

W. WASSON, P. F. POWERS & G. W. DUNGAN.

Harvester-Cutters.

No. 135,500.

Patented Feb. 4, 1873.

Fig. 1.

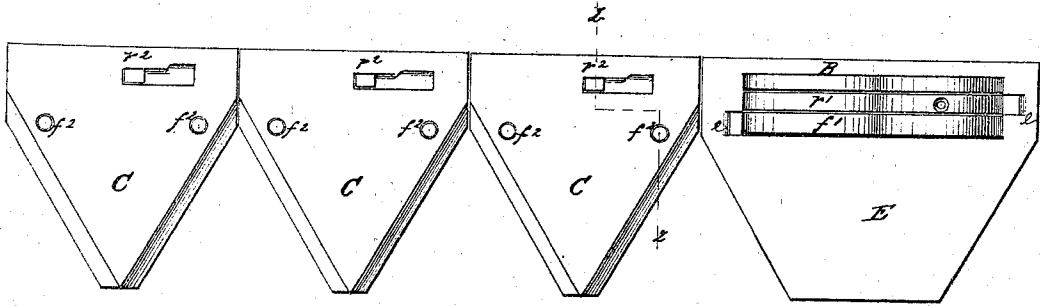


Fig. 2.

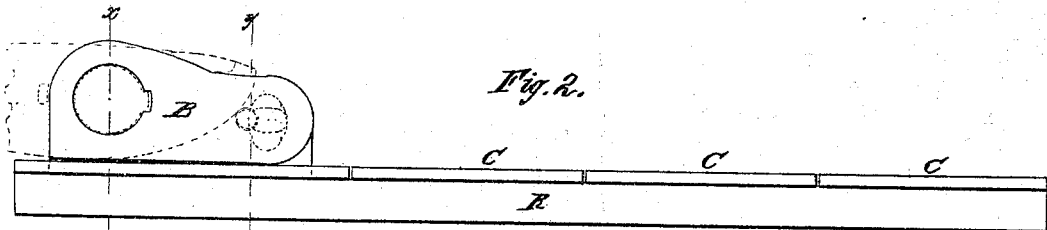


Fig. 3.

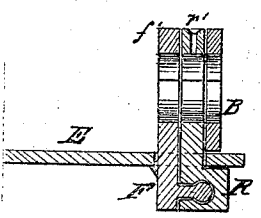


Fig. 4.

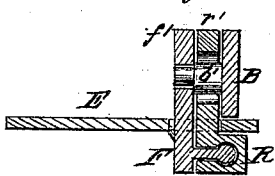


Fig. 5.

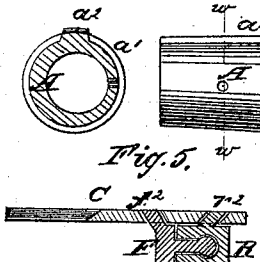


Fig. 6.

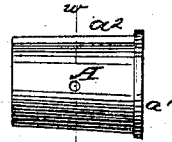
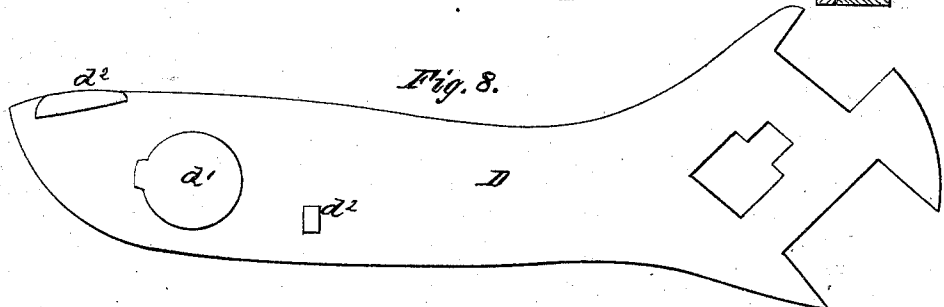


Fig. 8.



Witnesses:  
P. C. Dietrich  
C. Salquist

PER

Inventor:  
W. Wasson  
P. F. Powers  
G. W. Dungan  
Munn & Co.  
Attorneys.

# UNITED STATES PATENT OFFICE.

WARREN WASSON, PHINEAS F. POWERS, AND GEORGE W. DUNGAN, OF  
GENOA, NEVADA.

## IMPROVEMENT IN HARVESTER-CUTTERS.

Specification forming part of Letters Patent No. 135,500, dated February 4, 1873.

*To all whom it may concern:*

Be it known that we, WARREN WASSON, PHINEAS F. POWERS, and GEORGE W. DUNGAN, of Genoa, in the county of Douglas and State of Nevada, have invented a new and useful Improvement in Harvester-Cutters, of which the following is a specification:

Figure 1 is a top view of our improved cutters adjusted for use. Fig. 2 is a rear view of the same. Fig. 3 is a detail section taken through the line  $x x$ , Fig. 2. Fig. 4 is a detail section taken through the line  $y y$ , Fig. 2. Fig. 5 is a detail section taken through the line  $z z$ , Fig. 1. Fig. 6 is a side view of the journal-box for the pitman. Fig. 7 is a detail section of the same taken through the line  $w w$ , Fig. 6. Fig. 8 is a detail view of the lever-extension.

