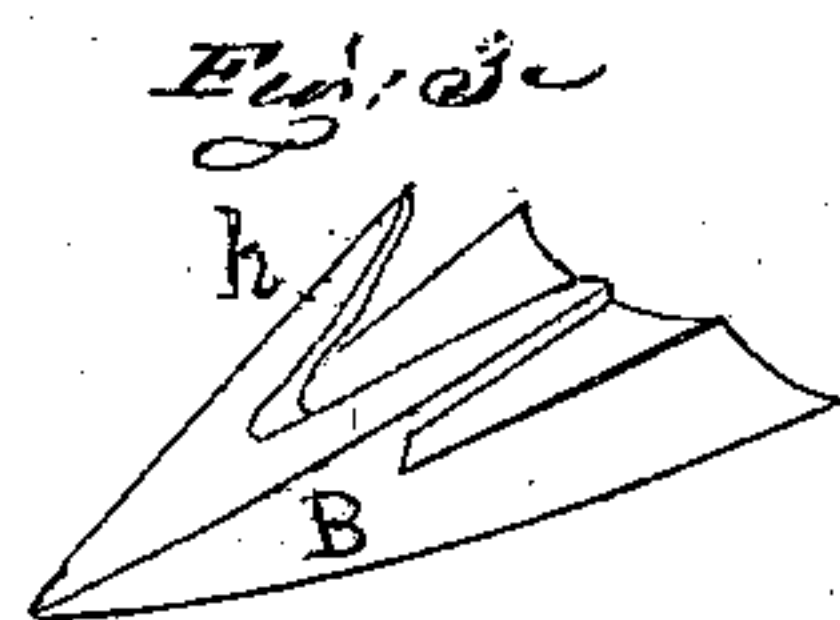
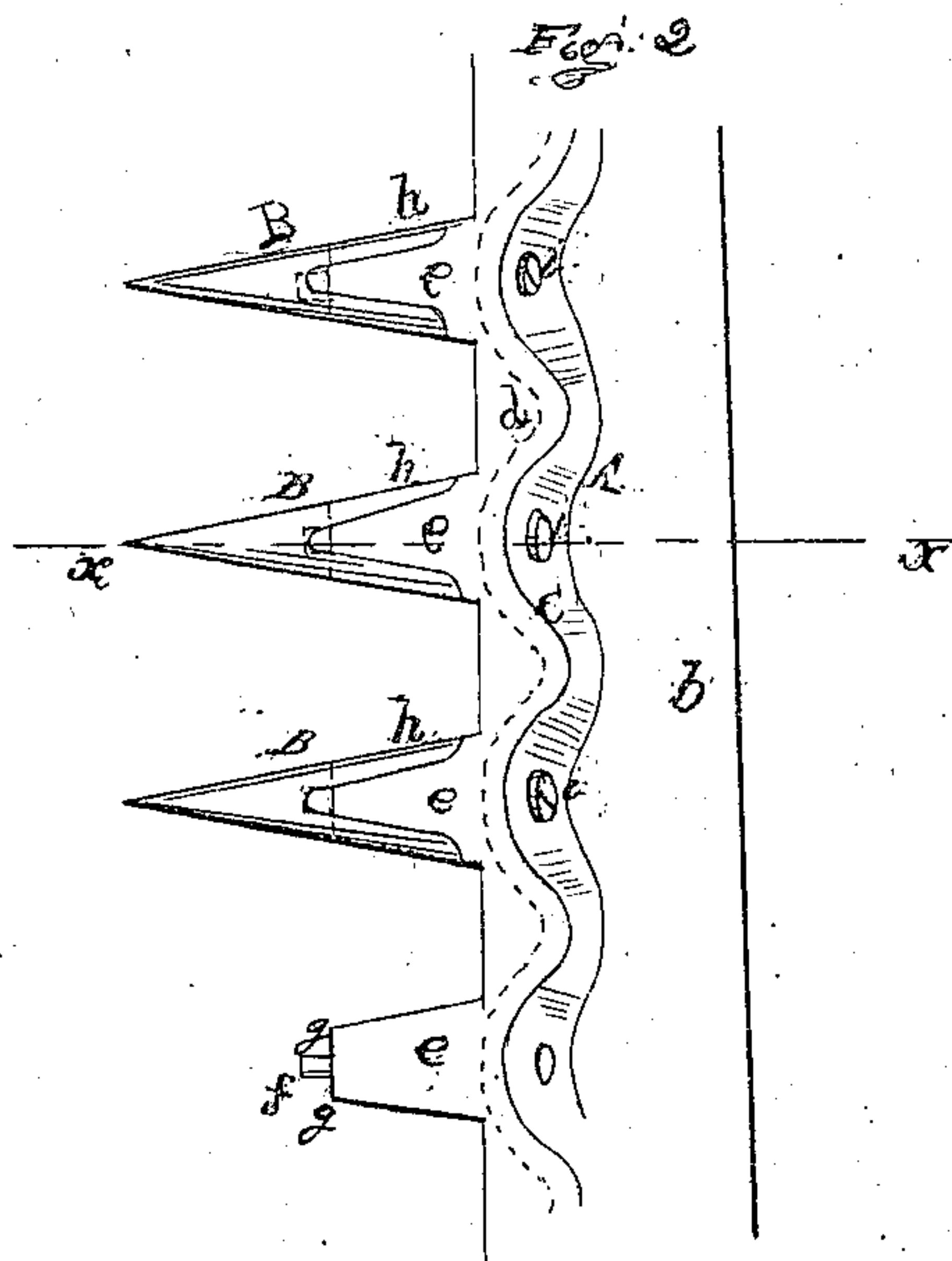
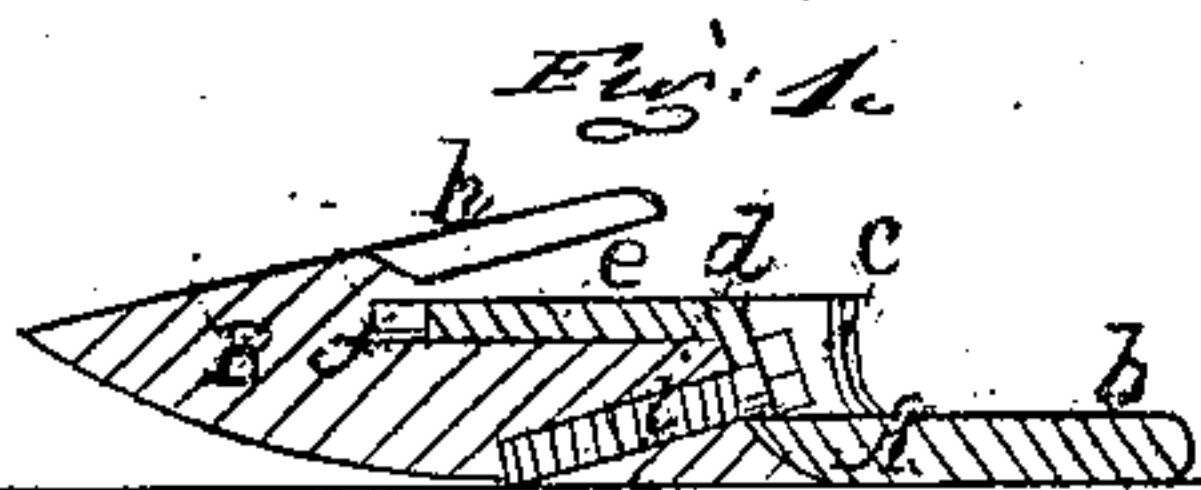


