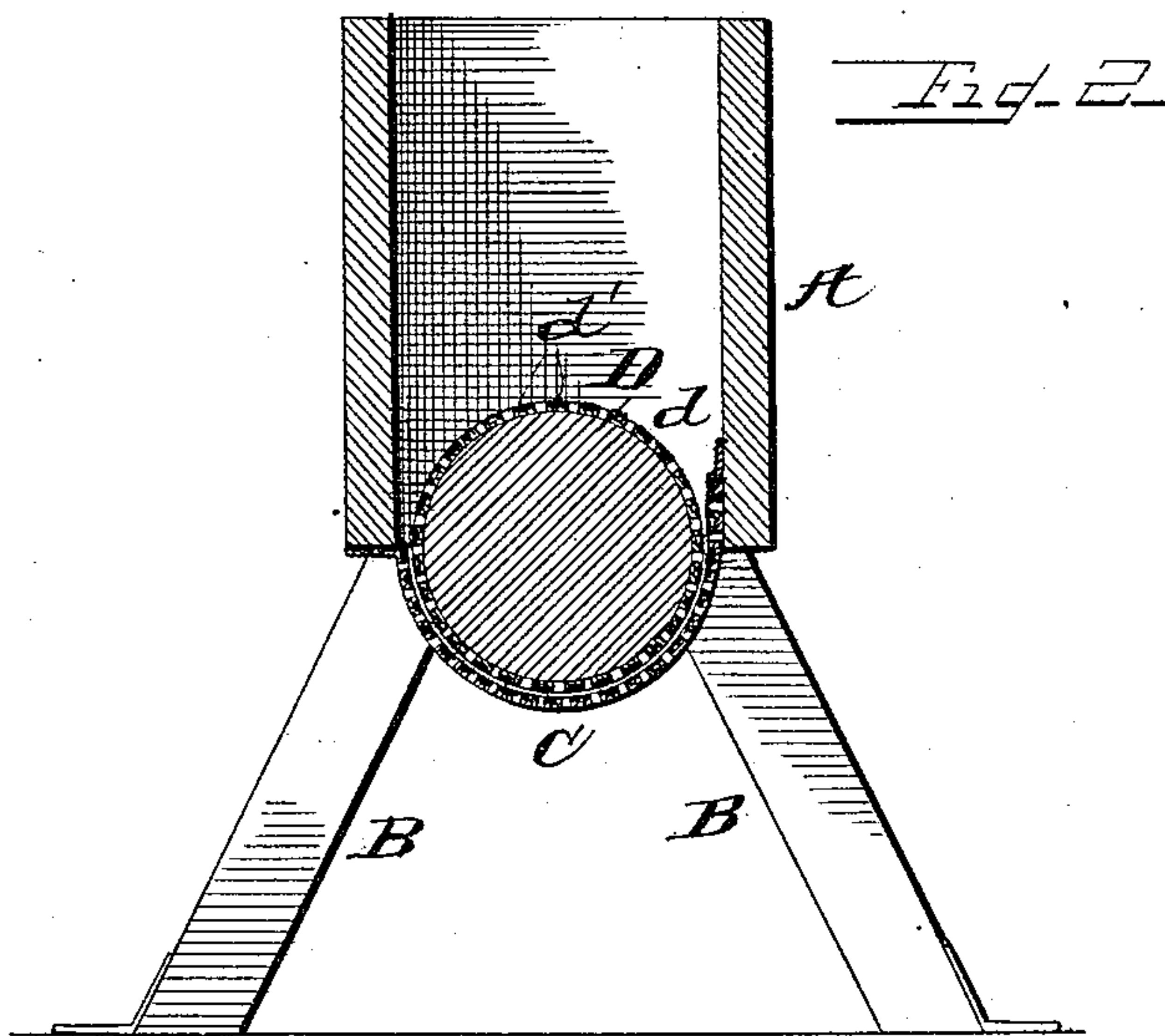
