

vibrations to the brain plays a rôle in the production of these effects.

Scarcely had the author published his article when the question of priority arose.

Dr. Jennings wrote a letter published by the *Progrès Médical*, February 19th, 1881, in which it was said that for four years Dr. Mortimer Granville, of London, applied the same method of vibrations for the cure of pain. He had even invented a special instrument called "the percuteur" which had been tried with relative success in a hospital in Paris.

M. Boudet recalled the experiments of M. Vigouroux, said that neither Dr. Mortimer Granville nor himself had "invented the vibrations," and desirous, perhaps of avoiding all future discussions, cut short his researches.

M. Granville, however, in a book which appeared in 1883, tells us the results of the method which he has employed in the treatment of certain diseases of the nervous system. The work of M. Granville may be divided into two parts: one theoretical, one practical, the second resulting directly from the first.

Vibration gives to the nerve which serves to conduct it the energy that it had lost. M. Mortimer Granville proposes to always act *locally*. He makes use of a percuteur, the "clock work percuteur," the mechanism of which recalls that of the striking part of a clock. This apparatus is convenient for the practitioner, it is portable and difficult to put out of order, but the doctor who devotes himself especially to percussion will employ in preference the system set in motion by electricity. The rod, percussing much rather than vibrating, is of a variable form; a button, a disc, a small hammer with a flat head, a pencil or brush. According as one wishes to act locally or over a more extensive surface, one can even place a painful foot in water for example, and make use of this latter to diffuse the vibrations. The séances have a variable duration according to the case.

The results that he has obtained in the treatment of certain neuralgias, in particular of facial neuralgia, are remarkable. But the treatment is especially to be recommended in neurasthenia, cerebral or spinal, in migraine and in insomnia. If a headache is localized, one percusses and causes to vibrate locally the nerves and nervous plexuses of the neighborhood; if it is more extended as in

migraine, one passes the vibrating brush from before backwards. The same procedure is followed in the pains of neurasthenia which are localized the length of the vertebral column. Let us retain these different methods of treatment, we will be obliged to recall them presently.

For a long time I have taught patients attacked by paralysis agitans that they would derive great benefit from voyages on a railway or in a carriage. During the entire duration of the voyage the sensations so troublesome and at times so painful, which are the almost necessary cortège of this disease, seem to disappear almost completely; the benefit lasting a certain time after the termination of the voyage. I had very often occasion to remark these facts to the students who followed my lectures, and I expressed the hypothesis more than once that good effects would follow the treatment of Parkinson's disease by a procedure which would resemble the combination of movements communicated to the body by a carriage in motion.

One of my hearers, Dr. Jégu, proposed to me to search for an apparatus realizing these desiderata. Aided by a distinguished engineer, M. Solignac, he constructed an arm chair in which a special mechanism communicated rapid movements of oscillation around an anterior and lateral axis. These movements combined and opposed produced a vibration, a rapid trembling, very like, as you may judge for yourself by sitting in the chair, to that which one experiences when seated in a railway carriage in motion. The apparatus installed, M. Jégu had no trouble in finding subjects for experiment among the patients of my service, and those who frequented my polyclinic, but death came suddenly to overtake him in the midst of his researches.

At my request, M. Gilles de la Tourette, my former *chef de clinique*, was kind enough to continue the experiments which had been interrupted. These have been tried as yet on eight subjects, six men and two women. Unfortunately these, for the most part, have not belonged to the service, and several for diverse causes have followed the treatment irregularly.

Without seeking to analyze one by one the satisfactory results which have been obtained, one is permitted at present to form a general idea of the action of the treatment.

Improvement generally makes itself felt after