

Comparative Studies on the Growth of the Corpus Callosum.—I. On the Area of the Corpus Callosum, measured on the Sagittal Section of the Albino Rat Brain. (Journ. of Comp. Neurol., vol. xxxii, No. 1, August, 1920.) Suitsu, Nobuharu.

Absence or disease of the corpus callosum in man is often attended by idiocy or mental enfeeblement. Its area in sagittal section has been stated (Spitzka, Cameron) to be unusually large in individuals of recognised intellectual ability. Whether this is true or not can only be made certain after a more complete study of the growth of callosal area in man, considered in relation to the recorded brain weight and the abundance of the convolutions. As a first step towards further knowledge, the author has studied the growth between birth and maturity of the median sagittal sectional area of the callosum by observations on seventy-six albino rats, all from the rat colony of the Wistar Institute. Using planimeter measurements of Leitz-Edinger projections (magnification 20 diameters), he finds that the relation between growth of this area and growth in body weight may, for this animal, be expressed by the curve

$$y = 0.184 + 0.0003x + 2.08 \log x$$

in which y is the area in millimetres, and x the weight of the body in grammes. Calculating the brain weights from the body weights by the formula

$$Br. W. = 0.554 + 0.569 \log (\text{body weight} - 8.7)$$

he obtains expressions for "total brain area" as the square of the cube root of the brain weight (variations in specific gravity being thus ignored). With the curve for callosal area, given above, he is now in a position to compare a curve for total brain area, each of the two curves exhibiting a relation to body weight. The comparison shows that the growth of the callosal sectional area is slower than that of the total brain area. This relatively retarded and protracted growth of the callosum he elucidates by interesting observations on its myelination. He has also investigated the growth of the callosal area in relation to age, and the thickness of the callosum at the genu, truncus and splenium in relation to age. He adds comparisons with some measurements of human callosa, but the human data are as yet too few to prove much.

SYDNEY J. COLE.

3. Clinical Psychiatry.

Three Cases of Larceny in which the Anti-social Conduct Appeared to Represent an Effort to Compensate for Emotional Repression. (The Amer. Journ. of Ins., January, 1920.) Spaulding, E. R.

These cases, all in women arrested for larceny, are exhaustively described. In each there was much emotional disturbance with neither outlet nor adjustment; a hidden conflict existing for periods of seven to sixteen years; and total ignorance of the sex-life with fear of knowledge regarding it. In two was exhibited repressed desire with sense of guilt and shame centred about early emotional experiences; in

the third the non-realisation of childhood's dreams. One was sub-normal mentally, two superior normals; but in all three immaturity was present as regards effort towards the minor adjustments of everyday life and the conception of adult problems and responsibility.

The first had originally obtained outlet and compensation through religion; when this failed release through sex satisfaction was denied because of her emotional reactions. Stealing represented to her an act of moral suicide and was adopted in her endeavour to gain religious restoration. The act of delinquency was incompatible with her former career, and immediately after its commission was not remembered. Her sex consciousness was first aroused at the age of 7 by a male music teacher and caused the concealed sense of guilt repressed for sixteen years; a subsequent sexual experience when 19 had little influence on her. The early conflict alone decided her delinquency—when circumstances of strain arose. Of great interest is the fact that this case, although of institutional type, immediately responded to analysis, with the probability of complete emancipation.

The next case had been allowed complete mastery of her father till the age of 18, when the strong exercise of parental authority created an intolerable position, expressed as a compulsion neurosis. A hasty and unfortunate marriage was contracted as a way of escape, in spite of the fact that filial relationship had hitherto so satisfied her as to have been adopted as the permanent life attitude. The marital adjustment could not be made, and the adoption of a child was sought in vain. When a child she had stolen stamps from her father, and now anti-social conduct developed in extensive shop-lifting, the articles being simply concealed and accumulated. In the analysis confidence was only obtained after many months. A satisfactory reconstruction was made on the lines of interests aroused in childhood by the literary accomplishments of her father. It is noted, in passing, that the creative element in writing often amply replaces the maternal instinct.

The last case illustrates sex consciousness developed at an early age by excessive love for her father. Associated with it grew a feeling of intense shame, resulting in the absolute repression of anything connected with the sexual realm. The conflict emerged in lying, unmanageability, truancy from home, and especially stealing. The compulsions arose from no actual present crisis, but from the obsessive thoughts based on past situations, *viz.*, the experiences with her father.

In two of these cases then the repressed conflicts and the delinquencies, although closely connected, were widely displaced in point of time. Healy has reported similar results from mental conflict, but intimate in time relationship. In all the above cases wise guidance during early life would have prevented antisocial conduct. Delinquents may possibly be re-educable—but the opportunity for constructive work lies in the recognition and treatment of mind conflict or maladjustment at its inception.

J. GIFFORD.

War Psychoses: Dementia Præcox in War-time. (Rev. of Neurol. and Psychiat., November–December, 1918.) Henderson, D. K.

The writer maintains that war psychoses are essentially the same as those occurring under peace conditions, the symptoms being similar,