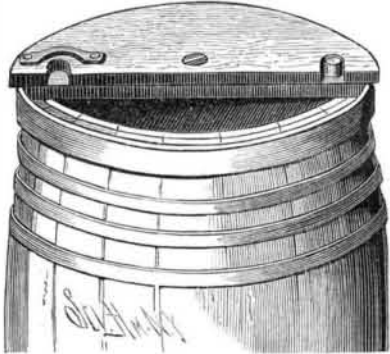


BARREL COVER.

The barrel cover herewith illustrated is the invention of Mr. W. Wirt Hodsdon, of Smithfield, Va. The stationary part of the cover is formed with a straight edge extending beyond the center of the barrel cover. To this board is secured a wide hoop adapted to receive the end of the barrel. Pivoted to this part is the movable cover. Projecting from the upper surface of the stationary part near its straight edge is a pin, and in the movable part are formed two notches at opposite sides of the pivot, which receive the stop pin. By grasping the handle secured to the movable part, the cover may be opened more or less as required. The two notches limit the movement of the cover, so that

**HODSDON'S BARREL COVER.**

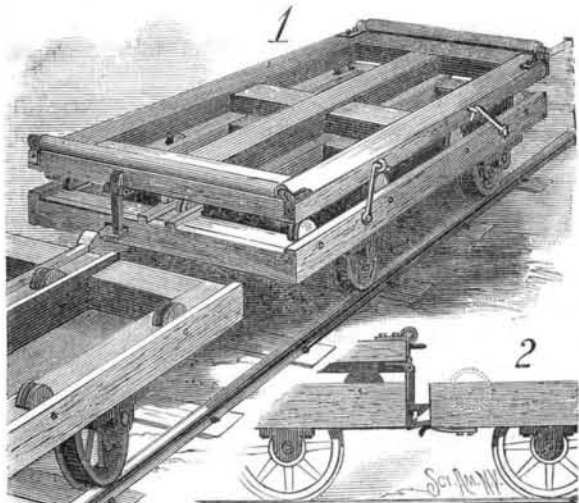
the straight edges of the two parts will be parallel both when the cover is open and when it is closed.

An Electric Sword.

According to the *Electrical Review*, an inventor at Shanghai, China, has contrived an electric sword, which, when the point touches the party attacked, sends a powerful shock through him, and if not immediately killing, will at least put him *hors de combat*. The sword is an ordinary military saber; but along its whole length is let in a fine platinum wire, which ends at the point of the weapon. A small, but very powerful storage battery is carried strapped about the waist, much the same as a cartridge box. Insulated wires connect this battery with the sword, and by pressing the button, the holder can complete the circuit at pleasure.

CONSTRUCTION CARS FOR TRACK LAYING.

This form of car—the invention of Mr. E. N. Emmons, of Washington, Kansas—is designed more especially for use as a construction car, that is, a car employed for transporting small quantities of iron, ties, and other supplies used in the building of railroads. One of two similar cars is left close by the large car from which the supplies are taken, while the other is employed to carry the material to the front. Each car is provided with grooved rollers, upon which ride rails fixed to the under side of auxiliary platforms, formed with openings so located that when the platform is in position upon a car, the openings will be directly over box-like pockets of the platform. At each end of the platform is a roller that provides for the easy loading or unloading of rails. Each car is provided with coupling hooks, as shown in Fig. 2. The platforms are held to the cars by hooks. The cars, being exactly alike, may be used interchangeably with two or more platforms. After the car has been brought in from the front, the unloaded platform is lifted from

**EMMONS' CONSTRUCTION CARS FOR TRACK LAYING.**

it by hand, when the loaded platform carried by the stationary car is moved forward on to the unloaded car, this movement being accomplished by means of a horse hitched to an eye so placed that he can travel upon the right of the track. As the loaded platform reaches its proper position, it uncouples the coupling between the two cars, and thereby releases them. It will be understood that the rear car can be moved forward, and the transfer made at the point where the track is being laid.

Fear in Animals.

