

MOVING A LARGE RAILWAY BRIDGE.

The Pittsburg, Fort Wayne & Chicago Railroad crosses the Allegheny River at Pittsburg on a bridge of the old-style lattice-work construction. The company has decided to replace it with a structure of the "double-deck" pattern, which will be used for a railway and highway. It is to be erected upon the original piers of masonry. To prevent interruption of train service, it was decided to construct wooden piers and move the present bridge upon these. Although the mass of metal weighed over 2,000 tons, the actual time of removal occupied less than half a day. The Pittsburg section had to be changed 23 feet, and the Allegheny section 48 feet. The bridge was moved in a manner somewhat similar to that used in moving a house, a system of rollers being used. There was a set of these rollers at each end and at each pier. Beneath the rollers were placed a number of pieces of rail, and between the bottom of the bridge and the rollers, rail was also used. Three hoisting engines and rope and pulley-blocks pulled the bridge to its new position, and had not extraordinary precaution been used, it could have been moved in much less time. The bridge was moved about five feet at a time, and then given a thorough examination before being moved again. This operation was repeated until the bridge reached its new bed.

Structural ironworkers to the number of 100, and 150 carpenters, were used on the work, and after the removal had been accomplished, about 125 men changed the network of the tracks and switches at each end of the bridge by shifting them with crowbars. This part of the work took more time than the moving of the bridge. The plans were carried out under the supervision of Engineers G. H. Mitchell, of the American Bridge Company, and Thomas Rodd, of the Pennsylvania Company.

Mortality From the Bite of Poisonous Snakes.

BY CHARLES H. COE.

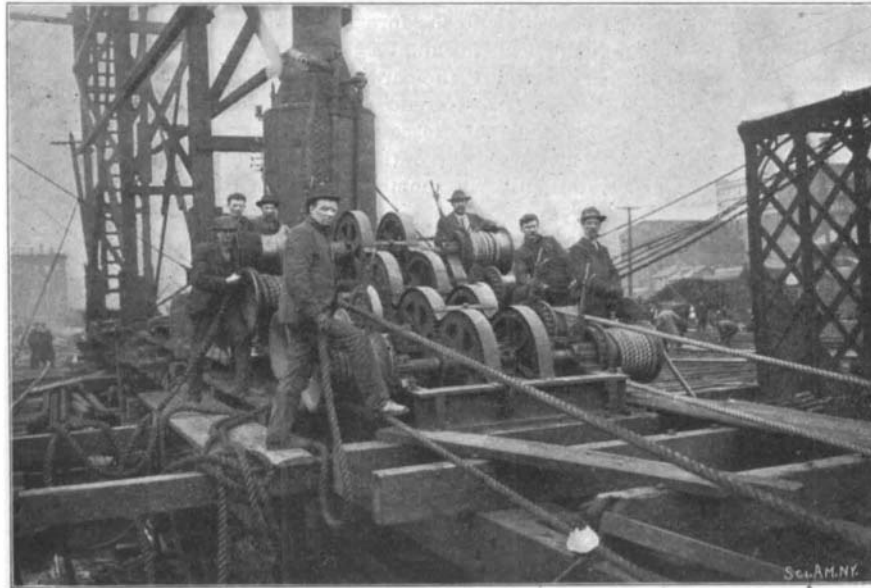
The mortality throughout the world from the bite of poisonous snakes is unknown. From partial statistics, however, covering many years, some idea may be had of the number who met death in this terrible manner. India reports a death rate from this cause that is appalling to contemplate. There are many species of venomous serpents within her borders, but only five are especially destructive to human life. These are as follows:

The cobra de capello (*Naja tripudians*) or hooded snake; the hamadryad (*Ophiophagus elaps*); the krait (*Bungarus caeruleus*); the kuppur (*Echis corinata*); and the chain viper (*Daboia russellii*). The cobra is common throughout the country; its cast-off skin has even been

found at an altitude of 8,000 feet in the Himalayan Mountains. The others are more or less common, according to locality. In a small division of this vast empire, containing only 13,855 square miles (only a little more extensive than the State of Maryland), and a population of 7,000,000 souls, more than 1,000 persons, according to the Report of the

Commissioner of Burdwan, annually die from snake poisoning. When the extent of the country (1,560,159 square miles) and its immense population (nearly 300,000,000) is taken into consideration, together with the statement just made, it will not surprise the reader to learn that an average of 20,000 persons annually succumb to venomous snake bites in India alone. The actual number of deaths during the decade 1880-1890, according to the latest available statistics, varied from 18,670 to 22,480 per year. For many years past the govern-

ment of India has offered rewards, or "head money," for the destruction of venomous serpents. Notwithstanding the payment of large sums for this purpose, however, neither the supply of snakes nor fatalities from their bite seem to have decreased. During the above-mentioned decade the number of snakes (poisonous) killed varied from 212,776 to 578,415 annually.



