E. R. WHITNEY.

Harvester Cutter-Bars.

No. 200,114. Patented Feb. 5, 1878.

Fig. 1.

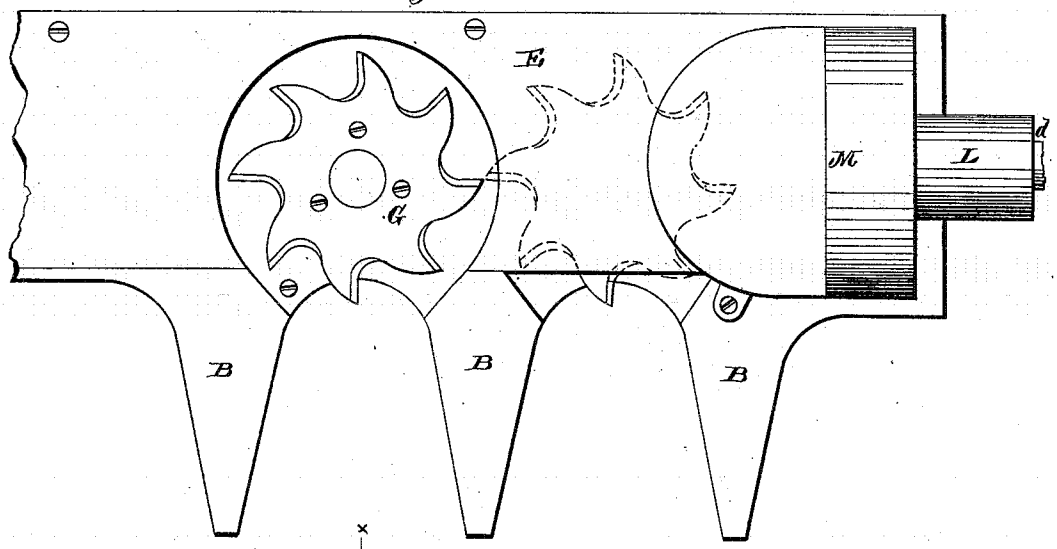


Fig. 2.

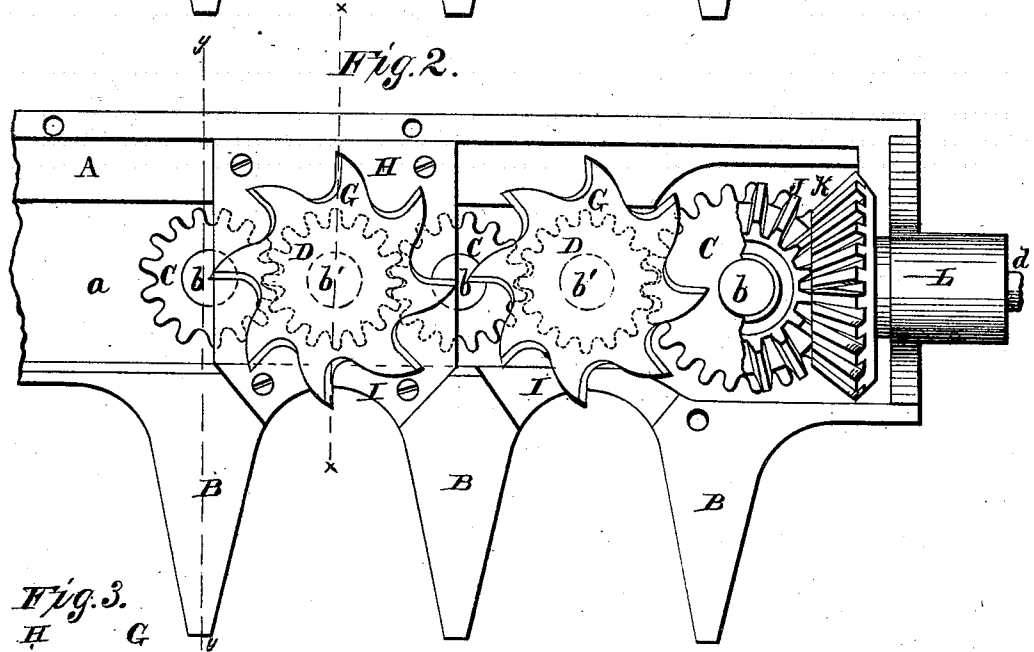


Fig. 3.

