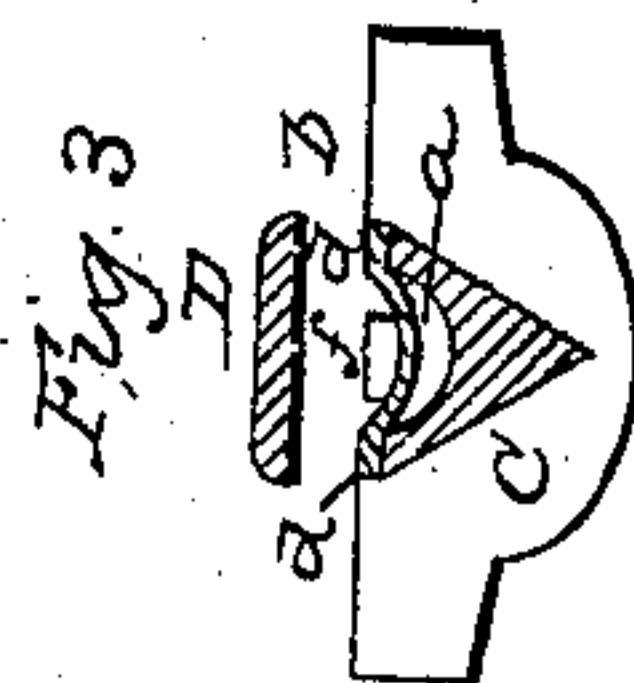
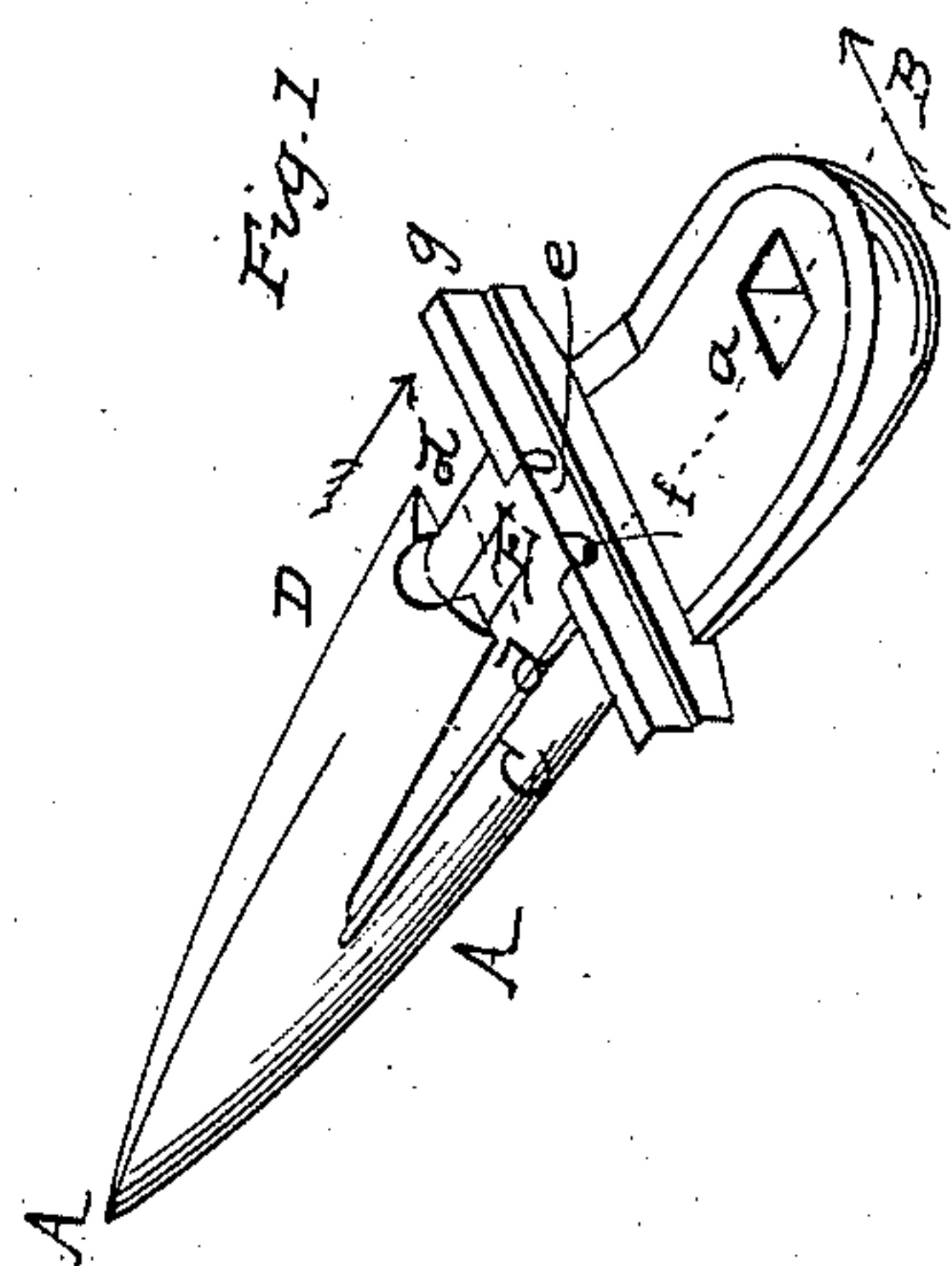
