deal of attention and a new impulse has been given to the innervation and mechanical movements by the opportunity afforded · for observing the effects of stimuli directly to its substance in the case that occurred lately in Germany, examined by Ziemssen. A woman, æt. 45, had a tumour removed from the anterior wall of the thorax, which left the two ventricles and part of the left half of the diaphragm exposed. The following conclusions have been formulated :----(i). That the contractions are evoked by the stimulus of alkaline blood to its mucous membrane (?) acting through the ganglia of the sympathetic, which are in connection with the vagus; (ii). That their rhythmical character ultimately depends upon the peculiarity of the muscular tissue and, (iii). That the compensating rest of the heart is due to the nervous structure which might be represented as opening and closing the current.

Important information has been published on "the mean pressure and characters of

## THE PULSE WAVE IN THE CORONARY ARTERIES,"

which appears to settle the question in favour of those who believe "the coronary arteries injected during the systole of the heart and not during the diastole." It is obvious the influence this would have on the nutrition of the heart in valvular lesions.

During the year, important additions have been made to our knowledge of the

## COMPOSITION OF BLOOD

as the discovery of a third or transparent corpuscle. The use of the hæmatocytometer facilitating calculations as to the absolute number of corpuscles in the medulla of bones. Also that the white corpuscles contain a ferment that plays an important part in fermentation.

The location of cerebral function has occupied much attention, as also,

CROSS-ACTION OF THE CEREBRAL NERVES.

primary lesion or seat of disease. of its own.

the brain and the adjacent motor regions causes convulsions more frequently on the side irritated than on the other. The superficial parts of the brain produce chiefly cross convulsions; but irritation in all parts may cause convulsions on the same side, and that the chief foundation for the theory of psycho-motor centres, and of the cross functional relation between the hemispheres and the limbs must be considered to have lost its value ; and that the excitomotor zone of the cerebral surface, and indeed all the excitable parts of the brain are capable of putting in action the limbs of the same side as well as those of the opposite." This is high authority for an opinion, which no doubt will cause surgeons to hesitate before resorting to operative procedure in such affections as epilepsy, paralysis, etc., to which it was supposed to be a sufficient guide to indicate the

"convinced that irritation of the base of

FUNCTION OF THE SYMPATHETIC.

The sympathetic nervous system while closely connected with the cerebro-spinal yet appears to have an independent action This is well illustrated by the fact that the foctus may arrive at the full time with ample perfection of the functions of organic life, while without any trace of brain or spinal cord. Observations also lead to the conclusion that the sympathetic enters largely as a factor into all functional and organic diseases. Dr. E. L. Fox, in his Bradshawe lectures, lately delivered, showed that Dr. Woakes' idea that the "inferior cervical ganglia is a correlating nerve centre" may be explained thus:-The influence of emotion may be seen on the cervical ganglia (blushing,) on the cardiacnerves (palpitation,) on the splanchnic, on the abdominal plexus, and especially on the vesical ganglia. He has also shown that although the sympathetic may not be considered as a cause it is a chief factor in inflammation by causing dilatation of the

Dr. Brown-Sequard writes that he is blood vessels.