

pulse (125), when admitted into the hospital, on the second day of the disease; she had been twice bled previously. She died on the eighth day of the attack, and up to her death the pulse is recorded to have kept as high as 120. Her skin was moist and perspiring, but the lochia and milk were suppressed. There was great pervigilium, she having slept twice, and on one of these occasions, after taking, in frequent small doses, three grains of acetate of morphia, the mania closely resembled delirium tremens. Death took place by way of asthenia. An investigation of the body was made six hours after death, before decomposition could have altered the most delicate tissue. Attention was specially directed to the condition of the brain and uterus. "But," observes Dr. Graves, "the most careful examination could discover in the brain no phenomena in the remotest degree capable of explaining the occurrence of delirium or death." He further adds, that "the structure of the uterus was natural, and it exhibited nothing worthy of remark in its interior. The rest of the abdominal viscera were healthy." The kidneys are not separately mentioned by Dr. Graves, but he directs especial attention to a symptom which he considered to be of "very considerable importance;" and very justly so, for it was no other than a great "diminution of the urinary secretion." The patient is described as having once voided urine, and that once on the third or fourth day of the attack. Unfortunately, however, her urine was not examined, otherwise the pathology of the case might not have appeared a mystery.

*On the Influence of Sex in Hereditary Disease.* By W. SEDGWICK.

(*British and Foreign Medico-Chirurgical Review.*)

In an elaborate paper upon this subject in the last two numbers of the '*British and Foreign Review*' (April and July, 1863), Mr. Sedgwick has recorded numerous facts, which he has been at the pains to collect from various English and French sources; so numerous, indeed, are his observations, that his paper will supply a valuable storehouse of references to those who may wish specially to study the subject. The more general reader, overwhelmed by the multitude of unconnected details which seem to point to no conclusion, may, perhaps, find the ancient adage involuntarily rise to his lips—*Non numerandæ sed perpendendæ observationes*. It is an adage, however, which is more often the refuge of idleness unwilling to labour at the tedious collection of facts, than it is the legitimate expression of a just censure. On the influence of sex upon hereditary insanity Mr. Sedgwick makes the following observations:

"Among writers who have directed special attention to the heredi-

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tariness of insanity is Esquirol,\* who states, that it 'is more often transmissible by the mothers than by the fathers;' and this fact he ascertained 'by attending, in the last years of his life, the children of those patients whom he had seen at the beginning of his medical career.' This statement seems to be very generally admitted to be correct, and it is supported by the statistical researches of M. Baillarger† and Dr. J. Webster,‡ which, moreover, show that insanity is not only more transmissible by females than by males, but that from whichever parent the heritage is derived, it is more liable to show itself in the children of the same than of the opposite sex. M. Baillarger ascertained that insanity is more to be feared when it is on the mother's than on the father's side, 'not only because it is more often hereditary, but also because it is transmitted to a greater number of children;' and from his observations, founded on 600 cases, 453 of which were directly hereditary, and 147 collaterally so, he states that where the madness was transmitted direct from parent to child, the following statistics were obtained:

“Of 346 children who had inherited the disease from the mother, I have found—

197 girls	}	346
and 149 boys		

The difference is 48, or a fourth.

“Of 215 children to whom the disease had been transmitted by the father, I have found—

128 boys	}	215 .
and 87 girls		

The difference is 41, or a third.

“The madness of the mother is transmitted, then,' adds M. Baillarger, 'more often to the daughters than to the sons, in the proportion of a fourth; the madness of the father, on the contrary, more often to the sons than to the daughters, in the proportion of a third.'

“Dr. J. Webster states, from observations founded on 1798 cases of insanity, that it 'is a disease more frequently transmitted to offspring by the mother than by the father; whilst mothers also transmit this disease oftener to their female than male children.'

“More recently, Dr. Moreau, physician to the Bicêtre (hospital for the insane), in a paper 'On the signs indicative of Hereditary Predisposition to Insanity,§' which confirms the general correctness of

\* 'Des Maladies Mentales,' p. 65, 1838.

† 'Archives Gén. de Méd.,' Paris, 1844, quatrième série, tom. v, pp. 116-17; and 'Annales Médico-psychologiques,' tom. iii, 1844, pp. 328-339.

‡ 'Medico-Chirurgical Transactions,' vol. xxxii, p. 118, 1849.

§ 'L'Union Médicale,' No. 48.

the preceding statements, has endeavoured to show 'that personal resemblance and cerebral disorder may be transmitted by either parent, but never by the same;' that where the children resembled the parent of the opposite sex, the following results were obtained:—'Of 22 females suffering from insanity, 17 had inherited it from the mother, and 5 from the father; while of 142 insane males, 95 had acquired the disease from the father, and 47 from the mother; when, on the contrary, the analogy of resemblance was inverted, 47 sons who resembled their father derived their insanity from the mother, and 8 girls who resembled the mother derived theirs from the father.' These observations of Dr. Moreau seem to possess some interest and importance in connection with atavism, and may be again referred to, but at present it will be convenient to examine the evidence which can be gathered in favour of the influence of sex in special cases of cerebral disease.

