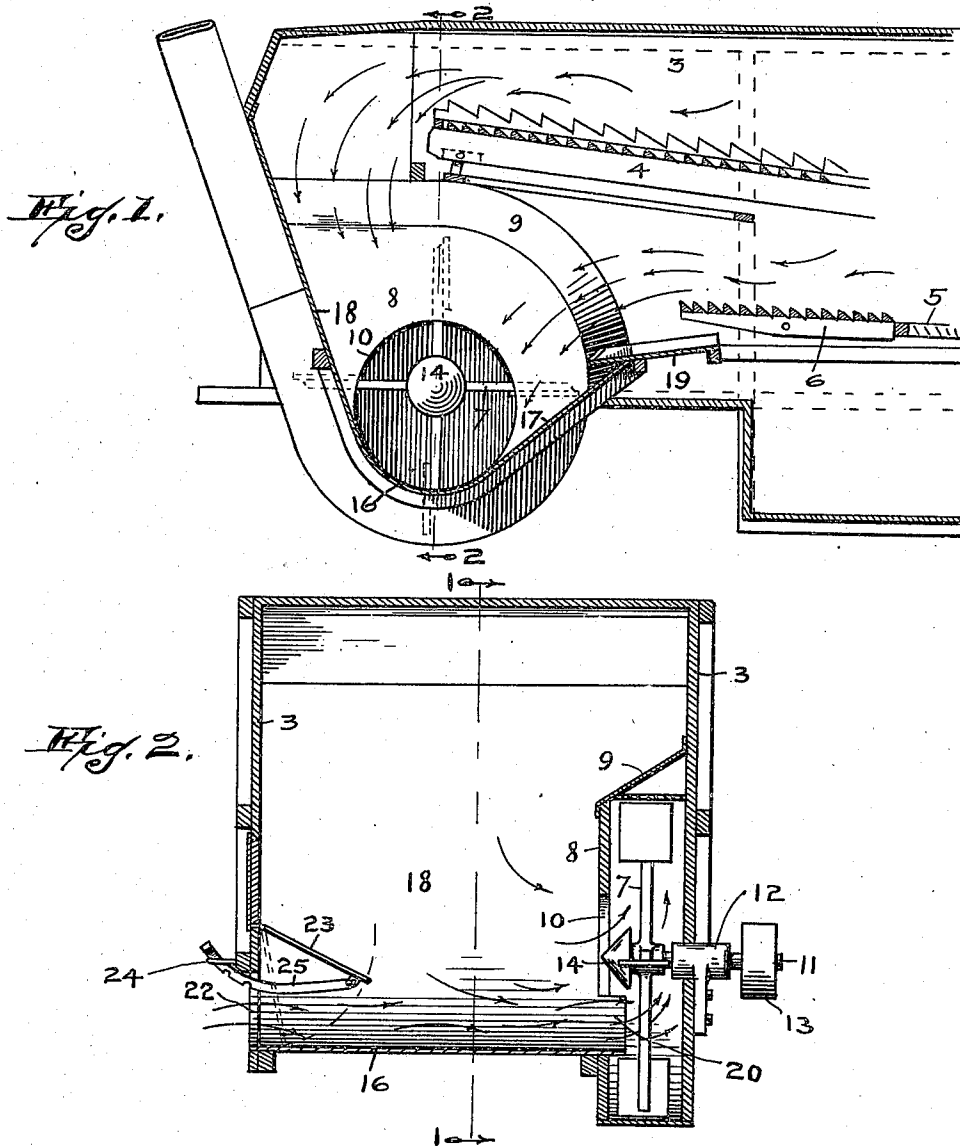


H. T. SEBURN.
THRESHING MACHINE.
APPLICATION FILED FEB. 14, 1910.

963,080.

Patented July 5, 1910.



Witnesses;
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UNITED STATES PATENT OFFICE.

HARVEY T. SEBURN, OF INDIANAPOLIS, INDIANA.

THRESHING-MACHINE.

963,080.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, HARVEY T. SEBURN, 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 Threshing-Machines, of which the following is a specification.

This invention relates to improvements in pneumatic straw stackers; and particularly to that portion thereof which receives the straw and chaff preparatory to discharging it into the fan-drum.

Hoppers have been constructed with oblique walls, all of which, including one in front of the eye of the drum slope toward said eye. But in such construction the eye of the drum is obstructed, particularly by the oblique wall directly in front of it, making it necessary to enlarge the eye-opening. This enlargement of the eye-opening reduces the suction thereby increasing the difficulty of drawing the straw into the drum.

The object of my invention is to introduce the air on a level with the eye-opening to the drum whereby the opening will not be obstructed by an oblique wall, and whereby, by introducing the air at a low level it will exert itself with a lifting tendency under the straw and chaff to prevent clogging and whereby also a smaller eye may be used which will increase the suction and therefore the efficiency of the fan.

