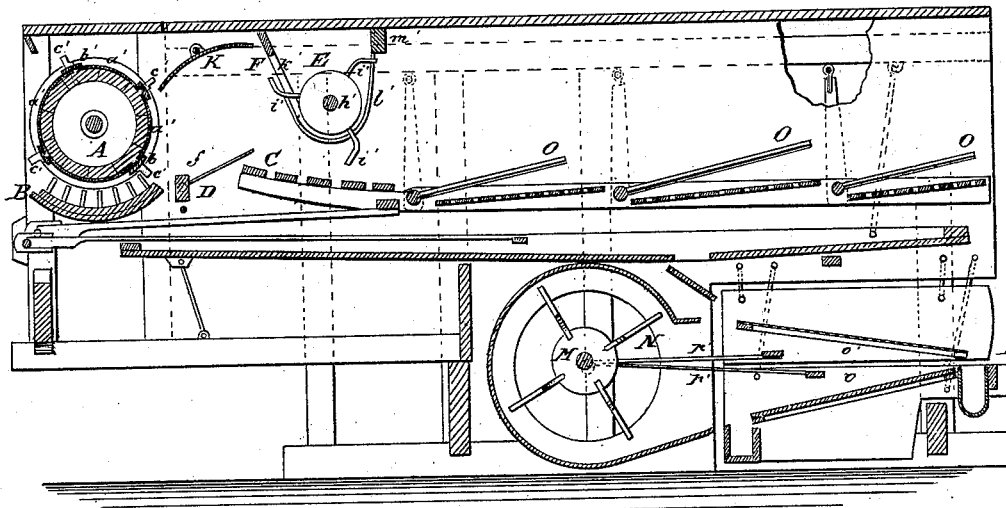


M. WILLIAMS.  
Thrashing-Machine.

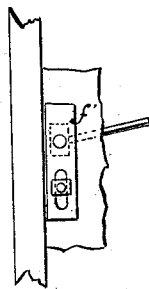
No. 219,051.

Patented Aug. 26, 1879.

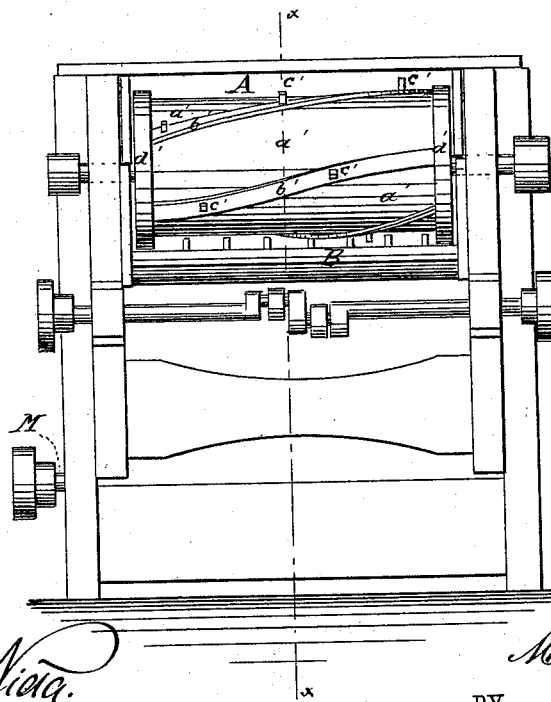
*Fig: 1.*



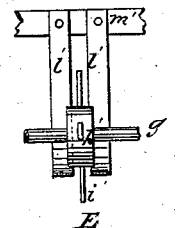
*Fig: 3.*



*Fig: 2.*



*Fig: 4.*



WITNESSES:

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INVENTOR:

*M. Williams*  
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ATTORNEYS.

# UNITED STATES PATENT OFFICE.

MARTIN WILLIAMS, OF ST. JOHNSVILLE, NEW YORK.

