipe in the same manner as is done in the operation which the surgeons call *Bronchotomy*, and by this opening to blow into the lungs; and when the blowing into the nostril does not seem to succeed, and a skilful operator is at hand, I allow that the measure may be tried; but I can hardly suppose, that it will be of any advantage when the blowing in by the nostril has entirely failed.

It is to be hoped, that, by blowing into the lungs one way or other, even a quantity of water, which had been taken into the lungs, may be again washed out; and the same seems to be the only effectual means of washing out that frothy matter

matter which is found to fill the lungs of drowned persons, and which proves, if I mistake not, the most common cause of their mortal suffocation. This practice, therefore, is to be immediately entered upon, and very assiduously continued for an hour or two together.

I HAVE NOW mentioned the measures chiefly to be pursued and depended upon, for the recovery of drowned persons; but must still mention some others that may prove considerable helps to it.

ONE of these is, the opening the jugular veins to relieve the congestion, which almost constantly occurs in the veins of the head, and is probably a frequent cause of the death of drowned persons. For relieving this congestion, the drawing some blood from the jugulars, very early, may certainly be of service; and it will be particularly indicated by the livid and purple colour of the face. It may even be repeated, according to the effect it seems to have in taking off that suffusion;

but when the drowned person is, in some measure recovered, and some motion of the blood is restored, it will be proper to be very cautious in making this evacuation, and at least to take care not to push it so far as to weaken too much the recovering, but still weak powers of life.

ANOTHER measure for recovering the activity of the vital principle, is the application of certain stimulants to the more sensible parts of the body, such as holding the quick lime spirit of sal ammoniac to the nose, or putting a little of it upon a rag into the nostrils. It has been usual to pour some liquids into the mouth; but it is dangerous to pour in any quantity of liquid, till it appear that the power of swallowing is in some measure restored.

WHEN a surgeon is at hand, and is provided with a proper apparatus, a crooked pipe may be introduced into the gullet, and by this a gill or two of warm wine may be poured down into the stomach, and probably with advantage. But
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when no such apparatus is at hand, or surgeon to employ it, and the power of swallowing is still doubtful, the trial of pouring liquids into the mouth should be made, by a small quantity of warm water alone; and when, from such trial, the power of swallowing shall appear to be recovered, it may then be allowable, to favour the further recovery of the person, by pouring in some wine or brandy—In short, till some marks of the recovery of swallowing and respiration appear, it will not be safe to apply any stimulants to the mouth, excepting that of a few drops of some acrid substance of the tongue, and which are not of bulk enough to slide back upon the glottis: I can think of no stimulant, more conveniently and safely to be applied to the mouth and nostrils, than a moderate quantity of tobacco-smoke blown into them.

THOUGH I do not imagine that drowned persons are ever hurt by the quantity of water taken into their stomach, yet,

as a stimulus applied to the stomach, and particularly, as the action of vomiting proves a stimulus to the whole system, I can have no objection to the French practice, of throwing in an emetic as soon as any swallowing is restored. For this purpose, I would successively throw in some tea-spoonfulls of the ipecacuana wine; and, when it does not interfere with other necessary measures, the fauces may be gently irritated by an oiled feather thrust into them.

WITH regard to the stimulants, I must conclude with observing, That when a body has lain but for a short time in the water, and that, therefore, its heat and irritability are but little impaired, the application of stimulants alone has been often found effectual for the recovery; but, on the contrary, when the body has lain long in the water, and the heat of it is very much extinguished, the application of any other stimulants, than that of tobacco-smoke to the intestines, can be
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of very little service; and the application of others ought never to interfere with the measures for recovering heat, and the motion of respiration.

WITH respect to the whole of these practices, I expect, from the principles upon which they are, in general, recommended, it will be understood, that they are not to be soon discontinued, though their effects do not immediately appear. It is obvious that, in many cases, it may be long before the heat of the body, and the activity of the vital principle, can be restored, although, in a longer time, it may very possibly be accomplished. In fact, it has often happened, that though means, employed for one hour, have not succeeded, the same, continued for two or more hours, have at length had the wished-for effects. It should therefore be a constant rule, in this business, that the proper means should be employed for several hours together, unless it happen, that, while no symptoms of return-

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ing life appear, the symptoms of death shall, at the same time, go on constantly encreasing.

