

J. Damp. Midlings & Bran Duster.

117990

Fig. 1.

PATENTED AUG 15 1871

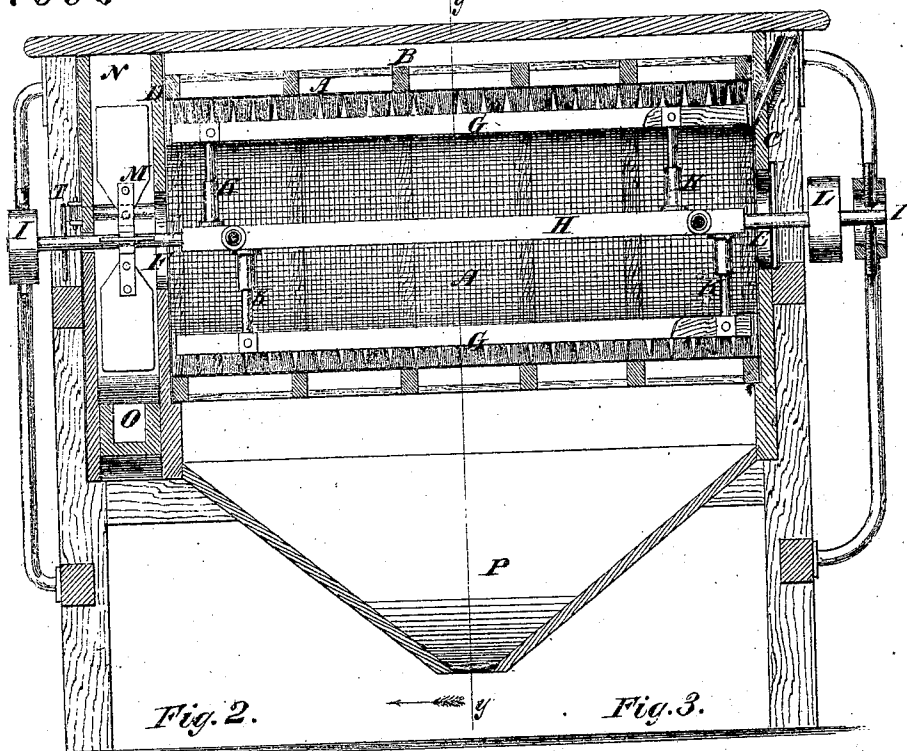
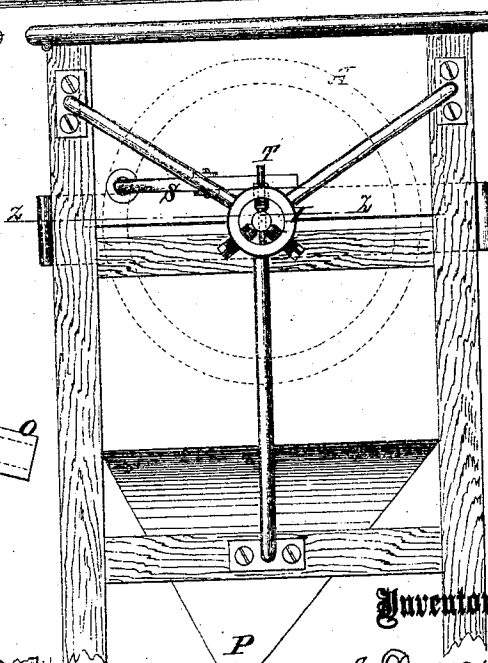
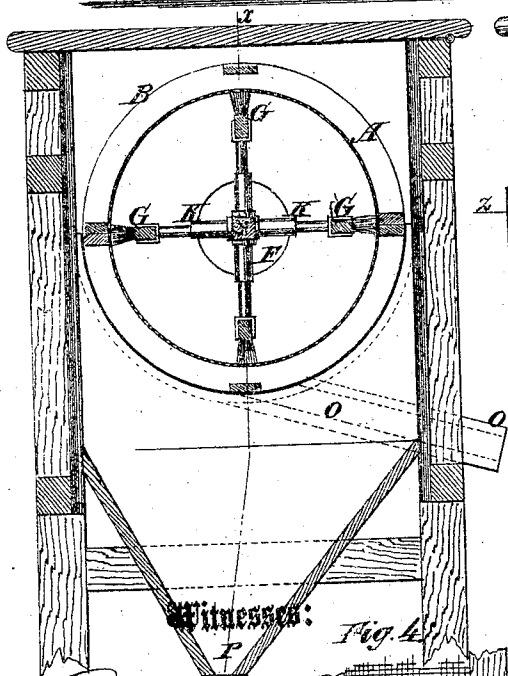


Fig. 2.

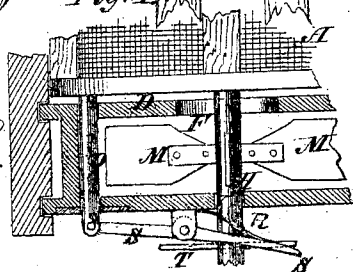
Fig. 3.



Witnesses:

Fig. 4.

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UNITED STATES PATENT OFFICE.

JOHN DAMP, OF ASHLAND, OHIO.

IMPROVEMENT IN BRAN-DUSTERS.

Specification forming part of Letters Patent No. 117,990, dated August 15, 1871.

To all whom it may concern:

Be it known that I, JOHN DAMP, of Ashland, in the county of Ashland and State of Ohio, have invented a new and Improved Middlings and Bran-Duster; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to improvements in middlings-separators and bran-dusters; and it consists in a combination, with the wire-cloth cylinder and brushes, of a suction-fan, arranged for separating the fine particles of fuss from the middlings or bran.

Figure 1 is a sectional elevation of my improved duster taken on the line *xx* of Fig. 2. Fig. 2 is a transverse section on the line *yy* of Fig. 1. Fig. 3 is an end elevation, and Fig. 4 is a horizontal section of the fan.

Similar letters of reference indicate corresponding parts.

A is the wire-gauze cylinder, arranged in a suitable frame, B, between the two heads C and D, which have a large opening at the center—one, E, for the admission of air, and the other, F, for the air to escape, together with the fine particles of dust. G represents the brushes, mounted on the radial arms of the shaft H, extending beyond the head at each end, and mounted in the adjustable bearings I. The arms K of this shaft are intended to be made adjustable lengthwise to regulate the pressure of the brushes on the

wire-cloth. The shaft is rotated by a band on the pulley L, and carries a fan, M, in a fan-case, N, attached to the head D, and provided with a discharge-spout, O. This fan draws the air through the wire cylinder, taking the fine particles which do not need grinding again with it, and leaving the coarse particles to escape through the meshes to the hopper P below in a better condition for grinding than when mixed with the fine particles. The suction may also be applied to fan-dusters, either at the end for taking the fine particles through the escape-hole F, the bran being discharged through another spout at the end of the cylinder, while the coarse particles pass through the same, or the fan may be applied to the spout from the hopper P to draw the fine particles through the wire cylinder and leave the bran to escape at the end. Q is a heavy bolt or rod arranged in the end of the case to be forced in by a spring, R, acting on a lever, S, to strike the end of the wire screen and keep it from clogging. It is drawn out by arms T on the shaft acting on the lever, as clearly shown in Fig. 4.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—
In combination with the wire-gauze cylinder A, shaft H having adjustable arms K, and brushes G, the suction-fan M, constructed and arranged as and for the purpose specified.

JOHN DAMP.

Witnesses:

GEO. B. SMITH,
J. N. SMITH.