

120, respiration 48; left pupil more contracted; movements on both sides of the body, more on left than right; face flushed and conjunctivæ somewhat injected. At 1 P.M. the temperature was 100.2°, pulse 100, respiration 50, coarse râles in throat; moved right arm; legs motionless and flaccid. She now gradually sank; the pupils became almost equal and contracted; by degrees all movements of the limbs subsided; the breathing became more shallow; extremities cold; radial pulse imperceptible; the heart very rapid. At 8 P.M. she expired and death was immediately followed by expulsion of the fœtus and placenta, the membranes being intact.

*Necropsy, thirty-eight hours after death.*—Dura mater only slightly adherent to skull cap. On removing the dura mater the vessels of the vertex were seen to be much injected. Beneath the arachnoid and over the entire surface of the brain, especially between the convolutions, there was sero-purulent and in some places purulent fluid; pia mater not thickened, but its vessels congested; injection especially marked over the junction of the left ascending frontal and parietal convolutions; at the base of the skull there was half an ounce of sero-sanguineous fluid; the venous sinuses of the base were full of dark semi-fluid blood; the vessels of the base of the brain were healthy; the membranes of the base appeared slightly thickened, especially in front of the pons Varolii and along the Sylvian fissures; in the latter there was a great amount of sero-purulent fluid. Careful macroscopic examination failed to reveal the presence of tubercles. On section the brain-substance appeared soft and its vessels were injected; the two lateral ventricles contained half an ounce of blood-stained fluid, with flocculi of softened brain-tissue.

*Remarks.*—The etiology of this case is obscure. There may have been some slight tubercular diathesis. The mortality amongst the patient's children was high, and her mother was consumptive; but Mrs. G— had never manifested this tendency in the slightest degree. She was once intemperate, but not recently so. Intemperance is one of the only well-authenticated causes of simple meningitis.<sup>1</sup> It is possible that, for obvious reasons, the history was incorrectly stated in this respect. The symptoms are chiefly striking on account of their severity. The duration of the illness was very short. The violence of the motor excitement exceeds anything which I have seen or read of in connexion with meningitis. The unconsciousness and absolute silence of the patient in the midst of it all were very remarkable. Vomiting, which is looked upon as a frequent and important symptom,<sup>2</sup> was practically absent. This fact, which was also noticed by Dr. Lewis Smith in a certain proportion of twenty-one cases of meningitis analysed by him,<sup>3</sup> is probably due to its being in these cases a phenomenon of special reflex irritability needing some stimulant, such as food or medicine, to set it up. When this is not given, this symptom will often be absent. The temperature in meningitis, according to Rosenthal, Wunderlich, and Rosenstein,<sup>4</sup> maintains high figures. Tanner (loc. cit.) speaks of it as not very high, "seldom reaching 102° F." This case supports the views of the latter. The tendency to slowing of the previously rapid pulse noticed from the commencement was partly due, I believe, to cessation from violent movement whilst chloroform was being administered. Its final increase was possibly due to increasing pressure upon the brain.<sup>5</sup>

<sup>1</sup> Niemeyer: Practical Medicine, vol. ii., p. 236, edit. 1880. Huguenin: Ziemssen's Cyclopædia, vol. xii., p. 638.

<sup>2</sup> Tanner: Practice of Medicine, vol. i., p. 363, edit. 1875. Niemeyer: Practical Medicine, loc. cit.

<sup>3</sup> New York Journal of Medicine, March, 1855.

<sup>4</sup> Diseases of Nervous System. Rosenthal, 1879, vol. i., p. 16. Ziemssen's Cyclopædia, vol. xii., p. 650.

<sup>5</sup> Leyden: Virchow's Archiv., vol. lvii., p. 519.

**SANITATION AT WOLVERTON.**—On the 11th inst. the new sewage works for Wolverton were opened. They were commenced in April of the present year, and their estimated cost was £4467; but it is expected that they will be completed under that estimate. The purification of the sewage is attained by Lomax's quiescent precipitation system.

At the meeting of the Wrexham Board of Guardians on the 18th inst. a hope was expressed that the advisability of the compulsory notification of infectious diseases in all parts of the United Kingdom would be fully discussed at the next Central Poor-law Conference, and a resolution passed.

## AGORAPHOBIA.

By R. PROSSER WHITE, M.B., M.R.C.S.

IN the wide field of scientific medicine, research and demonstration are gradually hemming in and contracting the circle of functional disorders, and the onus of causation is placed upon some unsubstantial coccus or some undefined catalytic action. Functional disorders, however, do exist, and are perhaps increasing, as is proved by the frequent usage of words expressing derangements without inflammation, or constant structural change, such as neurosis, neurasthenia, hysteria, hypochondriasis, &c., to which category this curious phase of nervous phenomenon, I think, belongs.