IN the whole of the above I have kept in view chiefly the case of drowned persons; but it will be obvious, that many of the measures proposed will be equally proper and applicable in other cases of suffocation; as those from strangling, the damps of mines, the fumes of charcole, &c. and a little attention to the difference of circumstances, will lead to the measures most proper to be employed.

THESE, my Lord, are the reflections on the state of drowned persons, and of the most proper means for their recovery, which, after mature consideration, have arisen to me. The directions, proposed to be promulgated by advertisement in the several Counties and Royal Boroughs in Scotland, of which your Lordship has been pleased to shew me a copy, appear to me very judicious, and perfectly adapted to the purpose intended. I shall be
very

very happy to find, that my entering a little further into the explanation of principles, or the detail of practice, has your Lordship's approbation. I have the honour to be, with profound respect,

My LORD,

Your Lordship's

Most obedient, and

Most humble servant,

Edin. 8th August.

1774.

(Signed) WILLIAM CULLEN.

Aug. 11, 1774.

E X T R A C T

FROM THE

JOURNALS of the BOARD of POLICE,

CONCERNING

THE RECOVERY OF PERSONS

DROWNED AND SEEMINGLY DEAD.

P R E S E N T,

LORD CATHCART, Prefes,

EARL of LAUDERDALE,

EARL of LEVEN.

LORD CATHCART presented to the Board, a paper relative to *persons drowned* and recoverable, though *seemingly dead*, together with a letter from Dr. CULLEN, his Majesty's first Physician for SCOTLAND; before whom the paper had been laid, for his opinion upon the subject: Which having been read,

ORDERED,

That the said paper and letter be printed; and that the clerk do send copies of it to all the Sheriffs

of

of Counties, Magistrates of Royal Burghs, and Moderators of Synods and Presbyteries in SCOTLAND; and that he do prepare a book for registering such communications as he may hereafter receive from any Sheriff, Magistrate, or Minister; and particularly such accounts of successful cases as may be transmitted to him.

RESOLVED,

That it is the opinion of this Board, in consequence of the communications they have had with Dr CULLEN, that the following articles constitute a proper apparatus for the recovery of drowned persons; and that LAWRIE, *jun.* & COMPANY, druggists, at the Head of Niddry's Wynd, Edinburgh, are proper persons to furnish the same, at the prices annexed, *viz.*

1. A FUMIGATOR; consisting of a small pair of bellows, a brass box and handle, a flexible tube, and ivory pipe, 0 10 6
2. A SPARE flexible tube and pipe, 0 2 0
3. FOUR wooden pipes, for blowing into the nostrils, 0 1 6

4. Two

4. Two vials of flint glaſs, with
ground ſtoppers, containing ſpirits
for ſmelling, - - - 0 1 6

5. Two flint vials, with ground ſtop-
pers, containing ſpirits, to be appli-
ed to the wrifts, &c. - - - 0 4 0

ALL theſe included in a box, value, 0 4 0

SEPARATELY, A pair of bellows for
blowing into the lungs, 0 6 0

£. 1 9 6

P A P E R

PRESENTED BY

L O R D C A T H C A R T.

AND REFERRED TO IN THE

P R E C E D I N G M I N U T E.

IT has long been known, That persons drowned, strangled, frozen, or suffocated by noxious vapours, are capable of being brought back to life, though seemingly dead, by renewing their animal heat, and putting their blood again into motion, upon the same principles that persons fainting are recovered from a swoon: and that, in winter, birds of the sleeping kind, cold, motionless, and dead in appearance, are, by gentle warmth, restored to their usual circulation and vivacity.

OUR senses testify, that heat and motion are necessary to life; and that where those principles are extinct, death is the certain consequence. It is therefore easy to conceive, that in bodies yet entire, where those circumstances are only sus-

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pended

pended, from an accidental cause, not extinguished, by dissolution, from disease, they may, by proper counteracting application, if taken in time, be restored ; nor has it yet been determined, how much time may elapse before that recoverable state ceases, or how long the proper endeavours may be used, without producing the desired happy effect, and yet produce it at last ; circumstances, which ought to recommend trial in every case, where from wounds, or putrefaction, it does not manifestly appear impossible to succeed, and perseverance, though success should not follow so soon as might have been expected.