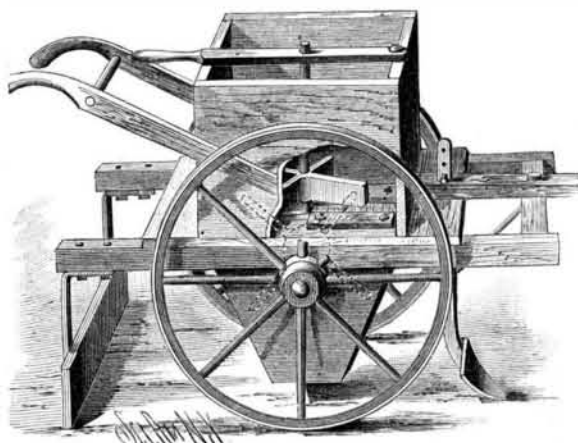
Probably, ever since the second man came into the world, the question of reason or instinct in animals has been debated, and until animals are endowed with the organ of speech, it will continue a debatable question with many. At the present time, we have two pets—a bird and a dog—that come as near to reasoning beings as any animals we ever knew; and yet, through the organ of fear, they both show an entire lack of reason. The bird, a "rose-breasted grosbeak," in its ninth year, which shows no ordinary fear of anything; for, on one occasion, we brought home a tiger cat, that, on seeing the bird, made a wild bound for it, and yet the bird merely threw its wings wide open, and, opening its mouth, placed itself in an attitude of defense. At the same time, when a pair of oxen pass the house fifty feet away, with the blinds closed and slats open, the bird loses all control of itself with fright.

The dog is a Scotch terrier, with courage enough to tackle the biggest dog that comes into the yard; and yet, on one occasion, in the evening, coming home late, I distorted myself and made a queer noise. The dog barked, retreating around the house, and I after him, making a great noise. He jumped down off the piazza and down a very high bank wall, and left the house, apparently forever. As he did not return, I went in search of him, an hour later, and found him wandering aimlessly about, and it was with difficulty I could persuade him to return. It is fair to state, however, that Teddy had hardly arrived at the age of maturity.

JOS. M. WADE.

COTTON PLANTER.

The engraving represents a machine of simple construction for planting cotton uniformly. To the middle part of the frame is attached a hopper having a slotted bottom for the passage of radial fingers fixed to the axle. The rear part of the slot is only wide enough for the passage of the fingers, while the forward part is widened to allow the fingers to carry the seed with them as they pass out through the slot. The width of this forward part of the slot is regulated by

**LOWRY'S COTTON PLANTER.**

plates, which can be readily adjusted wider apart or closer together, according as more or less seed is to be planted. In the hopper is a vertically mounted shaft, provided at its lower end with radial arms made wide enough to push the seed over the forward part of the slot, so that it will be pushed through by the fingers. These arms are struck and revolved by the radial fingers as the machine is drawn forward. A tapered spout on the lower side of the middle part of the frame guides the seed into a channel opened by a plow so arranged that it may be adjusted to enter the ground to any desired depth. The seed is covered and the top of the ridge is smoothed off by a board attached to spring hangers secured to the rear ends of the side bars of the frame.

This invention has been patented by Mr. T. P. Lowry, of Bryan, Texas.

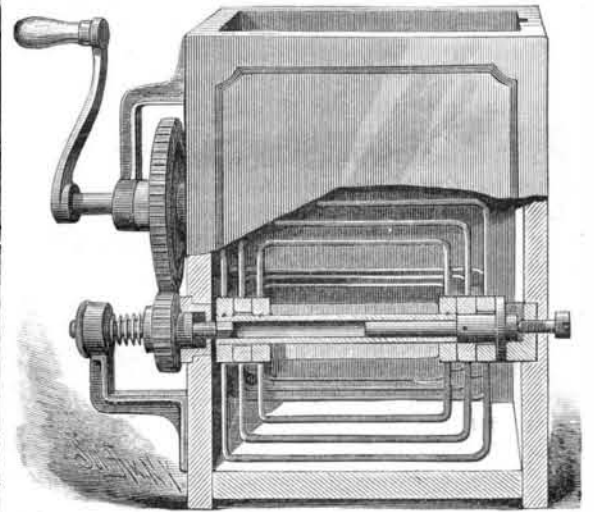
Rewards to Inventors by the British Government.

