

(No Model.)

2 Sheets—Sheet 1.

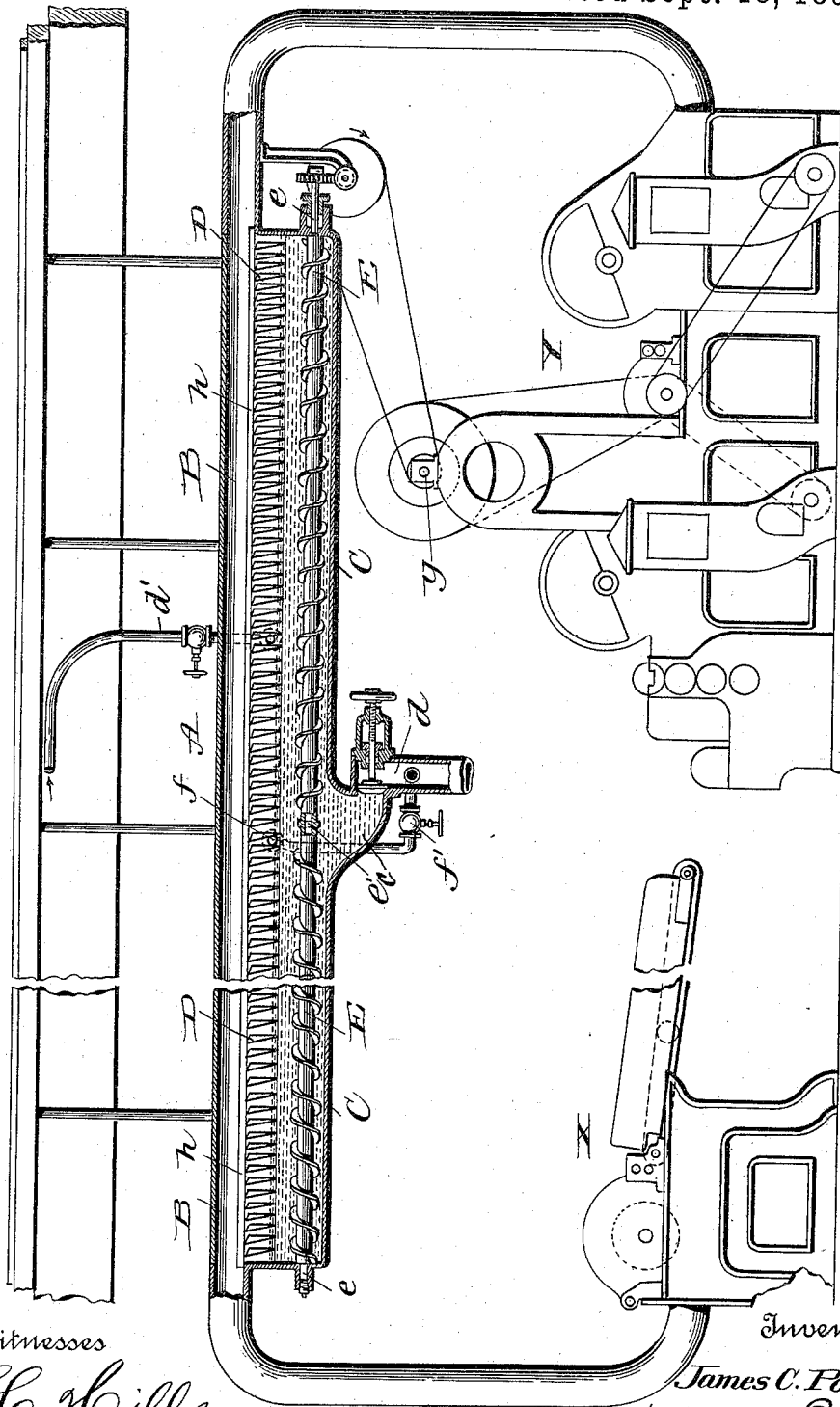
J. C. POTTER.

DUST OR CLEANING TRUNK FOR COTTON OPENERS OR LIKE MACHINERY.

No. 526,326.

Patented Sept. 18, 1894.

Fig. 1.



Witnesses  
*L. C. Hills.*  
*E. W. A. A. A.*

Inventor:  
*James C. Potter;*  
 by *Maxwell Bailey*  
 his Attorney

(No Model.)

