(No Model.)

T. S. HOUGER.

HARVESTER CUTTING APPARATUS.

No. 359,256. Patented Mar. 15, 1887.

Fig. 1.

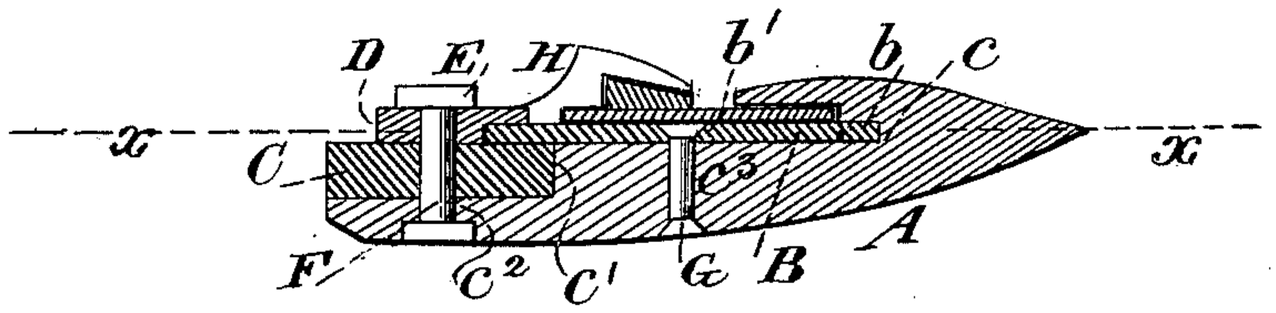


Fig. 2.

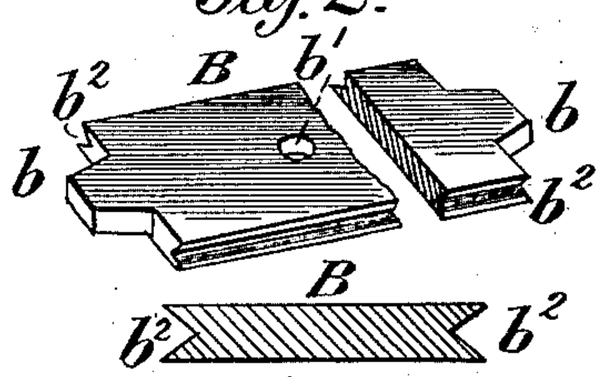


Fig. 3.

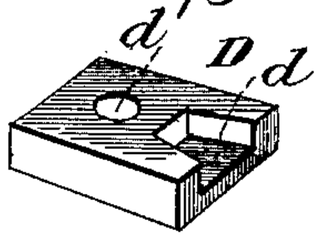


Fig. 4.

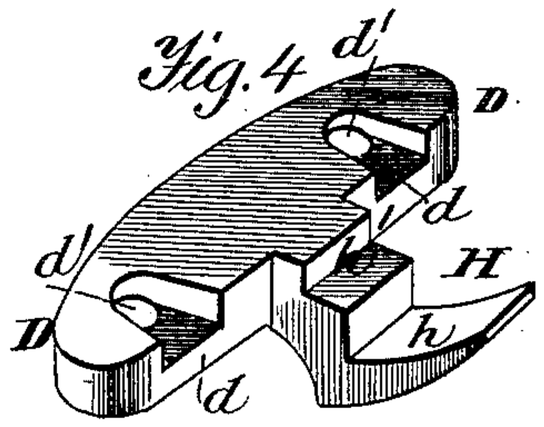
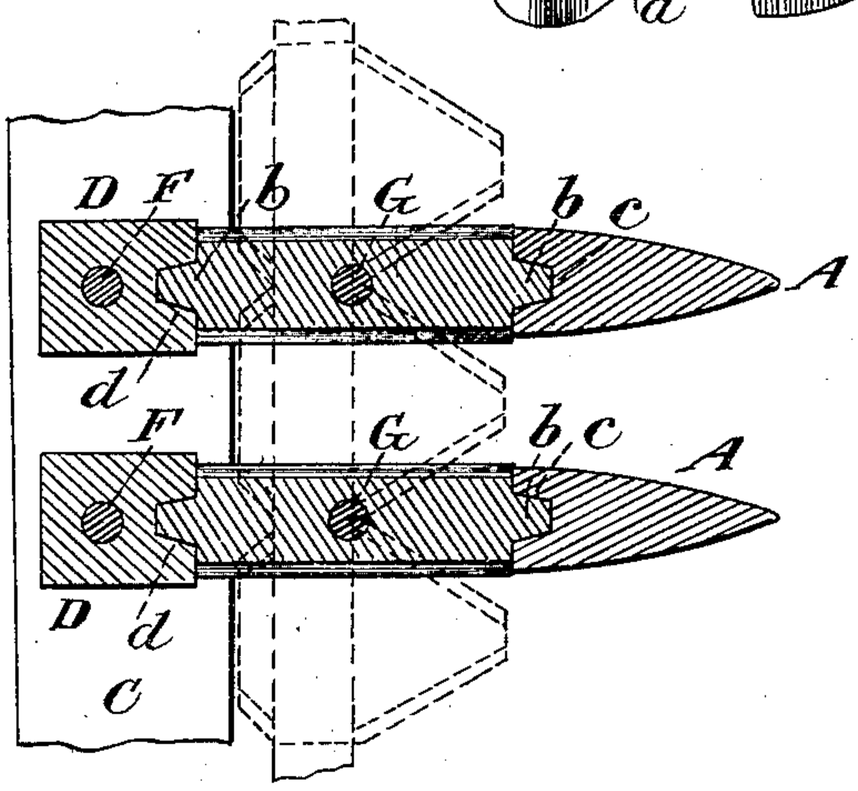


