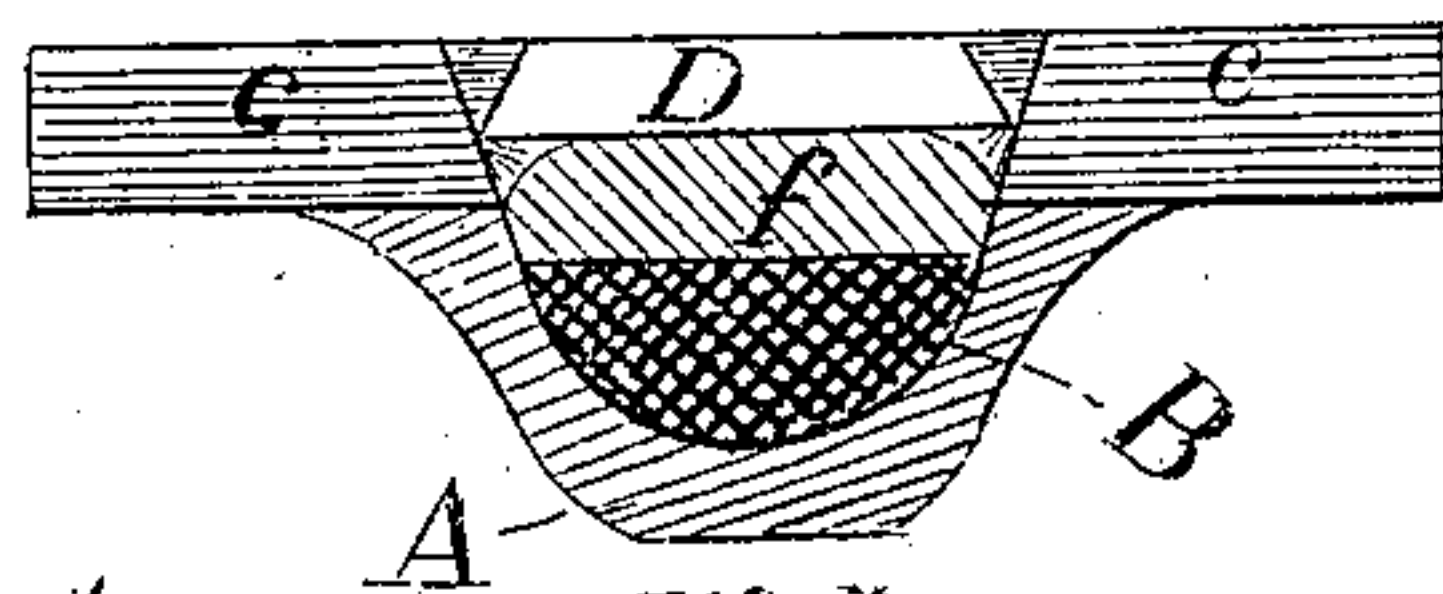
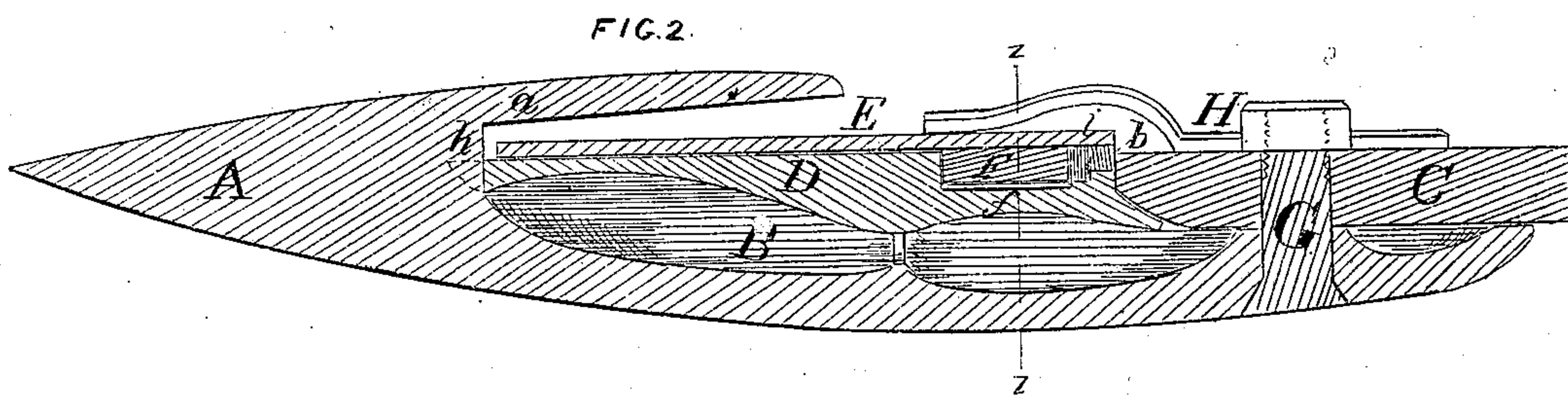
