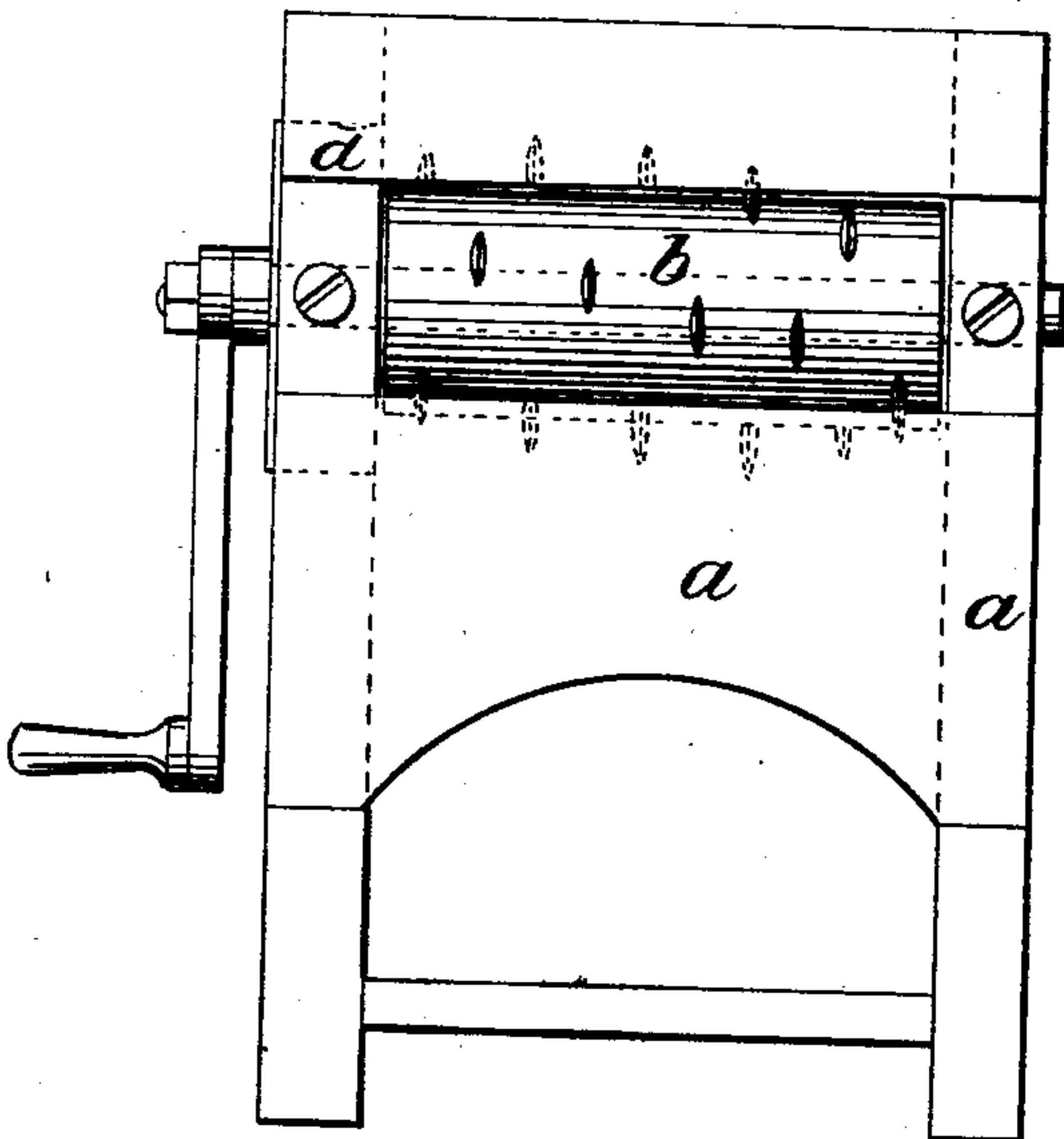


N. RICHARDSON.  
BAIT OR MEAT CUTTER.