Fig. 5.



Witnesses.
A. Ruppert
H. A. Daniels

Inventor.
T. S. Houger,
Per
Thomas P. Simpson,
Atty.

UNITED STATES PATENT OFFICE.

THORN S. HOUGER, OF CENTRE CREEK, MINNESOTA.

HARVESTER CUTTING APPARATUS.

SPECIFICATION forming part of Letters Patent No. 359,256, dated March 15, 1887.

Application filed February 26, 1886. Serial No. 193,398. (No model.)

To all whom it may concern:

Be it known that I, THORN S. HOUGER, a citizen of the United States, residing at Centre Creek, in the county of Martin and State of Minnesota, have invented certain new and useful Improvements in Harvester Cutting Apparatus; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters and figures of reference marked thereon, which form a part of this specification.

The special object of the invention is to improve the finger-bar, ledger-plates, and their connection with the bar and fingers, so that the said ledger-plates may be virtually made to contain four cutting-edges, and at each change be securely held in their proper position.

Figure 1 of the drawings is a section longitudinally through a finger and transversely through a finger-bar, clamp, and clamp-nut with its bolt. Fig. 2 is a detail view in perspective, and also in cross-section, of the ledger-plate. Fig. 3 is a detail view in perspective of the hollow clamp. Fig. 4 is a bottom view in perspective, showing the clamps made integral with the cutter-bar guide; and Fig. 5 a horizontal section on line *x x* of Fig. 1.

In the drawings, A represents the finger; B, its stationary ledger-plate; C, the finger-bar; D, the clamp; E, the clamp-nut, and F the screw-bolt which passes up through them, all as shown in Fig. 1 of the drawings, except the knife.

The finger A is provided in its front end with the groove *c*, to receive one of the end studs, *b*, on the ledger-plate, with a rabbet, *c'*, to receive the finger-bar, and a hole, c^2, for the bolt F. The ledger-plate B has a central hole, *b'*, and through this, as well as through the hole c^3 of finger, passes the fastening-bolt G. The ledger-plate B is grooved at b^2 on each longitudinal edge, so as to form two cutting-edges on each side. By this construction, and by reason of the fact that the cutting-edges are about twice the length of the reciprocating knives, these ledger-plates can be turned end for end and each end turned over, thus furnishing four fresh cutters before the ledger-plates are worn so as to need sharpening or removal on account of wear.

The clamp D has the concavity *d*, corresponding in shape to the groove *c* in the finger, and for the same purpose—that is to say, to receive one of the end studs, *b*. It also has a hole, *d'*, for the fastening-bolt on which is screwed the nut E to clamp the piece D to the finger-bar C.

As shown in Fig. 4 of the drawings, every two or more clamps D may be made integral with the cutter-bar guide H. The guide H has a rabbet, *h*, for the cutter-bar and the rabbet *h'* for the rear end of the cutter.

What I claim as new, and desire to protect by Letters Patent, is—

1. The ledger-plate B, having two similar end studs, *b*, a central hole, *b'*, and grooves b^2 b^2, to adapt it to be used as described.

2. The combination, with the finger bar and the finger of the ledger-plate B, having the central hole, *b'*, and similar end studs, *b*, of the bolt G and the clamp D, made fast to the finger-bar C and having the socket, whereby the ledger-plate may be turned end for end, as set forth.

3. The combination of the cutter-bar, the fingers, the ledger-plate, and the clamps D, made integral with the cutter-bar guide H, as shown and described.

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

THORN S. HOUGER.

Witnesses:

GEORGE J. UNDERHILL,

D. H. GARRISON.