

Society Reports.

AMERICAN NEUROLOGICAL ASSOCIATION.

*Twentieth Annual Meeting held at the Cosmos Club,
Washington, D. C., on May 30 and 31, June 1, 1894.*

President, B. SACHS, M.D., New York.

Secretary and Treasurer, G. M. HAMMOND, M.D., New York.

Concluded.

Dr. BURT G. WILDER gave an
EXHIBITION OF A SUICIDE'S BRAIN, WITH
TWO PISTOL-BALL WOUNDS. REMARKS
ON ITS FISSURAL ANOMALIES.¹

ABSTRACT.

There were shown the medisectioned and transected cerebrum, one of the pistol-balls, seventeen photographs of each hemi-cerebrum, two blackboard diagrams of this specimen and several wall-maps of other brains.

The brain was that of Dr. W. I. B., 35 years old, a dentist, resident in Ithaca, N. Y. It is interesting from five distinct standpoints: historic, anatomic, psychologic, pathologic and medico-legal.

I. *Historic.*—This is the fourth brain of a moral and educated person, of marked and known character, to come into the possession of Cornell University within four years, in accordance with the wishes of the deceased or the relatives, for scientific purposes, as set

¹ By a vote of the Association Dr. Wilder was requested to furnish a report of the above case for publication in the "Transactions."

forth in the blank hereto appended.² Its predecessors are those of an eminent lawyer and his wife, and of a school-teacher, the father of a distinguished graduate of Cornell. With these, through the courtesy of Prof. Thomas Dwight, is now temporarily associated the brain of Chauncey Wright; see these *Transactions*, 1890, and *JOURNAL OF NERVOUS AND MENTAL DISEASE*, November, 1890; also "Reference Handbook of the Medical Sciences," viii., Fig. 4779 and ix., Fig. 63. Unfortunately, at present, as in most collections, these five precious specimens are outnumbered by the brains of ignorant, insane or criminal persons.

II. *Anatomic.*—There were several unusual conditions of the fissures, four of which are here briefly described :

a. Occipital Fissure.—A superficial inspection might lead to the conclusion that it is very extensive on each side. A fissure-line extends from the calcarine f. over the dorsal margin to within 15 mm. of the ventral margin on the left and 20 mm. on the right. These might be interpreted as constituting marked examples of what is sometimes called the "external perpendicular fissure." Really, however, the true occipital fissures are unusually shallow, indenting the dorsal aspect only about 10 mm. on the left and 15 on the right.

b. Relations of the Central and Sylvian Fissures.—On the

² FORM OF BEQUEST OF BRAIN.

I, now of
 student of Cornell University from 18 to
 18 and graduated in 18, recognizing
 the need of studying the brains of educated persons rather than those
 of the ignorant, criminal or insane, in order to determine their weight,
 form and fissural pattern, the correlations with bodily and mental
 powers of various kinds and degrees, and the influences of sex, age and
 inheritance, hereby declare my wish that, at my death, my brain should
 be intrusted to the Cornell Brain Association (when that is organized)
 or (pending its organization) to the Curator of the collection of human
 brains in the museum of Cornell University, for scientific uses, and for
 preservation, as a whole or in part as may be thought best. It is my
 hope that my family and friends may not oppose the fulfilment of this
 my earnest wish.

Signature Date

Witness

NOTE :—Copies of provisional diagrams of the fissures will be mailed upon application to the undersigned. For a brief statement of reasons for the study of the brains of educated persons, see Buck's Reference Handbook of the Medical Sciences (Wm. Wood & Co., New York) VIII., 163, and IX., 110.

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left both centrals³ enter the Sylvian, with a depth of at least 5 mm. On the right, the first central approaches the precentral, the second joins the Sylvian at a depth of about 3 mm.

c. Interruption of the First Left Central.—The dorsal portion of the first left central, measured in a straight line, is about 5.5 cm. long, the ventral about 4.2. Their contiguous ends overlap 1 cm., the ventral portion caudad of the dorsal; the intervening isthmus is about 6 mm. wide. The interruption is ventrad of the middle of the length of the combined fissures, and not at the junction of the dorsal and middle third, as is more common. For the case of Chauncey Wright, and for brief reference to other cases, see this JOURNAL, 1890, pp. 753-54, and "Reference Handbook of the Medical Sciences," viii., 158-159, and ix., 108.

d. Duplication of both Centrals.—So far as I am aware, only two instances of this anomaly have been recorded, viz., by Giacomini and Calori. The facts and detailed arguments are reserved for the later and fuller account of the whole cerebrum, when figures will render them more intelligible. I think there can be no doubt that the first (cephalic or anterior) on each side represents a central fissure, for the dorsal end bears to the paracentral gyre and its circumscribing fissure the relation that is normal and constant. The fissures interpreted as the second centrals present greater difficulties, but, it seems to me, less serious than are involved in their interpretation as postcentrals. Upon the whole, notwithstanding the extreme rarity of this peculiarity, I am led to conclude that it exists in the brain here presented.

