appearances typical of general paralysis. He makes this case the basis for discussing the time-honoured question of the syphilitic origin of general paralysis. Before closing his paper he shows how mercury produces on the nervous system effects similar to those of syphilis.

W. J. PENFOLD.

The Asphyxial Problem in Convulsive Seizures. (*Brit. Med. Journ., Sept. 23rd*, 1899.) *Briscoe, J. F.*

The first part of this paper consists of a discussion of the post-mortem appearances in cases dying from asphyxia, their mode of occurrence, and the various fallacies which arise due to the methods of making the autopsy and to post-mortem changes. The writer finally gives adhesion to the views of G. Johnson (*Lancet*, April 11th, 1891) that the distension of the right side of the heart is due to contraction of the pulmonary arterioles, there being arterial anæmia of the lungs and corresponding defective blood-supply to the left side of the heart. He next goes on to state the conditions under which convulsions may occur, namely, (1) in cases where the arterial contraction is purely reflex-nervous; (2) in cases where similar contraction is due to blood poisoning. The former occurs in epilepsy, the latter in uræmia. When the healthy respiratory act is restored, the venous congestion of the various organs subsides. In status convulsivus, however, the venous system becomes gorged, and if unrelieved the patient dies from asphyxia. He is of the opinion that in this state it is not safe, and, in fact, almost impossible, to administer drugs. Only three things can be done; chloroform or nitrite of amyl can be used, or venesection performed. The former he dismisses summarily. Nitrite of amyl is objected to because it turns hæmoglobin to methæmoglobin, and thus hinders oxidation of the tissues. The final resource is venesection. He believes that the pulmonary spasm is due to disturbance of the vaso-motor apparatus in the bulb. The changes in the chromatic substance of the cortical pyramidal cells and the œdema of the perivascular and perineural lymph spaces described by Mott are, according to the writer, due to venous congestion. If this engorgement is not relieved extravasations of blood are prone to occur in various organs. He strongly advocates venesection.

J. R. LORD.

---

7. Treatment of Insanity.

Some Points connected with Sleep, Sleeplessness, and Hypnotics. (*Croonian Lectures, Lancet, June and July*, 1899.) *Bradbury, J. B.*

Under the "physiology of sleep" the remarkable achievements in the histology of the central nervous system are discussed. The "neuron," consisting of cell body with its branching processes (dendrons and dendrites) and its axis-cylinder (axon or axite), from which branchings also proceed, is fully described. From the description of the structural nervous unit, whose complex relationship to other units is set forth, we are led to theories of sleep based upon these new data. The theory of an amœboid movement of the neurons, whereby the

terminal branchings of the dendrites might be approximated or separated, has thus arisen, sleep being represented histologically by a retracted state of the neurons with consequent diminished facility of passage of the stimuli from one neuron to another. This is Lepine and Duval's theory. Lugaro, taking the same data, supposes sleep to be the result of an expanded state of the branchings of the neurons, which, causing an opening up of nervous paths, leads to an unrestricted flow of nerve impulses, manifesting itself by confusion of thought and loss of consciousness. The vaso-motor chemical and psychological theories of sleep follow. Then Dr. Bradbury deals with the question of hypnotics and the fascinating subject of the relation between chemical structure and physiological action,—here, of course, in respect of hypnosis. Nothing that might be called new light is here forthcoming, but the subject is intricate to a degree. Practice, alas! makes no very great figure after these brave theories have been passed in review. We learn that we must attack the causes of insomnia, and these are marshalled as (1) *irritative*, (2) *toxic*, (3) *psychical*, (4) *relative to change in the mode of life*. Germain See's divisions into *dolorous*, *digestive*, *cardiac and dyspnœal*, *cerebro-spinal and neurotic*, *psychic* (insomnia), *of fatigue*, *genito-urinary*, *febrile and toxic*, suggest, perhaps, a more practical grouping. Accepting Dr. Bradbury's classification, we find suggestive hints as to the treatment of the insomnias according to their causation. The insomnia of the insane is treated by bromides, chloral, hyoscine, hydrobromide, etc. In melancholia, where arterial tension is high, paraldehyde "in doses of from 40 to 90 minims or more" is described as a valuable hypnotic (is the dose of 40 minims ever effectual?), also morphine; but in certain of these cases Dr. Bradbury says that erythrol tetranitrate in 1-grain dose will often act better than anything else by its lowering of arterial tension.

Of treatments for the insomnia of delirium tremens, the use of capsicum, in a bolus containing 20 grains, is mentioned as a favourite remedy among medical officers of the American army; this treatment has been advocated elsewhere. HARRINGTON SAINSBURY.

Sleeplessness. (*Lancet, Jan. 27th*, 1900.) *Broadbent, Sir W. H.*

The theories of sleep are passed by without discussion, though Sir W. Broadbent cannot refrain from asking the question, *re* the influence of the circulation, why are the arteries of the pia mater supplied with muscular fibres if there is no vaso-motor control, as Dr. Leonard Hill maintains? Broadbent states, moreover, that Dr. Alexander Morison has preparations showing very clearly the vaso-motor nerves of the pial vessels. The practical consideration of insomnia is discussed from the ætiological standpoint, and among the causes indigestion is stated to be "by far the most common." Much brain work, sedentary occupations, grief, and worry may all cause insomnia *viâ* a deranged digestion; nor need we be conscious of gastric or intestinal pain or of the distension of the alimentary tract by flatulence, for dyspepsia still to be the true disturbing cause. To dyspepsia Broadbent ascribes some of the cases of insomnia after tea and coffee, but to us he seems to put this more tentatively than is needful, for without doubt coffee or tea wakefulness is often conjoined with marked dyspepsia, and an appropriate dose of