

convolution in its middle three-fifths was much smaller than the corresponding region on the left side.

It will be noted that in both these cases the atrophy was limited to the middle area of the convolution, the upper and lower ends being equal in size, which conditions also existed in the case before us, although here the diminution in size occupied a somewhat larger area of the convolution, in correspondence, doubtless, with the greater extent of the defect in the limb.

It is sufficiently interesting and striking that it is just this middle area of the ascending parietal convolution in which Ferrier has localised, by experimental investigation, "the centres of movement of the hand and wrist."*

It would be an interesting inquiry whether minute measurements in perfectly normal individuals might not give a slight preponderance in size of the left ascending parietal convolution over the right, in accordance with the greater complexity of movement of the right hand, in the great majority of individuals.

Case of Accumulation of Hair, &c., in the Stomach, with remarks.
By C. S. W. COBBOLD, M.D., Medical Superintendent of the Earlswood Asylum.

A somewhat inaccurate account of the inquest held in the following case went the round of the newspapers. The true facts are these:—

W. A. H., aged 18 years, was admitted into Earlswood Asylum on May 31st, 1883. His parents stated that at 18 months of age he had an "accident," which was followed by epileptic fits during the three following years; he had also been idiotic from that time, and had had hydrocephalus. On admission it was noted that the patient was tall, ill-nourished, and cachectic; feeble and stooping in gait and carriage. The head was large and elongated, with marked bulging in the frontal region; the incisor teeth were notched and the palate narrow. The mental powers were very feeble; there was no power of speech nor of understanding the simplest question; saliva continually dribbled from the mouth, the calls of nature were disregarded, and the patient could neither dress, undress, nor wash himself. He had the habits of putting his fingers in his ears, picking clothing to pieces, and occasionally pulling out one or two hairs at a time from his head. During the first

* "Functions of the Brain," 1st Ed., p. 307.

few days of his residence in the asylum it was difficult to get him to take food, but his appetite afterwards was usually ravenous, though it occasionally failed for a few days at a time. He always fed himself with his hands, making a great mess with his food, but refusing to be fed by others, or to use even a spoon himself. Altogether his mental condition more resembled dementia than idiocy. In accordance with our system of industrial training and the patient's habit of picking clothing, &c., he was sent for several hours daily to join the cocoa-nut fibre "picking-class," but he was never able to follow the occupation usefully. Owing to this, and to his feeble health, his attendance at the workshops was entirely discontinued for a year before his death. He was frequently under treatment in the infirmary for general debility; no definite cause for this could be ascertained, and it was ascribed to defective nerve-function. During the year 1883 he had three epileptic fits, in one of which he broke his left humerus; the fracture united without trouble. No fits were registered during 1884, but in 1885 they became more frequent, reaching in March and April to 20 in the month. In April it was noted "he is given to whining both by day and by night;" but he never by any gesture referred his pain or uneasiness (if indeed he were suffering such) to any particular region.

On December 10th, 1885, he was sent to the infirmary ward with œdema of the legs and general debility; the heart-sounds were natural; urine could not be examined, as it was always passed in the bed. On the 15th the anasarca had subsided, and the patient being again as well as usual, returned to his ward. On the 20th vomiting came on, it was accompanied by great weakness, and the patient was again transferred to the infirmary. It was difficult to get the stomach to retain nourishment, but under appropriate treatment some liquid food was retained, and the patient was somewhat better during the two following days, though he vomited from time to time. At about 10 a.m., on the 23rd, obstinate vomiting again set in, and could not be controlled. The abdomen was greatly distended by flatus. Both the vomit and the light-coloured liquid motions emitted quite an exceptionally offensive odour. Throughout the day the patient's strength became gradually exhausted, and towards 7 p.m. he was evidently sinking; he died at about 9.30 the same evening.

Necropsy.—The body was ill-nourished, but not markedly emaciated.

Skull thick and dense. There was considerable excess of intracranial fluid both in the ventricles and between the membranes; the latter were thickened and clouded; the white cerebral substance presented a well-marked example of the doughy consistence and stickiness often seen in chronic epilepsy. Thus the brain was also that of dementia rather than that of idiocy. Heart and lungs normal, but the former small and flabby. The peritoneum showed no signs of inflammation; the intestines were throughout greatly distended by flatus. The stomach was enormously dilated and inflated; upon grasping it a

solid mass was felt within. The œsophagus and pylorus having been tied, the stomach was removed entire; after allowing a large quantity of fœtid gas to escape from its cavity, it was laid freely open; the solid mass within it was then seen to consist of an elongated roll of human hair, cocoa-nut fibre, and horsehair. The hair, etc., was closely matted together, for the most part concentrically arranged, and, as it were, cemented together throughout by decomposing semi-digested food; a few dead leaves were also incorporated with it. The whole mass in its wet state weighed 2½lbs. It did not occupy more than a fourth part of the enlarged stomachic cavity. There were no signs of irritation, inflammation, or ulceration of the mucous membrane. Some liquid food remained in the stomach. The intestines contained only gas and a small quantity of liquid fœces.

Remarks.—The patient died of persistent vomiting supervening in a system debilitated by chronic indigestion; both being due to the presence of the accumulation of hair and fibre in the stomach. The failure to diagnose the presence of the foreign substance is chiefly attributable to the absence of any history of the patient's habit of eating hair. The mental inability of the patient to indicate in any way his subjective symptoms, and the absence of any visible abdominal swelling until extreme tympanites made precise palpation impossible, were also elements of difficulty in the case. It is probable that the tumour might have been felt if it had been suspected and definitely searched for, but the patient would have had to be placed under an anæsthetic, as he always resisted every kind of examination.

