In 1893 a change was made in the style of the tables of "Criminal Statistics," and for the period prior to that year the numbers in columns 8 and 9 are compiled from "Offences determined summarily," given in Table 7 of these Reports.

For their kindness in supplying me with information I beg to acknowledge my indebtedness to the Home Secretary; to Mr. Dalziel, Secretary of the Monmouthshire and South Wales Coal Owners' Association; Mr. Ballinger, of the Cardiff Free Library; and Mr. A. Capel Shaw, of the Birmingham Central Free Library.

Clinical Notes and Cases.

Clinical and Pathological Notes.—II. By Dr. M. J. NOLAN, Resident Medical Superintendent, Down District Asylum, Downpatrick.

CASE 5. *Microcephalic idiocy; epilepsy; cerebral asymmetry; microgyria; ulegyria; scalp suggestive of atavism.*—H. C—, æt. 41 years, admitted to asylum from a workhouse August 4th, 1902; died of epilepsy December 22nd, 1902. No previous history obtained.

His physical appearance would have rejoiced the heart of an evolutionist, as *primâ facie* he was a perfect specimen of the Simian type. His dwarfed figure was bent forwards; his coarse grinning face seemed to protrude from between the misshapen spreading ears. The small receding skull was encased in an ill-fitting scalp, on which the rough black hair grew in ridges. He progressed by means of a side shuffle, preserving his equilibrium by spreading out his elongated forearms. He gave vent to meaningless spasmodic grunting sounds. In personal habits he was most depraved, showing an absolute disregard of the calls of nature. His voracious appetite was apparently gratified by the ingestion of any material. There was nothing calling for special comment in the nature of his epileptic seizures, which were frequent and severe. He was deaf and dumb. Beyond grabbing clumsily in the neighbourhood of his genitalia, he gave no indication of sexual feeling. An examination as to his mental faculties had an almost negative result. He could not

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be said to possess any one of the intellectual faculties except in the most rudimentary degree. Hence in describing his appearance it was stated he was *primâ facie* of Simian type, but his intelligence was infinitely below that possessed by the ordinary anthropoid ape. He proved clearly the force of Dr. Ireland's contention that the intelligence of a monkey is very different from that of an idiot—the gauge of the Simian intellect cannot be reached by merely deducting so much from the human. H. C— was as far below the intellectual level of the average ape as the latter is inferior to the highly developed specimen (1) at present the delight and wonder of a London music hall, where, in spotless regulation garb, he discusses with evident appreciation and discrimination the elaborate *menu* set before him. H. C—, if placed before such a meal, would have brought his voracious appetite to play not alone on the viands, but on the napery, glass, and cutlery, and by preference would probably try the latter as a *hors d'œuvre*. During his period of residence here it required the undivided attention of the attendants to prevent him from eating filth and garbage, and otherwise unwittingly endangering his life by senseless acts.

Post-mortem examination.—The general condition of the organs called for no special remark. In the stomach, however, was found a ball of ingested material, mainly consisting of coarse mattress fibre. This mass, which simulated the shape of the stomach, showing very distinctly a greater and lesser curvature, weighed 10 oz. It lay quite free from attachment to the walls of the viscus, and its presence therein did not seem to have given rise to any inflammatory condition, though it must have been there many months, as the patient had no opportunity of obtaining the fibre in the asylum. [The mass was shown.]

The scalp, as already indicated, was abnormal,(2) rather loose over the skull; the hair arranged in rough ridges running in the sagittal direction, an arrangement giving him the appearance noted in some Carnivora. A portion of the scalp is now shown (see Plate I, fig. 1), also microscopic preparations of it; and an examination of each tends to confirm the theory which regards the condition as the possible result of a retrograde development rather than of a simple "hypertrophied scalp," *i.e.*, one which had been designed to cover a full-sized skull. I would invite special attention to the slide showing the section, which was prepared by my late assistant, Dr. J. H. Thompson, who found

