

(No Model.)

J. H. JONES.
GUARD FINGER.

No. 475,118.

Patented May 17, 1892.

Fig. 1.

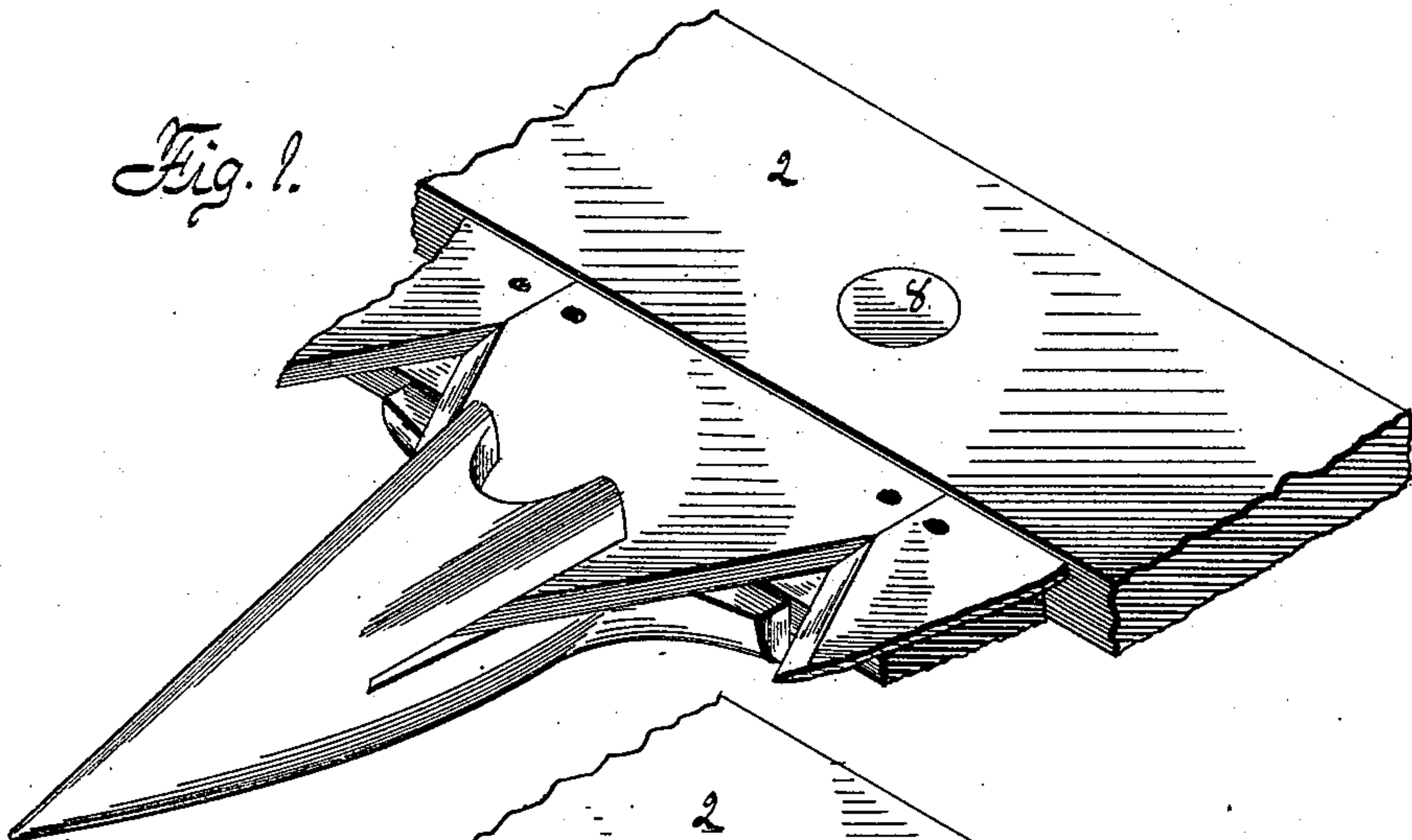


Fig. 2.

