

sus were among this assemblage of fossil genera : but this was a mistake ; nor have either of these genera been as yet met with, fossil or recent, in any part of America, although the swine introduced by man, have multiplied so fast. The horse (*Equus curvidens*) was a species having teeth in the upper jaw more curved than any living horse, ass, zebra, or quagga ; and it is singular that, although there was no wild representative of the horse tribe on the American continent, north or south, when discovered by the Europeans, yet two other fossil horses were found by Mr. Nuttall on the banks of the Neuse, fifteen miles below Newbern, in North Carolina.* The shells and bones of a large extinct species of tortoise were also found to accompany the above-mentioned fossil quadrupeds of Georgia ; and I myself picked up many fragments of this Chelonian strewn over the banks of earth east up from the Brunswick Canal.

In another part of the excavations made in digging the canal, the ribs and vertebræ of a whale much rolled, and with barnacles attached to them, were discovered belonging to the subjacent marine formation. In this sand the shells, as before stated, are of recent species, and Mr. Hamilton Couper has collected no less than forty-five distinct species exclusive of Echinoderms.

In what manner, then, has the destruction of these quadrupeds, once so widely spread over the American continent, been brought about ? That they were exterminated by the arrows of the Indian hunter, is the first idea presented to the mind of almost every naturalist. But the investigations of Lund and Clausen in the limestone caves of Brazil have established the fact, that with the large mammalia there were associated a great many smaller quadrupeds, some of them as diminutive as field mice, which have all died out together, while the land shells, once their contemporaries, still continue to exist in the same countries. We must look, therefore, to causes more general and powerful than the intervention of man, to account for the disappearance of the ancient fauna, an event the more remarkable, as many of the

* Mr. Conrad intrusted me with Mr. Nuttall's collection, and Mr. Owen has found among them the three species of Equidæ here alluded to, *Equus curvidens*, *E. plicidens*, and a third species of the size of *E. asinus*.