Another object is to provide means for taking the air from the exterior of the machine to avoid drawing grain in with the chaff, as occurs when the air is taken from the interior of the machine, and also to provide means by varying the size of the outside air-opening for varying the air draft to suit the conditions of moisture in the straw, wet straw requiring a stronger air-current than dry straw.

I accomplish the object of the invention by the mechanism illustrated in the accompanying drawing in which—

Figure 1 is a longitudinal vertical section of the stacker-end of a threshing machine with my invention applied thereto the section being on a plane indicated by the dotted lines 1—1 of Fig. 2, and Fig. 2 is a transverse vertical section on the line 2—2 of Fig. 1.

Like characters of reference indicate like parts throughout the several views of the drawing.

3 represents the body of a threshing machine of any usual and suitable construction in which 4 is the tailer-rack over which the threshed straw to be stacked is tailed in the usual manner.

5 is a sieve and 6 a conveyer extension also of usual construction over which the chaff to be pneumatically discharged is delivered.

7 is a vertical fan which is mounted in a drum 8 at one side of the machine. The top 9 of the drum is oblique, the slope being inwardly of the machine to cause the straw tailing over the rack 4 to slide off into the trough leading to the eye of the drum.

10 is the eye of the drum through which the straw and chaff are drawn by suction caused by the rapid rotation of the fan 7. The fan-blades are mounted on a shaft 11 journaled in box 12 and having a pulley 13 on its outer end to which power is applied by a belt (not shown) in the usual manner. The inner end of the shaft has a cone 14 to deflect the straw.

Extending transversely of the machine from one side thereof to the other, is a trough 16 the bottom of which follows the curvature of the eye 10 for approximately a third of the circumference of the eye and then continues obliquely toward both front and rear of the machine to form the downwardly sloping sides 17 and 18. The side 17 terminates under a pan 19 which receives the chaff from the conveyer extension 6 and discharges it into the trough.

The bottom of the trough extends through the eye 10 into the drum 8, as shown at 20, to prevent clogging of straw around the arms of the fan. Opening into the bottom of the trough through the opposite side of the machine from the fan is an air-hole 22 having a door 23 hinged at its upper edge to the machine body 3. This door swings inwardly and acts like a damper-plate to regulate the quantity of air admitted through the opening 22. A given position of the door is retained by a notched bar 25 which is hinged at its lower end to the door and has its free upper portion slidingly inserted in a loop 24. The end or cross bar of the loop 24 enters one of the notches of the bar to lock the bar. It will thus be seen that air to supply the fan is taken from outside of the machine and that it moves along the bottom of the trough in a manner to prevent clogging of the straw and chaff and to keep the trough always clean and free. By

adjusting the position of the door 23 the size of the air-opening will be varied to suit the condition of the straw, as will be readily understood by threshermen.

5 Having thus fully described my invention, what I claim as new and wish to secure by Letters Patent of the United States, is—

1. In a threshing machine, the combination with a vertical fan and a fan-drum having an eye of a horizontal trough discharging into the drum through said eye and means for regulating the air supply to said trough.

2. A threshing machine having a closed 15 body, a vertical fan, a drum containing said fan having an eye, a horizontal trough discharging into the drum through said eye, said trough having an air-opening at its end opposite the fan, and means for regulating the admission of air through said opening.

3. A threshing machine having a closed 20 body, a vertical fan at one side of the body, a drum containing said fan and having an eye, a horizontal trough discharging into the drum through said eye, the body having an air-opening at the opposite side of the machine from the fan and at the bottom of the trough and a plate adjustable in its position to vary the size of the opening and 25 regulate the volume of air admitted through said opening.

4. A threshing machine having a closed 30 body, a vertical fan located at one side of the body, a drum containing said fan having an oblique inwardly sloping top and having an eye, a horizontal trough discharging into the drum through said eye the floor of said trough projecting into the drum,

the body of the machine having an air-opening into said trough at the opposite side of 40 the machine from the fan and discharging along the bottom of the trough and an adjustable plate for varying the admission of air through said opening.

5. A threshing machine having a closed 45 body, a vertical fan at one side of the body, a drum containing said fan and having an eye, a horizontal trough discharging into the drum through said eye, the body having an air-opening at the opposite of the body 50 from the fan and admitting air along the body of the trough, a door for said opening hinged at its upper edge, and means for holding the door at various positions.

6. A threshing machine having a closed 55 body, a vertical fan at one side of the body, a drum containing said fan and having an eye, a horizontal trough discharging into the drum through said eye, the body having an air-opening at the opposite side of the 60 body from the fan and admitting air along the body of the trough, a door for said opening hinged at its upper edge, a notched bar hinged at its lower end to the door and means secured to the body of the machine 65 to engage the notches of the bar and hold a given adjustment of the bar.

In witness whereof, I have hereunto set my hand and seal at Indianapolis, Indiana, this 20th day of Nov., A. D. one thousand 70 nine hundred and nine.

HARVEY T. SEBURN. [L. s.]

Witnesses:

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L. B. WOERNER.