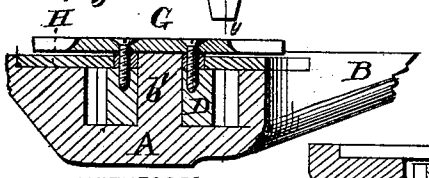
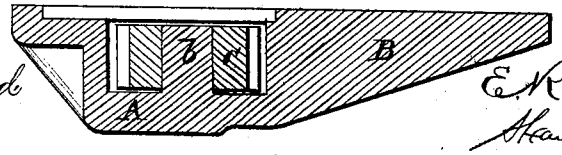


Fig. 4.



WITNESSES

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UNITED STATES PATENT OFFICE.

EDWIN R. WHITNEY, OF MAGOG, QUEBEC, CANADA.

IMPROVEMENT IN HARVESTER CUTTER-BARS.

Specification forming part of Letters Patent No. **200,114**, dated February 5, 1878; application filed November 28, 1876.

To all whom it may concern:

Be it known that I, EDWIN R. WHITNEY, of Magog, county of Stanstead, Province of Quebec, Canada, have invented certain new and useful Improvements in Cutter-Bars and Knives for Reapers and Mowers; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

The nature of my invention consists in the construction and arrangement of a cutter-bar and knives for reapers and mowers, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a plan view of my improved cutter-bar for reapers and mowers. Fig. 2 is a similar view with the top plate removed. Figs. 3 and 4 are transverse sections of the same, through the lines *x x* and *y y*, respectively, of Fig. 2.

A represents the finger-bar with fingers B B, all cast together in one piece of steel or malleable iron. The finger-bar A is cast with a deep longitudinal groove, *a*, in which are also cast a series of vertical studs, *b b'*, at suitable distances apart. The studs *b* are located directly opposite the centers of the fingers B, while the studs *b'* are directly opposite the centers of the spaces between said fingers. Upon each of the studs *b* is placed an idle-pinion or cog-wheel, C, and upon each stud *b'* is placed a pinion or cog-wheel, D, all of said pinions or cog-wheels meshing together from one end of the finger-bar to the other.

On top of each cog-wheel D is secured a circular toothed cutter, G, which revolves with the cog-wheel, and may be located under the top or covering plate E, or it may project above the same through an aperture in the plate. In the latter case the circular cutter G rests upon a plate, H, secured to the finger-bar A, and this plate forms the stationary cutter or leger plate I. When the circular rotating cutter G is below the covering-plate E, this plate H is dispensed with, and a leger-plate, I, simply attached in its proper place between the fingers.

The first idle cog-wheel C, at the inner end of the finger-bar, is formed or provided with a bevel-gear wheel, J, which meshes with and is operated by a similar gear-wheel, K, upon a short horizontal shaft, *d*. This shaft has its bearing in a stand, L, this part of the gearing being covered by a casing, M, and the shaft is rotated by suitable mechanical devices from the machine proper.

I am well aware that a harvester-cutter having rotating knives operated by a train of cog-gearing is not new.

I am also aware that removable leger-blades in harvester-cutters are of themselves not new; but I am not aware that my combination of parts has ever before been known or used.

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

The combination of the longitudinally-grooved finger-bar A, with series of studs *b b'* cast therein, the alternate cog-wheel C, placed on the studs *b*, and the alternate cog-wheels D, placed on the studs *b'*, and provided with the circular toothed cutters G and the covering-plate E, substantially as herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 15th day of November, 1876.

E. R. WHITNEY.

Witnesses:
WM. H. STILLWELL,
GEO. S. C. DOW.