

A HISTORICAL LOCOMOTIVE.

There has lately been donated to the Lewis and Clark Centennial Exhibition an old locomotive which has had a decidedly interesting experience. Both historically and because of its unique construction, this little engine is worthy of more than passing notice. It was built in San Francisco in 1861, when the old Vulcan Iron Works of San Francisco received an order from the Oregon Steam Navigation Company for a locomotive which they wished to use on a portage that extended around the great cascades of the Columbia River. The portage consisted of a seven-mile stretch of track, laid on the bank of the Columbia on the Oregon Territory side. The first trip of the little engine was made May 10, 1862. The track consisted of stout wooden rails laid longitudinally, which were covered on the inner edges with light scrap-iron plates. The operating company was the subject of much congratulation on the day that the engine drew its first load of freight and passengers around the portage at the rate of ten miles per hour.

It was not long before a more up-to-date road, with larger cars and more powerful locomotives, was built on the opposite side of the river; and with the completion of the new road the old portage track and its locomotive were dispensed with. The "pony," as the little engine was called, was then purchased by Mr. Hawes, a San Francisco contractor, and brought by steamer down the Columbia and around the Pacific coast to that city, where it was engaged for many years in hauling the sand cars, that were used on a large contract for cutting down the steep hills and filling up the fore-shore of San Francisco. After many years of this service the engine was taken off the work and stored in a warehouse, where, in 1889, it was seriously damaged in a fire which destroyed the warehouse. The curious little locomotive was thoroughly repaired by its owner and sent as an exhibit to the Exposition. The engine is about 7 feet in width and 13 feet in length, and weighs 5 tons. It is carried on four wheels, connected by side rods. The boiler is of the return-tube type, and the coal and water are carried on the engine. The cylinders are not connected direct to the driving-wheel axle, but drive the latter by means of a counter-shaft to which it is geared.

THE COBRA.

BY RANDOLPH I. GEARE.

The Indian cobra, or cobra di capello (*Naja tripudians*) is the most deadly of all snakes. It inhabits India and Ceylon, Burma, the Andamans, southern China, Indo-China, and the Malay peninsula and archipelago. In the Himalayas, its range extends to an altitude of eight thousand feet. To the west it ranges to Afghanistan, northeast Persia, and south Turkestan, as far as the east coast of the Caspian Sea.

Cobras are most active at night. They feed on small animals, birds' eggs, frogs, fish, or insects. They attack hen-roosts, and swallow the eggs whole. They drink a great deal of water, although they can live for weeks, even months, in captivity without touching food or water. Cobras can climb, and occasionally ascend trees in search of food. As a rule, they are not aggressive, and unless interfered with or irritated, they crawl along the ground with neck undilated, looking like some harmless snake; but the moment they are disturbed they assume a menacing attitude. The poison of a cobra, when thoroughly inoculated by a fresh and vigorous specimen, is quickly

fatal. Paralysis of the nerve center takes place, and death follows rapidly, sometimes in a few moments, especially when the fangs, having penetrated a vein, inoculate the poison immediately into the venous circulation. The venom is harmless, however, if taken internally, nor is it fatal when brought in contact with a mucous surface, such as the interior of the

Another species of cobra occurs in Africa, where in the northern part it is known technically as *Naja haje*, while in southern Africa occurs a cobra-like snake belonging to a different genus, and known as *Sepeodon hemachates*.

In India the cobra's scientific name, as already stated, is *Naja tripudians*, and while many varieties exist there, it seems to be agreed that they all really belong to one species, a conclusion based on a study of the scales. The average length of the cobra hardly exceeds four feet, with a diameter of two inches, although specimens occasionally attain a length of more than six feet. The largest specimen in the British Museum is six feet four inches in length, the tail being one foot long.

The illustrations of living cobras which accompany this article, and which were obtained for the writer through Dr. Gibson, of the Parel Research Laboratory in Bombay, by Mr. Clarence E. Fee, secretary to the United States consul, show three varieties, commonly known in India as the "black" cobra, the "light-colored spectacled" cobra, and the "dark spectacled" cobra. The "spectacles," being black, are not visible of course on the first, but are plainly seen on the "dark spectacled" specimen. Indian tradition relates that Buddha provided the cobra with "spectacles," to enable it to ward off the attacks of its old enemy, the Brahminny kite. These "spectacles" seem to be restricted to

the Indian species; certainly they do not occur in either of the African cobras.

