

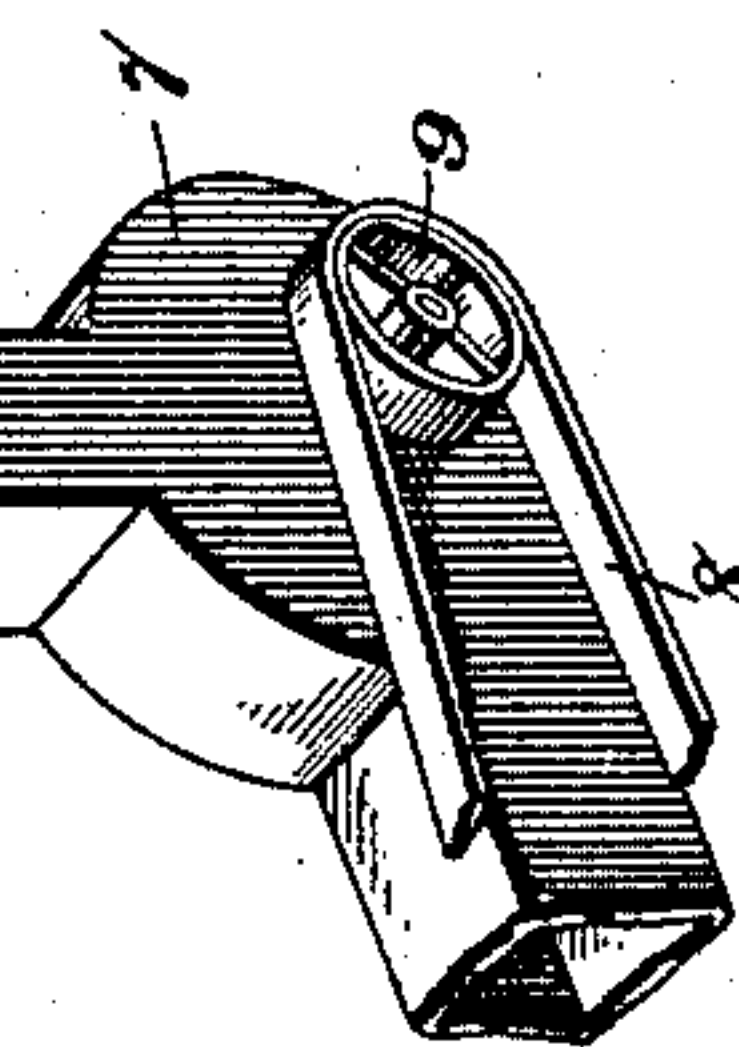