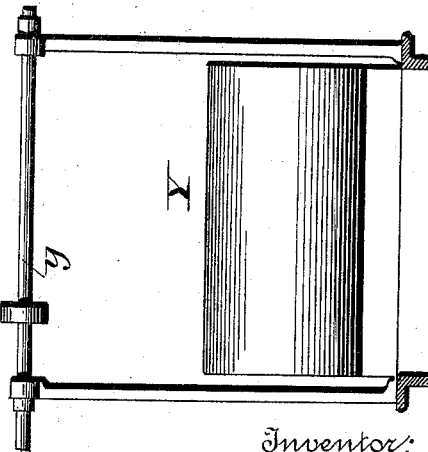
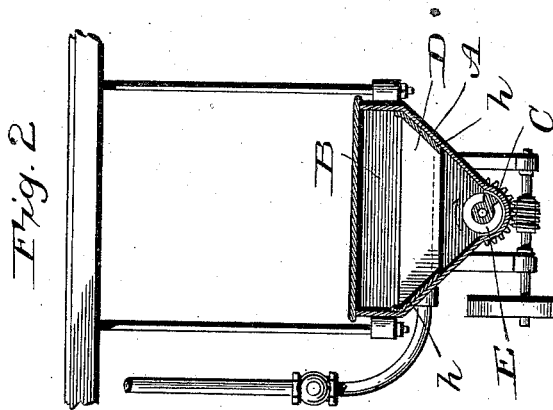
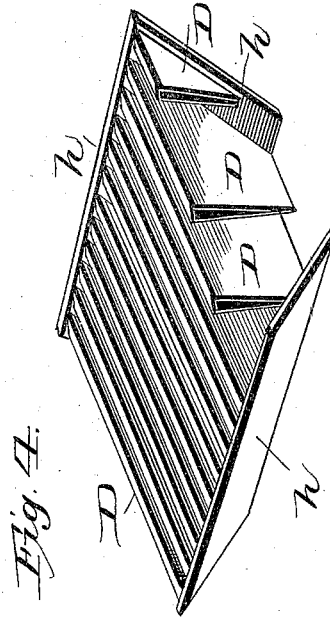
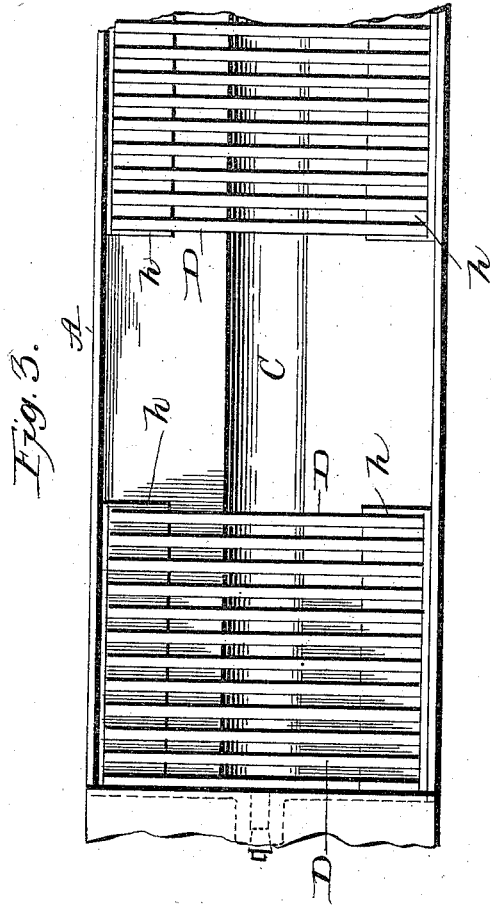
2 Sheets—Sheet 2.

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No. 526,326.

Patented Sept. 18, 1894.



Witnesses:  
*L. C. Hills.*  
*W. L. Dick*

Inventor:  
*James C. Potter,*  
*by Marshall Baird*  
 his Attorney

# UNITED STATES PATENT OFFICE.

JAMES C. POTTER, OF PAWTUCKET, RHODE ISLAND.

DUST OR CLEANING TRUNK FOR COTTON-OPENERS OR LIKE MACHINERY.

SPECIFICATION forming part of Letters Patent No. 526,326, dated September 18, 1894.

Application filed June 30, 1894. Serial No. 516,195. (No model.)

*To all whom it may concern:*

Be it known that I, JAMES C. POTTER, of Pawtucket, in the State of Rhode Island, have invented certain new and useful Improvements in Dust or Cleaning Trunks for Cotton-Openers or Like Machinery, of which the following is a specification.

The ordinary dust or cleaning trunk contains a grid which separates the cotton passage above from the dirt and refuse receiving space below. The main characteristic of my invention is that the space below is filled with water or other liquid, thus providing for the trunk what may not improperly be termed a water bottom. Into this water bottom the dirt falls and is carried off by a conveyer which is immersed in the water and serves to convey the dirt and refuse to the point of discharge. I connect the water space or chamber of the trunk with a source of water supply; I provide it with a valve or cock controlled discharge; and I find it convenient also to provide it with an overflow which prevents the water from reaching too high a level. That level I prefer should be a little above the lower edges of the grid bars. I am thus enabled to prevent all intercommunication from below between the spaces which separate the grid bars, while at the same time the sand and dirt can fall and be carried off with perfect freedom. The trunk is air and watertight as well as fire-proof, and is made preferably of cast iron. By closing the overflow (which for this purpose may be provided with a valve or cock) the trunking can be flooded so as to extinguish any fire which may exist in the same, or to flood the machines with which it is connected should they take fire.

