(No Model.)

# J. F. LYONS.

## ANIMAL TRAP.

No. 458,399. Patented Aug. 25, 1891.

Fig. 1.

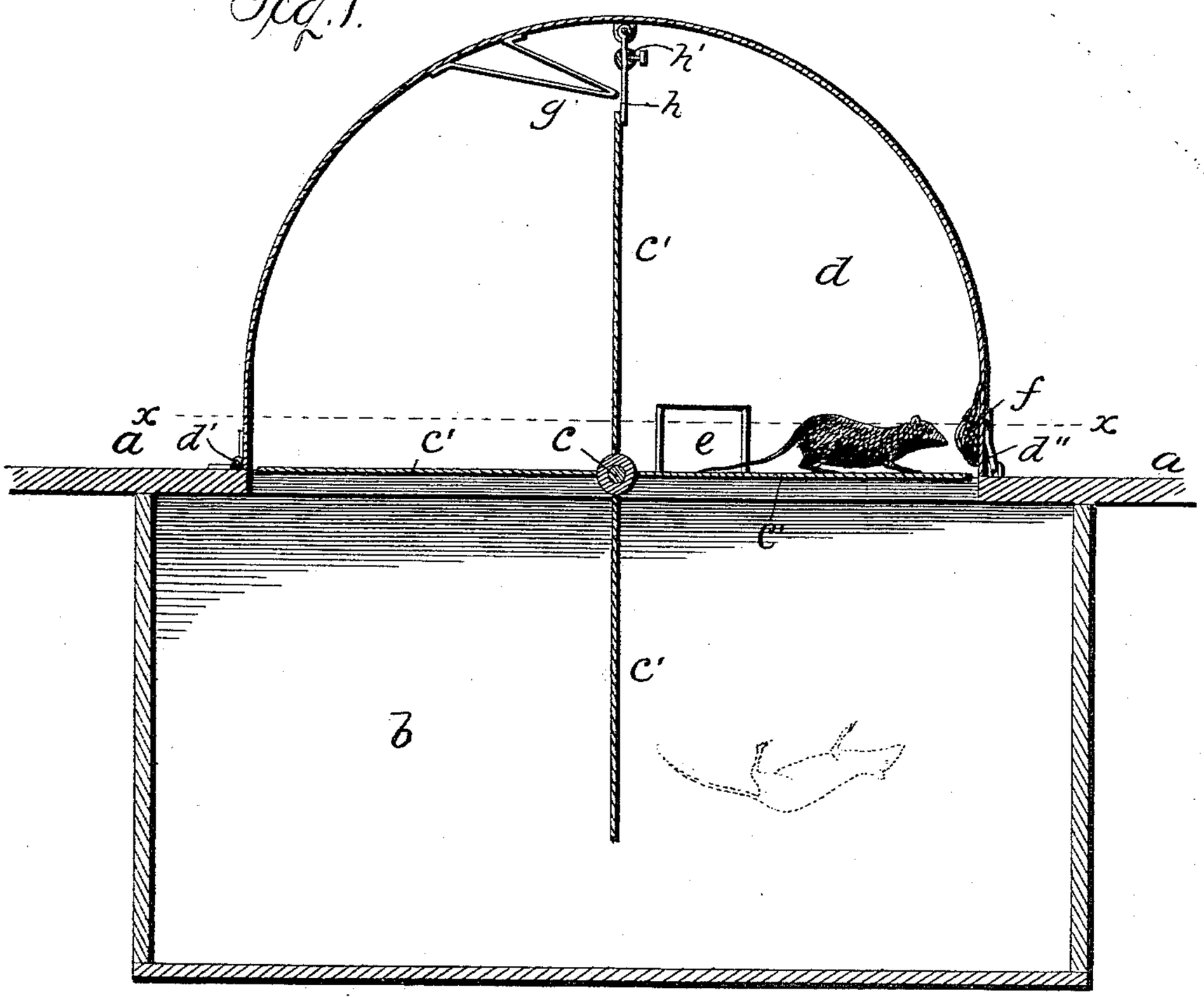
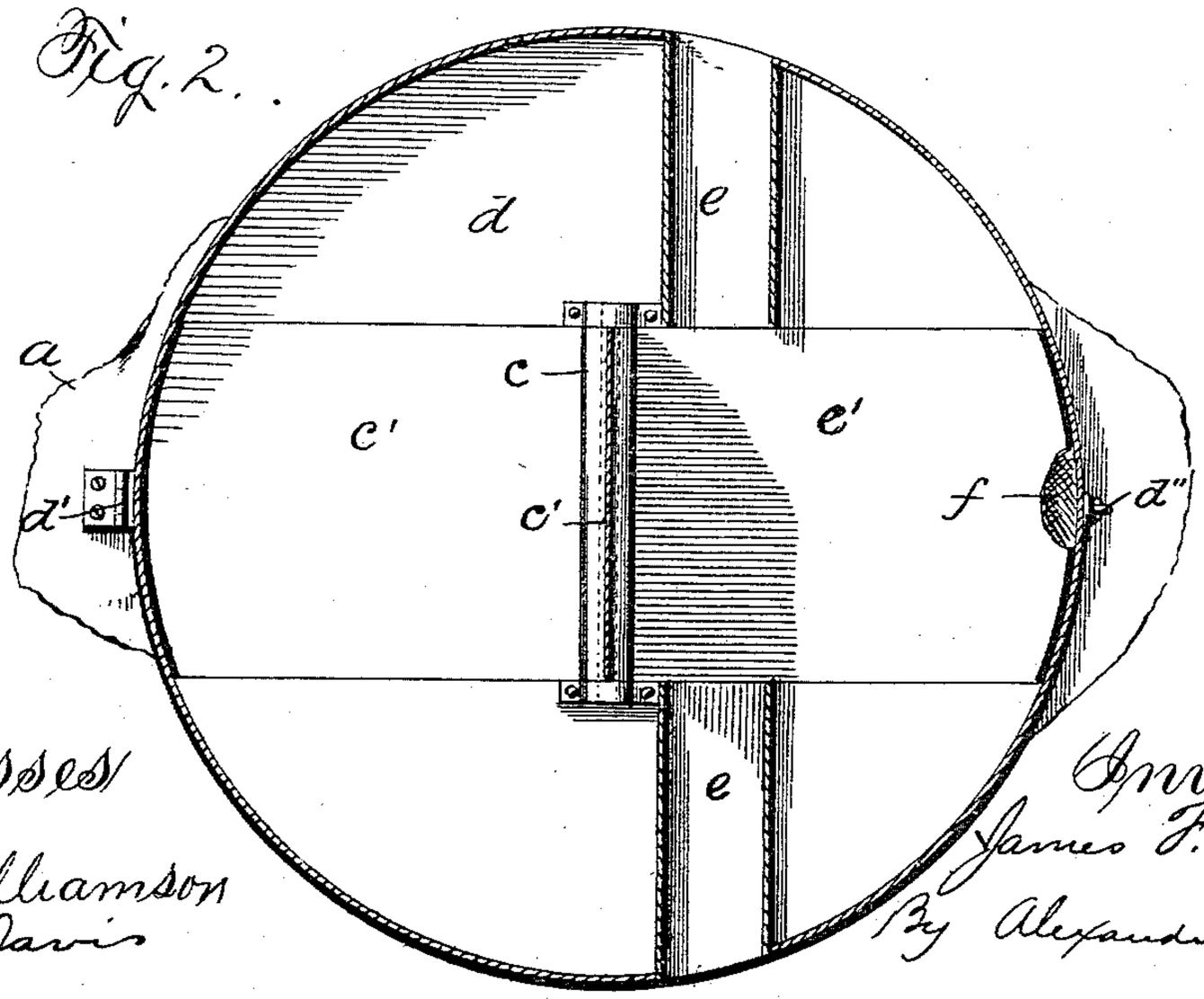



