(No Model.)

W. D. F. LORYEA.

FLOUR OR CONDIMENT DREDGE.

No. 572,362. Patented Dec. 1, 1896.

Fig. 1.

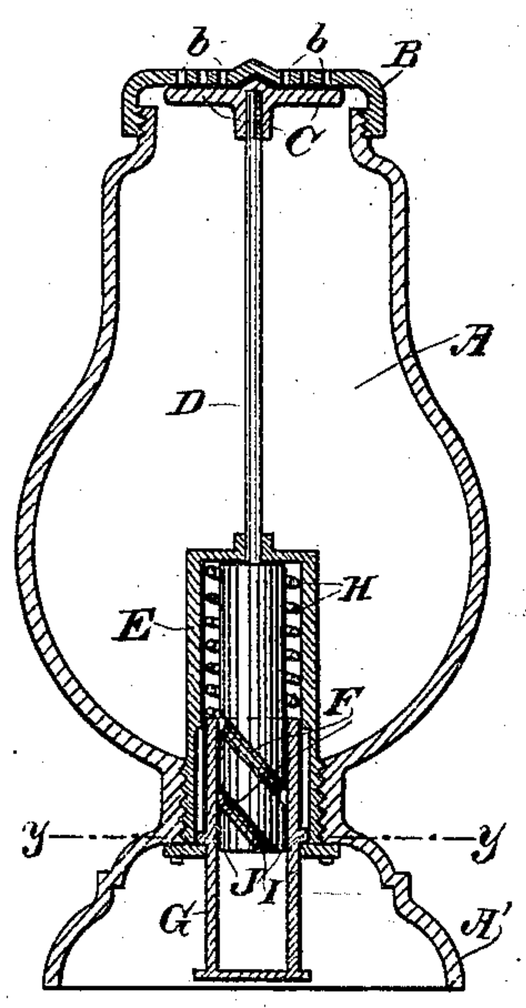


Fig. 2.

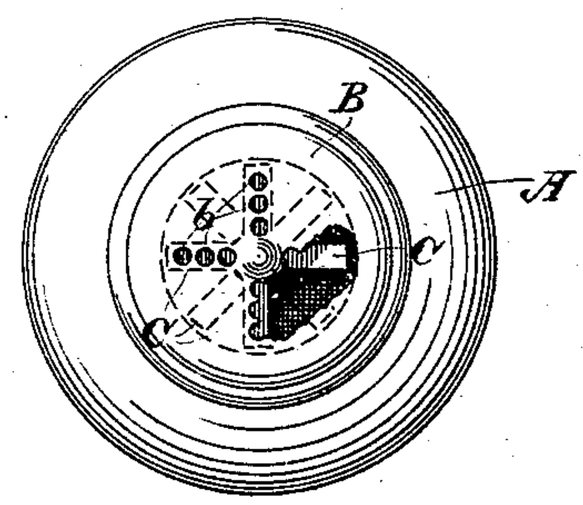
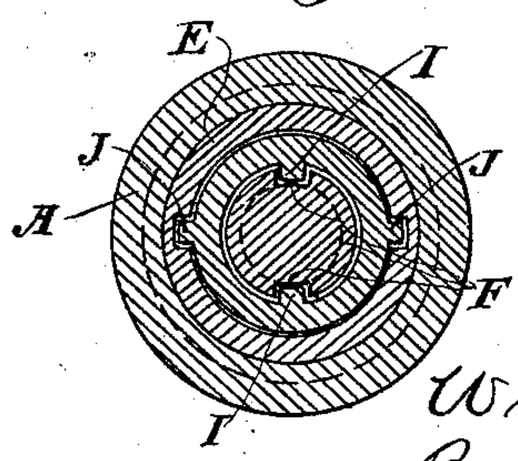


Fig. 3.



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UNITED STATES PATENT OFFICE.

WILLIAM D. F. LORYEA, OF SAN FRANCISCO, CALIFORNIA, ASSIGNOR OF ONE-HALF TO E. S. ROSENBLAT AND I. S. ROSENBLAT, OF SAME PLACE.

FLOUR OR CONDIMENT DREDGE.

SPECIFICATION forming part of Letters Patent No. 572,362, dated December 1, 1896.

Application filed May 13, 1896. Serial No. 591,325. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM D. F. LORYEA, a citizen of the United States, residing in the city and county of San Francisco, State of California, have invented an Improvement in Flour or Condiment Dredges; and I hereby declare the following to be a full, clear, and exact description of the same.

My invention relates to a dredge for the sifting and discharge of flour, salt, pepper, spices, and other similar substances.

It consists in certain details of construction, which will be more fully explained by reference to the accompanying drawings, in which—

Figure 1 is a vertical section through my dredge. Fig. 2 is a top view of the same. Fig. 3 is a horizontal section on line *y y* of Fig. 1.

