

was found at St Joseph's more necessary to support the patient than to exhaust him by more purging medicine. If calomel is given with this view, it will seldom be necessary, and probably seldom advisable, to give a patient more than forty grains in the course of the disease. I have seen such a degree of faintness and exhaustion succeed to even such moderate doses as I have mentioned, that the pulse became almost imperceptible, and all the other functions were equally enfeebled. It was only by giving the patient frequently a little toasted bread, dipped in Madeira wine, that the action of the stomach was restored, that the pulse was raised, and that some degree of energy was again communicated to all the vital functions. The patient, in this case, recovered; but it is probable, that, had a greater quantity of medicine been used, and a proportionately greater degree of exhaustion been produced, the vital energies would have been so far deprived of their renovating powers, that no stimuli, however powerful, could again have called them into action.

VII.

Case of Laryngitis. By A. WOOD, Member of the Royal College of Surgeons, London.

THERE are few diseases which present nicer points of discrimination, or require a mode of treatment more active and immediate, than inflammatory affections of the organs of voice. The rapidity with which inflammation generally introduces a state of the parts which is incompatible with healthy breathing, either from excessive irritability, or from an increase or alteration in the secretions, renders it of the utmost moment that the complaint should be speedily ascertained, and if possible arrested. The following case appears remarkable, since it shews the very considerable length of time which active inflammation of a limited extent of the mucous membrane of the larynx and trachea may exist, without producing the constitutional disorder, and obstructed respiration, which are its common results.

December 13.—Elizabeth Bentley, aged 10, is supposed by her parents to be suffering from the effects of a slight cold caught two or three days since; but the affection is so trifling,

that their attention would, most probably, never have been directed to it, but for a noise which the child makes in breathing. This noise is the loudest during sleep, and at the time of inspiration; and it has the peculiar croaking sound which is characteristic of croup. Her voice is hoarse, and she seems as if speaking through a fluid. She describes the pain to be a pricking and dryness of her throat. On being requested to point out its seat, she places her fingers on the thyroid cartilage; and pressure on this part, particularly by placing a finger deep on each side, gives her great pain. The fauces have a perfectly natural appearance. She has a short cough, without expectoration; and it is evidently excited by the irritation of the larynx alone. She does not complain of pain in her chest or head. She has no thirst. Her tongue is clean, and her bowels are regular. Leeches were directed to be applied to the affected part; and afterwards, a blister; and she was ordered to take a dose of calomel and jalap. Till the 17th she seemed to recover. Her breathing had become more free, and attended with less noise; and her voice was equally improved. On the 18th, apparently from exposure to cold, her symptoms had become somewhat more severe. Leeches were again applied, and 3 grains of calomel were prescribed, to be taken every four hours, with the intention of producing salivation. 19th.—She was so much better after the bleeding, that her mother suspended the exhibition of the calomel, after she had taken four doses, under the idea that it was unnecessary. 20th and 21st.—Her breathing continued free and comfortable, and the pain, on pressure, was trifling; but her voice had gradually become more feeble, and she seldom spoke higher than a whisper. In consequence of a confined state of the bowels, a dose of opening medicine was given on each of these days. 22d.—There was little alteration. Her pulse was, as usual, about 85; and she had no constitutional disorder that could lead to the supposition of the existence of local irritation. As much had lately been said of the efficacy of balsam of capaiba in inflammation of mucous surfaces, I was desirous of trying it; and after some persuasion, I prevailed on the child's mother to give it as much as its stomach would bear, for two days. It produced no effect, and was given up; and after this time, the parents declined giving any more medicine; so much advantage having always been derived from bleeding and blistering, that they believed the complaint would at all times be under the control of these remedies. 26th.—There was no material change in the symptoms; and she was again bled. 27th.—She was blistered. 28th.—As had been invariably the case after the use of blis-

