



Observations
on the Recovery of a Man Dead
in Appearance by Distending
the Lungs with Air



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By John Fothergill, M. D.

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XI. *Observations on a Case published in the last Volume of the Medical Effays, &c. of Recovering a Man Dead in Appearance, by distending the Lungs with Air. Printed at Edinburgh, 1744; by John Fothergill, Licent. Coll. Med. Lond.*

*Read Feb. 21.
1744-5. Now
printed with
Additions.*

THERE are some Facts, which, in themselves, are of so great Importance to Mankind, or which may lead to such useful Discoveries, that it would seem to be the Duty of every one, under whose Notice they fall, to render them as extensively public as it is possible.

The Case which gives Rise to the following Remarks, I apprehend, is of this Nature: It is an Account of “*A Man, dead in Appearance, recovered by distending the Lungs with Air; by Mr. William Tossack, Surgeon in Alloa;*” printed in Part 2, p. 605. Vol. V. of the *Medical Essays*, published by a Society of Gentlemen at *Edinburgh*; an Abstract of which

will be sufficient in this Place: Those who desire an ampler Account may consult the Article itself.

A Person suffocated by the *nauseous Steam* arising from Coals set on Fire in the Pit, fell down as dead; he lay in the Pit *between half an Hour and three Quarters*; and was then dragg'd up; *his Eyes staring and open, his Mouth gaping wide, his Skin cold; not the least Pulse in either Heart or Arteries, and not the least Breathing to be observed.*

In these Circumstances, the Surgeon, who relates the Affair, *applied his Mouth close to the Patient's, and, by blowing strongly, holding the Nostrils at the same time, raised his Chest fully by his Breath.* The Surgeon *immediately felt six or seven very quick Beats of the Heart; the Thorax continued to play, and the Pulse was soon after felt in the Arteries.* He then *opened a Vein in his Arm; which, after giving a small Jet, sent out the Blood in Drops only for a Quarter of an Hour, and then he bled freely.* In the mean time he *caused him to be pull'd, push'd, and rubb'd, as much as he could.* In one Hour the Patient *began to come to himself; within four Hours he walked home; and in as many Days returned to his Work.*

There were many Hundred People, some of them of Distinction, present at the Time.

This is the Substance of the Account; from whence it naturally appears how much ought to be attributed to the Sagacity of the Surgeon in the Recovery of this Person. Anatomists, it is true, have long known, that an artificial Inflation of the Lungs of a dead or

dying Animal will put the Heart in Motion, and continue it so for some time; yet this is the first Instance I remember to have met with, wherein the Experiment was applied to the happy Purpose of rescuing Life from such imminent Danger.

Bleeding has hitherto been almost the only Refuge upon these Occasions: If this did not succeed, the Patient was given up. By bleeding, it was proposed to give Vent to the stagnating Blood in the Vein, in order to make Way for that in the Arteries *à tergo*, that the Resistance of the Heart being thus diminished, this Muscle might again be put in Motion.

But, in too many Instances, we every Day are informed, that this Operation will not succeed, tho' the Aperture is made with never so much Skill: Nor is it likely, that it should, when the Blood has lost considerably of its Fluidity, the Motion of the Heart, and the contractile Force of the Solids, are at an End.

Chafing, Rubbing, Pulling, the Application of Stimulants, are too often as ineffectual as Bleeding.

The Method of distending the Lungs of Persons, dead in Appearance, having been try'd with such Success in one Instance, gives just Reason to expect, that it may be useful to others.

It may be a proper Inquiry, In what Cases, and under what Circumstances, there may be a Prospect of applying it with Success?

It will at once be granted, that when the Juices are corrupted, where they are rendered unfit for Circulation by Diseases, where they are exhausted, or where the Tone and Texture of the Solids is injured

or destroyed, it would be extreme Folly to think of any Expedient to recover Life.

But where the Solids are whole, and their Tone unimpair'd by Diseases, the Juices not vitiated by any other Cause than a short Stagnation; where there is the least Remains of animal Heat, it would seem wrong not to attempt so easy an Experiment.

