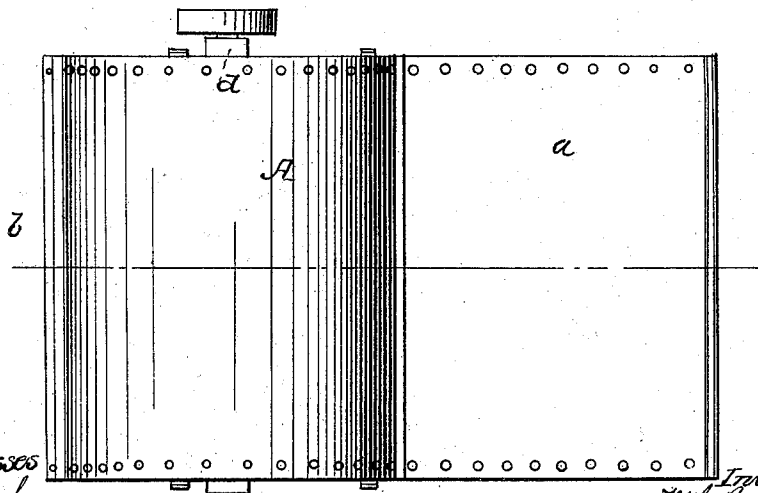
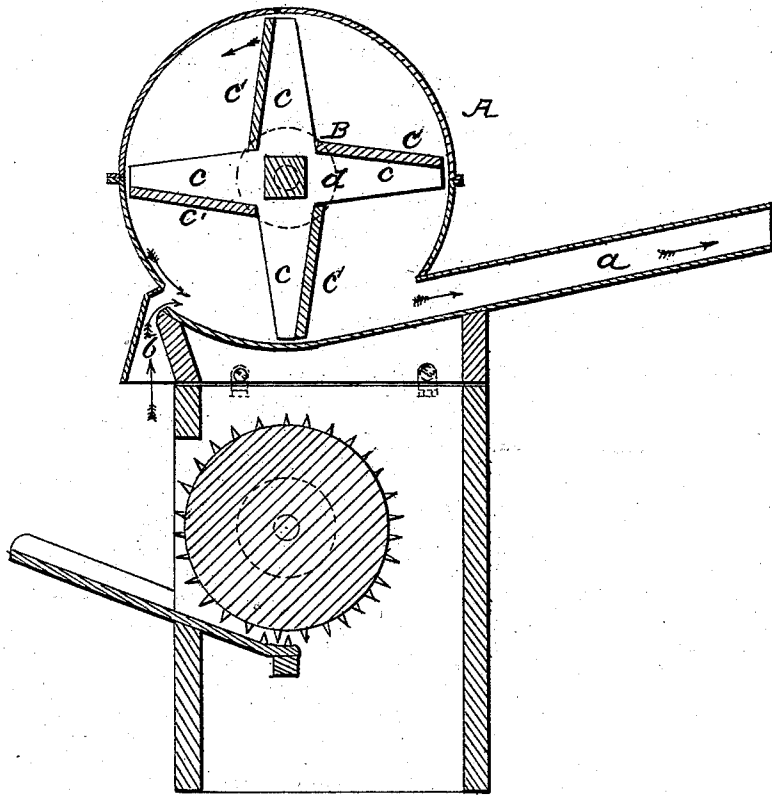


RENTGEN & HUMES.  
Thrashing Machine Fan.

No. 31,825.

Patented March 26, 1861.



Witnesses  
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R. S. ...

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# UNITED STATES PATENT OFFICE.

W. C. RENTGEN AND P. H. HUMES, OF KEOKUK, IOWA.

## FAN ATTACHMENT FOR THRESHING-MACHINES.

Specification of Letters Patent No. 31,825, dated March 26, 1861.

To all whom it may concern:

Be it known that we, W. C. RENTGEN and P. H. HUMES, both of Keokuk, in the county of Lee and State of Iowa, have invented a new and useful Fan Attachment for Threshing-Machines; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a side sectional view of our invention taken in the line  $x, x$ , Fig. 2. Fig. 2 is a plan or top view of the same.

Similar letters of reference indicate corresponding parts in the two figures.

The object of this invention is to prevent dust being blown from threshing-machines into the face of the feeder or attendant while feeding the machine, a result due to the blast generated by the rotation of the beater.

The invention consists in placing a fan, which is inclosed within a suitable case or box, directly over the cylinder or beater-box, and so arranged as to draw in the dust as it is ejected from the beater-box, and force it in a direction from the feeder or attendant.

To enable those skilled in the art to fully understand and construct our invention we will proceed to describe it.

A represents a fan-box which is of cylindrical form and has two spouts  $a, b$ , one of which  $a$ , is made either horizontal or slightly elevated or depressed, and the other  $b$ , extends downward at the opposite side of the fan-box, as clearly shown in Fig. 1. The fan box is entirely closed at both ends so that the air which is driven out at the spout  $a$  is all drawn in at the spout  $b$ .

Within the fan-box A, there is placed a rotary fan B. This fan may be constructed in the usual way, to wit: radial arms  $c$ , being attached to a shaft  $d$ , and blades or wings  $c'$ , secured to the arms.

The fan-box A, is placed directly over the cylinder or beater-box of a threshing-machine as shown in Fig. 1, the beater-box being represented in red. The spout  $b$ , projects down just over the feed entrance of

the machine while the spout  $a$  is directed toward the discharge end of the machine. A suitable screen can if necessary be placed over the mouth of the spout  $b$  but the draft being vertical at that point such a screen is believed to be generally unnecessary.

The fan B is made to rotate in the direction indicated by the arrows, and the fan shaft  $d$ , may be driven from the shaft of the beater cylinder.

From the above description it will be seen that a suction will be produced in the short spout  $b$ , of the fan box A, and all dust ejected from the feed entrance of the threshing machine, will be drawn up into the fan-box A, and expelled therefrom through the spout  $a$ .

By this simple arrangement, therefore, the feeder or attendant will be fully protected from dust while feeding the machine. The device is extremely simple, may be constructed at a trifling expense, and applied to any of the threshing machines in use.

We are aware that a blast fan has been used for blowing away the dust from the feeding end of a threshing machine, but this is wholly different in its operation from the contrivance proposed by us. Nor do we claim broadly the use of a suction fan for the purpose contemplated, well knowing that suction fans of a complicated and inconvenient construction have heretofore been used by others; but

What we do claim as new and desire to secure by Letters Patent is—

A fan arrangement consisting of a fan placed in a proper case to which there is a suitable induction and eduction passage the whole constituting a single trunk extending from the front to the rear of the machine and so arranged that the draft at the orifice of the induction passage shall be vertical or nearly so, all substantially in the manner above described.

W. C. RENTGEN.  
P. H. HUMES.

Witnesses:

W. A. PATTERSON,  
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