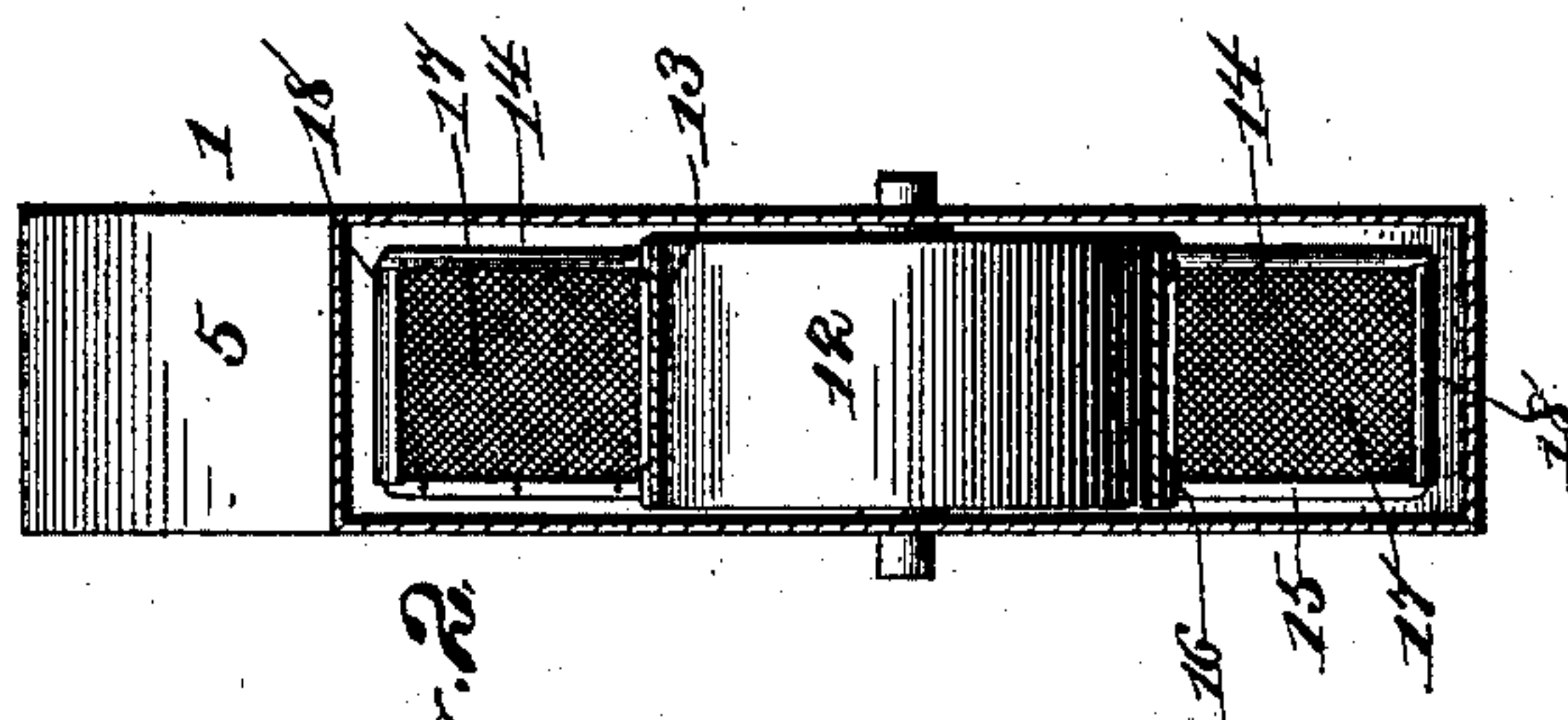
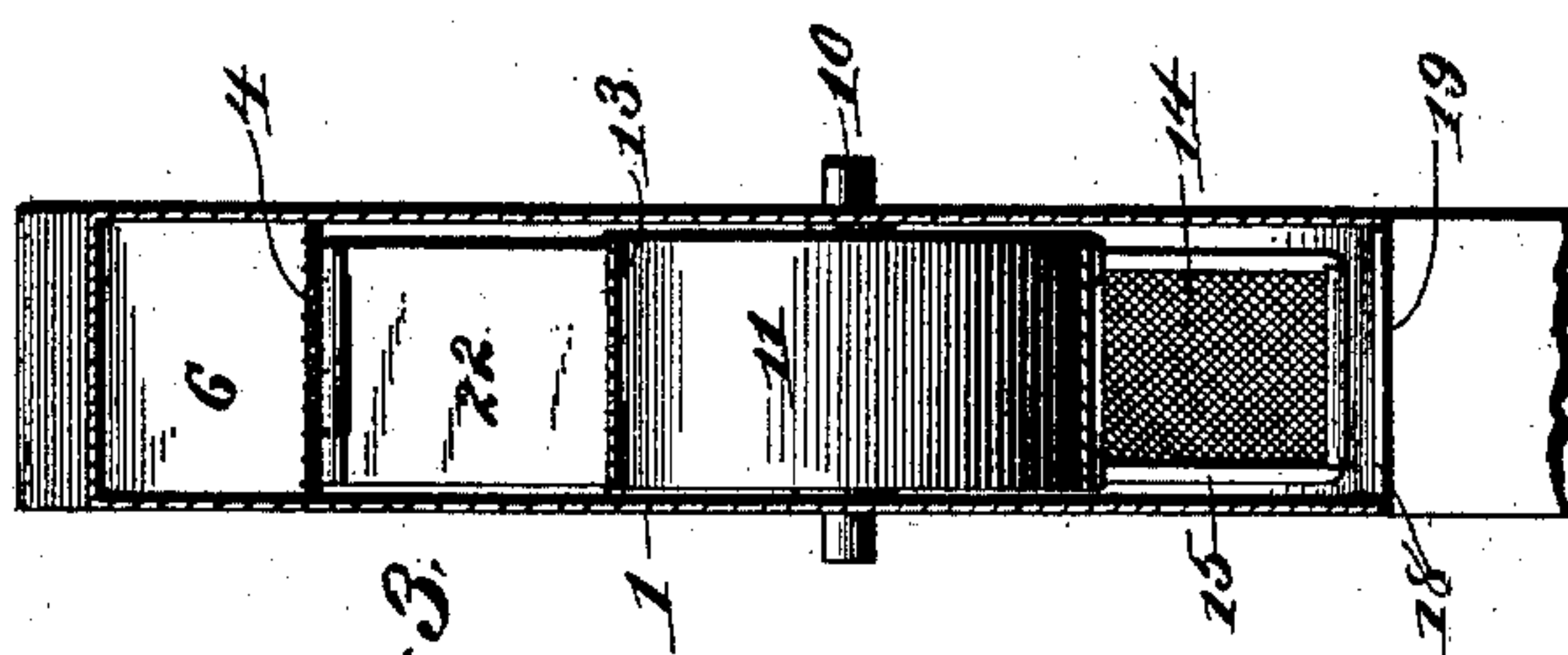
