

No. 644,975.

Patented Mar. 6, 1900.

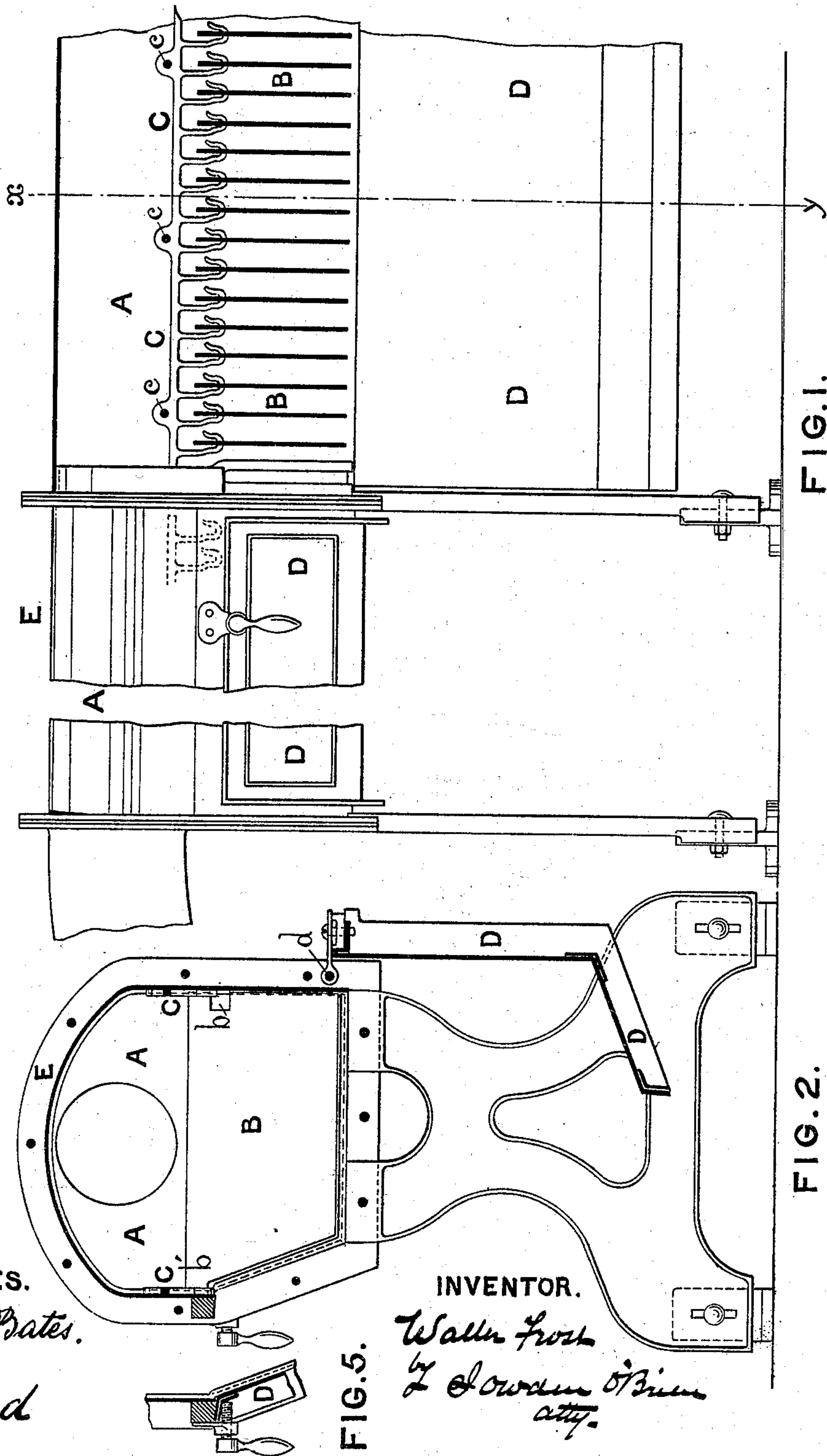
W. FROST.

