

bowels gently kneaded with the thumbs placed side by side; but in this case, too, the movements should follow the course of the larger bowel.

In addition to the above treatment, more special measures have often to be employed. These may be divided into two classes: the class of suppositories and injections, and that of remedies given by the mouth.

The class of suppositories and injections aims at producing an immediate evacuation of the bowel, and in no way tends to promote more regular action in the future. These remedies are, therefore, useful in clearing the way for further treatment, but there their value ends. A suppository of Castile soap introduced into the rectum is a time-honoured method of inciting an evacuation in the child. Another old-fashioned plan has lately been revived, which consists in the injection of forty or sixty drops of pure glycerine into the lower bowel. In each case energetic peristaltic action of the alimentary canal is induced, and the bowel is thoroughly emptied of its contents. Of these applications the action of the glycerine is very rapid, and in a few minutes the effect of the injection is seen. The soap suppository acts more slowly.

Injections of soap and water, or other liquid, have an entirely mechanical action in relieving the patient. To be effectual such injections must be large, consisting of at least half a pint of fluid and should be thrown very slowly into the bowel. Still, although of service when given only occasionally, the frequent use of large injections is not to be recommended; indeed, this method of treatment is distinctly hurtful in cases where the costiveness has become a habit. Even in young babies great dilatation of the bowel and serious weakening of its muscular coat have often followed the daily use of the enema pump.

For the permanent cure of habitual constipation remedies given by the mouth are greatly to be preferred, but, at the same time, strongly acting purgatives are worse than useless. Our aim should be to find the smallest dose which will awaken a normal degree of energy of peristaltic action, and to give this dose regularly so as to induce a habit of daily evacuation. The daily dose is most efficacious when combined with a remedy which tends to give tone to the muscular coat of the bowel. For this purpose a useful draught is composed of half a drop of tincture of nux vomica combined with ten drops of tincture of belladonna and twenty of infusion of senna, made up to a fluid drachm with infusion of calumba. This draught should be given at first three times a day before food, but soon two doses in the day will be sufficient, and it is rarely long before one dose given at bedtime has a sufficiently laxative effect. Our object is not to excite watery evacuations, but to induce as faithful imitation as possible of a normal action of the bowels. The liquid extract of cascara is

useful in many cases, especially if combined with tincture of belladonna. Twenty, thirty, or more drops of cascara extract with ten of the belladonna tincture, may be given with a few drops of glycerine in a little water every night. In the west of England a remedy held in high esteem consists of half a grain of sulphur colored red with cochineal. That this apparently insignificant dose is often efficacious when given regularly every night I can testify from my own experience.

In cases where the motions are drier than natural, as if from imperfect secretion of the intestinal glands, the addition of liquid to the diet, already recommended, may be supplemented by the administration of some saline aperient two or three times a day. This treatment is made more effectual when the saline is combined with small doses of nux vomica and quinine. For a baby of six months old, five to ten grains of sulphate of soda may be given with one quarter of a grain of quinine, half a drop of tincture of nux vomica, and a minim of aromatic sulphuric acid, in a teaspoonful of water three times a day before food. As in all cases where the remedy prescribed has been chosen with judgment and given in appropriate quantity, the continued administration of this draught, so far from rendering the bowel dependent upon the medicine, stimulates it to act spontaneously, so that the dose has soon to be given less frequently, and in no long time can be discontinued altogether.

By means such as the above the most obstinate case of constipation in the infant can be cured with little difficulty, but to be successful the treatment must not be restricted to mere drug-giving. The food of the child must be regulated with care, his clothing must be inquired into, and his general management passed under review. Where this is done, drugs given in comparatively small doses will act with sufficient energy, and will soon restore their normal regularity to the bowels.—*Brit. Med. Jour.*

RECENT ADVANCES IN THE PHYSIOLOGY AND PATHOLOGY OF INFANT DIGESTION.

Recent investigations undertaken by two French physicians, Drs. Hayem and Lesage, of the stools of children suffering from green diarrhoea, revealed the presence of large quantities of a short, spore-forming bacillus, which, cultivated on potato or meat peptone gelatine, gave origin to a spinach-green pigment. The bacillus grows freely in neutral or alkaline media; lactic, hydrochloric or citric acids arrest its development. The addition of a few drops of lactic acid to the gelatine prevents the development of the microbe. The injection of a cubic centimetre of the pure cultivation of