

*R. W. McClelland,
Harvester Cutter.*

No. 43697

Patented Aug. 2, 1864

Fig. 1.

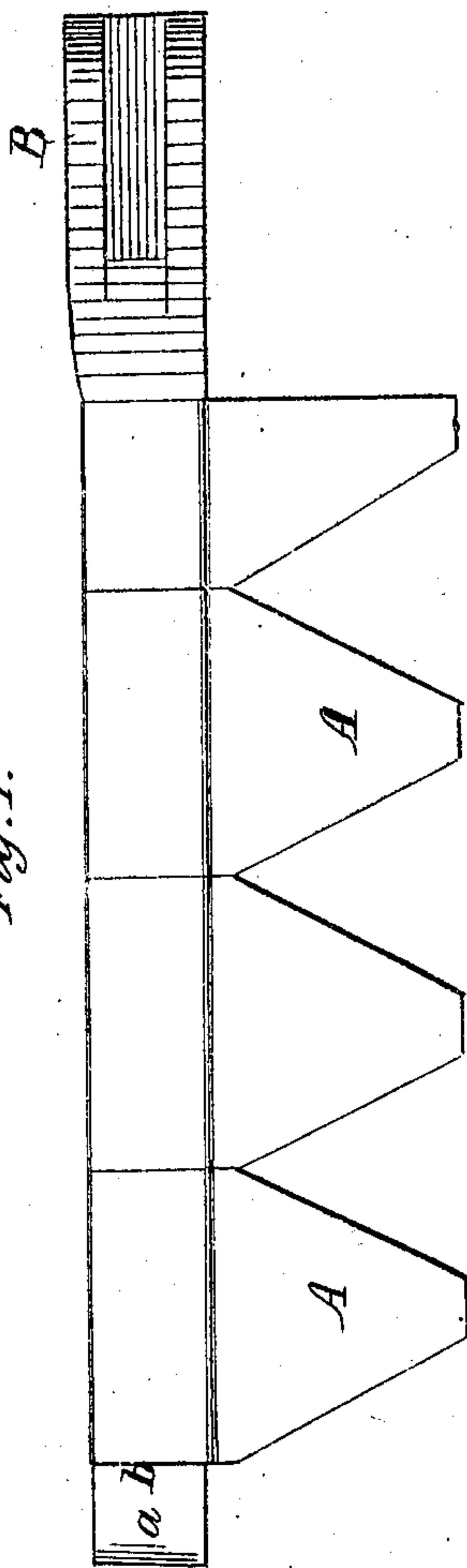


Fig. 2.

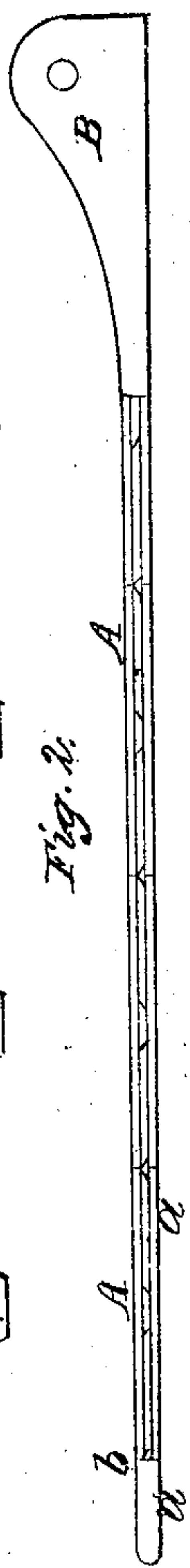


Fig. 3.

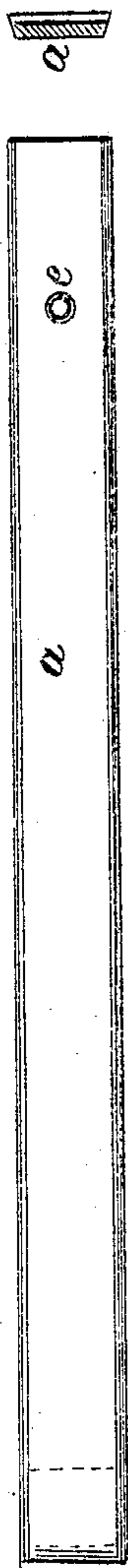


Fig. 4.

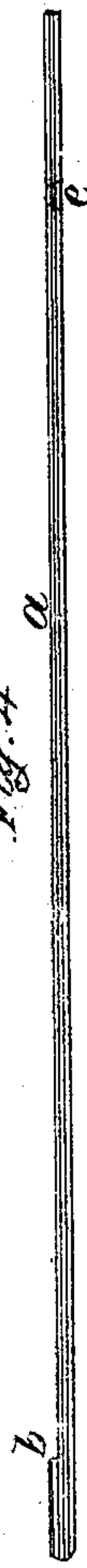


Fig. 5.