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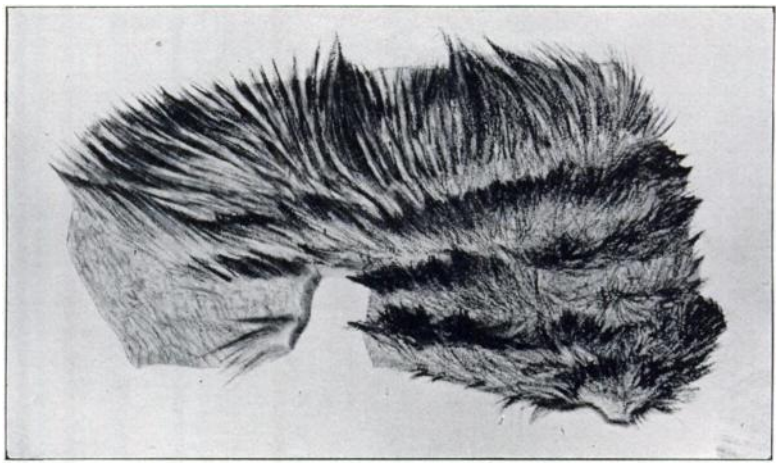


FIG. I.

Portion of Scalp of H. C., Microcephalic Idiot, Aet. 41 years, showing hair arranged *à la* Carnivora; the ridges run parallel to Sagittal Suture.

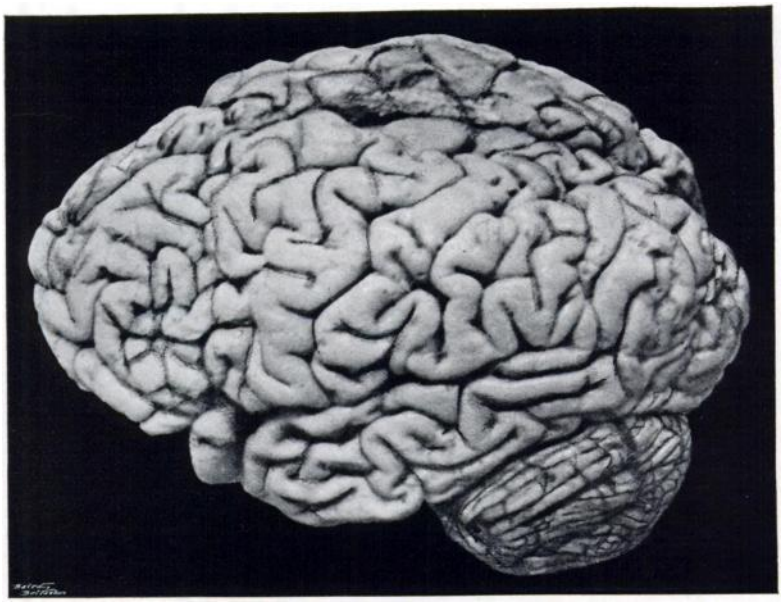


FIG. II.

Lateral View of Brain of H. C., showing Microgyria, Ulegyria, and shrinkage of left hemisphere, particularly in frontal lobe.

TO ILLUSTRATE DR. M. J. NOLAN'S PAPER.

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much difficulty in making the preparation owing to its extreme toughness. His effort, however, has been fairly successful, and has the merit of novelty, as Dr. Ford Robertson states no sections of abnormal scalp have been made so far as he is aware.

The skull at first sight presented no marked abnormality beyond its small size and exaggerated asymmetry, the left side being smaller than the right. Synostosis was complete. A close examination revealed, in addition to the usual characteristics of a microcephalic skull (sloped narrow frontal bone, deep temporal fossæ, narrow ethmoidal fossæ, prominent occipital condyles, large frontal sinuses, prognathous facial bones, narrow dental arcade), small areas corresponding to the frontal eminences, showing many depressions which caused a porous appearance. To this area on either side the dura was somewhat adherent; in the same manner the arachnoid was adherent to the dura by a cribriform arrangement; a villous growth covered it, to an extent corresponding to the site of the porous osseous areas.

The brain.—Seen *in situ*, the asymmetry of the cerebral hemispheres was at once apparent. An abnormal disproportion between the cerebrum and the cerebellum was also evident, the latter being unduly large in its relation to the former. When removed the organ weighed only 29 oz.