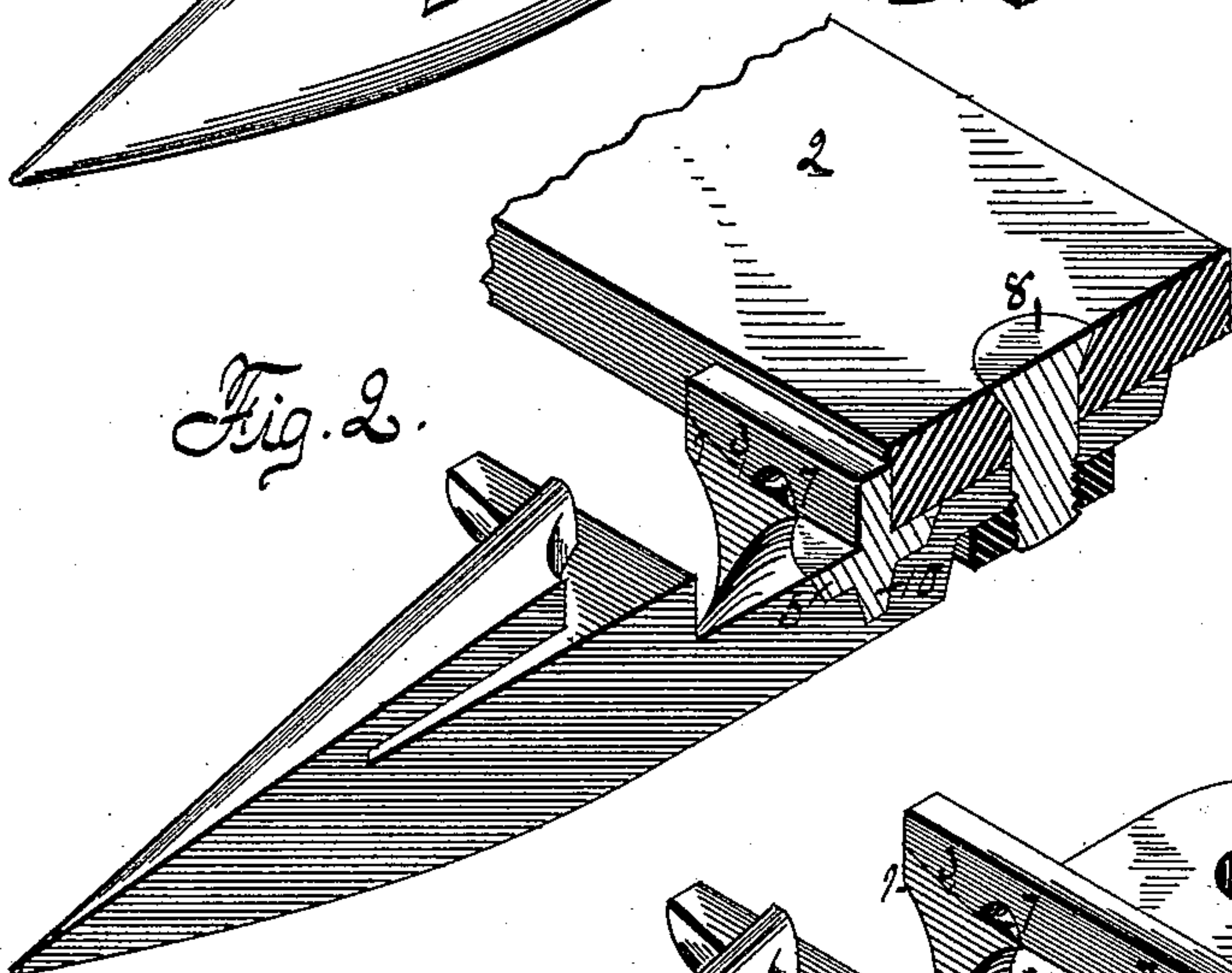


Fig. 3.