B. C—, aged about thirty, a professional gentleman, of active intellectual habits, whose previous health was good and whose family history shows no predisposition to nervous disorders, complains that for the last five or six years he has suffered from a nervous kind of light-headedness, gradually becoming more marked and troublesome. The attacks occur about twice a week, and are brought on by the ideas of space, vastness, height, depth, eternity, or such kindred subjects; and these ideas, however conveyed to the brain, such as the viewing of a large building, or vast area, or in conversation, the description of a voyage, even thoughts of the infinite power of God, or a feeling of loneliness—all and each are able to produce upon him an acute attack which shows itself by pallor of face, a peculiar oppression at the back of the head, palpitation, large drops of perspiration upon the forehead, and a feeling of great dread and exhaustion, and sometimes, as he describes it, a feeling of impending madness. The general condition shows slight tendency to stoutness, with anæmia; the lungs, heart, and kidneys are practically sound. He suffers very much occasionally from bilious attack, as he calls them, but otherwise is not troubled with headaches, tinnitus, deafness, or any stomach derangement. After an attack he feels sleepy and heavy, and sometimes passes a large quantity of urine; he says he feels nervous, and dreads the onset of another attack. He is occasionally troubled with spermatorrhœa, and reflexes of all kind are very sensitive.

These feelings and attacks may sometimes be avoided or lessened in severity by moral determination; deep concentration of thought will enable him to cross an open space or certain places which otherwise induce these attacks of dread; companionship relieves the feeling of loneliness and fear produced by the thought of taking a holiday in a part of the country new to him. The presence of a cart, even a stick or umbrella in the hand, persons, or trees, gives a sense of confidence when walking an unknown road. Cheerful and lively conversation, with a congenial companion, will always ward off the attacks.

This case is, I think, a typical example of that described in 1870 by Benedikt and in 1872 by Westphal, under the term "agoraphobia," and is, I venture to think, a not uncommon form of nervousness, though exceptional in its extreme forms; it is an essentially neurotic, as distinguished from an hysterical, affection.<sup>1</sup> It is rarely described in text-books. Quain's "Dictionary of Medicine" gives only a short article, written by Dr. Fred. Roberts, who does not think the complaint idiopathic, but says "it is sequential to some other condition." What that other condition is he does not say. Dr. Maschede is mentioned as describing a case of clithrophobia<sup>2</sup> in a young man who exhibited giddiness and oppression whenever he entered a small room or narrow space, and was obliged to camp out in the open fields and woods, and only in the depth of winter could he be prevailed upon to sleep in a large and airy apartment with all the windows open. Dr. Maschede also mentions two other similar cases. The author thinks that agoraphobia and clithrophobia ought to be classed under the same head, as in both cases the characteristic symptom is that the patient cannot by any means form an accurate conception of his surroundings.

Dr. Grainger Stewart, in a recent lecture upon "giddiness," thinks that these cases are closely allied to ordinary giddiness produced by what he calls and describes as "contradictariness of sensory impressions." "Normal

<sup>1</sup> Gulstonian Lectures, by Clifford Allbutt, March 4th,

<sup>2</sup> British Medical Journal, May, 1879.

equilibrium is the resultant of normal customary external impressions, and the symptoms of agoraphobia are produced by the absence or clashing of one or more of these impressions." This explanation seems to me hardly satisfactory, as my patient insists very strongly that there is a distinct difference between the giddiness associated with his bilious attacks and the giddiness which accompanies his agoraphobic attacks; again, companionship can hardly affect a man's appreciation of vertical lines, by which Dr. Stewart thinks the patients guide themselves, and also we find that the mental ideas of infinity, vastness, &c., are just as potent to produce the attacks as are external impressions.

To me the case seems essentially a form of mental depression in certain faculties unassociated with delusion and closely allied to what is called simple melancholia. There are disorders of perception; bright light, loud noises, likes and dislikes to persons and things are more pronounced and uncalled for, there is increased irritability to all external impressions, and these are accompanied with some form of deteriorated physical health; but I think the seat of this condition is certainly central, not peripheral. May it not be due to some functional irritation of the cerebral cortical sensory centres, which Ferrier calls the anatomical substrata of ideation?

The prognosis in this case is good, and he has always improved and recovered from his nervousness with the recovery of his usual good general health.

Treatment has been with the object of improving the general health by small doses of cod-liver oil, attention to diet, and the avoidance of such associations as aggravate the disorder. Great relief has been found from wearing a pair of dark-purple spectacles, especially upon bright days. The recumbent position, bathing the head with cold water, or a small dose of some stimulant, will often ward off an attack for some time. The peculiar pain in the back of the head is best relieved by pressure of the hands. A dose of bromide of potassium and strychnia will enable him to mount a hill or do some work which he could not have accomplished and would have shrunk from without it, and he finds he requires a quarter of an hour before the medicine acts. Other medicine he takes from which he is confident he receives benefit—namely, nux vomica, iron, and hydrobromic acid.

Wigan.

## THE SURGICAL TREATMENT OF DEBILITY, ASIATIC CHOLERA, ETC.

By J. R. UHLER, M.D.

