

*Accumulation of Cocoa-nut Fibre in the Stomach: Death from Intestinal Obstruction.\** By R. S. STEWART, M.D., D.P.H.Camb., Senior Assistant Medical Officer of the Glamorgan County Asylum.

I. A. H., aged 12, was admitted into the Glamorgan County Asylum on 6th November, 1888. When seven months old he had convulsions, and these recurred till he was two years of age, and then disappeared. At the age of seven he had one other fit. He is said to have been able to speak when two years old, but not since then. Ultimately he became so troublesome and defective in his habits as to be unmanageable at home, and he was removed to the asylum.

His mental condition was one of idiocy with much restlessness. He was noisy and dirty, and was much given to picking up rubbish and pulling door-mats to pieces.

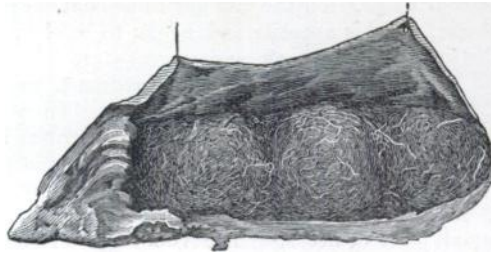
Until the commencement of the fatal illness, which occurred on September 4th, 1890, his bodily condition was uniformly good, and there was no hint whatever of any disturbance of the digestive system. He took food well, and was not at any time troubled with sickness, vomiting, or constipation. On the last mentioned date he became listless and apathetic, lost his appetite and began to be sick. Next day he vomited the little milk he took, and appeared to be in some pain, as he now and then put his hand over his abdomen as if suffering there. On that day there was one natural motion. There was no apparent enlargement of the abdomen, and little tenderness on manipulation, but a hard inelastic tumour could be detected in the epigastrium over the site of the stomach. One dose of 5 grs. of grey powder was administered, but was shortly after rejected, and an enema brought away only a small piece of fæces. The vomiting and complete inaction of the bowels continued, the temperature rose to 100° F., and death occurred on 11th September, seven days from the onset of the illness.

On post-mortem examination made 23 hours after death, the brain was found to be much hypertrophied, its weight being 57ozs., or 11ozs. over the average; the heart was normal, and the lungs and solid organs of the abdomen presented nothing noteworthy beyond slight congestion. A small quantity of brownish serum was present in the pelvic portion of the peritoneal sac, but nowhere was there any fibrinous exudation. About the junction of the lower and middle third of the small intestine an obstructive mass could be felt, and the stomach was occupied by a firm, unyielding mass. The peritoneal lining of the small gut above the seat of obstruction was inflamed. The stomach on removal weighed 25½ozs., and, when emptied, 7ozs. Its contents, weighing 18½ozs., consisted of three separate solid masses, each about the size and shape of the closed fist, and several smaller masses wedged

\* Read before the Cardiff Medical Society, March 5th, 1891.

in between the larger. These were composed almost entirely of coconut fibre with a few strands of dried grass, soaked in a pea-soup like and only slightly stercoraceous fluid. On section of two of the pieces no lamination could be observed; the fibres assumed a dense felted arrangement. The gastric mucous membrane was only slightly congested, and in the neighbourhood of the pylorus, where the muscular coat was much hypertrophied, it was strikingly rugose. The obstruction in the ileum was found to be a mass of similar composition to those described. It assumed a banana-like shape, and the sharp ends of the loose fibres were projected downwards and outwards into the wall of the gut in a manner that seriously prevented its downward passage. The intestine above the obstruction contained slightly feculent fluid, but not in any great amount, and the mucous membrane presented a swollen and inflamed appearance. Below the obstruction the intestine was empty with the exception of a small mass of fæces in the caput cæcum coli. The Peyer's patches, below the obstruction as well as above it, presented distinct alteration from the normal. Above they were much congested, and below they had a swollen and roughened appearance.

The total weight of the fibre masses after drying was only  $4\frac{1}{2}$ ozs.



