

**VENOMOUS SNAKES.—II.**

BY RANDOLPH I. GEARE.

The American species of Elapids known to be poisonous are the Harlequin Snake, or Bead Snake (*Elaps fulvus*), and the Sonoran Coral Snake (*Elaps curyxanthus*).

The Harlequin Snake is found in Virginia, Georgia, Florida, Alabama, North and South Carolina, and Mississippi, and north along the Mississippi, Missouri, and Ohio Rivers. In southern Texas, too, it occurs in many localities. This snake is said to be very gentle and mild in disposition. Its favorite haunt is supposed to be underground in sweet potato fields, where it is frequently unearthed by laborers in harvesting. Its food consists chiefly of other snakes and various kinds of reptiles. One specimen found had swallowed another snake as long as itself; while, in addition, it had a garter snake about half digested. The Harlequin Snake is described as having a ground color of red with numerous black rings and intermediate spaces of yellow. The tail is alternately black and yellow.

A rather curious variety of rattlesnake is the *Crotalus cerastes*, which, as its name indicates, is distinguished by a horn over each eye. Horned rattlesnakes are most venomous.

A rattlesnake which goes by the Indian name of Massasauga is one of the small but very venomous rattlesnakes which inhabit the prairies in the western United States and territories. The most prominent of these rattlers is the *Crotalaphorus tergeminus* (*Sistrurus catenatus*). One of the characteristics of the Massasauga is the top of the head, which is covered with regular plates just as in harmless serpents, and not with scales as in most rattlesnakes. The pit between the eyes and the nose, however, is present as in all *Crotalida*. The Massasauga snakes are of dark, blotched coloration, and are rarely more than one or two feet long. Sometimes they are called sidewipers and sideliners from their habit of wriggling sidewise.

A few words on the structure of a rattlesnake's rattle may not be without interest. Briefly described, the rattle consists of a number of hollow, horny rings, somewhat like quill in substance, and interlocked with one another, while they are so elastic as to permit of a considerable amount of motion between them. These rings are not indicative of age, as has been supposed, since in some years several appear, while in others only one ring may be developed. Though there is a great variety of color in rattlesnakes, this feature can in most cases be used as a means of determining the species, other distinctive characteristics being found in the arrangement of the shields covering the fore part of the head.

The dread which even the bare thought of receiving a charge of the deadly venom inspires, is fortunately somewhat diminished by the well-known fact that this snake always "rattles" before striking. There has been a great deal written as to the reasons which cause them to "sound the alarm." The old theory was that the "rattling" was intended to warn the prey of their approach. This, however, seems alto-

gether too charitable a view to take, for it is quite natural to suppose that the snake would keep as quiet as possible when lying in wait for food, lest it should frighten away the approaching animals upon which it supposedly depends for its sustenance. Another view, and a more plausible one, is that, as the cobra expands its frill and the puff-adder swells and hisses, so the rattlesnake sounds its rattle for the purpose of alarming any antagonist—be it man, beast, or bird—who may design an attack. Thus it becomes a weapon of defense—perhaps an expression of fear. The snake, not being endowed with human thought, would hardly realize that in making itself known to its enemies, it was betraying itself, while by remaining quiet, its presence might be overlooked. Another

present, or rather where it was not found before it was exterminated. Still, the area inhabited by more than one species of *Crotalus* is comparatively limited.

It may not be out of place to tell here something of the Fer-de-Lance, the deadly snake of Martinique, which is said to have been all but exterminated by the recent volcanic eruptions. This serpent may be regarded as a yellow viper of the family *Crotalida*, designated zoologically by the term *Craspedocephalus* (or *Bothrops*) *lanceolatus*. The Fer-de-Lance is from 5 to 7 feet long, and is said to be capable of making considerable springs when in pursuit of prey or of some object by which it has been irritated. Its bite is fatal, the only antidote seeming to be, as in the case of bites of other venomous snakes, whisky or other ardent spirits. The serpent infests sugar plantations in the West Indies, and is dreaded alike by man and beast. The tail ends in a horny spine which scrapes harshly against objects, but does not rattle. How deadly is the Fer-de-Lance may be gathered from the description of a writer in Harper's Magazine: "If by some rare chance you encounter in the island [of Martinique] a person who has lost an arm or a leg, you can be almost certain you are looking at a victim of the Fer-de-Lance—the serpent whose venom putrefies living tissue."

