# G. Stone,
## Harvester Cutter.

No. 14070. Patented. Jan. 8. 1856

Fig. 1.

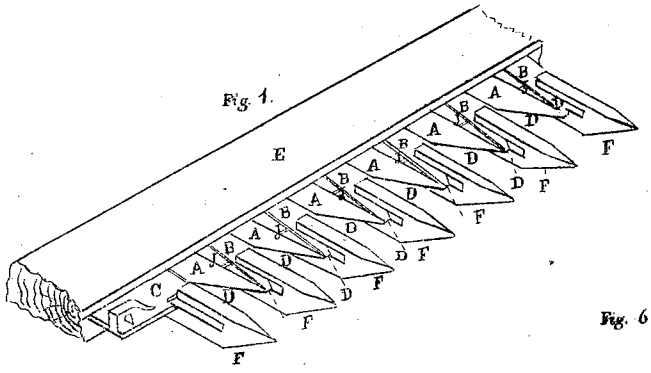



Fig. 6




Fig. 2.

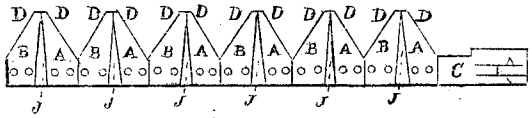



Fig. 3.

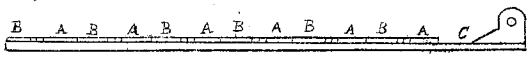



Fig. 4

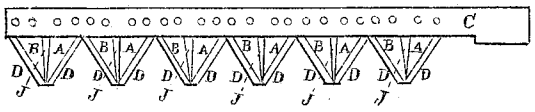
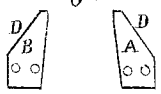



Fig. 5.




Gustavus Stone

Witnesses
Royal R. Kelly
A. S. Chapin

# UNITED STATES PATENT OFFICE.

GUSTAVUS STONE, OF BELOIT, WISCONSIN.

## IMPROVEMENT IN BLADES OF MOWING-MACHINES.

Specification forming part of Letters Patent No. **14,070**, dated January 8, 1856.

*To all whom it may concern:*

Be it known that I, GUSTAVUS STONE, of Beloit, in Rock county, State of Wisconsin, have invented a new and Improved Form of Grass-Cutting Blades for Mowing-Machines; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, in which—

Figure 1 is a perspective view of a part of the mower-sill, with the fingers (or guards) and grass-cutting blade attached thereto. Fig. 2 is a top view of the grass-cutting blade. Fig. 3 is a back view of the same. Fig. 4 is a bottom view of the same; Fig. 5, a representation of the two pieces that make one section of the grass-cutting blade; Fig. 6, a section of the grass-cutting blades made in the old way.

A B, A B, &c., are the two pieces of steel that make up one section of the grass-cutting blade; C, the sickle-bar, to which the sections are riveted; D D, &c., the cutting-edges of the blade; E, the mower-sill; F F, &c., the fingers or guards; J J, &c., the openings between the pieces which make up each section.

The grass-cutting blades hitherto in common use in mowing-machines are made by riveting to a bar of iron sections of steel, each of which is a single piece, and has two cutting-edges beveled in opposite directions from a central point. Fig. 6 represents one of these sections, D D being the cutting-edges. These edges cut alternately as the bar is moved in opposite directions, so as to bring each section under a finger or guard, against which it makes a shearing cut. These cutters frequently draw the fine grass in between the cutting-sections and the fingers or guards, where it hangs and clogs the machine, rendering it nearly useless. Different plans have been tried for overcoming this difficulty, all of which, however, use the same general form of section with two cutting-edges upon the same piece of steel. My improvement consists in making each section of the cutting-blade of two pieces of steel, A and B, with but one cutting-edge, D, upon each, and in placing them upon the bar C in such a way that their cutting-edges shall face in opposite directions, and that there shall be a wedge-shaped opening, J, between their backs, closed at their points, but widening out toward the bar C. These pieces, A B, A B, &c., may be fastened to the bar C with rivets or screws, or in any other well-known way. This manner of making the grass-cutting blades allows each cutting-edge D to be adjusted in its place separately, and therefore more perfectly than heretofore. The space J between the backs of the pieces A and B of each section effectually prevents the grass from clogging in the fingers or guards. This plan has been fully tested and found fully to succeed, when, in consequence of their clogging, the common mode has failed entirely, and the whole may be constructed at a reduced cost. The advantages of this way of making the blades are, first, the great saving of the sheet-steel from which they are cut, there being very little waste; second, their being in sections, should one section become injured, which often happens, only one-half instead of a whole tooth is lost; third, the opening extending from point to heel of the blade, has just so much more clearing-space than where a hole is punched through. I do not punch at all. The sections in being cut from the sheet or bar are finished, so far as shape is concerned. The sections I use can be made from the waste metal in Forbush's plan, and this saving alone is very important. Besides, I have a clearing-surface for the whole depth of the blade, which is not found on any blade of which I have knowledge.

I do not claim the invention of mowing-machines, or of the several parts thereof, generally; but

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

The making the sections of which the grass-cutting blades are usually made of two pieces of steel, A and B, with but one cutting-edge, D, upon each, and so placing them upon the bar C that there shall be a wedge-shaped opening, J, between their backs, closed at the points and widening out toward the bar.

GUSTAVUS STONE.

Witnesses:

ROGER H. MILLS,

A. L. CHAPIN.