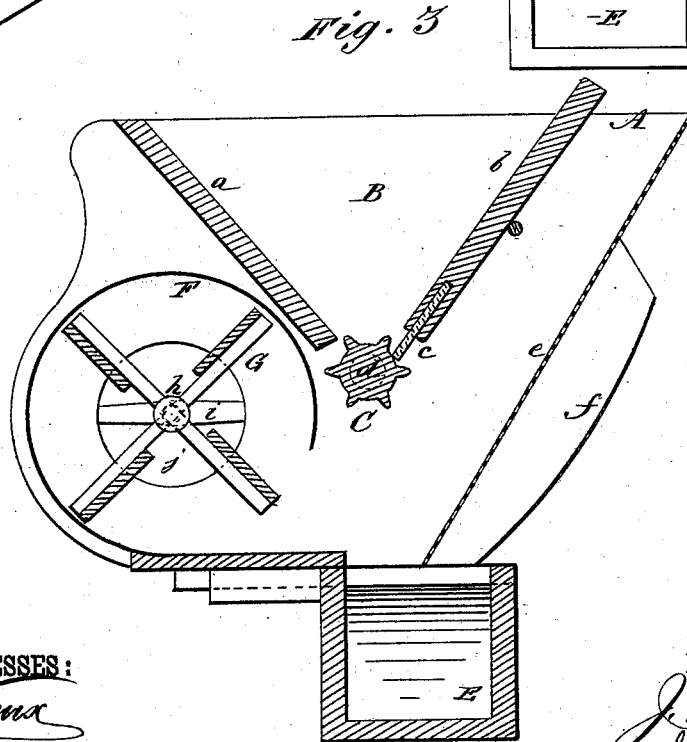
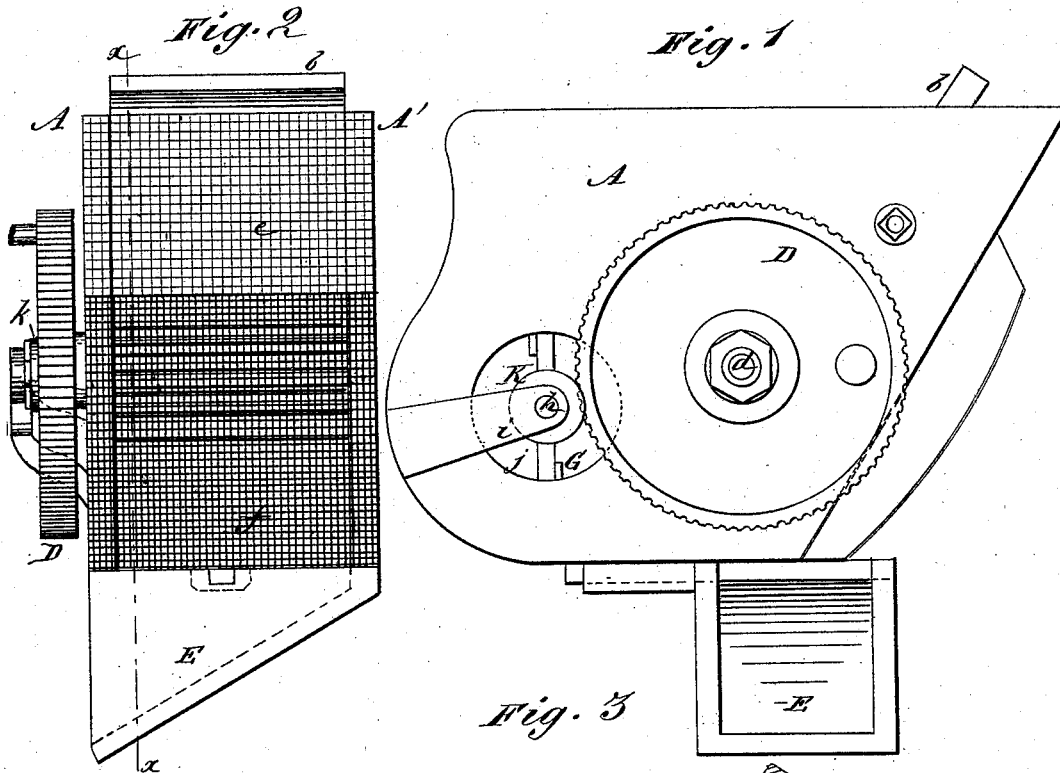


