

nected with the nasal region by a long, narrow sulcus, for the passage of the olfactory nerve. The palatines rise continually from the suture with the pterygoids to the prefrontals, but at their front ends they are considerably lower down from the top of the skull than in the Cinosternoidæ. The prefrontals meet from the foramen olfactorium down to the vomer; they retreat below the foramen. The upper maxillaries and the intermaxillaries do not, as in the Cinosternoidæ, retreat in such a manner as to carry the mouth far inward under the head, but are more nearly perpendicular, thus leaving the mouth larger; the jugals come down between the maxillaries and the temporals, except that sometimes a very narrow process from the former projects back under the jugals, and meets another from the temporals. The jaws vary widely, but never terminate in the long, strong, sharp points which exist in the Cinosternoidæ.

The shield is not completely ossified till late in life, and the bony plates are very constant and regular in their arrangement. The carapace consists of the usual eight costal plates on each side, of eight vertebral plates attached to the fixed vertebræ, and of two more plates not so attached, which continue this row backward to the marginal rim; in the rim there are eleven pairs of plates and one odd one at each end, making in all, twenty-four marginal plates. The number of plates in the vertebral row varies a little, but the row itself is always continuous from the odd marginal plate at the front end to the one at the hind end. The plastron consists of nine plates, four pairs and one odd one. The first pair lies across the front end, before the shoulder apparatus, and under the extended neck; it is the shortest and smallest. The second and third pairs, as in the other families, reach clear across the body, and unite with the carapace on either side; these two pairs are much longer in the body of the plastron than in the bridge which extends from thence to the carapace; they make more than two thirds of the whole plastron. The bridge sends off from each end a long process, which is fixed into the carapace above; when the plastron is hinged, these processes are very small, or entirely wanting. The hinge, when it exists, is always between the two middle pairs, and never, as in the Cinosternoidæ, between them and the adjoining pairs.¹ When there is a hinge, the edges of the carapace and plastron are united by a narrow, flexible, unossified dermal ligament. The odd plate is just back of the suture which unites the first pair to one another, and between the fore part of the edges of the next pair; it sends back a slender, pointed process for some distance over the suture of the second pair. The fourth pair lies under the pelvic region; it is larger than the first pair, but smaller than the second or third.

Large epidermal scales cover the outside of the whole shield, the form and

¹ Compare the note of p. 348.