(No Model.)

D. LOGAN.

DUST EXHAUSTER AND CONVEYER FOR THRASHING MACHINES.

No. 292,498. Patented Jan. 29, 1884.

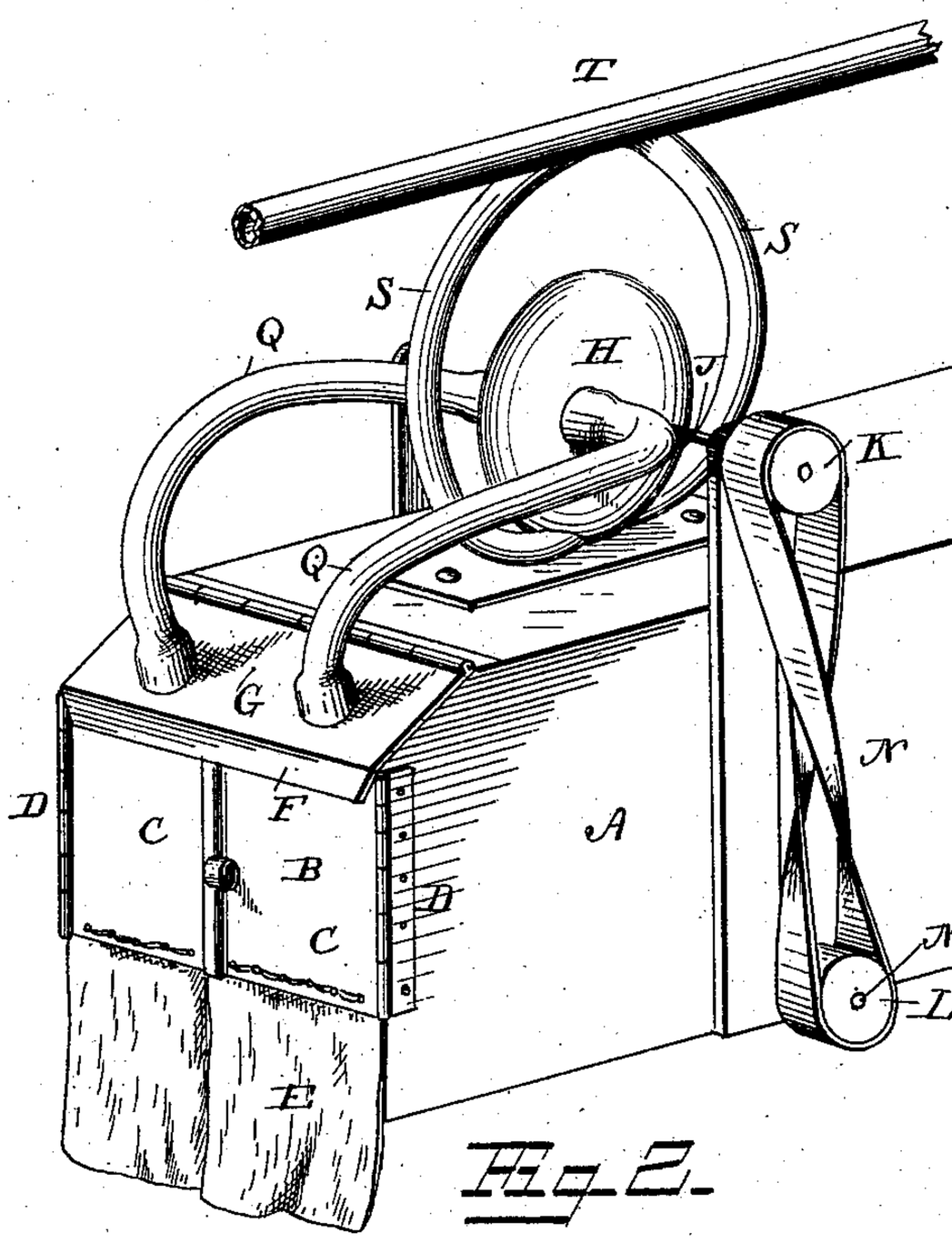
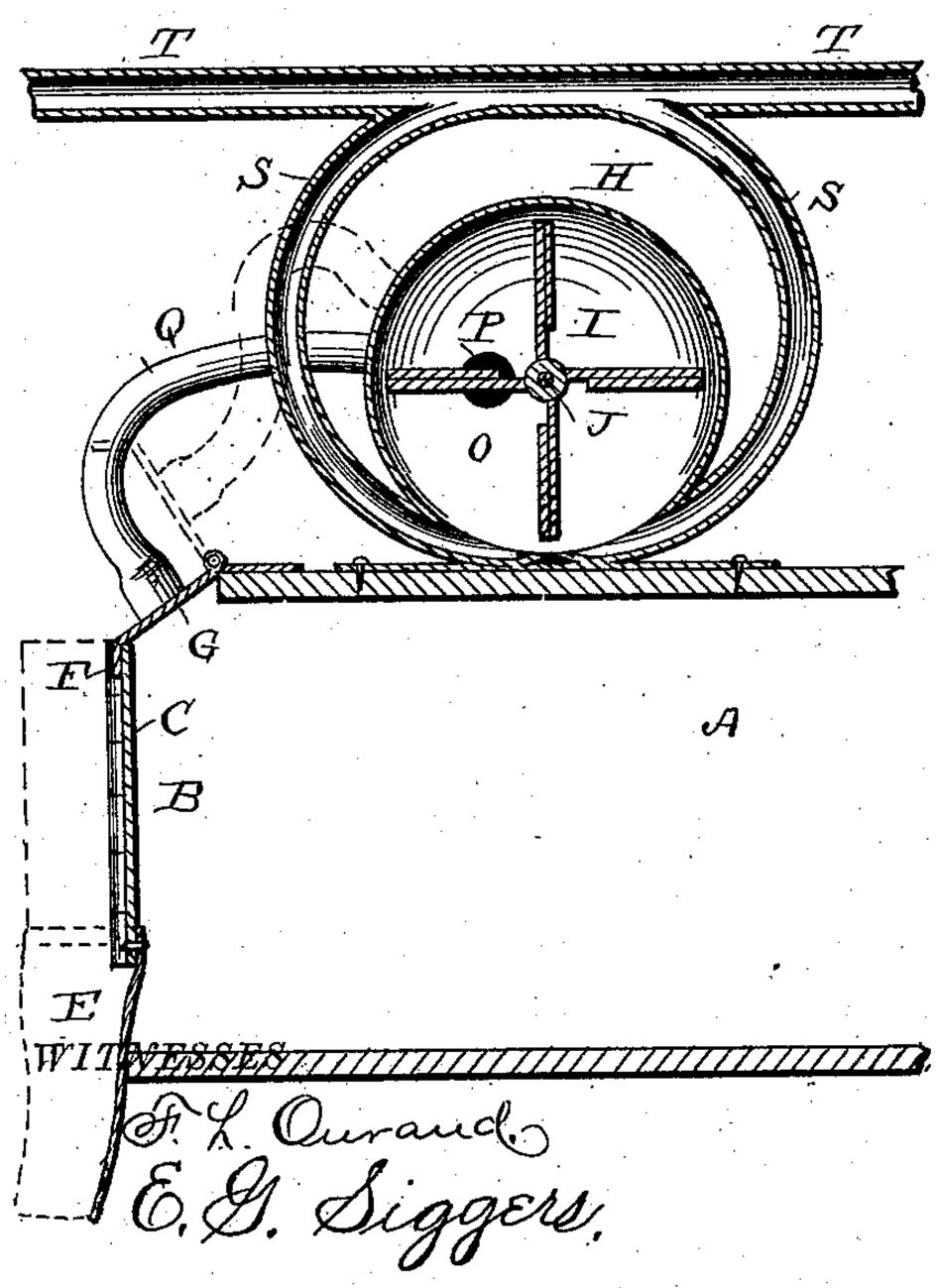
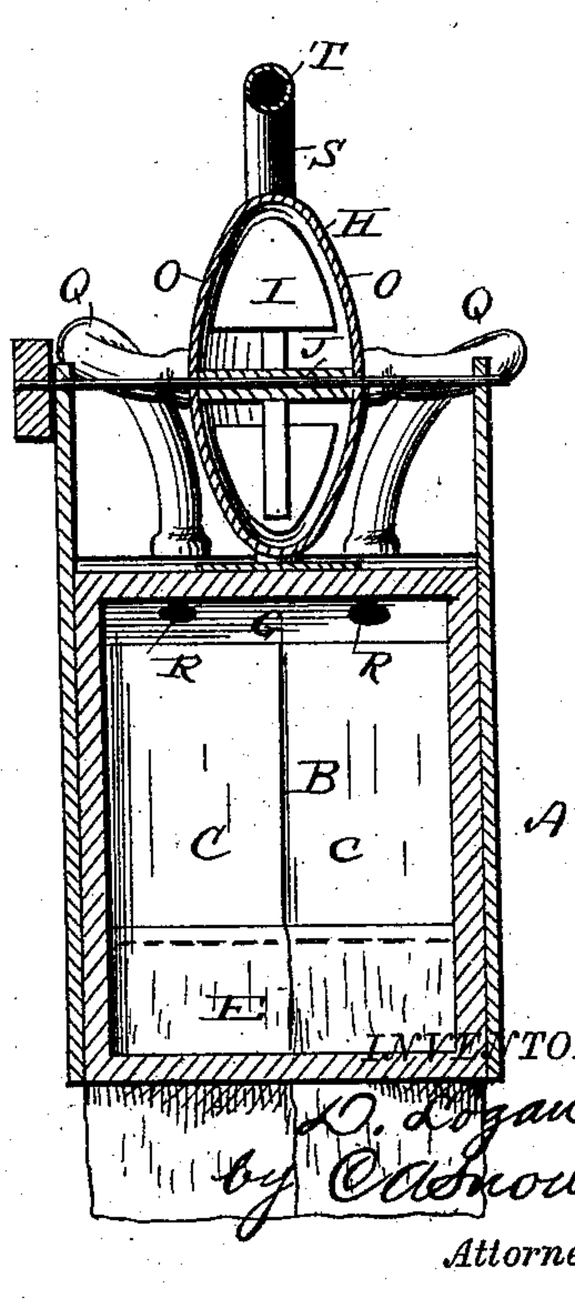


Fig. 1.