"With respect to cases of hereditary insanity limited to males, the following illustrations may be cited. In a case observed by Moreau\* at the Bicêtre, the grandfather, father, and son were all insane. The hereditary madness which occurred in the case of Louis XI of France is referred back by Moreau† to his paternal great-grandfather, who had been poisoned in his youth, and who ever afterwards remained invalid; his grandfather, Charles VI, suffered from periodic mania; and his father, Charles VII, died from excessive abstinence, resulting from a delusion that he should be poisoned. In the case of Papavoine,‡ aged forty-one years, who murdered two children in 1825, his father had suffered from periodic mania. In the case of James Roberts,§ a soldier who had served in the Crimea, and who was tried lately at the Oxford assizes for the murder of his little daughter, Clara Roberts, aged sixteen months, by beating her upon the head with a broken poker during a sudden attack of homicidal monomania, and was acquitted on the ground of insanity, his father, paternal grandfather, and paternal grand-uncle had all been insane; and it is to be noticed, in this case, that as the paternal grandfather and paternal grand-uncle were brothers, the inheritance of the disease was probably derived from a previous generation. Such also may be inferred in the case of a military surgeon,|| confined in the Bicêtre, whose father, eldest brother, and four paternal uncles were also insane, the uncles having, besides, all died by suicide; the maternal line was ascertained to be free from all nervous affection. No history of the paternal grandfather could be obtained in this case; but as five of his sons were mad, it is

\* "Un chapitre oublié de la Pathologie Mentale," *L'Union Méd.*, Jan. 26th, 1850, p. 45.

† *La Psychologie Morbide*, p. 557, Paris, 1859.

‡ Georget, *Archives Gén. de Méd.*, tom. viii, p. 206, 1825.

§ *The Times*, Aug. 19th, 1862.

|| Moreau, *La Psychologie Morbide*, pp. 138-9.

probable that if not himself mad, he transmitted insanity to his male offspring by atavic descent, which would extend the heritage to four, if not more, generations, such interruptions in morbid descent being of frequent occurrence in insanity. Marc\* relates a case in which a grandfather and grandson died mad with the *same* symptoms of insanity; the celebrated author of 'Paul and Virginia' often believed himself to be surrounded by enemies and evil spirits, and his grandson suffered from the *same* delusions;† and if it were not for the difficulty of tracing the family histories of individuals comparatively obscure in social position, it is probable that such cases of hereditary madness would be more frequently recorded; for in the well-known case of George III, which will be again referred to in a subsequent part of this paper, the insanity was transmitted in the male line by atavic descent from a male ancestor eight generations back, in whom not only the insanity, but many other of the well-known characteristics of the unfortunate monarch were *exactly* repeated.

"In all of the preceding cases the insanity has been limited to the male line, but the same influence of sex prevails also when females become hereditarily subject to the disease. In one of the cases recorded by Moreau,‡ a mother and her daughter believed themselves to be under the special protection of spirits, which they called 'airs.' A case is recorded in the 'Annales Médico-psychologiques' for 1850, pp. 723-4, of a mother and two daughters who were insane. M. Villermé§ relates a case in which a mother and daughter were insane, the son not so. Gintrac|| records a case of insanity in a woman whose mother had suffered from puerperal mania; and another case of a woman, aged twenty-six years, subject to delusions, whose mother had twice attempted suicide; the father was healthy, and there were five other children, who were all well. In the case of Mrs. Vyse, who was lately tried for the murder of her two children, and had also attempted suicide, the acquittal was given on the ground of hereditary insanity, for her maternal grandmother and maternal grandaunt were both insane, and the former had also attempted suicide, whilst the latter had been under restraint for twenty years. In this case it may be inferred that, as these two female ancestors were sisters, the insanity had been transmitted from a previous generation, for whenever two or more members of the same family are similarly affected, especially with insanity, which has, moreover, been transmitted to a succeeding generation, it may be assumed that the disease has in the greater number of such cases been inherited, unless it has resulted from some other

\* 'De la Folie,' observ. 45, Paris, 1840.

† Moreau, 'La Psychologie Morbide,' pp. 538-9.

‡ 'L'Union Médicale,' Jan. 12th, 1850, p. 22.

