

D. Z. Evans, Improved Cultivator Tooth.

No. 122,240.

Patented Dec. 26, 1871.

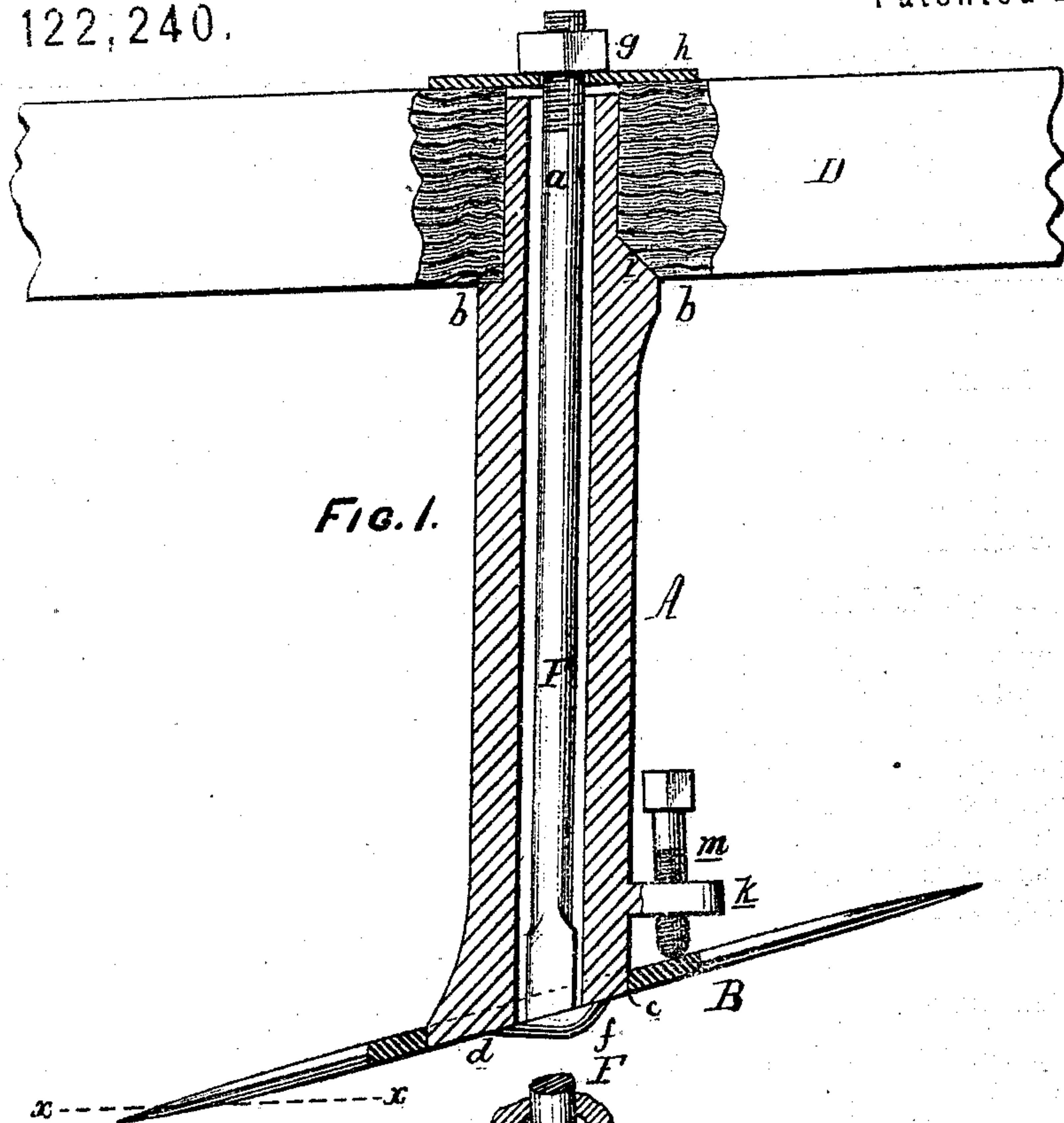


FIG. 1.

