No. 703,983. Patented July 8, 1902.

C. BRADFORD.

BOOT OR HOUSING FOR PNEUMATIC ELEVATORS.

(Application filed Nov. 19, 1900.)

(No Model.)

Fig. 1.

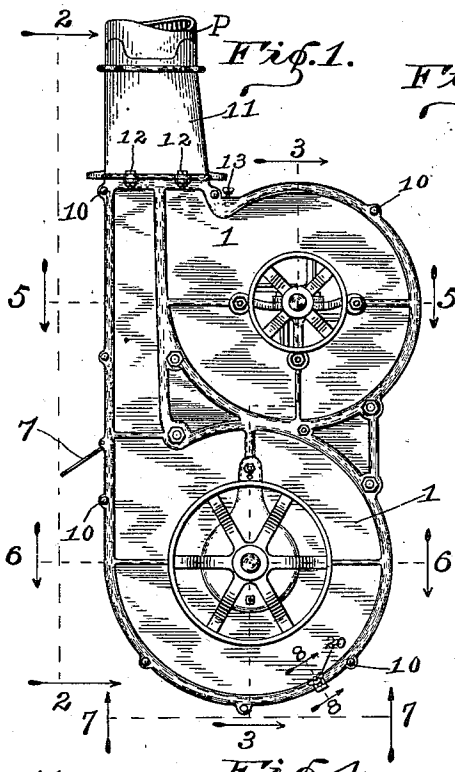


Fig. 2.

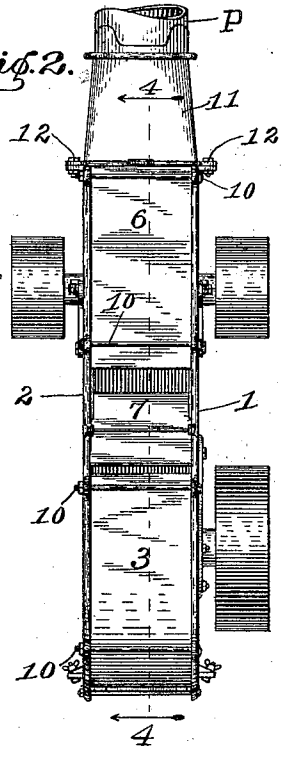


Fig. 3.

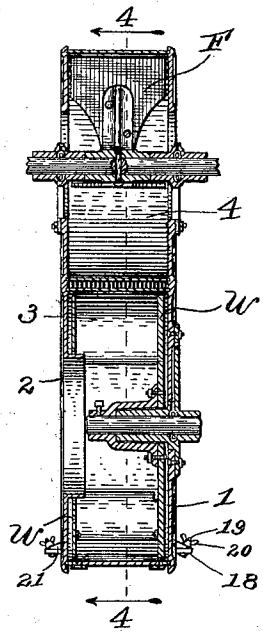


Fig. 4.

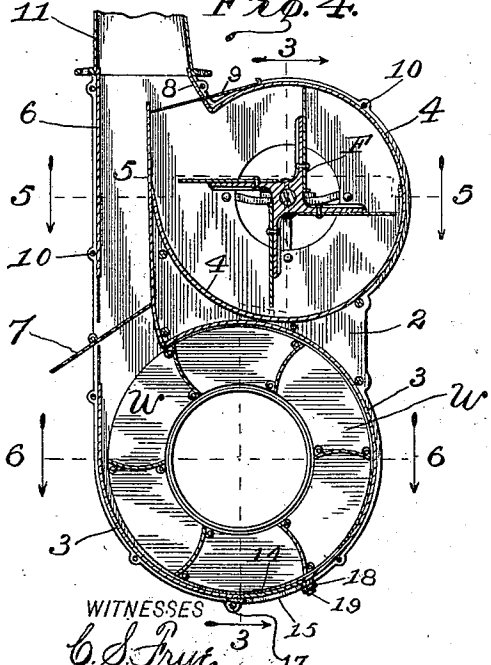


Fig. 5.

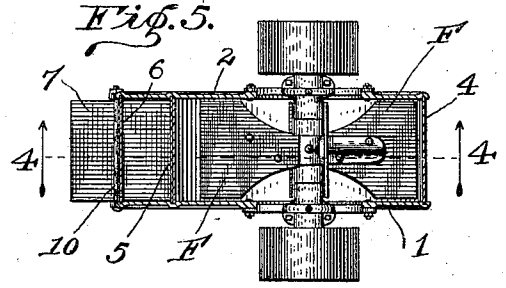
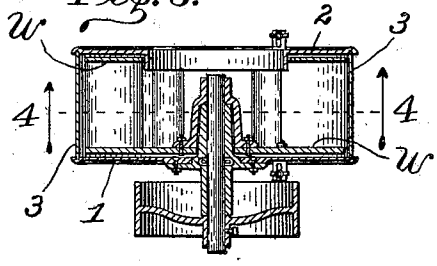


Fig. 6.



WITNESSES

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UNITED STATES PATENT OFFICE.

CHESTER BRADFORD, OF INDIANAPOLIS, INDIANA.

BOOT OR HOUSING FOR PNEUMATIC ELEVATORS.

