

convict. The brain weighed  $46\frac{1}{2}$  ozs., and was fairly well formed; the cerebellum was completely covered by the cerebrum. On examination it was found to conform in many respects to Benedikt's cases, and was atypical, according to his views, in the following particulars: The union of the Sylvian fissure with the first frontal gyrus; the junction of the inter-parietal with the parieto-occipital and first temporal fissures; the extension of the calcarine fissure into the scissura hippocampi; the union of the collateral and calcarine sulci, and in the fusion of the first frontal gyrus, so that there appeared to be four frontal convolutions arising from the ascending frontal or anterior central gyrus. To ascertain how far these peculiarities existed in the brains of hospital patients, Dr. Osler examined 43 hemispheres from 24 individuals, and found that a very considerable proportion were of the confluent fissure type. Thus, the Sylvian fissure joined the fissure of Rolando in 8 hemispheres, the frontal sulci in 18, the interparietal in 19, and the first temporal in 12. The chief difference between Benedikt's series of brains of criminals and those examined was a greater number of unions between the typical fissures, more particularly the fissure of Rolando, which in the former joined contiguous sulci in 24 instances. In 9 of the 43 hemispheres there were four more or less distinct frontal gyri. He thought that much fuller information was needed about the arrangement of the sulci in the different races, and many more criminals would have to be examined before any positive result was arrived at as to the constant atypical character of the brain in members of this class. Speaking of Benedikt's conclusions, he questioned whether it was wise to speak of criminals as an anthropological variety of their species. On his views there is no place left for responsibility; but society cannot afford to have a class of criminal automata, and every rascal pleading faulty gray matter in extenuation of his crimes.

Dr. Henry Howard (~~Med. Supt.~~ Longue Pointe Asylum) asked if it were known how many of the brains of the series of hospital cases were from criminals, and whether a larger proportion presented abnormalities than could be reasonably thought to belong to this class. He believed in a criminal class as distinct as a

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