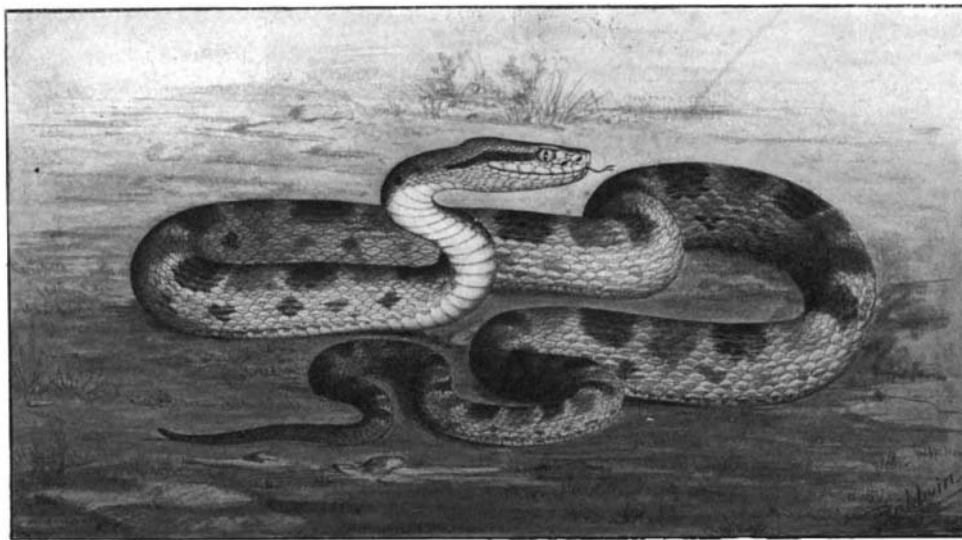
(To be continued.)

**Protecting the Sponges.**

The use of the "skafander" has been abolished by Samos, Crete, Cyprus, Tunis, and Egypt. Now Turkey and Greece have followed

suit. The skafander is a device by which a diver can remain under water for about an hour. He is thus enabled to comb the bottom of the sea with a thoroughness that has almost exterminated sponges in many parts. The employment is its own punishment; for the diver usually dies of palsy of the lower extremities. The law now steps in to assist nature in protecting the sponges. In addition to the skafander, the natives resort to harpooning, primitive diving apparatus, and dredging.

The frequency with which old pipes made of clay, wood, and metal have been found in England, Ireland, Germany, Switzerland and France, has led archaeologists to the belief that the ancients may have smoked. The belief receives some color from passages in ancient authors. Herodotus remarks that the inhabitants of the Aroxes Islands, supposed to be the modern Volga, "were wont to throw piles of fruit on a fire and then to inhale the vapor, with the result that they became as drunk as ever the Greeks became after drinking wine, and the more fruit they threw on the fire the more drunk they became." Pomponius Mela talks in a similar strain of certain Thracian tribes. Pliny asserts that the vapor of plants was used to cure diseases, and says that in some instances it was even inhaled through a tube.



THE WEST INDIAN FER DE-LANCE.

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common belief is that the rattle is sounded as a means of bringing to its assistance other snakes of its own kind. Prof. Samuel Aughey, in an article on the "Rattle of the Rattlesnake," confirms this belief. He says he once saw a number of hogs attacking a rattlesnake. The snake at once commenced rattling, and three other snakes almost immediately came to the rescue, but the hogs were victorious, and all the snakes were killed. Some authorities, who have made careful observations, believe that the true function of the rattle is to bring the sexes together for mating, while still others affirm that its principal use is to frighten and paralyze the victim into submission, thus acting as a kind of "charm." There is yet one more theory to account for the use of the rattle, namely, to ward off disturbers that cannot serve as food, and thus prevent a useless expenditure of venom!—surely fixing this snake as a strict economist, if true.

These theories may all be partly correct. The phenomenon may perhaps be most easily explained by accepting and applying Herbert Spencer's suggestion regarding the wagging of a dog's tail, i. e., that it is an escape of nervous force which is restrained from any other mode of expression at the moment.

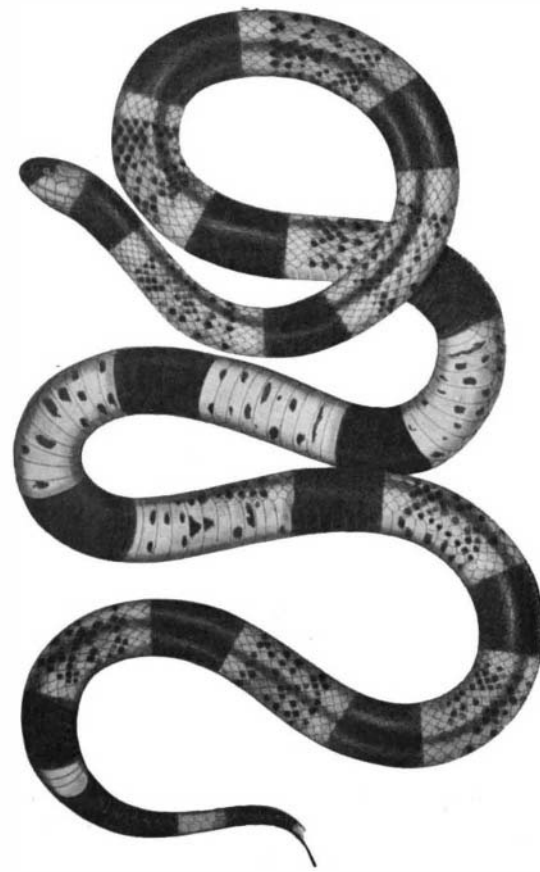
No species of rattlesnake occurs in any of the West Indian islands proper. Several species are found in the United States, as pointed out, and indeed there are but few localities here where this snake is not



MASSASAUGA (AFTER HOLBROOK).



HORNED RATTLESNAKE (CROTALUS CERASTES).



HARLEQUIN SNAKE.