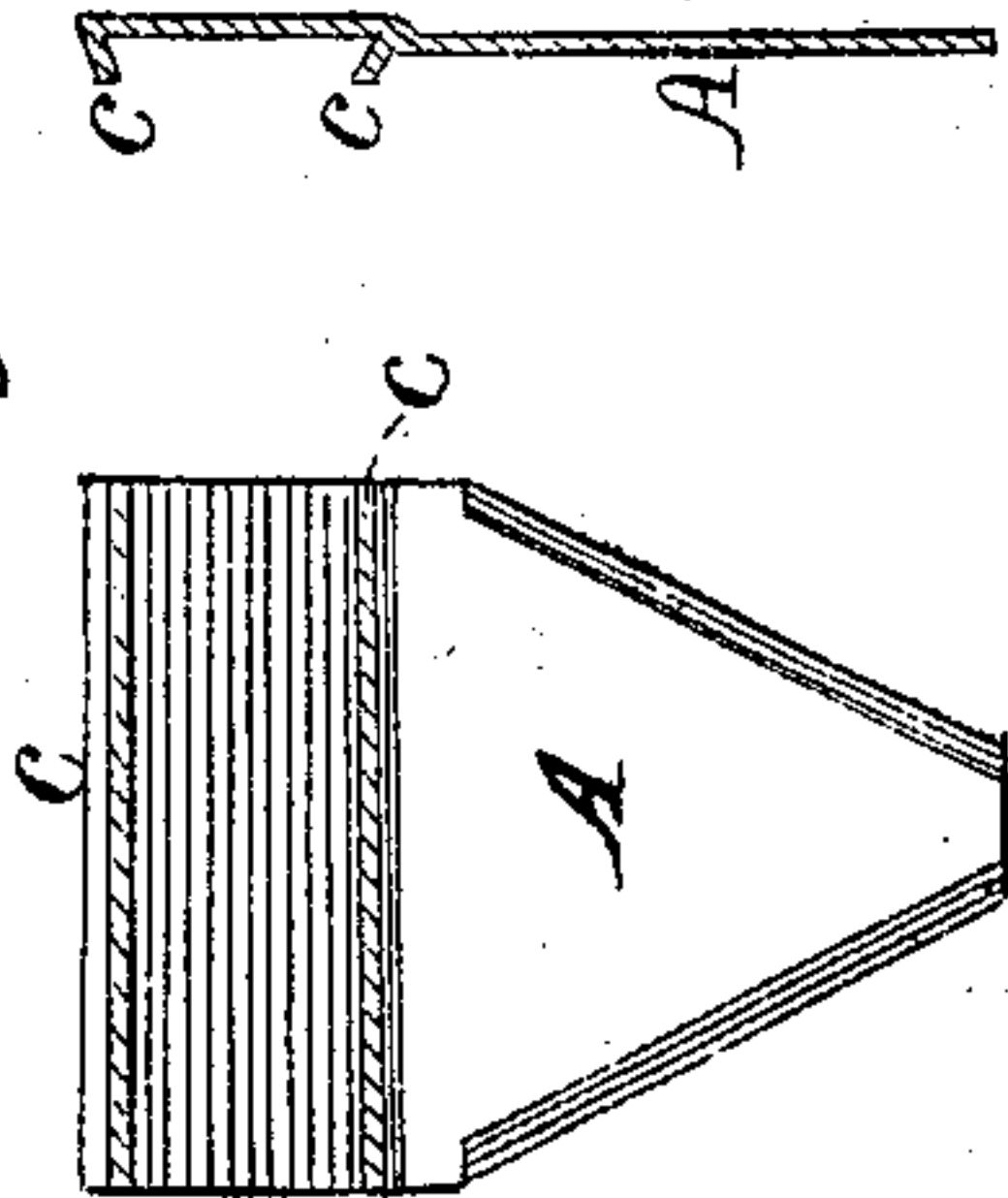
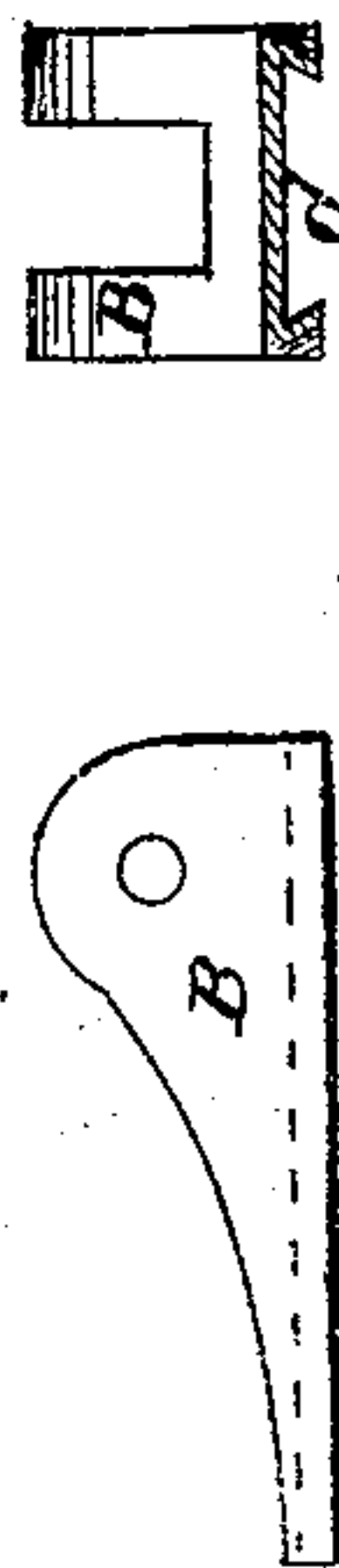


