more considerable albuminuria; a series of attacks does not lead to a like increase.

6. In two attacks of simple vertigo, which supervened in one of the two patients who presented normal psychical conditions, no albuminuria occurred.

7. The amount of indican varied with that of albumen, the former

diminishing pari passu with the latter.

The author explains this albuminuria (1) by renal stasis, secondary to the initial tonic stage of the fit and to the dyspnæa of the second stage; (2) by cerebral excitation produced by the stasis in the domain of the intra-cranial organs; (3) by excitation produced at the bulb (albuminogenous centre of Bernand); (4) by the toxic influence exercised upon the renal epithelium by the augmentation of the normal products of metabolism (urea, &c.) and by toxic products from the intestine; (5) by the intense muscular work, increased cutaneous and pulmonary exudation, and rise of temperature.

P. Galanti publishes an article upon Gastric Digestion in Melancholia, from which it is to be gathered that there is in this disease a diminution in the excito-motor power of the stomach, so that after one hour of ingestion of the experimental meal of Ewald 113 to 200 c.c. of chyme,

on an average 163 c.c., were to be found in that organ.

The alimentary substances being retained in the stomach, there result fermentative processes and the development of organic acids, which, according to Bouchard, would give origin to products analogous to ptomaines, with toxic effects upon the organism. There is also evidence of the transformation of peptones into organic (toxic) bases, in consequence of putrefaction. These observation are in harmony with the indications of modern research, which tend to regard melancholia as a malady due to specific toxic influences. Hypochondriacal delusions may well be ascribed to gastro-intestinal disturbances, dependent upon gastric hypokinesis and abnormal gastric digestion.

G. Bellisari has conducted a research upon the Secretion of Hydrochloric Acid in Epileptics, from which it appears that there exists in the stomach of epileptics during fasting a quantity of HCl, which is pretty constant. This is much in excess of that which is met with in healthy persons. The quantity of free HCl reaches its maximum after the convulsive seizures, then gradually diminishes to the point of disappearing, without being influenced by the near approach of a fresh attack.

ASYLUM REPORTS, 1897-8.

Some County Asylums.

Warwick.—We are glad to see that Dr. Millar has put before his Committee the benefits to be expected from combining provincial asylums for the institution of systematic pathological research.

The benefits to be derived from the carrying out of systematic pathological research has frequently been impressed upon us, and I am certainly of opinion that such work should be done, but I think the best method for carrying out such research, and arriving at conclusions which would be of real value, would be for this county to amalgamate with three or four neighbouring counties and have a joint laboratory, situated in a central position, and presided over by a thoroughly competent pathologist, devoting his entire time to his work, and have assistants who could pay periodic visits to the asylums and procure material for investigation. The laboratory would be available for use by the staffs of the contributory asylums, members of which could meet at the laboratory for discussion, and benefit by the instruction and research of their pathologist. This arrangement is really no novelty, nor am I advocating it as such. The London County Council have a similar institution, and there is also one in Scotland, where excellent work has already been done.

Wiltshire.—We note that a considerable number of Boards of Guardians send deputations to inspect their patients. These deputations not only leave excellent reports, which are published, but make recommendations on their own account, which show much common sense and must ease the work of the County Council in defending expenditure made on the lines of the recommendations.

Wakefield.—Dr. Bevan Lewis writes:

With respect to the modern treatment of insanity, it may, I think, be safely stated that never before in the history of lunacy in England has so keen an interest been shown in its economic and humanitarian aspects; so much thoughtful consideration given to the problems involved; or such conscientious activity been directed towards their solution. In recent efforts made by the Councils to cope with the vast aggregate of the insane population, it cannot be gainsaid that in providing such accommodation, strenuous attempts have been made to render it the best possible in accordance with the experience of bygone years and the dictates of modern science.

It is only fair to reply to the pessimism with which the results are often criticised that such measures are comparatively of recent date; that we have to contend with an ever-increasing complexity in the social fabric, itself an element in the furtherance of brain disease; and that our population has yet to be taught to a large extent that license is not liberty.

Some Hospitals.

Barnwood.—We fully endorse the following remarks by Dr. Soutar:

The general entertainments (of which there were many) to which nearly all go—such as the dances, theatrical performances, concerts, &c.—have their value in diverting thought from morbid channels, but of even higher value in rousing interest are those smaller social gatherings where each has to give of his or her talent for the benefit of all. The nearer we can approach to individualising patients and to adopting the most appropriate means in each particular case for reviving dormant interests, the greater is our success in promoting the well-being of those under our care.

The Lawn, Lincoln.—This institution does much good work with a very moderate income and with next to no aid from investments and subscriptions. We read with pleasure these remarks by the Commissioners:

We paid special attention to every recent case here and were quite satisfied as to the propriety of their detention. There are some very troublesome cases on the female side, but we are pleased to learn that Dr. Russell does not consider in

this charitable institution that he is justified in turning out a patient who is above the pauper class because she is troublesome, destructive, or of degraded habits.