ters, she breathed better, and had less cough. Her voice, however, had become exceedingly weak, and it gave her considerable pain to speak. She now and then was able to hawk up a little viscid phlegm. 29th.—I could detect no variation since the report of yesterday. 30th.—Her countenance was rather bloated. She had a dull headache. She was sleepy, and had other symptoms of congestion about the head. She spoke only in a whisper; or if she attempted to make her voice sonorous, she complained of the effort it required, and the pain she suffered in the larynx. The noise, which had been hitherto very loud during inspiration, and when she coughed, was now nearly inaudible. She had slight fever; and though she had been running about the house the whole day, she was more fatigued with it than she had ever been before. It was in vain that the mother was urged to resume the calomel powders. 31st.—This morning, about three o'clock, she suddenly awoke with a sense of suffocation in her throat, which continued nearly an hour. She was relieved by coughing up a quantity of phlegm; and she afterwards slept several hours very composedly. The bloatedness of the face has increased. Her pulse, which had never before been more than 90, was now 110; and her respirations were 50 in a minute. The irritation in the larynx is increasing, and gives her much distress. A blister was applied; and I left particular injunctions, that should any more paroxysms of difficult breathing come on, I should be immediately sent for; since it was now evident, that unless an opening was made into the trachea, she might perish from obstructed respiration. On calling in the evening, the mother smiled, and observed, there would be no occasion to send for me. My patient was eating with an appetite, and without much difficulty, the dry crust of an apple tart. The fauces, yesterday and to-day, had presented, for the first time, a scarcely perceptible blush of inflammation. The morning after, I was disappointed, in hearing that the girl was dead. About four o'clock in the morning, a fit of difficult breathing awoke her. She struggled for half an hour, became quiet, and after breathing for ten minutes, according to the mother's account, with perfect ease, she expired.

The examination was made in presence of my friend and partner, Dr Dunlop, under whose observation the case had been from its commencement. The larynx and the trachea, as far down as the upper bone of the sternum, were removed. On making the division of the trachea, about a tea-spoonful of transparent mucus escaped, similar to what had been coughed up during life. They were now divided on their posterior side,

through their whole length, beginning at the cut extremity of the trachea, and terminating at the top of the larynx; and on gently separating the divided edges, it was found, that the blade of the scissors which had traversed the interior surface, had passed between the mucous lining of the part, and a perfect membrane of coagulable lymph. This membrane was of sufficient firmness to allow of the separation of the cut edges of cartilage, to at least half an inch, without suffering in its texture, readily parting from its secreting surface. This part of the adventitious lining was now divided, and it was found to be continued completely round the tube, forming a tolerably perfect cylinder, of different degrees of thickness, with a cavity in one part so small that a probe could barely be introduced without violence. The cavity was plugged up with mucus, with flakes of lymph mixed with it. I was not able to detect the least appearance of puriform matter. The deposition of lymph commenced at the root of the epiglottis in a jagged form, and, extending downwards, covered the chordæ vocales, sacculi laryngis, and nearly the whole of the internal surface of the larynx, till it arrived at the lower border of the cricoid cartilage, where it abruptly terminated in a well-defined edge, which was loose, and floating in mucus. On detaching the lymph, the mucous membrane beneath was found entire, and of a bright red colour, from inflammation. The marks of inflammation extended about a quarter of an inch into the trachea, and the whole of the under surface of the epiglottis, with the parts in the neighbourhood unoccupied by lymph, shewed marks of high increased action. Near the tip of the epiglottis there was a dark coloured spot, of about two lines in diameter, but not penetrating deeper than its mucous covering. We had not sufficient time allowed us to examine the chest.

That the inflammation in this case was of an active character there can be little doubt. The dissection exhibits phenomena which nothing but active inflammation could produce; for it appears an established law in the pathology of mucous membranes, that acute inflammation shall be productive of coagulable lymph, while pus, or a mere increase of the natural secretion, results from inflammation of a more indolent description.* It is not easy to account satisfactorily for the slow progress of the disease, except we admit that the regular manner in which

* "If this inflammation, which produced suppuration on those surfaces, (mucous surfaces,) becomes more violent, we find, that it moves from the suppurative to the adhesive, and throws out coagulable lymph." Hunter on the Blood, &c.

