cet, and deprive me of all other remedies, and I will do more good with it singly than with all others, deprived of this, put together."

OBSERVATIONS ON CASES OF DEATH
FROM
SWALLOWING BOILING WATER,
AND A
REMEDY PROPOSED
FOR THE
RELIEF OF SUCH PATIENTS.
By MALCOLM W. HILLES, Esq.

THE fatality which so frequently occurs to children from swallowing boiling, or at least heated water, has induced me to offer a few observations on these cases, and to propose a method which appears to me likely to relieve patients suffering from such an occurrence, until other means may be resorted to for their more permanent cure, or perhaps to prevent, even of itself, a fatal termination.

My attention has been more particularly directed to this subject from reading the details of a case brought, within these few days, to the Westminster Hospital, where, notwithstanding the care and attention bestowed on it, the patient died in a few hours.

In considering cases of this description, it is necessary that we should bear in mind the ages of the patients usually affected, as this exerts a material influence on the symptoms, the remedies to be used, and the ultimate termination. As they, almost always, are children of from three to four years old, it is evident that the delicate texture of the parts affected (at this early age) will be more seriously injured by the contact of the heated fluid than if this were applied to the adult tissues, and that consequently we are to expect from thence an intensity and rapidity of symptoms not to be met with under similar circumstances at the more advanced periods of life. To this we must add, as conducing to a fatal termination, the more serious impression made on young subjects by such injuries, from their generally delicate organisation, and the more particularly on their nervous system, so highly developed, and so peculiarly sensitive at the earlier periods of life.

When a child swallows, or attempts to swallow boiling water, the parts injured by the contact of the fluid are the mouth, fauces, throat, oesophagus, and stomach; where the fluid has been completely swallowed, this last organ must be partially injured; but when the completion of the act has been prevented, as it no doubt frequently is, by the pain produced on the contact of the heated fluid, or by the spasmodic contraction of the

injured parts, the stomach will altogether escape from injury, and the parts first mentioned only will be those acted on by the fluid.

This difference in the extent of the injury is necessarily productive of an important difference in the several features of the case.

Where the stomach escapes, there is no organ affected, a partial injury of which is rapidly destructive of life. To what, then, are we to attribute the fatality of these cases? At first view, we are likely to consider that the impression on the nervous system mainly contributes to a fatal termination. Now, although it cannot be denied that the impression made on the nervous system of the patient adds much to the serious nature of the case, and will therefore assist in producing a fatal termination, yet this will be found, on reflection, not to be of so great an extent, as, *per se*, to induce death, or even to add so much to the mechanical injury done to the other parts, as to render useless our attempts to preserve the life of the patient.

As, then, the impression made in these cases on the nervous system, and the mechanical injury of the parts affected are not sufficient to account for their usually fatal termination, we are constrained to seek out some other cause for such unfortunate results. This will be found in the impeded respiration which so rapidly succeeds, in all these cases, to the application of the heated fluid.

Although respiration soon becomes so difficult, the respiratory organs are generally unaffected by the direct application of the boiling water; it is contrary to all experience, and directly opposed to our knowledge of the physiology of these organs, to suppose that a single drop of the fluid makes its way into the larynx or trachea, the difficult respiration is produced more indirectly.

When boiling water is applied to the mucous membrane lining the mouth, throat, and fauces, the phenomena directly produced are precisely the same as those caused by the application of this fluid to any other part of the tegumentary membrane; the skin, for example: at first we have inflammation, which is rapidly followed by effusion into the sub-mucous cellular tissue, producing an oedematous state of the mucous membrane of the parts injured, which, together with the previously swollen condition of these caused by inflammation, produces a difficulty of respiration by the mechanical obstruction afforded to the free entrance of air into the upper opening of the trachea.

There can be no doubt that the inflammatory action *may spread* to the mucous membrane of the larynx and trachea, and there produce submucous infiltration, which will add to the difficulty of respiration, and, with the existing condition of the mouth and fauces, will induce a spasmodic constriction of the rima glottidis, increasing the difficult respiration, and bringing on a fatal issue; but the

swollen state of the mouth and fauces already described, are at first the principal sources of the impeded respiration.

The treatment, then, that I would recommend, consists in freely incising the mucous membrane of the mouth and *fauces* so soon as it appears swollen, either with the lancet or sharp-pointed bistoury, or, what I should prefer, a sharp gum lancet; this will, by the flow of blood from the parts, lessen the inflammation, and moderate or remove their swollen condition by allowing of the escape of the effused fluid from the cells of the submucous cellular tissue through the incisions: even should effusion have taken place beneath the laryngeal mucous membrane, the effused fluid will escape through the incisions, in consequence of the communication that exists between the cells of the cellular tissue in these regions.

It has occurred to me that the same mode of treatment might be found useful in cases of submucous infiltration of the larynx, as, for example, in that rapidly-fatal affection, "oedema laryngis."

The judicious practitioner will not be satisfied with this proceeding, he will resort to those remedies which are known to be applicable to the complications this accident presents, and either prevent the extension of inflammation by antiphlogistic remedies, or remove the injurious impression made on the nervous system by appropriate means; calomel, as recommended by the late Mr. Wallace, should by no means be omitted.

I should have preferred supporting my theoretical observations by practice, but as I might be some time without meeting with a suitable case, I have thought it better to submit my theory to the practice of my professional brethren, feeling assured that they will do every justice to it, and fearing that delay rendered thus unnecessary might be purchased at the expense of suffering humanity, and at a period of life, too, when the best sympathies of human nature are enlisted in its behalf.

13, Hinde-street, Manchester-square,
May 24, 1841.

TESTIMONIAL TO DR. LONSDALE, EDINBURGH.—On Friday, the 18th ult., a meeting of the students of Queen's College was held in the class-room, Argyle-square, when Mr. J. M. Adams, surgeon, presented, in the name of the anatomical students, a valuable microscope, made by Chevalier, of Paris, to Dr. H. Lonsdale, demonstrator of anatomy in that college. The gift was accompanied by a written address, signed by nearly a hundred gentlemen who had attended the doctor's prelections during the winter session,—testifying to his zeal and abilities as a teacher, and gratefully acknowledging the uniform kindness and attention which the donors had experienced from him.

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London, Saturday, June 26, 1841.

It is now generally admitted that in a free country, under a representative government, medical men should not disfranchise themselves. At the elections they have rights to exercise, and a duty to perform. Their education, rank, and intimate practical acquaintance with the condition and wants of all classes of society, render it highly important that they should not only give their votes, but bring their influence to bear on the choice of legislators. The effects of this influence will not be the less certain if it be employed temperately and rationally; if they never forget the sacred character which they sustain as the disciples of scientific truth, and the friends of the helpless; if they be never hurried into the excesses of party fanaticism, but keep constantly in view, in their public conduct, the great end of their existence as a profession,—the welfare of mankind.

The question which the medical elector will put to himself will be, "What men will carry out measures most conducive to the public good, the very foundation of which may be pronounced, without exaggeration, to be the public health?" A State may desire to see its children educated—its citizens orthodox—its property controlled by the laws—manufactures flourish—the arts cultivated—commerce extended—its flag wave over broad colonial lands; but it should never be dazzled by ideal gratifications, nor seduced by distant glory into forgetfulness of the fact, that the permanent prosperity of a country depends upon the health and physical vigour of the mass of the population. The health of the labouring classes should never be neglected by the State—never be sacrificed for the sake of imaginary advantages. Industry and trade furnish the materials of life, and react favourably on the public health; but the vigour of children is not to be destroyed in factories—the miner scorched in mines—