Warneford Hospital.—The satisfaction which is felt on reading that Dr. Bywater Ward had been accorded a liberal pension on his retirement is destroyed by the news of his death subsequently. For many years past he managed this institution on successful lines with a slender income, which, however, is substantially increased by endowments. We wish Dr. Neil, who follows him, equal success.

Wonford House.—This is another institution which, with a moderate income, does an immense amount of good for the necessitous insane. We are pleased to read that its financial position, which was an anxious one a few years back, is steadily improving, and thus rewards Dr. Deas's unremitting exertions. Dr. Deas writes:

But experience in other places seems undoubtedly to tend to the conclusion that the depressing types of nervous and mental instability are increasing. Some are inclined to think that the prevalence of the influenza poison lowers directly the resistive powers of the nervous system, but it is quite as likely that the depression following influenza is only an illustration of the tendency of which we are speaking, the roots of which may really lie much deeper, in the conditions of modern life, and the prevailing tone and tendencies of thought and belief. In certain temperaments these are eminently calculated to produce a pessimistic, restless, unsatisfied state of mind, ready to follow any "will o' the wisp," however baseless and extravagant, which is a very poor sort of armour when confronted with the real troubles and trials of life.

Some Scottish Royal Asylums.

Edinburgh.—The present report for 1897 enables us to get at something like the approximate cost of Craig House. To the end of the year £140,000 had been spent on buildings and equipment, interest on money borrowed during building, and all other expenses except the purchase of land. It will thus be seen that the average cost of accommodation for each of the 200 patients for which it has been designed is about £700. Comparing this with the rumoured cost per head of some of the newer pauper asylums in Scotland, it must be apparent that very excellent use has been made of the money. Of course the land has to be reckoned in addition, and also the absence of stores, laundry, and some other central and administrative provision which would come within the per caput cost of a county asylum, while, per contra, interest on money would have to be deducted. But when all this is done, an institution, which must have struck the members of the Association on its visit to Edinburgh as efficient and magnificent, liberally furnished, appropriately decorated, and in every way worthy of its high purpose, has been provided at a cost that cannot be regarded as anything but moderate. This happy result is undoubtedly due to the expenditure of an immense amount of brain, capital, and contrivance on the part of the designers.

Some excellent plates in the report will convey to those who have not seen Craig House an idea of what has been done.

James Murray's.—Dr. Urquhart writes:

Of late years we have received many more voluntary patients for care and treatment. Some have been manifestly unsuitable for admission on these terms,

many have been habitual drunkards. There still remains a class of borderland cases who have felt that they were taking the right course in their own interests by thus entering the institution, as they would seek relief in any other private hospital. No doubt this tendency towards voluntary treatment, rather than the apparatus of legal formalities, is consequent on the changed circumstances of asylums, and a growing confidence in modern methods. When the asylum is still further developed by additional houses apart from the main building, this class of patients will probably increase, and their special wants should be met. I urge that these separate houses should be of small size, and so designed as to approximate as closely as possible to the ordinary conditions of home life.

Some Scottish District Asylums.

Barony Parish.—We commend the idea set out in the following extract from the Committee's report:

The Committee were of opinion that a more varied industrial scheme than at present exists would be helpful to the patients, and authorise the medical superintendent to make arrangements for the employment of suitable persons at gardening, basket and mat making. It is hoped the experiment in one or other of these industries will soon be tried.

The Brabazon Employment Scheme, started primarily for the benefit of poorhouse inmates, was, by permission, commenced at Woodilee on 14th January, 1898, and the success which it has attained is a powerful encouragement to the Committee to continue these efforts to secure more varied employment for Asylum patients. Woodilee is the first asylum in Scotland where such a scheme has been tried.

RETROSPECT OF PHYSIOLOGICAL PSYCHOLOGY.

By Havelock Ellis.

Acoustic Space.—Weber seems to have been the first to call attention to the errors in localising sound. The problems involved are apparently two: (1) the perception of the direction from which a sound comes and (2) the perception of its distance. Mr. Matatoro Matsumoto has lately been working at these two problems in Professor Scripture's laboratory at Yale (in continuation of experiments he had already begun at Professor Motora's psychological laboratory at Tokyo—"Researches on Acoustic Space," Studies from the Yale Psychological Laboratory, vol. v, 1897). In the first series of experiments the subject is seated blindfold and with head in a head-rest, in a spherical cage, so constructed that its axes furnish twenty-six terminal points. The experimenter gives a short sound at one of these points, and the subject judges the direction of the sound. A telephone or a small metallic hammer was used to produce the sounds, and fifty experiments were made for each point. If the matter were regulated by chance the correct judgments would not exceed forty per thousand trials, but they really amounted to 768, so that the perception of the direction of sound cannot be regarded as purely accidental. Moreover not one of the twenty-six directions was actually confused with more than eight direc-