

fled in their attempts to approach it, sufficiently attest the perfection of its organization in reference to all these objects. The chamois has often been seen to leap down a perpendicular precipice of twenty or thirty feet in height, without sustaining the slightest injury. How the ligaments that bind the joints can resist the violent strains and concussions they must be exposed to in these quick and jarring efforts, is truly wonderful.

While Nature has provided these animals with the means of safety from their more formidable enemies, she has not left them altogether without defence against their more equal rivals in the field. It is on the head that she has implanted those powerful arms which are sometimes wielded with deadly effect in their mutual combats. Even when not furnished with horns, the animal instinctively strikes with its forehead where the frontal bone has been expanded and fortified apparently with a view to this mode of attack. Thus, the ram butts with its head without reference to the horns, which are coiled so as to be turned away from the object to be struck. In the deer and the ox tribes, however, the horns are formidable weapons of offence: and it will be interesting to inquire into the nature of these organs, and the phenomena of their production.

The antlers of the male stag are osseous structures, supported on short and solid tubercles of the frontal bone: after remaining nearly a year, they are cast off, and soon replaced by a newly formed antler, which is of larger size than the one which was lost. Previously to the formation of this structure, those branches of the artery, termed the *carotid*, which supply blood to the frontal bone, are observed very rapidly to dilate and to throb with unusual force; and all the blood vessels of the skin of the part where the antler is to arise, soon become distended with blood; an effect which is accompanied by general heat and redness, like a part in a state of high inflammation.* Presently the skin is

* These phenomena are connected with periodical changes in the constitution relating to the reproductive functions.