

the point, in fact, which would lead to their own disintegration and death. But pain is either a pathological condition, or an index to a pathological condition; and we all know we may continue in motion long after severe pain and fatigue would warn us to desist. In some of my peregrinations along the borders of the Hartz Mountains, with two companions, in years gone by, a stipulated excursion through a grape country has led us to continue to tramp on, long after weariness and fatigue scarcely permitted us to drag our sluggish lengths along. 'Tis true that myositis did not follow but in one instance, but 'tis also true that the painful parts were favored when in motion. We know that by a strong effort of the will we may continue to gaze at the noonday sun till a retinitis, fatal to vision, supervene. The ear may be the recipient of sounds so harsh and so shrill, that the delicate auditory nerve is pained at hearing them, and *inflames* at their continuance: and it is the opinion of many that the human ear is incapable of appreciating sounds produced by more than 24,000 vibrations in a second, because, fashioned as it is, more rapid vibrations would be fatal to its integrity, and, perhaps, to that of the nervous system. But rather than enter into a disquisition on subjects so subtle and abstruse, which to some may appear foreign to the matter in question, and which have been introduced merely to illustrate the control of the will over our motions and acts, even after the developement of morbid phenomena, I return to the facts, and with the facts, as stated, certain propositions may be advanced. These are:

1st. That the sense of fatigue in the course of a voluntary muscle induced by unreasonable or violent exercise, accompanied by pain, heat, and discoloration of the part, is due to an inflammatory condition of the muscle or muscles implicated. (Case 1st).

2nd. That violent exercise of particular muscles may induce suppuration of the overwrought muscle. (Cases 2nd and 3rd.)

3rd. That suppuration is at the expense of the muscular fibre, the sarcolemma not participating in, and the areolar tissue remaining free from, the inflammatory process. (Cases 2nd and 3rd.)

4th. That inflammation affecting the muscular tissue implicates, by extension or contiguity, the aponeurotic expansion of the muscle. (Case 3rd.)

5th. That inflammation thus induced in a muscle may extend to the osseous structures to which it is attached. (Case 3rd.)

6th. That suppuration induced in an overwrought muscle may like the inflammation extend to neighbouring tissues and cause their destruction. (Case 3rd.)

7th. That muscular fibre lost during the suppurative process is not again replaced by muscular fibre. (Cases 2nd and 3rd.)

The only proposition advanced with hesitation and diffidence is the seventh.

One or more dissections were necessary to establish its correctness, but when it is borne in mind that muscles grow by an increase in the *bulk* and not in the *number* of the ultimate fibres, the impossibility of new muscle forming when the fibrillæ composing the old had disappeared, may be readily granted. Moreover, new muscle occupying the site of the old, would occupy or fill up the same space. In cases 2 and 3 it was not so. There was and is a sinking in, a