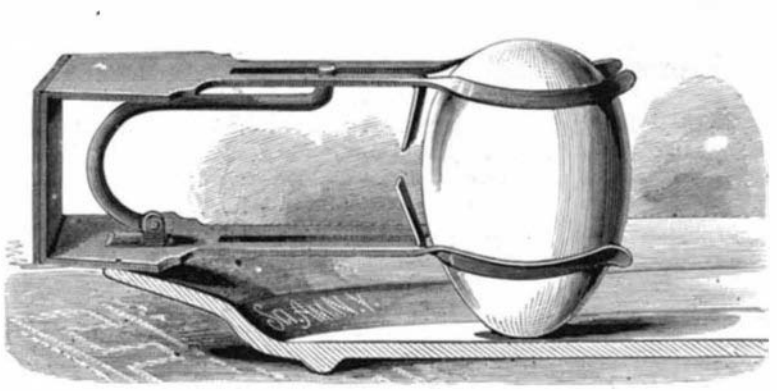
An improved pole for telegraph wires, flag staffs, lamp posts, clothes line supports, etc., has been patented by Mr. David Lathrop, of Hazle Dell, Ill. It consists in the pole formed of three sections sliding or telescoping into each other.

Mr. Andrew Elvin, of Paterson, N. J., has patented a steam boiler which is so constructed that they may be easily, conveniently, and cheaply built, and easily, conveniently, and cheaply repaired. It consists in a steam boiler with a flue extending through it and filled with vertical tubes, and provided with braces or partitions, the whole detachably secured into an outside shell.

NEW EGG HOLDER.

The egg holder represented in the accompanying engraving is the invention of Mr. John S. Birch, of Orange, N. J. It consists of a spring tongs having branched and bow-shaped prongs adapted to clutch the sides or ends of the egg. It is designed more particularly for use at the table, and is better adapted than the ordinary cup to hold the egg on the plate. The prongs are provided with guards to compel the egg to assume the right position, and there is an egg shell discharging device consisting of a curved wire hinged to the lower jaw of the tongs and capable of sliding in a slot in the upper jaw. By pulling this wire the jaws are separated, allowing the shell to fall out.



NOVEL EGG HOLDER.

King Cotton.

The stern-wheel iron steamer Charles P. Choteau recently landed at New Orleans the largest cargo of cotton ever carried by one vessel on the Mississippi, and probably in the world. It consisted of 8,841 bales, the huge mass, piled tier above tier, almost hiding the steamer from view.

New Mode of Exciting an Induction Coil.

Mr. W Spottiswoode, LL.D., finds it a good plan to use the alternating currents of a De Meritens magneto-electric machine to excite an induction coil. In this arrangement the "make" and "break" currents in the primary are alternately in one direction and the other, hence the secondary discharge appears to be the same at both terminals. The advantages of the method are: First, the fact that as the machine effects its own make and break, both the contact breaker and the condenser of the induction coil can be dispensed with; secondly, that the breaking of the primary, and consequently the delivery of the secondary currents is perfectly regular; thirdly, that the quantity of the currents in the secondary is very great. With a 20 inch coil by Apps a spark about 7 inches in length, of the full thickness of an ordinary cedar pencil, has been obtained. But for a spark of thickness comparable at least with this and of 2 inches length, an ordinary 4 inch coil is sufficient. In vacuum tubes under this discharge the striæ are perfectly steady, as with a battery (Gassiot's or De la Rue's), and their brilliancy and configuration can be controlled by means of a shunt in the secondary circuit, formed by a column of glycerine and water, so as to diminish at will the amount of current flowing into the tube.

A Mine of Palm Oil.

According to the *Colonies and India*, that portion of the west coast of Africa which lies south of the River Volta furnishes the principal supplies of palm oil. Nearly 1,000,000 cwt. of this oil are annually exported to Great Britain, of the value of $7,500,000, its principal use being in the manufacture of soaps, perfumery, candles, and similar articles. Among the natives it is highly valued, both for food (taking the place of butter), for lighting and cooking purposes, and for anointing the head and body. The so-called oil, which is rather a fatty substance, resembling butter in appearance, is obtained from the fruit of several species of palms, but especially from the one known botanically as *Elais guineensis*, which grows in abundance on the western coast of Africa, and from which it takes its specific name.