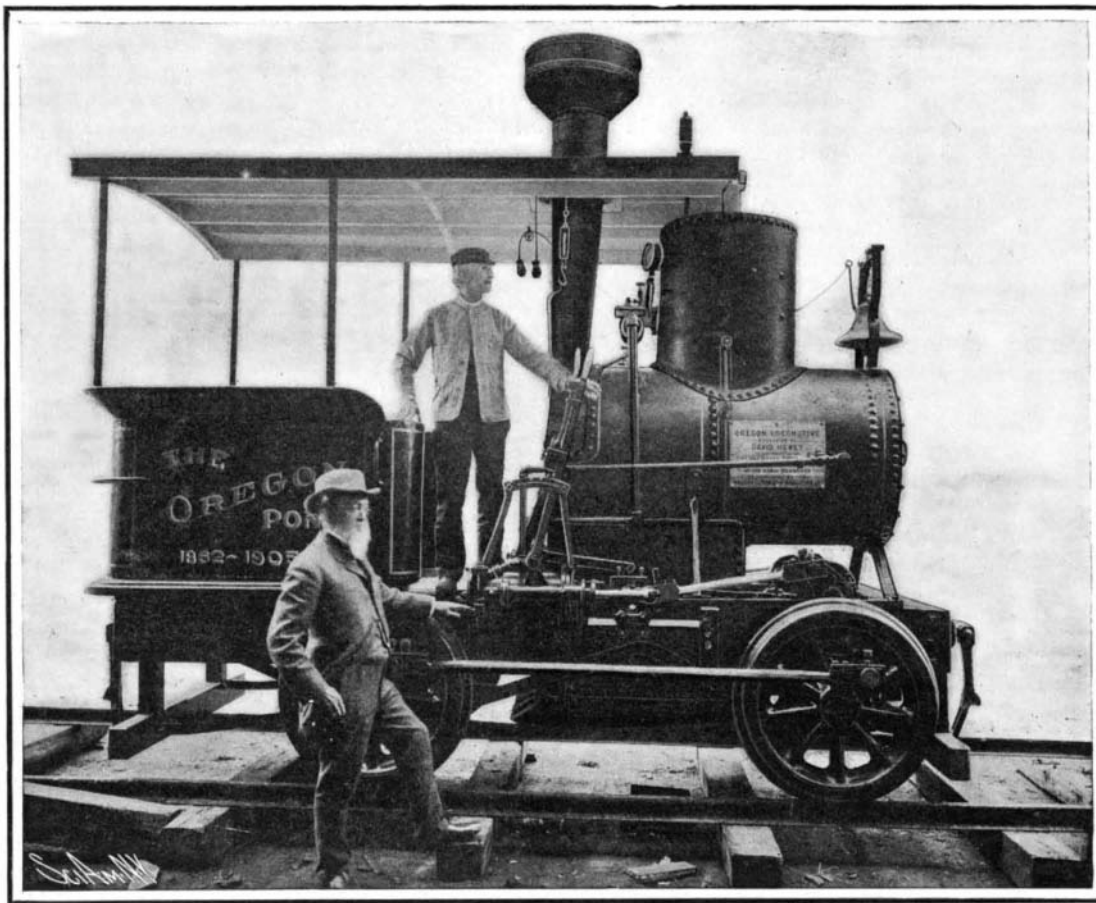
When searching for prey, the cobra glides about easily and quietly, but once excited, he raises his head and a large part of his body straight in the air, while the remainder is gathered beneath in a coil as a kind of support. His next warlike movement is to spread out his upper ribs laterally, extending six or more inches downward from the head, thus converting his neck into a "thin, flattened, oval disk four or five inches broad." This is the "hood" which is found in the Indian, and in a smaller degree on the North African cobra, but is entirely wanting in the form found in South Africa. Above the hood protrudes the head, expectant and held horizontally, facing the foe.

Probably the average annual number of the cobra's victims in India alone, which is placed at about twenty thousand, would be very much greater if it did not possess such a nervous temperament, which often leads the snake to strike at a moving object long before it is near enough to reach the object effectually, thus wasting a large amount of venom.

When a cobra strikes, he hisses audibly and immediately reassumes his erect position, and thus he continues to act as long as danger menaces or a safe avenue of escape does not present itself. The turning to the left and right, as above mentioned, constitutes the so-called "cobra dancing," which many have attributed to the influence of music, but which, combined with the appearance of faintness and death, which these snakes sometimes assume, are properly referable to the natural tactics of defense and attack, while the "fainting" is simply a temporarily weakened condition

due to its extremely nervous and excitable disposition.

The Indian cobra must not be confused with the hamadryas or King cobra, which also has a wide distribution in southeastern Asia, through the Indo-Malayan region to the Philippines. It is much larger than the cobra, one recorded specimen measuring sixteen feet nine inches. Fortunately, it is not so venomous as the cobra,



THE FIRST OREGON LOCOMOTIVE.

stomach or the eye. The natives of India distinguish between cobras with spectacles on the hood ("Gokurrahs") and those with only one ocellus, or other mark, on the hood ("Keautiahs"). Dr. J. Fayrer in his "Thanatophidia" mentions the following varieties of the Gokurrah: Kāla (black); Koyah (black and white); Gomunah (wheat colored); Puddah (yellow); Dudiah (whitish); Tentuliah (tamarind-seed colored); Kurrees (earthy color); Tameshur (copper colored); and Puddun nag (gold colored). Of the Keautiah: Kāla (black); Tentuliah (tamarind-seed colored); Kurrees (earth colored); Sonera (gold colored); Dudiah (whitish); Bans-buniah (mottled white and black); Giribungha (brownish); Koyah (black and white); Sankha-mookhi (black and yellow).

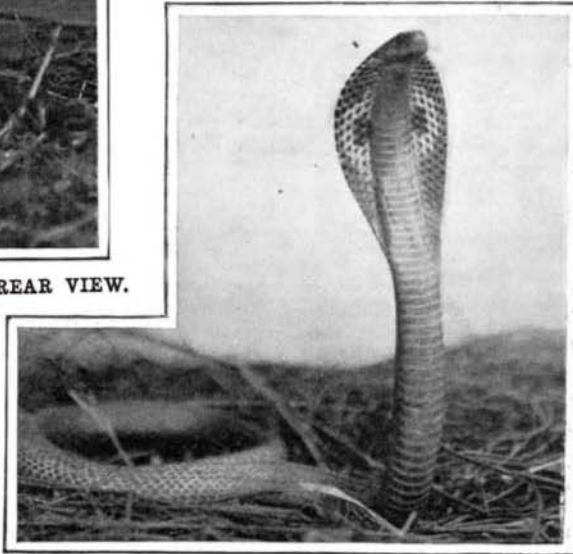
In many parts of India a cobra of any of these varieties is simply called "Kāla sámp," or "Nág sámp."



DARK SPECTACLED COBRA. REAR VIEW.



BLACK COBRA. REAR VIEW.



LIGHT-COLORED SPECTACLED COBRA.