

(No Model.)

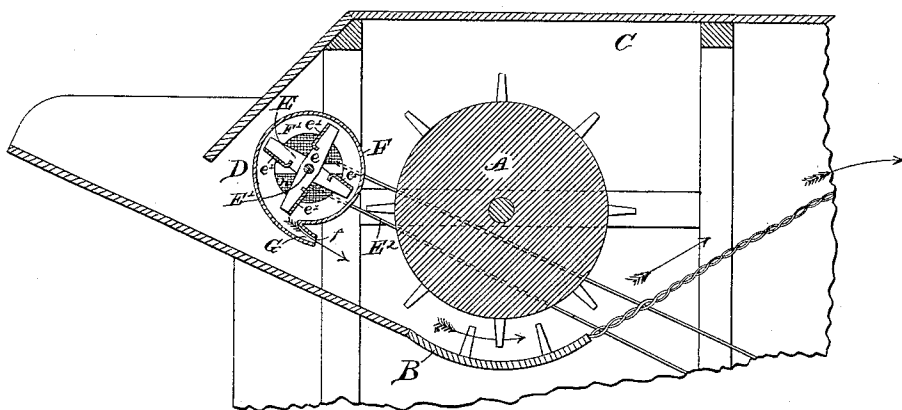
W. W. BARBER.

DUST PROTECTOR FOR THRASHING MACHINES.

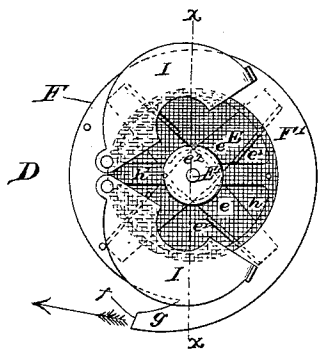
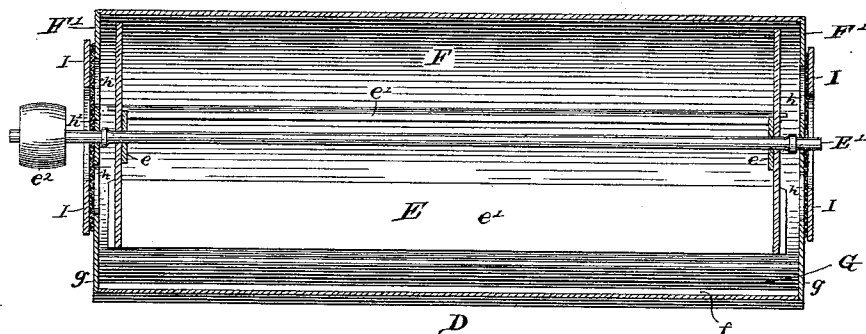
No. 332,224.

Patented Dec. 15, 1885.

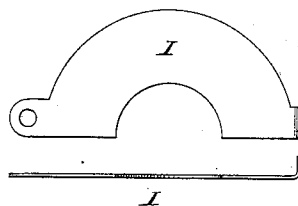
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



*Fig. 4.*

WITNESSES

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# UNITED STATES PATENT OFFICE.

WILLIAM WALACE BARBER, OF RUTHVEN, IOWA.

## DUST-PROTECTOR FOR THRASHING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 332,224, dated December 15, 1885.

Application filed August 27, 1885. Serial No. 175,492. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM WALACE BARBER, a citizen of the United States, residing at Ruthven, in the county of Palo Alto and State of Iowa, have invented a new and useful Improvement in Dust-Protectors for Thrashing-Machines, of which the following is a specification, reference being had to the accompanying drawings.

My invention has relation to improvements in dust-protectors for thrashing-machines, having for its object to provide improved means for protecting the cylinder or cylinders thereof from dust, dirt, &c.; and the novelty consists in the peculiar construction, combination, and arrangement of the various parts for service, substantially as hereinafter fully set forth, and specifically pointed out in the claim.

