F. R. & W. O. SUTTON.

CUTTER BARS FOR REAPERS.

No. 182,244. Patented Sept. 12, 1876.

Fig 1

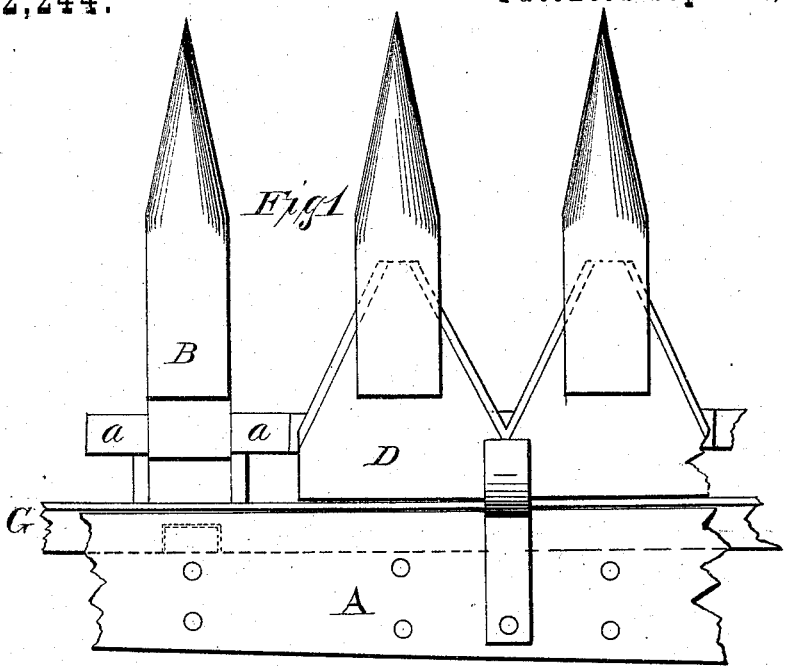


Fig 2

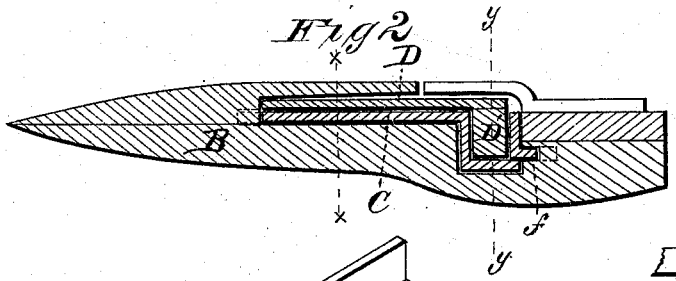


Fig 3

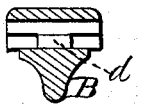


Fig 4

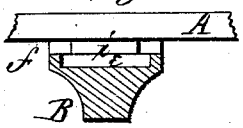


Fig 5

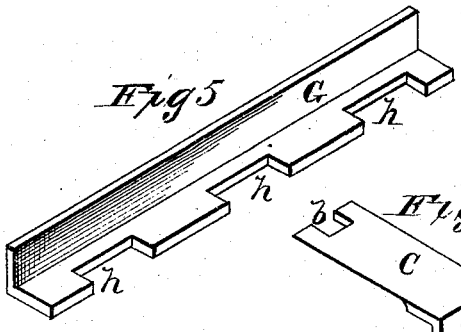
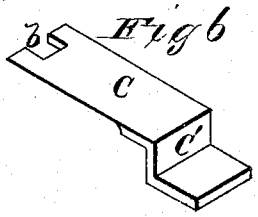


Fig 6



WITNESSES

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UNITED STATES PATENT OFFICE.

FREDERICK R. SUTTON AND WILLIAM O. SUTTON, OF KANKAKEE, ILLINOIS.

IMPROVEMENT IN CUTTER-BARS FOR REAPERS.

Specification forming part of Letters Patent No. **182,244**, dated September 12, 1876; application filed February 21, 1876.