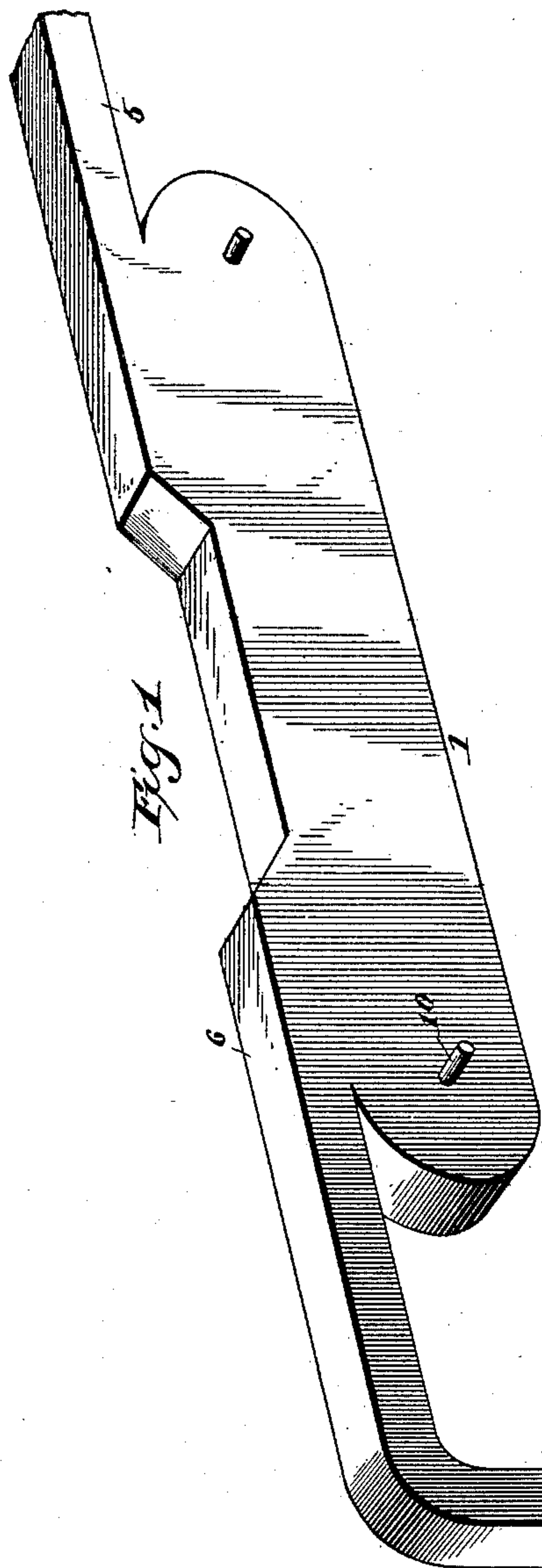
(No Model.)

