L. MORGAN.

Dredger for Salt, Pepper, &c.

No. 207,434. Patented Aug. 27, 1878.

Fig. 1

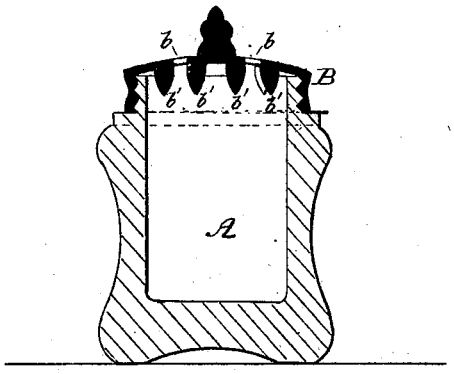
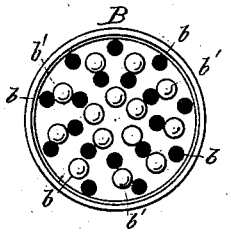


Fig. 2



Witnesses:-

J. K. Aulahan.

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UNITED STATES PATENT OFFICE.

LEWIS MORGAN, OF NEW YORK, N. Y.

IMPROVEMENT IN DREDGERS FOR SALT, PEPPER, &c.

Specification forming part of Letters Patent No. **207,434**, dated August 27, 1878; application filed March 1, 1878.

To all whom it may concern:

Be it known that I, LEWIS MORGAN, of New York city, in the State of New York, have invented certain new and useful Improvements relating to Dredgers for Salt, Pepper, and Analogous Materials, of which the following is a specification:

My improved dredger is more especially intended for use with salt. In damp atmospheres, as at sea or on the sea-coast, finely-ground salt, adapted for table use, is liable to cake together and form a hard lump. It does not stick strongly to the glass body of the vessel, but it cakes together in a hard mass.

Devices have been before introduced in the nature of branched arms standing in the interior of the dredger with a view to agitate the mass each time it is shaken; but difficulties attend their use, one of the most serious of which is the liability of the salt to cake around and form a dense mass, including the branched device in itself, and still remaining intact.

My device is cheap, and experiment indicates that it is peculiarly efficient. I simply arm the inside of the cover with tapering projections extending a short distance inward. The projections stand between the holes, and in such relation thereto that as the lump of salt is by the motion of the dredger thrown violently forward against the cover the projections not only chip off small portions from the front of the mass, but also deflect those portions and all the loose material which is thrown against them, so as to more certainly insure their ejection through the holes.

The accompanying drawings form a part of this specification, and represent what I consider the best means of carrying out the invention.

Figure 1 is a sectional view of a dredger, and Fig. 2 an under-side view of the cover thereof.

Similar letters of reference indicate like parts in the figures.

A is the body of a dredger, made of any ordinary or suitable material; but I prefer glass. Its form may be varied within wide limits; but I esteem it important that it be tapered from the top downward, so that any lump formed in it shall be easily dislodged by motions or concussions of the device.

B is the cover, formed with the ordinary screw-threaded frame, adapted to engage on a corresponding neck of the body, and having holes *b*, adapted to perform their ordinary functions.

My peculiar tapered projections on the interior of the cover are marked *b'*. They may be cast or otherwise formed in one with the cover B. I esteem it important that they be firmly attached. The whole cover, including the points, may be of any ordinary or suitable material. I have experimented with white-metal plated.

The holes *b* may be made, by punching or otherwise, after the cover is cast, with the projections *b'* properly distributed. This mode of construction allows the holes to be very clearly defined, and to be either round or of any fanciful shape; but it is not essential to my invention.

I esteem it important that the sides of the projections *b'* coincide with the edges of the adjacent holes, so that the chips of salt or other material used which strike and glide down the sides of the projections shall be more directly deflected outward through the holes.

The form of the projections *b'* may be simply a cone, or may be varied within wide limits.

By reason of the shortness of the points *b'*, they are certain to stand clear of the salt when the device is at rest. If the salt cakes, it is certain to leave the points clear. When a cake, by the use of the dredger, is thrown forward against the points, the device being of course inverted, the action of the points is entirely on the surface, and on the front surface, so that all the particles disengaged are thrown readily out.

It may be preferable with my improved dredger to introduce the salt in the form of hard cakes formed by moisture and compression, or otherwise, so as to better insure a gradual discharge of the slowly-powdered material by its gradual disintegration on striking against the points *b'* than can be possible when the salt is in the ordinary loose form.

I can, if preferred, make what I have termed

the "points" of my tapering projections simply frustums of cones or pyramids with the ends blunt, so as to act percussively to shatter and disintegrate rather than to pick and simply break up the salt into lumps; but I esteem it important that the bodies of the projections shall taper, not only for the reason that they will be stronger, and will better deflect the salt toward the holes, which should be close, adjacent, alongside of their basis, but also that any cake of salt which may by any chance form thereon will more easily separate itself by a slight blow or jar in setting down the dredger.

I claim as my invention—

In a dredger, the cap B, having perforations *b*, provided with tapering pointed projections *b'*, coinciding with the edges of the holes, as herein specified.

In testimony whereof I have hereunto set my name in presence of two subscribing witnesses.

LEWIS MORGAN.

Witnesses:
J. K. OULAHAN,
CHAS. C. STETSON.