C. Wheeler Jr.
Harvester Cutter.

No. 15677

Patented. Sept. 2. 1856

Fig. 2.

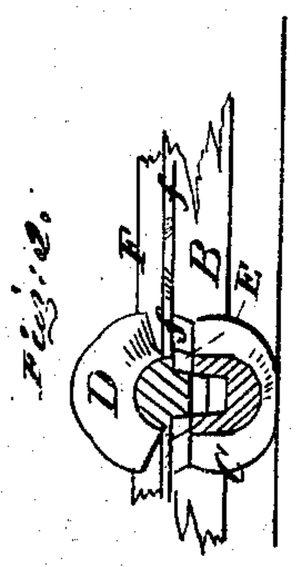


Fig. 1.

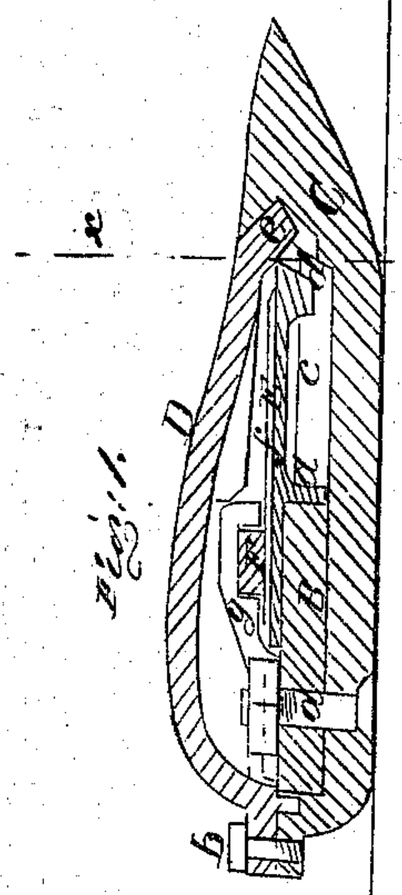
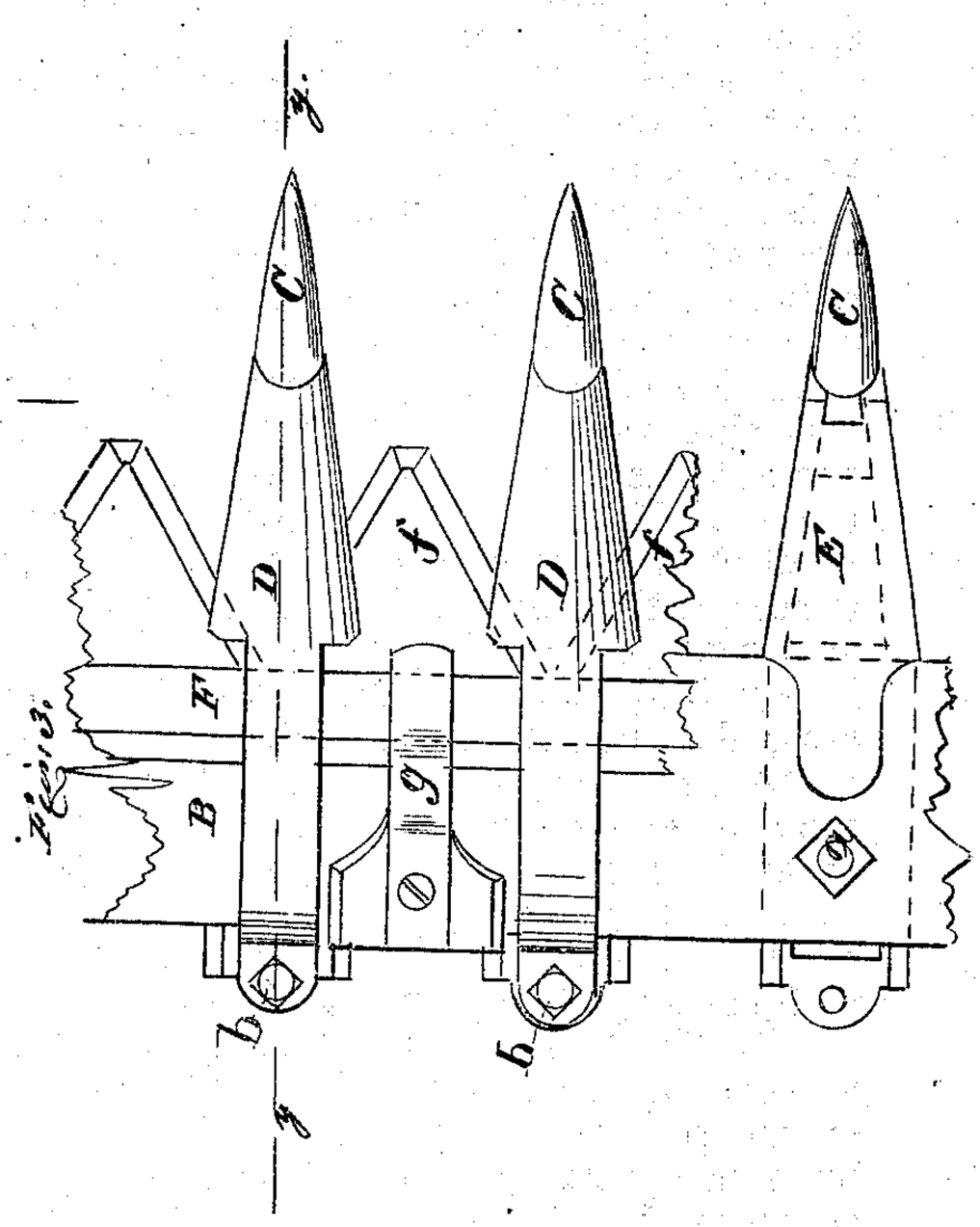


