

(No Model.)

W. S. MILLER.
DUST CONVEYER.

No. 416,936.

Patented Dec. 10, 1889.

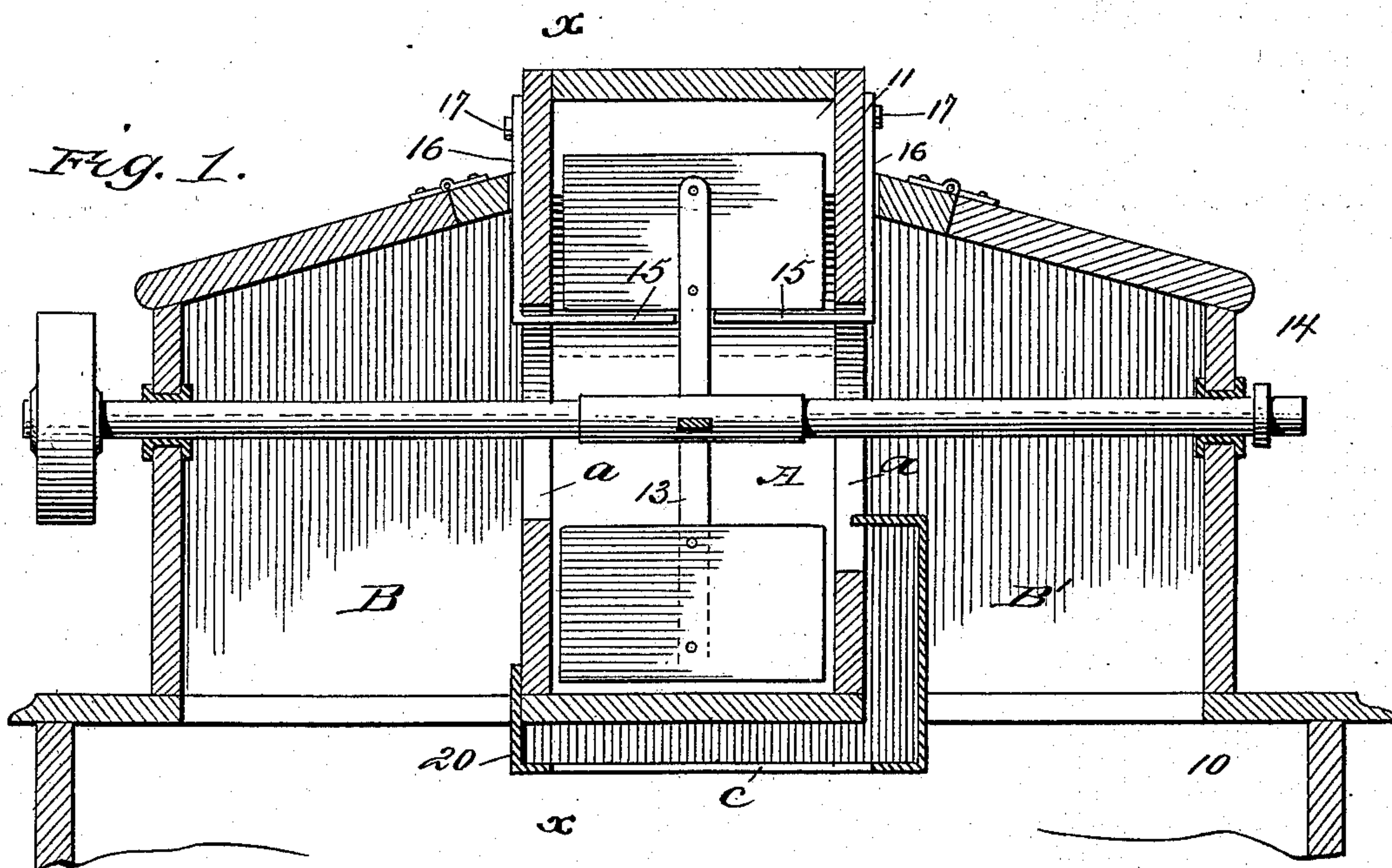


Fig. 2.