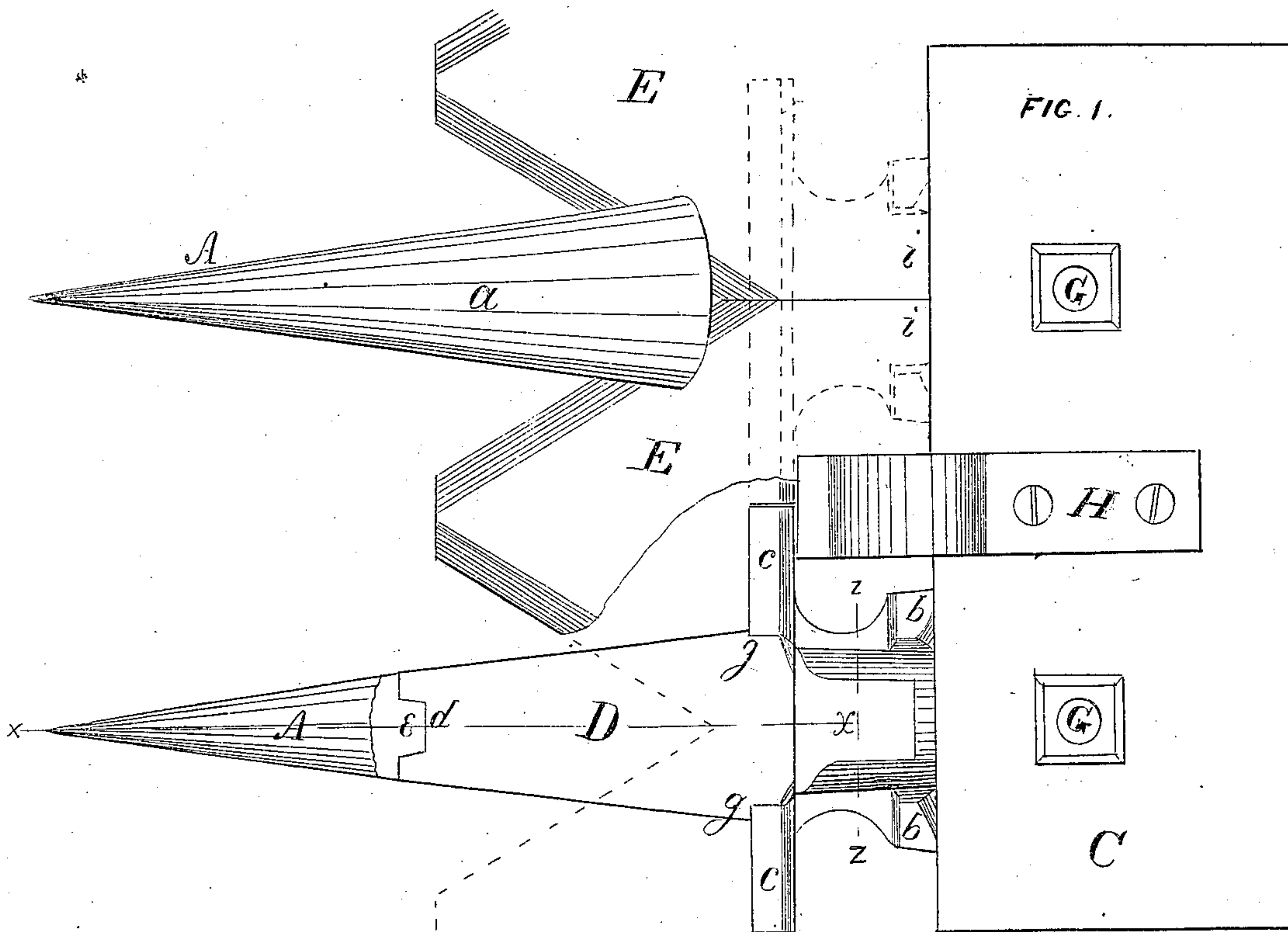


