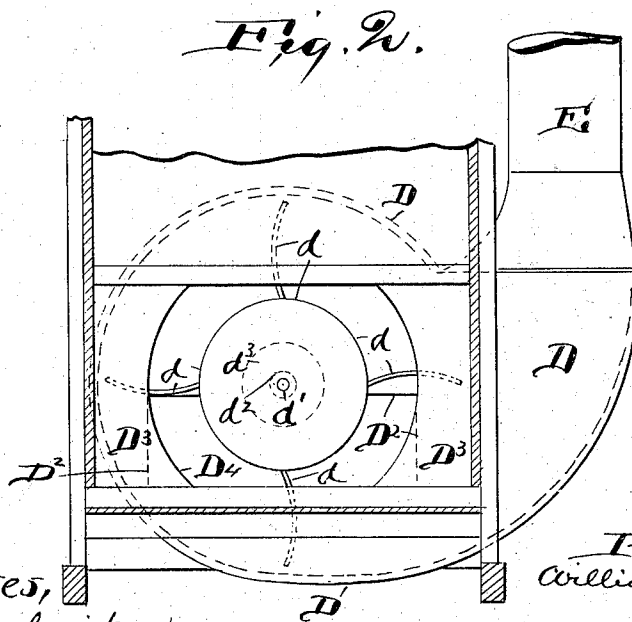
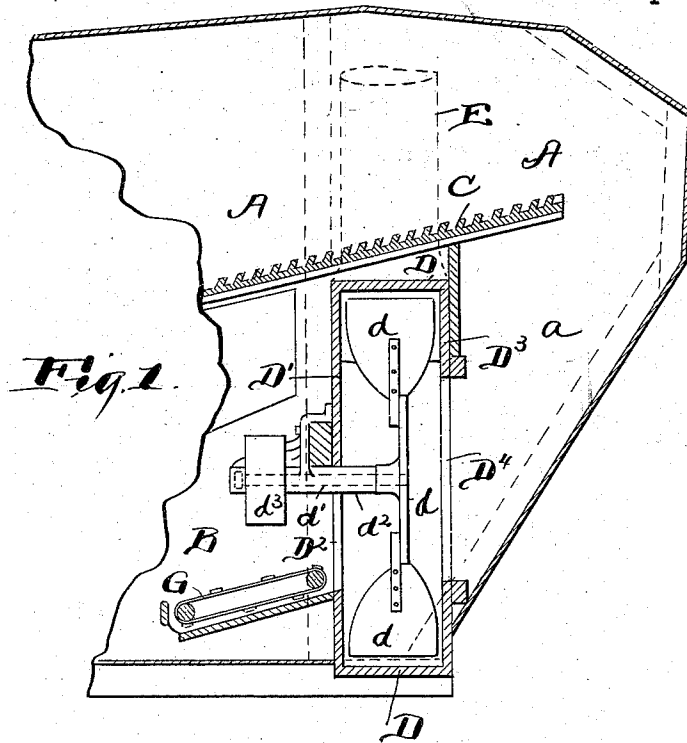


(No Model.)

W. HUDDLE.
SEPARATOR AND STACKER.

No. 559,174.

Patented Apr. 28, 1896.



Witnesses,
E. B. Gilchrist
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UNITED STATES PATENT OFFICE.

WILLIAM HUDDLE, OF MARION, OHIO, ASSIGNOR TO THE MARION
MANUFACTURING COMPANY, OF SAME PLACE.

SEPARATOR AND STACKER.

SPECIFICATION forming part of Letters Patent No. 559,174, dated April 28, 1896.

Application filed February 3, 1893. Serial No. 577,781. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM HUDDLE, of Marion, in the county of Marion and State of Ohio, have invented certain new and useful
5 Improvements in Separators and 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 pertains to make and use
10 the same.

My invention relates to improvements in separators and stackers, and more especially to an improved construction and arrangement of a pneumatic stacker between the straw-
15 chamber and chaff-chamber in the rear portion of the separator.

Heretofore the fan of the pneumatic stacker, instrumental in carrying the straw and chaff into the outlet or offtake-pipe, has been placed
20 beyond the rear end of the separator, and this location of the fan necessitated a considerable lengthening of the machine.

The primary object of my invention is to reduce the length of the machine; and with
25 this object in view my invention consists in certain features of construction and combinations of parts, as hereinafter described, and pointed out in the claims.

