

No. 681,816.

Patented Sept. 3, 1901.

P. L. SHEPLER.
CUTTER FOR MOWERS OR HARVESTERS.

(Application filed June 19, 1900.)

(No Model.)

2 Sheets—Sheet 1.

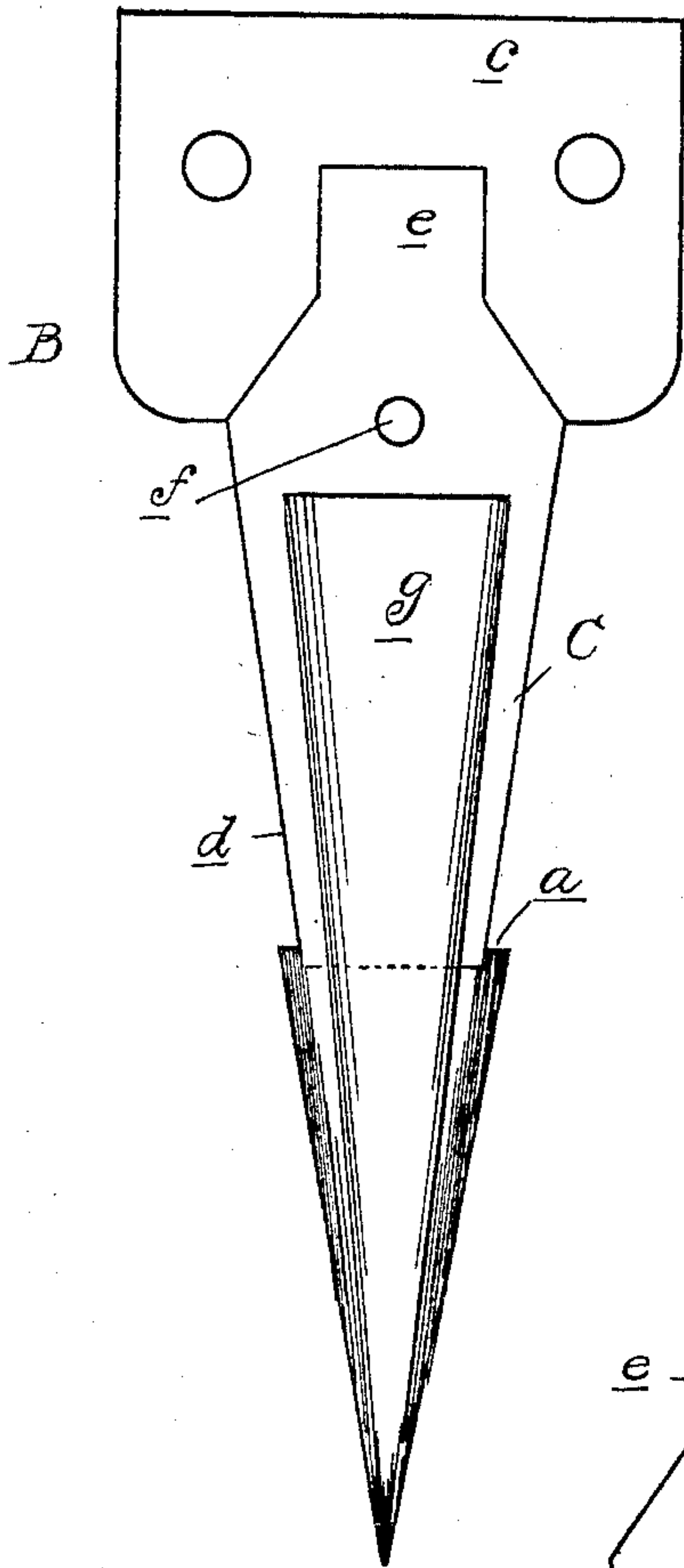


Fig 1.

