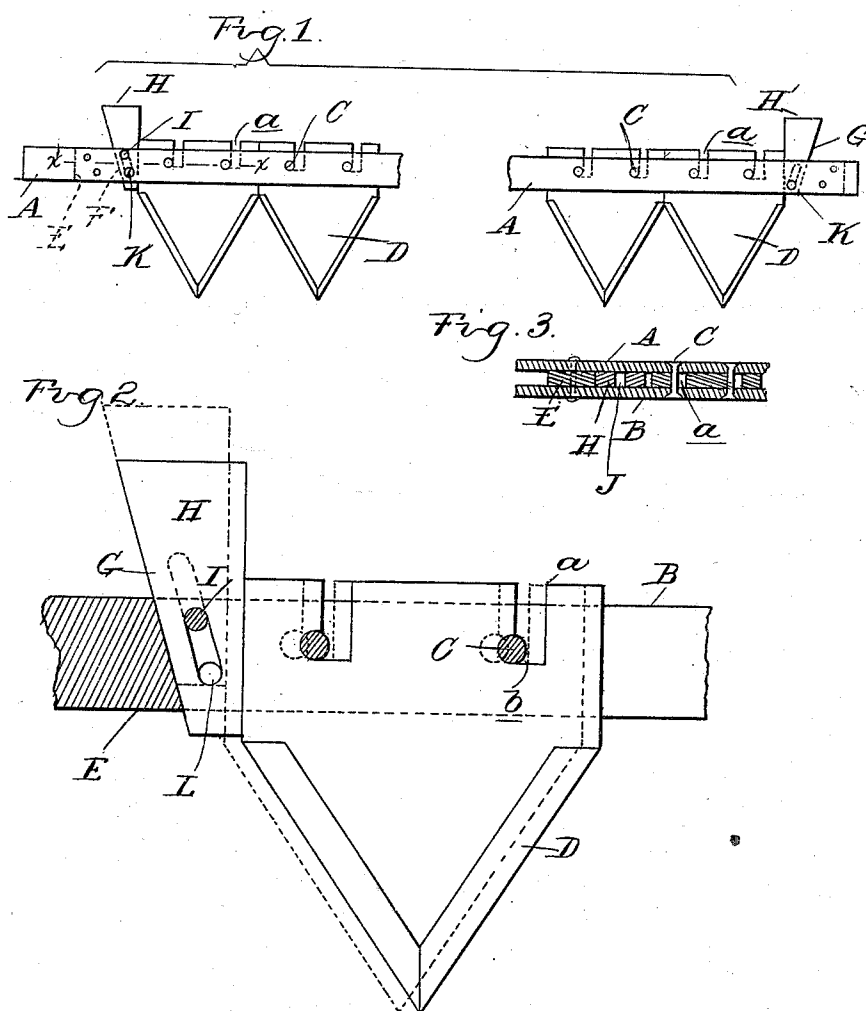


(No Model.)

W. H. PALMER.
CUTTER BAR FOR HARVESTERS.

No. 505,325.

Patented Sept. 19, 1893.



Witnesses
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UNITED STATES PATENT OFFICE.

WILLIAM H. PALMER, OF YALE, MICHIGAN.

CUTTER-BAR FOR HARVESTERS.

SPECIFICATION forming part of Letters Patent No. 505,325, dated September 19, 1893.

Application filed April 24, 1893. Serial No. 471,597. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. PALMER, a citizen of the United States, residing at Yale, in the county of St. Clair and State of Michigan, have invented certain new and useful Improvements in Cutter-Bars for Harvesters, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention consists in the peculiar construction of the knives and in the peculiar construction of the devices for securing the knives to the bar and for removing the same therefrom, and further, in the peculiar construction, arrangement and combination of the various parts.

In the drawings, Figure 1 is a plan view of a cutter bar embodying my invention. Fig. 2 is an enlarged plan view of one of the knives with the upper section of the bar removed showing the arrangement of the locking slot and pins. Fig. 3 is a longitudinal section on line *x x* in Fig. 1.

The cutter bar is formed of the upper bar A and the lower bar B riveted together by means of rivets C and separated a sufficient distance to allow of the insertion of the knives D. The rivets C are arranged in pairs in such relation that there will be two rivets at equal distances apart in each knife. The knives are provided with L-shaped slots open at the rear edge and consisting of the longitudinal entering slots *a* and the lateral locking slot *b*. At each end of the bar are the spreader blocks E, having the inclined bearing faces F, against which the inclined faces G on the wedges H H' are adapted to engage. These wedges are secured in position by means of rivets I which slide in an inclined slot J in the wedge, as plainly shown in Fig. 2 and may be locked in position by means of a locking pin or screw K adapted to engage a locking aperture L in the cutter bar.

The parts being thus constructed their operation is as follows: the locking pins K are first removed and the wedges driven out, as shown in dotted lines in Fig. 2. In this position the knives may be engaged between the upper and lower members of the bar, the entering aperture *a* being engaged with the riv-

ets C as plainly shown in Fig. 1. When all the knives are in position the operator drives in the wedge H which forces all the knives laterally, engaging the rivets in the locking slots *b*, as shown in full lines in Fig. 2. In this position the parts are locked by means of the locking pin K. When it is desired to remove any or all of the knives, I accomplish it by first removing the locking pin K, driving out the wedge H and driving in the wedge H' which will force the knives in the opposite direction and bring the rivets in line with the entering aperture *a*, so that any or all of the blades may be removed.

I believe I am the first one to construct a cutter bar in which the blades are locked by the lateral movement with means on the bar for moving them in an opposite direction for unlocking. The advantage of this structure is that in case of breaking the knife in the field or needing to replace it for any other reason, the operator can do so with the ordinary tools in a very short time in the manner described.

What I claim as my invention is—

1. The combination with a cutter bar of the knives adapted to be detachably locked thereto, by means of a lateral movement, and means at each end of the bar for shifting said blade in opposite directions, substantially as described.

2. In a cutter-bar, the combination of the bar, the rivets arranged in pairs thereon, the knives each provided with a pair of L-shaped slots opening at the edge of the knife and adapted to engage with said rivets and means, such as the wedges H H' at opposite ends of the cutter bar for shifting the knives laterally into the locking slots *b*, substantially as described.

3. In a cutter bar, the combination of the upper and lower members A B, of the rivets C extending between said members, the knives D having L-shaped slots open at their rear edges, the spreader blocks E at each end, having inclined bearing faces F, of the wedges H H' having inclined slots the rivets I engaging said slots and the locking pin or screw K, the parts arranged and operating, substantially as and for the purpose described.

4. In a cutter bar for harvesters, the combination with the bar, of knives detachably locked thereto by means of a lateral movement, means for retaining the knives in their
5 locked positions and means on the bar for moving the knives in an opposite direction for unlocking the same, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM H. PALMER.

Witnesses:

M. B. O'DOGHERTY,
N. L. LINDOP.