No. 741,987. PATENTED OCT. 20, 1903.

J. S. THURMAN.

RENOVATING APPARATUS.

APPLICATION FILED NOV. 12, 1902.

NO MODEL.

Fig. 1.

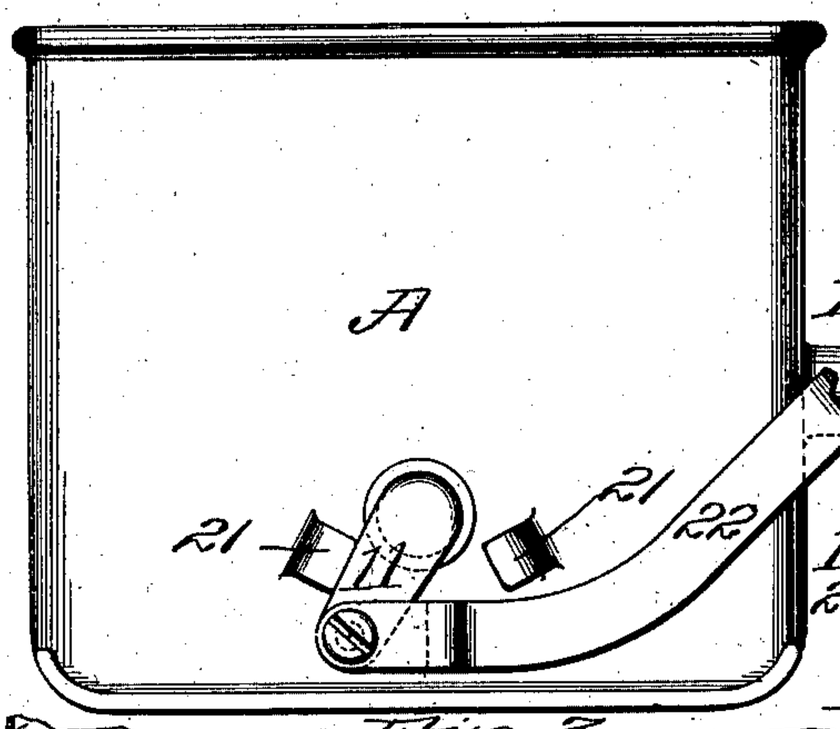


Fig. 2.

