

occupants of a country is not a safe guide to what may obtain amongst newcomers. Natives stand pain, injuries, and surgical operations well, and they recover with less disablement than one would expect. Tuberculosis is certainly demonstrable *post-mortem*, although not common; when attacking the lungs it would appear from experience in this hospital to be more often disseminated than limited to areas of consolidation. Scurvy is also seen, at times similar to ordinary European scurvy and at other times aggravated by sub-periosteal hæmorrhage of the long bones of the legs, hæmorrhage into the muscles of the calf, along fasciæ such as the fascia lata of the thigh, and into the knee-joints. Such cases generally die from some complication such as dysentery, &c. Treatment seems futile; limejuice, raw meat juice, citrates of the alkalies, iodides, calcium chloride, iron, cod liver oil, and the whole list of supposed remedies for scurvy fail. One case of acute scurvy-rickets in a boy of about twelve or fourteen years of age is now in hospital and resisting all treatment. It is significant that natives confined in the gaol and others admitted here for prolonged treatment for, say accidents, frequently develop scurvy, although no fault can be found with diet and surroundings."

The scurvy met with in India is not usually accompanied by numerous hæmorrhages, but the same difficulty in ascertaining its cause and consequently in treating it exists. The facts mentioned about scurvy and dysentery in the Current Literature columns in our present and last issues deserve careful consideration.

OLIVE OIL IN ENTERIC FEVER.

WE have been favoured with the subjoined table showing the further results of the treatment of enteric fever up to the present time by means of olive oil given in two ounce doses three times a day. The treatment was introduced by Major Rennie, R.A.M.C., of Meerut, and promised well at first. In these 137 cases the mortality was 22 per cent., just a little better than the average case death-rate in the British Army in India which, for the last five years, has been 25 per cent.

Station.	Cases treated.	Deaths.	Per cent. of deaths.
Meerut ...	58	14	28.7
Muttra ...	11	3	27.2
Kirkee ...	3	0	0
Landour ...	5	0	0
Chakrata ...	18	2	11.11
Agra ...	21	5	23.81
Jhansi ...	18	5	38.4
Nowgong ..	3	3	100
TOTAL ...	137	32	22 p.c.

Reviews.

A Treatise on Aphasia and other Speech Defects.—By H. CHARLTON BASTIAN, M.D., F.R.S. H. K. LEWIS, 136, Gower Street, London, 1898.

THE learned author of *The Brain as an Organ of Mind and Paralysis: Cerebral, Bulbar and Spinal*, &c., &c., has contributed yet another book on diseases of the nervous system. His work on *Aphasia* is the outcome of thirty years' special study of a very complicated subject, which he expounds in a bold and original

manner and in no uncertain or doubtful strain. There is no mistaking when he is at one with, or at issue with, this author or that, yet his arguments are conducted with perfect good taste and good temper, in a spirit which those who bicker over chloroform, alcohol, malaria, etc., might imitate with advantage to themselves and every one else.

In 1895 we reviewed Wyllie's *Disorders of Speech* in these columns, and Bastian's *Aphasia* is a work of a kindred nature. Its scope is narrower than that of the former, but it gains in concentration as a consequence. Adopting the same procedure as Wyllie, the author has illustrated his thesis with over a hundred clinical cases carefully culled from all available sources, and he discusses or interprets them with the skill and acumen of a past master. These typical cases have been selected with a view to simplicity and completeness, for notes of *post-mortem* examinations are furnished in the majority of them.

Bastian regards the power of speech as an automatic act for human beings: through a process of evolution the potentiality of speech movements has been inherited from innumerable generations. The infant is born with a nervous system tending to develop in certain special directions, and thus it comes about that the power of speaking can only be regarded "as a motor achievement of an order similar to some of those which may be included among the instinctive acts of lower animals,"—with instinctive acts that animals manifest not so much at birth as those which appear a little later in life.

Bastian considers that there are three distinct physiological types of memory for words, and that one of these exists in two forms, making four varieties in all, *viz.*:—Auditory, Visual and Kinæsthetic Memory, the last consisting of Glosso-kinæsthetic and Cheiro-kinæsthetic impressions. In like manner there are four corresponding "centres," or organic seats, for these different kinds of word memory, each with its own sets of afferent, commissural or associational, and internuncial fibres. These forms of word-memory are purely sensory, even the kinæsthetic centres are in every way analogous to the afferent centres in the spinal cord, and are not motor centres as maintained by Ferrier. Indeed Bastian sees no reason for postulating the existence of cortical motor centres for the production of voluntary movements, because only one set of motor centres is brought into play in voluntary or reflex movements, and these motor centres are situated in the bulb and in the spinal cord. In fact he believes that the action of motor centres generally is attended by no psychical accompaniments. Words, he insists, are revived in ordinary thought chiefly as auditory ideas, and to a less extent as visual images. "The primary revival of words during thought takes

place, I submit, in the great majority of persons by a sub-conscious process in the auditory centre, and tends to be immediately followed by correlated revivals in the glosso-kinæsthetic centre, and these again by incipient or complete activities in the bulbar motor centres.