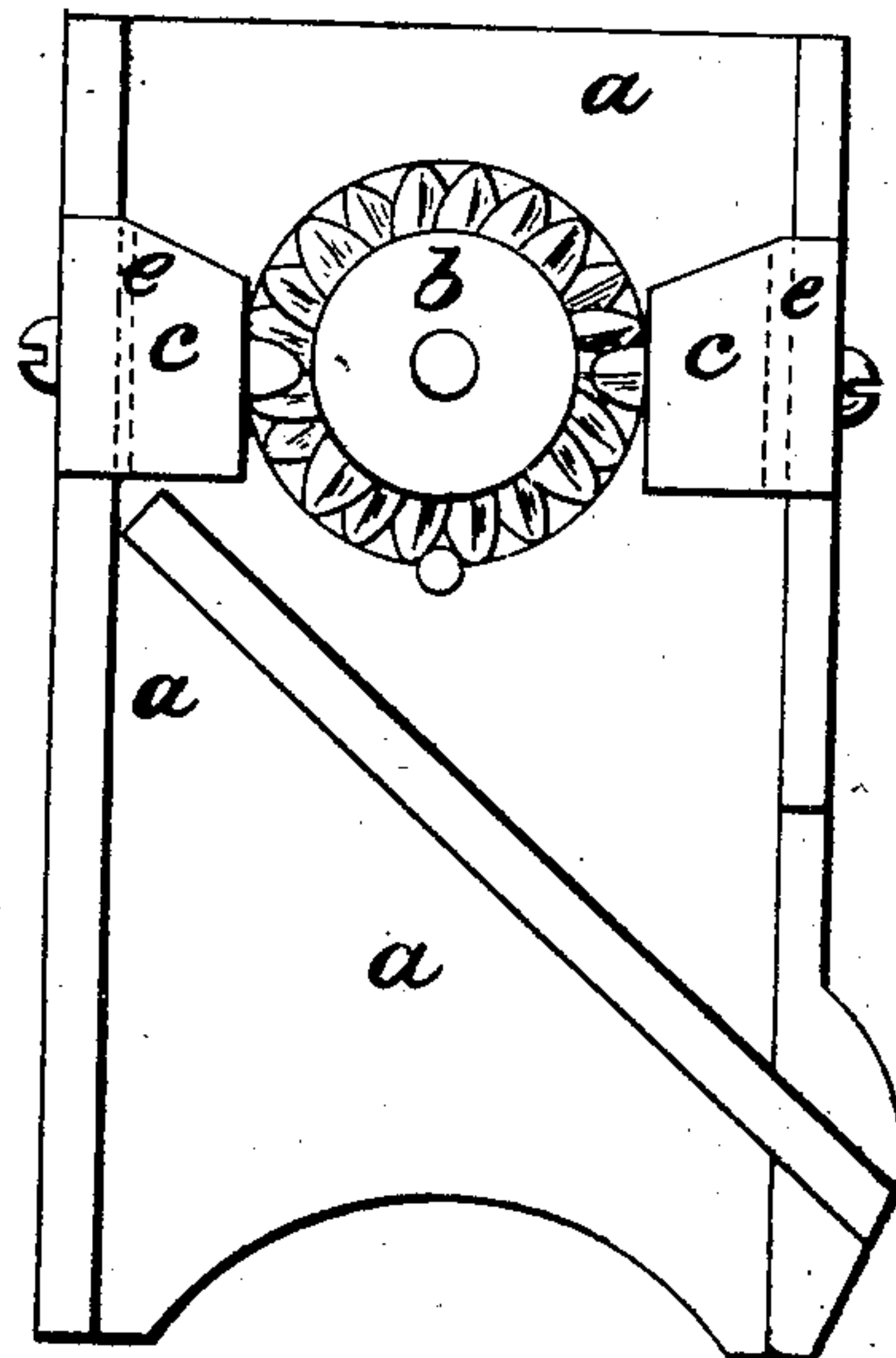
No. 73,464.

Patented Jan. 21, 1868.

