

paper, which bears the sub-title, "A Contribution to the Ætiology of Epilepsy," a series of observations on the influence of the drug on the pulsations of the brain. The observations were made on a youth æt. 18, who suffered from traumatic epilepsy, and had had a large part of one parietal bone removed by operation. A sheet of lead-foil placed over the aperture in the skull and fixed at the edges with putty formed a flexible diaphragm, the movements of which, corresponding to the cerebral pulsations, could be recorded by means of a Marey's tambour. Doses of ethylic alcohol varying from a minimum of 10 grm. to a maximum of 100 grm., in dilutions of 10-15 *per cent.*, were administered to the patient, and the resultant changes in the tracings observed. Very small doses failed to produce any clearly marked effect, but with doses of 15 grm. definite modifications were noted within five minutes, and with larger quantities of alcohol increasingly distinct and persistent results were observed. These latter results show sufficient resemblance in type to those produced by the smaller doses to indicate, in the author's opinion, a definite and characteristic mode of reaction to alcohol. This reaction depends on two factors, the effect of the drug on the heart and its effect on the cerebral blood-vessels, and is shown in rapid modifications of volume in the cephalic mass, disorder of the pulse rhythm, and alterations of hyper- and hypo-tonicity in the vessels of the brain. The tracings which most clearly exhibit these characteristics, such tracings as are obtained, for instance, after two doses of 50 grm., given with an interval of two hours, show a very striking similarity with the tracings described by several authors (Todorsky, Capriati, D'Ormea, Collucci) who have studied the condition of the cerebral circulation during the epileptic attack. Without wishing to press the argument from this resemblance too far, the author suggests that it is deserving of note in connection with the many other facts which point to a community of character in the cerebral condition in epilepsy and in alcoholism. As specially bearing on this point, reference is made to the clinical evidence of the importance of parental alcoholism in the ætiology of epilepsy.

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Investigation of the Colloid Substance of the Urine of Epileptics and Insane Persons [Untersuchungen über die Harnkolloide von Epileptikern und Geisteskranken]. (Zeitschr. f. d. gesamte Neurol. u. Psych., vol. vii, No. 1.) Loewe, S.

Following on the premiss that epilepsy may be caused variously by disturbances toxogenetic and purely chemical or by those merely local and mechanical, the question arises—"Are there cases of epilepsy in which blood changes are the cause of the epileptic seizure?" Assuming that this is so, Dr. Loewe has made interesting experiments on the urine of epileptics, paralytics, etc.

The method of analysing the urine is that suggested by Hofmeister, who has pointed out that although normal urine contains toxins, these are only found in a minimum degree in the colloid substances separated by dialysation. It is also shown that toxins appear in the colloid substances under numerous pathological conditions, such as pneumonia, eclampsia, uræmia, etc., and that these toxins differ from the toxin

found in a slight degree under normal conditions not only quantitatively but qualitatively.

Dr. Loewe very clearly demonstrates by his experiments that there is a remarkable increase of the colloid substances in the urine of epileptics. This increase varies, and it is especially great at the time of the epileptic seizure, sometimes even attaining to 5.5 c.cg. in the day. It is accompanied by an increase of toxins in the form of colloid phosphoric combinations, which, however, are generally only present after a seizure. Increase of the colloid substances is also found in cases of catatonia, hebephrenia, general paralysis, and delirium tremens. It is most pronounced in catatonia. In general paralysis it is only found after epileptiform attacks. But there is no phosphorus colloid substance corresponding to the increase of colloid substances as in epilepsy; although there is a high toxicity in catatonia, paranoic dementia, general paralysis and delirium tremens.

Experiments to the number of 150 were made by injecting intravenously solutions of the colloid substances taken from the urine of epileptics, insane and normal persons, into guinea-pigs and rabbits.

The injections taken from the urine of epileptics from one to five days after the seizure produced in many cases typical epileptic seizures, generally followed by death in a typical position. Colloid substances taken from the urine of persons suffering from the insanities noted above, and injected into guinea-pigs and rabbits, acted variously, generally causing death. The toxin in these cases, being materially different from that found in epilepsy, did not assert itself in epileptiform symptoms. The solutions taken from normal urine produced no reaction.

HAMILTON MARR.

The Mechanism of Injuries to the Cervical Spinal Cord [Zur Mechanismus der Verletzungen des Halsmarkes]. (Jahrbuch. f. Psych. u. Neurol., xxxii, No. 3.) Fuchs, A., and Schacherl, M.

The case of a female suffering from two wounds in the neck is described to prove that injury to the medulla spinalis may possibly occur without damage to the vertebral column.

HAMILTON MARR.

2. Ætiology of Insanity.

(a) *The Study of Human Heredity*; (b) *The Heredity of Feeble-Mindedness. (Two bulletins issued by the Eugenics Record Office, Cold Spring Harbour, N.Z., May, 1911.)*

The first of the above papers gives an account of the method of collecting and recording the facts necessary for the study of the heredity of mental disease which has recently been adopted in America.

The chief modification in the method of collecting data consists in the employment of a "field worker" to supplement the usual interrogation of the patient and the inquiry by means of a form to be filled up by the relatives. The "field worker" is preferably a woman. Her