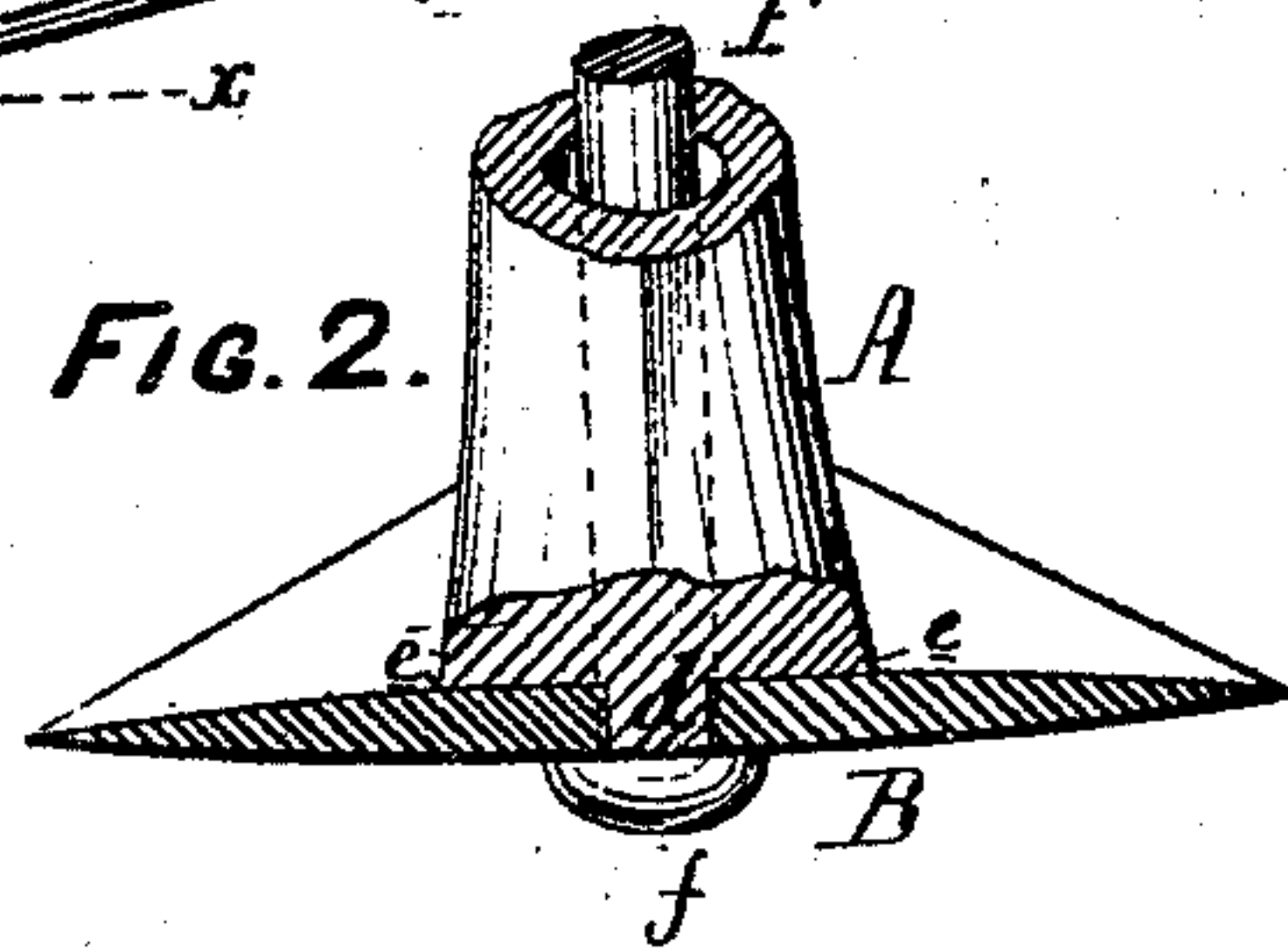


FIG. 2.

