Dr. W. Ross ASHBY then read a most interesting paper entitled "The Measurement of the Corpus Callosum in the Mental Defective" (see below). This was followed by a cinematograph film entitled "A Clinical Study of Mental Deficiency".

After the meeting members and their guests were entertained to tea by Dr. and Mrs. Stewart.

PAPER.—" The Measurement of the Corpus Callosum in the Mental Defective," by W. Ross Ashby, B.A., M.B., Ch.B., D.P.M., Assistant Medical Officer, Leavesden Mental Hospital. [Abstract.]

At this hospital we have been investigating a number of questions regarding the morphology of the brain in mental defectives. This investigation of the corpus callosum is given as an example of our methods.

The area of median cross-section of the corpus callosum was measured in the brains of 69 persons, 60 being unselected defectives of various mental ages and 9 being normal. The most satisfactory method devised consists in projecting the cut surface from an epidiascope, receiving the magnified image on a table and measuring the area with a planimeter.

In examining the results of the measurements, two features were found. Firstly it was found that the corpus callosum was more variable in the lower grades. This increased variability in the lower grades has been noticed by us to be a constant feature in measuring the brain and body of defectives. At present its significance is obscure. Secondly, we have found, by calculating regression coefficients and testing for significance, that the area of the corpus callosum shows some correlation with mental age. This fact is interesting, but before any conclusions can be drawn as to a *causal* connection between the two, there are certain essential points to be considered. The existence of a significant correlation does not prove causation.

In a recent paper (Journ. Neur. and Psychopath., 1933, xiii; see abstract on p. 547 of this Journal) we have found that there is a general tendency for defectives as a whole to be smaller the lower the mental age. This means that any measurement on defectives will show correlation with mental age. Consequently before we can draw any conclusions about the connection between mental age and the corpus callosum we must first eliminate the general trend.

When this general trend is eliminated we find that the correlation becomes insignificant, showing that the correlation was merely due to the corpus callosum following the general trend in size.

The general conclusions, then, are that the area of the corpus callosum shows a significant correlation with mental age, but that, on further examination of the data, this correlation is found to depend merely on the general trend in size.

SOUTH-WESTERN DIVISION.

THE SPRING MEETING of the Division was held by kind invitation of Dr. S. J. Gilfillan at Bailbrook House, near Bath, on Thursday, April 27, 1933.

Bailbrook House, near Bath, on Thursday, April 27, 1933.
The following members were present: Drs. J. L. Jackson, John Keay, R. Eager, G. de M. Rudolf, E. Casson, J. M. Rutherford, J. D. Thomas, E. Barton White, W. G. Rivers, J. P. Westrup, P. W. Carruthers, J. W. Leech, A. S. Mules, C. F. Bainbridge, V. L. Connolly, W. R. Dawson, J. McGarvey, E. A. Patterson, J. G. Smith, P. Lornie, G. W. T. H. Fleming, L. Barber, P. G. Grant, R. W. Maxwell, and the Hon. Divisional Secretary, Dr. S. Edgar Martin.
Dr. L. R. D. Bhilling March E. Nammer, Mr. D. A. Thomas, M. C. Thomas, attended

Dr. J. R. P. Phillips, Mr. C. E. Newman, Mr. P. A. Thomas and Miss M. C. Thomas attended as visitors.

Dr. E. Barton White was in the Chair.

Apologies for absence were received from Col. E. W. White, Dr. W. S. J. Shaw, J. S. I. Skottowe and H. A. Scholberg.

The minutes of the last meeting were read and confirmed.

On the proposal of Dr. E. BARTON WHITE, seconded by Dr. J. L. JACKSON, Dr. S. Edgar Martin was re-elected Hon. Divisional Secretary.

Drs. E. Barton White and J. L. Jackson were elected as representative Members of Council on the proposal of Dr. C. F. BAINBRIDGE, seconded by Dr. J. P. WESTRUP.

Dr. J. L. Jackson was elected Divisional Chairman on the proposal of Dr. C. F. BAINBRIDGE, seconded by Dr. J. McGARVEY.

Dr. J. L. JACKSON then took the chair, and said he was sure that he voiced the feelings of members when he said they were all sorry to lose the services of Dr. Barton White as their Chairman. Dr. Barton White had been an ideal Chairman, and it would be difficult for him to follow in his footsteps.