One of the Powerful Hoisting Engines Used in Pulling the Bridge to Its New Position.

France has had a similar experience in this latter direction. In three departments, or counties, a premium of 25 centimes was offered for the destruction of vipers, which reptiles were responsible for many deaths. According to official reports, the number of snakes killed in one year (1864) was 1,934, while in 1890, twenty-six years later, 67,620 vipers were destroyed, or a total of 294,577 during the whole period.

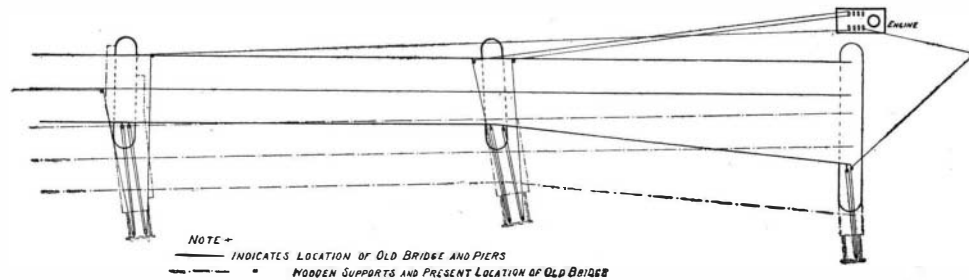


Diagram Showing Hoisting Engines and Cables, and Old and New Positions of the Bridge.

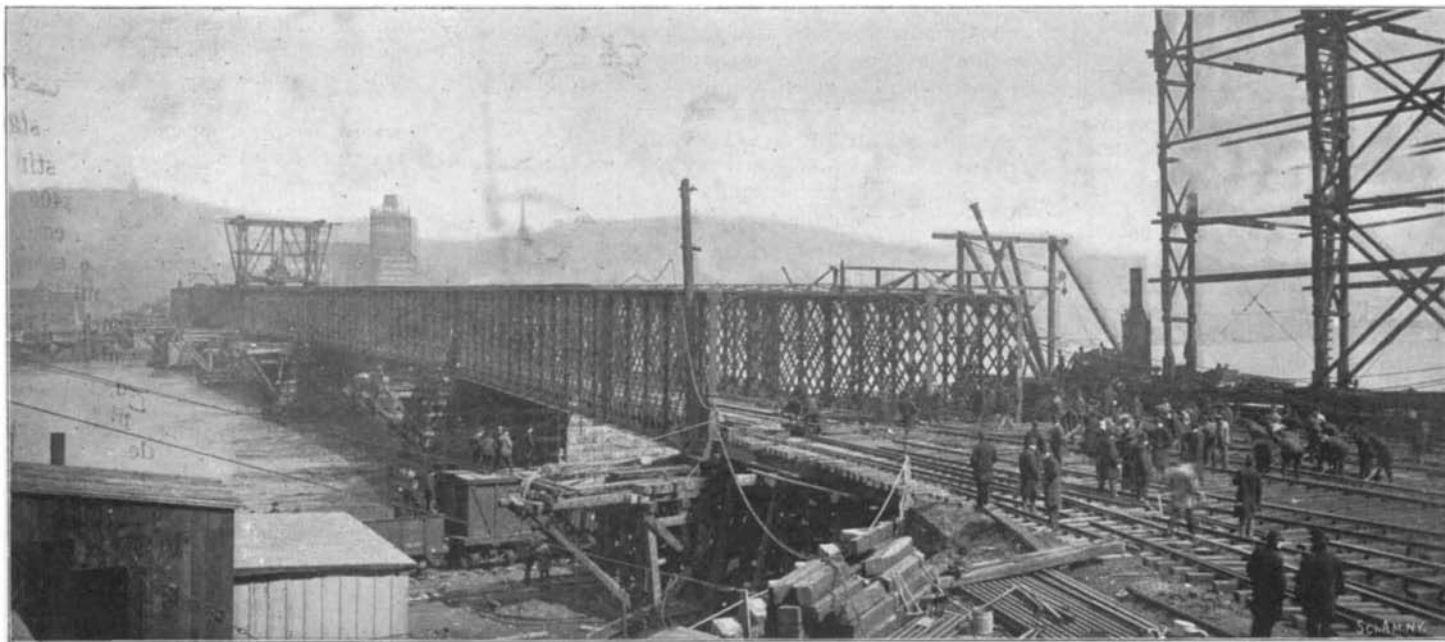
In both cases, instead of diminishing in numbers, the snakes seem to have actually increased under the bounty system. It has been stated that in some localities the people have resorted to breeding certain poisonous snakes for the sake of the rewards offered. The truth of this oft-repeated assertion is very doubtful, however, especially in regard to the former country, where the reptiles are so numerous that their capture is effected with little difficulty.