§ 'Revue Médicale,' tom. vi, p. 98, 1821.

|| "Mémoire sur l'influence de l'Herédité sur la production de la surexcitation nerveuse, &c.," 'L'Académie Royale de Méd., Mémoires,' tom. ii, 1845, pp. 276-7.

recognised cause of disease, as, for example, the repeated intermarriage of blood relations. In a case of puerperal insanity affecting one of my patients after her first accouchement, at the age of twenty-eight years, and continuing for seven months, it was ascertained that an elder sister, now aged fifty-one years, had become insane at the age of twenty-one years, and had continued so ever since, with short and imperfectly lucid intervals; three brothers and four sisters, older than the patient referred to, are all married, and most of them have children, but none of them have exhibited any tendency to insanity at any period of their lives. It is probable that the insanity in these two sisters was inherited from a previous generation by atavic descent, for many similar examples are recorded in which it is almost impossible to doubt that such was the case, as in that observed by Moreau,\* at Charenton, of two sisters who suffered from the same form of monomania, believing themselves to hold intercourse with spirits; in the case, also observed by Moreau,† of two monomaniac sisters, who both fancied that Charles X was in love with them; in the case of two brothers, twins, confined in the Bicêtre on account of monomania; and in the remarkable case recorded by Moreau,‡ of a gentleman of good position in society, who was the survivor of six brothers, who were all mad. In all such cases as these it may be inferred that the insanity was transmitted from an insane member of some previous generation, and probably of the same sex; and in the event of there being no wilful concealment of facts, it may be assumed that the interruption had extended over so long an interval of time, that no record of the descent, such as happened to be historically preserved for more than two centuries in the case of George III, can be procured.

“On the other hand, cases occasionally occur in which, through the influence of what may be called insane alliances, both parents, if they do not inherit, at least transmit, the disease. Some remarkable examples of this have from time to time been recorded, such as that which occurred some years ago in Brittany, in which a whole family, composed of father, mother, son, and daughter, were insane;§ and in the case observed by Dr. Burrows,|| of a young man belonging to a Jewish family, who, with his father, mother, and six brothers and sisters, were all mad. The influence of sex in these cases may have been maintained, but it could not, of course, be traced.

“As illustrations of hereditary suicide limited to males, may be cited a case observed by Dr. Burrows,¶ in which the suicidal propensity declared itself through three generations; the grandfather hanged himself, and left four sons, one of whom hanged himself, another cut

\* ‘L’Union Médicale,’ Jan. 12th, 1850, p. 22.

† Ibid.

‡ ‘La Psychologie Morbide,’ p. 140, note.

§ ‘Gazette des Tribunaux,’ Fév. 3, 1828.

|| ‘Commentaries on the Causes, Forms, Symptoms, and Treatment, Moral and Medical, of Insanity,’ p. 104, 1828.

¶ Op. cit., p. 442.

his throat, and a third drowned himself in a most extraordinary manner, after being some months insane; the fourth son died a natural death, which from his eccentricity and unequal mind was scarcely to be expected. Two of these sons had large families; one child of the third son died insane, two others drowned themselves, another is now insane, and has made the most determined attempts on his life. Dr. Burrows further observes, that 'several of the progeny of this family, being the fourth generation, who are now arrived at puberty, bear strong marks of the same fatal propensity.' A similar case was observed by Moreau,\* of a man afflicted with a desire to commit suicide, whose father and paternal uncle had killed themselves, and a brother showed the same overmastering desire; in this case the suicidal monomania of the father and the paternal uncle was probably inherited from a previous generation. In a case recorded by Fallaray,† in which a father, son, and uncle committed suicide, and another male relation felt an almost uncontrollable desire to do the same, the heritage may in like manner be referred further back. In a case recorded in the 'Annales Médico-psychologiques' for 1850 (p. 103), the father committed suicide some years previously; his eldest son voluntarily asphyxiated himself, and another son tried to kill himself in January, 1848; his project failed, owing to the vigilance with which he was watched, but on the 11th of September following he succeeded in doing so by swallowing a large dose of arsenic. In a case of attempted suicide by hanging, of a journeyman whitesmith, aged twenty-two years, related by M. Bourdin,‡ the father had previously committed suicide. M. Falret§ relates the following history of a family of suicides. A dyer, issue of healthy parents, but of a very silent disposition, married to a woman of good health, had by his marriage five sons and one daughter; the eldest son, who married and had children, made many attempts at suicide, and finally, when about forty years of age, threw himself one day from the third story of a house and was killed; the second son, also married, strangled himself at the age of thirty-five years; the third son, in trying, as he expressed it, to fly, threw himself from a window into the garden; the fourth son attempted to shoot himself, but was hindered; the fifth son, melancholic, had not as yet attempted suicide; the sister, who is married and has children, offers no sign which can lead to the suspicion that she shares the melancholy of her brothers; whilst a first cousin, of the male sex and married, has committed suicide by drowning himself in a river. In this case the inheritance, which was strictly limited to the male sex, was probably derived by atavic descent from the grandfather, or some preceding ancestor of the same sex."

\* 'De l'Influence du physique relativement au désordre des facultés intellectuelles,' p. 14, 1830.

† 'Lancet,' 1832-3, vol. i, p. 556.

‡ 'Annales Médico-psychologiques,' tom. viii, 1846, pp. 312-13, note.

§ Op. cit., pp. 296-8.