A FEW years ago, having a patient with stricture of the œsophagus under my care, whom I was unsuccessfully trying to nourish by the rectum, I determined to take advantage of some of the little pores in the subcutaneous tissue to introduce more liquid into the system. For this purpose a nasal douche, with a two-way cock attached to soft rubber tubes, was employed, and at the end of each tube, where the nozzle is usually placed, the cylinder of a hypodermic syringe, deprived of its piston but retaining the needle, was substituted, making a reservoir apparatus somewhat like an aspirator, with two tubes and no valves. This receptacle was filled with whisky and water and other thin nutritive fluids, and the needles were thrust deeply into the areolar tissue of the extremities, while the reservoir was raised slightly above the level of the body to prevent the entrance of air. The fluid was prevented from escaping by pinchcocks close at the ends of the tubes, but at the moment of insertion a few drops were allowed to flow from the needles to show that it was right, and the pinchcocks were then removed. The reservoir was now raised high enough to permit the liquid to pass readily through the needles by natural flow, giving a constant, gradual supply to the tissues, care being taken not to elevate it too much, so as to avoid undue pressure or large collections of fluid under the skin, the object being only to supply the fluid a little faster than it can be absorbed, and to avoid abscesses. This device worked very well on the first day, affording much relief to the patient; but in the course of time the needles became loose, and larger-sized ones had to be substituted. Since then I have used it a few times as a temporary expedient in the vomiting of pregnancy, coma, phthisis, emaciation, after great loss of blood, and when food could not be swallowed, retained,

digested, or absorbed. I have also thought (and find from the Journal of the American Medical Association of August 9th, 1884, that Dr. Todd has suggested the same treatment in a different way) that sterilised artificial serum, composed of the chlorides of sodium and potassium in small quantity, dissolved in distilled water, can thus be supplied to the depleted system in cholera from one or more reservoirs connected with three or four tubes and aspiration needles inserted into the extremities. A better plan, however, for cholera, and one which acts locally, and can be combined with this when necessary, is to fill the peritoneal sac, without distension, with sterilised artificial serum, injected at the temperature of the body by the aspirator or other appropriate instruments. The fluid is thus brought in contact with the other side of the diseased intestines, where it can be withdrawn as wanted, and will, like ascitic fluid, act by pressure, diminishing somewhat the size of the bloodvessels and lumen of the bowels; and, as it is exosmosed, washing away or diluting those low forms of life that are said to be the cause of the disease. The fluid when absorbed will also prevent that tarry condition of the blood which stops circulation, and will not interfere except by dilution with opium, acids, gases, or any other antiseptic remedies that may be thought proper to be applied to the interior of the stomach and bowels. For security, the peritoneum may be cut down upon with antiseptic precautions by an ordinary scalpel, and when it is reached a minute hole be made by pinching up the part and incising it so as to admit the dome-shaped aspirator needle or other purified tube. The mouth of the reservoir or aspirator bottle should be closed by sterilised cotton-wadding, and the wound be antiseptically dressed immediately after the operation. The proper time to fill the peritoneal sac is when the serum is rapidly draining off from the bowels, and before collapse occurs, but I would not hesitate to use it in that condition so long as there seemed to be any prospect of absorption.

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## EXCISION OF LOWER JAW FOR RECURRENT MYELOID EPULIS.

By W. ALEX. MACKAY, M.B., C.M. EDIN.

EMILIA DE G—, aged twenty-six, born in Madrid, had the last lower molar tooth extracted in 1877. The extraction was followed by a good deal of bleeding and pain. Three months after she felt a hard painless swelling on the outer aspect of the bone corresponding to the situation of the extracted tooth. This slowly increased till in 1881 it had attained the size of an orange. The patient then consulted Senor Don Enrique Perez Andres, who removed the tumour. In three months the growth had returned in the same place, hard and painless as before, but growing now more rapidly, so that on December 20th, 1883, the left cheek was found tightly stretched over a tumour which entirely surrounded the left half of the lower jaw. The growth extended upward to the articulation, inward half way across the mouth, forward it reached the symphysis, and downwards it projected on the neck. The alveolar border of the upper jaw was carried inwards nearly to the middle line, the teeth of this jaw being received into a deep sulcus on the upper surface of the tumour. Examination of that part accessible from the mouth gave rise to pain, and this part also bled when touched, and was of a bright, fleshy, red colour. The cheek, which was adherent, was so tightly stretched that it had ulcerated at the most prominent point; but the ulcer had healed. Neighbouring glands were unaffected. The patient was of a nervous temperament, with a fast and weak pulse; very anæmic and emaciated, as she could not masticate her food, and had lived for some months entirely on fluids. There was slight congestion at the apex of the right lung. Heart and other organs were healthy. The urine was normal in quantity, and did not contain albumen. Her family history was good, and embraced no instance of tumour.

On Dec. 26th, 1883, the patient being under an anæsthetic, the following operation was performed. Entering the knife at the temporo-maxillary articulation, an incision was carried down along the posterior border of the ascending ramus, round the angle, and along the body of the jaw for