* * * The real linguistic counters for thought are the auditory and visual memories of words."

Although the term "centre" is as freely used by Bastian as by other writers on cerebral processes, yet he makes it very clear that he is no believer in their complete topographical distinctness. He regards the cerebral cortex as a continuous aggregation of interlaced centres and associational fibres, towards which impressions converge from all parts of the body. These diffuse but functionally unified nervous networks, or "centres," differ from the commonly accepted notion of a cut and dry, neatly defined centre; but they are more in accordance with the facts of clinical experience.

Broca's region, the foot of the third frontal convolution, is Bastian's glosso-kinæsthetic centre; the cheiro-kinæsthetic centre he is inclined, along with Exner, to locate in the superjacent region of the second frontal gyrus; the specialised portions of the general auditory and visual centres, i.e., the auditory word centre and the visual word centre, in the posterior half or two-thirds of the upper temporal convolution, and in the angular and part of the supra-marginal convolutions respectively.

In tracing the relations between thought and language, Bastian discards the necessity for a centre for concepts, or ideation, as propounded by Broadbent, Kussmaul, Charcot or Lichtheim. His view is that there is an infinite variety and complexity in perceptive processes, which are merged by insensible gradations into processes of conception. For the higher and more specialised modes of thought he postulates the existence of "annexes" of the perceptive centres, which correspond to Flechsig's "association areas" of the four cortical centres, or sensory areas.

Under the general term Anarthria or Dysarthria the author describes the defects of speech and writing due to structural or functional degradation of the motor centres in the bulb. A good many people will demur at the speech defects in chorea being classed with forms of structural disease in the bulbar speech centres, e.g., with insular sclerosis or with labioglossolaryngeal paralysis; though the functional group of lalling, stammering and aphthongia seems unobjectionable.

The chapter on lesions involving the pyramidal fibres, dealing with complete and incomplete aphemia, is most interesting. The bulk of the book, as might be expected, treats of lesions in the Glosso and Cheiro-kinæsthetic centres, in the auditory and visual word centres, and in the various commissures connecting these

centres. Bastian lays special stress on the immense importance of the auditory word centre, and shows the great variety of defects resulting from lesions in this area. At the same time he points out that the importance of Broca's centre or convolution has been overestimated. He also adduces evidence in favour of functional substitution between the visual and auditory word centres for the production of speech and writing; he shows reason for believing that both auditory word centres are accustomed to act upon Broca's region for the production of speech, and also that large areas of the cortex in both hemispheres are called into simultaneous activity even in comparatively simple processes of perception and conception.

It is shown that the glosso-kinæsthetic centre is chiefly at fault in functional defects of speech, and that more rarely implication of the auditory word centre may give rise to amnesic effects. It is suggested that hysterical mutism is due to a simultaneous functional disturbance in the third frontal convolutions of both hemispheres, though some such cases may result from functional troubles in the bulbar motor centres.

Towards the end of the book there is a most useful chapter on the diagnosis of speech defects. In this there is given a scheme for the examination of aphasic and amnesic patients, and the main part of the book is summarised in a table containing the clinical characteristics and sites of lesions in the different forms of speech defect.

The Cold-Bath Treatment of Typhoid Fever

(based on 1,902 cases at Brisbane Hospital), by F. E. HARE, M.D., London: MACMILLAN & Co., 1898.

DR. HARE need make no apology to the profession for presenting them in this handsome volume with the results of his long experience in the cold-bath treatment of typhoid fever, with which his name, as well as that of Brand, are always associated. In the English language there existed no single work dealing with this method, and practitioners anxious to try it have had to search periodical literature for reports on the subject. The French have a similar volume by Tripier and Bouveret.

Our author claims that this method has made great and steady strides in various parts of the world, e.g., America, France, and Australia. Though the *British Medical Journal* recently alluded to the method being only in its experimental stage, it is apparent that the writer did not fully realise the method he was criticising, and after a perusal of this volume no one can fail to understand the method and exactly what is claimed for it.

Instead of criticising the treatment here it will repay our readers better if we very briefly synthesise the method as carried out by Dr. Hare and his assistants. We begin by quoting "Brand's rule" (for the method is due to the late Dr. Brand of Stettin): "The patient's temperature is taken in the rectum every three hours, night and day,