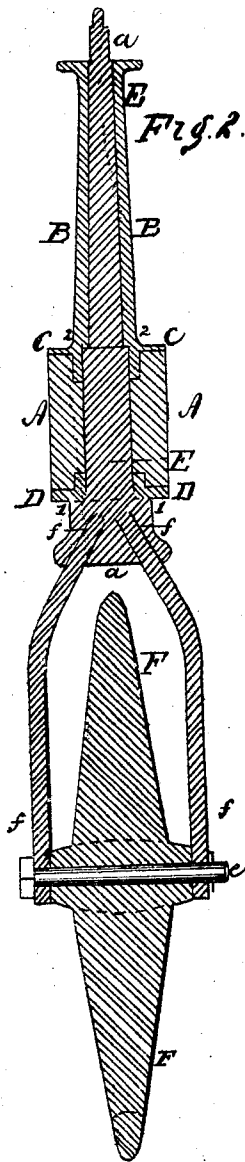
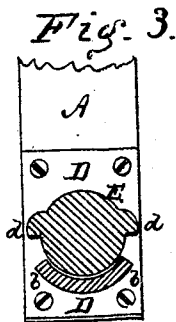
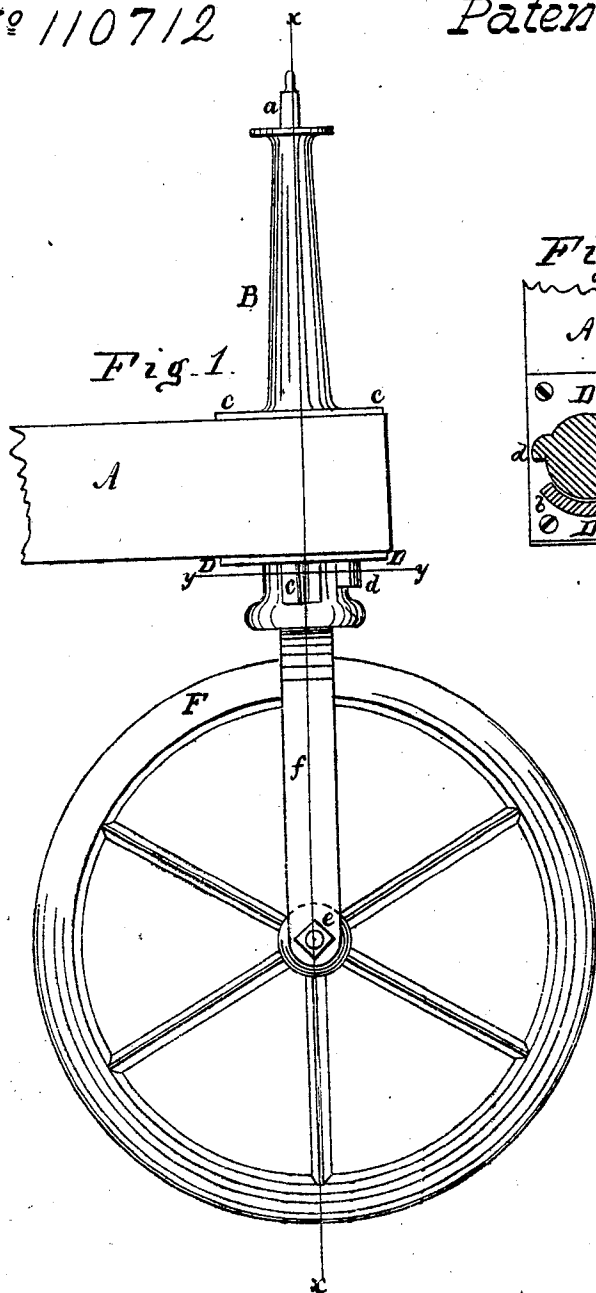


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N<sup>o</sup> 110712

Patented Jan. 3, 1871.



Witnesses.

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# UNITED STATES PATENT OFFICE.

WALTER A. WOOD AND WILLIAM ANSON WOOD, OF HOOSICK FALLS, N. Y.

## IMPROVEMENT IN GUIDING-WHEELS FOR HARVESTERS.

Specification forming part of Letters Patent No. **110,712**, dated January 3, 1871.

*To all whom it may concern:*

Be it known that we, WALTER A. WOOD and WILLIAM ANSON WOOD, of Hoosick Falls, in the county of Rensselaer and State of New York, have invented certain new and useful Improvements in the Construction and Arrangement of Guiding-Wheels for Harvesting-Machines; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification, in which—

Figure 1 represents a side view of a portion of the beam or frame of the harvesting-machine with the guiding-wheel arranged thereon. Fig. 2 represents a vertical cross-section through the same, taken at the red line *x x* of Fig. 1. Fig. 3 represents a horizontal section taken at the red line *y y* of Fig. 1.

Similar letters of reference, where they occur in the separate figures, denote like parts of the mechanism in all the drawings.

The difficulty heretofore existing in guiding-wheels for harvesting-machines has arisen from the want, not only of strength to resist the strain that comes upon them, but of sufficient bearing to give them requisite freedom of movement with that requisite degree of strength, and mainly because there has been no effectual means for controlling the wheel, when, as often happens, it takes a sudden shear, which the operator cannot or does not control, and which shear, if allowed to go to a certain extent, will wrench off the wheel, or break or stop the machine, as the wheel cannot turn after it arrives at a certain degree of obliquity to the line of draft.

Our invention consists in a construction and arrangement of parts by which these difficulties are obviated, and by which the guiding of the machine is always under the easy control of the operator or attendant on the machine.

To enable others skilled in the art to make and use our invention, we will proceed to describe the same with reference to the drawings.

A represents a beam or portion of the main frame, to which guiding-wheels are usually attached. On top of this beam there is secured a hollow column, B, with a broad base-plate, C, to give it firm support, and underneath

the beam there is a plate, D, with a hole through it for the shank E of the guide-wheel F to pass through, which shank also passes through the beam and up through the hollow column B, which gives it a great extent of bearing, and makes it very firm and rigid. The upper end, *a*, of the shank, which projects above the top of the column, is made square or many-sided, to receive a lever or yoke, by which it may be turned. The under plate, D, has a circular projecting flange, *b*, upon it, and on the hub portion *c* of the shank there are two diametric lugs or projections, *d*, which allow the shank and the wheel to shear or turn until one of the lugs takes against one end of the flange *b*, where it must stop. When thus stopped the obliquity of the wheel to the line of draft is not enough to stop or cramp the guiding-wheel, or prevent it from turning, and so long as it can turn it will not break or wrench off.

There are two shoulders, 1 and 2, on which the weight comes vertically onto the spindle, and thence to the wheel, and when the lever or yoke is put on the top of the spindle, as stated, and a washer and nut or key applied above the lever or yoke, the wheel is strongly united to the beam or frame, but can freely turn therein when necessary.

With the exception of the axle *e* and the side pieces, *f f*, the whole structure may be made of cast-iron, and even the side pieces, *f*, though of wrought-iron, are cast into the hub portion *a* of the spindle, and so united to it, as seen in Fig. 2, as that it is quite cheaply made and is very efficient.

Having thus fully described our invention, what we claim as new, and desire to secure by Letters Patent, is—

The construction of the guiding-wheel and its supports, as follows: the wheel F, yoke *f*, spindle E, with its shoulders 1 2, and lugs *d*, plate D and its flange *b*, long flanged hollow column B, and beam A, all constructed and arranged to operate as and for the purpose described and represented.

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Witnesses:

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