2 Sheets—Sheet 1.

W. E. MOFFITT, J. L. WILLIAMS & L. W. BENNETT.
COTTON HANDLING DEVICE.

No. 468,548.

Patented Feb. 9, 1892.



Witnesses:

E. R. Wardenman,
W. J. Duvall.

By their Attorneys,

Inventors
W. E. Moffitt, J. L. Williams and L. W. Bennett.

C. A. Snow & Co.

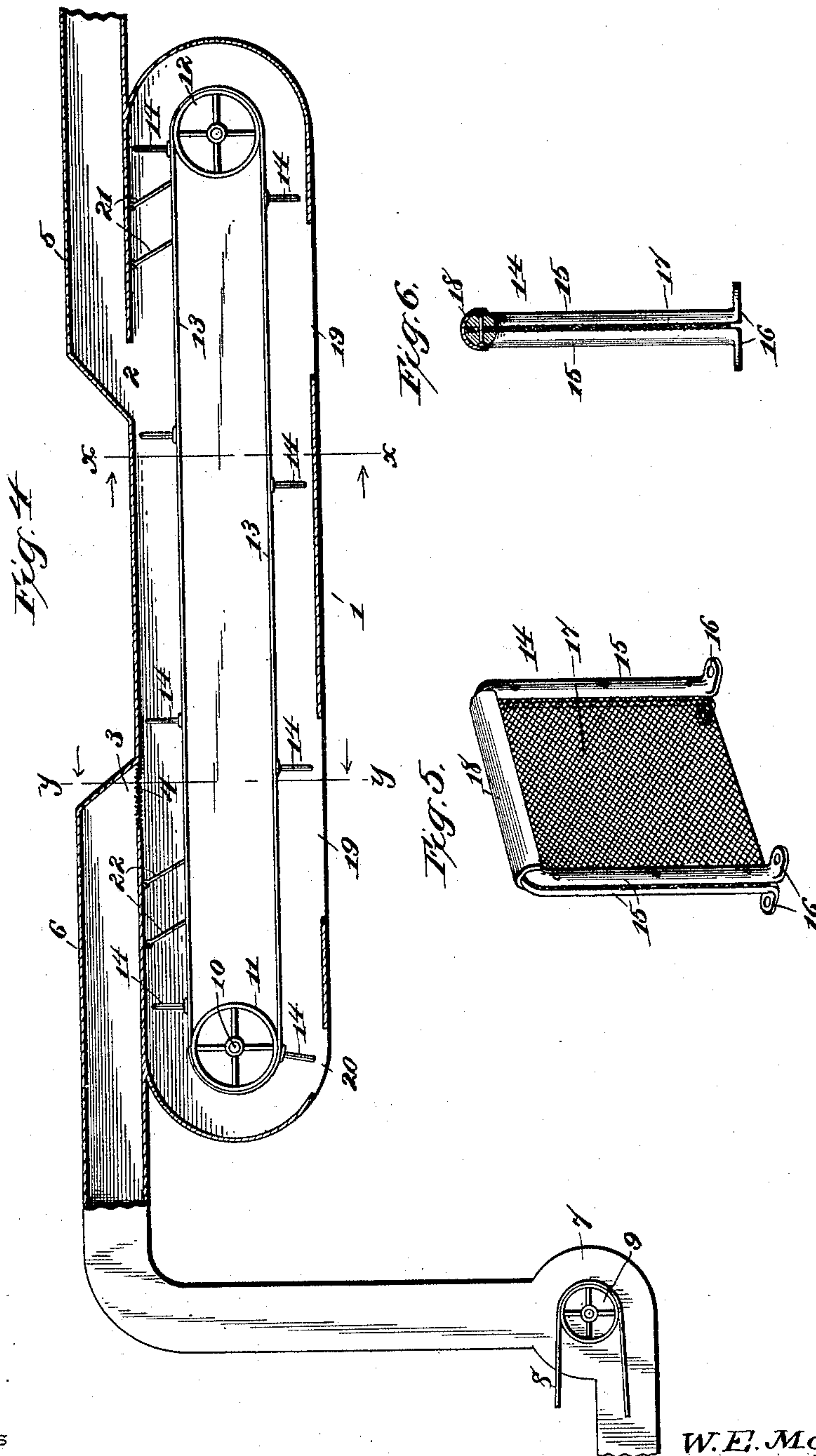
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UNITED STATES PATENT OFFICE.