DUST TRUNK OR TUBE FOR COTTON OPENERS.

(Application filed Sept. 24, 1897.)

(No Model.)

2 Sheets—Sheet 1.



WITNESSES.
Joseph Prates.
E. Howard

FIG. 5.

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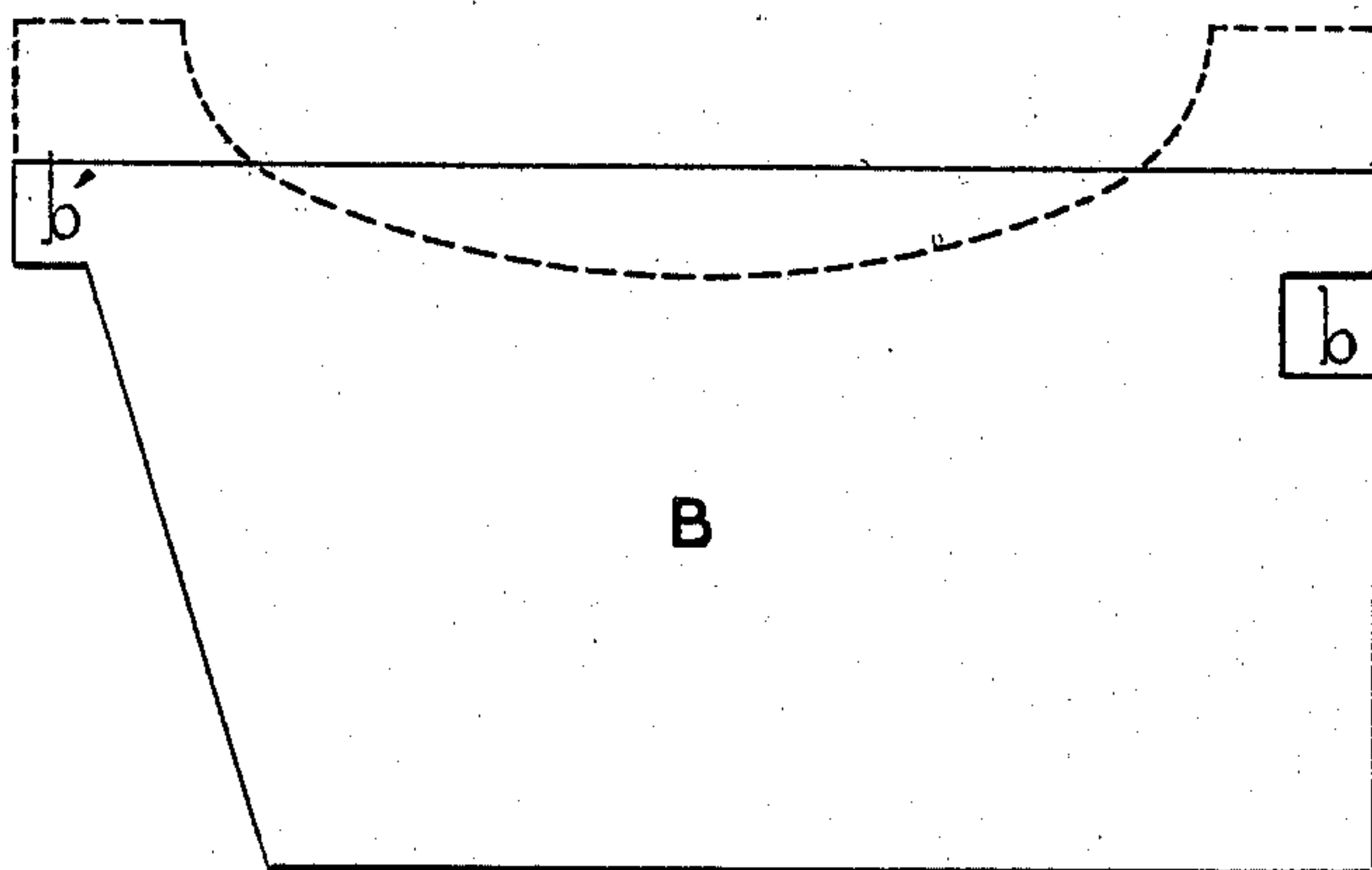


FIG. 3.

