

A CURIOUS MALFORMATION OF THE SHIELDS ON A SNAKE'S HEAD.

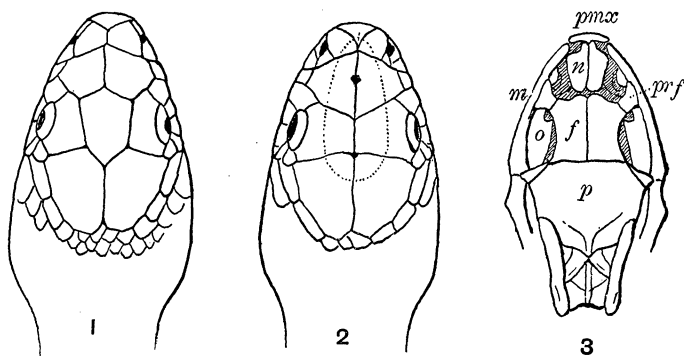
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DR. JOSUA LINDAHL, director of the Museum of the Cincinnati Society of Natural History, recently sent me a snake for examination which had defied all attempts at identification on account of the extraordinary scutellation of the top of the head. It was an old specimen found in the basement without label and without indication of origin or locality. Its color is entirely faded out, the snake is extremely emaciated, and the preservation of the body is bad. However, I think I make out 25 scale-rows, 229 ventrals, a double anal, and about 80 caudals; Lindahl's measurements are: length, 53 inches; tail, $8\frac{3}{4}$ inches.

The principal feature of the top of the head is the total absence of an unpaired frontal, the meeting of the supraoculars in a broad suture on the median line, and the extraordinary size and shape of the prefrontals. In the suture between the latter there is a deep pit filled up with soft skin, and the rostral shows some signs of damage by violence. These features and the general extraordinary aspect of the top of the head are shown in the accompanying sketch (Fig. 2). In all other respects the snake appeared to be normal, and while the above-mentioned features looked outlandish enough I was soon convinced that I had only to do with a most abnormal specimen of the typical colubrine snakes. An examination of the dentition and other structural characters showed that the specimen belonged to the genus commonly known as *Coluber*, while the more minute details of the scale formula, *viz.*, one preocular, two postocular, two large anterior temporals, in addition to those given above, pointed directly to *Coluber obsoletus*, the common "mountain black snake" of the eastern and Austroriparian faunas of North America. A direct comparison with specimens of this species confirmed the correctness of the identification. For the sake

of illustration I add a sketch of the upper surface of the head of a normal specimen (Fig. 1).

In considering the cause of this malformation I was attracted by the pit in the inter-prefrontal suture, and it at once struck me that it was located in the fontanelle, between the nasals and the frontal bones. The meeting point of the inter-supraocular suture with that of the inter-parietal suture also shows soft skin. The median suture between this point and the pit corresponds to the suture between the frontal bones. A sketch of the top of the skull of the species is added (Fig. 3) to make



Diagrams of top of head of *Coluber obsoletus*. Fig. 1. — Normal specimen. Fig. 2. — Malformed specimen. Fig. 3. — Top of skull: *f*, frontal bone; *m*, maxillary; *n*, nasal; *o*, orbit; *p*, parietal; *pmx*, premaxillary; *pxf*, prefrontal.

these points clear. Knowing the regenerative power of the reptilian tissues, I could not escape the impression that the true explanation of the malformation is an injury to the skin of the top of the head, by which the whole derm from the rostral to beyond the posterior end of the frontal became removed. In healing, the covering of the wound probably started from the edges of the lacerated adjoining scutes, which continued to grow until they met on the mesial line. In the sketch (Fig. 2) I have indicated by a dotted line the probable extent of the injury, but I am bound to add that there is no indication in the specimen. It must be remembered that the epidermal covering is regularly shed, and that the outline of the wound which probably was visible in the first covering may have disappeared in the succeeding molts.