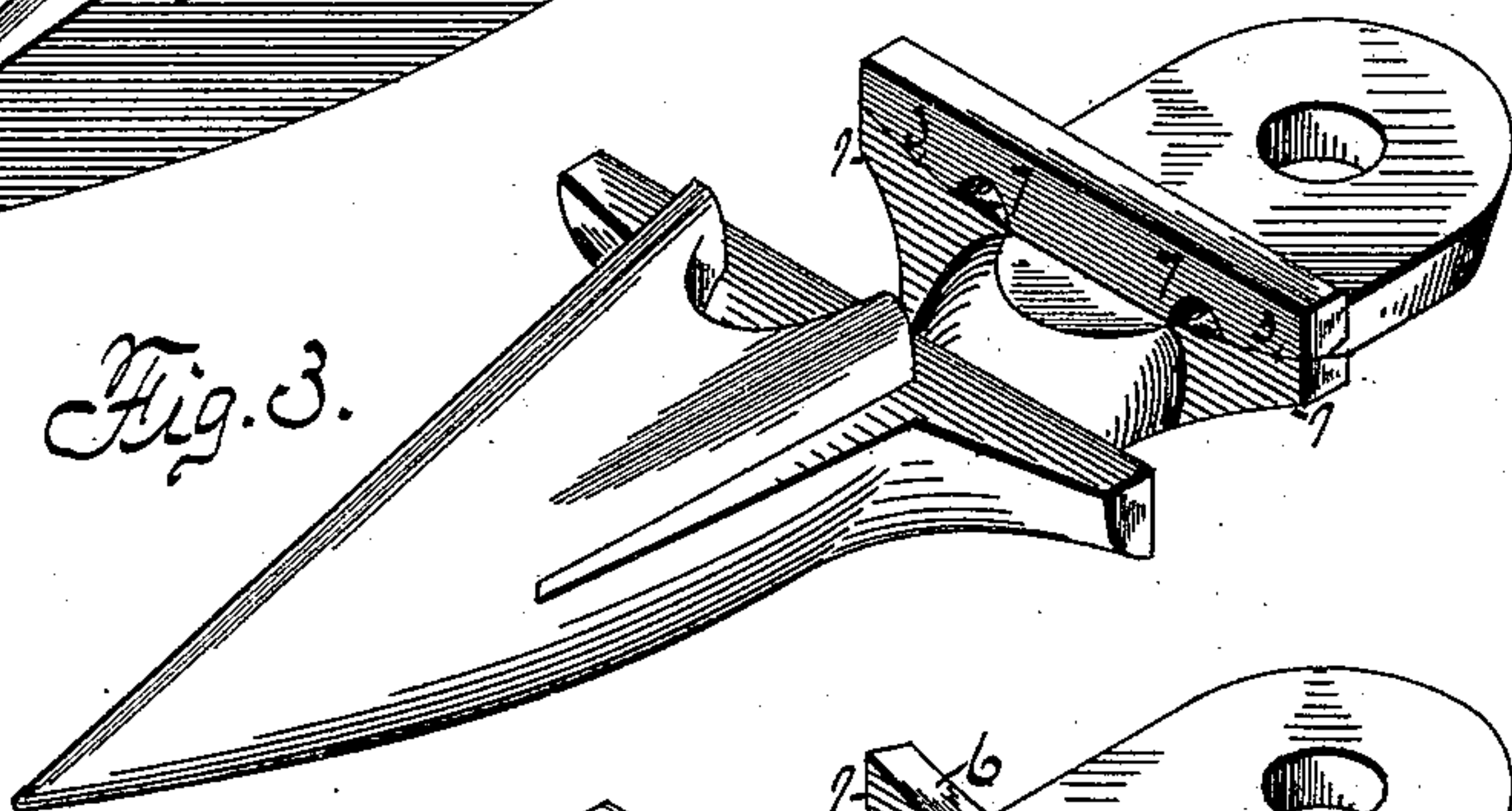


Fig. 4.

