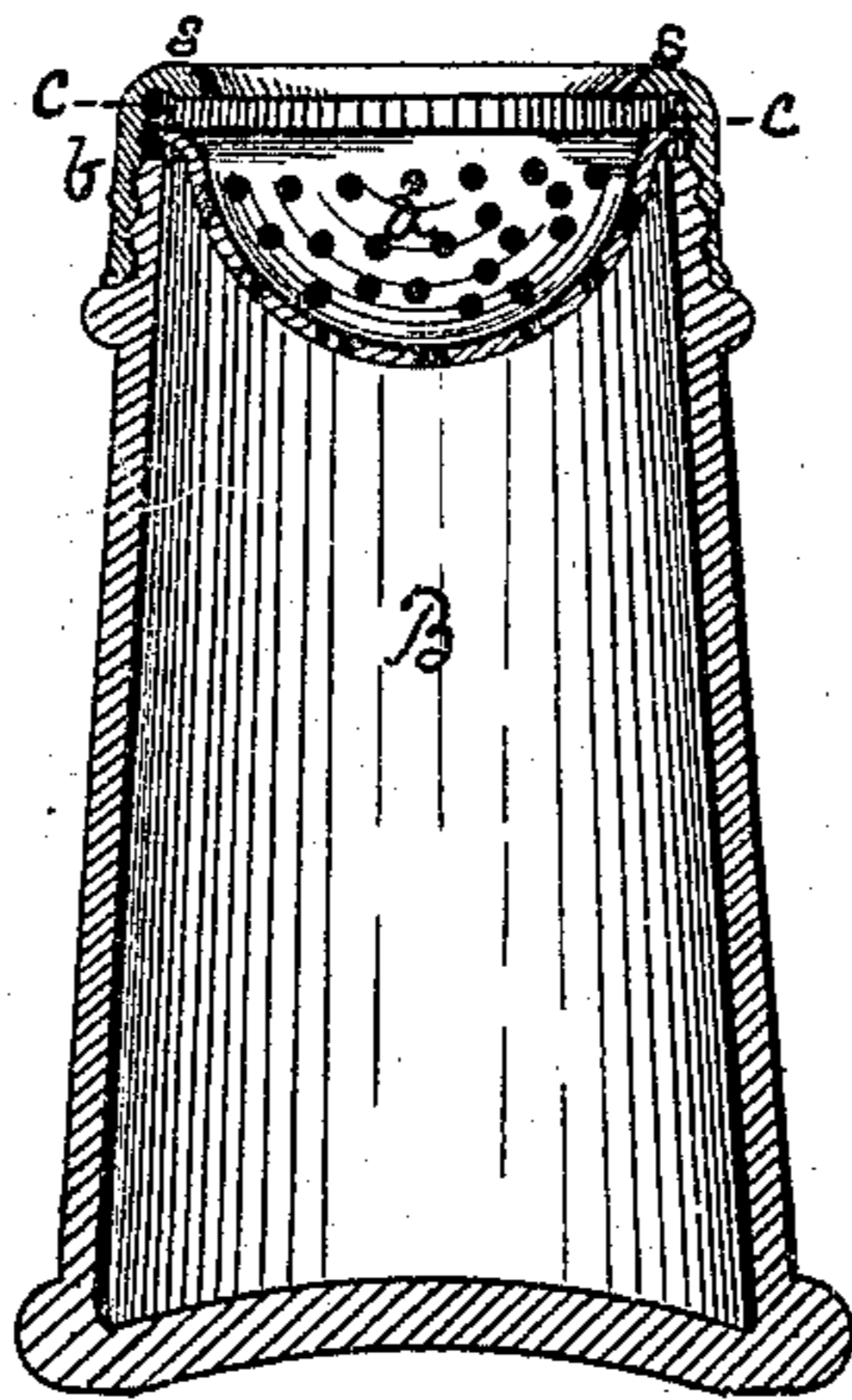


J. DALZELL.

Dredge-Boxes.

No. 133,307.

Patented Nov. 26, 1872.



WITNESSES

Benj B. Kerr  
James I. Kay.

INVENTOR

James Dalzell  
by Darnell Christy & Co  
his attys

# UNITED STATES PATENT OFFICE.

JAMES DALZELL, OF BIRMINGHAM, PENNSYLVANIA.

## IMPROVEMENT IN DREDGE-BOXES.

Specification forming part of Letters Patent No. 133,307, dated November 26, 1872.

*To all whom it may concern:*

Be it known that I, JAMES DALZELL, of Birmingham, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improved Salt-Dredging Box; and I do hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawing making a part of this specification, which represents my improvement by a vertical sectional view.

It has been found difficult, heretofore, to sprinkle salt from the ordinary dredging-boxes. Salt readily absorbs moisture from the atmosphere, in which case the crystals adhere to each other and form cakes or lumps inside the dredge-box, and also fill up the dredging-holes in the cap, where they solidify so as to destroy the practical usefulness of the box. I have found that by making the perforated cap of the form of an inverted cone or frustum of a cone, and allowing it a little vertical play, I am enabled to overcome these difficulties; and in such features of construction and combination, as hereinafter described and claimed, consists the nature of my invention.

To enable others skilled in the art to make and use my improvement, I will proceed to describe its construction and mode of operation.

The box part B I prefer to make of glass, but it may be made of sheet metal or other suitable material. The upper end is threaded, so that a screw-ring, *b*, may be screwed thereon. The upper end of the screw-ring *b* is flanged as at *s*. The perforated top *a* is preferably of sheet metal, and of the form of an inverted cone or frustum of a cone, the lower end being flat, or rounded as in a dome, or coming to a point. The screw-ring *b* is put

on so as to leave a little space, *c*, between the upper end of the body B and the flange *s*, in which space the perforated cap *a* may move freely up and down when the salt is being sprinkled from the box.

It will now be seen that, when the box is used in the ordinary way, the salt instead of striking against a stationary, flat, perforated top, as in the ordinary dredging-boxes, will in this strike against the inclined sides of the perforated conical top *a*, the effect of which will be to break up or pulverize any cakes which may have been formed inside; and the salt which, in consequence of moisture, may stick in the dredging-holes, will at the same time be jarred or shaken out by the motion of the cap *a* as it plays up and down in the space *c*.

The construction of the ring, as well as of the devices by which it is secured to the box B, may be varied at pleasure, provided only what I deem the important features be retained—viz., the perforated top of the form, set forth, and the free play to the top; and this free play may be given to ordinary dredge-box tops with manifest advantage.

What I claim as my invention, and desire to secure by Letters Patent, is—

In a dredge-box, a perforated top, *a*, substantially of the form of an inverted cone, frustum of a cone, or dome, and having, when the box is in use, a vertical play independent of the box, as and for the purposes set forth.

In testimony whereof I, the said JAMES DALZELL, have hereunto set my hand.

JAMES DALZELL.

Witnesses:

E. G. KREHAN,

J. L. McBRATMEY.