M. P. KORSGAARD. 2 Sheets—Sheet 1.

Grain-Separators.

No. 207,042. Patented Aug. 13, 1878.

Fig 1

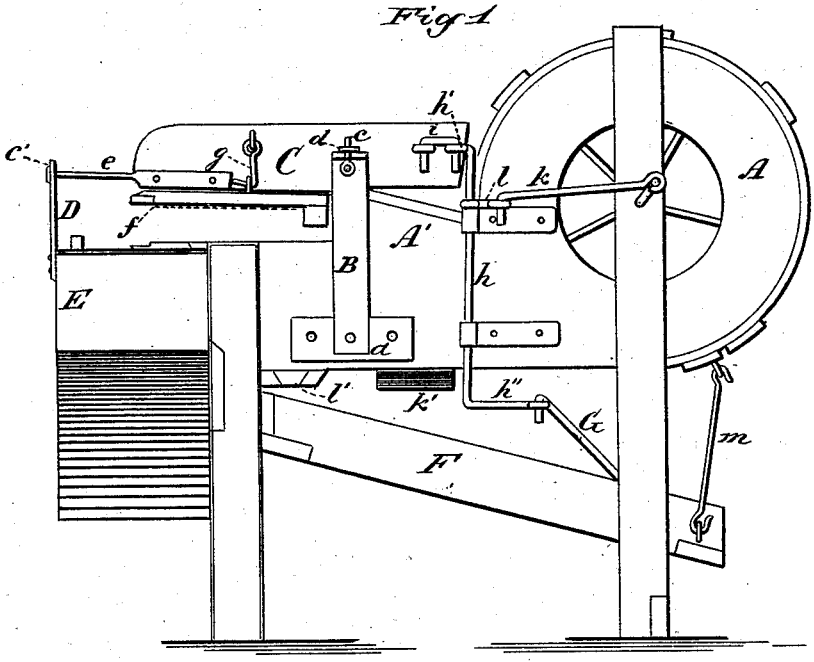
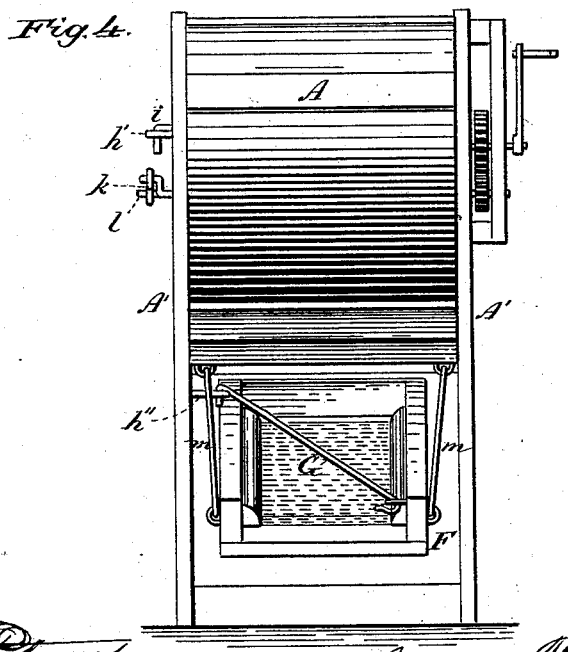


Fig 4.



Attest:

August Petersohn.

Jno. C. Madigan

Inventor:

Mads P. Korsgaard,

by Louis Bagger & Co.

his Attorneys.

M. P. KORSGAARD.

Grain-Separators.

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Fig. 3.