WILLIAM E. MOFFITT, JAMES L. WILLIAMS, AND LEVI W. BENNETT, OF
PILOT POINT, TEXAS.

COTTON-HANDLING DEVICE.

SPECIFICATION forming part of Letters Patent No. 468,548, dated February 9, 1892.

Application filed August 27, 1891. Serial No. 403,904. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM E. MOFFITT, JAMES L. WILLIAMS, and LEVI W. BENNETT, citizens of the United States, residing at Pilot Point, in the county of Denton and State of Texas, have invented a new and useful Cotton-Handling Device, of which the following is a specification.

This invention relates to an apparatus for elevating and distributing cotton from wagons or other receptacles and feeding the same to cotton-gins or storage-bins.

The objects of our invention are to provide a simple apparatus that may be economically employed and adapted to efficiently handle the cotton by elevating it from wagons or other receptacles and distributing the same subsequent to such elevation to cotton-gins, bins, or other receiving devices.

With the above general objects in view the invention consists in certain features of construction hereinafter specified, and particularly pointed out in the claims.

Referring to the drawings, Figure 1 is a perspective of an apparatus constructed in accordance with our invention. Fig. 2 is a transverse section of the same on the line xx of Fig. 4. Fig. 3 is a vertical transverse section on the line yy . Fig. 4 is a vertical longitudinal section of the apparatus. Fig. 5 is a detail of one of the blades. Fig. 6 is a vertical transverse section of said blade.

Like numerals of reference indicate like parts in all the figures of the drawings.

In practicing our invention we employ an elevated elliptical or oblong casing 1, the ends of which are semicircular or half-round, and provide said casing upon its upper side with a front opening 2 and a rear opening 3, said openings being located at equidistant points from the center of the casing and the latter opening covered by a reticulated screen 4. To the opening 2 leads the supply-pipe 5, the opposite end of which may lead to any suitable source of supply (not shown)—as, for instance, a wagon—by which the cotton is hauled to the point of ginning. From the opening 3 leads an air-pipe 6, the same at its opposite end terminating in the side of an ordinary blower or exhaust-fan and casing 7, operated by any suitable means—as, for in-

stance, by the belt 8, which serves to rotate a wheel 9. Upon transverse shafts 10, located near the opposite semicircular ends of the casing 1 and concentric with said ends, are mounted for rotation with the shaft pulleys 11 and 12, said pulleys being connected by an endless belt 13, adapted for travel within the casing and running parallel with the same at all its points.

At intervals upon the belt are located perforated blades 14, which blades are constructed of two opposite inverted-U-shaped sections 15, the lower ends of which are bent to form securing-plates 16, which are riveted to the belt, and between the sections is interposed a reticulated or perforated webbing 17. (See Figs. 2 and 3.) If desired, metallic guards 18 may surround or inclose the upper edge of each blade, and thus prevent, in a manner hereinafter apparent, the adherence of cotton. At each side of its center the casing is in this instance provided with lower discharge-openings 19 and in rear of the rearmost discharge-opening with a surplus-discharge opening 20.

In front of the feed-opening 2 and secured to the upper side and inner surface of the casing in a pivotal manner is a pair of imperforate valves 21, the free ends of which rest loosely upon the belt, and in order to so support the ends the valves are slightly longer than the distance between the belt and the surrounding wall of the casing. A similar pair of valves 22 is hinged to the casing in rear of the air-exit opening 3, and, being similarly proportioned to the valves 21, rest at their lower ends upon the endless belt 13.

In operation the blower being started causes a suction in the pipes 5 and 6 and in the casing between the valves 21 and 22, so that the cotton is drawn up through the pipe 5 and discharged upon the belt 13, which, moving in a direction indicated by the arrows and contrary to the travel of the cotton, the latter is caught by the succession of perforated blades and carried by them forwardly to the front end of the casing, over the front pulley 12, and thence to the rear, where each blade successively discharges its load into the discharge-openings 19, from which the cotton is conducted to any ordinary gin or storage

bin or compartment. Any amount of cotton in excess of that that can be conveniently discharged through the openings 19 is carried by said opening and discharged through the surplus-discharge opening 20. It will be observed that the air after performing its function of sucking up or elevating the cotton and delivering it to the blades will pass through the perforations of the blades and out through the perforated screen 4, through the pipe 6 to the blower, where it is discharged. After the blades have delivered their cargo and passed beyond the openings 19 and 20 they are carried around the rear pulley 11 and by the valves 22, which, being inclined in the direction of travel of the belt and hinged or pivoted to the casing, readily yield and elevate to permit of the passage of the blades.