This Description takes in a few Diseases, but a greater Number of Accidents. Amongst the first are many of those which are called sudden Deaths from some invisible Cause; Apoplexies, Fits of various Kinds, as *Hysterics*, *Syncope's*, and many other Disorders, wherein, without any obvious Præ-indisposition, Persons in a Moment sink down and expire. In many of these Cases it might be of Use to apply this Method; yet without neglecting any of those other Helps, which are usually called in upon these melancholy Occasions.

It is not easy to enumerate all the various Casualties, in which this Method might be try'd not without a Prospect of Success; some of them are the following: Suffocations from the sulphureous Damps of Mines, Coal pits &c, the condensed Air of long-unopen'd Wells, or other subterraneous Caverns; the noxious Vapours arising from fermenting Liquors received from a narrow Vent; the Steam of burning Charcoal; sulphureous mineral Acids; arsenical *Effluvia*, &c.

Perhaps those, who, to Appearance, are struck dead by Lightning, or any violent Agitation of the Passions, as Joy, Fear, Surprise, &c. might frequently

be recover'd by this simple Process of strongly blowing into the Lungs, and by that means once more communicating Motion to the vital Organs.

Malefactors executed at the Gallows would afford Opportunities of discovering how far this Method might be successful in relieving such as may have unhappily become their own Executioners, by hanging themselves. It might at least be try'd, if, after the Criminals have hung the usual Time, inflating the Lungs, in the Manner proposed, would not, sometimes, bring them to Life. The only ill Consequence that could accrue from a Discovery of this kind would be easily obviated by prolonging the present allotted Time of Suspension.

But this Method would seem to promise very much in assisting those who have been suffocated in the Water, under the above mentioned Circumstances; at least it appears necessary to recommend a Trial of it, after the Body has been discharged of the Water admitted into it, by placing it in a proper Position, the Head downwards, prone, and, if it can be, across a Barrel, Hogshead, or some such-like convex Support, with the utmost Expedition.

It does not seem absurd, to compare the animal Machine to a Clock; let the Wheels whereof be in never so good Order, the Mechanism complete in every Part, and wound up to the full Pitch, yet, without some Impulse communicated to the *Pendulum*, the Whole continues motionless.

Thus, in the Accidents described, the Solids are supposed to be whole and elastic, the Juices in suf-

ficient Quantities, their Qualities no otherwise vi-
tiated than by a short Stagnation, from the Qui-
escence of that *moving Something* which enables Mat-
ter in animated Bodies to overcome the Resistance
of the *Medium* in acts in.

Inflating the Lungs, and, by this means, commu-
nicating Motion to the Heart, like giving the first
Vibration to a *Pendulum*, may possibly, in many
Cases, enable this *Something* to resume the Govern-
ment of the Fabric, and actuate its Organs afresh, till
another unavoidable Necessity puts a Stop to it in-
tirely.

It has been suggested to me by some of my Ac-
quaintance, that a Pair of Bellows might possibly
be applied with more Advantage in these Cases, than
the Blast of a Man's Mouth; but, if any Person can
be got to try the charitable Experiment by blowing,
it would seem preferable to the other: *1st*. As the
Bellows may not be at hand: *2dly*, As the Lungs of
one Man may bear, without Injury, as great a Force
as those of another Man can exert; which by the
Bellows cannot always be determin'd: *3dly*, the
Warmth and Moisture of the Breath would be more
likely to promote the Circulation, than the chilling
Air forced out of a Pair of Bellows.

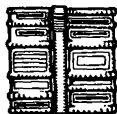
To conclude, as I apprehend, the Method above
described may conduce to the saving a great many
Lives, as it is practicable by every one who happens
to be present at the Accident, without Loss of Time,
without Expence, with little Trouble, and less Skill,
and as it is, perhaps, the only Expedient of which it

can be justly said, that it may possibly do *great Good*, but cannot do Harm, I thought it of so much Consequence to the Public, as to deserve to be recommended in this Manner to your Notice: For tho' it is already published in a Work which is generally read by the Faculty; yet, perhaps, it may be overlooked by some, forgot by others, and perhaps, after all the Care that can be taken, it may never come to the Knowledge of a Tenth of those who ought not to be ignorant of it.

John Fothergill.