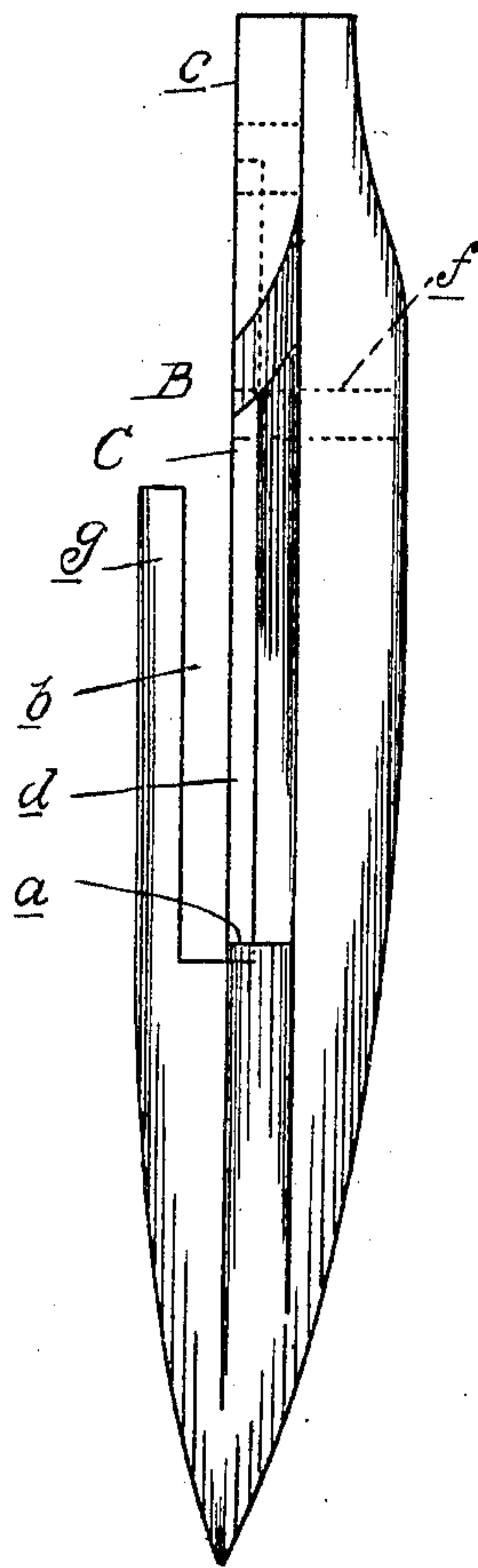


Fig 2.