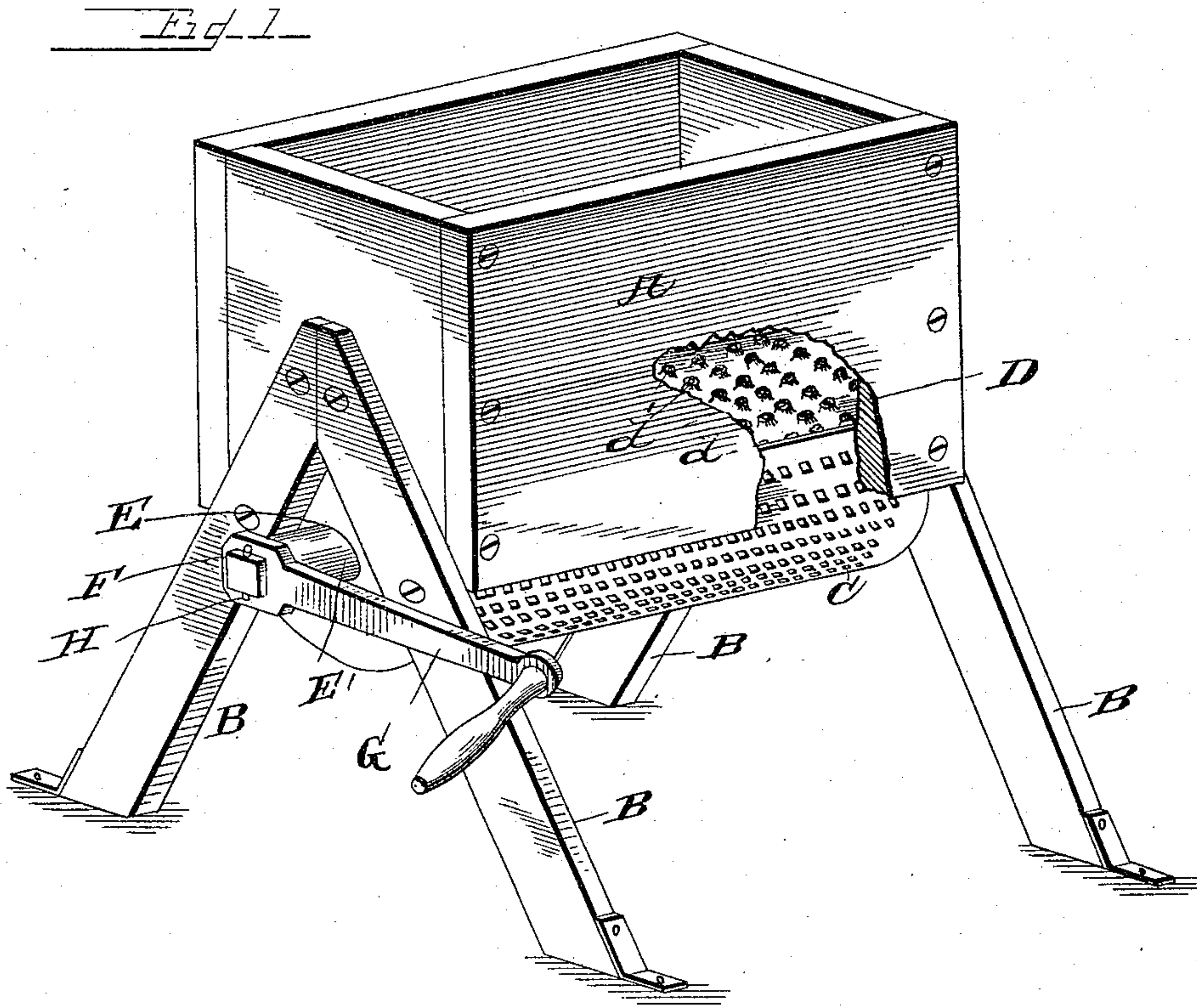


