

Of all the solid parts of the animal frame, the most obviously mechanical are the jaws and teeth; we know, in each instance, the office they have to perform, and we know that they perform it well. Let us then examine, in a museum of anatomy, the jaws of some one order of animals—for example, the carnivorous. In each instance we find cutting teeth in front, sharp fangs on the sides, and molar teeth in the back part of the jaws. The molar teeth rise into sharp lance-shaped points of hard enamel, and overlap each other in the upper and lower jaw, like the edges of a pair of shears. We see at once an apparatus well fitted for tearing and for clipping flesh, and, in some cases, fitted also for cracking bones; but not at all suited for grinding the seeds or stalks of vegetables. Let us then observe the manner in which the jaws are fitted to one another. At each end of the lower jaw rises a well defined transverse process, working in a corresponding depression of the skull; in short, the jaws work together by a firm hinge, allowing them to open and shut like a pair of shears, but admitting of no grinding motion. That such an articulation is important for the carnivorous animal no one can doubt, who has observed how ill a pair of scissars perform their office with a loose hinge. Thus we see, from one end to the other, an implement well suited for its work, and all its parts in good adjustment. But all these nice adjustments would be lost, were there not levers attached to the jaw, and muscles to work the levers—were not each part of the animal frame adapted to all the other parts—and were not the instincts and appetites of the animal such as are fitted to give to this framework its appropriate movement.