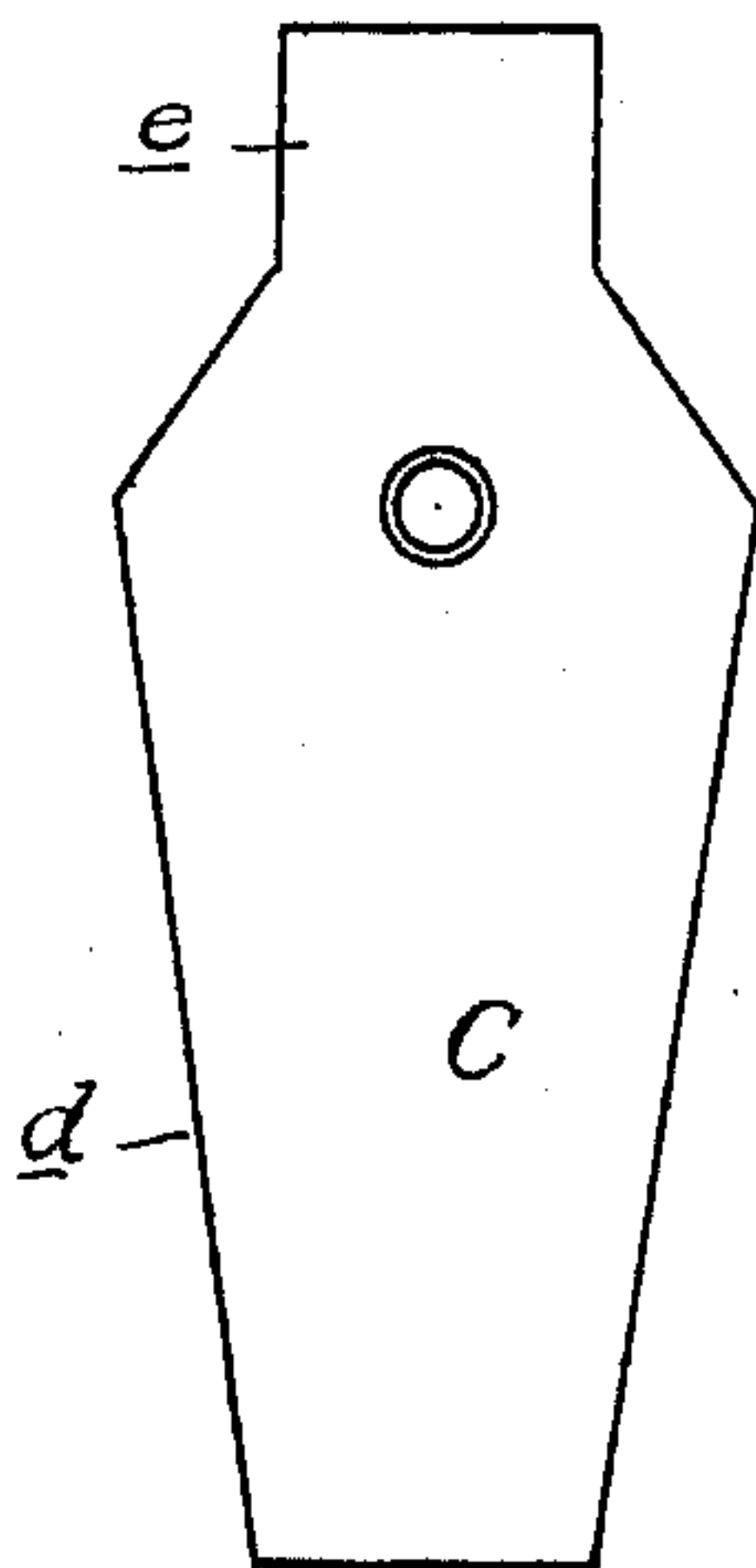


Fig 3.

WITNESSES.

B. C. Smith
M. J. McPherson

INVENTOR.

P. L. Shepler

By *[Signature]* Attys.