So thickly do these trees grow, and so regular and rapid are their supplies of fruit, that in some localities where the regular collection of the produce is not practiced, the ground becomes covered with a thick deposit of the oily, fatty matter produced by the ripe berries. Deposits of palm oil, which may almost be called "mines" of vegetable fat, exist in some parts of the Gold Coast, and which, if not in themselves worth working, at least practically illustrate the natural wealth of the country in such productions, and indicate its undeveloped resources. These "mines" would probably not repay the cost of exploration, as the palm oil is apt to become rancid and valueless for its general uses after long exposure, though for such purposes as candle making these deposits might still be valuable.

THE GILA MONSTER.

This reptile, which Professor Cope calls *Heloderma suspectum*, and to which the specific name *horridum* has also been given, is not uncommon in Utah, New Mexico, and Arizona. It is believed to be very poisonous, but such is not the case. It will bite fiercely when irritated, but the wound is neither painful nor dangerous. The Mexicans assert that its breath is fatal, probably because of its habit of blowing when disturbed.

In the "Zoology of the Survey of the 100th Meridian" it is stated that several specimens were secured in 1881, 1873, and 1874; but with one exception all were lost in transit to Washington. The specimen from which the accompanying drawing was made was kindly forwarded to us by Mr. T. W. Parker, of Phœnix, Arizona Territory, who writes that it inhabits all the mountainous regions along the Pacific coast as far east as the dividing ridge. Very little is known of its habits, except by the natives, who regard it as the most terrible of reptiles, not excepting the rattlesnake.

The Gila monster grows to the length of three and a half feet. Its food is such small reptiles, mice, crickets and other insects that it can easily capture. It is sluggish in movement, traveling no faster than the tortoise. When disturbed it stands as erect as possible and blows at its antagonist, sending forth a stream resembling fog, and believed by the natives and Mexicans to cause instant death. The first Gila monster Mr. Parker ever saw was on Salt River, ten miles from Phœnix. It was about 14 inches long, and was in combat with a snake 4 feet in length. The snake coiled in the usual manner, and as the monster advanced struck his blow firmly, producing no effect upon the tough scaled skin of his foe. The monster then rushed upon the snake, and seizing it with its arms and legs gave two or three bites, then let the snake go. The latter crawled away slowly, seeming to be badly hurt. The monster also took refuge in the brush. Evidently the monster's breath does not paralyze snakes. However, from what he has seen Mr. Parker is inclined to believe that there is truth in the stories the natives tell.

A saloon-keeper of his aquaintance captured a monster alive, and kept it for the amusement of his customers. It was tied in a corner, and as the floor was of earth, as in all houses in those parts, the reptile burrowed a considerable hole as a hiding place. One day—Mr. Parker does not say that he witnessed the affair—a mouse ventured near the hole; the monster sent forth a stream of poisoned breath, and the mouse fell paralyzed. The monster then seized and devoured it. One cannot but wonder that with so favorable an opportunity no one had the wit to test the truth of the popular belief as to the poisonous character of the monster's breath by submitting to it a variety of small animals.

