

## Medical Matters.

### THE PHYSIOLOGY OF HICCOUGH.



The physiology of hiccough, says the *Lancet*, is interesting, and should be remembered because the presence or absence of this symptom sometimes forms a valuable indication in the treatment of dyspeptic subjects. The mechanism which produces hiccough or *singultus* is the same as that producing the "cry" which often accompanies an epileptic fit, the so called "bark" of sufferers from hydrophobia and tetanus, and the occasionally recorded noises proceeding from "the silent dead" when rigor mortis is setting in. The mechanism is akin likewise to that of sighing and yawning, which modifications of respiration, however, are under the control of the will. The noise emitted is due to a rapid clonic spasm of the diaphragm, causing a premature inspiratory act, while the walls of the glottis are not sufficiently abducted to allow the air to enter the trachea quietly. If the diaphragm contracts very energetically, the result is retching and vomiting. The inability to maintain voluntarily the regular respiratory rhythm is a well-known condition precedent to actual sea-sickness and in fact the etiology of hiccough is sufficient to explain the physiological action of emetics, physical or pharmacological. The proximate cause of hiccough is the sudden contraction of the diaphragm by direction of the phrenic nerves. These lengthy nerves may be stimulated directly, centrally, during their cervical or thoracic course or at their terminal filaments; they may be the final carriers of reflex messages, particularly from the ubiquitous vagus nerve; occasionally hiccough occurs as a functional neurosis, although some organic cause, patent or latent, as a general rule can be found. The most commonly occurring stimuli proceed from below the diaphragm, either from some local irritation of the peritoneum, as in perityphlitis, or from an irritated stomach or intestine; thus the too liberal use of alcohol or of red pepper in "devilled" foods, or the existence of flatus, may all stimulate the afferent fibres of the vagus and perhaps consummate in emesis. Local irritation of the pharynx or the mechanical pressure of an aneurysm or a neoplasm upon the afferent phrenic nerves may lead to distressingly chronic attacks of hiccough.

With paresis of the phrenic nerves this manifestation is absent. Of the many therapeutic agencies recommended sneezing is one of the most efficient; it is also one of the most ancient, for Plato tells us that it succeeded with Aristophanes when all other means failed to arrest an attack of hiccough.

### SPOTTED FEVER.

The Local Government Board has issued a circular concerning cerebro-spinal fever to borough, town, and urban and rural district councils. The circular states that the Board has reason to believe that the fact that cerebro-spinal fever has recently been somewhat extensively prevalent in Central Europe, and in America has given rise in some quarters to a doubt whether the disease in question may not have newly extended to or have been developing in this country. The Board thinks it desirable, therefore, to state that, so far as it has been able to ascertain, there is no ground for such apprehension. It appears, in fact, to be probable that cerebro-spinal fever is at the present time not more prevalent in this country than it has been from time to time during the last quarter of a century. Nevertheless the Board considers that sanitary authorities should be on the alert to detect the presence of the disease in their districts, or to satisfy themselves as to its absence; and to this end the Board has issued a memorandum, which has been prepared by its medical officer, dealing generally with the characteristic symptoms of the disease.

Dr. W. H. Power, medical officer to the Board, says:—"Cerebro-spinal fever, known also as epidemic cerebro-spinal meningitis, spotted fever, and by many other less frequently used names, has recently attracted renewed attention in this country by reason of the serious mortality occasioned by disease of this class in New York and in certain localities on the Continent of Europe. Interest in this malady has been further stimulated by the public notice which has been taken of the recent identification of a case in the neighbourhood of London, and of several cases, four of which terminated fatally, at Irthlingborough, in Northamptonshire. Cerebro-spinal fever is not of rare occurrence in the United Kingdom. In the course of the last forty years this malady is known to have been prevalent in a considerable number of different localities in England and Wales, several of these local outbreaks having taken place in recent years. In some instances

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