To enable others skilled in the art to make and use my invention I shall now proceed to describe more particularly the way in which it is or may be carried into effect, by reference to the accompanying drawings, in which—

Figure 1 is a sectional elevation representing the trunking and the machines which it connects. Fig. 2 is a cross section of the trunk, together with a representation of the gearing by which the conveyer is driven. Fig. 3 is a plan of a part of the trunk with its top taken off and one of the grid sections removed.

Fig. 4 is a view of the removed grid section, part of it being broken away so as to exhibit more clearly its construction.

The dust or cleaning trunk A in the present instance is supposed to be interposed between a cotton opener X and a breaker lapper Y.

B is the passage for the cotton.

C is the water bottom, and D are the grid bars which separate the two.

The water bottom is approximately triangular in cross section, having at its lowest point a concavity for receiving the conveyer which in this instance is a worm E which when in operation is slowly revolved by any suitable means—as for example by gearing from the countershaft *y* of the breaker-lapper Y, as shown in Figs. 1 and 2. This worm extends the length of the water bottom and is supported in proper end and center bearings *e, e'*. At the middle point of the water bottom is located the dirt receptacle *c* and valve controlled discharge *d*. The worm is made right and left hand as shown so that it will feed from both ends to the center where the refuse carried by it is dumped into the receptacle *c*. The discharge can of course be located at any desired point in the water bottom. I prefer the central location shown as being on the whole the most effective and convenient. The water or other liquid is supplied through a valve controlled pipe *d'* which is to be in communication with a source of supply. At any desired or predetermined level I locate the overflow pipe *f* which leads from the water bottom into the discharge, and which, for the purposes hereinbefore indicated, can be provided with a valve or cock *f'*. I prefer that the water level should be above the lower edges of the grid or cleaning bars D, these edges, as shown in Figs. 1 and 2, being immersed into the water bottom for a depth sufficient to form an air tight joint, thereby cutting off all communication below between the grid spaces, and allowing the dirt from the cotton passing over the grid bars to fall freely into the water. This dirt as it accumulates will be carried forward to the discharge point by the slowly revolving worm E which may be run continuously or intermittently as desired. It will be suffi-

cient usually to draw off the water twice a day, once at noon, and once on knocking off work at night. The water in passing off will create a draft of air downward between the grid bars, thereby removing any lint which may have accumulated on the same.

The grid or cleaning bars may be of any ordinary or approved construction. I prefer however to make them as shown in the drawings, and to construct the grid in sections which are separately removable. The bars themselves with a view to lightness and durability I make of sheet zinc bent into the shape shown in Fig. 4, so as to form hollow sheet metal bars of approximately triangular cross section. These bars are brazed or otherwise suitably secured to end strips or stringers *h* preferably of brass, which are inclined to conform to the inclination or slant of the walls of the water bottom in which they are seated.

The grid is made up of short sections, consisting each of a suitable number of these bars together with their two end strips *h*, as shown in Fig. 4. By taking off the top or cover of the trunk any of these sections can be readily got at for removal or repair.

I have described what I believe to be the best way of carrying my invention into effect, but I do not desire to be confined to the details of construction set forth in that description. I believe myself to be the first to provide a dust or cleaning trunk with what I have termed a water bottom; as well as the first to have carried the level of the water above the lower edges of the grid or cleaning bars, and I desire to be understood as laying claim broadly to each of these features.

What I claim, and desire to secure by Letters Patent, is as follows:

1. A dust or cleaning trunk having a cotton passage and grid or cleaning bars combined

with a water bottom, substantially as and for the purposes hereinbefore set forth.

2. A dust or cleaning trunk having a cotton passage and grid or cleaning bars combined with a water bottom—the water level being above the under edges of the grid bars, substantially as and for the purposes hereinbefore set forth.

3. A dust or cleaning trunk comprising in combination a cotton passage, grid bars, and a water chamber or space below the same provided with water supply and discharge pipes, substantially as and for the purposes hereinbefore set forth.

4. A dust or cleaning trunk comprising in combination a cotton passage, grid bars and a water chamber below the same provided with water supply and discharge pipes and an overflow substantially as and for the purposes hereinbefore set forth.

5. A dust or cleaning trunk comprising a cotton passage grid bars, and a water chamber or space below the same provided with water supply and discharge pipes, in combination with a conveyer mounted in said chamber and adapted to carry the refuse therein to the discharge point, and means for actuating said conveyer, substantially as and for the purposes hereinbefore set forth.

6. The cleaning trunk having a chamber below the grid of approximately triangular cross section in combination with separately removable grid sections having slanting or inclined sides to fit against the sloping sides of the chamber.

In testimony whereof I affix my signature in presence of two witnesses.

JAMES C. POTTER.

Witnesses:

SOLOMON ROBERTSON,  
THOMAS P. BARNEFIELD.