The convolutions of the left hemisphere presented a vermiform appearance; the sulci gaped and receded; the convolutions seemed to be contorted into numerous small gyri, each convolution being diminished in size, so that the complex condition of microgyria and ulegyria existed; the erosions on the surface, and the cicatricial indurations which characterised the latter, being well marked (see Plate I, fig. 2).

Fissures.—The fissures of Sylvius and Rolando were normal in direction and relatively in size, but in each hemisphere the Rolandic fissure commenced at a point posterior to the middle line of the longitudinal fissure, with the result that the frontal lobes were abnormally large. Only about three eighths of the parieto-occipital fissure was visible on the external surface.

Left hemisphere.—Frontal lobe: Ascending frontal convolution fairly well developed; superior and m ddle convolutions normal in position but badly formed; inferior convolution much atrophied, the gyri in consequence gaping and very irregular. Parietal lobe: Ascending convolution, like ascending frontal convolution, fairly well developed, but at upper end showed

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tenuity. Superior parietal lobule cramped, atrophied, and irregular; first annectant gyrus well marked, as were also both divisions of inferior parietal lobule. Occiptal lobe: Convolutions small and irregular. Owing to atrophy and recession of the gyri in the anterior part of the lobe there was a marked constriction, which threw the occipital portion into prominence. Left temporo-sphenoidal lobe: Superior convolution much wasted, with consequent gaping of the sulci. Middle and inferior convolutions below normal development.

Right hemisphere.—Frontal lobe: Ascending convolution well marked, while remainder of lobe was pretty clearly differentiated by the precentral and inferior and superior frontal sulci into the three frontal convolutions, all of which were well developed. Right parietal lobe: Convolutions and sulci normal in position, and, as compared with corresponding region on left side, were well developed. Right occipital lobe: Middle convolution particularly well developed. All the divisions of this lobe showed their connections with parietal and temporo-sphenoidal lobes, by means of the different annectant gyri, very plainly.

Remarks.—This case of genetous idiocy is an excellent illustration of the anomalous conditions which give rise to true microcephaly, as well as to those pathological changes to which developmental errors in structure render the fine organisation of brain tissue and brain function peculiarly liable. Clinically, a case of primary essential amentia may not be particularly attractive; yet the pathological investigation of such cases is fascinating to those interested in the study of brain as the organ of mind. It is satisfactory to find that recently, both at home and abroad, fresh interest has thrown much new light on the fundamental errors which produce this and allied conditions, and if we cannot cure idiocy we may at least learn the lesson of its ills. It has been truly said, though *not* by an Irishman, "that the great majority of imbeciles and idiots now living should have been treated three generations back." We must agree in the truth of the observation, and so by a more minute study of those unfortunate creatures who find their way into our asylums—

> "Their heads sometimes so little, there is no room for wit;
> Sometimes so long, there is no wit for so much room"—

we may lay the scientific foundation of such preventive measures as may tend to diminish the number of idiots and imbeciles three generations hence.