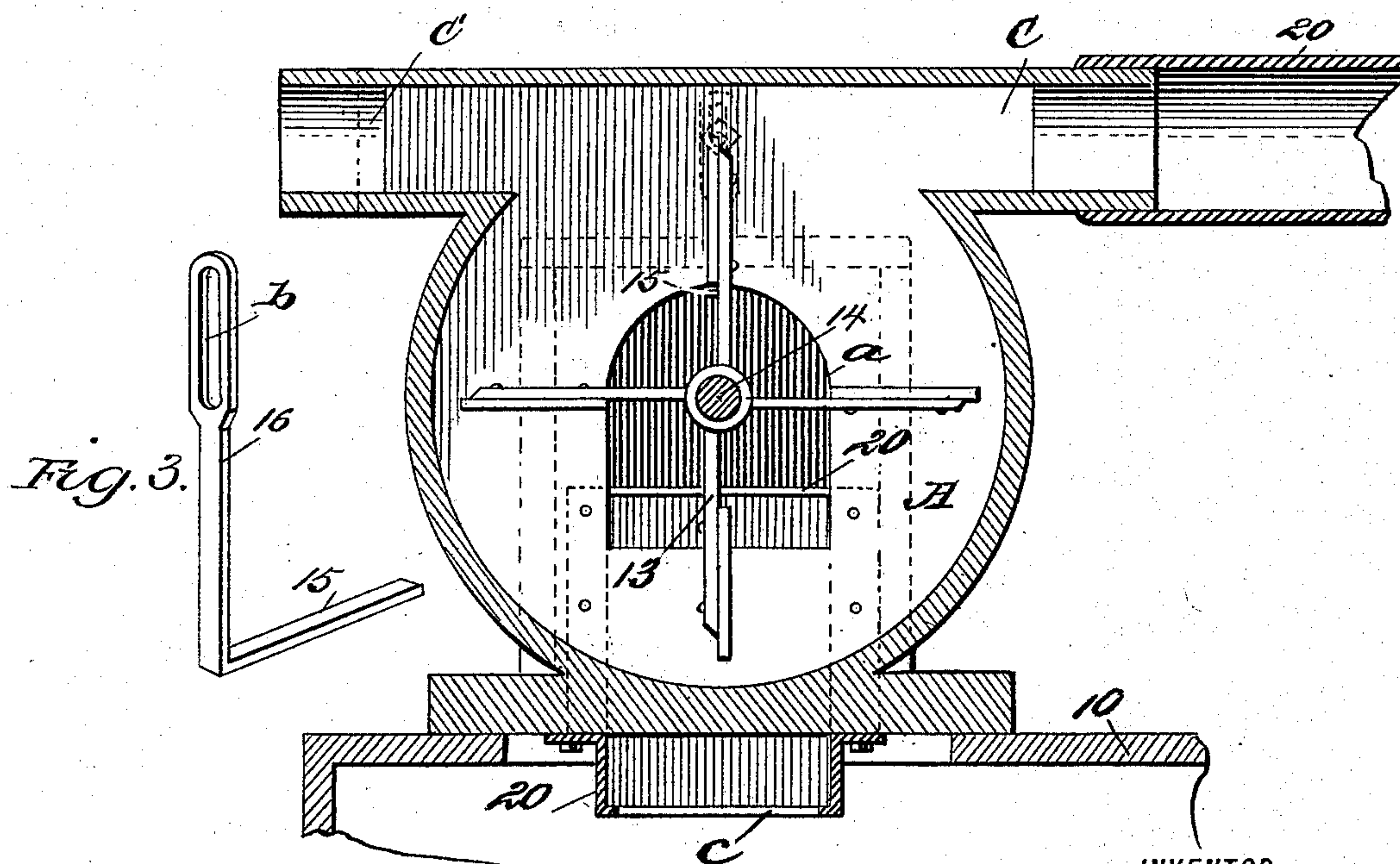


Fig. 3.

WITNESSES:

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WILLIAM S. MILLER, OF MEYERSDALE, PENNSYLVANIA.

DUST-CONVEYER.