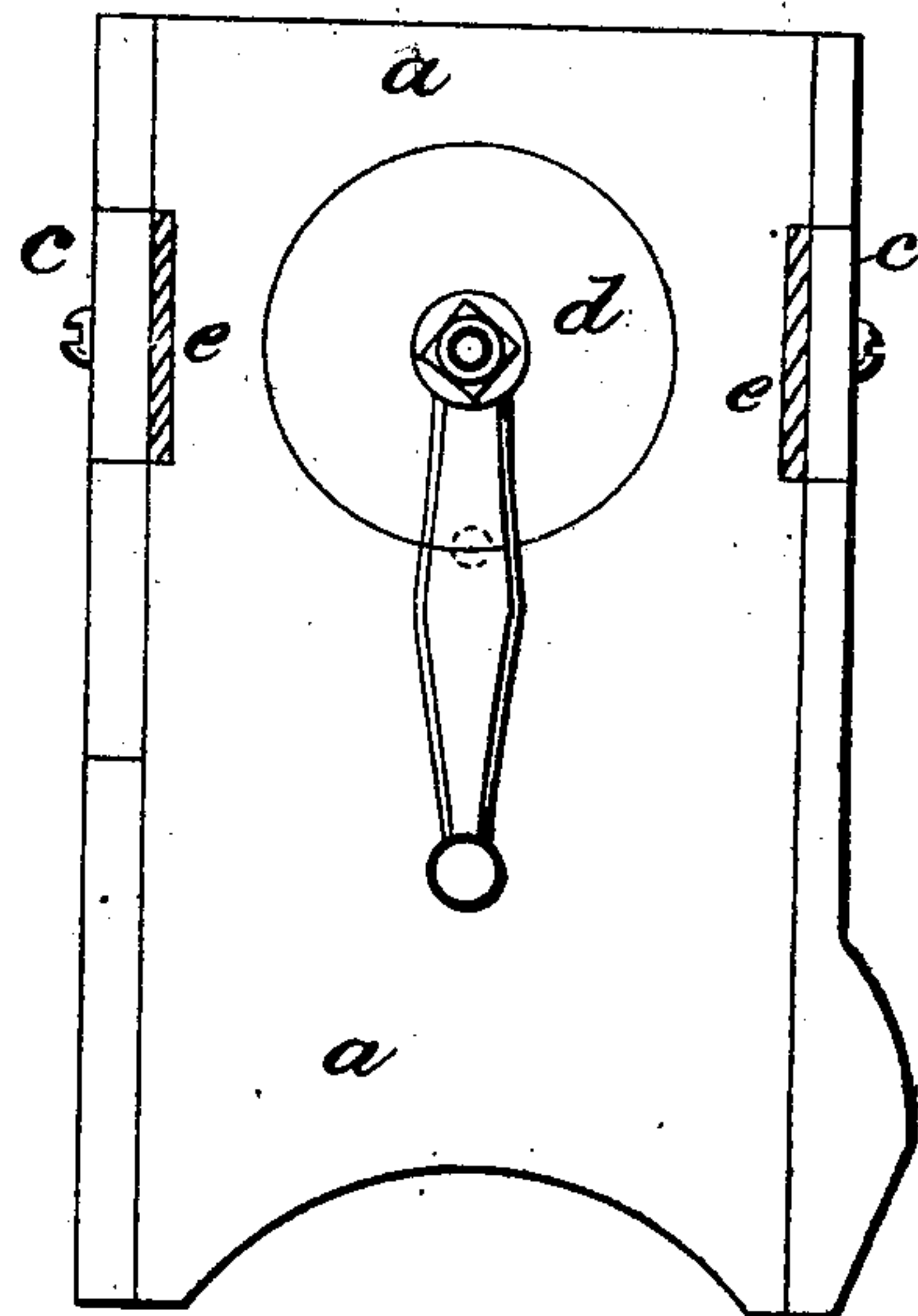
*Fig. 1.*



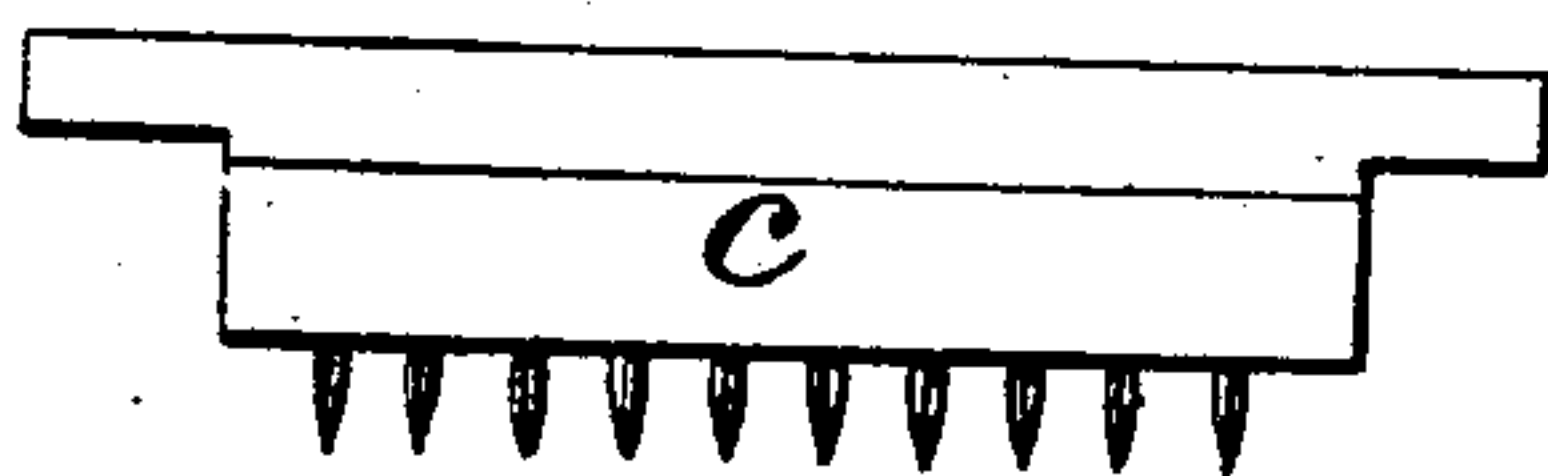
*Fig. 2.*



*Fig. 4.*



*Fig. 3.*



*Witnesses:*

*J. H. Adams  
Herbert Torrey*

*Inventor:*

*N. Richardson*

# United States Patent Office.

NATHAN RICHARDSON, OF GLOUCESTER, MASSACHUSETTS.

*Letters Patent No. 73,464, dated January 21, 1868.*

## IMPROVED BAIT OR MEAT-CUTTER.

*The Schedule referred to in these Letters Patent and making part of the same.*

Be it known that I, NATHAN RICHARDSON, of Gloucester, in the county of Essex, and State of Massachusetts, have invented a new and useful Improvement in Bait or Fish-Mills, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents an elevation of a machine embodying my improvement.

Figure 2 is a transverse section of the same.

Figure 3 is a view of the cutter-head; and

Figure 4 is an end elevation.

The object of my invention is to so construct a machine for cutting up fish or bait as to enable the portions which contain the cutters to be readily removed from the machine, so that the cutters can be sharpened or repaired, without the necessity of taking the whole machine to pieces; and also to provide a means for adjusting the cutters to compensate for their wear consequent upon their being frequently sharpened.

My invention is designed to be applied more particularly to mills which are used on board of fishing-vessels. The mills are usually firmly attached to the sides of the vessel, and when it becomes necessary to sharpen the cutters, or replace such as may have become broken or otherwise injured, it is necessary in the mills, as ordinarily constructed, to take them mostly to pieces—a process that requires considerable time and labor. And again, during the season in which the mills are not used, they are stored away in places where it is damp or exposed to the action of the salt air, thereby injuring the cutters.

By my invention the portions containing the cutters, both the cylinder and the side pieces, may be readily removed from the machine for repairs, and when not in use they may be stored away in a more convenient and less-exposed place than when in the machines, thus allowing the cutters to be kept in a condition for immediate use for replacement in the machine.