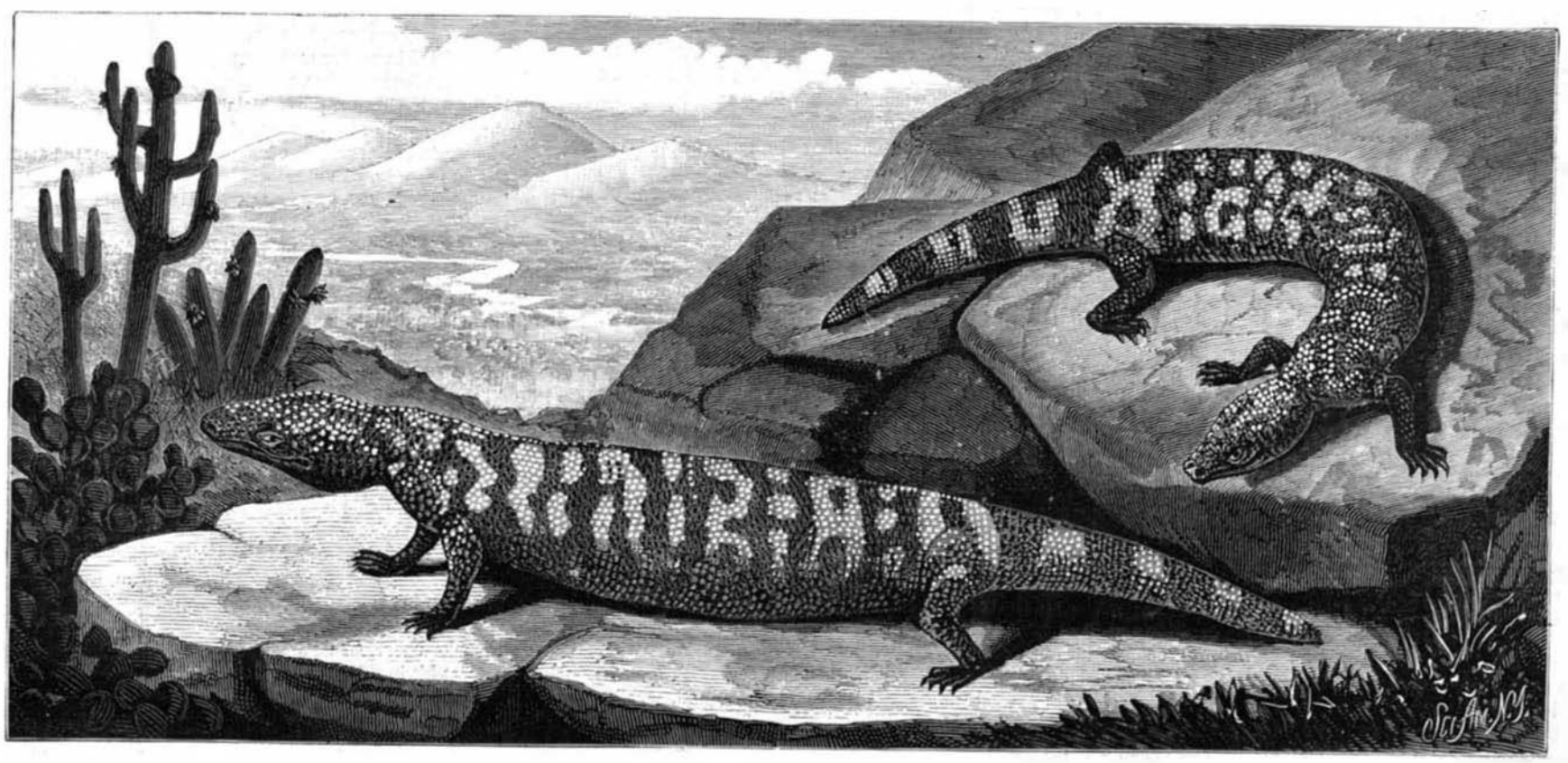
Mr. Parker does not think the monster able to defend itself with its teeth, the latter being so small. Yet he says that he is credibly informed that a man in Arizona, who was bitten while tantalizing a monster, has been paralyzed on that side ever since. It is certain that the Mexicans and natives of those parts regard the reptile with the liveliest apprehension.

Names of Wood Manufactures Wanted.

Mr. Charles S. Sargent, special agent of the tenth census, to whom has been committed the collection of statistics of forest wealth and products for the coming census, wishes information with regard to uses of unsawn lumber. All lumber which passes through sawmills can be readily reached by the ordinary enumerators. What Mr. Sargent wishes to get track of is the considerable applications of wood in manufacture, where small timber or unsawn wood is employed. Any one who can furnish him lists of such uses may materially aid in increasing the scope and value of this portion of the census statistics. Mr. Sargent's post office address is Brookline, Mass.

Cotton by White Labor.

It used to be said that white men could never take the place of the blacks in our Southern cotton fields. Experience has shown the assertion to have no foundation in fact. Inquiries made during the past season by several Southern members of Congress develop the fact that a large portion of the last crop was raised by white men by their own labor. Mr. Manning, of Mississippi, says that the facts he has collected justify the opinion that three-fifths of the crop of 1879 was produced by free white labor.



GILA MONSTER.—(*Heloderma Suspectum.*)