

T. WILLSON.  
Fanning-Mills.

No. 217.760.

Patented July 22, 1879.

Fig. 1

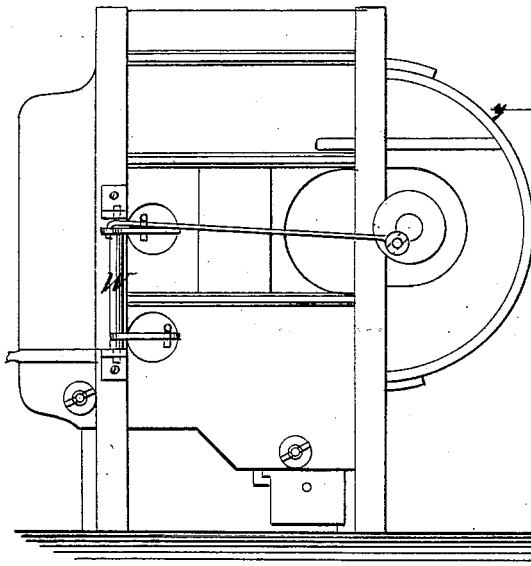


Fig. 2

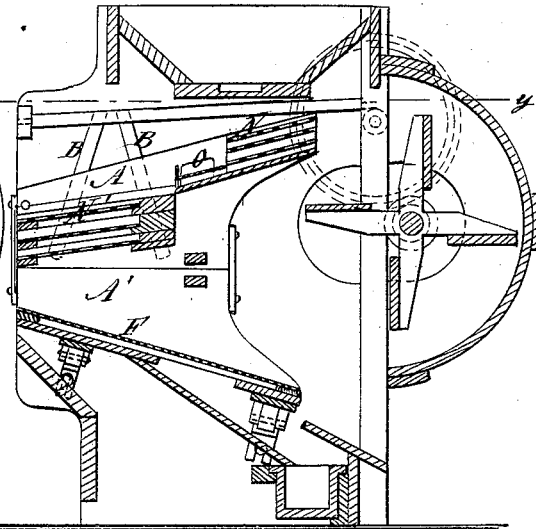


Fig. 3

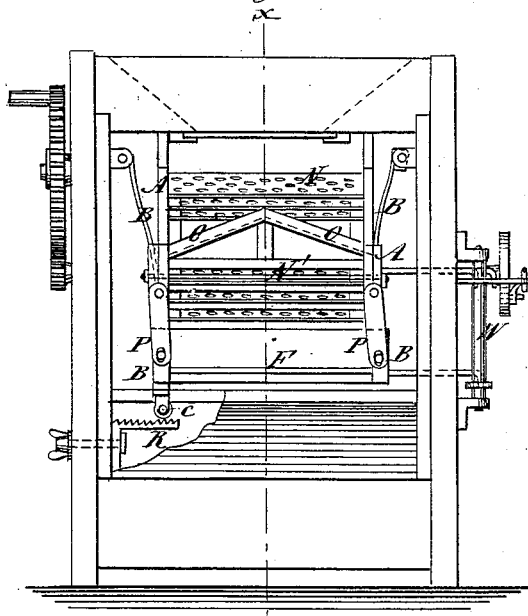
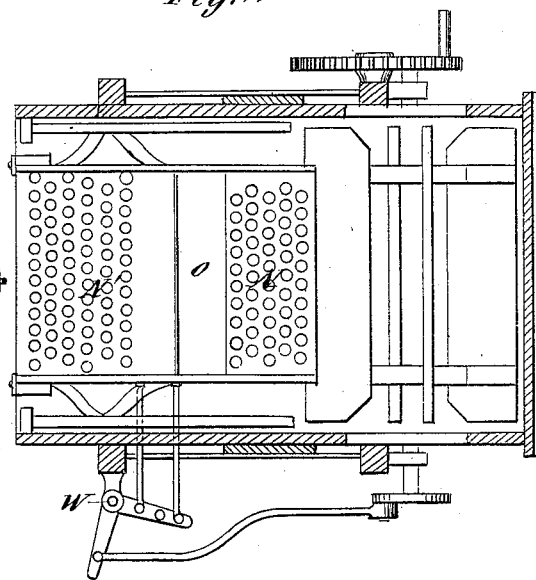


Fig. 4



WITNESSES:

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*John Goethals*

INVENTOR:

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BY

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# UNITED STATES PATENT OFFICE.

THOMAS WILLSON, OF RICHMOND HILL, ONTARIO, CANADA.

## IMPROVEMENT IN FANNING-MILLS.

Specification forming part of Letters Patent No. **217,760**, dated July 22, 1879; application filed April 18, 1876.

*To all whom it may concern:*

Be it known that I, THOMAS WILLSON, of Richmond Hill, in the county of York, Province of Ontario and Dominion of Canada, have invented a new and Improved Fanning-Mill, of which the following is a specification.

The invention consists of the shoe constructed in two parts, so as to work independently, and having the lower part, containing the screen, provided with devices for imparting to it a jolting motion in addition to the shaking motion.

Figure 1 is a side elevation of the fanning-mill. Fig. 2 is a longitudinal sectional elevation taken on line *xx* of Fig. 3. Fig. 3 is a rear view. Fig. 4 is a horizontal section on line *yy* of Fig. 2.

Similar letters of reference indicate corresponding parts.

The shoe is constructed in two parts, A A', to shake independently. The upper part has two sets of combined zinc sieves, N N', and is suspended by steel straps B, and the lower part is suspended from the upper part by the small slotted plates P P, so as to work either with or without rollers. The lower part has rollers C working on corrugated brackets R R, for producing a jolting motion to the screen. The two sets of combined sieves in the upper part of shoe enable the grain to be cleaned twice at one operation.

The dirt from the upper set of sieves is carried away sidewise down trough O, and escapes through orifices in sides of shoe. The grain will, however, be shaken down onto the lower set of sieves, which are placed one inch apart and parallel to each other.

It will be seen by this operation that the cleansing process is accomplished more by the shake than by the wind.

The bottom part of the shoe, which contains the screen F, is suspended by four iron plates, P P, which are attached to the upper part of shoe, and which allow it to swing with a free motion and independently of the upper part.

It will be seen that the screen will have two motions, one horizontal, as in common use, and a jolting motion, caused by the rollers passing over the corrugations on the brackets. The slotted plates P allow the lower part to be jolted up and down. This motion will greatly assist in keeping the screen from clogging; also, by this means can be used a screen that in a mill with a lighter shake would be useless on account of clogging.

Both top and bottom parts of the shoe are driven horizontally from the elbow W, which has several holes in its arms for adjusting the length of shake, by which it will be seen that the motion of either or both can be increased or diminished, as circumstances may require.

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

1. The shoe made in two parts, of which the upper is hung by four straps and the lower by four slotted plates, in combination with roller C and corrugated brackets R, to permit a jolting as well as a shaking motion.

2. A fanning-mill shoe constructed in two parts, the lower suspended from the upper, and having an independent jolting as well as a shaking motion, as and for the purpose specified.

THOMAS WILLSON.

Witnesses:

B. REDDITT,  
C. SWAINSON.