Fig. 3.



UNITED STATES PATENT OFFICE.

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

IMPROVED CUTTING DEVICE FOR HARVESTERS.

Specification forming part of Letters Patent No. **15,677**, dated September 2, 1856.

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 a new and useful Improvement in Cutting Devices for Harvesters; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 is a longitudinal vertical section of one of the fingers, the finger-bar and sickle being also bisected transversely. *y y*, Fig. 3, shows the plane of section. Fig. 2 is a transverse vertical section of one of the fingers, *x x*, Fig. 1, showing the plane of section. Fig. 3 is a plan or top view of my improvement.

Similar letters of reference indicate corresponding parts in the several figures.

To enable those skilled in the art to fully understand and construct my invention, I will proceed to describe it.

B represents the finger-bar, which is constructed of iron and has the fingers C attached to it by bolts *a*, which pass vertically through said bar, one bolt through each finger. The back ends of the fingers C extend upward on both sides the bar B and interlock it, so that one bolt *a* is sufficient to secure each finger to the bar. The front end of each finger C is notched at its front end in a dovetail manner to receive the front end of a cap, D, which is of curved or arched form, as shown clearly in Fig. 1, and the back ends of these caps are secured to the extreme back ends of the fingers by bolts *b*. The front parts of the fingers on their upper surfaces have each a longitudinal groove or recess, *c*, made in them; and these recesses or grooves receive the projections *d* on plates E, which rest on the fingers, the back ends of said plates projecting over on the finger-bar B. The front ends of the caps D have projections *e* on them, which fit in the front ends of the grooves or recesses *a*. The plates E have their edges slightly beveled, so as to form cutting-edges at their upper surfaces, and the upper surfaces may be faced with steel or they may be cast of hard metal.

F represents the sickle-bar, which has triangular or saw-shaped teeth *f* attached to it. The bar F works in guides *z*, attached to the upper surface of the finger-bar B, and the cutting-edges of the teeth do not extend back on the finger-bar. The caps D are sufficiently curved or arched to allow the sickle-bar F to work freely underneath them and also to clear the nuts of the bolts *a*. The heels of the teeth *f* rest or work on the back parts of the plates E, which keep the teeth free from the finger-bar, and the cutting-edges of the teeth *f* work over the cutting-edges of the plates E.

The advantages of my improvement, which have been fully proved in practice, are, first, the fingers and caps, connected and attached to the finger-bar as shown, possess a great amount of strength with a small weight of metal, and either the fingers or caps may be readily removed, if broken, and replaced by new ones, the perfect part being retained. The plates E may also be readily removed and ground when necessary, and new ones inserted when required. By locking the caps and fingers together, as shown, their construction is facilitated and cheapened. By attaching the fingers to the finger-bar, as shown, one bolt will hold each guard firmly in place, while the nut does not obstruct the free passage of the cut grass or grain over the finger-bar. By placing the teeth on the top of the finger-bar, as shown, the cut grass or grain has only the breadth of the finger-bar to pass over, and the free passage of the grass or grain over the bar is insured. By giving the caps a curved or arched form, in addition to their strength, they assist in raising lodged or tangled grass in their passage through it, giving the teeth a better chance to operate freely without clogging.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

Attaching the fingers C to the finger-bar B, and the caps D to the fingers, as shown, and having a plate, E, placed on each finger, on which plates the teeth *f* of the sickle rest and work, the whole being arranged as herein described, for the purpose set forth.

C. WHEELER, JR.

Witnesses:

ALFRED LYON,

JOSEPH MOSHER.