same principle is applied by tool-makers for the purpose of maintaining a sharp edge in axes, scythes, bill-hooks, &c. An axe, or bill-hook, is not made entirely of steel, but of one thin plate of steel, inserted between two plates of softer iron, and so enclosed that the steel projects beyond the iron, along the entire line of the cutting edge of the instrument. A double advantage results from this contrivance; first, the instrument is less liable to fracture than if it were entirely made of the more brittle material of steel; and secondly, the cutting edge is more easily kept sharp by grinding down a portion of exterior soft iron, than if the entire mass were of hard steel. By a similar contrivance, two cutting edges are produced on the crown of the molar teeth of the Megatherium. (See Pl. 6, W. X. Y. Z. and Pl. 5, Figs. 6—10.)*

* The outside of the tooth, like that of an axe, is made of a comparatively soft material, viz. the crusta petrosa, (a a), inclosing a plate of enamel, (b b), which is the hardest substance, or steel of the tooth. This enamel passes twice across the grinding surface, (z), and forms the cutting edges of two parallel wedges, Y. b. b.: a longitudinal section of these wedges is seen, Pl. 6, v. w. x. y. Within the enamel, (b b), is a central mass of ivory, (c), which, like the external crust, (a) is softer than the enamel. A tooth, thus constructed of materials of unequal density, would have its softer parts, (a c), worn down more readily than the harder plates of enamel, (b b).

We find a further nicety of mechanical contrivance, for producing and maintaining two transverse wedges upon the surface