2 Sheets—Sheet 1.

C. PETERSON.

Fanning Mill.

No. 108,049. Patented Oct. 4, 1870.

Fig. 1

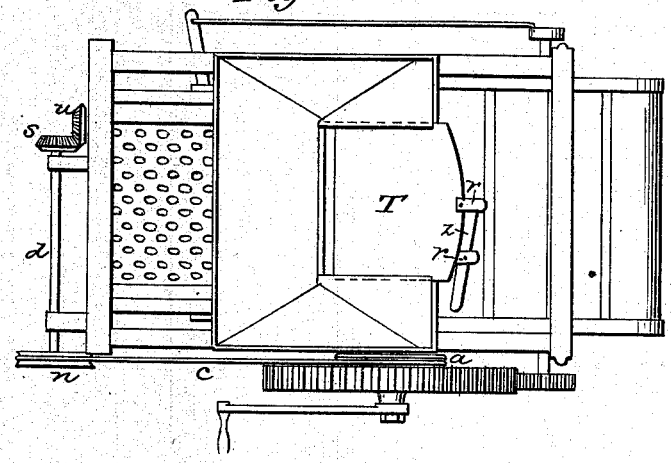
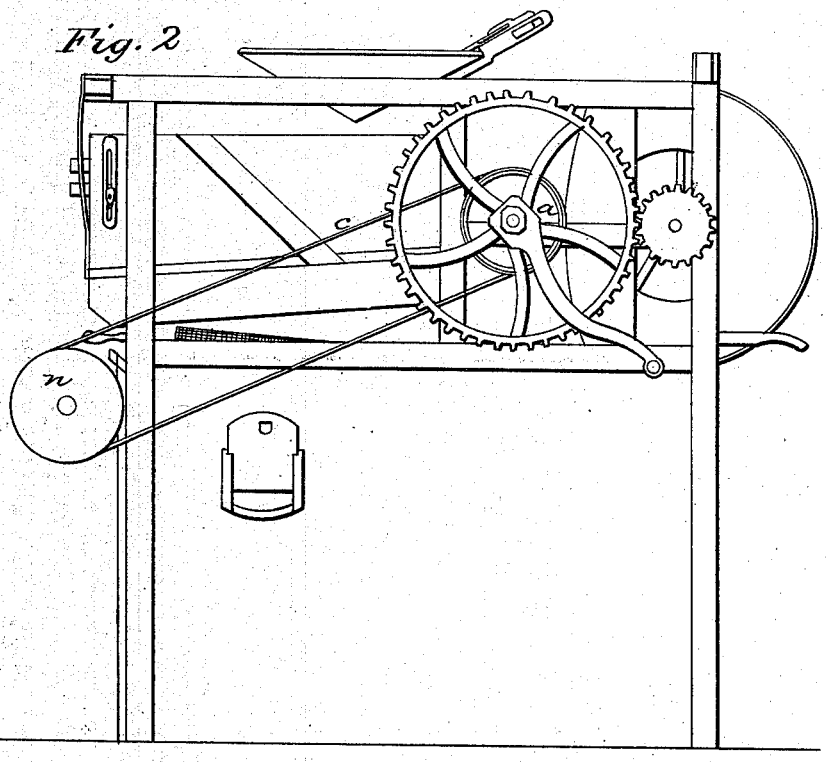


Fig. 2



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2 Sheets—Sheet 2.