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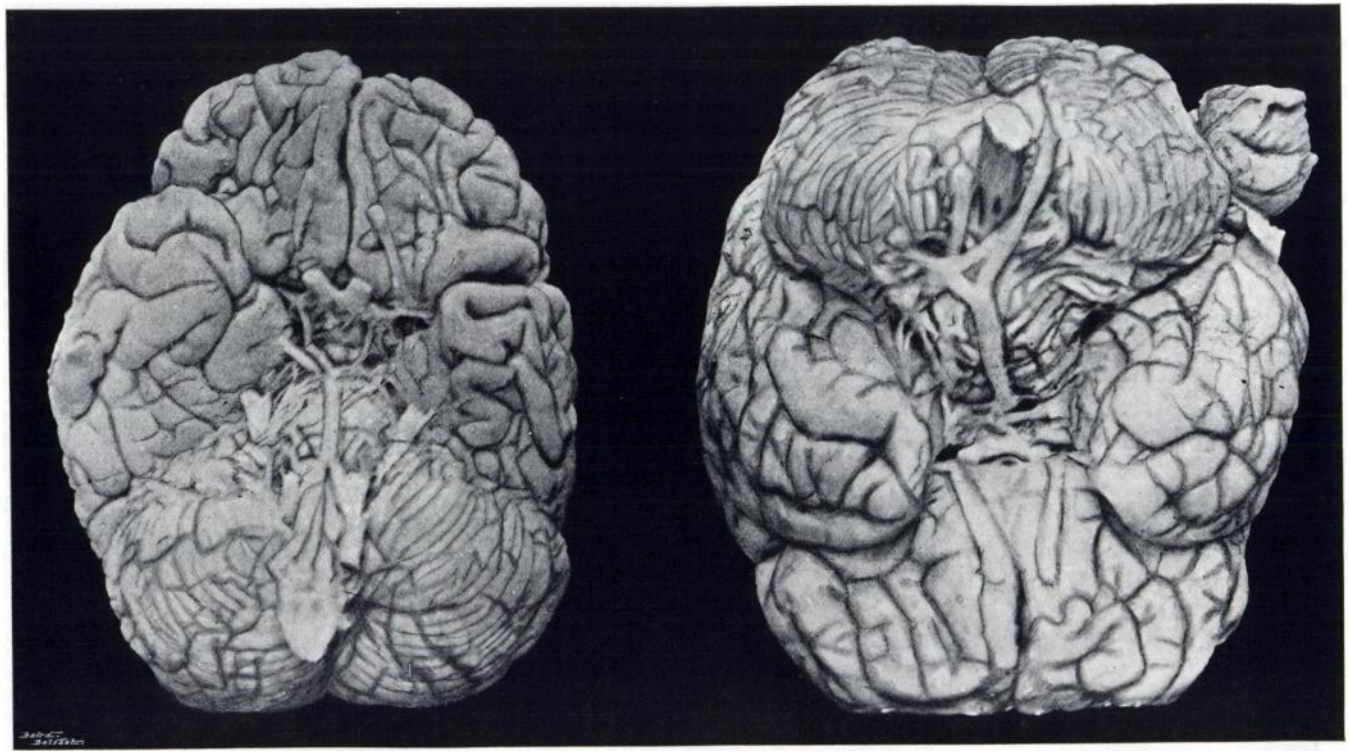


FIG. I.

Brain of H. C., Microcephalic Idiot, Aet. 41, showing Microgyria and Asymmetry.

FIG. II.

Brain of — M'C., Senile Dement, Aet. 93, showing Tumour springing from Tentorium-Cerebelli.

TO ILLUSTRATE DR. M. J. NOLAN'S PAPER.

CASE 6. *Senile dementia with vestigial delusions of erotomania; tumour of the tentorium cerebelli; ovarian cystoma.*—M. M. C—, a married woman of alcoholic habits, had her first attack of mania at the climacteric. She was then admitted to Belfast Asylum, was transferred to this asylum on November 16th, 1869, and died therein on April 14th, 1903, æt. 93.

From the available history of the case it would seem that at the onset of her mental disease she suffered from acute mania, marked by eroticism and delusions of great wealth. For very many years before the end she suffered from senile dementia of the ordinary type, but now and again she babbled of her wealth, and stated in automatic manner "that twenty-nine beautiful young men had built a castle for her; that she gave each a guinea a day and a jar of drink." She sometimes affected the coyness of maidenhood; at other periods she indulged unblushingly in erotic allusions, her conduct very often being refractory. Generally she was quiet and clean in her habits, and though she suffered from mitral valve disease, with emphysema of left lung, together with a large abdominal tumour, she was able to get about the house and grounds up to within a few months of her death. She never complained of headache or other pain; she had no paralysis or paresis, and no special sense disease.

The *post-mortem* examination confirmed the diagnosis as to the condition of her heart and lungs, and cleared up the nature of the abdominal tumour, about which there had been some doubt. It also revealed an unsuspected intra-cranial tumour, which had never given any indication of its presence by any obvious symptom or sign. On removing the calvarium it was noted that the skull was abnormally thin, and that a tumour was springing out between the right cerebral hemisphere and right lobe of the cerebellum (see Plate II, fig. 2). On removing the brain this tumour was found to be the size of a walnut; it was embedded between the folds of the tentorium cerebelli, and in a position to partially occlude the lateral sinus. The abdomen when opened was found to be almost entirely filled by a large tumour of smooth and glistening appearance, greyish in hue, and marbled over by numerous branching blood-vessels. It exercised great pressure on the intestines and other organs, particularly the left kidney, which was atrophied by compression; the right had taken on a compensatory hypertrophy. When

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removed the tumour was found to be an ovarian cystoma, containing some 12 pts. 8 oz. of a turbid fluid, sp. gr. 1010, in one large cyst. The base commenced in the parovarium on right side, and had stretched across the pelvis. The uterus was movable and normal.