The following motion was discussed at some length, after Dr. EAGER had amended it to read "in an approved hospital or institution ":

"That steps be taken to draw the attention of all Examining Bodies conferring the

D.P.M. to the desirability of candidates passing such examination giving proof of having held a residential appointment in an approved mental hospital for at least two years before such Diploma is conferred ".

Drs. FLEMING, CASSON, MCGARVEY, LEECH, WESTRUP, RUDOLF and JACKSON all spoke in favour of the resolution. Dr. EAGER having replied, it was agreed that the resolution should be forwarded to the Educational Committee.

The question of the place of the Autumn, 1933, meeting was left in the hands of the Hon. Divisional Secretary.

A letter was read from the President-Elect, Dr. F. Douglas Turner, regarding the forthcoming Annual Meeting of the Association.

Dr. G. DE M. RUDDLF then read a paper entitled "The Mental Defective Institution in the Prevention of Crime" (see below). Drs. J. L. JACKSON and W. R. DAWSON spoke in favour of more attention being paid to the question of mental deficiency, and pointed out how backward several of the counties in England were with regard to provision for the care of mental defectives.

Dr. J. L. JACKSON proposed and Dr. E. BARTON WHITE seconded a hearty vote of thanks to Dr. Rudolf for his very interesting paper.

During the morning members had the opportunity of inspecting Bailbrook House and its beautiful grounds. They were entertained to luncheon and later tea by the kind invitation of the Board of Directors, who were represented at the luncheon by Mr. E. M. Wright, Deputy Chairman, and Major F. Danford Thomas, in the unavoidable absence of the Chairman, Lieut. Col. E. W. White, C.B.E., a former President of the Association.

Members expressed keen interest in the history and the many interesting architectural features of this old mansion, which was built towards the end of the eighteenth century. The first occupant was Mr. Denham Skeet, LL.D., for whom the house appears to have been built by one John Eveleigh, a speculative builder, who is said to have designed it originally as a shooting-box for the then Prince of Wales. A later occupant was Lady Isabella King, who founded an institution, under the patronage of Queen Charlotte, "for improving the position of ladies of respectable character and small fortunes". Queen Charlotte herself is known to have visited the house on one occasion while staying in Bath.

On the breaking up of this Society the house was used as a school for a time, but in 1831 it was purchased by Messrs. Terry & Dutton, who converted it into a "mental home", and as such it has been continued to the present day.

Dr. J. L. JACKSON proposed, and Dr. E. BARTON WHITE seconded, a hearty vote of thanks to Dr. S. J. Gilfillan and the Directors of Bailbrook House for their kind hospitality.

PAPER.—" The Mental Defective Institution in the Prevention of Crime," by G. de M. RUDOLF, M.R.C.P., D.P.H., D.P.M., Medical Superintendent, Brentry Colony.

Many mental defectives commit crimes and thereby become criminal defectives. Some of these do so because they are ill-treated, as, for instance, starved. Others do so from vicious motives, as, for instance, incendiarism. The nature of the crime committed varies. In the *Annual Report of the Board of Control for 1931*, the crimes committed by the 306 criminals dealt with in that year under the Mental Deficiency Acts varied from murder, suicide, assault, arson, warehouse breaking and sexual offences, to trifling theft and wandering without visible means of support.

It is clear that in so far as mental defectives can be detained in institutions throughout their lives, whereas the non-defective criminal cannot, except for very grave offences, a mental defective institution must prevent crime merely by giving the defective no further opportunity to break the law. From this point of view, the mental defective institution may prevent more crime per criminal than does the prison. A prisoner, once his sentence has passed, is able to recommence his criminal activities, whereas a mental defective is not permitted to leave the institution until the likelihood of his return to crime has disappeared. The extent to which crime is prevented by the detention of defectives may perhaps be gauged by the number of criminal defectives detained. On January 1, 1932, these numbered 3,242 (Board of Control's Report for 1931).

There is, however, a far more important phase of the mental deficiency institution. Does it train criminal defectives to be able to go out into the world and remain at liberty without committing further crime ?