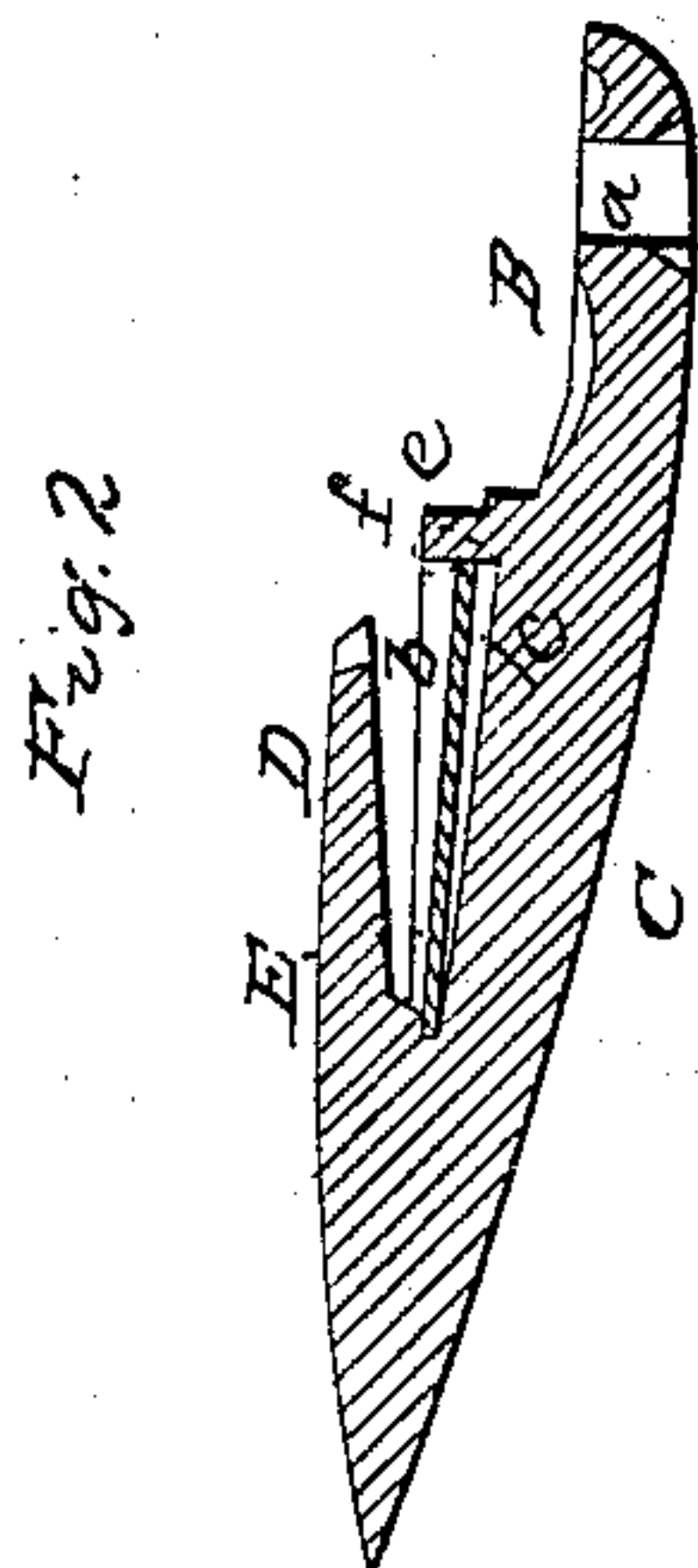