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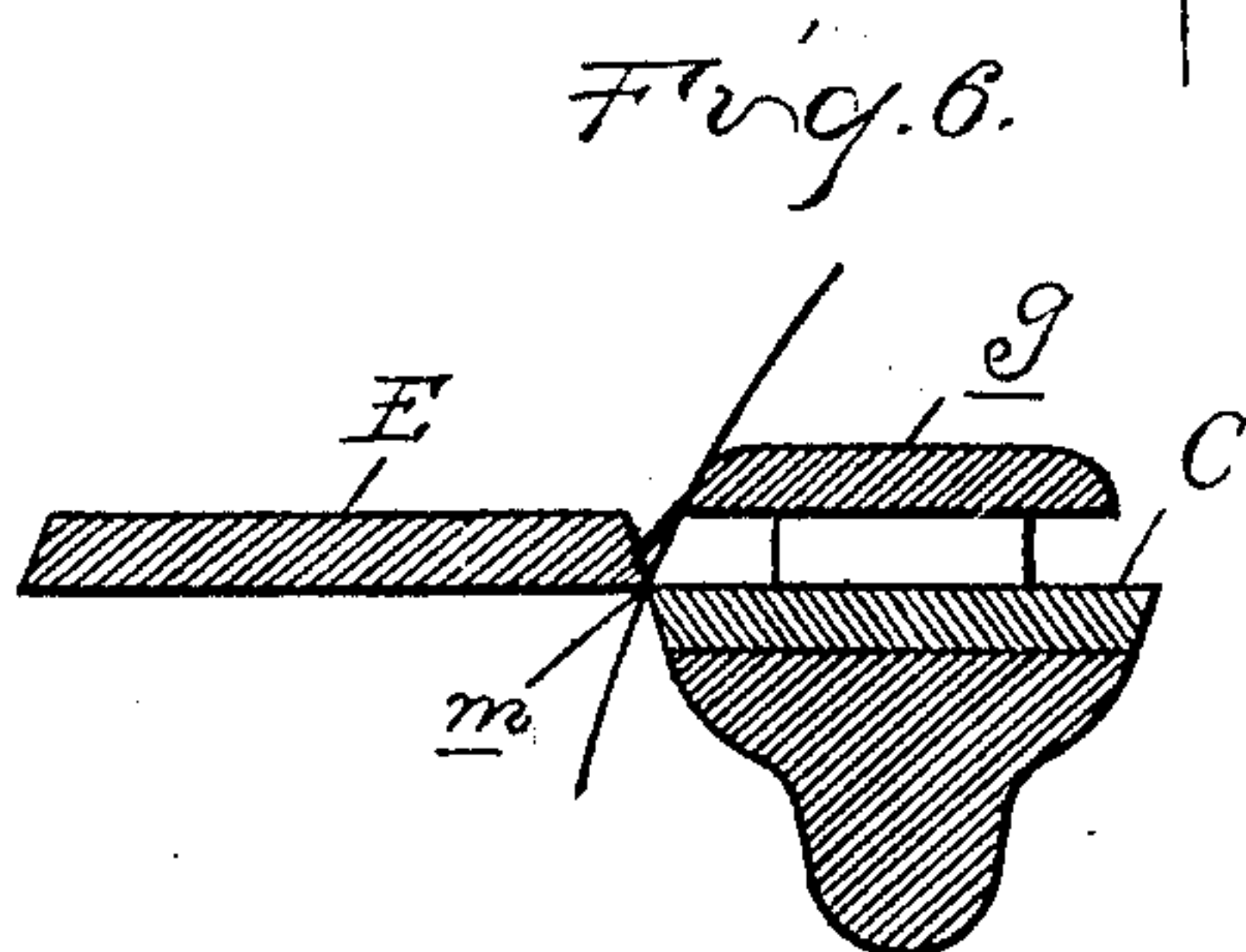
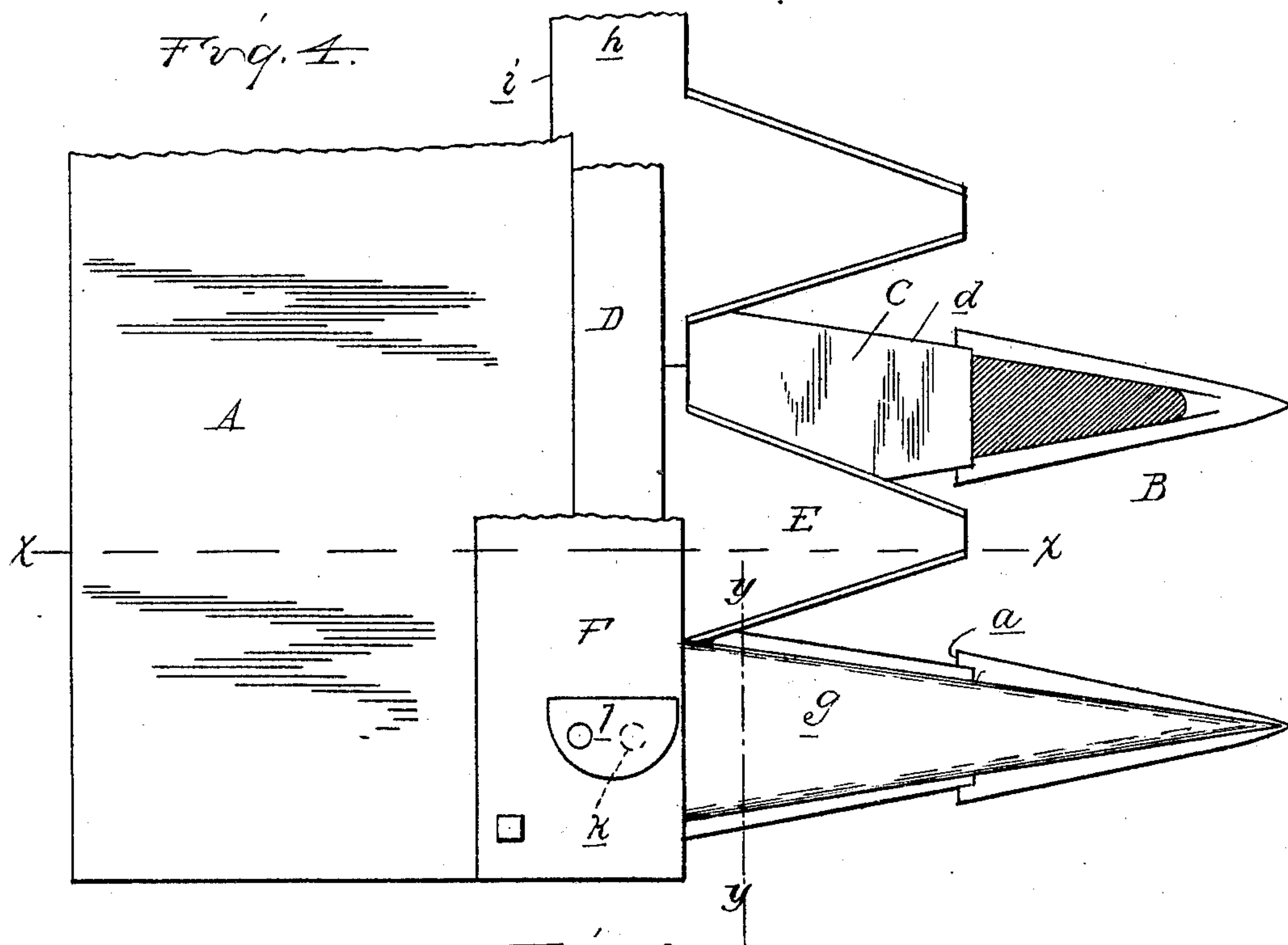
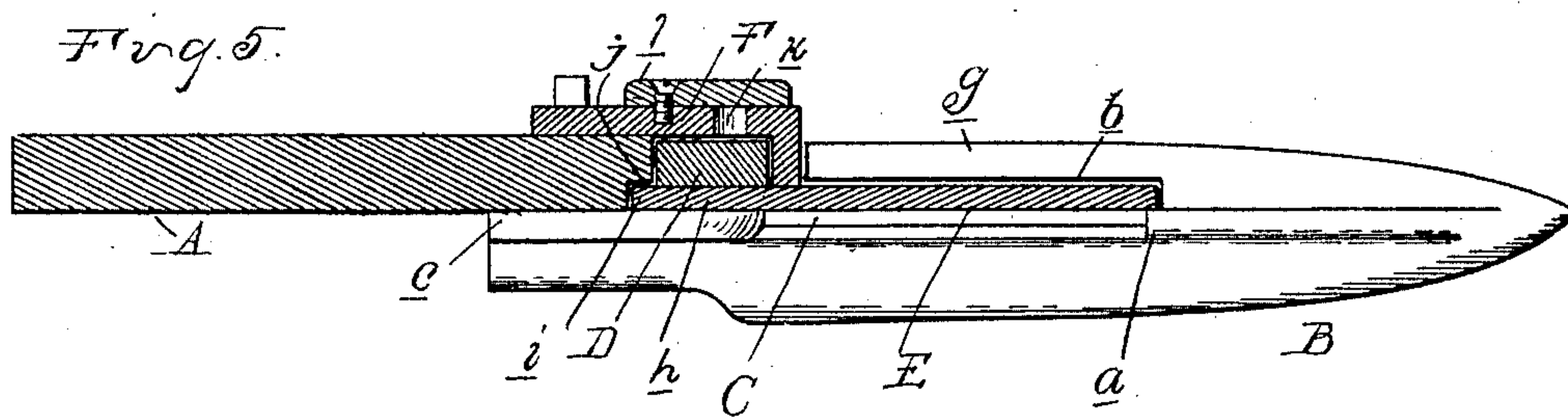
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(No Model.)