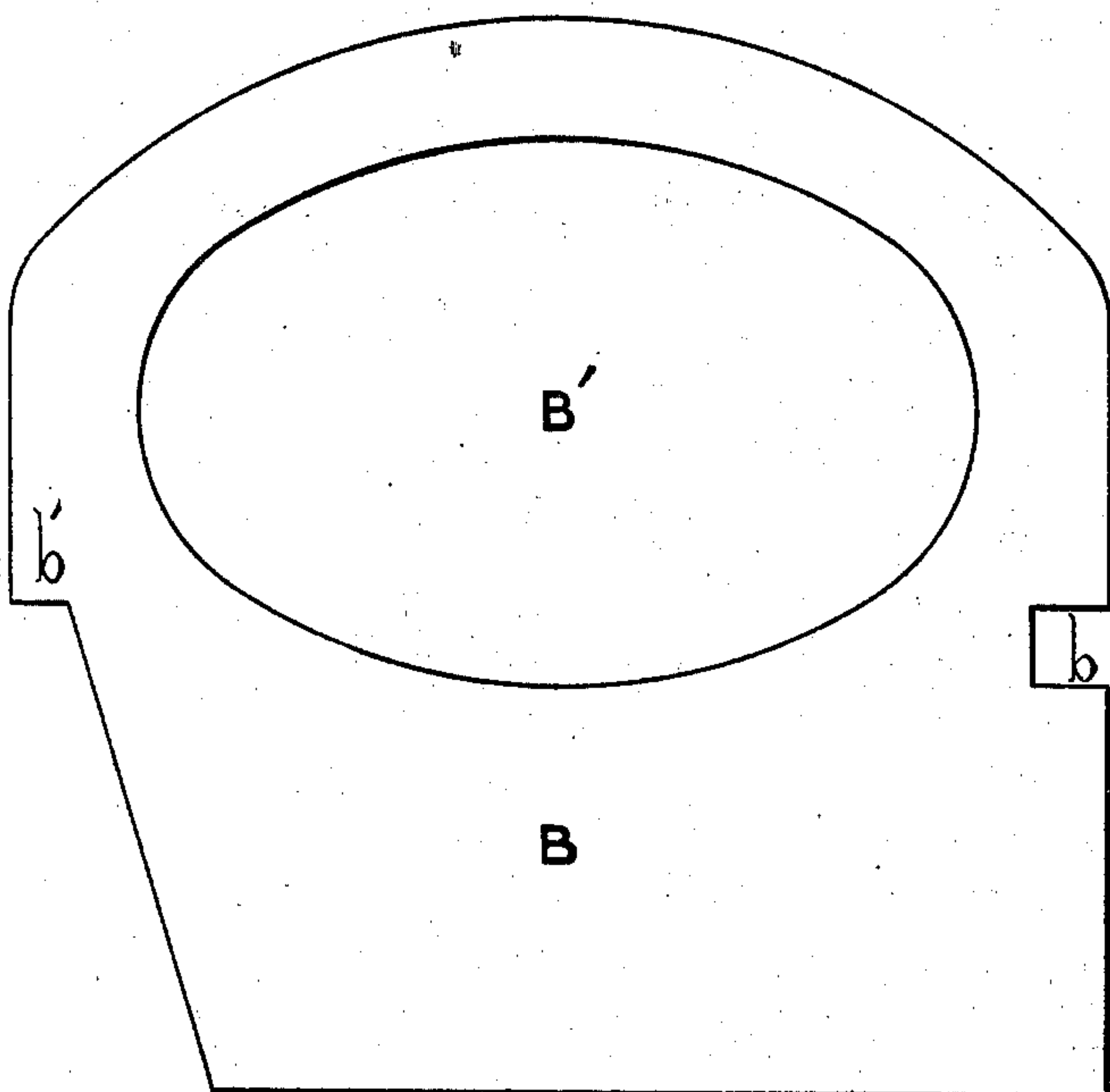


FIG. 4.

