2. Neurology.

Influence of the Blood of Maniacal and Melancholic Patients on the Development of the Embryo [*Influence du Sang des maniaques et des hypomaniaques sur le développement de l'embryon*]. (*Rev. de Psychiat., March*, 1901.) *Ceni, C.*

This paper, a translation from the Italian, records the results of a series of experiments on the development of the embryos of eggs after inoculation with the blood from patients suffering from mania and melancholia.

The intra-albuminous method of Féré was employed, and ½ c.c. of blood-serum injected.

Three cases of mania were experimented with. In the first two cases of mania tried the results were negative; the third case, however, gave entirely different results. In two series of experiments with the serum of this case the first series gave no normal embryo, the second series 6·66 *per cent.* normal, while the control eggs gave 87 *per cent.* and 86·28 *per cent.* respectively; 60 *per cent.* of the above abnormal embryos showed distinct arrest of development.

The author has noticed this arrest of development in experiments he made with epileptic blood, and considers it due to a toxin in the blood, which has the power to influence development. In the three cases of melancholia tried, two gave negative results; the third case, more severe than the other two, gave 7·67 *per cent.* of normal embryos, while the control experiments showed 88·7 *per cent.* normal. The greater number of the above abnormal embryos showed red spots scattered along the primitive nervous axis, most numerous at the cephalic extremity; in most cases the blood circulated normally in these red spots, which were varicosities of the vessels, but some of them appeared to be ordinary hæmorrhages. These spots were shown microscopically to be due to rupture of primitive veins and arteries. The extravasation of blood was found in the mesoderm alone.

Dr. Ceni concludes that some substances circulating in the blood of the patient suffering from melancholia on introduction into the embryo produce weakness of the mesodermal tissues; the blood-pressure then causes the varicosities and extravasations of blood.

BERNARD STRACEY.

On the Toxicity of the Urine in the Sane and in the Insane [*Sulla tossicità dell' orina nei sani e negli alienate*]. (*Riv. Sperim. di Freniat., fasc. iv*, 1900.) *Stefani, U.*

This research was conducted with improved technique to eliminate certain errors and to permit of a truer comparison being made. Endovenous injections were used. In the larger series of experiments the urine was either diluted or concentrated to a uniform density of 1030. The rate of injection was also uniform, 1·5 c.c. per minute for each kilogramme. The toxicity was then calculated. The principal results were—(1) lethal action; during the course of any mental disease there were great irregularities in the elimination of toxic substances. These irregularities constitute the true differential charac-

teristic between the lethal action of normal urine and that of the insane. (2) Special actions; these are qualitatively the same in the two groups of cases, except that some of the urines from the insane have an antidiuretic power. The myotic power is frequently increased in the insane. The convulsive producing power is often marked, and in cases of *folie circulaire* is present even when the patient is well.

There exists a relationship between certain actions of the urine—myotic power and antidiuretic power; and certain clinical signs—contracted pupils and increase of the density of the urine.

J. R. GILMOUR.

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3. Physiological Psychology.

The Psychological Geography of the Brain Cortex and the Doctrine of Flechsig [*La Géographie psychologique du Manteau cérébral et la Doctrine de Flechsig*]. (*Reprint from Rev. de Psychol. clin. et thérapeut.*, 1900.) *Bianchi, L.*

Professor Bianchi claims to have pointed out seventeen years before Flechsig the existence of zones of association in the cortex. He recapitulated the views of the German professor already explained in this JOURNAL, and observed that Flechsig assigned to his anatomical researches a much greater importance than they really merit. He puts the question, Does the myelinisation of the fibres of the hemisphere follow a constant law? And if this be admitted, are we warranted in believing this geographical anatomy of development to be the foundation of a species of psychological geography? To judge by the changes which Flechsig has made in his own scheme, it does not appear that the complete development of the nerve-fibres occurs in an order so constant as to justify the inferences he makes upon them. Bianchi thinks that we may logically hold that the zones of association are but zones of perception arrived at a greater degree of development. He observes that it is not probable that there are in the brain cortex distinct areas set apart for sensations and the memory of these sensations. He thinks that the large portion of the brain in the occipital and parietal lobes has a visual function, and that in the anterior portion are registered the visual images which have associated the images of the graphic signs of words. All the large area of the cortex, called by Flechsig the parietal association zone, is nothing else than a portion of the hemisphere destined for the visual function in all its degrees, from the simplest to the most complicated. The perception of light has its seat in the calcarine fissure, the cuneus, and the occipital pole; while the oculo-motor functions, and the perception of the images of objects and the graphic signs associated with them, the more ideal products of mental activity, are recognised in the anterior portions of the visual sphere. Dr. Bianchi thus goes on:—"Nothing authorises us to regard this region of the cortex as the anatomical substratum of the highest intellectual processes in which are associated the images furnished by the different areas of perception and sensation,