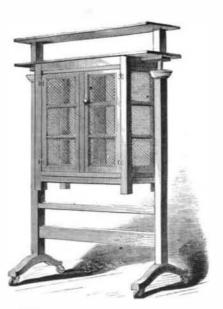
### NEW SUSPENDED SAFE.

The engraving shows an improved suspended provision safe, arranged for preventing crawling insects from obtaining access to the interior. The safe itself is of the usual construction, with its sides and the hinged door covered with wire gauze or perforated sheet metal for insuring the proper ventilation, and preventing flying insects from getting inside. The top of the safe projects beyond its sides, so as to admit of the suspension of the safe. Two upright posts, having feet at their lower end, are connected together by a cross brace.

To the upper ends of these posts are connected cups for holding liquid, to prevent the crawling insects from ascending the posts above the cups. The cups are held in place on the ends of the posts by screw rods, which pass through holes in the cups, and are screwed into the ends of the



MASON'S SUSPENDED PROVISION SAFE.

posts. To prevent the liquid in the cups from escaping through the holes in the bottom, a packing ring is placed ney. on the bottom of the cups, and above the packing ring a metal washer, the rod passing through the packing ring and washer; it also passes the projecting ends of the top of the safe. By this means the safe is securely held in a suspended position, and between the projecting ends of the top of combustion pass down the flue, E, and reach the flue, H, and cups around the rod there is a sleeve for keeping the through the chambers, F, G. packing rings tightly pressed down against the bottom of tightening the rods, the sleeves will be forced down more ber under the oven, and thence through the holes in the bot tightly against the metal washers and compress the packing tom of the oven. between the washers and bottom of the cups.

It will be seen that the safe is wholly suspended from contact with any object except the rods, thus insuring a great protection of the contents of the safe from crawling insects. This useful invention has been patented by Mr. Sanford Mason, of Galveston, Texas.

### Launching a Ship by Means of Electricity.

In launching the English turret ship Colossus, March 21, electricity was employed by means of an ingenious contrivance which connected the dog shores with a large magnet; and in a similar manner the christening was performed. Simultaneously with the breaking of the bottle over the ship's nose a musical instrument inside an ornamented box was set at work, and "Rule Britannia" was the result. By this time the course was reported clear, and, as the ship gave evidence of anxiety to leave the cradle, it was deemed advisable, though ten minutes before time, to let her go. The pres sure of the launching button was followed by a heavy thud. The weight had fallen and the dog shores had been knocked away. The ship moved instantly, and the huge mass of 4,420 tons -the heaviest ever launched from the Portsmouth yard-glided gracefully down

## Primitive Pounding Mills in Arkansas,

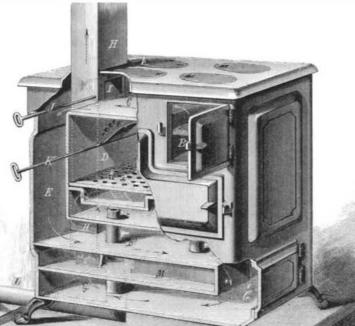
A letter from the Rev. John Buchanan, quoted in an interesting address recently delivered before the Arkansas Historical Society by the Hon. Benjamin T. Duval, thus described the expedients of the first settlers in what is now Washington county,  ${\bf Ark.:}$  "For more than two years these early settlers enjoyed the privilege of eating pound cake, having no mills to grind grain of any kind. They had to make their meal by pounding. Some families having springs suitable, fixed pounding mills and beat their meal by water power. The mill was made by getting a large log of timber about 15 feet long, making a trough at the butt-end 3 feet long, to hold as much water as possible, hewing the balance of the log some 4 inches square, hanging it on a pivot near the trough. They fixed a pestle at the other end, and then a mortar to hold the grain. The trough was about 4 feet above the ground. A spout carried water from the spring into it, and when the trough was full it sank down, raising the pestle some 10 feet high. When the water poured out the pestle fell with a vim on the grain in the mortar. It was slow but sure, running day and night. They were called Lazy Toms. They were inclosed with palings to keep out fowls and vermin (wild animals). The first mill for grinding grain was built in 1829 by Peter Pyeatt, on the creek beading at Mark Bean's spring. The second was built a short time after by Sam Billingsly, at or near where Kidd's mill stood before the war. John F. Truesdale put up a steam mill at the same place about the year 1840."