A is a receptacle of any suitable shape or capacity, depending upon the purpose for which it is to be employed. This receptacle has a screw-cap B, which may be removed at any time to allow the receptacle to be filled and replaced again when it is ready for use. This cap is shown with radial lines of holes *b* made in it, these holes being so arranged that they can be closed when the apparatus is not in use.

D is a shaft extending longitudinally through the container A and having fixed upon the upper end, just beneath the cover B, a head having radial arms C. These arms are so arranged that they normally coincide with the holes *b* in the cover, and as they lie closely against the latter they keep the openings closed when the device is not in use. When they are rotated by mechanism to be hereinafter described, they stir the contents of the holder (the latter being inverted) and cause the contained material to be sifted out through the openings, serving at the same time to prevent any packing of the material, so as to stop up the holes in the cover. The head which carries these arms has a polygonal hole made in it which is fitted upon the polygonal end of the shaft D, so that it may easily be removed when the cover is taken off to fill the receptacle and is easily replaced before the cover is again put on. The outer end of the hub is extended slightly and fits into a corresponding depression or socket in the center of the cover B, and this serves as a bearing or journal to steady the shaft B in its rotations and keep it in its proper place.

E is a closed cylindrical case removably fitted into the bottom of the receptacle A, having a central hole in its inner end or cap, through which the shaft D passes. Interior to this case E the shaft is considerably enlarged and has around its lower end spirally-arranged grooves F.

G is a sleeve or slide which fits within the case E and exterior to the enlarged portion of the shaft D.

H is a spiral spring fitting within the upper part of the case E, one end pressing against the top of said case and the other against the inner end of the slide G. This slide G has lugs I upon its inner surface which engage with the spiral grooves at the lower end of the shaft D, and upon the outside the slide has other lugs J, which are fitted to travel in straight grooves or channels made in the interior surface of the case E, so that when the slide G is pushed up these lugs cause it to move in a straight line, while the lugs H, on its inner surface, acting in the spiral grooves upon the shaft D, cause the latter to rotate in one direction when the slide G is pushed inwardly and in the opposite direction when it is again moved out by the action of the spring H.

It will be understood that the case E and the slide G may be made polygonal, in which case the exterior lugs on G and corresponding grooves in E may be omitted because the angular edges of the two parts will then form the guides for the slide G.

The base of the receptacle A is preferably extended, as shown at A′, to a sufficient distance to contain and conceal the reciprocating part G.

The operation will then be as follows: The container being taken in the hand and reversed over the point where it is desired to distribute its contents, the slide G is pushed inwardly by the thumb of the hand in which the device is held. The spring H will be compressed, and as the part G is prevented from turning, as before described, by the guides its interior guides will cause the shaft

D to revolve in one direction, thus alternately uncovering and covering the openings in the cover as well as stirring the contents at the point of delivery, so as to insure their being discharged through the holes in the cover. As soon as the pressure of the thumb is released the sliding part G is returned by the action of the spring H, and the reciprocating motion can thus be kept up indefinitely until as much of the contents have been discharged as may be desired.

The construction here shown is exceedingly simple and is particularly convenient, because the device can be held and operated with one hand, leaving the other free for such other duty as it may be necessary to perform at the same time.

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

1. A flour or condiment dredge consisting of a containing-chamber, a removable cap having radial perforations made therein, a longitudinal central shaft extending through the container and having a head fixed thereto with radial arms which normally coincide with and close the perforations in the cover, an inclosed case in the lower part of the container, into the inner end of which the shaft extends, spiral threads cut upon the shaft, a direct reciprocating slide surrounding the shaft within the outer case having lugs which engage the spiral grooves in the shaft, and a returning-spring pressing against the end of the slide whereby a reciprocating movement of the slide and a rotary movement of the shaft are effected.

2. A flour or condiment dredge consisting of a containing-chamber, a removable cap fixed to the top thereof having radial lines of holes, a shaft extending longitudinally through the containing-chamber having a hub removably attached to its upper end, radial arms projecting from said hub and normally coinciding with and closing the holes in the cap, a projection from the upper end of the hub fitting the corresponding depression in the cap whereby the upper end of the shaft is guided, a close casing in the lower part of the receptacle into the end of which the shaft enters, spiral grooves cut in the enlarged portion of the shaft within the casing, a reciprocating slide fitting outside the shaft and inside of the fixed casing, guides by which it is caused to move in a direct line, lugs on the interior of the slide engaging the spiral grooves on the shaft and a spiral spring within the casing pressing against the end of the slide, whereby a reciprocating motion of the slide and a rotary motion of the shaft and arms are produced.

In witness whereof I have hereunto set my hand.

WILLIAM D. F. LORYEA.

Witnesses:
GEO. H. STRONG,
S. H. NOURSE.