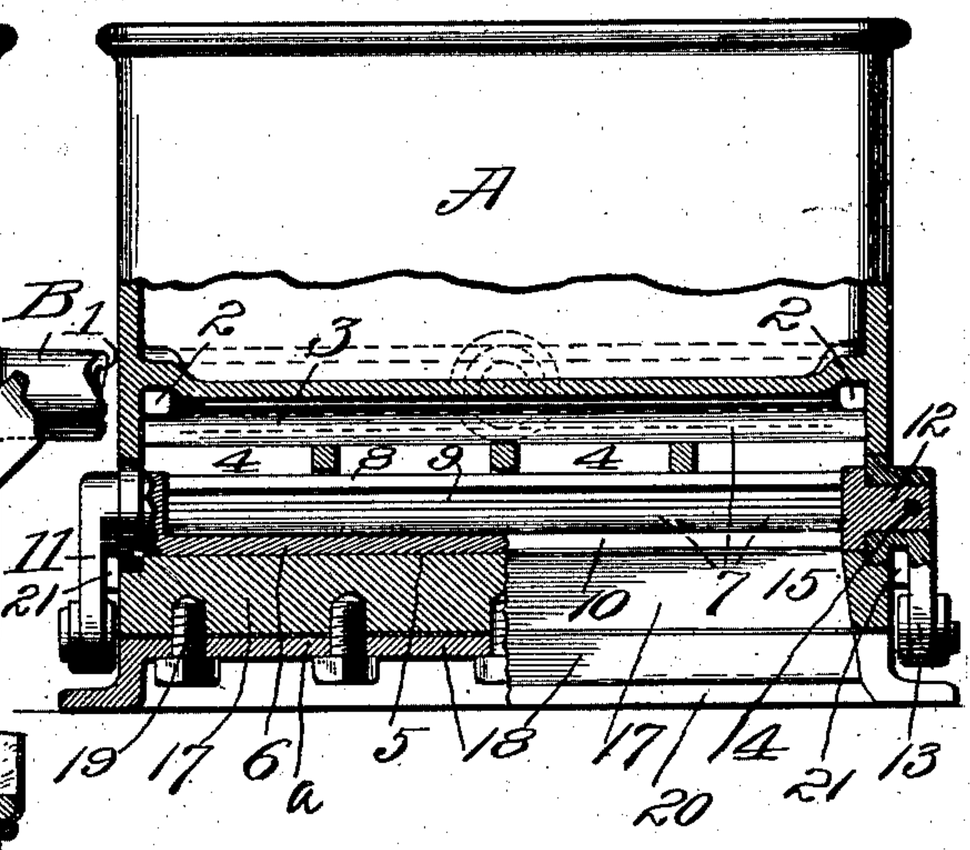


Fig. 3.

