

is changed twice a day. This mode he has employed with universal success in adults. The only case in which he has used it in youth was in that of a girl, thirteen years of age, where the disease involved the whole of the face; a cure was effected in about a fortnight. But in addition to the local treatment, the patient had three minim-doses of Fowler's solution thrice daily. Another form of local treatment that he employs is the use of a lotion consisting of oxide of zinc, ninety grains, glycerine, half a fluid ounce, water, to eight fluid ounces. This to be applied twice daily, and the part to be covered by lint and gutta-percha tissue. Of internal remedies, arsenic in the form of Fowler's solution is given, either simply in water, or in conjunction with other tonics and alteratives, as iron and iodide of potassium. He also, in many cases, gives cod-liver oil.

FEEDING BY THE RECTUM.

Dr. Austin Flint, in a paper of extraordinary interest and practical value in the *American Practitioner* of January, on Rectal Alimentation, shows that life may not only be thus prolonged a few days, but that persons may live for weeks and months and even years by this method of nutrition alone. More than this, and it seems almost ludicrous, some patients having been fed in this way for a considerable period were quite disinclined to return to the usual mode of eating. The cases recorded, except the first, came under Dr. Flint's observation. Dr. Pierce's patient lived three weeks solely nourished by the rectum. Dr. Purple's patient lived three months on this form of feeding. Dr. Lusk's patient was sustained for seventeen days in the same way. Dr. McClain's patient maintained life by rectal alimentation for twenty-eight days, and for a year was fed in this way the greater part of the time. Dr. Flint's patient lived exclusively upon injections of essence of beef and milk, repeated every four hours for three weeks. The most extraordinary case is that furnished by Dr. Bliss of New York. His patient lived comfortably for fifteen months without other sustenance than that through the anus, and for much of the time for five years lived by this means. None of these patients died of inanition, and some of them increased in weight and strength. Where death occurred it was due to the disease with which the patient was suffering.

This treatment is applicable in cancer or ulcer of the stomach; stricture of the esophagus; gastritis; gastrorrhagia; the persistent irritability of the stomach, purely functional, occurring in women; invincible anorexia with loss of strength and weight; and when "from blunted mental perceptions or coma an adequate

amount of food can not be introduced into the stomach by voluntary deglutition."

The rectal diet recommended is as follows: Liebig's extract of meat, with milk; milk, either alone or combined with eggs, beef, mutton and chicken broths; and Leub's pancreatic meat emulsion, which is prepared as follows: from five to ten ounces of finely-chopped meat, and one-third of this weight of finely-chopped pig or ox pancreas, free from fat, are mixed with five ounces of luke-warm water. This mixture is rubbed in a mortar to the consistency of thick soup.

The quantity of food injected should be from three to six ounces, and the intervals between injections should be from three to six hours. If not well tolerated, tincture of opium or morphia in solution are added with advantage. The bowel should be relieved of its fecal contents before beginning the rectal feeding, by simple enemas, or, if not contra-indicated, by a laxative *per os*. After this procedure no fecal discharge may occur for days or weeks, and yet no discomfort is experienced.

To quench thirst simple water is injected and the body is freely sponged. Should the rectum refuse the first injections of aliment, they should be continued, and in a short time are likely to be retained. Should the bowel become intolerant of the injections after they have been used some time, they should be discontinued for a day or two, and after this rest the rectum is likely to receive them kindly.

The nutritive injections should be tepid, and directly after their administration firm pressure on the anus by a sponge or napkin should be made until the desire of expulsion passes off. *Louisville Medical News*, February

TREATMENT OF DIPHTHERIA BY TURPENTINE INHALATIONS.

By C. EDEL, M.D., New York.

Before I enter upon the mode of treatment of diphtheria, it may not be inappropriate to give, in a few words, my opinion concerning the nature of the disease.

I regard it, in the majority of cases, as a local affection from the beginning, affecting the mucous membrane of the nose, pharynx and larynx, the fatal termination of the disease being brought by pyæmia. The latter may be either primary in cases where the poison has been absorbed by the capillaries of the lungs or the mucous membranes (and these frequently become fatal after a short duration, even without the formation of membranes); or the pyæmia may be secondary to the formation of membranes, and the poison is then taken into the system in the usual manner.

But we must distinguish this pyæmic fever from the reactive fever, common to all cases of diphtheria, and which I think is only an effort on the part of nature to eliminate the obnoxious substance.