ALLEN & ROSS.
Harvester Guard Finger.

No. 70,311.

Patented Oct. 29, 1867.



Witnesses
Geo. B. Dodge
Geo. H. Miller

Inventors
William Allen
Luther Ross

UNITED STATES PATENT OFFICE.

WILLIAM ALLEN AND LUTHER ROSS, OF WORCESTER, MASSACHUSETTS.

IMPROVEMENT IN HARVESTER GUARD-FINGERS.

Specification forming part of Letters Patent No. 70,311, dated October 29, 1867.

To all whom it may concern:

Be it known that we, WILLIAM ALLEN and LUTHER ROSS, both of the city and county of Worcester, and Commonwealth of Massachusetts, have invented certain new and useful Improvements in Fingers or Guards for Harvesters; and we do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a perspective view of a guard or finger, with our improvements applied thereto. Fig. 2 represents a section on line A B, Fig. 1; and Fig. 3 represents a cross-section on line C, Fig. 1.

To enable those skilled in the art to which our invention belongs to make and use the same, we will proceed to describe it more in detail.

In the drawings, A represents a guard or finger for a harvester, the general form of which is similar to those in common use. The rear part B is bolted or fastened to the under side of the finger-beam by a bolt passing through hole *a*. The cutters play in opening *b*, between the base C and lip D.

The upper part of the base C is cored out, as shown at *c*. It has been usual to fit in a steel plate upon the top of the base C, having cutting-edges to aid and facilitate the cutting of the stalks of grain or grass. These steel plates have to be fastened in securely, in order to prevent their working out when the machine is in operation.

The nature of our invention consists in a peculiar mode of fastening in the steel plate, whereby it can be easily removed for grinding, or to be replaced by a new one; also in a peculiar mode of making the plate, as will be hereinafter explained.

E is the steel plate, which we make in the form shown in the drawings. The middle of the plate is corrugated or bent down, as shown, so that the cutters do not touch any part of the plate except the upper outer edges *d d*, which are ground off to a bevel cutting-edge. The front end of the plate slips into a curved recess in the guard, while the back of the plate is cut out, rounding in the center to fit the front of the nipple *e*, which is cast upon

the guard. The nipple *e* is provided with a lip, *f*, under which the back end of plate E falls when it is slipped into place, as shown in the drawings.

To fasten plate E in place after it is slipped into the position shown in the drawings, nipple *e* is rapped forward against plate E, as shown in Fig. 2, thus holding the plate from any back or lateral play, while lip *f* secures the plate from any upward motion.

It will thus be seen that by our mode of fastening in the plate no rivet is necessary, nor do we have to head or hammer down any part of the metal. The rear corners of the sides *d d* of plate E are notched or cut out to enable the plate to fit in front of the cross-plate *g g*, and between the latter and the nipple *e*, as fully shown in Fig. 1, and which arrangement, in combination with the nipple *e*, insures a very firm and perfect attachment of the plate with the finger.

To remove the plate, nipple *e* is rapped back, when plate E can be removed for sharpening, or to be replaced by a new one, and which operation can be performed by any one capable of taking charge of the machine.

In lieu of a lip, *f*, nipple *e* may be made with a notch to fit the rounded end of plate E. Nipple *e* may also be formed, if preferred, from a separate piece of metal, set in the core-box before the metal is poured, or it may be inserted in a hole drilled in the finger after it is cast.

Having described our improvements in guards or fingers, what we claim as our invention, and desire to secure by Letters Patent, is—

1. The combination, with a guard, A, of the nipple *e*, having a notch or lip, *f*, to hold the plate down, arranged substantially as and for the purposes set forth.

2. The corrugated plate E made as described, in combination with the guard or finger A and nipple *e*, arranged substantially as and for the purposes set forth.

WILLIAM ALLEN.
LUTHER ROSS.

Witnesses:

THOS. H. DODGE,
GEO. H. MILLER,