It was known that the patient had a habit of chewing neckties, pieces of cloth, &c.; the attendants frequently removed these from his mouth, but they never seem to have suspected him of swallowing them. Since his death I learn that he was occasionally seen to put his hairs in his mouth after pulling them out; they were removed, but it was believed that he merely liked to chew them. He was never seen to place cocoa-nut fibre or horsehair in his mouth at the upholsterer's shop. His parents inform me that he had the habits just described before coming to Earlswood, and they agree with me in believing that a roll of hair was in his stomach when they brought him to Earlswood. I have no doubt that the accumulation increased rather rapidly while the patient was attending the picking-class, and only grew slowly during the last year of his life, when he had ceased going to the workshops. The difficulty of swallowing small quantities of hair or fibre by themselves is evident, and I do not believe that my patient was able to perform any such feat. I believe that the hair, fibre,

or other foreign matter which he retained in his mouth for chewing purposes (or merely from force of habit) passed down into the stomach with his food at meal times. The small quantities he thus kept in his mouth would not attract the notice of the attendants, but their accumulation during several years would easily produce the mass which was afterwards found in the stomach. It is highly probable that W. A. H. also swallowed portions of cloth and linen, but these, as a rule, pass through the bowels without harm to the patient. It is only when these substances are swallowed in great quantity, or when there is already a tendency to fæcal accumulation, that they lead to obstruction, usually of the large bowel. Hair and fibre, on the contrary, seldom pass the pyloric orifice with the chyme; they remain and accumulate in the stomach. Hair-balls are common in the stomachs of long-haired cats, and of calves (even fat ones). Butchers state that no injury usually results in the case of the latter, but I have been informed of one case at least in which death was attributed to this cause.

Mr. Knowsley Thornton's recently published case of successful gastrotomy for the removal of a mass of hair from the stomach, naturally raises the question whether my patient might not have been similarly relieved by operation if a correct diagnosis had been arrived at. I do not myself believe that so unsatisfactory a subject would have recovered after the operation, but it would probably have been right to perform it if the diagnosis had been made.

Dr. Bucknill kindly allows me to mention an unpublished case which occurred under his care at the Devon County Asylum; it differs from mine chiefly in the manner of the patient's death:—

An imbecile, aged 19, who had been epileptic for six years, being sometimes maniacal and sometimes demented, having a voracious appetite, and enjoying good general health, was suddenly attacked by abdominal pain and collapse; death rapidly ensued. On autopsy a large and firm mass of cocoa-nut fibre (the fibres being rolled quite regularly), was found in the stomach, the cavity of which it so fully occupied as to excite wonder as to how food could get between the mass and the mucous membrane in order to its digestion. It is certain, however, that digestion had been well performed, for the patient died in fully good case as to nourishment. The fibre-tumour had caused a small chronic ulcer, which eventually perforated the coats of the stomach, and caused death. The mass held together firmly after removal; no hair or other substance was visible in it, but cocoa-fibre only. This patient had been employed in picking cocoa-nut fibre.

The moral I draw from my case is, that it is not sufficient for the attendants to remove only from the patients' mouths foreign bodies which they may have seen introduced into them, or which are of such size as to cause a noticeable alteration in the patients' facial appearance. This practice is, of course, both necessary and usual, but it is now proved to be insufficient. My case shows that it is necessary before every meal to thoroughly search the mouth of every patient who is in the habit of placing improper substances in his mouth. This must be done with considerable care and with a view to the removal of even the smallest quantities of deleterious matters. Among the latter, hair and fibre probably hold a more prominent position than other insoluble substances when swallowed in similar quantity.

A Case of Saturnine Insanity. By W. HALE WHITE, M.D.,
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Thomas H., æt. 40, was admitted into Guy's Hospital under my care on February 6th, 1886, for unconsciousness following fits. No family history of insanity or fits; father has gout, otherwise the family history is very good. The patient is a plumber. Ten years ago he had colic, and also eight years ago. Seven years ago he had "rheumatic gout," to which he has been subject ever since. He has been a moderate drinker. On February 2nd he was troubled with a severer attack than usual of pain in the wrist. On February 4th in the evening he had a fit, commencing by his making a loud, shrill noise, rapidly followed by trembling in the body and limbs. He foamed at the mouth; the teeth were clenched; the eyes were staring. The fit lasted thirty minutes, when he seemed to recover himself, but on being spoken to did not answer, seeming stupid. He got up, dressed himself, and went downstairs. He appeared fairly well till five o'clock the next evening, during which time his power of speech partly returned. He expressed a wish to go to bed, which he did, and fell off into a quiet sleep, remaining undisturbed till 12 o'clock, when he had another fit resembling the first. This second one lasted for fifteen minutes, and about three minutes after it had ceased another took place. He then had a succession of them for about three hours, each being rather more maniacal than the previous. His voice entirely left him, and he again would or could not speak. A medical man administered a draught, after which the patient fell into a quiet sleep. He remained free from the fits till the following night, when he had another series rather severer than on the previous night. During this night the patient was very restless, getting out of bed and throwing his arms about. He became so violent that he had to be held down by four