THESE truths, obvious in themselves, are confirmed by the records of philosophical societies, by traditions, in almost every village, and by the experience of almost every individual : and yet, though no nation in any age could be suspected of insensibility to the joy of restoring a father to the fatherless, a husband to the widow, or a living child to the bosom of its mournful parents ; yet no effectual steps were ever taken to turn the public attention to this object, and to make proper arrangements for the immediate succour of unfortunate persons to whom such accidents befall, till the year 1767, when the Dutch instituted a Society at AMSTERDAM, in favour of drowned persons ; which, by an advertisement, informed the inhabitants of the United Provinces of the methods proper

per to be used on such occasions ; and offered rewards to those who should, with or without success, use those methods for recovering persons drowned, and seemingly dead.

THE laudable and humane example of the Dutch was followed, in the year 1768, by the Magistrates of Health in MILAN and VENICE ; afterwards by the Magistrates of HAMBURGH, in the year 1771 ; by those of PARIS, (where, betwixt the 16th of June 1772, and the 25th of March 1773, of twenty-eight persons drowned in the SEINE, no less than twenty-three were restored to life) ; and lastly, this summer, by a Society in LONDON.

THERE is no country, which, from its situation, surrounded by the sea, and every where intersected by rivers, lakes, and bays, calls more loudly for effectual measures, for affording immediate relief to persons seemingly dead, from drowning, than SCOTLAND ; no nation more likely eagerly to adopt such measures, if proposed ; nor any, where, from the nature of its government, such measures may so easily be carried into execution ; and by the following steps :

LET the Board of Police compose a proper advertisement, founded on the principles of those of other countries, containing the necessary advice

to the public, and informing them of the reward offered by way of encouragement to those who shall follow it; and of the names of the persons to be immediately applied to, in cases of accidents, in different districts; and order a sufficient number of copies of this paper, and of the advertisement, to be printed; and let copies of the minutes of the Board on this subject be sent to the Sheriffs of Counties, to the Magistrates of Royal Burghs, and to the Moderators of Synods and Presbyteries, all over SCOTLAND, with a recommendation from the Board to request the said Sheriffs, Magistrates, and Moderators, whose respective districts may adopt the measure, to signify it to the Board, and to communicate such cases as may, from time to time, occur, with the success, that a general register and record may be kept, for the information of the public.

So shall it be optional to the Sheriffs and Magistrates to lay it before their respective Counties and Burghs, at proper meetings, in order that it may be respectively adopted and enforced, and a proper provision made to supply the expence of procuring instruments, and issuing rewards in case a life is saved, or attempted to be saved, &c. and to the Moderators of Synods and Presbyteries, to recommend it to their clergy to explain the advice to their elders and parishioners, to prevail with them (in opposition to the old custom or superstition)

tion) not to refuse to open their doors for the reception of such objects as are the victims of such accidents, and to discontinue the usage of hanging them up by the heels, rolling them upon barrels, or violently shaking them; and to render the whole as familiar to their understandings as possible, that numbers of them may be able, as well as the gentlemen of the Faculty, to give immediately the necessary relief, in which the Clergy cannot fail to have assistance of these Gentlemen.

WHEN it is considered, that no expence, (the first purchase of an apparatus excepted,) can be incurred, unless in the case of an accident happening, and relief being given, or attempted to be given, to an unfortunate sufferer, it is probable that the Noblemen and Gentlemen of the respective Counties; and also the Royal Burghs will cheerfully assent themselves to answer the demands, which, within their districts, may be made in consequence of the advertisements, for so valuable and humane a purpose.

THERE can be no doubt that the Clergy will, with their usual zeal and activity of charity, contribute their useful assistance, and the Medical Gentlemen lend their endeavours; which together, more than the reward, will excite men of all ranks to concur in carrying universally and uninterruptedly into execution, at a very small ex-

pence and trouble to the public, a plan by which many may be recalled from the gates of death, and their relations relieved from the depth of distress.

PLAN of an ADVERTISEMENT, from a General Meeting of a County.

“ *MINUTES of the General Meeting of*
at the day
of

P R E S E N T,

Prefes.