P. S. As the Representation of an extraordinary Fact may perhaps induce some to try the Experiment, when Occasions like those which are specified in the above Remarks occur, it is hoped, that Humanity will promote all such to favor the Public with an Account of their Success, with the principle Circumstances that attended. And as the Writer of these Remarks has embarked in the Design of rendering this Fact diffusively known, he would be glad to have it in his Power to inform the Public, that numerous Experiments confirm what this Case suggests; *viz.* the Possibility of saving a great many Lives, without risking any thing.

*White-Hart Court, Gracious-Street,
7ber, 1744.*



Bibliographical Note

DR. JOHN FOTHERGILL, eighteenth century Quaker physician, was eminent in the practice of medicine, active in the religious Society of Friends, and prominent in the humanitarian and charitable philanthropies of his time. Partly because of the two missionary journeys of his parents to America, he had many friends among the Quaker community in Pennsylvania. And when the problems between England and her colonies developed, he (with Benjamin Franklin) was active in an attempt to avert the war which was to follow.

After an apprenticeship with an apothecary, Fothergill received his medical education in Edinburgh, getting his M. D. degree in 1736. He spent two subsequent years attending lectures at St. Thomas's Hospital, and after a short medical tour of the continent, he set up practice in London in 1740. His practice was highly successful, largely by dint of hard work and clinical acumen. He was not a great medical investigator, as were the brothers Hunter, but was rather a clinician after the model of Sydenham. Several of his papers are still considered classics, as "A clinical account of the sore throat attended with ulcers" (diphtheria);¹ "On a painful affection of the face" (tic doloieux),² and "Remarks on the complaint known under the name of the sick headach" (migraine).³ The paper here reprinted, "Observations . . . of recovering a man dead in appearance, by distending the lungs with air"⁴

is less well known, but is one of the earliest accounts in English of what we now call mouth-to-mouth resuscitation.

The stricter Quakers looked upon portraiture as a form of vanity. Thus Fothergill declined requests to sit for his portrait, though he had a large collection of portraits of others. Several portraits of Fothergill were done, however, including paintings by Gilbert Stuart and Hogarth. Several engravings were also done as were two ceramic pieces by Wedgwood, one being a fine bust in black porcelain and the other a beautiful jasper medallion. The silhouette here reproduced is less well known. It was used in the third volume of Lettsom's *Hints*.⁵

Fothergill was Benjamin Franklin's friend and doctor. Perhaps his character can be summarized in the letter sent after his death by Franklin to Benjamin Waterhouse when the latter was still a student at Leyden: "... the newspapers have since announced his Death!—I condole with you most sincerely on this occasion. I think a worthier man never lived. For besides his constant readiness to serve his Friends, he was always projecting something for the Good of his Country and of Mankind in general, and putting others who had it in their Power what was out of his own Reach, but whatever was within it he took care to do himself; and his incredible Industry and unwearied Activity enabled him to do much more than can now be ever known, his Modesty being equal to his other Virtues."⁶

K. G. H.

Notes

1. Fothergill, J. An account of the sore throat attended with ulcers. London, C. Davis, 1748. (Lettsom gives 1777 for the sixth and last edition, though Cotner and Booth mention a seventh edition in 1777, *c.f.* p. 12.)
2. ———. "On a painful affection of the face." *Med. Obs. & Inquiries*, London, 1776, 5, 129-142.
3. ———. "Remarks on that complaint commonly known under the name of the sick headach." *Med. Obs. & Inquiries*, London, 1777-84, 6, 103-37 (Read Dec. 14, 1778.)
4. ———. "Observations on a case . . . of recovering a man dead in appearance, by distending the lungs with air . . ." *Phil. Trans.*, No. 475, 1745. (Reprinted in the *Works* of Fothergill, ed. by John Elliott in 1781 and by Lettsom in 3 vols. octavo 1783-84 and quarto 1784.)
5. Lettsom, J. C. Hints designed to promote beneficence, temperance & medical science. London, J. Mawman, 1801. 3 vols. Silhouette from the gold Fothergill medal of the Medical Society of London, p. 286 of Vol. III
6. Fothergill, J. Chain of Friendship. Selected Letters of Dr. John Fothergill of London, 1735-1780. [Ed. Betsy C. Corner and C. C. Booth]. Cambridge, Mass., The Belknap Press of Harvard University Press, 1971. p. 501.

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