SPECIFICATION forming part of Letters Patent No. 703,983, dated July 8, 1902.

Application filed November 19, 1900. Serial No. 37,061. (No model.)

To all whom it may concern:

Be it known that I, CHESTER BRADFORD, a citizen of the United States, residing at Indianapolis, in the county of Marion and State of Indiana, have invented certain new and useful Improvements in Boots or Housings for Pneumatic Elevators, of which the following is a specification.

The object of my present invention is to provide a new and improved construction of the boot or throwing-wheel and fan housing for pneumatic elevators and weighers, such as are shown and described in Letters Patent of the United States No. 603,925, issued to The Pneumatic Elevator and Weigher Company, May 10, 1898, upon the application of James B. Schuman, whereby certain advantages are attained, as will be hereinafter more particularly described and claimed.

Referring to the accompanying drawings, which are made a part hereof, and on which similar reference characters indicate similar parts, Figure 1 is a side elevation of such a boot or housing; Fig. 2, an edge elevation of the same as seen from the dotted line 2 2 alongside Fig. 1; Fig. 3, a vertical sectional view as seen when looking in the direction indicated by the arrows from the dotted line 3 3 in Figs. 1 and 4; Fig. 4, a vertical sectional view as seen from the dotted line 4 4 in Figs. 2, 3, 5, and 6; and Figs. 5 and 6, horizontal sectional views as seen from the dotted lines 5 5 and 6 6, respectively, in Figs. 1 and 4.

This housing is composed of molded or cast sides 1 and 2, containing grooves for the edges of the rim-pieces and division-walls, a substantially circular rim-piece 3, nearly surrounding the throwing-wheel W, a substantially circular rim-piece 4, substantially surrounding the blast-fan F, a division-wall 5, extending from the end of the rim-piece 3 up past one end of the rim-piece 4 to nearly the top of the structure and dividing the passages leading to the neck from the throwing-wheel and the blast-fan, respectively, a straight rim-piece 6 above the end of the rim-piece 3, a pivoted door 7 to a vent-opening between the parts 3 and 6, (said vent-opening and door being the subject-matter of Patents Nos. 619,844, 620,270, and 620,854,) a shorter outer wall-piece 8 opposite the upper end of the wall-piece 6, and an adjustable slide 9, adapted to cut off the egress-opening through which the air is driven from the blast-fan F. All these several parts are assembled in the relative positions best shown in Fig. 4, the edges of the rim-pieces and outer walls entering grooves in the sides 1 and 2, as shown in Figs. 3, 5, and 6, and the whole are secured and held together by a series of bolts 10, by which the sides are clamped against the rim and other wall pieces and a strong, substantial, and durable structure secured. A neck 11 is then secured to the sides 1 and 2 by bolts 12, and in this is commonly secured the lower end of a conductor-pipe P.

The adjustable slide 9, as is best shown in Fig. 4, is arranged directly below the neck 11 and is adapted to be pushed in until it comes in contact with the division-wall 5 and when pushed in to this extreme position closes the passage leading from the fan F, rendering the fan inoperative. It is capable of being adjusted to any position desired, so that more or less of a blast will be delivered by the fan up into and through the neck 11, according to the work to be performed. In an ear on the side 1 is a set-screw 13, by which this slide may be firmly secured in adjusted position.

The entire housing can also be taken apart with great facility whenever desired by simply removing the bolts which hold the sides together and reassembled by the reverse operation.

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

1. The combination, in a boot or housing for pneumatic elevators, of two cast sides having grooves therein, rim-pieces substantially surrounding the spaces therein wherein the throwing-wheel and fan are situated, division and side walls arranged as shown, whereby said throwing-wheel and said fan are separately inclosed and the egress-passages divided keeping the grain and air separate until the neck of the housing is reached, said rim-pieces, division and side walls entering said grooves in the sides, and bolts passing through the sides and clamping the same onto the rim-pieces and walls, substantially as shown and described.

2. The combination, in a boot or housing

for pneumatic elevators embodying two wheel-receptacles having passages leading therefrom to a common discharging point or neck, of a slide positioned below said neck and adapted to extend across one of said passages to the partition dividing the same from the other passage, whereby the blast from one wheel may be cut off, substantially as shown and described.

3. The combination, in a boot or housing for pneumatic elevators embodying two wheel-receptacles having passages leading therefrom to a common discharging point or neck, of an adjustable slide positioned below said neck and adapted to extend across one of said passages to the partition dividing the same from the other passage, whereby any desired portion of the blast from one wheel may be cut off, and a clamping device, as 13, whereby said slide may be secured in any position to which it may be adjusted.

4. The combination, in a boot or housing for pneumatic elevators, of two cast sides having grooves therein, sheet-metal rims or walls for the housing-chambers and egress-passages the edges of which enter said grooves, and which separately inclose the throwing-wheel and the fan and divide the passages leading therefrom to the housing-neck, bolts passing through the sides and clamping the same against the edges of the sheet-metal walls, and a cast neck-piece secured to said housing over the passages leading from the chambers of the housing, substantially as shown and described.

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 17th day of October, A. D. 1900.

CHESTER BRADFORD. [L. S.]

Witnesses:

JAMES A. WALSH,

C. S. FRYE.