

orbicularis muscle of the eye, and only one for all the movements of a limb. He considered that the question of the excitability of the cortex ought to be taken up thoroughly. Some fifteen observations on the human subject seemed to indicate to him that limited lesions of the gray matter of the cortex produced certain special symptoms. He therefore thought that the society ought to take up the subject, and moved that a commission be appointed to perform the necessary experiments, etc., to decide the question.

The president, M. Ranvier, therefore, nominated as members of the commission proposed, MM. Brown-Sequard, Moreau, Vulpian, and Lepine.

THE following note by M. Dupuy was read by the secretary, M. Henocque, at the *seance* of the Soc. de Biologie, April 17 (reported in *Gaz. Med. de Paris*):

1. If we lay bare the hemispheres in Guinea pigs, we never observe attacks of epileptiform convulsions, comparable to those which we see in animals, following various lesions of the nervous system.

2. An electric current, of any strength whatever, applied to these hemispheres also does not cause epileptiform convulsions in these animals, although it may produce the most violent opisthotonus.

3. The same is true of dogs and cats; the first, in particular, under the influence of intestinal worms, certain nervous lesions, and the intoxication by essence of absinthe, have convulsive epileptiform attacks, having no resemblance to opisthotonus nor to tetanic or choreic convulsions, or better, the universal muscular contractions provoked by electricity.

4. When we obtain localized movements in any group of muscles, from electric irritation of a given point of the cortical substance, I hold that these movements do not prove the excitability of the gray substance directly put in action by electricity. In a word, that substance is unexcitable. It may be, and I am inclined to think that it is so, that the electricity irritates and puts in action the nervous fibres in relation with the nerve cells, and which thus call out their action, but I do not believe that we can constantly designate any point whatever of the gray substance which, being thus called to action, can be considered as a motor centre. I propose to hereafter publish some experiments which support my views.

5. We cannot think that the most external white cortical layers are composed of excitable nervous fibres like those of the anterior columns of the cord, as M. Rouget has said, because the anterior columns, even when the animal is profoundly anesthetized, irritated by the same current as the fibres of the cortex, give rise to muscular contractions, while the others under these conditions do not respond to this kind of irritation any more than to other physical and chemical means of irritation, which succeed with the anterior columns of the cord.

ARREST OF THE HEART.—M. Tarchanoff made a communication before the Soc. de Biologie, March 20 (reported in *Gaz. Med. de Paris*), in which, after alluding to the well-known experiment of Goltz, of causing a cessation of the heart's action by a smart tap on the abdomen, and those of Bernstein

of producing the same effect by electrizing the abdominal-sympathetic, stated that he had also caused the arrest by merely touching the exposed and inflamed intestines after section of the abdominal walls. It was necessary that inflammation should have taken place, since the reaction did not follow touching the freshly exposed viscera. It likewise failed when the pneumogastrics were cut, and when the animal was curarized. The explanation given was in agreement with that of Bernstein, that the inflamed terminations of the sympathetic, being excited by the contact, the excitation was propagated along the communicating rami to the cord and upwards to the medulla, whence it reacted on the pneumogastrics.

At a later session of the same society, April 24, M. Tarchanoff made a second communication, in his own name and that of M. Prielma, the abstract of which we take from the *Gaz. des Hôpitaux*, No. 49. The experiments were made by the authors on the arrest of the heart, provoked in animals by excitation of the pneumogastrics.

Wishing to obtain as prolonged an arrest as possible by means of this excitation, they observed the following fact, which seems to have heretofore escaped the attention of physiologists:

They wished to excite alternately each of the two pneumogastrics; but once when one of the two had ceased to be excitable, and consequently to exert action, the other, which had not yet been submitted to any excitation, also ceased to act, although it had not yet been touched. The excitation of only one pneumogastric, therefore, suffices to exhaust the moderator apparatus of the heart. It follows from this fact that the inhibitory mechanism is held in common by the two pneumogastrics. The fact is an important one as regards the inhibitory action of the pneumogastrics on the heart.

REFLEX EFFECTS OF CAUTERIZATION.—At the meeting of the Soc. de Biologie, April 3 (reported in *Gaz. Med. de Paris*), M. Brown-Sequard related the results of experiments undertaken by him to determine the reflex action of cauterization of the skin at the level of the cervical vertebrae in man. Being struck by the fact that cauterization at this level produced favorable effects in cerebral congestions, M. Brown-Sequard concluded that the cauterization acted on the cerebral circulation by a reflex action on the great sympathetic; and then he sought to ascertain whether it did not produce the other effects of irritation of that nerve, such as pupillary dilatation and elevation of the temperature.

On three patients cauterized, the effects were quite noticeable; the pupils dilated, the dilatation lasting from five to fifteen minutes, and in one case there was an increase of temperature of one degree. M. Brown-Sequard, in testing whether some other impression, such as cold, produced analogous phenomena, did not obtain equally satisfactory results.

STRUCTURE OF THE PACINIAN CORPUSCLES.—In a paper on the Pacinian corpuscles, just published in the *Quarterly Journal of Microscopical Sciences*, Dr. Schaefer states that a Pacinian corpuscle may be looked upon as consisting of three parts—the central fibre, the core, and the capsular enclosure.