#### IMPROVEMENT IN COOKING STOVES AND RANGES.

The engraving shows an improvement in cooking stoves and ranges recently patented by M. A. Nicholson, of Richwood, Union county, O. The principal object sought in the invention is to increase the efficiency of the ovens. The range, A, has a firebox, B, from which the products of combustion pass through the space under the top and above the oven, D, to the side flues, E, chamber, F, below the oven. At the forward end of the chamber, F, the smoke passes down into and backward through the chamber, G, above the bottom plate of the range. The smoke passes from the rear end of the chamber, G, upward through the flue, H, to the chim-

In the front of the flue, H, and above the oven, D, there is an opening closed by a damper. When this damper is opened the products of combustion pass directly into the flue, but when the damper is closed the smoke and products

A cold air pipe, L, leading from outside of the building the cups, sealing the joint between the rods and cups, and enters the chamber, M, in the lower part of the range, and preventing the possibility of the liquid escaping. The metal is heated. This chamber is divided by vertical partitions to washers in the cups, as will be seen, form bearing plates for prolong the stay of the air in the chamber, to insure its the lower ends of the sleeves to rest against, so that by thorough warming previous to discharging it into the cham-



### SPITTOON HOLDER.

The annexed engraving shows a box or case for holding a spittoon, the case having a hinged lid, and a device for opening and closing it. The box, of suitable dimensions. is provided with a pan, which serves as a spittoon. The lid is hinged to the top of the box near one end, covering only a portion of the top, the remaining portion being permanently attached. A plate or arm, extending rearward, is attached to the hinged edge of the lid between its hinges. To the fixed portion of the top of the box is attached a hollow standard containing a rod, provided at its upper end with a knob, and at its lower end with a fork that extends toward the front of the box, and receives the arm attached to the underside of the lid of the box. When the rod is



CAMPER'S SPITTOON HOLDER.

pressed down the upper arm of the fork bears on the arm and raises the lid. If the lid is not raised beyond a vertical line, it will fall of its own weight when the pressure is removed from the rod, but if the lid falls back so as to rest against the upright hollow standard, it will be necessary to pull up on the rod, when the lower branch of the fork will engage with the arm of the lid so as to close it. This device is not unsightly in appearance as ordinary spittoons, and is not liable to be upset. It is the invention of Mr. James Camper, of Saguache, Col.

Guacha-Maka Poison, At a recent meeting of the Physiological Society of Berlin, Dr. Schiffer described in detail the effects of guacha-maka poison. An extract was made from the wood of the poisonous plant, which, like curare, is soluble in water and alcohol, and gives the general reactions of an alkaloid. The effects of the extract were tried on frogs, pigeons, and rabbits. A latent period of about fifteen minutes was always noticed. This was followed by a loss of vital and motor powers, although the activity of the heart and of the organs of respiration was not impaired When small doses were given, the animals recovered after a few days; when large doses were given, the impairment of their powers ended in producing death. The muscles could be stimulated directly, but not indirectly, through the medium of the nerves. The guacha maka poison had, consequently, exactly the same effects as curare. The circumstance that both these poisons must be administered in twenty-five times as large quantities, when given by the mouth, than when administered hypodermically, gave origin to some attempts to discover the reason of this difference. It was determined that these poisons are neither very rapidly thrown out of the system in the urine. when they have been absorbed, nor are there substances present in the alimentary canal which decompose them. The probable cause of the difference is, that these poisons are with difficulty

the inclined plane into the harbor, amid the music of the bands and the enthusiastic cheers of the multitude.

THE Marlin (Texas) Index reports a newly discovered food for horses in Falls county, that State. In the Brazos bottom grows a weed, in height 15 or 20 feet, that is said to be almost as nutritious as corn. It is called the "blood weed," from the fact that when broken there escapes a juice that is almost as red as blood. Many farmers feed their work stock but once a day with corn. The other two meals are made by "staking" on blood-weed. In many instances the work stock are exclusively fed on this weed.



# NICHOLSON'S IMPROVED RANGE.

With this arrangement the heated air is distributed absorbed from the stomach. through all of the parts of the oven, and comes into contact with the articlesbeing cooked, and greatly hastens the operation of cooking. Another advantage is that the heated air acts first upon the surfaces of the articles being cooked and prevents the juices from escaping, making the articles more palatable.

There are openings from the oven into the flue, H, near the top of the oven, to permit of the escape of the heated air into the flue. These openings are controlled by a damper. Further information in regard to this invention may be obtained by addressing the inventor as above.

Cost of one horse power per hour, as follows, from experiments lately made at Carlsruhe.

		Cents.	
100	H. P	steam engine 1'90	
2	**		
2	54	Lehman caloric engine	
2	44	Hock motor 2:00	
2	**	Otto gas engine 6.52	
2	44	Otto-Langen gas engine 6.52	
2	**	Schmidt water engine (fed by city water supply) 23.75	
		Horses 11.10	
		Men 50.00	