## NOVOCAIN.

We briefly alluded in our last issue to the use of Novocain as an agent in producing spinal analgesia. Mr. E. Canny Ryall, who advocated its use, in preference to stovaine, at the Annual Meeting of the British Medical Association, said, as reported in the British Medical Journal:—

Novocain has the following advantages when contrasted with stovaine: (1) Stovaine is acid in reaction and irritating, hence the "afterpain " which is so commonly complained of in the operation wound, following local or spinal analgesia. Novocain is neutral in reaction, non-irritating, and " after-pain " is never complained of in the operation wound. (2) Sto-vaine in over 10 per cent. solution, when injected beneath the skin, or left in contact with mucous membranes longer than ten minutes, is apt to cause sloughing. With novocain no such effect is produced. (3) The analgesia produced with stovaine is not reliable and is of short duration, whereas the analgesia produced with novocain-suprarenin is most reliable and of longer duration. (4) If a muscle-nerve preparation is made and the nerve soaked in a solution of stovaine, then taken out and washed with "Ringer's Fluid," and electrodes applied to the nerve, it is found as a rule that no contraction takes place in the muscle, or if it does it is very slight. This experiment demonstrates the deleterious action of stovaine on the nerve. If a similar experiment is carried out with novocain, a good contraction of the muscle always results. (5) With stovaine the bowels are frequently opened on the operating table soon after the spinal injection is given. This drawback seldom occurs with novocain. (6) Stovaine is more toxic than novocain, and has the most powerful action of any local anæsthetic on the motor nerves; hence it is more liable to cause respiratory paralysis. (7) Many deaths and several cases of permanent paralysis have followed the spinal injection of stovaine. Such catastrophes have not been recorded with novocain, although at the present time this drug is much more commonly employed than stovaine in Germany. From the foregoing remarks it will be seen that I think novocain is the drug most suitable for spinal analgesia. Technique.—1. Before operation: Castor-oil and pyramidon. 2. Injection: Patient seated with shoulders arched. Needle inserted through median plane. Patient kept sitting for five minutes after injection. Then placed in horizontal position, and head kept elevated. (3) After operation: Head kept elevated. Pyramidon exhibited.

## The Psychotherapy of Professor Dubois.

## By Miss M. Amy Turton.

## (Concluded from page 290.)

V.

THE CARDIAC TROUBLES OF NEUROTICS.

In dealing with the cardiac troubles of neurotics, Professor Dubois urges the utmost caution in the preliminary examination of the patient. "It is not sufficient to apply the ear through the clothing; a complete examination must be made by palpation, percussion, auscultation; the liver must also be examined, and the lungs; the urine be analysed, and the pulsations most carefully studied.

This examination must be so thorough as to leave no doubt in the mind of the doctor as to the possibility of the existence of organic trouble. He can then conscientiously inform the patient that he has no disease of the heart; that his palpitations, tachycardia, etc., are all nervous.

In this way Dubois has constantly put an end—from one day to another—to troubles which others have treated in vain during months or even years, as the following example will show.

The patient was a young married lady, rather reduced in weight, and showing signs of exaggerated emotionalism. For several months she had suffered from violent attacks of palpitation, which always came on at night, waking her from sleep, and giving her an agonised sensation of approaching syncope and death. The local practitioner had in vain attempted the usual remedies, and had sent her to Professor Dubois.

After his usual careful examination, the Professor was able to say: You have no symptoms of heart disease, therefore, however rapid your pulsations may be, there can be no real danger. It is fear which causes them; if you could lose this fear, they would quietly diminish. You say the palpitations are so violent that they wake you; probably they are caused by a dream which you do not even remember. But you get alarmed, you create a state of emotion. As emotions cause increase of heart beats, your pulse which was at 100 runs up to 120. This alarms you still more, and the pulsations reach 140. If, on the contrary, you would convince yourself that there was in reality nothing wrong with you, the pulsation would diminish.

The lady seemed to understand, and the following morning told the professor that she had slept well. But on pursuing his "psy-



