

we ought to advise parents to add some vegetable substance and meat juice to the diet as a prophylactic.

Dr. BLACKADER said in reference to the use of patent infant foods, that one was obliged to confess that in some instances it seemed necessary to have recourse to them. They might be used as a bridge to carry us over a difficulty, but their prolonged use had always appeared to him objectionable. The one important advantage which they possessed is that their process of manufacture might be supposed to render them sterile, and during the summer months, and often during the winter months, it might be almost impossible in some families to command an absolutely sterile food in any other way. In the light shown by the occasional appearance of scurvy in infants fed entirely on them, he thought we must regard all foods which had been prepared at the temperature of about 212° F. as dead foods—foods which fail to afford a perfect nutrition to the infant.

Progress of Science.

APOCYNUM CANNABINUM AS A CARDIO-KINETIC AND DIURETIC.

The drug has been known for some years in America as an emetic and cathartic, and has also been employed to some extent as a remedy against dropsy. Examined by Schmiedeberg in 1883, it was found to contain an amorphous substance, apocynin, and a glucoside, apocyneine, the first soluble in alcohol, not in water, the second easily soluble in water. The physiological action of a ten-per-cent. Tincture has been investigated independently by Brandford and Murray, who considered its effects as somewhat similar to those of strophanthus. The latter found that it reduced the frequency of the rapid heart, strengthened its beats, relieved cyanosis, and acted as a good diuretic. PETERUTI and SOMMA (*Il Polidnico*, Nos. 10 to 14, May to July, 1894) have used the root in two forms,—an infusion with water and a tincture. The decoction had a strength of 1 to 3 in 150, that of the tincture being 1 in 10. The results obtained in the two cases were as follows: The action of the decoction is exercised chiefly on the stomach and intestines, promoting: first, catharsis; and, secondly, emesis. These effects followed, in the cases quoted, the administration of a decoction of from 1 to 2 grammes of the root in 150 grammes of water, divided into two or three doses in the day. This emeto-cathartic action is manifest either on the first, second, or third day. When it is delayed, there are also effects

on the urine and heart,—namely, increased diuresis, acceleration of the heart-beat, and arrhythmia, sometimes also a strengthening of the heart's action. Under these conditions the authors have observed diminution and final disappearance of œdema and relief of dyspnoea. This decoction is not, therefore, the best form to use in the case of uncompensated valvular lesions, on account of the emeto-cathartic action, which is only exceptionally absent. The tincture was free from gastro-intestinal irritant effects, even when large doses were employed. These effects, therefore, are probably due to some substance which is soluble in boiling water but insoluble in alcohol. On the other hand, marked cardio-kinetic effects were obtained from the tincture when employed in doses of 60 to 90 minims daily. It is probable, therefore, that the effects of the decoction are due to the presence of apocyneine, those of the tincture to that of apocynin (Schmiedeberg). A marked effect of the tincture is the production of diuresis, which is never accompanied with albuminuria; in fact, when albumin has been present, it has disappeared after a course of the tincture. Apocynum acts, therefore, as a diuretic without irritating the renal epithelium, by virtue of its action on the circulation. Sphygmographic tracings show also a considerable increase in the force of the pulse, the rapidity of which is sometimes markedly diminished. Change in rapidity is not, however, a constant effect, and sometimes the slowing is accompanied by irregularity in the rhythm, due, in all probability, to a stimulation of the cardiac branches of the vagus. Finally, apocynum appears to increase the arterial tension, but not constantly. On the whole, therefore, the tincture of apocynum is likely to prove useful in cases of imperfect compensation of valvular lesions, either reducing or even completely curing the œdema and dyspnoea which are the indications of such a condition. It has the advantage over the other cardiac drugs that it does not irritate the *præ viæ*, and that it may be used without danger for a long time.—*British Medical Journal*, September 22, 1894.

NEW METHOD OF STERILIZING LIGATURES.

M. Périer called attention to a new procedure for sterilizing and preserving ligatures and sutures, invented by M. Répin. This author, from numerous experiments, found that alcoholic vapor exercises a microbicide action sufficiently strong to remove any kind of micro-organism from ligatures. The most resistant spores such as the *bacillus subtilis*, anthrax, tetanus, and the septic vibron, were killed in from thirty-five to forty-five minutes