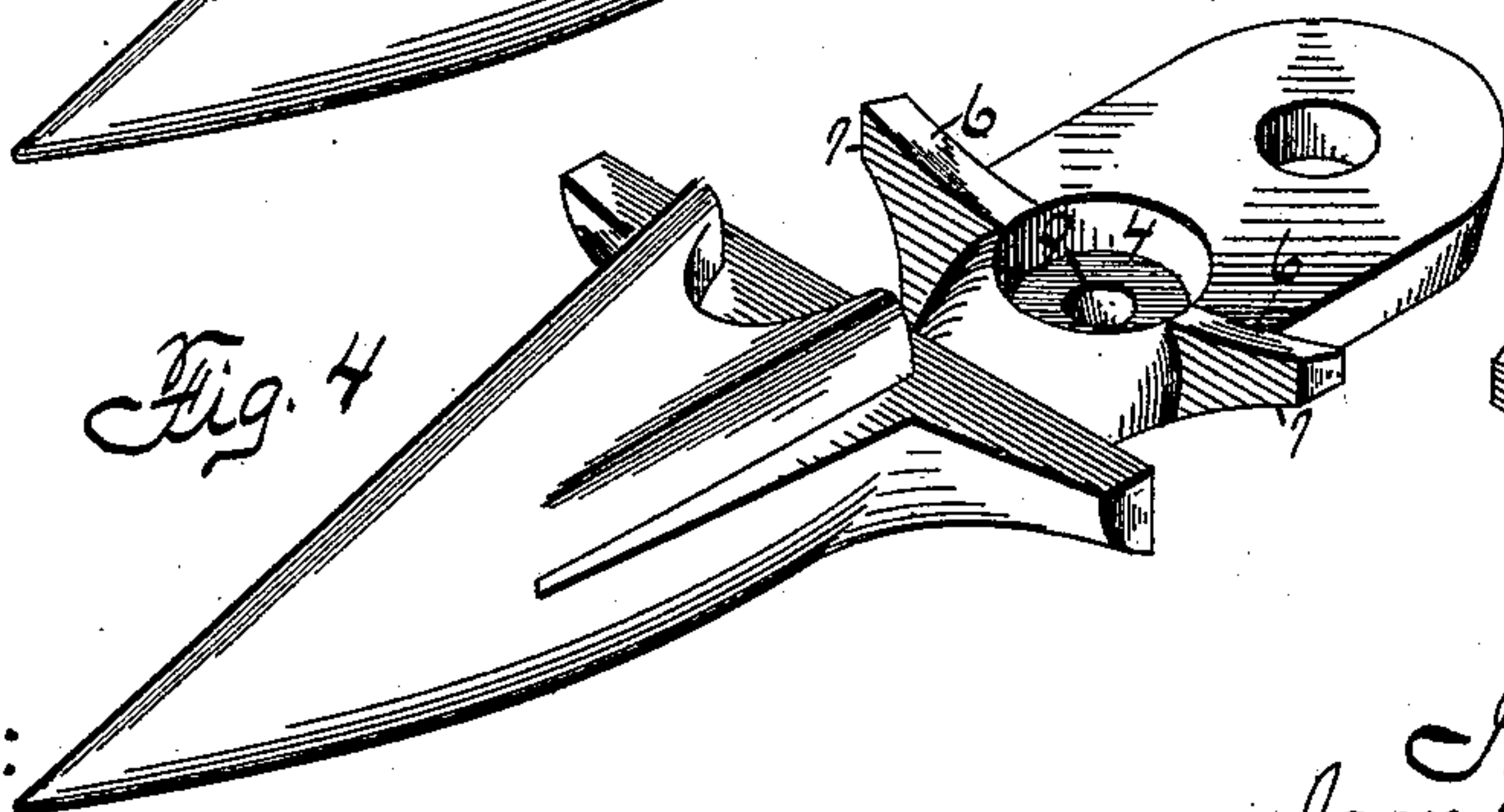
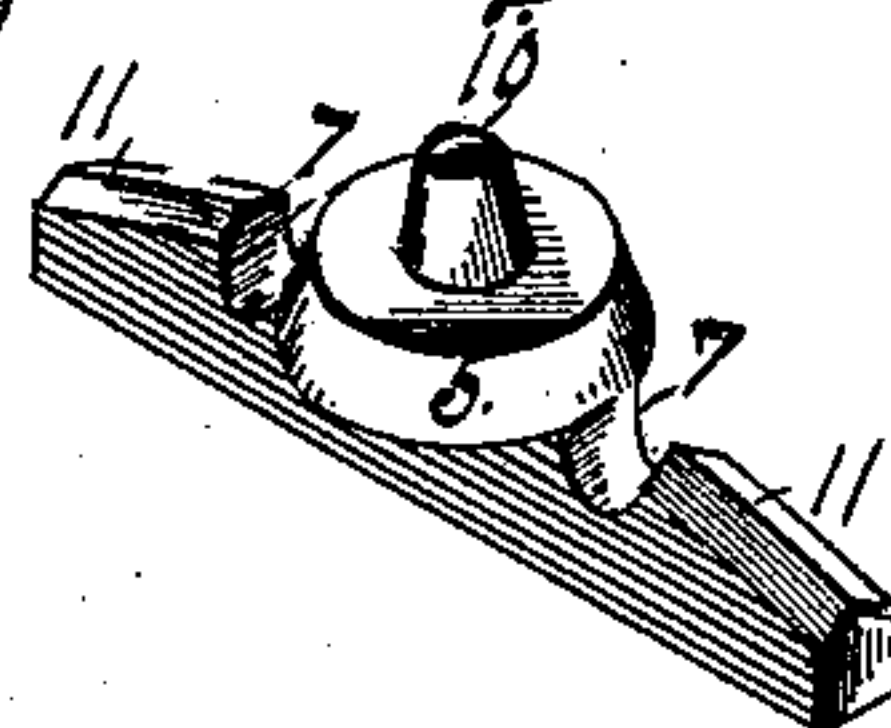


