

by following the dose of papain with a laxative or mild purgative.

The vegetable peptoniser has also been given internally in diphtheria as an adjunct to the local treatment. In combination with cinchona it is given as a tonic to enable the patient to resist the debilitating tendency of the disease. The combination is also indicated in the treatment of the digestive troubles of children, and of those with delicate stomachs, as it combines the specific peptonising properties of papain with the strengthening qualities of cinchona.

With reference to the method of prescribing papain, it is unnecessary to say much. The remedy is best of all used alone in the solutions and doses mentioned above. As it is, as already stated, precipitated by alcohol, (tinctures, etc.) acetate of lead, tannin and nitric acid, it should manifestly not be prescribed with these; the same would be true of mercuric chloride and salts of other heavy metals, which are known to be prone to throw nitrogenous compounds out of solution. With dilute hydrochloric acid, and with boric acid, it is quite compatible. Against anæmia it has been recommended (2 grain doses) in combination with quinine (1 grain), or with calmus rhizome (4 grains). For flatulent diarrhoea 1 grain is prescribed in pill with $\frac{1}{2}$ grain of opium, and against gastric catarrh 2 grains with 5 grains of bicarbonate of soda. Externally an aqueous solution of 20 grains to the ounce is used; Dr. J. B. Richardson recommended, a combination of papain 2 drams, hydronaphtol 3 grains, dilute hydrochloric acid 15 min., distilled water to 4 ozs. A 10 per cent. solution with 5 per cent. of borax is useful against eczema, psoriasis, and callosities of the epidermis.

In conclusion attention should be called to the necessity of exercising care in the selection of brands of papain, as there are many kinds which are almost destitute of peptonising power and, therefore, useless for the purposes indicated above. The value of a good specimen can be readily estimated by digesting 100 grains of finely minced raw lean beef with 1 grain of the papain and 1 oz. of distilled water, containing 2 grains of hydrochloric acid or bicarbonate of soda. After 20 minutes, digestion at 100° F. (with assiduous stirring) the liquid should be strained through muslin, the undissolved residue washed, dried at 212° F. and weighed. Allowing 75 per cent. for moisture in the raw beef, from 60 to 90 per cent. of the meat should be dissolved.—*Notes on New Remedies.*

LIQ. HYD. PERCHLOR. IN DIPH- THERIA.

Noticing in the *British Medical Journal* of December 13th, 1890, the high percentage of deaths from diphtheria, I am induced to suggest through your columns a trial of liq. hyd. perchlor. in drachm doses, given every hour at the onset, and then at longer intervals as the case improves. I have now adopted this treatment in about sixty cases with the best result, not having had a fatal termination since first trying it. My formula for a child of 3 or upwards is R tr. fer. perchlor. 3j, liq. hyd. perchl. 3j, glycerin. ad. 3ij: dose a dessertspoonful every hour from four to six hours, and then every two, three or four hours, as the case may require. For an adult I give R tr. fer. perchlor. 3ij, liq. hyd. perchl. 3j, glyc. 3ss, sol. pot. chlor. ad. 3vij, dose 3j each hour, and repeated as in the case of the child. The addition of potass. iodid. to this mixture does not appear to have any beneficial effect. With this treatment local applications, such as painting the fauces, spraying the throat, or the use of gargles, are not needed, and in my hands appear to do far more harm than good. In severe cases poultices and the steam kettle are certainly beneficial. I find in most cases, after four or five doses, that the membrane becomes dull and soft, and inclined to pucker up; by the end of twenty-four hours it is almost like mucous, and ready for expectoration; and that by the end of forty-eight hours nothing but an inflamed sore throat remains. In one obstinate case I gave a drachm dose to a child, aged 7, every hour for thirty-two hours without any evil result. I have never yet met with a case of salivation from the use of this drug, nor have I seen a case of diphtheric paralysis follow when it has been employed.

Some time since, when attending two children, the nurse girl contracted the disease. I sent her some medicine, and the next night, after dark and in heavy rain, she came to the surgery for more. The day following, instead of being worse, I found her considerably better. Since then I have not been so particular about confining a patient to one room, but have treated a number of cases where the patients have gone about, indoors and out, as they saw fit, with equally good results.—*Frank A. Coward in Brit. Med. Jour.—Denver Med. Times.*

GOOD POINTS FOR STUDENTS AND DOCTORS.

Dr. W. H. Steele, in *Items of Interest*, says: Our colleges will turn out an unusually large number of graduates in the spring, who undoubtedly expect to locate in some Canaan of promise and build up a practice. It shows push and pluck for a young man to strike out for

Paddock in the *Archives* says, ergot of rye is useful in all forms of chronic congestion and vascular dilatation in the eye, particularly episcleritis and chronic conjunctivitis. It should be given in maximum doses.