

body are, the more carefully is the proper tension of the tendons, ligaments, and heart-cords preserved.

Or we may take the example of a steel spring. A piece of steel, heated to a white heat, and plunged into cold water, acquires certain properties ; and if heated again to 500° of Fahrenheit, it is very elastic ; possessing what is called a “ spring temper,” so that it will recoil and vibrate. But if this spring be bent in a degree too much, it will lose part of its elasticity. Should the parts of the living body, on the other hand, be thus used, they have a power of restoration which the steel has not.

If a piece of fine mechanism be made perfect by the workman, it may be laid by and preserved : but it is very different with the animal body. The mechanical properties of the living frame, like the endowments of the mind, must not lie idle, or they will suffer deterioration. If, by some misfortune, a limb be put out of use, not only is the power of the muscles rapidly diminished, which every one will acknowledge, but the property of resistance is destroyed ; and bones, and tendons, and ligaments quickly degenerate.*

* This subject is illustrated in the Essay on Animal Mechanics, Part II.