Fig. 2.

Fig. 3.





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UNITED STATES PATENT OFFICE.

DAVID LOGAN, OF HARTSTOWN, PENNSYLVANIA.

DUST EXHAUSTER AND CONVEYER FOR THRASHING-MACHINES.

SPECIFICATION forming part of Letters Patent No. 292,498, dated January 29, 1884.

Application filed June 7, 1883. (No model.)

To all whom it may concern:

Be it known that I, DAVID LOGAN, a citizen of the United States, residing at Hartstown, in the county of Crawford and State of Pennsylvania, have invented a new and useful Dust Exhauster and Conveyer for Thrashing-Machines, of which the following is a specification, reference being had to the accompanying drawings.

This invention relates to dust-conveyers for thrashing-machines, separators, and the like, in which a rotary fan exhausts the dust from the machine, and also operates to blow it off in the desired direction.

The object of my invention is to provide a device of this class possessing superior advantages in point of simplicity, inexpensiveness, and general efficiency, whereby all annoyance arising from the dust will be effectually overcome, the grain will be cleaner, any liability of the grain being blown over the tail-board of the machine is obviated, and cleaner straw is secured.

Referring to the drawings, Figure 1 is a perspective view, showing part of the casing of a separator with my invention attached. Fig. 2 is a vertical longitudinal sectional view of the same. Fig. 3 is a vertical transverse sectional view.

Referring to the drawings, A designates the casing of the separator, the rear end of which is closed by a suitably-arranged closet, B, which comprises two doors, C C, (to admit of an inspection or substitution of the riddles,) hinged at their side edges, D, so as to swing open, and provided with an apron, E, under which the straw is carried by a suitable straw carrier or elevator in the usual manner, these doors C C being retained in closed position by a flange, F, on the extreme edge of the hinged lid or cover G of the closet B, as shown.

On top the casing A is secured a fan-chamber, H, which is preferably formed circular and with an elliptical cross-section, a fan or blower, I, being arranged in this chamber on a transverse shaft, J, that projects from the side of the casing, and is provided with a pulley, K, by which motion is transmitted to the fan-shaft from a pulley, L, on the nearest or most desirable shaft M of the separator mechanism by means of a connecting-belt, N.

In the sides of the fan-chamber H, which sides are designated by the letter O, are provided openings P P—one at each side—from which extend exhaust-pipes Q Q to openings R R in the cover G of the closet B. These pipes or tubes Q Q are formed of elastic material at the ends or portion connecting with the said cover G; or they may be, and are preferably, formed entirely of elastic material, as herein shown, so that they will permit the cover G to be raised, as shown in dotted lines, Fig. 2 of the drawings, so that the doors C C can be opened.

In operation, the dust is exhausted from the closet B through these pipes into the fan-chamber by the suction of the rotary fan, and it is then blown from the fan-chamber through one or the other of the curved pipes S S, that extend—one at each end—from the bottom of the fan-chamber up and into a horizontal top conveyer-tube, T, in opposite directions.

The tube T may be of the desired length to carry the dust as far from the machine as is desirable, and by altering the direction of the revolution of the fan, which can be accomplished by simply twisting the belt N, the dust may be blown through either of the pipes S S, and in a corresponding direction from either end of the tube T, according to the direction of the wind.

The operation and advantages of my invention will be readily understood and appreciated. It will be observed that the arrangement of parts in relation to each other is such that the best and most efficient results are obtained; but I do not wish to be understood as limiting myself to this exact construction and arrangement of parts, as numerous modifications may be made to adapt the device to different classes of machines.

I claim as my invention—

1. The combination of the casing of the machine, a closet arranged to close the rear end thereof and comprising a hinged lid or cover, a fan-chamber having a rotary fan, and elastic exhaust-pipes extending from the fan-chamber to openings in the said cover, as and for the purpose set forth.

2. The combination of the closet adapted to close the end of the casing to which it is applied, and comprising the hinged doors, the

cap or cover of the closet hinged and formed with the flange that engages the doors to retain the same closed, a fan-chamber secured near the closet, and provided with a rotary fan, the elastic exhaust-tubes extending from openings in the sides of the fan-chamber to openings in the hinged cover, and the conveyer-tubes extending from different ends of the fan-chamber up and in different directions, as and for the purpose set forth.

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

DAVID LOGAN.

Witnesses:
J. N. McCLOSKEY,
S. J. LOGAN.