

locally applied coincide with the results already observed in the series of cases herein detailed, it seems reasonable that the following conclusions be considered deducible :—

“First. That in many forms of disease attended with pain or irritation the local application of the vapor of chloroform will frequently act as quickly in affording immunity for suffering as though inhaled in the usual manner.

“Secondly. That the vapor locally applied is not attended with any unpleasant effects (save the sensation of more or less heat) either at the time or subsequently, and it is therefore eligible under circumstances contra-indicating its use by inhalation.

“Thirdly. That as a remedy, its local application is preferable to the use of opium and most narcotics in spasmodic and painful affections, particularly of the uterine system, owing, first to its freedom from causing derangement of the digestive organs, and secondly, to its greater rapidity of action.”—*N. Y. Journal of Medicine.*

ON THE TRANSMISSION OF SENSITIVE IMPRESSIONS IN THE SPINAL CORD.

By Dr. Schili.

Dr. Schili read an interesting paper and performed some interesting experiments before the Academy of Sciences, at its last meeting, on the transmission of sensitive impressions in the spinal marrow. In men, and the superior orders of animals, the brain sends into the interior of the vertebral column a nervous prolongation, vulgarly called the spinal marrow; an organ whose importance is evidently exhibited by the careful armor of bones which protects it, and by the grave disorders superinduced by every injury received, militating against the integrity of its functions. Anatomy divides the spinal marrow into several distinct parts—a double and a symmetrical organ, whose right and left moieties are separated by a limit traced by nature, a sort of furrow (there are two, one anterior the other posterior) which the anatomical student has but to follow with his scalpel, to divide the spinal marrow into two parts. Each of these parts is divided into three chords, so that there are in all six medullar ribbons—two anterior, two posterior, and two lateral. Nor are these all: when the marrow is transversely cut, the student may observe that the right and left moieties are held together by a connecting substance, which is called the central gray *commissura*, from its being less white than the rest. Here anatomy ends, and here physiology takes up the theme and endeavors to add new light to the subject. It may not be so sure as anatomy; it is a progressing, a new science; but how great interest is now felt in its least discoveries, as it tries to explain the operation of the organs, or, at the least, to exhibit the use of the different parts?

One of the most important facts discovered by the experiments of vivisection is the unquestionable difference existing between two sorts of nervous fibres; these being exclusively affected to sensation and those to motion.—The reader will remark the word fibre, and not nerve, is used, for by a very remarkable singularity of organization, most of the nerves which are ramified in the different parts of the body are mixed nerves—*i. e.* groups of two sorts of fibres so confounded together that they cannot be separated; it is only in a very limited portion of their route the fibres of the same species are assembled together. Take at will in the body of a man any nerve large enough to be followed easily towards its origin; the student will be led to the spinal marrow, their common origin, and he will recognize that the nerve is implanted in it by two roots (and not very large) placed behind each other. Of these two roots, the anterior is formed of fibres used to excite motion; in the posterior root, on the contrary, all the fibres are exclusively destined to sensation. Pinch the former in a living animal, there will be