bristles and feathers, and expressing their wrath and indig­nation, surrounded him, but carefully kept their distance, while he, regardless of their threats, glided slowly along.” “ It is not uncommon,” he adds, “ to have them come into houses; a very extraordinary instance of which occurred to myself in the same gentleman’s house, in the month of February 1723. The servant, in making the bed in a ground room (but few minutes after I left it), on turning down the sheets, discovered a rattle-snake coiled between the sheets in the middle of the bed.” According to M. Audubon, the skin of this species is used in making shoes.@@1 Mr Say in­forms us that it inhabits bare and sterile regions, and is often found in the subterranean dwelling of a marmot, *Arc- tonιgs Ludovieiana.@@2* M. Becker of Darmstadt placed two rabbits in a cage with this species,, one of them being white, the other reddish brown. The fierce reptile, which was ly­ing in a spiral form in the centre, sounded its rattle, and raised and extended its head from time to time, but made no aι tempt to seize its prey, although repeatedly provoked by Its keeper so to do. A black rabbit was then introdu­ced, which it bit instantaneously, and the victim was dead in eight minutes.@@3

*Crotalus miliaris* is a small species of North America, recognisable by its head clothed with nine well-developed plates. The eyes are large, the general colour a reddish brown, with three ranges of deeper spots. There are twenty-three rows of scales, and the lower plates are, ab­dominal 131, sub-caudal twenty-six. This snake was ob­served by Catesby in Carolina, and is described by Mr Say (under the title of *cror. tergeminus)* as an inhabitant of those lonely sterile plains which stretch between the Mis­sissippi and the Rocky Mountains. It is regarded as more dangerous than the preceding ; its small size and peculiar colour prevent its attracting notice, and its rattle is too feeble to be heard at any distance. People are thus apt to tread or even to sit down upon it unawares, and the con­sequences are as easily imagined as described. It lives on frogs and insects, is by no means timid, but is easily killed by the slightest blow. It was figured long ago both by Seba@@4 and Catesby.@@a

Lastly, *Crotalus mutus* differs from the other species in having the tail terminated by a hardened point instead of rattle. Its head is clothed with scales. The back is keel­ed, and the scales are surmounted by a tubercular ridge. Abdominal plates 227, sub-caudal forty-nine. This great serpent inhabits Cayenne, Essequibo, Surinam, and other parts of South America. It sometimes measures above ten feet in length, and may be regarded as the most gigantic of all poisonous reptiles. In its mode of life it somewhat resembles *Trigonοcephalus* (and is in fact described as a species of that genus by Baron Cuvier@@β). But it is essen­tially a rattle-snake, though destitute of the particular part from which these species derive their general name. It seems the same as that described under the title of *Curucucu* by Marcgrav.@@7 Its poison has been experimented on by Dr Hering.@@®

Genus Vipera. Nasal pit wanting. Head usually co­vered by ridged lanceolated scales. General form thickish, tapering towards each extremity. Tail short and conical.

The species of this genus, greatly restricted since the time of Linnæus, still exhibit a considerable diversity of character when compared among each other. They inha­bit either open sandy plains, or desert heaths, where the vegetation is not umbrageous. Hence their abundance in

Africa, and their comparative scarcity in other countries. None occurs in America, a few are found in the drier dis­tricts of Asia, three inhabit Europe, and one (of a some­what anomalous nature) is native to New Holland.

The common viper of Great Britain, and of most parts of the Continent ( *Vipera bents,* Daudin—*coluber berus,* Linn.),@@\* is the most poisonous of European reptiles. It rarely ex­ceeds two feet in length. The upper portion of the head is protected by a few plate-like scales, somewhat larger than the others. The usual colour is pale ashy brown above, with a space between the eyes, and a patch on each side of the occiput, deep brown or black. A zigzag band of black (composed in some of confluent spots) extends along the back from the nape to the tail ; and there is also a parallel row of small black spots on each side. The abdomen and sub-caudal region are steel-blue, sometimes marbled by a yellowish tint, sometimes uniform, or nearly black. The abdominal plates are about a hundred and forty-five,—the sub-caudal about thirty-five. This species is widely spread over the central and northern parts of Europe, but some uncertainty prevails regarding the so-called common viper of Italy and other southern regions. M. Gistl describes the viper of the environs of Munich as having an upturned snout,@@10 which is a character of the aspic; and although Metaxa enumerates *Vipera bents* and its varieties as occur­ring in the Roman territories,@@" others are of opinion that all its alleged localities are doubtful beyond the Alps.@@12 It seems, however, to be found in the temperate parts of Si­beria, in Russia, Hungary, all Germany, parts of France, Holland, Denmark, Sweden, and, we believe, Norway. Though common in Great Britain, and many of the western isles of Scotland, it is not indigenous in Ireland. ' Its verti­cal as well as horizontal range is considerable, for although it affects the low wide heaths of Groninguen, Overyssel, and Friesland, it also occurs on the summit of the Inselberg in Thuringia, at an elevation of nearly three thousand feet above the level of the sea. The viper preys chiefly on mice and insects. A specimen, on the tail of which we inadvertently tramped while crossing a moor in Glenmuick, and which our friend Dr Greville struck down with his um­brella, was found on dissection to have a large field-mouse in its abdomen.

The bite of this reptile is seldom fatal to animals of mo­derate size. We have several times seen sporting dogs bit­ten by vipers on the Scotch moors ; and although the cheek might swell, and a heaviness of spirits, and disincli­nation to distant ranging, usually ensued for a few hours, no perceptible effect could be traced on the following day. A sparrow, however, or even a pigeon, dies in a few minutes after being bitten. Sheep usually escape without any scri- ous consequences. Fontana ascertained, that the hundredth part of a grain of poison was sufficient to kill a sparrow, and that a pigeon required six times that amount. From these data he made a calculation, that it would take nearly three grains to kill a man, and as a viper does not carry above two grains of poison in its vesicles, and does not entirely exhaust that quantity, even after many bites, it was concluded that a human being might receive the bite of five or six vipers without dying in consequence. Now this may be all ac­curately reasoned in its way, but as physiology is by no means a science of calculation, we would not advise any one to try the experiment- Several facts have been recently adduced to prove, that the bite of this reptile is frequently dangerous, and occasionally fatal. Dr Paulet, in his obser-

*@@@1 Edinburgh New Phil. Jοurn.* iii. 21.

*@@@2 Expedition to the Rocky Mountains,* p. 234 and 236.

*@@@’ Isis,* 1828, p. 1132.

*@@@, Thesaurus,* ii. pl. 95.

*@@@4 Carolina,* pl. 42.

*@@@∙ Trig, rhombifer, Règne Animal,* ii. 90.

*@@@7 Hist. Rerum Nat. Brasilia,* lib. vi.

@@@8 *Neuw*. *Beitrag,* p. 465.

*@@@9 Vip. kerns* of Cuvier, and of some other French naturalists, seems to be identical with the aspic, *vipera asρis,—*a species common in \* rance and Switzerland.

*@@@” Isis for* 1829, p. 1971.

*@@@n Monograph of the Serpents of the Environs of Rome,* p. 42.

*@@@u Physiog. des Serpens,* ii. 597.