## IMPROVEMENT IN THRASHING-MACHINES.

Specification forming part of Letters Patent No. **219,051**, dated August 26, 1879; application filed March 13, 1879.

*To all whom it may concern:*

Be it known that I, MARTIN WILLIAMS, of St. Johnsville, in the county of Montgomery and State of New York, have invented an Improved Thrashing-Machine, of which the following is a specification.

Figure 1 is a sectional elevation on line *x x*, Fig. 2. Fig. 2 is a front-end elevation. Fig. 3 is an enlarged view, showing the adjusting arrangement of the bar D. Fig. 4 is a front view of the picker.

Similar letters of reference indicate corresponding parts.

The object of this invention is to provide an improved thrashing-machine that shall run more steadily and easily and effect a better separation of the grain from the straw than any other thrashing-machine now in use.

A is the thrasher-cylinder, formed of staves covered with spiral plates *a'*, so arranged as to form spiral grooves, and ribs or bars *b'*, the latter holding the plates, and being themselves held to the cylinder by the bolts, which also form teeth *c'*.

Back of the concave B, between which and the cylinder A the grain to be thrashed is drawn, and between it and the slotted or perforated separator C, is a bar, D, reaching across the machine, and having tines inserted along an edge or face of it. It is adjustable, and can be raised or lowered in the slots *f' f'* in the sides of the machine.

The purpose of this bar is to prevent the grain that is thrashed out and falls below the straw, when passing the concave, from being caught up with and among the straw on the separator. To better accomplish the purpose for which it is designed, it is made adjustable, so as to suit the different kinds and conditions of straw thrashed.

The improved picker E consists of a shaft, *g'*, having suitable bearings, on which are placed wheels or disks *h' h'*, in the peripheries of which are secured the backward-curving fingers *i' i'*. When the machine is in operation these fingers pass through the openings or slots *k' k'* in the shield F, that is so placed that the straw which is forced rearward from

between the cylinder and concave is prevented from being thrown upon the disks *h' h'* and shaft *g'* and winding upon and clogging them.

Attached to this shield F, and passing under the disks and shaft, are the band-iron guards *l' l'*, whose other ends are bent up and secured to a cross-beam, *m'*, that stretches across the machine. These guards are so arranged that as the fingers *i' i'* pass between them they (the fingers) are freed from any straw that may have clung to them.

The shield F, in combination with the swiveled shield K, forms a chamber or receiver for the straw as it comes from the cylinder, so that the straw will fall by its own gravity upon the separator C below, and be stirred and moved along and loosened up by the picker.

The shoe L, for holding the sieves, is constructed in two separate parts, *o' o'*, hung independently of each other and directly connected by rods *p' p'* to the counter-balance or double-crank fan-shaft M, so that when the machine is in motion each part of the shoe moves in a direction contrary to the other, thereby rendering the machine more steady and stable than if the shoe were not so divided.

The action of the fan N, tossing-forks O O, and of other parts common to all thrashing-machines does not differ from that in other machines.

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

1. In a thrashing-machine, the within-described barrel-cylinder A, composed of two heads, forming a frame, on which staves of wood are secured, so as to make a tight or closed surface, arranged to leave spiral intervals or grooves, and provided with sheet-iron plates *a' a'*, bars *b' b'*, overlapping the plates, teeth *c' c'*, and bands *d' d'*, constructed and arranged substantially as herein shown and described.

2. In the construction of a thrashing-machine cylinder, the combination of the spiral

bars  $b' b'$ , having teeth inserted through them, with the closed surface or barrel-cylinder, substantially as herein shown and described.

3. A truck-bar, D, reaching entirely across between the thrasher A B and separator C, and made vertically adjustable in slots  $f'$  of the sides of the machine, as and for the purpose specified.

4. The swiveled shield K and picker-shield F, in combination with the thrasher A B, tined bar D, picker E, and separator C, as and for the purpose described.

MARTIN WILLIAMS.

Witnesses:

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