The sums paid to inventors, in connection with ordnance and small arms, between the years 1878 and 1886 range from £10,000, paid to Mr. Nordenfelt for manufacture in government factories of ammunition for 1 inch Nordenfelt guns, a similar sum to Mr. Vavasseur for driving rings for breech-loading projectiles, £5,000 to Mr. R. S. Fraser for the plan of making guns, and £2,000 to the Rev. F. Bashforth for the advancement of the science of gunnery by the application of mathematics to ballistics, down to £50 to Mr. Armstrong (in December, 1878) for the plan of steeling the trail eyes of gun carriages and £100 to Mrs. Padwick for a suggestion by her late husband respecting studded projectiles. The grants also included £750 to Mr. Owen Jones, £650 to Mr. Thornton, and £100 to Mr. Stanton, described as inventors of revolver pistol, and £1,500 to Mr. Henry for ammunition for small arms.

The above foots up a trifle over £80,000, or \$150,000; and if this is the gross amount paid to inventors during eight years, it is not much to brag of.

EGG BEATER.

The object of the invention herewith illustrated is to provide an improved egg beater, which will beat the eggs thoroughly and quickly. It is simple in construction, and not liable to get out of order. Near the bottom of the receptacle is placed the beater,

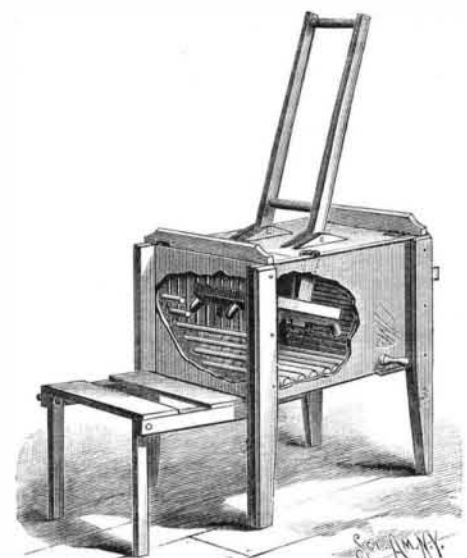
**VICKERS' EGG BEATER.**

consisting of a stationary and a revolving frame. The stationary frame consists of two hubs provided with spokes united at their outer ends by cross bars. The revolving frame consists of two sets of spokes and cross bars which are arranged to revolve, one inside and one outside of the stationary frame. Mounted upon the side of the receptacle, in suitable bearings, is a shaft having a crank and a cog wheel which meshes with a pinion on a shaft having a square end that fits in the end of the hollow spindle carrying the four hubs of the revolving frames. The pinion is kept in engagement with the cog wheel by a spring arranged as shown. The outer end of the pinion shaft is provided with a plate which, when pulled outward, disengages the wheels and withdraws the square end of the shaft from the hollow spindle, so that the beater can be lifted out of the receptacle. It will be seen that by turning the crank a rotary motion is imparted to the spindle and its frames.

This invention has been patented by Mr. William Vickers, of 107 Palisade Avenue, Jersey City Heights, N. J.

WASHING MACHINE.

The bottom and end surfaces of the inside of the tank are provided with horizontal strips, while the sides have vertical ones. The hinged cover of the tank is formed with two apertures through which pass the two lever arms of the pounder, being pivotally mounted in blocks placed alongside of the apertures. The pounder or rubber consists of a block of wood having a number of pins projecting from it; there is one pin at each corner, one at the center of each side, and four projecting from the lower surface. In the upper face of one of the cross strips is a soap box having holes in its bottom through which the water drains off. At one end of the machine is arranged a folding

**KRAMER'S WASHING MACHINE.**

platform, as shown in the engraving. After the clothes have been thoroughly washed, they are passed through a wringer secured to the end wall of the tub, when they drop directly into a basket placed upon the platform.

This invention has been patented by Mr. Henry Kramer, of Grant Park, Ill.

EVERY timber limit of any value in the Ottawa District that has recently been offered for sale has found ready purchasers.