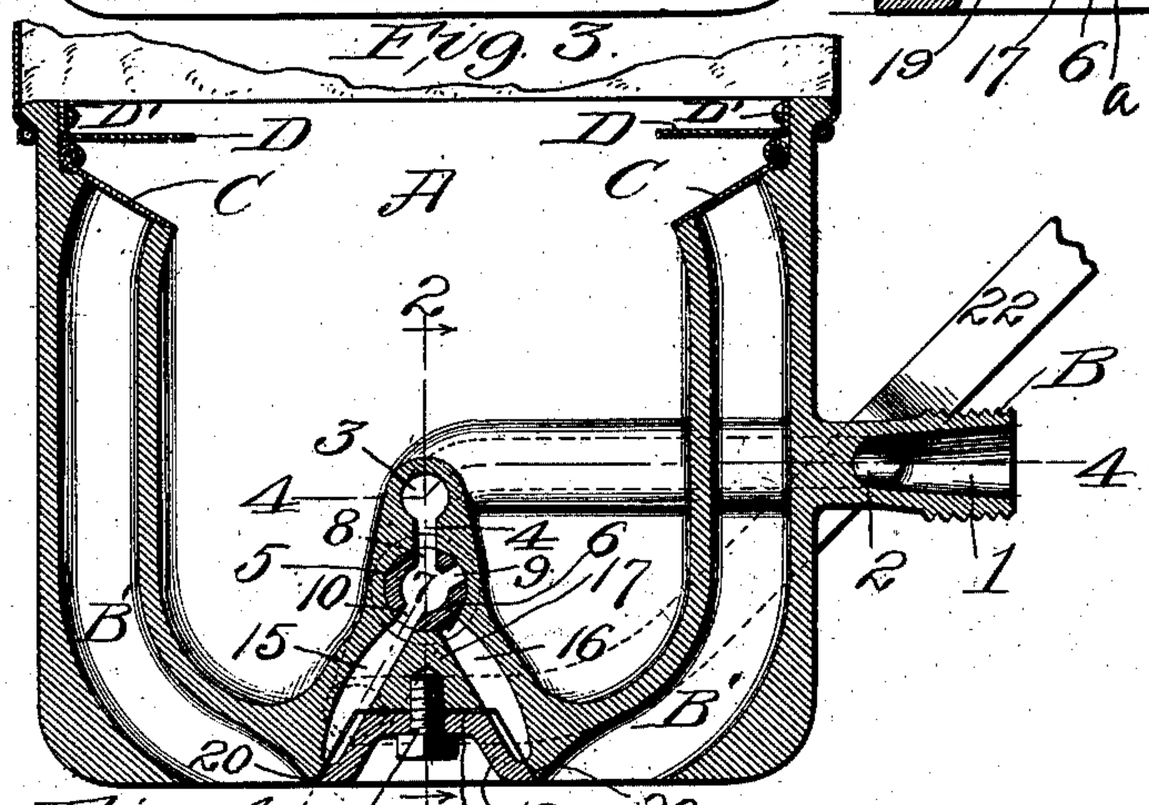
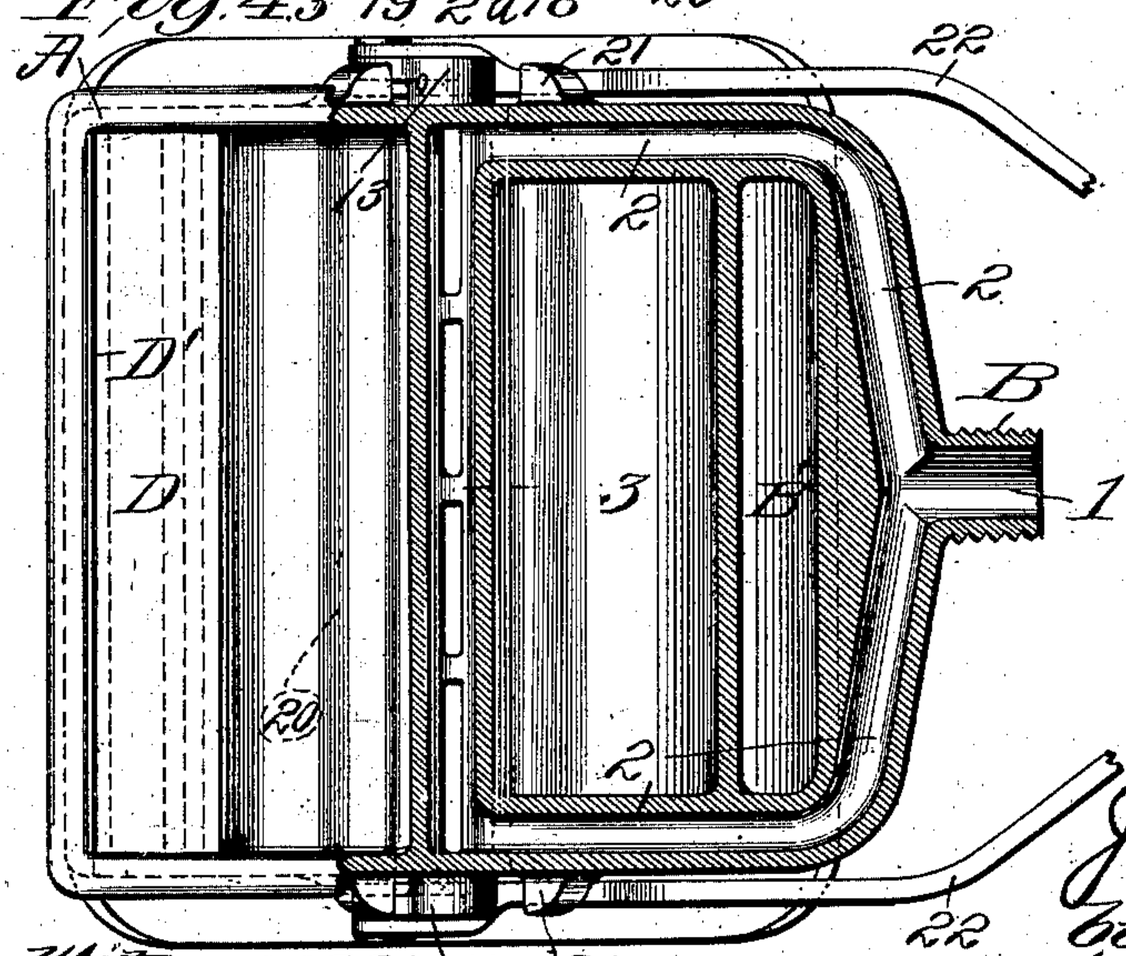


Fig. 4.



Witnesses:
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No. 741,987. Patented October 20, 1903.

UNITED STATES PATENT OFFICE.

JOHN STROTHER THURMAN, OF ST. LOUIS, MISSOURI.