WITNESSES.

Joseph Bates.
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INVENTOR.

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UNITED STATES PATENT OFFICE.

WALTER FROST, OF MANCHESTER, ENGLAND, ASSIGNOR TO SAMUEL HERBERT BROOKS AND FREDERICK GEORGE GOODBEHERE, OF SAME PLACE.

DUST TRUNK OR TUBE FOR COTTON-OPENERS.

SPECIFICATION forming part of Letters Patent No. 644,975, dated March 6, 1900.

Application filed September 24, 1897. Serial No. 652,933. (No model.)

To all whom it may concern:

Be it known that I, WALTER FROST, a subject of the Queen of Great Britain, residing at Manchester, in the county of Lancaster, England, have invented certain new and useful Improvements in Dust Trunks or Tubes for Cotton-Openers, of which the following is a specification.

This invention relates to the pneumatic dust trunks or tubes through which the cotton is carried to the opening-machine from the mixing-room to render them more efficient and more easily cleaned. It will be fully described with reference to the accompanying drawings.

Figure 1 is a longitudinal elevation of pneumatic dust-trunk partly open and partly closed; Fig. 2, a transverse sectional elevation on line *xy*, Fig. 1; Fig. 3, a side elevation of division-plate or partitions B; Fig. 4, a side elevation of modified form of division-plate; Fig. 5, a sectional detail showing fastening for lid or cover D.

In the pneumatic tube or trunk A the grids which catch or separate the dust are formed of a number of loose removable division-plates or partitions B, that can be readily moved or displaced to allow of the removal of any dirt or fiber that may have accumulated or stuck between them or in the tube.

To each side of the trunk A are affixed brackets C by bolts *c* or otherwise, by which the division-plates B are held preferably suspended in position. The plates B are preferably made of the contour shown in Figs. 2 and 3, with a notch *b* cut at one side and a projection *b'* at the other to rest upon the supporting-brackets C, thus suspending the plates as on a pivot from a point a little below the top edge. This will allow of the bottom edges being moved to and fro or of a single plate being removed. The division-plates may be otherwise supported each loosely and separately in any convenient manner.

The bottom and one side of the trunk A are made or joined together to form a "lid" or cover D of angular shape, as shown in Fig. 2, or curved, so as to cover both the bottom and one side of the trunk A. This lid is

hinged or pivoted at the back of the trunk on a pin *d* and opens clear of the division-plates. When the lid D is opened, the bottom and one side of the partition-plates B are exposed, which allows the loose dirt to fall away and renders the plates easily accessible both in front and beneath for the removal of any dirt or dust adhering thereto. The lid may be hinged in the center to open straight, if desired. The top E may also be hinged, so as to give access to the top of the grid, when desired.

The division-plates may be flat on top, as hitherto, or they may be recessed to the extent of half a circle, as shown in dotted lines, Fig. 3, or corrugated or otherwise formed to give a greater rubbing-surface to the fibers passing over them, or they may be stamped out with a hole or passage B' of circular or other shape through them to give a rubbing-surface both at the top and bottom. (See Fig. 4.)

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

1. A pneumatic dust tube or trunk for separating dust from fibers, a casing comprising a trunk-casing A, loose division-plates B suspended therein, brackets C upon which the division-plates are suspended, and a pivoted lid or cover of angular form, inclosing the bottom and one side of the trunk, substantially as and for the purpose described.

2. In a pneumatic dust tube or trunk for separating dust from cotton fibers, a casing, a number of division-plates constructed with an aperture B' to provide a rubbing-surface both top and bottom, in combination with brackets affixed to the sides of the trunk upon which they are suspended and a pivoted lid or cover to close the bottom and side of the trunk, substantially as described.

In testimony whereof I have signed my name to this specification, in the presence of two subscribing witnesses, this 13th day of September, 1897.

WALTER FROST.

Witnesses:

J. OWDEN O'BRIEN,
HARRY BARNFATHER.