*Stomach laid open along the lesser curvature, showing three separate masses of coconut-fibre and the rugose condition of the pyloric mucous membrane.*

Collections of indigestible substances are occasionally found in the stomach of cattle, horses, and goats, and here, as a rule, they form round a nucleus and present a greater or less degree of lamination. Youatt, in a book on the diseases of cattle, published in 1834, records instances in which the nucleus took the form of such varied articles as scissors, a handkerchief, an old shoe, the lash and part of the handle of a whip, a waistcoat, a buckskin glove, a shell, and pieces of straw, stone or iron (verily *il ne faut point disputer des goûts*). Sometimes, as in the case here recorded, there is no distinct central nucleus, and these masses are usually composed of hair irregularly matted together. Occasionally the concretion contains a large quantity of mineral matter, and forms a

calculus capable of taking on a high polish, and sometimes these, forming as they do in the intestine of the horse, give rise to fatal obstruction.

Treves, in his work on intestinal obstruction, classifies foreign bodies occurring in the stomach and intestines into (1) rounded or regularly shaped bodies capable of passing readily, (2) sharp pointed bodies, and (3) indigestible materials of small size which are apt to accumulate and form large masses, such as husks of oats, vegetable fibres, grape skins, hair, wool, and yarn, the latter swallowed by habit by dressmakers and others, or intentionally by lunatics and hysterical persons. The case here recorded would belong to the third class, and it further affords an illustration of a remark which he makes to the effect that these bodies may remain for years in the stomach or intestine without causing any mischief, but that when so lodged they may almost at any time induce changes leading to a fatal result. From inquiries made subsequently to the patient's death it appears that, even before his admission, he had been addicted to eating, among other things, cocoa-nut fibre, and that during the first twelve months of his residence in the asylum he had picked two doormats to pieces, but subsequently to that he entirely gave up the habit. There is every reason, therefore, to believe that the masses found in the stomach had been present for some considerable time, and that there was on the part of the stomach an entire toleration of their presence. The practically unaltered condition of the gastric mucous membrane found on post-mortem examination would point in the same direction, and the fatal result is to be attributed not to the presence of these masses in the stomach, but to the extrusion—an accident liable to occur at any moment—of the small mass into the intestine and consequent obstruction.

Many of the reported cases have occurred in lunatics and hysterical persons. In one case recorded by Dr. Quain, and cited in Treves's work, the obstructive mass of cocoa-nut fibre weighed four pounds. Another is described by Dr McDowall (*"Journal of Mental Science,"* January, 1882), where the colon contained a mass composed of pieces of wood, wire, stocking, ticking, and leaves. Dr. Campbell records (*"Jour. Ment. Sci.,"* July, 1886) an instance where the stomach contained a mass of matted hair, pieces of blanket, and a hank of twine, one end of which had become unwound and extended into the intestine for two feet, and in the case of

an idiot patient of the Earlswood Asylum, described by Dr. Cobbold in the same Journal (April, 1886), death resulted from persistent vomiting induced by the presence in the stomach of a collection of human hair, cocoa-nut fibre, horse hair, and leaves, weighing  $2\frac{1}{2}$  pounds. Habershon ("Diseases of the Abdomen," 3rd edit., p. 253) cites the case of a sailor who had repeatedly swallowed clasp knives. The stomach contained several knives and parts of others; one was found fixed transversely in the rectum, and one blade had perforated the colon. In Walshe's book, "The Horse," an account is given of a young lady who died in consequence of the accumulation in her stomach of hair which she had swallowed. Since writing the above an instance has been related to me where several recently hatched chicks died in consequence of the accumulation in the gizzard of the fibres from moss litter which they had picked up from the floor of their coop.

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*Notes on a Case of Tubercular Degeneration of the Supra-Renal Capsules, without Bronzing, associated with Insanity.* By ERIC FRANCE, Clinical Assistant, Northumberland County Asylum.

Thomas H., butler, admitted to the Northumberland County Asylum, January 13th, 1871, at which date he was 50 years of age.

From the clinical record of the first eleven years of his residence here nothing of special interest is to be gleaned.

Mentally he was the subject of periodical attacks of maniacal excitement; during these he was particularly troublesome and perverse. In the intervals he was quiet and obliging, and willing to do light work in the ward. But even when at his best he was a man of many fads and by no means easy to manage.

During these eleven years his general health was good, and it is not until the month of July in 1882 that those symptoms of nervous and gastric disturbance, which a further development of his case brought into such prominence, first appear.

July, 1882.—Patient complained of pains in his head and refused his food this morning. He also complained of giddiness. His pulse is regular (84 per min.). Temperature normal.

July, 1883.—For the last two months patient has suffered from an eruption, similar in appearance to scabies, affecting flexor surfaces of arms and wrists. He is also much troubled with boils in various parts of the body.

August, 1885.—For the last year or two his health has not been