SPECIFICATION forming part of Letters Patent No. 416,936, dated December 10, 1889.

Application filed June 22, 1889. Serial No. 315,183. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM S. MILLER, of Meyersdale, in the county of Somerset and State of Pennsylvania, have invented a new and Improved Dust-Conveyer, of which the following is a full, clear, and exact description.

This invention relates to dust-conveyers of the class employed in connection with thrashers, the main objects of the invention being to provide for the clearing of the fan-blades and to provide for the equal distribution of the suction produced by the fan; and to the end named the invention consists, essentially, of a fan, clearers arranged in connection therewith, and a casing arranged to form a conduit or way from a point beneath the fan-chamber to the induction-ports leading to said chamber, all as will be hereinafter fully explained, and specifically pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures and letters of reference indicate corresponding parts in all the views.

Figure 1 is a cross-sectional elevation of a dust-conveyer embodying my invention. Fig. 2 is a central longitudinal vertical section of the same, and Fig. 3 is a perspective view of the fan-clearer.

In the drawings above referred to, 10 represents the trunk of a thrashing-machine, that is apertured in the ordinary manner, and above the aperture so formed in the trunk 10 is placed a case 11, in which there is mounted a fan 13, the fan being supported by a shaft 14. The case 11 is divided into compartments A B B', the compartment A being the fan-chamber and the compartments B and B' being bottomless in order that a free communication may be established with the interior of the thrashing-machine trunk, communication between the chamber A and the chambers B and B' being established by ports *a*, through which the shaft 14 passes.

With the ordinary form of fan wire-net screens are employed to prevent the passage of small bits of straw, &c.; but such screens soon become clogged and the machine has to

be stopped to clear the screens. One of the main objects of my invention is to provide for an open way between the thrashing-machine trunk and the fan-chamber; but if such open way is employed it becomes necessary to provide for the clearance of the fan-blades, and to this end I arrange arms 15, which extend into the fan-chamber from either side in close proximity to the inner edges of the fan-blades. These arms may be mounted in any manner desired; but in practice I prefer to form the arms with supporting-shanks 16, which said shanks are formed with slots *b*, through which there are passed set or binding screws 17, the shanks being secured to the side walls of the chamber A, as clearly shown in Fig. 1, the arrangement being such that the arms may be adjusted toward or from the shaft in order to effect a proper clearance of the blades.

To bring about a proper operation of the fan it is necessary that the bottom of the fan-chamber should be closed, which thus leaves a section of the thrasher-trunk practically unaffected by the fan-current, and to reach this section I provide a casing 20, which is formed with an aperture *c* just beneath the chamber A, the casing leading to one of the induction-ports *a*, as represented, and in this way I secure a suction throughout the full width of the thrasher-trunk.

With fans of this description it is desirable that provision be made for discharging the blast in either direction, and to this end I provide the fan-chamber A with two eduction spouts or nozzles C and C', to either one of which a flexible discharge-tube, as 20, may be connected, the other spout or nozzle being closed either by a valve or by a permanently-attached plate. In this way I provide for the application of the fan to thrashing-machines wherein the driving-pulleys are located upon either the right or left, as will be readily understood.

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

1. In a dust-conveyer for thrashing-machines, the combination, with the fan and fan chambers or casing, of clearing-arms 15, substantially as described.

2. In a dust-conveyer for thrashing-machines, the combination, with the fan and fan chambers or casing, of arms 15, shanks 16, to which the arms are connected, and a means
5 for connecting the shanks to the walls of the fan-chamber, substantially as described.

3. In a dust-conveyer for thrashing-machines, the combination, with the fan and fan chambers or casing, of arms 15, shanks 16, to
10 which the arms are connected, said shanks being formed with slots *b*, and set or binding screws which pass through the slots and en-

gage the fan-chamber walls, substantially as described.

4. In a dust-conveyer for thrashing-machines, the combination, with the fan and fan chambers or casing, of a casing 20, formed with an aperture *c*, and arranged to communicate with one of the fan-chamber induction-ports, substantially as described.

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Witnesses:

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