J. DAVIES.
Grain-Separators.

No. 203,325.

Patented May 7, 1878.



WITNESSES:
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UNITED STATES PATENT OFFICE.

JOSHUA DAVIES, OF MUSKEGON, MICHIGAN.

IMPROVEMENT IN GRAIN-SEPARATORS.

Specification forming part of Letters Patent No. **203,325**, dated May 7, 1878; application filed February 15, 1878.

To all whom it may concern:

Be it known that I, JOSHUA DAVIES, of Muskegon, in the county of Muskegon and State of Michigan, have invented a new and Improved Grain-Cleaner, of which the following is a specification:

Figure 1 is a side elevation of my improved feed-cleaner. Fig. 2 is a rear elevation. Fig. 3 is a vertical transverse section taken on line *x x* in Fig. 2.

Similar letters of reference indicate corresponding parts.

The invention will first be described in connection with the drawing, and then pointed out in the claim.

Referring to the drawings, A A' are side pieces, between which a hopper, B, is formed by inserting the two inclined boards *a b*. From the lower edge of the board *b* a strip, *c*, of rubber or other flexible material, projects a short distance, and in the mouth of the hopper thus formed a fluted roller, C, is supported upon a shaft, *d*, that is journaled in the side pieces A, and has upon one of its ends, outside of the side piece A, a drive-wheel, D, whose periphery is fluted.

Below the hopper B there is a chute, E, for receiving the grain that is discharged from the hopper by the rotation of the fluted roller C. At the back of the hopper, and parallel with the board *b*, there is a wire-cloth screen, *e*, that extends from the top of the side pieces downward to the chute E. Behind the screen *e* there is a curved screen, *f*, which is finer than the screen *e*, and extends nearly to the top of the screen *e*. In front of the hopper B there is a cylindrical chamber, F, in which is placed a fan, G, whose shaft *h* is journaled in supports *i* attached to the side pieces of the machine. There are apertures *j* in the side pieces A A' for admitting air to the fan. An elastic wheel, *k*, is attached to the fan-shaft *h*,

and contacts with the drive-wheel D. The device is placed under the grain-bin, so that the grain flows of its own gravity into the hopper B, and the device is arranged in relation to the feed-trough of the manger so that the chute E will discharge into it.

By rotating the roller C by means of a handle attached to the wheel D, the grain is discharged from the hopper, and in falling from the hopper to the chute E it meets with a blast from the fan, which blows away the dust and chaff. The grain that strikes the screen *e* drops into the chute E, and the grain that is driven through the said screen is arrested by the screen *f* and falls into the chute E. The grain is rubbed by the flexible lip *c* as it passes out of the hopper, and is by this means partly cleaned. The screens are inclined at such an angle that they do not require motion to render them effective.

This machine is not intended to take the place of an ordinary fanning-mill, but to be screwed up in a stable, and used to clean the grain in small quantities just before it is fed to the horses. Grain will accumulate dust and dirt, and should be cleaned before being given to the animals.

My combination is noiseless, durable, and is easily operated.

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

The combination, in a grain-separator, of the elastic pulley, the fluted feed-roll, and the hopper B, the latter having a side, *b*, provided with a strip, *c*, of rubber or other elastic material, substantially as and for the purpose specified.

JOSHUA DAVIES.

Witnesses:

CHAS. F. LATIMER,
W. H. SCHAUTZ.