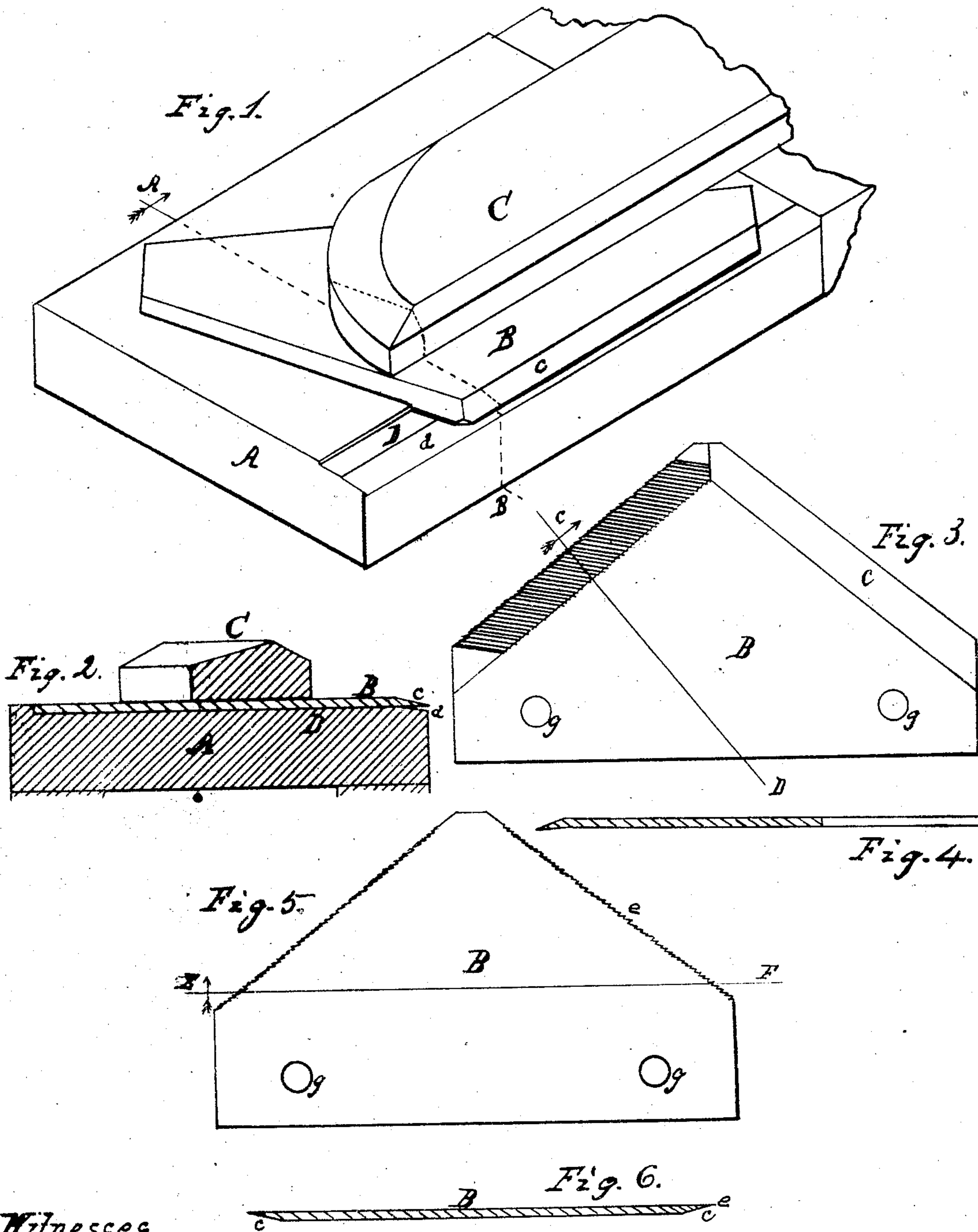


S. D. Sheldon's Sickle-Section.

No 75,990.

Patented Mar. 24. 1869.



Witnesses.

Thos. H. Dodge.
D. L. Miller.

Inventor.

Samuel D. Sheldon.

United States Patent Office.

SAMUEL D. SHELDON, OF FITCHBURG, MASSACHUSETTS, ASSIGNOR TO
"THE WHITMAN AND MILES MANUFACTURING COMPANY."

Letters Patent No. 75,990, dated March 24, 1868.

IMPROVEMENT IN SICKLE-SECTIONS, AND IN METHOD OF SERRATING THEM.

