

1. It acts more rapidly than digitalis, and in fatty heart where the latter is contra-indicated, there is no doubt but that it does good.

2. It is tolerated better than digitalis.

3. Most patients prefer it to digitalis.

Where caffeine produces insomnia it is contra-indicated. To produce benefit the dose must be from 9 to 30 grains.

IODOFORM.—Iodoform is highly recommended in diphtheria. The manner of using it is as follows: It is applied locally to the patches in its purity, with a camel's hair pencil, every two hours. Others use it by spray, in the aqueous solution; in this way it corrects fetor. According to Billroth, we possess no antiseptic, not excepting carbolic acid, that is so trustworthy in making a foul wound sweet.

It is affirmed and denied that it possesses anti-tuberculous properties. It has an influence almost specific over tuberculous swellings and ulcerations. Dr. Henry claims to have cured a number of cases of tonsillar hypertrophy and ulceration by iodoform spray. Its odor is an objection to its extensive use.

BY H. MCKAY, M.D., WOODSTOCK, ONT.

PHYSIOLOGY seems to be recovering from the concentration of effort put forth at the International Medical Congress in 1881. In spite of the anti-vivisection embargo, the past year has shown advances, although chiefly on the old lines.

The Spleen a Portal Heart.—Dr. C. S. Roy has further developed his discovery that the spleen is the seat of perfectly rhythmical contractions and dilatations, independently of cardiac and respiratory movements. That in fact the spleen may be regarded as "a portal heart." This appears to be a new and important fact in physiology.

The Heart's Action.—Cardiac physiology has received a good deal of attention and a new impulse has been given to the innervation and mechanical movements by the opportunity afforded for observing the effects of stimuli directly to its substance in the case that occurred lately in Germany, examined by Ziemssen. A woman, æt. 45, had a tumor removed from the anterior wall of the thorax, which left the two ventricles and part of the left half of the diaphragm exposed. The following conclusions have been formulated: 1. That the contractions are evoked by the stimulus of alkaline blood to its mucous membrane (?), act-

ing through the ganglia of the sympathetic which are in connection with the vagus. 2. That their rhythmical character ultimately depends upon the peculiarity of the muscular tissue; and, 3. That the compensating rest of the heart is due to the nervous structure which might be represented as opening and closing the current.

Important information has been published on "The mean pressure and characters of the pulse wave in the coronary arteries," which appears to settle the question in favor of those who believe "the coronary arteries injected during the systole of the heart and not during the diastole. It is obvious the influence this would have on the nutrition of the heart in valvular lesions.

During the year important additions have been made to our knowledge of the composition of blood, as the discovery of a third or transparent corpuscle; the use of the hæmatocytometer facilitating calculations as to the absolute number of corpuscles in the medulla of bones; also that the white corpuscles contain a ferment that plays an important part in fermentation.

"The location of cerebral function" has occupied much attention, as also "Cross-action of the cerebral nerves."

Dr. Brown-Sequard writes that he is "convinced that irritation of the base of the brain and the adjacent motor regions causes convulsions more frequently on the side irritated than on the other. The superficial parts of the brain produce chiefly cross-convulsions, but irritation in all parts may cause convulsions on the same side, and that the chief foundation for the theory of psycho-motor centres and of the cross-functional relation between the hemispheres and the limbs must be considered to have lost its value; and that the excitor-motor zone of the cerebral surface, and indeed all the excitable parts of the brain, are capable of putting in action the limbs of the same side as well as those of the opposite." This is high authority for an opinion which no doubt will cause surgeons to hesitate before resorting to operative procedure in such affections as epilepsy, paralysis, etc., which it was supposed would be a sufficient guide to indicate the primary lesion or seat of disease.

Function of the Sympathetic.—The sympathetic nervous system, while closely connected with the cerebro-spinal, yet appears to have an independent action of its own. This is well illustrated by the