Fig. 2.

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# UNITED STATES PATENT OFFICE.

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## ANIMAL-TRAP.

SPECIFICATION forming part of Letters Patent No. 458,399, dated August 25, 1891.

Application filed June 9, 1891. Serial No. 395,674. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES F. LYONS, a citizen of the United States, residing at Crescent City, in the county of Pottawattamie and State of Iowa, have invented certain new and useful Improvements in Animal-Traps, of which the following is a specification, reference being had therein to the accompanying drawings, in which—

Figure 1 represents a vertical sectional view of my improved trap, and Fig. 2 a horizontal sectional view taken on the line *x x* of Fig. 1.

This invention has relation to that class of animal-traps wherein a rotary device is employed to automatically drop the animals as they approach the bait into a closed vessel below, said rotary device consisting, essentially, of a horizontal shaft journaled in bearings over the opening in the vessel and provided with four or more radial wings that successively come into play and form tilting platforms, as will more fully hereinafter appear.

The invention consists in certain novel features of construction and combinations of parts that will be fully hereinafter described, and particularly pointed out in the claims appended.

In the drawings, *a* designates a board or plate provided with an oblong opening and adapted to be placed or secured over a suitable receptacle *b*, which may or may not contain water, as may be desired. A shaft *c* is journaled on the board *a* across the opening therein and is provided with four or more radial blades *c'*, which work through the opening in the board and serve to at all times close the same, two of the diametrically-opposite blades always being flush with the upper face of the board, as shown in Fig. 1.

Instead of four blades, as shown, I may use any even number, such as six or eight blades, or even more, if desired, without departing from the invention in the least.

A dome-like casing *d* is placed over the rotating device and is hinged at one side, as at *d'*, to the plate *a*, and secured to the same at a diametrically-opposite point by means of a hook *d''*, whereby the casing may be turned back to gain access to the working parts of the trap. Covered passages or conduits *e e* lead into the casing from opposite sides of the same, these passages being upon the same side of the shaft and running parallel with the same and terminating at their inner ends at the edges of the opening near the shaft. The bait-holder *f* is secured to the interior of the casing at one end of the opening in the board *a*, so that before it is reached an animal will have to pass over the tilting blade that may at the time be flush with the said board and adjacent to the bait. The bait is placed, of course, on the same side of the shaft that the entrance-passages *e* are.

A depending rod or pin *h* is pivotally attached to the interior of the dome at its center, and is long enough to engage the blade of the rotary device that may be in a vertical position and prevent it going too far in the direction of its rotation. This pin hangs down on the right side of the vertical blade and forms by its weight a yielding abutment for the same, its swinging movement to the left being restricted by means of a stationary stop *g*, secured on the interior of the casing. The operation of this pin will be evident. As the blades successively assume a vertical position during the operations of the trap, they strike against this swinging pin, and are thereby prevented from going far enough to carry the blade that is brought into service below the horizontal plane of the surface of the board, the weight of the pin alone serving to accomplish this. When an animal passes in through either of the passages and gets on the tilting blade or platform, this blade does not tilt so long as he remains at the inner end of the blade near the shaft, so that the animals may pass back and forth through the trap without being deposited in the trap-box below. This is advantageous in that it serves to allay any instinctive suspicions that may be aroused in the animals by the appearance of the trap; but as soon as they advance to the bait at the right end of the opening their weight overcomes the resistance offered by the depending pin and moves the same to one side sufficiently to permit the vertical blade to be disengaged from the pin, which latter normally swings back to its vertical position in readiness to stop the ascending blade on

the other side. The point at which the blade tilts will be determined by the weight of the pin and the weight of the animal, the heavier animals serving to rotate the blades sooner than the lighter ones. To regulate the resistance offered by the pin, a sliding adjustable weight may be employed on it, this weight being held in its adjusted positions by means of a set-screw tapped through it. The nearer the lower end of the pin the weight is placed the greater will be the resistance offered thereby. By this provision the trap may be adjusted for either rats or mice or other animals.

This trap may be constructed of any material and any size desired, and may be used for catching varieties of animals, such as rats, mice, skunks, moles, rabbits, &c., and also fowls, such as chickens, &c. It will be of course made in different sizes for these different purposes. Its main advantages are its simplicity and its automatic character. It is a continuously-operating trap and is always set. The bait, too, will last indefinitely, as the trap platforms or blades are so adjusted as to tilt before the animal reaches it.

Having thus fully described my invention, what I claim is—

1. In an animal-trap, the combination of a board having an opening, a receptacle below the opening, a horizontal shaft journaled across the opening and provided with radial blades revolving through the opening and serving successively as tilting platforms, a casing placed over the upper blades, and a laterally-yielding stop depending from the casing and engaging the upper end of the upper blade, said stop holding the blades against rotation until a certain weight is placed on one of the platforms, substantially as described.

2. The combination, in an animal-trap, of a board provided with an opening, a receptacle below the opening, a shaft journaled across the opening and provided with radial blades revolving through the opening and serving successively as tilting platforms, a casing placed over the upper blades, a laterally-yielding stop depending from the casing and engaging the upper end of the upper blade, said stop holding the blades against rotation until a certain weight is placed on one of the platforms, and an adjustable weight on said stop, substantially as described.

3. In an animal-trap, the combination of a board provided with an opening, a horizontal shaft journaled across the opening and serving successively as tilting platforms, a casing placed over the upper blades, a laterally-yielding stop depending from the casing and engaging the upper end of the upper blades, said stop holding the blades against rotation until a certain weight is placed on the working one of the platforms, passages leading onto the inner end of the working blade, and a bait-holding device near the outer end of the said blade, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES F. LYONS.

Witnesses:

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