The Schedule referred to in these Letters Patent and making part of the same.

KNOW ALL MEN BY THESE PRESENTS:

That I, SAMUEL D. SHELDON, of Fitchburg, in the county of Worcester, and Commonwealth of Massachusetts, have invented certain new and useful Improvements in the Mode of Cutting or Serrating Sickle-Sections; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

Figure 1 represents a perspective view of a blank section placed in position upon the anvil or block preparatory to being serrated or cut.

Figure 2 represents a section on line A B, fig. 1.

Figure 3 represents a top or plan view of a blank sickle-section after one bevel has been cut or serrated.

Figure 4 represents a section on line C D, fig. 3.

Figure 5 represents a bottom view of a finished sickle-section made according to my invention, and

Figure 6 represents a section on line E F, fig. 5.

To enable those skilled in the art to which my invention belongs to make and use the same, I will proceed to describe it more in detail.

In the drawing, the part lettered A is the anvil or block, on which the blank sickle-section B is placed to be serrated or cut. The anvil or block A is recessed or cut out to receive the blank-section, whereby the latter, after the clamp-lever C has been forced down upon it, is retained in a secure position during the operation of cutting or serrating. A part of the face or edge D of the anvil A is bevelled off, as shown at *a*, figs. 1 and 2. The bevel part *a* extends back as far, or nearly so, as the bevel *c* on blank B, so that, when the cutting-tool is forced down upon the bevel part *c* of the blank-section, said bevel part *c* is bent or forced down until it rests upon the bevel-edge *a* of the block, so that, after the serrations or cuts I have all been made upon the bevelled part *c* of the section, it has substantially the form and appearance shown in fig. 4. After both of the bevels *a* have been serrated or cut, as shown at 1, fig. 3, the section is tempered and then ground off on the bottom, so as to have the form shown in figs. 5 and 6. When the serrations or cuts are made upon the bevel part *a*, supported above the bevel *c* on the anvil, whereby the serrated part of the section is bent or forced down, as shown in fig. 4, it requires but little grinding of the bottom of the section to produce a very perfect cutting-edge, *e*, and in practice it is found that no part of the bottom of the section, except the bent part *f*, requires grinding more than what is necessary to give it a smooth finish, and even that is not actually necessary in order to obtain a good cutting-edge, since the bent part *f* being depressed below the bottom part E, by the operation of cutting, a good cutting-edge is produced by simply grinding off the lowest edge of the bevel part *f*.

By making the sections in the manner above described, much time and expense are saved in the process of grinding and finishing the bottoms and edges of the sections, while a larger per cent. is saved in the breaking and checking of sections during the operation of tempering, when the serrations are made in the manner above described, instead of by the old mode, in which the anvil or block has no bevel-face *a*, but supports the bevel part *c* firmly and in a horizontal position.

When the bottom of the section is supported upon an unbevelled anvil or block, the cutting-tool is very liable to be so held or struck as to make deep, wide, and irregular cuts through the edge of the bevelled part, which occasions checks and cracks in the operation of tempering. Then, again, when the sections are not damaged by checking or breaking in the operation of tempering, so as to be noticed before they are put to practical use, the imperfect serrations are liable to and do often break out in a very few hours' or days' use, and thus greatly impair the efficiency of the cutting-apparatus of the mower or reaper.

It will be observed that I obtain a cutting-edge back of the edge of the bevel on the blank which is ground off, a result which could not be obtained by the old mode of making serrations, and still have the body of the section of its full thickness, and the back of the section ground without a bevel or rounded edge, which is necessary in order to produce a good cutting-apparatus.

The serrations may be cut by hand, or by my power-machine, for which I am about to apply for separate Letters Patent.

g g are the holes through which rivets are passed to fasten the sections to the sickle or cutter-bar of the reaper or mower.

The anvil or block A is made of steel, and well hardened or tempered.

Having described my improved mode of serrating sickle-sections, what I claim therein as new, and of my invention, and desire to secure by Letters Patent, is—

1. The bevelled-faced anvil or block, for supporting the blank-sections while the serrations or cuts are being made, substantially as and for the purposes set forth.

2. The mode of forming the serrated cutting-edge *e* of the section, as and for the purposes set forth.

3. The serrated-edged sickle-section, as an improved article of manufacture, made as shown and described, and for the purposes set forth.

SAMUEL D. SHELDON.

Witnesses:

THOS. H. DODGE,

D. L. MILLER.