As to the improbability that so rare an anomaly should occur outside of the large cities, it may be remarked that there have been recorded only four examples of the lack of the callosum among mammals, excluding man, and that all of these have occurred in the Anatomical Department of Cornell University; of the three incallosal cats, one is figured and described in the *American Journal of Neurology and Psychiatry*, 1883, 491-499; the incallosal sheep's brain was exhibited at the meeting of the Association of American Anatomists in Boston, 1890.

As a precedent for a possible radical disagreement among members of this Association in the interpretation of the alleged two central fissures, let me add, that, as stated by Giacomini ("Guida," 1884, p. 48), when his

bicentral brain was described, his first central was interpreted by Benedikt as the precentral, and his second central by Zernoff (Sernow) as a postcentral. Unless we are willing to decide between these fissural experts, Giacomini's specimen would have no central at all, almost a *reductio ad absurdum*.

III. *Psychologic.*—Dr. B. was undoubtedly peculiar in several respects. I am slowly gathering information, as to his mental condition, and will submit it later. He had two sisters and three brothers, all living.³

IV. *Pathologic.*—There were two holes in the head one mesal in the forehead, the other in the right temple. The cranium could not be preserved. From the frontal hole the track of a ball may be traced on the mesal surface of the frontal lobe to its ventral border, then dorsad to the precommissure where the ball, much distorted—was found on medisection of the brain. Apparently it was deflected ventrad by the ental table of the cranium, then deflected dorsad at the same angle. The injury was a mere abrasion of the cortex. The track from the temporal hole extends in a straight line, sinistro-dorso-caudad, to the left side of the cerebrum; in the hurried autopsy the ball, a .22, escaped detection. The parts traversed are the right subfrontal gyre, the insula, striatum, capsule, paracelle (lateral ventricle) callosum, corona, and left central region, the point of emergence being in the caudal lip of the second central fissure, just ventrad of the level of the isthmus in the first central. The orifices of adit and exit are ragged, as are also the walls of the channels, as well shown in the photographs. Before describing and discussing the nature of these wounds I wish to consult some recent observations by Horsley on the subject. We may infer that the first wound merely stunned the suicide for a brief period, and that he retained, or even regained, the power to fire the second and fatal shot.

V. *Medico-legal.*—Even upon the supposition that the frontal wound was comparatively harmless, the presumption is against the infliction of the second; in other words, the existence of two bullet wounds of the

³ It is here assumed, provisionally, that there are two central fissures on each side.

⁴ Referring to a report, too hastily credited by me at the time this paper was read, one of the brothers writes: "There has never been a suicide or any insanity in our family, nor, so far as I can learn, in the families of either of our parents for two generations back."

brain gives ground for at least the suspicion of foul-play. In the present case documents in the handwriting of the deceased establish the suicidal intention beyond a doubt. Furthermore, the ental surface of the frontal dura was blackened, an indication that the weapon was discharged in close contact with the skin. See the *Ithaca Journal* for April 13, 1894 for the remarks of Dr. C. E. Van Cleef upon a somewhat similar case.

DISCUSSION.

Dr. F. X. DERCUM asked if the first fissure were not really the pre-central.

Dr. WILDER replied that it was a first central, although it might easily be interpreted as a pre-central. This had the normal relation with the first central, so the difficulty was with the second one.

Dr. C. L. DANA said that he could not understand how two fissures of Rolando could be developed and did not believe there were two here. In the present case from an examination of the brain he had no doubt that the fissure of Rolando was single and was the anterior. The convolitional peculiarity of the brain was a rare and interesting one.

Dr. F. X. DERCUM said that if the first of the fissures described bore the normal relation to the para central lobule it must undoubtedly be the true central fissure. The second fissure must, therefore, be regarded as an unusually developed retro-central fissure. The retro-central is, as we know, very variable, sometimes existing as a small ramus of the interparietal, sometimes as a well developed, independent fissure, though, Dr. Dercum stated, he had in no instance seen a counterpart of the specimen presented by Dr. Wilder. However, the brain as a whole suggested marked accentuation of the perpendicular fissures. This is especially instanced by the anomalous course pursued by the parallel fissure in the left hemisphere. It pursues a markedly ascending course and terminates abruptly in the Sylvian fissure. Dr. Dercum further suggested that the condition could probably be explained on the supposition that the skull had been markedly brachycephalic.