“ THE Meeting having taken into considera-
 “ tion, That there are many incontestible proofs
 “ of the recovery of persons to life and health,
 “ who have been taken out of the water for dead,
 “ although they have been a considerable time
 “ without even the least sign of life ; and as there
 “ is the utmost reason to believe, that great num-
 “ bers, in such circumstances, might have been re-
 “ stored, had they not been treated in an impro-
 “ per and pernicious manner, or too hastily given
 “ up for lost, unanimously resolve to make pub-
 “ lic the following rules, for treating such cases
 “ now practised in several countries of Europe
 “ with amazing success, and which are happily
 “ of such a nature, that they may be begun imme-
 “ diately, even by persons not acquainted with
 “ the

“ the medical art, though it is always adviseable
 “ to seek the assistance of some regular practiti-
 “ oner as soon as possible ; bleeding being always
 “ proper, and sometimes necessary.

“ 1st, IN removing the body to a convenient
 “ place, great care must be taken that it be not
 “ bruised, nor shaken violently, nor roughly
 “ handled, nor carried over any one’s shoulders,
 “ with the head hanging downwards, nor rolled
 “ upon the ground, or over a barrel, nor lifted up
 “ by the heels that the water may run out of the
 “ stomach.

“ BOTH reason and experience prove, that all
 “ these methods are extremely dangerous, and
 “ often destroy the small remains of life.

“ THE unfortunate object should be cautious-
 “ ly conveyed by two or more persons, or in a
 “ carriage upon straw, lying as on a bed, with
 “ the head a little raised, and kept in as natural
 “ and easy a position as possible.

“ 2^d, THE body, being well dried with a cloth,
 “ should be placed in a due degree of heat, but
 “ not too near a large fire : The windows or doors
 “ of the room should, however, be left open, and
 “ no more persons be admitted into it than those
 “ who are absolutely necessary, as the life of the
 “ patient

“ patient greatly depends upon their being ex-
 “ posed to a pure air—The warmth, most pro-
 “ mising success, is that of a bed or a blanket pro-
 “ perly warmed—Bottles or bladders of hot water,
 “ or hot bricks wrapt in cloths, should be laid at
 “ the soles of the feet, in the joints of the knees,
 “ under the arm-pits, &c. The shirts or clothes
 “ of an attendant, the skin of a sheep fresh killed,
 “ the natural and kindly warmth of a healthy
 “ person lying by the side of the body, has been
 “ found, in many cases, very efficacious.

“ SHOULD these accidents happen in the neigh-
 “ bourhood of a warm bath, brew-house, baker, glass
 “ house, salter, soap-boiler, or any other fabric
 “ where warm lees, ashes, grains, sand, water, &c.
 “ are easily procured, it would be of the utmost ser-
 “ vice to place the body in either of these, mode-
 “ rated to a degree of heat, but very little exceed-
 “ ing that of a healthy person, *viz.* 98 deg. of Fa-
 “ renheit’s thermometer.

“ 3d, THE subject being placed in one or other
 “ of these advantageous circumstances, as speedily
 “ as possible, various stimulating methods should
 “ then be employed.—The first and most effica-
 “ cious are, To blow with force into the lungs,
 “ by applying the mouth to that of the patient,
 “ closing his nostrils with one hand, and gently
 “ expelling the air again, by pressing the chest
 “ with

“ with the other, imitating the strong breathing
 “ of a healthy person.

“ **WHILST** one assistant is constantly employed
 “ in this operation, another should throw the
 “ smoke of tobacco up by the fundament into the
 “ bowels, by means of a tobacco pipe or fumi-
 “ gator, such as are used in administering tobacco-
 “ clysters: A pair of bellows will serve until the
 “ others can be procured. A third attendant
 “ should, in the mean time, rub the body, chest,
 “ back, and arms, with a coarse cloth or flannel
 “ dipped in brandy, rum, gin, salt and water, or
 “ strong vinegar, so as not to rub off the skin:
 “ Spirit of hartshorn, ammoniacal salts, or any
 “ other stimulating substance, must also be applied
 “ to the nostrils, and rubbed upon the temples
 “ very frequently—The body should at intervals
 “ be shaken also, and varied in its position.

“ **N. B. BRONCHOTOMY**, or opening a pas-
 “ sage to the lungs through the wind pipe, may
 “ be necessary, when the air will not pass by the
 “ mouth into the chest; but this must be always
 “ left to the judgement of a surgeon.