the lymph was deposited opposed less obstruction to respiration than would, in all probability, have resulted from that thickening of the membrane, and œdematous effusion beneath it, which are the usual consequences of inflammation of a chronic kind. Moreover, I apprehend the secretion of mucus would be much more plentiful in cases of the latter kind; and the perpetual exertion to clear the trachea and larynx of this matter must tend in no inconsiderable degree to exhaust the patient. I am aware, that, in young children, this disease (or one so similar to it that I make no distinction) suddenly runs its course; but I believe this arises from the greater rapidity with which coagulable lymph is thrown out in them, and perhaps in some measure from the little power of expectoration which they possess.

Since the publication of the cases by Drs Baillie and Farre,* the nature of this disease, and its appropriate mode of treatment, have been very clearly understood. If the speculations of some modern pathologists† be well founded respecting the influence of a mercurial action over diseases of an inflammatory cast, the practice of an eminent northern physician, of exhibiting mercury in large doses, is one of the highest promise, and will possess the recommendation of being supported by theory as well as by experience. Setting aside this view of the subject, it is likely, from the vicinage and connections of the parts, that a copious secretion from the salivary glands and mucous lining of the mouth, will operate very directly and advantageously on inflammation of the trachea and larynx.

It becomes an interesting consideration, at the close of this paper, to inquire what would have been the probable result had tracheotomy been performed.‡ I have stated that the lower border of the effused lymph was "loose and floating." A process of separation was also going on at its upper part, and this

* *Medico-Chirurgical Transactions*.

† Dr Hamilton, Dr Armstrong, Mr Johnson, &c.

‡ There is a very valuable paper, by Mr Lawrence, in the sixth volume of the *Medico-Chirurgical Transactions*, in which the question of bronchotomy is considered with much candour and ability. From the whole of the evidence, which Mr L. has collected with great diligence, he is strongly inclined to recommend it; and in a case quoted from the *Philosophical Transactions*, and in one of the author's own cases, the lives of the patients were manifestly saved by the operation.

In the same volume Mr Chevalier relates a case where the operation was required, and successfully done after a membranous substance had been coughed up. It seemed that the good effects arising from it were attributable to its giving vent to about "an ounce, or an ounce and a half, of a reddish-brown and frothy mucus."

process seemed only to require a sufficient length of time to have effected its complete detachment. There is every reason to believe, that, when this had taken place, the surface beneath would have been left without ulceration, and with not more inflammation than would readily have subsided on the removal of so direct a source of irritation. The morbid action going on in the epiglottis, and in the commencement of the trachea, was in all likelihood kept up by continuous sympathy with the part more actively inflamed; and I attribute the separation to the secretion of mucus, arising from a diminution of that violent inflammation which had produced coagulable lymph.

Rochdale, Feb. 21, 1819.

VIII.

On a peculiar Species of Gangrenous Ulcer, which affects the Face in Children. By MARSHALL HALL, M. D. F. R. S. E. &c.

IT would appear that the skin and subjacent textures in children are particularly liable to assume a disposition to sloughing and gangrene. I have witnessed this occurrence in cases of intertrigo affecting the bend of the thigh and the fossa of the nates, in excoriation behind the ears, in the inflammation which sometimes supervenes on inoculation, in severe cases of aphthæ, and as an effect of the application of a blister. Sloughing and gangrene are also usual in the erysipelas infantile, and children appear to be particularly exposed to that species of inflammation and of gangrene termed frost-bite.

Children are also liable, in the circumstances about to be described, to a particular affection of the face, which begins with pain, hardness, swelling, and slight erythematous redness, and terminates in the formation of a spreading eschar and ulcer. In one case, the patient did not survive the extreme irritation of the system in general, which attends the commencement of this affection; in four other cases, life was prolonged until a considerable portion of the soft parts of the face and mouth was destroyed by the mortification, and the latter patients died from exhaustion; in a sixth, the patient survived the affection altogether, after experiencing an extensive sphacelation of each cheek, of a part of the tongue, and of the contiguous gums, and even of a portion of the jaw-bone.