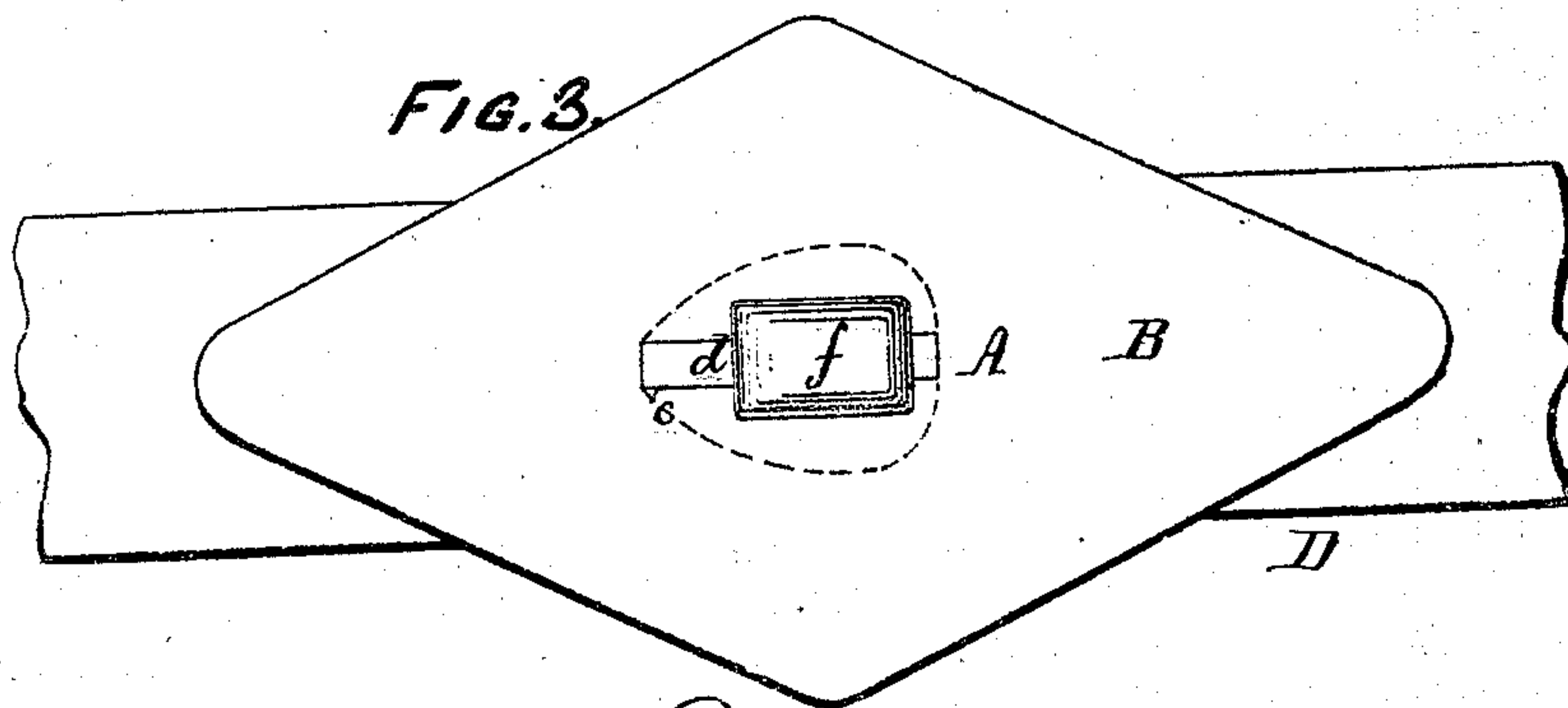


FIG. 3.

WITNESSES { *John Parker*
Mo. B. Harding.

D. Z. Evans
By his attys
Howson & Son

UNITED STATES PATENT OFFICE.

DAVID ZIMMERMAN EVANS, OF TOWN POINT, MARYLAND.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 122,240, dated December 26, 1871.

SPECIFICATION.

I, DAVID ZIMMERMAN EVANS, of Town Point, county of Cecil, State of Maryland, have invented an Improved Cultivator-Tooth, of which the following is a specification:

Nature and Object of the Invention.

My invention consists of a cultivator-tooth composed of a shank and a flat blade arranged to be secured together and to the frame of a cultivator by a single bolt passing through the shank, as fully described hereafter; and my invention also consists in the combination with the above of a set-screw, by which the angle of the blade in respect to the shank may be changed to a limited extent.

Description of the Accompanying Drawing.

Figure 1 is a vertical sectional view of my improved cultivator-tooth; Fig. 2, a transverse section of the lower portion of the same; Fig. 3, an inverted plan view.

General Description.

The tooth consists of two main parts, namely, of a standard or shank, A, and a flat blade or tooth proper B, these two parts being connected together and secured to the frame D of the cultivator by a single bolt, F, which passes entirely through the hollow shank A. The latter is brought to a comparatively sharp edge in front, and is reduced at its upper end so as to form a stem, *a*, and shoulder *b*, the stem extending upward through an opening of corresponding shape in the frame D, and the shoulder bearing against the under side of the latter. At its lower end the shank A is beveled at about the angle at which it is desired to arrange the blade B, and in the center of the latter there is an elongated opening, C, to which is adapted a correspondingly-shaped projection, *d*, of the shank, the blade being retained upon this projection, and forced firmly against the shoulders *e e* of the shank at either side of the same by the head *f* of the bolt F, which bears against the under side of the blade, the said bolt having at its upper threaded end a

nut, *g*, which is screwed down upon a washer, *h*, on the frame D, which will have the effect of simultaneously drawing the blade up to the shank and the latter up into the frame, and of thus securing the whole tooth rigidly to the frame. The shank is provided at its upper end with a rib, *i*, to prevent it from being accidentally turned in the frame. The blade B is pointed at each end, as best observed in Fig. 3, and is reduced to a sharp edge by beveling it equally on both sides, as shown in Figs. 1 and 2. The blade is set at such an angle that it shall be worn away on about the line *x x*, Fig. 1, it being thus self-sharpening as it wears. The blade also, being perfectly flat and precisely alike at each end and upon both sides, can be both reversed and inverted, and can consequently be used until it is worn away at each end close up to the shank.

The above-described method of fastening the blade by means of a single bolt enables it to be thus both reversed or inverted with the greatest facility.

At the rear side of the shank, close to the bottom of the same, is a projection through which passes a set-screw, *m*, having a rounded end bearing upon the blade B. The angle of the latter can be changed to a limited extent by forcing this set-screw down upon it after loosening the nut of the bolt F.

Claims.

A cultivator-tooth consisting of a shank A and detachable blade B secured together and to the frame of a cultivator by a single bolt F, substantially as herein described.

A cultivator-tooth consisting of a shank A and an adjustable blade B secured to the shank, so as to be adjustable thereon, by a set-screw *m*, or its equivalent.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

D. Z. EVANS.

Witnesses:

JNO. B. HARDING,
HARRY SMITH.

(84)