“ *4th*, If there be any signs of returning life,
 “ such as gaspings, twitchings, or any convulsive
 “ motions, the return of the natural colour and
 “ warmth, and of the pulse, bleeding, either in
 “ the

“ the arm or jugular vein, or temporal artery, now
 “ becomes particularly necessary. The throat
 “ should also be tickled with a feather, in order
 “ to excite a propensity to vomit; and the nos-
 “ trils also with a feather, snuff, or any other
 “ stimulant, so as to provoke sneezings.—A tea-
 “ spoonful of warm water may be administred
 “ now and then, in order to learn whether the
 “ power of swallowing be returned; and if it be,
 “ a table spoonful of warm wine, or brandy and
 “ water, may be given with advantage, but not
 “ before, as the liquor might get into the lungs
 “ before the power of swallowing returns.—The
 “ other methods should be continued with vigour,
 “ until the patient be gradually restored; and
 “ even in cases where immediate success does not
 “ follow the endeavours used, they ought not to
 “ be remitted for two hours or upwards, as fre-
 “ quently, after that term, symptoms of life have
 “ appeared.

“ AND, in order to excite a more general at-
 “ tention to this important object, the Meeting
 “ farther resolve,

“ THAT the first messenger, who shall bring
 “ intelligence of a drowned person being taken out
 “ of the water, to the surgeon or minister
 “ of the parish in which the disaster happens, shall
 “ be entitled to the reward of Half a Crown.

“ THAT

“ THAT the person or persons, who, during the
 “ space of two full hours, shall have used the
 “ means above mentioned, for the recovery of any
 “ person, man, woman, or child, drowned, and
 “ taken out of the water, within the county, (the
 “ districts of royal boroughs excepted) shall re-
 “ ceive, though success should not follow, the sum
 “ of Two Guineas, and of Four Guineas, if the
 “ person is saved.

“ THAT any publican or other (to whom it is
 “ earnestly recommended to consider, that the de-
 “ lay of a few minutes may be of fatal conse-
 “ quence) who shall receive into his house, with-
 “ out hesitation, an unfortunate object of this
 “ sort, shall be allowed all necessary expences, and
 “ One Guinea for his trouble.

“ THAT such bills and rewards, upon certifi-
 “ cates from the minister of the parish where
 “ the disaster happened, application being made
 “ to the clerk of the county within a week, shall
 “ be paid by him within fourteen days of such ap-
 “ plication.

“ THAT as the above means of restoration are
 “ equally applicable to various other cases of ap-
 “ parent deaths, such as hanging, suffocation by
 “ damps and noxious vapours, whether proceed-
 “ ing from coal mines, the confined air of wells,
 “ cisterns,

“ cisterns, caves, or the must of fermenting liquors,
 “ and also to the frozen, (which last must first be
 “ be rubbed with snow, or spunged with cold
 “ water, till unfrozen, and then gradually brought
 “ into warmth, and assisted by the other means);
 “ any person or persons, who shall have re-
 “ ceived into their house, or recovered a person
 “ supposed dead, from any of the above causes,
 “ shall, upon a similar certificate and application,
 “ receive the same reward.

“ RESOLVED, That LAURIE, *junior*, & COM-
 “ PANY, Druggists, at the head of Niddry’s
 “ wynd, EDINBURGH, be immediately wrote to
 “ for a number of setts of their apparatus, equal
 “ to double the number of parishes this country
 “ contains, at the price of 1*l.* 9*s.* 6*d.* each; that
 “ two setts be distributed to each parish; and
 “ that it be recommended to the several parishes,
 “ to add to advertisements, which shall be
 “ fixed up within their respective bounds,
 “ the names of such of their inhabitants as
 “ shall have declared their willingness to receive
 “ unfortunate objects into their houses, and pro-
 “ vide them with every necessary; and of such
 “ gentlemen who shall have declared themselves
 “ ready to assist in the medical way, in case of dis-
 “ asters; and also of the minister and surgeons in
 “ whose houses setts of a proper apparatus shall be
 “ lodged.

“ RE-

“ RESOLVED, That printed copies of the minutes of this Meeting be fixed upon the church doors, in the market place, and other proper places, in each parish within the shire.”

THE above form of an advertisement, from a County-Meeting, will answer the same purpose, *mutatis mutandis*, from a Royal Borough.

F I N I S,