C. Wheeler, Jr.
Harvester Cutter.

No. 38708.

Patented May 20, 1863.



Witness { Dan Rowland
 J. S. Rowland.

C. Wheeler, Jr.

UNITED STATES PATENT OFFICE.

C. WHEELER, JR., OF POPLAR RIDGE, NEW YORK.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 38,708, dated May 26, 1863.

To all whom it may concern:

Be it known that I, C. WHEELER, JR., of Poplar Ridge, in the county of Cayuga and State of New York, have invented certain new and useful Improvements in Cutting Devices for Harvesters; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation thereof, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a plan or top view of the cutting apparatus. Fig. 2 is a longitudinal vertical section of the guard-finger, ledger-plate, and cutter or knife, and a transverse section of the knife-rod and finger-bar *x x*, showing the plane of the section. Fig. 3 is a transverse vertical section of the guard-finger and the shank of the ledger-plate *z z*, showing the plane of the section.

Similar letters indicate corresponding parts wherever they occur in the several figures.

The nature of my invention consists in the manner of constructing and applying "ledger-plates" to guard-fingers and securing the same firmly in position when in use, at the same time admitting of their easy removal, when desirable, for the purpose of repair or sharpening; also, so combining the cutter, ledger-plate, and guard as to give the cutter a bearing-point on the guard back of the knife-rod, and keeping the edges of the cutter and ledger-plate together when in operation.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A is the guard-finger, constructed with a groove or recess, B, in the body of it, opening upward, which extends from the point of connection of the cap *a* with the main body of the guard backward under the finger-bar C.

b is an elevation of the guard on the upper surface of its shank; *c*, brace-bars formed with the body of the guard-finger, the upper surface of which corresponds in height to the elevations *b*.

D is a ledger-plate made wider than the body of the guard-finger below it, of sufficient thickness at its edges to give necessary strength, and when inserted to bring its upper surface of the same height as the upper surface of the brace-bars *c*. It is chamfered at its edges, so as to make an acute angle with its upper

surface. Its front end has a notch or gain, *d*, the sides of which embrace the lug *e* when it is inserted in its place. The back end of the plate D has a shank, *f*, of less width than the plate at its point of connection with it, forming angles or shoulders *g*. That part of the shank *f* of ledger-plate D which is back of brace-bars *c* is made lower than the body of the plate, so as to form, when in position, a recess for the knife-rod F. This shank *f* is of sufficient length to pass under the front edge of the finger-bar C. On each side of the lug *e* is a ledge, *h*, which bears upon the front end of the ledger-plate D when it is inserted in its position. E is the knife-section or cutter, of scalloped form, beveled on its upper side, so as to leave a flush edge on its lower side. It is fastened on the top of the knife-rod F, so as to project behind it, as seen at *i*, Fig. 2.

H is a clip or pressure plate of arched form, its back end being fastened to the finger-bar C, and its front end bearing on the upper surface of cutter E, directly over the front edge of the knife-rod F. The ledger-plate D is placed in the guard-finger A by inserting its front end under the ledge *h*, and then pressing its shank *f* down into the recess B of the finger, the notch or gain *d*, locking with the leg *e*, preventing its front end from lateral movement, while the ledge *h* prevents any vertical movement. The back end of the plate D is prevented from any lateral or back movement by shoulder or angle *g*, locking with brace-bars *c*, while it is secured against vertical movement by the pressure of the lower edge of the finger-bar C upon the rear end of the shank *f*, the pressure being produced and the guard-finger A being connected to and kept in its position on the finger-bar C by the bolt G passing vertically through and uniting both firmly together.

The cutter or knife E, when inserted in the guard, has its bearing-points on ledger-plate D and brace-bars *c* in front of the knife-rod F, and back of the rod it rests on the elevations *b*, the elevations *b*, brace-bars *c*, and ledger-plate D having at their upper surfaces a common horizontal plane. The cutter E, while free to vibrate transversely across the plate D, is kept from moving longitudinally by the back part of the ledger-plate D and elevations *b*, forming guides for the edges of the knife-

rod F. The knife-rod F has no bearing on the guard-finger A or shank *f* of the ledger-plate D, but is held above them by the cutter or knife E, thus leaving an opening between it and them. The cutter E is kept down to the surface of the ledger-plate D by the clip or pressure plate H, thereby insuring the more perfect contact of the shearing-edges of the cutter E and ledger-plate D when in operation.

The shank *f* of the ledger-plate D may be constructed in one piece with the plate; or it may be made separate and fastened to the plate by rivets or screws, the essential point being that it shall be so formed and so united with the plate D that a recess shall be left transversely across the guard-finger for the knife-rod F to traverse in, while its rear end shall extend far enough back to lock under the front edge of the finger-bar when the guard-finger is united to it, so that the bolt which fastens the finger to the bar shall also

serve to hold the ledger-plate firmly in position; or, when desired, the removal of the bolt will permit the removal of the plate for sharpening or repairs.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. In combination with a scalloped cutter having the knife-bar on its under side, the ledger-plate secured at its front end against lateral and vertical movement by locking with the guard-finger, while its back end is secured by the shank *f*, locking under the finger-bar, substantially as described.

2. In combination with the ledger-plate secured by the shank *f*, locking under the finger-bar, the elevations *b* of the guard-finger, as a bearing for the back part of the cutter, substantially as described.

C. WHEELER, JR.

Witnesses:

DANL. ROWLAND,
J. S. ROWLAND.