Remarks.—The advanced age of the patient is of interest in view of her many and serious diseases. When she first came under the reporter's notice, some ten years before her death, she seemed wonderfully agile for a woman over eighty years of age and suffering from a multiplicity of disorders. Operative measures regarding the abdominal tumour were then considered, but set aside in view of the condition of her heart and lungs, which gave trouble each winter. The treatment was then directed to the betterment of the pulmonary and cardiac complications; and the constipation was relieved by regular administrations of aperients. The tumour seemed to remain stationary as to size.

The association of physical disease of the reproductive system with erotic delusions (persisting in this case into the dementia of extreme old age) is noteworthy. Some years ago, when making a *post-mortem* examination of another senile dement (who died of secondary cancer of the liver following primary cancer of the breast, which had been removed two years before), the left ovary was found to be the seat of a dermoid cyst. The patient was a demented old woman, but she was subject to very erotic outbursts, and described what she regarded as her sexual charms in very glowing language.

When in the Richmond Asylum the writer observed a young girl who died of acute lung trouble and double pyosalpinx. Her mental state had been characterised by a sexually perverted inclination towards the nurses, whose footsteps she literally licked and kissed when they evaded her erotic overtures.

The intra-cranial tumour is of interest, showing how little obvious disturbance may result from such a considerable growth, forming so great an obstruction to the free blood-current in the lateral sinus. From its position it must have retarded the passage of the venous blood, producing passive chronic congestion of the brain, resulting in mal-nutrition of a large area. A like pathological condition must have existed in the skull itself by reason of the obstruction to the veins from the diploe,

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and this probably accounts for the tenuity of the bones. Likewise the scalp suffered, and in this connection it may be noted that for a woman of her great years her hair was very luxuriant, and not entirely grey.

The sections of the tumour show it to be largely of a sarcomatous character, with several concentric bodies, some of which would seem to be of a psammomatous nature.

CASE 7. *General paralysis; syphilis; Pott's fracture, with repair ten weeks before death.*—W. H. T—, æt. 40, with a history of syphilis, was admitted from a workhouse on December 12th, 1902, in an advanced stage of general paralysis. Eighteen days after admission he had a seizure, followed by monoparesis and acute emotional outbreaks. He then passed into a generally tremulous state—marked restlessness, speech much embarrassed, and gait ataxic. On August 20th, eight months after his admission and some twenty months after the apparent onset of his disease, he slipped and sustained a Pott's fracture. This was treated in a plaster splint. The patient lay fairly quiet for some days, but he had repeated seizures, and after each lost ground. His heart softened and failed steadily, and he developed several evidences of trophoneurosis—formation of large isolated bullæ, an ulcer on dorsum of penis, an angio-neurotic œdema of lower extremities, dilatation of superficial veins, passive effusion into knee-joints, and intertarsal arthritis. Nevertheless the injured limb improved, so much so that some weeks before date of his death he used the limb getting out of bed, and placed his entire weight on it. On October 7th he had a severe and final seizure, from the effects of which he never rallied. He died on October 29th, ten weeks from the date of the fracture.

Remarks.—In the specimen exhibited it is seen that the injury was in the orthodox situation, and of classical character. The fact that it now shows complete repair is, from a surgical point of view, of interest on account of the two very unfavourable elements—syphilis and general paralysis. From a medico-legal point of view it is also of some interest, as it is obvious the accident did not accelerate death.

(1) "Consul" at the Hippodrome.—(2) The "hypertrophy" was not of the gross variety reported by Drs. McDowall and Cowan. In their cases the scalp was thrown into great rugose folds.

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