2 Sheets—Sheet 2.



Witnesses
H. C. Smith
M. A. Oogherty

Inventor
Pius L. Sneyder
By *J. H. Maguire* Att'ys.

UNITED STATES PATENT OFFICE.

PIUS L. SHEPLER, OF TOLEDO, OHIO, ASSIGNOR OF ONE-FIFTH TO CORYDON W. MUNSON, OF SAME PLACE.

CUTTER FOR MOWERS OR HARVESTERS.

SPECIFICATION forming part of Letters Patent No. 681,816, dated September 3, 1901.

Application filed June 19, 1900. Serial No. 20,806. (No model.)

To all whom it may concern:

Be it known that I, PIUS L. SHEPLER, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have
5 invented certain new and useful Improvements in Cutters for Mowers or Harvesters, of which the following is a specification, reference being had therein to the accompanying drawings.

10 The invention relates to cutters for mowers and harvesters; and it consists in the peculiar construction of the guard-fingers; further, in the construction and arrangement of the sickle-bar, and, further, in the peculiar
15 construction, arrangement, and combination of parts, as hereinafter described and claimed.

In the drawings, Figure 1 is a plan view of one of the guard-fingers. Fig. 2 is a side elevation thereof. Fig. 3 is a plan view of the
20 ledger or sole plate for one of said fingers. Fig. 4 is a plan, partly in section, of a portion of the cutter. Fig. 5 is a cross-section on line *x x*, Fig. 4. Fig. 6 is a section on line *y y*, Fig. 4.

25 A is the stationary bar to which the guard-fingers are secured, and B the guard-fingers. Each of these guard-fingers comprises a spear-shaped body having arranged on opposite sides thereof the barbs or shoulders *a*.
30 These barbs are preferably extended slightly in rear of the forward end of the slot *b*, through which the sickle-knives pass. The rear end of that portion of the finger below the slot *b* is enlarged laterally to form a securing-shank *c*, which latter is adapted to be
35 riveted or bolted to the under side of the bar A.