Fig. 6.



Witnesses.
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UNITED STATES PATENT OFFICE.

R. W. McCLELLAND, OF SPRINGFIELD, ILLINOIS.

IMPROVEMENT IN HARVESTING-MACHINES.

Specification forming part of Letters Patent No. 43,697, dated August 2, 1864.

To all whom it may concern:

Be it known that I, R. W. McCLELLAND, of Springfield, in the county of Sangamon and State of Illinois, have invented certain new and useful Improvements in the Cutting Apparatus of Harvesting-Machines; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 represents a top plan of a cutter-bar and cutters. Fig. 2 represents an edge view of the same. Fig. 3 represents a view of the under side, and to the right of said Fig. 3 is represented a section through the cutter-bar, and showing the shoulder thereon in full. Fig. 4 represents an edge view of the cutter-bar alone. Fig. 5 represents a top view and section of one of the cutter-blades detached; and Fig. 6 represents a side and end view of the block to which the pitman is to be attached, and which holds the sickles or blades to the bar endwise.

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

I am aware that a dovetailed groove has been cut in a sickle-bar, and that a dovetailed section has been riveted onto the blades to slide and fit in the dovetailed groove of the sickle-bar. This construction is too expensive in the first place. Besides, it weakens the sickle-bar too much if of the ordinary size and weight; and if made large enough to compensate for the cutting away of the groove, then they are too heavy to run freely.

I am also aware that round eyes or ferrules have been formed on the blades, which are to slip over a round sickle bar or rod. This construction is also expensive; but a greater objection is that the blades cannot be firmly secured against turning on the round rod, and their points and edges catch upon the guards and break.

I do not claim either of these constructions. My construction is much more simple, cheap, and efficient; and the nature of my invention consists in making the sickle-bar itself of a dovetail form, and forming a dovetail groove

in or on the blades or sickles by crimping, folding, or otherwise, so that they will slip onto the bar from one of its ends and be firmly held when on against any lateral or transverse motion, and without weakening the metal by cutting it away.

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

The sickle-bar *a* is beveled off from its upper toward its under surface, so as to give it a slightly wedge or dovetail form, as shown to the right of Fig. 3, and its outer end may have a shoulder, *b*, formed upon it, against which the sickles are forced and held when slipped onto it. The blades or sickles *A* have dovetailed flanges *c c* formed upon them, either by folding, crimping, or upsetting the plate or sheet steel, out of which they are ordinarily made, which flanges form a groove, as it were, that snugly fits the wedge or dovetailed form of the sickle-bar *a*. The rear portions of the blades may entirely cover the top surface of the sickle-bar, while on the under portion they may (the flanges or projections *c*) be dressed off flush with the sickle-bar, thus leaving no openings or joints into which any clogging matter can work or enter. The head-block *B* is removable, for the purpose of removing and replacing the sickles or blades when they require sharpening or repairs. This block *B* may have a dovetailed groove, *d*, Fig. 6, formed in it, which will slide over the sickle-bar *a*, and by means of a screw at *e* will firmly hold itself, as well as the blades, to said sickle-bar.

What I claim as new, and desire to secure by Letters Patent in the construction of a cutting apparatus for harvesting-machines, is—

The making of the sickle-bar in a dovetail or wedge form, and forming a corresponding female dovetail on or out of the metal of which the blades are made, so as to slide over and snugly fit upon said sickle-bar, substantially in the manner and for the purpose herein described.

R. W. McCLELLAND.

Witnesses:

L. B. ADAMS,
THOMAS LASSWELL.