Fig. 5.



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UNITED STATES PATENT OFFICE.

JAMES HERVA JONES, OF ROCKFORD, ILLINOIS, ASSIGNOR TO THE EMERSON,
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GUARD-FINGER.

SPECIFICATION forming part of Letters Patent No. 475,118, dated May 17, 1892.

Application filed March 26, 1889. Serial No. 304,826. (No model.)

To all whom it may concern:

Be it known that I, JAMES HERVA JONES, a citizen of the United States, residing at Rockford, in the county of Winnebago and State of Illinois, have invented certain new and useful Improvements in Guard-Fingers, of which the following is a specification.

The object of this invention is to construct a guard-finger with a detachable and reversible sickle-rest, which is firmly locked to the guard-finger and the finger-bar by the process of bolting the guard-finger to the finger-bar.

In the accompanying drawings, Figure 1 is an isometrical representation of a guard secured to a finger-bar and a section of sickle in position. Fig. 2 is an isometrical representation in section of Fig. 1, excepting the sickle, which has been omitted. Fig. 3 is an isometrical representation of a guard, showing my improved sickle-rest in position. Fig. 4 is an isometrical representation of a guard with the sickle-rest removed. Fig. 5 is an under side isometrical representation of the sickle-rest.

In many harvesters of grass and grain—notably mowers—that part of the guard-finger known as the “shoulder,” which is a part of the solid guard and which is drawn up against the front edge of the finger-bar by the coupling-bolt, is made to serve the purpose, also, of a ledge on which the back edge of the sickle-sections rest. In this position the shoulder is interposed between the sickle-back or cutter-bar and the finger-bar and becomes the surface against which the back edge of the cutter-bar runs and wears. The pressure of the cutter-bar against this shoulder is severe, as a result of the resistance of the grass in the shear cut of the sections against the guard-plates. The consequence is that the shoulder of the guard-finger is rapidly worn out when the machine is used in sandy countries. The guard-finger is then worthless, although its cutting parts may still be perfect.

