

it has been actually applied. If the tooth penetrate to the cellular membrane, by the time that you are consulted some of the saliva may have reached the cells beyond and if you apply the nitrate of silver, or the nitric acid, these will coagulate the fluids and harden the solids, while the caustic potash becoming diffused will follow the course of the saliva. A convenient way of applying the caustic on these and some other occasions is this: melt it in a silver or platinum spoon, and, when melted, dip into it the blunt end of a probe. It will come out with a varnish of the caustic upon it; dip it in again until the button of caustic has attained a sufficient size. By means of a probe thus armed you may carry the caustic even into a very narrow wound, so that you are sure it will penetrate wherever the dog's tooth has penetrated; after which, from the particular nature of the caustic (as I have just explained) you may be certain that it will penetrate still further, and as far as the poison can have reached."—*B. Brodie.*

CAUTION IN THE USE OF CAUSTIC TO THE SCALP.

The application of caustic to tumours on the scalp must be made with great caution, as appears from the following case:—

"A surgeon applied the caustic potash to the scalp, with the view to make an issue in a man's head, who was labouring under a headache and nothing else. When the slough had separated a piece of the occiput was exposed, as large as half-a-crown or larger. The patient was soon seized with a sort of strange symptoms, and died. It was found that the dura mater had become detached from the inside of the bone, just opposite the part where the pericranium had been destroyed on the outside; and it was clear that the sloughing of the dura mater was the cause of the man's death."

When the caustics are used, it is prudent to have some counter-agent at hand to stop their action on the sound parts around. "Acids may be neutralized by alkalis; caustic potash may be neutralized by vinegar, or by a solution of the diacetate of lead. If you are afraid of the nitrate of silver burning the neighbouring parts, its action may be neutralized by common olive oil. A solution of bicarbonate of potash will decompose chloride of zinc, and so of other caustics."—*Med. Chir. Rev. July, 1846.*

ON THE EFFECTS OF MERCURY ON THE YOUNG SUBJECT.

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In some previous papers,* I endeavoured to point out the peculiarities attending the operation of opium and emetics, on the infant subject, as distinguished from the effects of these agents on the adult. I now propose to make some remarks on another article of even still greater importance, and that is *Mercury*. That mercury is an agent of immense power, either for good or evil, upon the human constitution, cannot be questioned. While in many cases it is the means of saving life, in not a few it unquestionably destroys it. If this be so, it becomes a question of the deepest practical interest, to determine whether its action is modified in any way by the age of the patient, and particularly so, when it is recollected that it is given by too many physicians, even more freely, and may I not add indiscriminately, to the young subject than to the adult.

The first and most striking peculiarity attending the action of mercury, is that in young subjects, it does not produce salivation so readily as it does in adults. Indeed under a certain age, it appears to be exceedingly difficult to excite salivation at all in them. On this point, besides our own experience, we have abundance of testimony. Dr. Clark says "under various circumstances he has prescribed mercury, in very large quantities, and in a great number of cases; and he never produced salivation, except in three instances, in any child under three years of age."† Dr. Warren, of Boston, observes, "that he has never known an infant to be salivated, notwithstanding he has given in some cases,

large quantities with this view."‡ Mr. Colles, of Dublin, says, "no man in the present day requires to be told that mercury never does produce typhalism, or swelling and ulceration of the gums in infants."§ Drs. Evanson and Maunsell speak still more strongly. They say, "mercury does not seem capable of salivating an infant. We have never seen it do so, nor are we aware of any such case being on record." "We have never succeeded in salivating a child under three years of age."¶

The same general fact seems to be applicable to the external use of mercury. Dr. Percival, of Manchester, remarks, that he "repeatedly observed that very large quantities of the Unguentum Cæruleum may be used in infancy and childhood, without affecting the gums, notwithstanding the predisposition to a flux of saliva, at a period of life incident to dentition."§

That salivation does not take place so readily in the infant as in the adult, would seem then to be well established. That it never can or does take place, as might be inferred from some of the preceding quotations, is by no means, however, true; and the statement, if implicitly relied on, is calculated to be the cause of much mischief. That very young subjects do sometimes become salivated, is unquestionable. One case, and only one, however, has occurred in my experience, in which a child of two years of age was salivated, and that by a very moderate quantity of calomel, viz., five grains, given in three portions, at intervals, within the space of about twelve hours. In about two days after, the gums became inflamed, the tongue swelled, several ulcers appeared in the mouth, and the flow of saliva was free; after continuing about three days in the same state, it gradually yielded, and disappeared without any further inconvenience. In this case every thing seemed favourable to the development of mercurial action. The child had been labouring under whooping-cough for several weeks, and was a good deal reduced. It vomited freely with every paroxysm of coughing, and this no doubt aided in bringing on salivation, in a constitution peculiarly sensitive and evidently scrofulous. Nor is this a solitary case. Dr. Clarke, already quoted, admits that in three cases salivation was produced in children under three years of age. And similar cases have been observed by others. Dr. Blackall relates the case of a child, two years of age, who was salivated in consequence of taking two grains of calomel for several successive nights. The child was a poor scrofulous subject, and it sunk under the effects of the mercury.

This, then, is a remarkable peculiarity in the action of this agent upon the infant subject, and the observation of it has doubtless led to the belief, too prevalent among some physicians, that it may be given to them to almost any extent with perfect impunity; an error, which, if not in its immediate, yet certainly in its remote effects, has been the prolific source of more mischief, probably, than any of us are aware of.

Although mercury so seldom salivates infants, yet, notwithstanding this, it cannot be doubted that it affects the system profoundly, and even more so proportionally than it does the adult. That it should do so appears perfectly natural; when we reflect upon the mode of its operation on the human system. On this subject, I am aware that a great difference of opinion exists. By some, mercury is looked upon as a stimulant; while others view it as a sedative. A familiar acquaintance with its effects, however, will show, I think, that it may be the one or the other, according to circumstances—according to the dose in which it is given—the length of time it is continued, and more especially, the condition of the system at the time of using it. A single large dose of calomel will cause nausea and relaxation, and sometimes unpleasant prostration, while if it be given in smaller doses and repeated frequently, it will occasion irritation of the intestines, and general disturbance of the vascular and nervous systems. In the former case acting as a profound sedative, and in the latter as a stimulant, or rather irritant. That calomel given in large doses operates as a sedative, seems to be proved, not merely by the

* View of the Mercurial Practice in Febrile Diseases. By John Warren, M. D., p. 146.

† Practical Observations on the Venereal Disease and on the use of Mercury. By Abraham Colles, M. D., p. 171. American Edition.

‡ Treatise on the Management and Diseases of Children, p. 88.

§ Essays, Medical and Philosophical. By Thomas Percival, M. D., vol. 2. p. 316.

* New York Journal of Medicine and the Collateral Sciences. Vol. 2, p. 1. Vol. 7, p. 153.

† Commentaries on some of the more important diseases of Children. By John Clarke, M. D., p. 182.