The blades are so spaced apart with relation to the distance between the openings 2 and 3 that there is always one of the same between the openings, and hence the cotton is prevented from being drawn back and covering the openings or perforations in the reticulated or foraminous screen 4. The screen 4 is simply employed for the purpose of preventing any escape of cotton that may have been once extracted from the air-current and carried by the blades beyond the discharges, and hence again carried into the path of said current.

It will be understood that the belt 13 may be driven by any suitable means, and in this instance by means of a belt 23, which passes over a pulley (shown in dotted lines) and mounted upon the shafts 10.

Having described our invention, what we claim is--

1. In an apparatus of the class described, the combination, with the casing having discharges and air inlet and exit openings, of a supply-pipe leading to the inlet-opening, a discharge air-pipe leading to the air-outlet opening, valves for the same, a blower connected thereto, and an endless belt moving in the casing and provided with blades extending therefrom and traveling from end to end of the casing, substantially as specified.

2. In an apparatus of the class described, the combination, with the elliptical casing provided upon its lower side with discharges and upon its upper side, at each side of its center, with inlet and outlet openings, a supply-pipe leading to the inlet-opening, a discharge-pipe leading from the outlet-opening, an exhaust-fan connected to the latter pipe, and valves for each, of pulleys located at the front and rear ends of the casing and concentric with said ends, an endless belt mounted for movement upon the pulleys, and blades extending from the belt and moving therewith, substantially as specified.

3. In an apparatus of the class described, the combination, with the elliptical casing provided upon its lower side with discharges and upon its upper side, at each side of its

center, with inlet and outlet openings, valves for each opening, a supply-pipe leading to the inlet-opening, a discharge-pipe leading from the outlet-opening, and an exhaust-fan connected to the latter pipe, of pulleys located at the front and rear ends of the casing and concentric with said ends, an endless belt mounted for movement upon the pulleys, and perforated blades extending from the belt and moving therewith, substantially as specified.

4. In an apparatus of the class described, the combination, with the elliptical casing provided upon its lower side with discharges and upon its upper side, at each side of its center, with inlet and outlet openings, a supply-pipe leading to the inlet-opening, a discharge-pipe leading from the outlet-opening, and an exhaust-fan connected to the latter pipe, of valves hinged to the casing in front of the inlet and in rear of the outlet openings, pulleys located at the opposite ends of the casing, an endless belt mounted on the pulleys, and perforated blades mounted on the belt and moving therewith, substantially as specified.

5. In an apparatus of the class described, the combination, with the elliptical casing provided upon its lower side with discharges and upon its upper side, at each side of its center, with inlet and outlet openings, a supply-pipe leading to the inlet-opening, a discharge-pipe leading from the outlet-opening, and an exhaust-fan connected to the latter pipe, of valves hinged to the casing in front of the inlet and in rear of the outlet openings, pulleys located at the opposite ends of the casing, an endless belt mounted on the pulleys, and blades mounted on the belt and provided with perforations and located at a shorter distance apart than the distance between the inlet and outlet openings in the upper side of the casing, substantially as specified.

6. In an apparatus of the class described, the belt, combined with the opposite inverted-U-shaped sections secured at their lower ends to the belt, and the intermediate webbing clamped by the sections, substantially as specified.

7. In an apparatus of the class described, the belt, combined with the casing having the inlet and outlet openings, the latter having a reticulated covering, the supply-pipe and exhaust-pipe, valves for the same, and a series of blades mounted on the belt and provided with the U-shaped protectors or guards 18, clamped thereon, substantially as specified.

In testimony that we claim the foregoing as our own we have hereto affixed our signatures in presence of two witnesses.

WILLIAM E. MOFFITT.
JAMES L. WILLIAMS.
LEVI W. BENNETT.

Witnesses:

DAVIS PRIDDY,
G. W. THOMPSON.