In the accompanying drawings, Figure 1 is
30 a sectional side elevation of the rear portion of a separator embodying my invention; and Fig. 2 is a rear end elevation of the same on line 2 2, Fig. 1.

Referring to the drawings, A designates the
35 straw-chamber of the separator; B, the chaff-chamber; C, the straw-carrier for conducting the straw through the rear end of the straw-chamber.

The straw and chaff are separated by means
40 of apparatus well understood in the art, and not considered necessary to illustrate in this application. Suffice it to state that the chaff and straw are conducted or transmitted in any approved manner to the chaff-chamber
45 and rear end of the straw-chamber, respectively.

Straw-carrier C inclines upwardly toward the rear end of the machine and terminates, at its rear extremity, a suitable distance forward of the rear extremity of the machine,
50 and the straw-chamber extends below the

rear end of said straw-carrier, as at *a*. The chaff-chamber is of course located below the straw-carrier and any suitable distance forward of the rear and downwardly-extending
55 portion *a* of the straw-chamber. A fan-containing case D is interposed between portion *a* of the straw-chamber and the chaff-chamber, and the chamber of said case is in open relation at one side with the outlet or offtake-
60 pipe E, that extends upwardly at one side and outside of the machine.

d designates the suitably-actuated fan within case D. Said fan is operatively
65 mounted, in the case illustrated, upon a horizontally-arranged shaft *d'*, that extends forwardly through the forward head D' of case D and has bearing in a stationary box *d''*, supported in any approved manner. Shaft *d'* is
70 shown provided with a driving-pulley *d'''*, to which power is applied in any suitable manner. The forward head D' of case D, below the fan-shaft, is provided with the chaff-receiving opening D², and G designates a suitably-constructed and suitably-actuated up-
75 wardly and rearwardly inclined carrier or conveyor for conducting the chaff from the chaff-chamber through opening D² into the fan-containing case. The rear head D³ of case D is provided centrally with an opening
80 D⁴, that establishes communication between portion *a* of the straw-chamber and the fan-containing chamber.

The operation of the pneumatic device illustrated will be readily understood. The fan
85 having been set in motion creates a suction within case D and conveys the straw and chaff that are sucked or drawn into the fan-containing chamber into the outlet or offtake-pipe E, by which the straw and chaff are
90 conveyed to the stack.

What I claim is—

1. In a separator and stacker, the combination with the straw-chamber, chaff-chamber and outlet or offtake passage-way, of pneu-
95 matic means interposed between said chambers and capable of effecting the transmission of the straw and chaff from the straw-chamber and chaff-chamber, respectively, to the offtake or outlet passage-way, substantially
100 as set forth.

2. In a separator and stacker, a pneumatic

device suitably arranged within the rear portion, and a suitable distance from the rear extremity, of the machine, in combination with the straw-chamber communicating with said pneumatic device from the rear, the chaff-chamber communicating with said pneumatic device from the front, and the offtake or outlet passage-way leading from said pneumatic device and instrumental in conducting off the straw and chaff, substantially as set forth.

3. In a separator and stacker, the combination with the chaff-chamber, and the straw-chamber extending into the rear portion of the machine and downwardly a suitable distance behind the chaff-chamber, of pneumatic means interposed between the chaff-chamber and rear and downwardly-extending portion of the straw-chamber, and an offtake or outlet pipe communicating with the pneumatic device, substantially as shown, for the purpose specified.

4. In a separator and stacker, a fan-containing case within the rear portion, and a suitable distance from the rear extremity, of the machine, and having a chaff-receiving opening and a straw-receiving opening, and the suitably-operated fan within said case, in combination with the straw-chamber and chaff-chamber communicating with the straw-

receiving opening and chaff-receiving opening, respectively, of the fan-containing case, and the offtake or outlet pipe communicating with the chamber of the fan-containing case, and leading from said case at the side of the machine, substantially as set forth.

5. In a separator and stacker, the case D arranged within the rear portion, and a suitable distance from the rear extremity, of the machine, and having a chaff-receiving opening and a straw-receiving opening at the front and rear, respectively, the suitably-operated fan within said case, and the offtake or outlet pipe communicating and leading from the chamber of the case at the side of the machine, in combination with the straw-chamber and chaff-chamber communicating with the straw-receiving opening and chaff-receiving opening, respectively, of the fan-containing case, substantially as shown, for the purpose specified.

In testimony whereof I sign this specification, in the presence of two witnesses, this 23d day of January, 1896.

WILLIAM HUDDLE.

Witnesses:

L. E. GATES,

J. W. STRINGER.