rated. When they remain dry and adherent, there is no objection, if fully within the reach of instruments, in making an attempt, by a thorough topical medication, to arrest their further progress, and thus remove the local source of danger; but should the first application fail in this object, no repetition should be made. The practice of cauterizing the uninvaded tissue is reprehensible, because the local product is likely to appear on abraded surfaces. Of all the local agents of which I have any bedside experience, the tincture of the chloride of iron has been by far the most efficacious. It should be applied with a swab of cotton or sponge, which is pressed with considerable firmness against the pseudo-membrane, so as to favor thorough contact. After the application, attempts should be made by gargle, spray-douche or syringe, to remove the deposit; but forcible removal is not judicious, unless it is already partially detached. Lime-water is the best solution to use in the douche or syringe. So much for the accumulations in pharynx and nasal passages.

When the larynx becomes invaded, then the best plan I am familiar with is to keep up a constant evolution of steam passing over the face of the patient; and, in addition, to slake a few pieces of lime the size of the fist, by the bedside every hour or two, or whenever the respiration becomes obstructed; covering the vessel with a hood of stiff paper, so as to direct the steam and particles of lime towards the mouth of the patient. I do not subscribe to the opinion that the lime vapor is capable of dissolving the membranes *in situ;* but I believe that the particles of lime inhaled act mechanically, becoming insinuated beneath them at numerous points, and thus affording minute inlets for the watery vapor, which detaches them, and facilitates their expectoration by cough.

The use of emetics is indicated in children to provoke expectoration from the air-passages in the act of vomiting; but the same indication does not occur in adults who are able to expectorate voluntarily. If successful, the emetic may be repeated, at intervals of six hours, as long as the indications continue to recur. Alum, ipecac and turpeth mineral are the most reliable agents, and may be tried in the order named: adhering to the alum if it prove efficient. Emesis should not be carried too far, or be repeated if ineffectual, as it exhausts the power of the system without any compensation in the discharge of morbid products.

Should asphyxia be threatened from accumulations in the larynx or trachea, tracheotomy is indicated; and though most frequently unsuccessful in averting death, it facilitates due access of atmospheric air to the lungs, and often saves lives that would otherwise be lost.

The most careful attention is required after tracheotomy to keep the artificial passage clear. The stimulating treatment and the lime inhalations should not be discontinued.

The two main indications for favorable prognosis after tracheotomy are desire for food, and ability to expectorate. All treatment should be subservient to facilitating these great ends.

Paralytic sequelæ sometimes follow diphtheria. They are to be managed on general principles; and they usually subside without leaving permanent traces.—*Medical News and Abstract.*

THE TREATMENT OF CROUP.

A Clinical Lecture.

By WM. T. PLANT, M.D., Professor of Clinical Medicine and Diseases of Children in Syracuse University, Syracuse, N.Y.

GENTLEMEN: Membranous laryngitis is one of the diseases in which medical treatment has always been most vacillating and unsatisfactory. Our fathers, rightly regarding it as a violent inflammation, fought it determinedly with their deadliest weapons. These, in the words of an old author,* were "bleeding, emetics, purgatives, and blistering."

Bleeding, first, "so as nearly to produce fainting;" if not relieved, more blood "by several leeches over the trachea." After bleeding, an emetic of ipecac and antimony, to be again and again repeated if the continuance of the disease—and the patient—afforded an opportunity. At the same time—and the sooner the better—"a large blister all across the throat or upper part of the chest" was in order. It was further recommended to keep up brisk purgation with calomel and jalap throughout the entire course of the disease. These sledge-hammer blows were supplemented by frequent smaller doses of tartar-emetic and calomel. To all this was added the "antiphlogistic regimen," which, in those days, meant little nourishment and no stimulants. Unless you call to mind the cat-like tenacity of life inherent in some children, you will be surprised when I tell you that a few survived both the croup and the treatment.

We do not work in that way now. If, as is often the case, we cannot do much good with our remedies, we endeavor not to do harm, and that is more than can be said for the old way.

If the medical treatment is to be of avail, it must be instituted early. In croup, delay is not only dangerous; it is fatal. As soon as a laryngeal cough, an increasing hoarseness, and obstructed inspiration give warning, the child, *nolens volens*, should be put to bed. The room should be well warmed; from 80 to 85 degrees Fahr. is not too high. The air should be moist as well as warm. A warm and moist air is relaxing and soothing; a cold and dry air is irritating to the inflamed larynx, and tends to induce paroxysms of cough and dyspnœa. There are different ways of charging a room with moisture. If it is warmed by a cook-stove, vessels of water may be kept boiling. The objection to this plan is that, if the apartment is small, it becomes overheated. Large

* Thomas' Practice, 1815.