

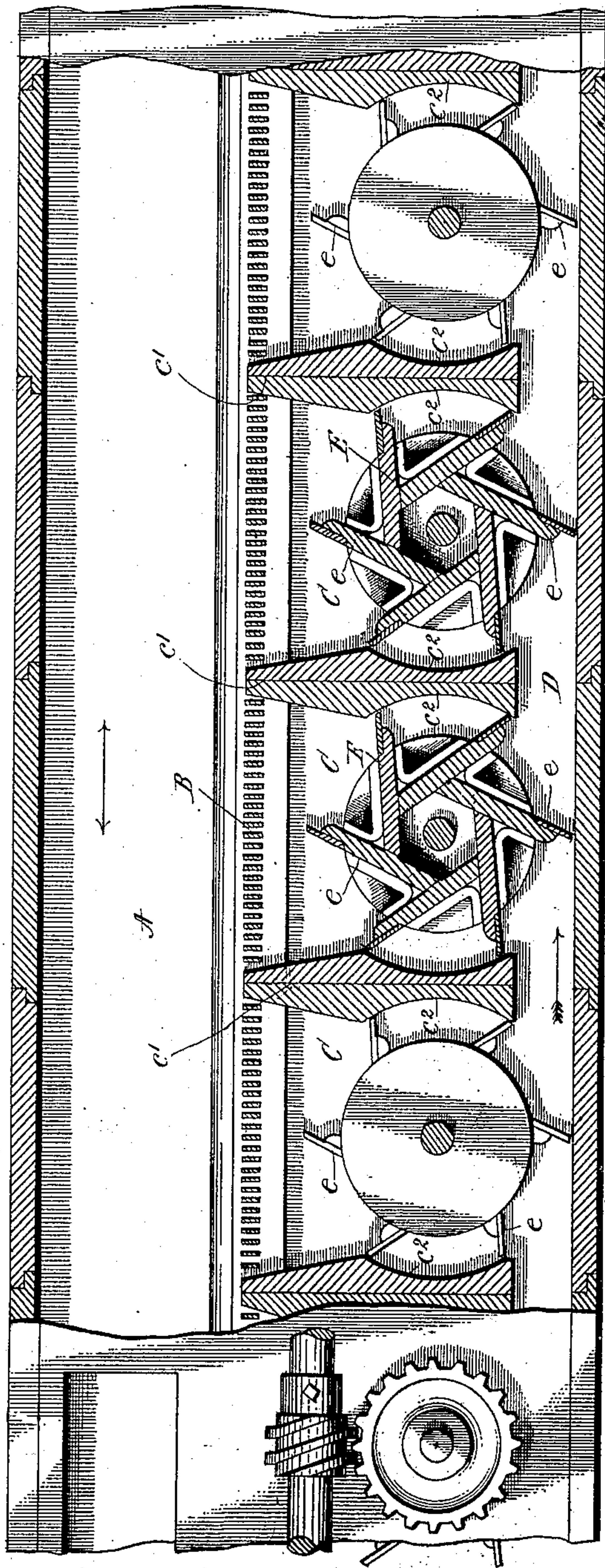
No. 690,652.

Patented Jan. 7, 1902.

F. H. L. JAMES.  
CLEANSING TRUNK.

(Application filed Aug. 30, 1901.)

(No Model.)



WITNESSES:

J. E. R. Hayes  
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INVENTOR-

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# UNITED STATES PATENT OFFICE.

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## CLEANSING-TRUNK.

SPECIFICATION forming part of Letters Patent No. 690,652, dated January 7, 1902.

Application filed August 30, 1901. Serial No. 73,807. (No model.)

*To all whom it may concern:*

Be it known that I, FREDERICK H. L. JAMES, a citizen of the United States, and a resident of Pawtucket, in the county of Providence and State of Rhode Island, have invented a new and useful Improvement in Cleansing-Trunks, (Case B,) of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, forming a part of this specification, in explaining its nature.

The invention is in many respects like that described in my application for Letters Patent of the United States (Case A) filed of even date herewith. It varies, however, from said invention in that the rotary valves therein described are provided with an additional function—viz., of feeding the dirt along the escape-passage to its outlet—and thus take the place of the means for the removal of the dirt therein described—viz., an exhaust-current of air introduced by an exhaust-fan.

The drawing is a view, principally in vertical central section, of enough of the trunk to illustrate the invention.

In the drawing, A is a passage through which the cotton or fiber is driven or fed by an air-current. B is the grated bottom, the openings in which connect the passage A with the dirt-receiving chambers C. These chambers have outlets *c* into the dirt-escape passage D. The chambers are separated from each other by the partitions *c'*, having the curved faces *c''* at the outlet. The rotary valve E is mounted in each outlet. It has arms or blades *e*, which serve to keep the outlet closed against cross movements or drafts of air between the two passages A and D. As the difference in pressure between the air in the passage A and the air in the passage D is not as great as in my invention to which I have referred, it is not necessary that the valve should be especially air-tight. Each valve acts, as described in said application, to receive the dirt from the passing cotton or other fiber and transfer it to the dirt escape or removal passage and to act as a barrier between the two passages sufficient to prevent disturbing drafts or currents through the chamber. The dirt is delivered upon the bottom of the passage D, which is brought

close enough to the valves to permit them to sweep or move over its surface, and thus act to move the dirt onward in the direction in which they are moved, each arm of each valve not only acting to thus move onward the dirt delivered by it to the dirt-removal passage, but also the dirt delivered by as many of the valves as may be beyond it, the dirt being thus by successive impulses of the various valves transferred gradually to the outlet of the removal-passage.

For rotating the valves I prefer to use the means described in my said application, and the valve may be continuously or intermittently rotated, as may be preferred.

The trunk may be used in an inclined as well as in a horizontal position.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

1. In a cleansing-trunk, a passage through which cotton or other fiber is drawn or impelled, a grated bottom thereto, a passage for the removal of dirt and interposed means for receiving dirt from the cotton and transferring it to the dirt-removal passage, which means also act to feed or assist in feeding the dirt in the removal-passage.

2. In a cleansing-trunk, a passage for cotton or other fiber, a grated bottom thereto, a dirt-removal passage and rotary devices interposed between the two passages acting as an air-barrier between them and also serving to transfer dirt from one passage to the other, the said rotary device having arms which sweep through the portions of the dirt-removal passage in close contact with the floor thereof and serve to advance the dirt by successive impulses in said removal-passage.

3. In a cleansing-trunk, a passage in which cotton or other fiber is drawn or impelled, a grated bottom thereto, a dirt-escape passage and automatic means interposed between the two passages adapted to feed dirt from one to the other, to form an air-barrier and to automatically feed the dirt along the removal-passage.

FREDERICK H. L. JAMES.

Witnesses:

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