

D. KANE.
Fanning Mill.

No. 106,831.

Patented Aug. 30, 1870.

Fig. 1

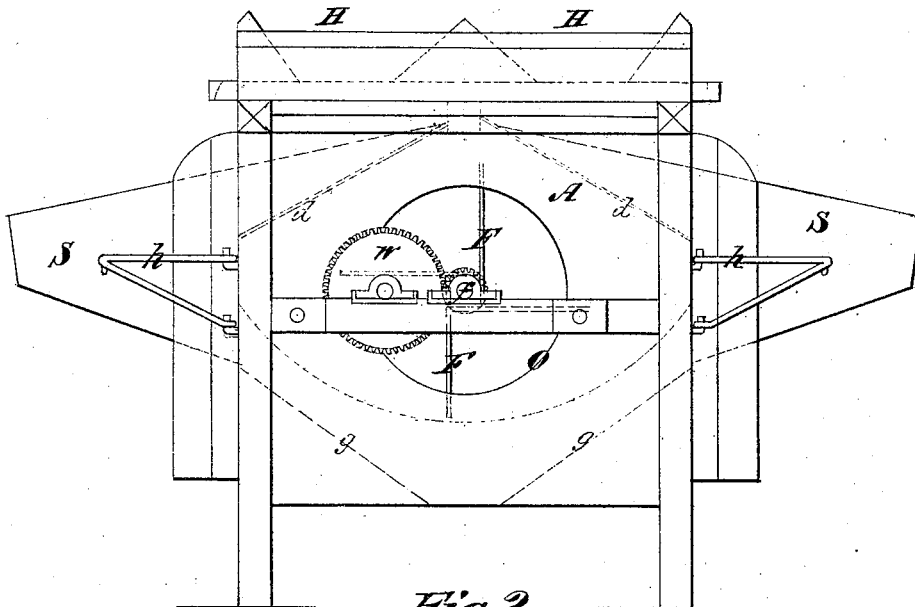
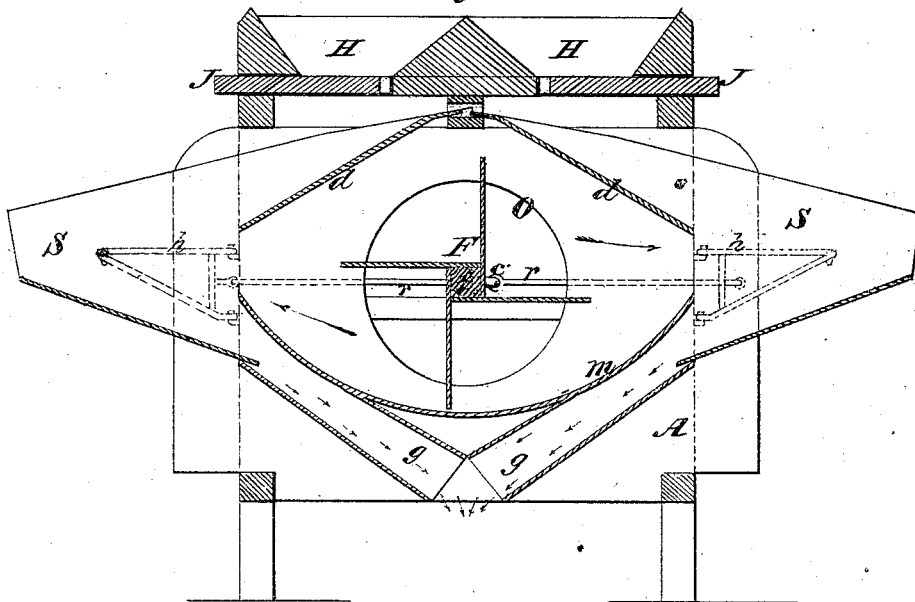


Fig. 2



Witnesses:
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United States Patent Office.

DANIEL KANE, OF TIVOLI, IOWA.

Letters Patent No. 106,831, dated August 30, 1870.

IMPROVEMENT IN FANNING-MILLS.

The Schedule referred to in these Letters Patent and making part of the same

To all whom it may concern:

Be it known that I, DANIEL KANE, of Tivoli, in the county of Dubuque and State of Iowa, have invented a new and improved Fanning-Mill; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is an elevation of one side of my improved machine.

Figure 2 is a section taken longitudinally and in a vertical plane through the center of the machine.

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

This invention has for its object the improvement of machinery for winnowing grain.

It consists in the arrangement of two shoes or grain-guides on opposite sides of a single fan, in such manner that the grain from the hopper will flow through the machine in two separate streams, both of which will be subjected alike to blasts of air from said fan, as will be hereinafter explained.

To enable others skilled in the art to understand my invention, I will explain its construction and operation.

In the accompanying drawing—

A represents the frame of the improved machine, which may be of any suitable length, breadth, and height, and which is adapted for receiving centrally within it a blast-fan, F, which is supplied with air through holes, O, made through the side housing boards.

The fan-shaft *f* has its end bearings in boxes, which are supported on horizontal cross-bars of the frame A, and this shaft is rotated rapidly by gearing or otherwise.

Above the fan F, one or two hoppers, H, with adjustable bottoms, J, are arranged, and below the hopper or hoppers are inclined planes, *d d*, inclining from a point which is arranged in a vertical plane in-

tersecting the axial plane of the fan-shaft *f*, for the purpose of dividing the stream or streams of grain flowing from the hopper or hoppers, and directing the grain downward and outward into two shoes, S S.

These shoes S S may be constructed in any manner common to winnowing-machine shoes, or in any other suitable manner.

Each shoe, S, is hung by laterally-swinging brackets, *h*, and its inclined plane *d* has a loose support in a cross-beam arranged above the fan.

Each shoe receives a laterally shaking motion from a crank, C, on fan-shaft *f*, by means of a pitman, *r*, which is connected to said crank, and also to one of the laterally-swinging bracket *h*.

Below the fan are two inclined converging spouts, *g g*, arranged so as to receive the grain as it leaves both of the shoes S S, and deliver the grain into a receptacle placed beneath the contiguous ends.

Between the spouts *g g* and the fan is a concave plate or board, *m*, which forms the floor of the fan-case.

The roof of this case is formed by the inclined planes *d d* of the shoes S S, as shown in fig. 2.

From the above description it will be seen that I adapt a single fan to act upon grain as it flows through two shoes arranged on opposite sides of the said fan; also that the grain, flowing in two streams from said shoes, can be collected at the lower termini of two spouts into a single vessel.

What I claim as my improvement in fanning-mills, and wish to secure by Letters Patent, is—

The arrangement of the hopper H, fan-case *d d*, fan F, shoes S S, and discharging-guides *g*, all constructed substantially as described, in the manner and for the purpose specified.

DANIEL KANE.

Witnesses:

ABSALOM CAIN,
R. C. KANE.