C. PETERSON.

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Fig. 3

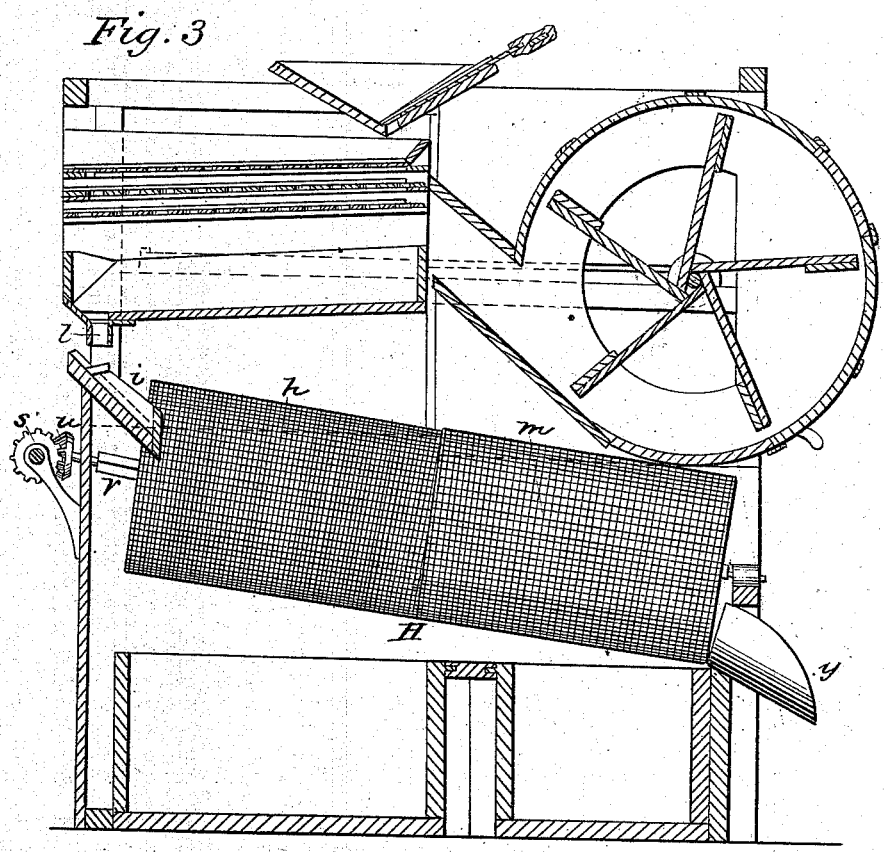


Fig 4

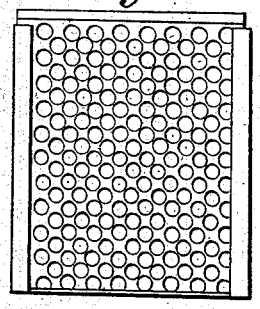
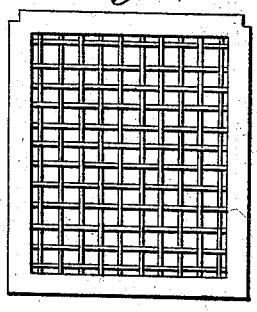


Fig. 5



Witnesses:

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United States Patent Office.

CHRISTIAN PETERSON, OF RED WING, MINNESOTA

Letters Patent No. 108,049, dated October 4, 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, CHRISTIAN PETERSON, of Red Wing, in the county of Goodhue and State of Minnesota, have invented a new and valuable Improvement in Fanning-Mills; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawing making a part of this specification, and to the letters and figures of reference marked thereon.

Figure 1 of the drawing is a top view of my fanning-mill.

Figure 2 is a side view of the same.

Figure 3 is a vertical section, showing cylinder H.

Figures 4 and 5 are details.

My invention relates to means for cleaning grain from chaff, and consists in the construction and novel arrangement of a perforated cylinder affixed horizontally in a fanning-mill and made to revolve in such manner that while it serves as a sieve for separating the grain from impurities, shall also serve as a conduit for the winnowed grain, to conduct it to the rear of such mill.

My fanning-mill is constructed in the usual form, and with the ordinary apparatus, except that I add thereto the following devices, namely:

Upon the main working shaft of the mill I attach a drum for a belt or cord, which said drum is marked *a* on the drawing.

The letter *c* represents a cord or belt operated by this drum and extending forward to the drum or pulley *n* upon the shaft next mentioned.

The letter *d* represents a rotating shaft arranged upon suitable bearings on the outer side of the front end of the mill, and to which the drum *n* is attached, as shown.

At the end of this shaft *d*, opposite the drum *n*, I attach the beveled pinion *s*, which works and meshes with the beveled pinion *u*, in the manner represented on fig. 3 of the drawing.

The letter H represents a cylinder constructed in the form of a wheel with central shaft *v*, vertical and longitudinal arms, the whole surrounded, except at the ends, with wire-cloth marked *h* on one end and *m* at the other.

The wire-cloth *h* is constructed of finer wire and closer meshes than the cloth *m*, as shown on fig. 3.

The cylinder thus constructed is arranged upon suitable bearings at right angles with the working shaft of the mill, and upon an angle of about ten degrees, more or less, from the line of the base-boards or bed-plates of the mill, as shown.

This inclination is designed to serve as means for carrying the largest berries of the grain to the extreme rear of the mill and into the conduit or trough *y*.

In order to conduct the grain from the sieves into the cylinder H, I arrange an apron at *i*, immediately under the conducting-tube *l* of the sieve-shaker, which apron serves to conduct the grain into the cylinder, while the chaff and other impurities pass away to the opposite side of the mill.

The cylinder H is operated by means of the beveled pinion *u*, upon the end of its shaft, as represented on fig. 3.

Suitable boxes or drawers are placed under cylinder H, to receive the grain that passes through the meshes of its wire-cloth covering.

It follows that the smallest kernels fall through the fine cloth *h* while larger kernels fall through the coarse cloth *m*, and the very largest kernels remain in the cylinder, are conveyed to its front end, and passed off in the trough *y*.

The foregoing constitutes the main portion of my improvement, but not all.

In the hopper of the mill I have arranged a gate, as shown on fig. 1, intended to afford novel means for regulating the flow of grain and chaff to the sieves. It consists of a sliding plate, marked T, arranged in grooves on the side of the hopper, as shown, and an apparatus for opening or closing the aperture behind said plate at will.

This apparatus consists of a post, *r*, that serves as a fulcrum for my lever, and is firmly attached to the outside of the hopper; also, of the lifting-block *t* firmly united to the plate T and the lever *z*, arranged as shown.

By means of this apparatus the plate T, which covers the only opening in the bottom of the hopper, may be operated at will, and such opening closed or enlarged at the will of the operator.

I claim as my invention—

In a fanning-mill, constructed as herein shown, and having graduated cylinder H, the arrangement of the plate T, block *t*, lever *z*, and post *r*, when arranged substantially as specified.

In testimony that I claim the above, I have hereunto subscribed my name in the presence of two witnesses.

CHRISTIAN PETERSON.

Witnesses:

N. J. HOLMBERG,

FRANK IVES.