(No Model.)

A. KRAMER & W. ERIKSSON.
GRATER.

No. 452,015.

Patented May 12, 1891.



Witnesses

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UNITED STATES PATENT OFFICE.

ANTON KRAMER AND WILLIAM ERIKSSON, OF ANNAPOLIS, MARYLAND.

GRATER.

SPECIFICATION forming part of Letters Patent No. 452,015, dated May 12, 1891.

Application filed December 5, 1890. Serial No. 373,668. (No model.)

To all whom it may concern:

Be it known that we, ANTON KRAMER and WILLIAM ERIKSSON, citizens of the United States, residing at Annapolis, in the county of Anne Arundel and State of Maryland, have
5 of Anne Arundel and State of Maryland, have invented certain new and useful Improvements in Graters; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable
10 others skilled in the art to which it appertains to make and use the same.

Our invention relates to that class of grating-machines wherein a spirally-perforated cylinder and a perforated concave bottom of
15 a rectangular box or receptacle are employed for grating bread, crackers, and like articles for household and other purposes; and the invention has for its object to simplify, improve, and cheapen the cost of construction of this
20 class of graters over the existing prior state of the art.

To this end the invention consists in the novel construction and arrangement of parts, as will be hereinafter more fully described,
25 and specifically pointed out in the claim.

We have illustrated our invention in the accompanying drawings, in which—

Figure 1 is a perspective view of our improved machine, partly broken away to show
30 the cylinder; and Fig. 2 is a cross-section of the same.

The same letters of reference indicate corresponding parts in the several figures.

Referring to the drawings, A indicates a
35 rectangular box or receptacle suitably mounted upon and secured to the upper ends of inclined legs B B B B, each pair of which present the form of an inverted letter V. Secured to the lower edge of one side of this rectangular box is the turned edge of a metallic concave bottom C, the opposite side being secured to the inner side near the lower edge of the opposite side of the box, leaving a small
40 portion of the concave bottom projecting a little higher upon this side of the box than on the other side to allow the grating action to be commenced by the roughened side of the concave bottom upon the article placed in the box, this action being performed in
45 conjunction with a grating-cylinder.

D indicates the grating-cylinder, the body

or main portion of which is preferably constructed of wood, which is provided with a covering of sheet metal *d*, such as tin, iron, &c., and having spirally-arranged perforations
55 *d'* therein with the projections outside, thus causing the outer roughened surface of the cylinder and the inner roughened surface of the concave bottom of the box to operate together. The casing is provided with openings E E, through which the journals E' of the cylinder is passed, forming bearings for the journals of the cylinder. The journal E' is squared off at its outer extended end to admit of its being passed through an eye F of
60 a similar form in one end of a crank G, a pin H being passed through the free end of the journal E', by means of which the crank G is secured upon the end of the journal.

Special importance is attached to the making of the ends of the receptacle or box extended downwardly below the sides of the box, wherein by such construction of the ends we not only afford a secure fastening-surface for the bottom, but give the box a rigidity
75 and strength at these portions for forming the bearings therein for the journals of the cylindrical grater and securely holds the concave bottom C.

From the foregoing description, taken in connection with the accompanying drawings, the operation of our device will be obvious.

It will be noticed that the receiving side or edge of the grating C is extended upward and attached to the inner side of the box A to
85 form in connection with the cylinder a contracting receiving-throat in which the grating operation is begun, while to firmly secure the said bottom the ends are rigidly secured to the convex under edges of the ends
90 of the casing, and the opposite edge is turned outward, forming a horizontal flange by which the bottom is attached to the under edge of the rear side of said box, by which construction the tendency of the rear edge of the concave during the operation to work loose under the traction of the cylinder is obviated.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

A box or receptacle whose ends are formed with convex under edges and having a con-

cave grating-bottom secured to said under
edges, one side of said grating extending
above the other and above the grating-cyl-
der and the other side bent outward to form
5 a flange by which it is attached to the under
rear edge of box A, and a solid grating-cyl-
inder covered with a perforated sheet-metal
plate located in the box, said box being sup-
ported upon the legs thereof, substantially

as herein shown and described, and for the ro
purposes set forth.

In testimony whereof we affix our signatures
in presence of two witnesses.

ANTON KRAMER.

WILLIAM ERIKSSON.

Witnesses:

JOHN T. JEFFERSON,

JOHN DUFFY.