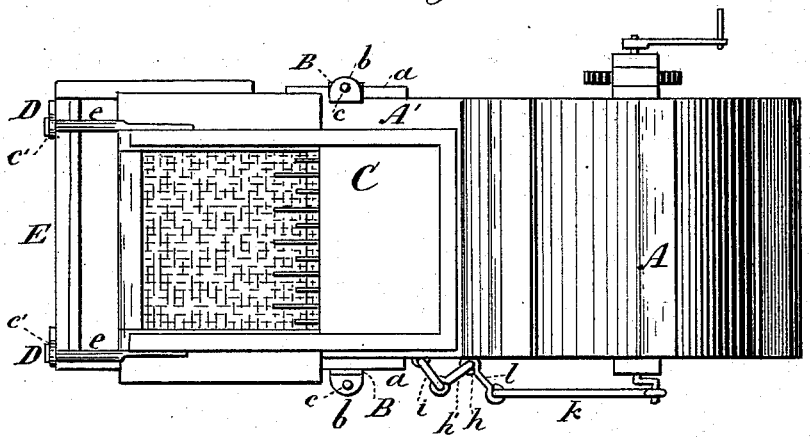
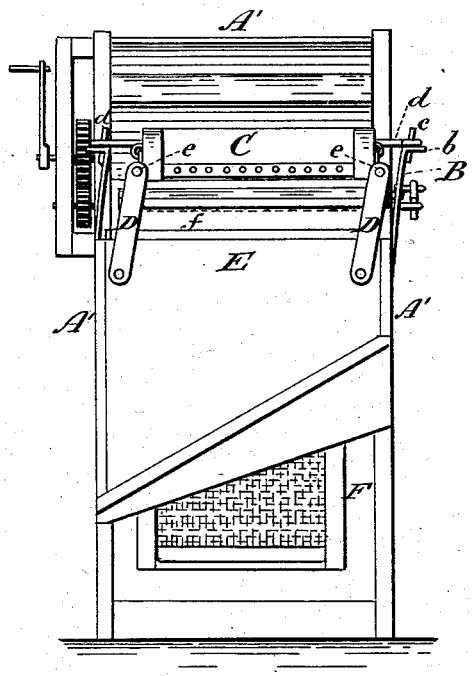


Fig. 2.



Attest:
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his Attorneys.

UNITED STATES PATENT OFFICE.

MADS P. KORSGAARD, OF HOUGHTON, MICHIGAN.

IMPROVEMENT IN GRAIN-SEPARATORS.

Specification forming part of Letters Patent No. **207,012**, dated August 13, 1878; application filed March 13, 1878.

To all whom it may concern:

Be it known that I, MADS PETER KORSGAARD, of Houghton, in the county of Houghton and State of Michigan, have invented certain new and useful Improvements in Fanning-Mill and Grain-Separator; 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 which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side elevation. Fig. 2 is an end view. Fig. 3 is a top plan, and Fig. 4 is a front view.

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

My invention relates to fanning-mills or grain-separators; and it consists in an improved construction and combination of parts, substantially as hereinafter more fully set forth, and pointed out in the claims.

In the drawings, A is the fan-box, and A′ the frame or casing of my machine, within which the shaking-screens are suspended. To each side of this frame is secured a block, *a*, upon which is fastened an upright flat steel spring, B, bent at a right angle at its upper end at *b*. A pin or staple, *c*, is riveted to the flat part, and projects through a perforation in the bent part, as shown.

C is the shoe, which is suspended above frame A′, upon the springs B B, by short eye-rods *d d*, through which the staples *c c* are inserted. To the rear end of each side of the shoe is fastened a projecting rod, *e*, the end of which is secured in two stout upright springs, D D, pivoted upon the end board, E.

Within the shoe is arranged a series of sieves or riddles, graduated in fineness of mesh, in the usual manner, the lowermost sieve, *f*, being hung under the shoe upon hooks *g*. A vibrating motion is imparted to the shoe by a vertical rod or shaft, *h*, hung in bearings on the side of the fan-box, the upper and lower ends of which are bent at right angles. The upper bent arm, *h′*, is connected, by a short rod, *i*, to the side of the shoe, another rod, *k*, connecting the cranked end of the fan-shaft with an arm, *l*, which is secured upon and projects from rod *h* at a right angle to arms *h′* and *h″*.

Below frame A′, so as to receive the grain as it escapes through the openings *k′ l′* in the bottom of the frame, is hung the slanting vibrating sieve-frame F, which contains a series of sieves or riddles, disposed one above the other. (Not shown in the drawings, as my invention does not relate to the arrangement or construction of the sieves.) The sieve-frame F is vibrated by a rod, G, one end of which is secured in an eye on the inside of the frame, and the other in the bent arm *h″* of rod *h*. Frame F is suspended by the rods *m m*, as shown.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

1. The upright spring-standards for the shoe C, consisting of the sheet-metal straps B, rigidly secured at their lower ends, and adapted to receive and form rests for the eyebolts *d* of the sieve, by being bent back at their upper ends and provided with pins *c*, substantially as and for the purpose set forth.

2. The combination, with the shoe C, of the upright spring-metal standards B, rigidly fastened at their lower ends, and adapted to receive and form rests for the eyebolts *d* of the sieve, by being bent back at their upper ends and provided with pins *c*, substantially as and for the purpose specified.

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

MADS PETER KORSGAARD.

Witnesses:

WILLIAM MILLER,

AUGUST SCHNEIDEWEND.