To all whom it may concern:

Be it known that we, FREDK. R. and W. O. SUTTON, of Kankakee, in the county of Kankakee, and in the State of Illinois, have invented certain new and useful Improvements in Cutter-Bars; 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.

Our invention relates to cutter-bars for harvesters, reapers, and mowers; and it consists essentially in the construction and arrangement of the fingers and ledger-plates, and the means for holding said plates in position, as will be hereinafter more fully set forth.

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

Figure 1 is a plan view of a portion of a cutter-bar embodying our invention. Fig. 2 is a longitudinal section through one of the finger-bars. Figs. 3 and 4 are cross-sections through the lines *x x* and *y y*, Fig. 2, respectively. Fig. 5 is a perspective view of the bar for fastening the ledger-plates. Fig. 6 is a perspective view of one of the ledger-plates.

A represents the finger-bar, to the under side of which the fingers B B are permanently secured in any of the known and usual ways. The fingers B are substantially of the ordinary form, and provided with side projections *a*, which are joined together, forming, as it were, one continuous bar, parallel with the front edge of the cutter-bar.

Each finger is slotted horizontally, for the reception of the ledger-plate C and the passage of the sickle-knife D. The front end of the ledger-plate C is formed with a square slot or notch, *b*, which fits over a corresponding tongue, *d*, formed in the front end of the slot in the finger. The rear end of the ledger-plate is formed with a step, as shown at C′ in Fig. 6; and the corresponding portion of the finger is formed with a similar step, having a recess, *e*, formed therein, said recess extending over both the horizontal and perpendicular parts of the step in the finger, and it is of such dimension that the step of the ledger-plate will fit snugly therein and form a smooth surface.

It will thus be seen that the front end of the ledger-plate is held by the square tongue *d* in the square notch *b*, the advantage of which, over other modes of fastening with which we are acquainted, is that the ledger-plate cannot move laterally. Even supposing that the ledger-plate should have, by wear or otherwise, a certain play backward and forward, it is yet held by the square tongue and notch from any side movement, which is of the utmost importance in the proper working of the cutter-bar.

We are aware that a harvester-cutter in which the front end of the ledger-plate has a V-shaped notch, and the finger has a corresponding V-shaped projection, is not new. In such case, as known to us, it is subject to the difficulties heretofore described.

In the rear part of the finger B, under the finger-bar A and above and back of the recess *e*, is formed a horizontal cross groove or slot, *f*, in the rear part of which is formed a square tongue, *i*, as shown.

When the ledger-plate is to be removed, its rear end or step C′ is raised out of the recess *e*, and the plate then moved back into the groove *f*, which clears the front slot *b* from the tongue *d*, and the plate can then be taken out sidewise. It is inserted in its place in reverse manner.

The ledger-plates C C are locked by means of an L-shaped bar, G, having a series of square notches, *h*, in its horizontal rear edge, as shown in Fig. 5. The horizontal part of this bar fits under the finger-bar in the groove *f*, the notches *h* fitting over the tongues *i*, and the vertical part of the bar fits against the front edge of the finger-bar A.

The knives D are attached to the usual bar D′, which runs in the steps on the fingers, and has its back bearing against the locking-bar G, taking off all wear from the finger-bar. All the wear of the sickle is on the ledger-plates and locking-bar, which parts can easily be renewed, when required, making the machine as good as new.

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

1. The L-shaped locking-bar G, formed with the square notches *h*, in combination with the finger-bar A, ledger-plates C, and fingers B, having recesses *e*, grooves *f*, and square tongues *i*, all as and for the purposes herein set forth.

2. The combination of the step-shaped ledger-plates C and the L-shaped locking-bar G, arranged as described, to take off the wear from the fingers and finger-bar, substantially as set forth.

In testimony that we claim the foregoing we have hereunto set our hands.

F. R. SUTTON.
W. O. SUTTON.

Witnesses:
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C. L. EVERT.