Referring to the drawings, *a* represents the frame of the machine, which may be of any suitable form or size. *b* is the cylinder, provided with cutters, as shown. The bearing of the cylinder, at one end of the machine, is in a circular block, *d*, which is a little larger in diameter than the cylinder with its cutters. The circular block *d* is set in the frame, so that it can be easily removed for the purpose of taking out the cylinder from the frame, and is secured in place by the screws which hold the cutter-block *c* on one side. On opposite sides of the cylinder *b* are blocks or heads *c c*, in which are secured the side cutters, the latter being arranged to pass between the cutters on the cylinder *b*, in the usual manner. The blocks or heads *c c* are secured in the sides of the frame by means of screws, so that they can be very readily removed when necessary to sharpen or renew the cutters.

The cutters, both on the cylinder and the side blocks, from frequent sharpening, become worn away, and are thus made too short for efficient operation. In order to remedy this difficulty, I interpose between the ends of the cutter-blocks and the portion of the frame to which they are attached, a strip of wood on each side, as shown at *e*, in fig. 4, which may be gradually made thinner by cutting away, and eventually removed as the cutters become shorter, and thus enable the blocks and their cutters to be set closer to the cylinder, in order to compensate for the diminished length of the cutters.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The removable blocks or heads *c c*, containing the stationary cutters, and attached to or forming a part of the framing, in combination with the adjustable strips *e*, placed between the blocks or heads *c c*, and the framing, as and for the purpose described.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

N. RICHARDSON.

Witnesses:

G. H. ADAMS,

HERBERT TORREY.