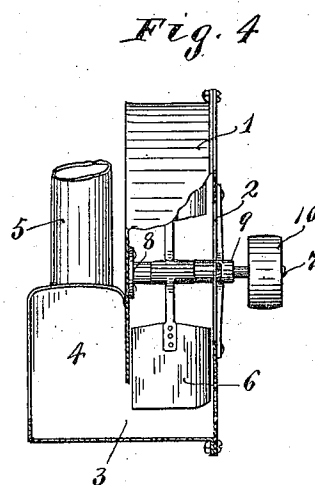
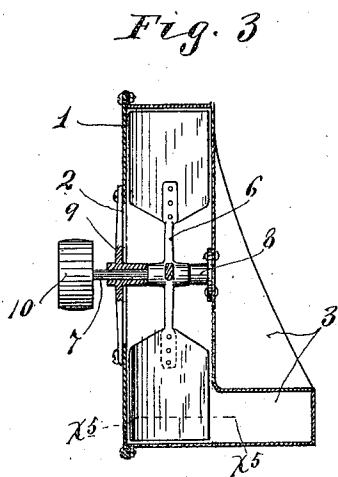
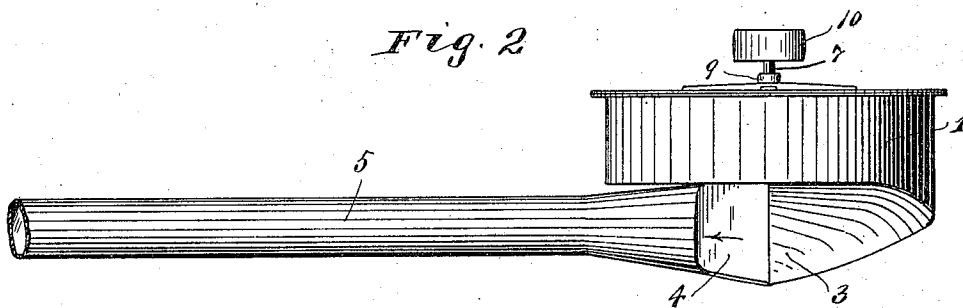
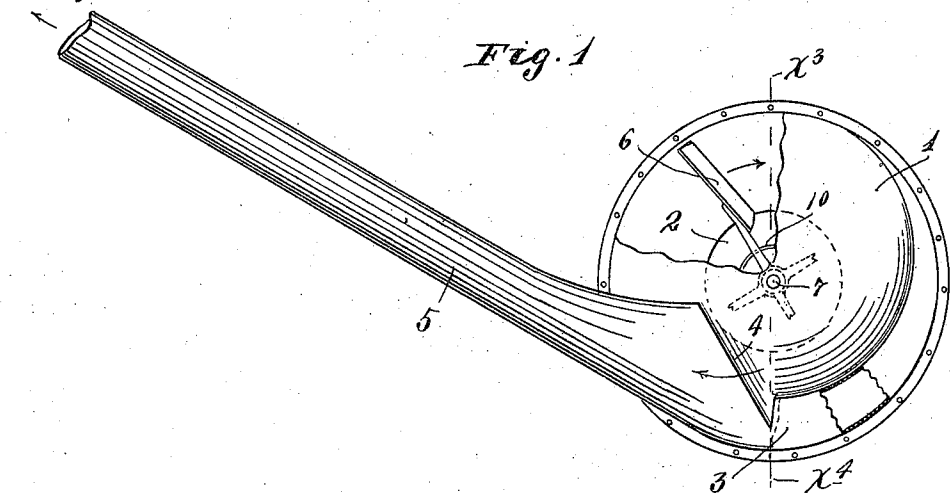


J. HAGEN.
PNEUMATIC STACKER.
APPLICATION FILED JUNE 28, 1909.

975,230.

Patented Nov. 8, 1910.



Witnesses
a. H. Opsahl.
W. H. Souza.

Inventor.
John Hagen
By his Attorneys
William M. Murchand

UNITED STATES PATENT OFFICE.

JOHN HAGEN, OF HOPKINS, MINNESOTA.

PNEUMATIC STACKER.

975,230.

Specification of Letters Patent.

Patented Nov. 8, 1910.

Application filed June 28, 1909. Serial No. 504,687.

To all whom it may concern:

Be it known that I, JOHN HAGEN, a citizen of the United States, residing at Hopkins, in the county of Hennepin and State of Minnesota, have invented certain new and useful Improvements in Pneumatic Stackers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention has for its especial object to provide an improved pneumatic stacker adapted for use in threshing machines, but nevertheless, capable of general use wherever it is desired to convey material by means of a pneumatic blast.

Broadly stated, my invention has for its object to provide a wind stacker or pneumatic conveyer in which the material conveyed is not delivered through the fan, but is taken up by the blast of the fan at a point outside of the fan casing proper.

To the above ends, the invention consists of the novel devices and combinations of devices hereinafter described and defined in the claim.

In the accompanying drawings, which illustrate the invention, like characters indicate like parts throughout the several views.

Referring to the drawings, Figure 1 is a view in side elevation, with some parts broken away, showing the improved stacker; Fig. 2 is a plan view of the same; Figs. 3 and 4 are sectional views taken on the line $x^3 x^4$ of Fig. 1, the former looking forward and the latter looking rearward; and Fig. 5 is a section through one of the fan blades, taken on the line $x^5 x^5$ of Fig. 3.

The numeral 1 indicates a fan case having in one side an eye or axial air inlet passage 2, and having at its other side an air outlet spout 3 that extends tangentially and laterally, or in other words, spirally, from that side of the said fan case. This air discharge spout 3 is arranged to deliver the blast of air directly into the open receiving end 4 of the stack or conveyer tube 5. The said receiving end of the stack 5 is preferably made large or funnel-shaped, and its opening 4 is inclined so that it is adapted to receive the straw or other material which is delivered directly thereinto and, when

taken up by the blast, is forced through said stack.

Working within the fan case 1 is a fan head 6, the shaft 7 of which is journaled in bearings 8 and 9 secured to the sides of said case. The bearing 9 is located at the axis of the eye 2 and has radial arms rigidly secured to that side of the case, as best shown in Fig. 3. At its outer end, the shaft 7 is provided with a pulley 10, over which a power driven belt, not shown, will run to impart motion to the fan head, in the direction of the arrow marked on Fig. 1. The blades of the fan head 6 are preferably curved or inclined, as shown in Fig. 5, so as to increase the lateral blowing action of the fan outward through the spiral air discharge spout 3.

By reference particularly to Fig. 4, it will be noted that the fan case adjacent to the open receiving end 4 of the stack 5, is provided with a plate that extends nearly but not quite to the bottom of the case and thereby prevents the straw from coming into direct contact with the fan blades.

By the improved arrangement above described, the efficiency of the fan is maintained without requiring the material to be passed through the fan case or to come into contact with the fan blades.

From what has been said, it will be understood that the improved stacker or blower is capable of modification within the scope of my invention.

What I claim is:

The combination with a fan case having a spiral discharge spout leading tangentially and laterally from the outer portion of one side thereof, of a stack forming a continuation of said spout and having a flaring open end located directly at the delivery portion of said spiral discharge spout and extending above the same, said case having a head mounted to rotate therein, the said fan case having a plate that extends nearly but not quite to the bottom thereof, adjacent to the open receiving end of said spout, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

JOHN HAGEN.

Witnesses:

ALICE V. SWANSON,
HARRY D. KILGORE.