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]. (Yahrbuch. 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 function is to visit all the relatives of the patient, the family physician, and any other person who can give information about any member of the family as far back as it can be traced.

An attempt is made to obtain a detailed life-history of every such member of the family, including a description of the mental and

physical state, habits, illnesses, and cause of death.

The "field worker" is armed with all previously acquired information and interviews the patient just before visiting the friends. She is given explicit instructions as to the particulars to be elicited, but uses no printed form in noting them. Where relatives exist in localities worked by other investigators she is expected to record their addresses for the use of the latter. Several visits are generally found necessary to complete the pedigree. The "field worker" is also found useful as a means of keeping in touch with discharged patients and of discovering other individuals who require care. Every attempt is made to establish a friendly footing with the patients' relatives and apparently with success in America. The investigator is instructed in the Mendelian rules of heredity that this understanding may direct inquiries, but she is warned against being biassed in the collection of facts by any knowledge of what is expected. The paper includes a brief statement of the Mendelian rules for the transmission of simple unit characters.

The method of recording data which is described includes a mode of charting recommended by a committee of the American Association for the Study of the Feeble-minded. It is one which enables the clear expression by means of symbols of practically all the points of import-

ance about every discoverable member of the family.

The second of the papers mentioned above is an example of the application of these methods to the study of the transmission of feeble-mindedness. It includes fifteen pedigrees of patients admitted to the training school at Vineland, N.Z. Each pedigree records the presence or absence of feeble-mindedness and allied traits in every member of all branches of the family for three, four, or even five generations.

Such pedigrees naturally involve an enormous amount of labour in collection, and this is only a preliminary report. No statement is made as to the standard adopted in labelling individuals as feeble-minded. The pedigrees are presented without analysis to determine how far the transmission accords with Mendelian rules. In general they suggest that the defect behaves as a recessive to the normal state. To the reviewer, however, it appears that the mode of transmission in a few instances is incompatible with this simple formula. In order to include others within it it would be necessary to make assumptions for which there is no evidence without the history of a generation either preceding or succeeding those actually investigated.

EDWARD MAPOTHER.

## 3. Clinical Psychiatry.

Amnesia in General Paralysis [L'Amnesia dans la Poralysie Generale]. (Gaz. des Hôp., Aug. 5th.) Benon, M. R.

This paper consists of a discussion of the fundamental characters of