notably Martinique and St. Lucia, contains a number of pit vipers, the largest and most formidable known. The terrible fer de lance (*Trigonocephalus lanceolatus*) is confined to the islands, where a bounty has had little or no effect in diminishing its numbers. It is regarded with the utmost fear by the natives. The mortality from snake poisoning in Africa, Australia, and tropical America is not specially recorded. While it is known to be small in comparison to that of India it is still considerable, according to the reports of travelers and notices in the public prints. The fer de lance alone, in the West Indies, is the cause of many deaths annually.

In our own country we have four genera of venomous serpents, as follows: The rattlesnake proper (*Crotalus*), the copperhead, and the moccasin (*Agkistrodon*), the coral snake (*Elaps*), and the ground rattlesnake (*Sistrurus*). Of the former there are several species, and at least two of the coral snake. The huge diamond rattlesnake (*C. adamanteus*) and the copperhead (*A. contortrix*) are the most deadly. The former species of rattlesnake is undoubtedly the cause of more deaths from snake poisoning than any other in the United States. This is due to its large size (not infrequently seven feet in length and three inches in diameter), and to the great length of its fangs and the copious amount of venom injected into its wounds. There are no means of ascertaining the annual mortality from snake poisoning in the United States. It is not large, and fatalities are now mainly confined to the South and the West. In these sections the country newspapers contain occasional reports of deaths from this source. Perhaps the total number would not exceed fifty. Not a year passes without one or more deaths from rattlesnake poisoning in the State of Florida. During six years, without the facilities of carrying on a systematic search, the writer came across and preserved eight newspaper notices of well-authenticated deaths in the State from this cause. Three of these occurred in 1897. Perhaps 30,000 would be a fair estimate of the world's annual death-rate from the bite of venomous snakes, notwithstanding the long and practically fruitless efforts of science to discover an antidote.

Bologna has been having a sensation in the rumor that its great leaning tower, the pride of the city, is weakening, and may fall, says the New York Tribune. This has caused so large an influx of visitors that it is said that the hotelkeepers may not be wholly guiltless in regard to the rumor. The city has two of these square towers, the Asinelli, which is 315 feet high, and was erected in 1109, and its rival, the Garisenda, which was built one year later, and was originally much higher, and is rendered peculiar by

its decided inclination to one side. It is now only 153 feet high, the width of one side is 23 feet, the walls at the base are 6 feet 6 inches thick, while higher up they are 4 feet 9 inches. Its origin is somewhat obscure, but it was certainly intended to outdo the Asinelli, and both were for retreat in troublous times. Some say the original intention was to make it lean, but



MOVING THE PITTSBURG, FORT WAYNE & CHICAGO RAILROAD BRIDGE AT PITTSBURG.

In North and South Africa there are several highly venomous species, the most dreaded being the African cobra (*Naja haja*), the spitting snake (*Sepedon haemachates*), and the sheep stinger (*Causus rhombolatus*). Australia has about twenty poisonous species, five of which are extremely deadly. Among the latter are the brown-banded snake (*Hoplocephalus curtus*), the brown snake (*Diemenia superciliosa*), and the black snake (*Pseudechis porphyriacus*). Tropical America, including several islands in the West Indies,

others contend that either the ground has settled or there was a defect in the engineering. This unique relic was so little thought of by one of its late possessors that it was sold for 220 lire, something less than \$44.

The American Museum of Natural History recently acquired a group of five caribou, which hail from the Barren Islands of Alaska, and are of an entirely new species. These rare animals were brought home by the Andrew J. Stone expedition.