I form the guard-finger with shoulders 1 on its opposite sides of the concave segmental form, crosswise, first, to give it a firm bearing against the finger-bar, and, secondly, of a concave segmental form that it may be easily dressed by a milling-wheel. I also form the

sickle-rest, with a portion of its lower edge of a convex segmental form, to fittingly rest upon the guard. This construction of a guard-finger and sickle-rest allows the sickle-rest to have a full and firm bearing against the edge of the finger-bar at the center of its length, while the guard-finger has a firm bearing against the finger-bar also on opposite sides.

The guard is provided with a circular recess 4 for the reception of the circular portion 5 of the sickle-rest. I do not wish to confine myself to the circular form of these parts; but I make them of this form, preferably, that they may be easily dressed with a milling-tool.

I construct the guard-finger with upper beveled edges 6 on its opposite shoulders, descending toward the finger-bar 2, and the sickle-rest with double-beveled edges 11 on its under side. The result is that when the sickle-rest is drawn down upon the guard by the screw-bolt 8 it slides snugly against the finger-bar, and is thus held much more firmly.

I make the guard-finger with a lower smaller secondary recess 9 within the upper recess 4 and provide a lower supplementary stud 10 on the under side of the plate or disk of the sickle-rest, which enters into and fits the lower recess 9 in the guard-finger. The result of this construction is to hold the sickle-rest in a perfectly-upright position against the front edge of the finger-bar when it is clamped to place by the guard-finger and screw-bolt. In this case the stud becomes a bearing at some distance below the finger-bar and prevents the sickle-rest from being rocked or rolled over when the finger-bar is firmly drawn down upon the lip 5 of the sickle-rest. A nick or notch 7 is made in the under side of the sickle-rest on each side of the plate or disk 5. The object of these is to render the sickle-rest, which is made of ductile metal, flexible in a slight degree, so that while it is firmly drawn down upon the two shoulders of the guard-finger the guard-finger may also be drawn perfectly flat and firm against the under side of the finger-bar by the screw-bolt, there being “give” enough at the notches for this purpose.

I construct the sickle-rest of exactly duplicate form on its two sides. This is for the

purpose of making it reversible. My object in making it reversible is that when the corner next the cutter-bar is worn out by the friction of the bar the guard-finger may be detached, the sickle-rest reversed on its seat on the guard-finger, and all be replaced. This action presents a new and unworn surface for the cutter-bar to wear against and nearly doubles the endurance of the sickle-rest.

When the sickle-rest becomes so worn that it is of no further use, a new one can be substituted at a very small cost, as compared with the cost of the whole guard-finger, while the guard-finger is still preserved in good condition for further use.

I claim as my invention—

1. The combination of a guard-finger and a reversible sickle-rest, the guard having a concave seat crosswise of segmental form and the sickle-rest having a portion of its lower edge of convex segmental form to fit the guard-finger.

2. The combination of a finger-bar, a guard-finger, and a sickle-rest, the guard-finger having upper beveled edges on its opposite shoulders

and the sickle-rest having beveled edges on its under side.

3. The combination of a guard-finger and a detachable sickle-rest, the sickle-rest having nicks or notches in its lower edge on each side of the central disk or lip.

4. A guard-finger having a concave seat crosswise of segmental form which receives a sickle-rest having a portion of its lower edge of convex segmental form.

5. A sickle-rest for a guard-finger, having transverse wings extending from a central hub, said hub adapted to enter a recess in the guard-finger and also enabling the finger-bar to hold the rest in position by resting on the hub.

6. A guard-finger having a central depression which receives a hub on a sickle-rest, having wings extending crosswise from the depression which receive wings of the sickle-rest.

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Witnesses:

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