H. Marcellus, Harvester Cutter.

No. 23851

Patented May 3 1859.



Witnesses:
A. E. Manning
Geo. Q. Manning

Inventor:
Henry Marcellus

UNITED STATES PATENT OFFICE.

HENRY MARCELLUS, OF AMSTERDAM, NEW YORK.

IMPROVEMENT IN HARVESTING-MACHINES.

Specification forming part of Letters Patent No. 23,851, dated May 3, 1859.

To all whom it may concern:

Be it known that I, H. MARCELLUS, of Amsterdam, in the county of Montgomery and State of New York, have invented a new and useful Improvement in the Construction of Grass and Grain 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 transverse vertical section of the finger-bar and finger of a harvester showing my invention; Fig. 2, a plan or top view of the same; Fig. 3, a detached perspective view of a finger.

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

This invention consists in the employment or use of a corrugated finger-bar with cutting projections, in connection with detachable fingers, constructed and applied in the manner as hereinafter described.

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

A represents the finger-bar, which is of malleable cast-iron, of the usual or any proper length. This finger-bar may be described as being of three parts—a horizontal part, *b*, a vertical part, *c*, the latter being a ledge or flange of scalloped form, as shown in Fig. 2, and another horizontal part, *d*, which projects from the top of part *c*, and has horizontal plates, *e*, projecting from it and forming, in connection with the upper surface of *d*, the bearing-surface for the sickle. The above-named parts are all cast in one piece, and the upper part of *d* and the plates *e* are planed perfectly true by any suitable metal-planing machine. This work may be readily done.

On the front end of each plate *e* a small tenon, *f*, is formed. These tenons may be round, and they have a shoulder, *g*, at each side of them on the ends of plates *e*, as shown clearly in Fig. 2.

B represents the fingers. These fingers are of the form most generally used, and are provided with forked or divaricated caps *h*. The caps and fingers are both cast in one piece and are of malleable cast-iron. The inner ends of the fingers are curved or concave, and of such form as to correspond inversely with the front

sides of the prominences of the part *c* of the finger-bar, against which they abut and are secured by screws *i*, which pass through the ledge or part *c* of the finger-bar and into the fingers B, as shown clearly in Fig. 1. The tenons *f* of the plates *e* fit in the fingers at the front parts of the caps, and the fingers are thereby firmly secured to the finger-bar.

From the above description it will be seen that the finger-bar and fingers may not only be constructed at a small or moderate cost, but that the finger-bar may be finished with great facility for the reception of the sickle. All that is required to be done after the finger-bar is taken from the mold and properly treated so as to be malleable is to plane the upper surfaces of *e* and *d*. This operation will insure a perfect working of the cutting device, and as the plates *e* form the bearing-surface for the sickle within the fingers, it will be seen that the fingers are in a measure separated from the sickle or rendered more independent of each other than usual, for if a finger is broken a new finger may be immediately attached with the greatest facility. The fingers require to be made and adjusted perfectly true, as the sickle works within them or bears on their upper surfaces below the caps, and consequently the sickle cannot work well if the fingers are not attached and adjusted to the finger-bar with accuracy. By having the part *c* of the finger-bar of scalloped or corrugated form, a requisite degree of strength with lightness is obtained, and an opportunity is given any grass or grain that might chance to pass underneath the teeth of the sickle to pass or work out behind the part *c*.

I do not claim a finger-bar of angular form, nor angular clearing-edges upon a finger-bar, such features having been before employed; but

What I do claim as new, and desire to secure by Letters Patent, is—

The corrugated finger-bar cast with the cutting projections *e*, in combination with the detachable fingers B, constructed and applied in the manner and for the purpose specified.

HENRY MARCELLUS.

Witnesses:

JAS. E. WARRING,
GEO. O. WARRING.