I have shown an embodiment of my invention in the accompanying drawings, in which Figure 1 is a transverse sectional view through the fan, casing, the cylinder, concave, and their supporting-frame of an ordinary thrashing-machine. Fig. 2 is a longitudinal section through the fan and casing detached from the thrashing-machine. Fig. 3 is an end elevation, and Fig. 4 is a detail view of the wind-boards for regulating the supply of air to the fan.

Like letters of reference in the several drawings denote corresponding parts.

Referring by letter to the drawings, A designates the cylinder, B the concave, and C the casing or supporting-frame of so much of a thrashing or clover-hulling machine as is necessary for a clear and proper understanding of my invention. These parts may be of any ordinary or preferred construction, my invention being applicable to machines of any description falling within the range of the classes above enumerated.

D designates my improvement, which comprises, essentially, a revolving fan and a casing arranged in front of the cylinder above the path of travel of the grain to be fed thereto, and adapted to discharge or force a blast or current of air onto the incoming grain and between the cylinder and concave. The fan and case E F, respectively, are arranged transversely across from side to side of the frame C of the thrashing-machine and longitudinally with the cylinder A. The fan E comprises a

shaft, E', journaled in proper supports of the cylinder-head, two or more cross-bars arranged near each end thereof, as at e, and a series of longitudinal bars, e', connecting the cross-bars e at each end near their outer extremities, the shaft E' having a driving-pulley, e<sup>2</sup>, rigidly secured or keyed thereon and driven by a belt, E<sup>2</sup>, communicating motion thereto from any operative part of the machine. The fan-case F comprises a cylindrical shell having heads F', to which said shell is secured in any suitable or preferable manner, and said shell is further provided with a contracted discharge-opening, f, at its lower forward surface, with which discharge-opening communicates the chamber of a discharge-throat, G, which comprises an upper and lower wall, which converge toward each other and are connected at their ends by vertical walls g, as clearly shown. The contracted discharge-throat of the fan-casing is arranged in the plane of travel or motion of the grain to be fed to the cylinder, and on the plane with or a little above the lower surface thereof, and is adapted to direct a blast or current of air of sufficient strength upon the surface of the grain and between the cylinder and concave to force the dust, dirt, and other impurities out through the opening in the machine-frame through which the refuse straw is passed. The cylinder-heads F' are each secured by means of bolts and nuts to the side walls of the machine-frame in the relative position to the cylinder and concave thereof as described, or by any other preferable means. Openings or ports h are made in each cylinder-head, which are adapted to coincide with openings in the machine-frame to permit a proper supply of air to the fan and casing. The fan-shaft E' projects beyond the cylinder-heads and the machine-frame, and is journaled or supported in cross-bars h', arranged transversely across the openings h, and suitably secured thereto in any preferable manner. The air ports or openings h are each covered or protected by a screen of wire or other material, and secured thereto in any preferable manner to prevent and exclude dust, dirt, and other impurities in the supply of air from entering the fan-casing and being fed between the cylinder and concave.

I I designate regulating-boards for regulating the supply of air fed to the fan casing or

cylinder. Said wind-boards are arranged in pairs at each end of the fan-casing, and are pivoted at one end thereof to said cylinder-heads, so that they can be thrown wide open, 5 or partially so, and independently of each other, on opposite sides of the fan-shaft, as is obvious.

Having thus fully described my invention, what I claim as new, and desire to secure by 10 Letters Patent, is—

A thrashing-machine comprising a cylinder and the concave, a fan arranged parallel with the cylinder and in front of the same within the inclosing-casing thereof, a casing

encompassing said fan and having a discharge- 15 throat arranged above the plane of motion of the grain fed to the thrashing-cylinder, screens secured over the heads of the fan-casing, and regulating-boards pivoted to the casing-heads to vary the quantity of air entering therein, 20 as set forth.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM WALACE BARBER.

Witnesses:

ANDREW HARNEY,  
O. S. OLSON.