Similar letters of reference indicate corresponding parts.

Our invention has for its object to improve the construction of harvester-cutters so that they can be conveniently detached and attached, when desired, and will be securely held when in place. The invention consists in the features of improvement hereinafter fully described and subsequently pointed out in claim.

The cutter-bar is made in two parts, F R, which are placed side by side. The edge of one of the parts F R has a tongue formed upon it, and the adjacent edge of the other part has a corresponding groove formed in it, into which the said tongue fits. The tongue and groove may be made plane, or the outer part of the tongue and the inner part of the groove may be enlarged. The tongue and groove may extend the entire length of the cutter-bar or may be in sections of any desired length. The parts F R may also be made without the tongue and groove, if desired. The heads  $f^1$   $r^1$  have each a horizontal notch or recess at each end, so that when the blank E has been placed down over them the edges of the blank-slots will be opposite said recesses. By this construction, when the two heads are carried in opposite directions by the movement that carries the parallel bars the blank will be locked in place by the edges that enter recesses. Upon the rear side of the head  $r^1$  is placed a lever or key, B, upon the inner side

of the outer part of which is attached, or upon it is formed, a pin,  $b'$ , which is made with an offset or shoulder, and which passes through a hole in the head  $r^1$  and enters a hole in the head  $f^1$ , the hole through the head  $r^1$  being enlarged so that the pin  $b'$  can be inserted in place when the lever B is raised into a vertical position and so the pin  $b'$  will act as a crank or cam when the lever B is turned in either direction to move the parts F R upon each other. Through the inner ends of the heads  $f^1$   $r^1$  of the parts F R and lever B is formed a hole to receive the box or bushing A in which the end of the pitman works. The box A and the hole through the heads  $f^1$   $r^1$  and lever B are made slightly tapering, and said box has a flange,  $a^1$ , formed around its larger end to prevent it from going in so far as to wedge or stick. Upon one side of the box A is formed a tongue or feather,  $a^2$ , which enters a corresponding groove in the heads  $r^1$   $f^1$  and lever B at the side of the hole through said parts, so that the box will be held stationary and the pitman will work in it. C are the cutter-sections, each of which has two forwardly-inclined holes formed in it to receive the forwardly-inclined pin  $f^2$  attached to the forward part of the forward part F of the cutter-bar.

In the rear part of each of the cutters C is formed a rearwardly-inclined slot to receive the rearwardly-inclined square projection  $r^2$  formed upon the rear part R of the cutter-bar. The inner ends of the said slots are enlarged so that the projections  $r^2$  may pass through them freely. By this construction, as the lever B is turned outward the rear part R of the cutter-bar will be drawn inward and the forward part F will be pushed outward, carrying the cutters C with it, thus bringing the projections  $r^2$  into the enlarged part of their slots and allowing one or all the cutters to be detached. The cutters C are slightly curved or arched transversely, so that when lying free they will rest only upon their side edges. When the cutters have been arranged in place, by moving the lever B inward the rear part R of the cutter-bar will be pushed outward and the forward part F will be drawn inward, carrying the cutters C with it and forcing the projections  $r^2$  into the narrow parts of their slots and locking the cut-

ters in place. The projections  $r^2$  also draw down the middle parts of the cutters, so that their elasticity may take up any wear and prevent any rattling. E is a false or blank cutter, which is slightly curved transversely and has a slot formed in it of such a size as to allow it to be slipped down over the heads  $f^1 r^1$  when the lever B has been detached. In the blank E at the ends of its slot, and also in the end edges of the heads  $f^1 r^1$ , are formed notches, so that the blank E will not interfere with the movements of the heads  $f^1 r^1$  upon each other. D is an extension of the lever B, upon one side of the end of which is formed a short projection or pin,  $d^1$ , having a tongue formed upon its side to fit into the grooved hole in the lever B and prevent it from turning in said hole. The part D thus becomes an extension of the lever B, and is designed for use should rust or other cause impede the movement of said lever B. The part D may also have projections  $d^2$  formed upon it to rest upon the top and end edges of the lever B to make the connection between the parts B D firmer. The projections  $d^2$  also enable the extension lever to be used in cases when the box A is not used and when there is no groove in the hole in the lever B. The other end of the extension lever D may have different-sized

notches or holes formed in it to adapt it to serve as a wrench.

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

1. A cutter-bar consisting of two parts, F R, sliding upon each other in opposite directions, and having studs  $f^2$  and studs  $r^2$ , respectively, as described, for the purpose of fastening the cutter-sections.

2. The detachable, apertured, and slotted cutters C, made with a slight transverse curve, as and for the purpose set forth.

3. The apertured lever B, having pin  $b'$ , combined with heads  $f^1 r^1$ , as and for the purpose set forth.

4. The bushing A, combined with heads  $f^1 r^1$  and lever B, as and for the purpose set forth.

5. The slotted plate E, having a notch,  $e$ , at each end, combined with reversely-movable heads  $f^1 r^1$ , undercut at each end, as and for the purpose set forth.

WARREN WASSON.

PHINEAS FRANKLIN POWERS.

GEORGE WASHINGTON DUNGAN.

Witnesses:

H. P. BURNHAM,

FRED. FURTH.