

Periscope.

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ANATOMY AND PHYSIOLOGY.

SENSITIVE NERVE ENDINGS IN STRIATED MUSCLES.

Dr. C. Rouget (La France Méd., July 24th, 1896) studying the motor nerve endings in tadpoles by means of impregnating living muscles with methylin-blue, was able to determine the existence of sensitive muscular nerves which terminate on the striated fibres, but outside of the sarcolemma, while the terminal motor nerves are in direct contact with the contractile substance. These two classes of nerve endings are, therefore, not situated on the same plane in the fibre, but are separated by a narrow space, which allows of their being photographed (microscopically) simultaneously. The sensitive endings never present the sudden swellings or inflections like the axis cylinders of motor nerves, but always retain their characteristic mode of ending, such as, for instance, in the cornea, the skin, etc. Furthermore, the course of motor nerve endings, always running parallel with the axis of the striated fibres, differentially from sensitive nerves, the endings of these being directed obliquely or transversely to the muscular elements. Again, each striated fibre is supplied with one or more motor nerve endings, while those of the sensitive fibres are far less numerous, with quite long intervals between them. These nerve endings are most thickly strewn in the deeper layers of muscles, where the terminal motor fibres are also most abundant. The author concludes that the two foregoing classes of nerves, being in direct contact with the contractile elements, form, with the muscular fibre, the hypothetic nervous arc of Charles Bell, by means of which a cerebral impulse is transmitted to a muscle by one nerve, and the condition of the muscle is communicated to the brain by another.

MACALESTER.

ON THE COURSE OF THE TASTE FIBRES.

In the Edinburgh Medical Journal, for April, 1897, A. F. Dixon examines the arguments in favor of the passage of the taste fibres to the brain by the fifth nerve roots, and those which opposed to this tend to show that they pass in with the roots of the facial and the glossopharyngeal. On anatomical grounds, and from the results of embryological experiments by himself and others, he is inclined to favor the latter view of the case.

ALLEN.

THE INTERNAL SECRETIONS OF THE THYROID AND SUPRARENAL GLANDS. W. D. Halliburton, M.D., F.R.S. (The Practitioner, Jan., 1897.)

Recent research, according to the above authority, has shown that most, if not all, of the so-called ductless glands form a secretion, and