RENOVATING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 741,987, dated October 20, 1903.

Application filed November 12, 1902. Serial No. 131,061. (No model.)

To all whom it may concern:

Be it known that I, JOHN STROTHER THURMAN, a citizen of the United States, residing at St. Louis, Missouri, have invented certain new and useful Improvements in Renovating Apparatus, of which the following is a full, clear, and exact description, such as will enable others skilled in the art to which the invention appertains to make and use the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a side elevational view. Fig. 2 is an elevational view partly in section on line 2 2 and partly in section on line 3 3 of Fig. 3. Fig. 3 is a vertical sectional view of Fig. 1, and Fig. 4 is a transverse sectional view on line 4 4 of Fig. 3.

This invention relates to new and useful improvements in renovating apparatus; and it consists in certain features of construction and combination of operative parts, all as hereinafter more fully described, and specifically pointed out in the claims.

In this class of apparatus designed for use in removing dust from articles to be renovated it is desirable that the apparatus shall be operative when moving in either direction—forward or backward. To that end I have invented renovating apparatus in which a movable blast-nozzle is sustained in a casing and the angle of inclination of said nozzle is changed to become operative upon moving the device either forward or backward. In the present invention the casing is provided with a single blast-inlet channel communicating through a suitable valve with either one of multiple blast-nozzles adapted to conduct a blast of air to the article to be renovated, the communication being established by means of said valve so connected with the operating-handle that movement of said handle either forward or backward will automatically establish communication between the blast-inlet channel and the blast-nozzle, which is directed in the direction of travel of the casing at all times, thereby causing the operation of the apparatus to be most effective.

Referring to the drawings, A is a suitable casing or dust-receptacle, to which may be attached a suitable strainer of any desired construction adapted to permit egress of air while retarding the particles of dust raised by the blast.

Cast integral with the casing A or secured to it in any convenient manner is a pipe B, which provides a blast-ingress channel 1. Communicating with the channel 1 and extending laterally therefrom are blast-passages 2, which passages extend partially around the casing A and communicate with the lateral blast-passage 3, extending across the interior of said casing A. Below the passage 3 and communicating therewith by means of the passage 4 is a valve-chamber 5, extending entirely across the casing A and open at both ends to the exterior thereof. Within the chamber 5 is a three-way valve 6, provided with the longitudinal passage 7, with which passage communicate the ingress-ports 8 and 9 and the egress-port 10. The ports 8 and 9 are arranged at such suitable distance apart as to leave a portion of metal therebetween, which metal, when the valve is turned to cause it to register with the passage 4, will cut off the pressure of air to the interior of the valve, at which time the egress-port 10 will register with the apex of the bridge 17, thereby effectually cutting off all pressure from both nozzles.

The valve 6 shown in the drawings has an arm 11 integral therewith at one end, while the opposite end of said valve is provided with a reduced portion 12 to permit of the ready insertion of said valve in its chamber 5, and on said reduced end portion is secured an arm 13, held in position by a pin 14, whereby the arms 11 and 13 are held parallel on the valve 6.

Extending downwardly in oblique directions from the valve-chamber 5 are blast-passages 15 and 16, designed to communicate with the passage 7 of the valve through the egress-port 10 thereof. Forming an integral portion of the casing A is a wedge-shaped bridge 17, which latter serves as the upper part of one of the walls for both passages 15 and 16. Below the bridge 17 is an angular member 18, which is adjustably secured to the lower face of said bridge by means of machine-screws 19, which permit the removal of said member 18 for the purpose of interposing sheets of paper *a* or other means to secure delicate adjustment of the said member 18 with relation to said bridge, and thereby

regulate to a nicety the capacity of the discharge-openings 20 for the air-blast, which is directed obliquely upon and through the article to be renovated. In proximity to the discharge-openings 20 are dust-passages B' B', communicating at their upper ends with the interior of the casing A, at which point said passages are provided with flap-valves C C, and over said flap-valves are secured dust-collecting shelves or projections D, provided with angular upwardly-extending flanges D', by means of which said shelves are secured to the interior face of the wall of the casing A.