C is the ledger or sole plate, arranged at the bottom of the slot *b* and forming the cutting edges, which cooperate with the sickle-knives. This plate is preferably formed as
40 shown in Fig. 3 of the drawings and comprises the tapering portion *d*, conforming to the shape of the finger, and a portion *e* at the rear, which reduces in width and is adapted to engage in a recess formed in the shank *c*. The forward end of this plate also engages a
45 recess formed in that portion of the body forward of the barbs or shoulders *a*. It will
50 thus be seen that the plate C when in posi-

tion is securely held at both ends, so as to prevent lateral movement. The plate is held down in engagement with the recesses by a suitable screw or rivet, such as *f*. The portion *g* of the finger which extends above the slot *b* is of lesser width than the ledger-plate C, as shown in Figs. 1, 4, and 6, and this is for a purpose which will be hereinafter set forth.

D is the sickle-bar, to which the knives E
60 are secured. These knives are of the usual V-shaped form and have shanks *h*, which abut against each other and are secured to the lower face of the bar D. These shanks also project beyond the rear edge of the bar D, so as to form a portion *i*, adapted to en-
65 D, so as to form a portion *i*, adapted to engage with a longitudinal slot or rabbet *j*, formed in the bar A. The bar D is arranged to slide with its rear face bearing against the forward edge of the bar A. To hold it in po-
70 sition in relation to said bar, an angled guide-bar F is secured to the bar A and extends over in front of the bar D. At a number of points in the upper portion of the bar F are formed oil-apertures *k*, which are normally
75 covered by pivotal caps *l*.

The parts being constructed as shown and described, in operation a reciprocatory movement is imparted to the sickle-bar by suitable
80 mechanism. (Not shown.) This will cause the knives E to be drawn back and forth over the ledger-plate C in the usual well-known manner. It will be observed, however, that the forward ends of the knives overlap that
85 portion of the finger in which the barbs or shoulders *a* are formed, so that as the grass or grain is sheared by the knives it will be held from sliding forward by the shoulders *a*, thus forming a perfectly-clean cut. It will
90 also be noticed that as the upper portion *g* of the finger is of less width than the ledger-plate the grass-blades will be bent at an angle over the sharp edge *m* of the ledger-plate before they are sheared by the knife E, which makes an easier and cleaner cut.

95 The engagement of the forward and rear ends of the ledger-plate with the recess in the finger prevents any possibility of lateral displacement of the plate, even when subjected to considerable force, as by the catching of a
100

stick or other foreign material by the knives. From the fact that the shanks of the knives abut against each other, and therefore always overlap the ledger-plate, it is impossible for them to catch against the edge of said plate, 5 while the engagement of the rear portion *i* with the rabbet *j* and the bar A will prevent the forward ends of said knives from moving downward. I desire also to call attention to 10 the fact that the angle-bar F has its downwardly-projecting flange bearing upon the upper face of the sickle-teeth. This not only prevents dust from entering the bearing and retains the oil therein, but also holds the 15 sickle-teeth down in contact with the ledger-plates, so as to insure a perfect cut.

What I claim as my invention is—

1. In a cutter for harvesters, the combination with a reciprocating sickle-bar, of a tapering guard-finger having central ribs upon 20 opposite sides thereof their upper surfaces being flush with the bottom of the knife-slot, said ribs tapering from the point of the finger to a position in rear of the forward end of the 25 sickle-tooth and there terminating to form a shoulder or barb, for the purpose described.

2. A guard-finger for harvester-cutters, comprising a tapering horizontally-slotted body portion having a laterally-enlarged

shank below and in rear of said slot, barbs 30 projecting laterally from opposite sides of said body portion below and near the forward end of said slot and a ledger-plate at the bottom of said slot, the forward end of which is mortised in said body between said barbs, its 35 top being flush with the top of said barbs, and its rear end tapering and being mortised into said shank.

3. In a cutter for harvesters, the combination of a sickle-bar having the cutter-teeth 40 secured to its under side and projecting beyond the rear edge thereof, a finger-bar the thickness of which is equal to the combined thickness of said sickle-bar and teeth, said finger-bar having a rabbet on its forward edge 45 with which said projecting portions engage, fingers secured to the under side of said finger-bar and an angle guide-bar secured to the upper face of said finger-bar and embracing said sickle-bar and bearing on the cutter- 50 teeth, so as to form a dust-proof joint therewith.

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

PIUS L. SHEPLER.

Witnesses:

M. B. O'DOGHERTY,
H. C. SMITH.