

W. F. KETCHUM.

Harvester Cutter.

No. 10,841.

Patented April 25, 1854.

Fig: 1.

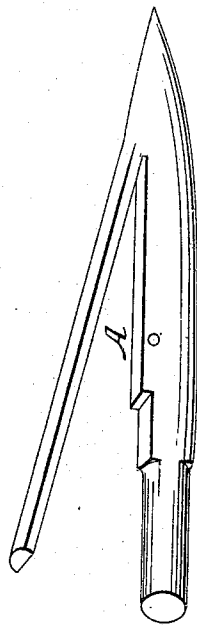


Fig: 2.



# UNITED STATES PATENT OFFICE.

WM. F. KETCHUM, OF BUFFALO, N. Y., ASSIGNOR TO RUFUS L. HOWARD.

## IMPROVEMENT IN GUARD-FINGERS OF HARVESTERS.

Specification forming part of Letters Patent No. **10,841**, dated April 25, 1854.

*To all whom it may concern:*

Be it known that I, WILLIAM F. KETCHUM, of the city of Buffalo, in the county of Erie and State of New York, assignor to RUFUS L. HOWARD, of the same place, have invented a new and Improved Mode of Making Guard-Teeth for Grass and Grain Cutting Machines; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing, and to the letters of reference marked thereon.

The guard-teeth of harvesting-machines are made of iron, with a point extending forward. This point is made solid. Back of the solid point there is a slit extending toward the back end of sufficient width and length only to allow the cutters to slide through without binding. Back of this, still, the slit extends, leaving the end open to be connected with the cutter-bar. The slit in this tooth is so thin that it cannot by any process heretofore known be cast except upon a chill, and when so cast the faces of the slit become so hard and the sides of the slit are so near together that it is almost impossible to dress them, and it is necessary that they should be finished smoothly for practical use. Furthermore, if cast upon a chill, the guard-tooth would be brittle and would be constantly breaking in use, unless made inconveniently large and heavy. The inconveniences and difficulty of casting these teeth for practical use have heretofore been so great that when a good article was required it has

been necessary, at great expense, to make them of wrought-iron. By my invention all these inconveniences are obviated and the best of guard-teeth are made by casting. Instead of casting these teeth with their parts in the same relative position which they have when in use, I cast them with each part of the proper form, but with the parts on each side of the slit at a considerable angle to each other, as shown at A. In casting in this form there is sufficient space between the shanks to admit of their being cast in an ordinary sand mold, or with a common core, and all the difficulty in molding and casting is removed. After they have been thus cast they are mallified, then dressed up with ease, and the shanks partly closed to the proper width, and they are ready for use, as shown at B. By this process cast-iron teeth are produced of the best quality and at greatly-reduced expense.

Having thus fully described my process or mode of making cast-iron guard-teeth, what I claim as new, and desire to secure by Letters Patent, is—

Molding and casting the blank for the tooth in the open form described, (without a chill,) then mallifying, dressing up, and bending them into the proper shape, as required.

WILLIAM F. KETCHUM.

Witnesses:

H. W. TOPER,  
JNO. C. FIELD.