Upon the outer side of the casing A are stops 21, designed to coöperate with the arms 11 and 13 of the valve 6, which stops serve to limit the thrust of said arms and hold the said valve in such position that the egress-port thereof will be in alinement with the blast-passage 15 or 16, depending upon the direction of movement of the casing A.

Pivotally connected to the free ends of the arms 11 and 13 is an operating-handle 22, which handle rises therefrom sufficiently to permit it to be grasped by the operator of the device, and connected to the pipe B is designed to be a flexible hose or other convenient means (not shown) for conducting a blast of air to the interior of the apparatus through the blast-passages described.

Owing to the pivoted connection of the handle 22 it will be seen that when the apparatus is advanced in either direction by the handle 22 the handle will swing the free ends of the arms 11 and 13 toward the direction in which the apparatus is thereby caused to travel, thus opening, through the valve 6, the blast-passage which is situated in the then forward portion of the device, and as soon as the direction of travel is changed by means of the said handle the valve 6 is shifted to open communication with the other blast-nozzle pointing in the other direction.

I am aware that many minor changes in the construction, arrangement, and combination of the several parts of my device can be made and substituted for those herein shown and described without in the least departing from the nature and principle of my invention.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a renovating apparatus, the combination with a dust-collecting casing, of a plurality of nozzles coöperating therewith, and a blast-controlling valve in said casing for directing a blast to any of said nozzles; substantially as described.

2. In a carpet-renovator, the combination with a casing, of two oppositely-disposed blast-nozzles for discharging air downwardly at an angle onto and through the carpet to be renovated, and a rotary valve for admitting air to either nozzle; substantially as described.

3. In a carpet-renovator, a casing, with a single-blast ingress-passage and lateral passages leading therefrom, both of which communicate with a valve-chamber, a valve in said chamber, and blast-nozzles inclined obliquely downwardly in opposite directions from said valve-chamber; substantially as described.

4. In a carpet-renovator, a dust-collecting casing, with a blast-passage therein, a valve in said passage, and a plurality of blast-nozzles between which nozzles and said blast-passage communication is established and cut off by said valve; substantially as described.

5. In a carpet-renovator, a casing with a blast-passage, a plurality of separate fixed nozzles therein, a handle for said casing, and a valve in said casing operable by said handle, which valve is adapted to control the supply of air to said nozzles; substantially as described.

6. In a carpet-renovator, a casing with a blast-passage therethrough, a plurality of blast-nozzles, means for simultaneous adjustment thereof, and a valve in said blast-passage adapted to cut off the blast from either of said nozzles separately; substantially as described.

7. In a carpet-renovator, a casing having a plurality of dust-passages, a plurality of blast-nozzles adapted to coöperate therewith, and means for cutting off the blast from either of said nozzles; substantially as described.

8. In a renovating apparatus, a casing having a dust-passage, a plurality of nozzles, movable means for admitting a blast to any of said nozzles, and movable propelling means for said casing, connected therewith; substantially as described.

9. In a renovator dust-receiving means, a plurality of inclined blast-nozzles, and means for so regulating the admission of blast therethrough that it passes through any of said nozzles only when the apparatus is moving in the direction toward which the same is inclined; substantially as described.

10. In a renovating apparatus, a casing, a plurality of blast-nozzles therein, means for admitting air to either of said nozzles, and a member forming a portion of said nozzles, which member is adjustably secured in said apparatus; substantially as described.

11. In a renovating apparatus, a casing, containing a dust-collecting chamber with an air-passage, a valve extending transversely across said casing, means for operating said valve from the exterior of said casing, a plurality of blast-nozzles, and means for adjusting the discharge area thereof; substantially as described.

In testimony whereof I hereunto affix my signature, in the presence of two witnesses, this 3d day of November, 1902.

JOHN STROTHER THURMAN.

Witnesses:

GEORGE BAKEWELL,

F. R. CORNWALL.