In order to determine this point, the cases of 31 criminal defectives who have been admitted

to Brentry Colony and who have been discharged or sent out on licence have been reviewed. No selection of cases has been made.

Of the above 31 criminal defectives, one, a post-encephalitic, was sent to a mental hospital. Of the remaining 30, 2 committed further crime. One of these committed larceny after being away from the institution for $2\frac{\pi}{12}$ years, and the other stole money $2\frac{1}{12}$ years after receiving his discharge. Thus 28 (or 93.3%) of 30 criminals have committed no crime for periods of observation varying from 1_{15} years to 9_{17}^{+} years after leaving the Colony. These crime-free periods are not due entirely to the training received in the institution.

After the defective leaves the boundary of the Colony he is seen and assisted by visitors of the local authority concerned. There is no doubt that this visiting helps the defective to remain a law-abiding citizen, even though he is visited perhaps only occasionally. On the other hand, the discipline taught and the habits inculcated in the defective at the institution bear, no doubt, a large share in the improvement.

Unemployment would be expected to increase the liability of a defective to commit crime. Despite this handicap of unemployment for periods varying from some months to three years, 12 (or 92'3%) out of 13 defectives committed no crime. The numbers are small, but it is of interest that the percentage of 92'3 for unemployed closely resembles that of 93'3 for the whole series of 30 cases.

Of the two largest groups of crime, namely theft and sexual offences, the mean periods of observation after leaving the colony were $4\frac{1}{12}$ and $4\frac{1}{12}$ years respectively. On the other hand, the mean duration of stay in the colony was $4_{1\Xi} + \frac{1}{2} + \frac{1}{2}$ years, whilst the mean maximum weekly wages were 47s. 4d., and 26s. 11d. No doubt sexual offences are committed by lowergrade defectives who earn smaller wages upon returning to the outer world. For a similar reason the mean duration of stay in the Colony is longer in the case of defectives committing theft. Many higher-grade patients are less able to control their asocial habits, and so require a longer period before being allowed outside the institution.

Despite the shorter stay of the 11 defectives who had committed sexual offences there were no further crimes committed after leaving the institution, whereas of the 16 cases committing theft, 2 committed further theft after leaving the Colony. The periods of observation in the two groups were approximately the same. There is therefore apparently less risk of defectives who have committed sexual offences committing further crime than there is in the case of those who have committed theft.

Eight defectives committed multiple crimes, one as many as five. These crimes are, of course, only those detected by the police; there may have been many undetected. Amongst these 8 patients, ten crimes could have been avoided if the patients had been certified as mental defectives and placed in institutions after the commission of the first offence, instead of being allowed their freedom with the opportunity of committing further criminal acts.

In 1931, 306 criminal defectives were dealt with in England and Wales. This statement implies that at least 300 crimes could have been avoided if the defectives had been certified before, instead of after the commission of criminal acts. The actual conditions indicate that defectives who commit crime are not always dealt with under the Mental Deficiency Acts; in consequence the total crime caused by mental defectives is greater than suggested by the above figures.

The fact that these potential criminals are allowed to be free to commit crime amongst the general public when powers already exist for their training is surely a slur upon all those authorities who are responsible for the protection of the public from criminal activities.

My thanks are due to the visitors of the 9 County Councils and 7 County Borough Councils who have kindly forwarded reports upon patients who have left the Colony.

The multiplicity of authorities forwarding reports precludes bias due to peculiarities of any one authority. Thus the above findings may be taken as representative for a small series of cases in parts of England and Wales. There is no reason to suspect that results would be greatly different in other parts of the country, particularly as both urban and rural areas are included.

NORTHERN AND MIDLAND DIVISION.

THE SPRING MEETING of the Division was held by the courtesy of Dr. B. H. Shaw at the County Mental Hospital, Stafford, on Thursday, April 27, 1933.

The following members were present : Drs. Archdale, Bain, Blair, Brunton, Dove Cormac, Drury, Erskine, Forrester, Fox, Gilmour, Healey, Henderson, Hopkins, Kirwan, Duncan Macmillan, Macdonald, McGrath, Malloy, Menzies, J. J. O'Reilly, Panton, Parkin, Paul, Pickworth, Potts, Russell, D. J. Selkirk, Selkirk, Sharpe, Starkey, Stephens, Tisdall, and Wilson.