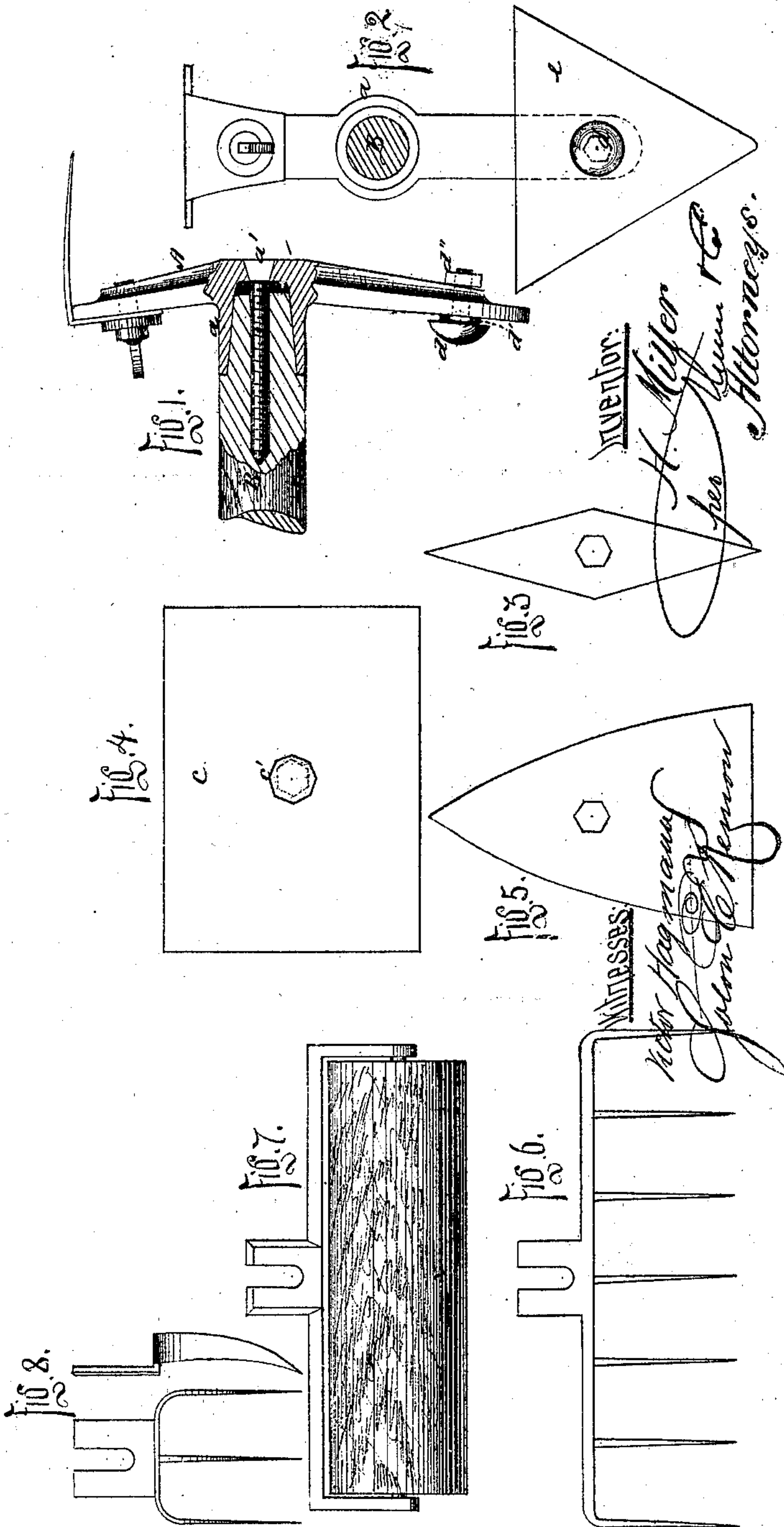


H. Miller,

Nov.

No. 97,542.

Patented Dec. 7, 1869.



United States Patent Office.

HENRY MILLER, OF ROADSIDE, VIRGINIA.

Letters Patent No. 97,542, dated December 7, 1869.

IMPROVEMENT IN GARDEN-IMPLEMENTS.

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

To all whom it may concern:

Be it known that I, HENRY MILLER, of Roadside, in the county of Rockingham, and State of Virginia, have invented a new and improved Garden-Implement; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a plan view of the edge of the stock.

Figure 2 is a plan view of the rear side of the stock.

Figures 3, 4, 5, 6, 7, and 8 are detached views of the various devices that fit severally upon the stock.

This invention is an improvement upon that patented to me August 24, 1869.

The improvement consists—

First, in the manner of connecting the handle with the stock, whereby the former is rendered removable, and also capable of being kept always tight.

Second, in securing the various implements severally to the stock by means of a hollow polygonal pin projecting from the inner side of the same and entering a polygonal slot in the implement, where it is made fast by a bolt passing through the stock, and a nut.

Third, in combining with the stock, by means of the polygonal pin and slot, an equilateral triangular hoe, either edge of which may be used in succession.

In the drawings—

A is the wooden or iron stock, made receptive of the rakes and cutters shown in the figures at both ends.

About at the middle of the stock, and upon its inner side, is cast a socket, *a*, with a conical interior, to which a hole opens through stock to the outside.

The end of the handle B is tapered to fit the socket *a*.

A wood-screw, *b'*, passing through the stock from the outside, and entering the end of the handle, connects the latter with the former.

By turning the handle in one direction it may be removed from the stock altogether. By turning it in the other direction, it may be tightened in the socket.

It is a defect in my former stock that it is rigidly fastened upon the handle without means of removing or tightening.

Near one end of the stock A, and cast upon its inner side, are hollow pins *d d*, their interiors being continuations of orifices made through the stock. The exterior of the pins are polygonal.

Slots of corresponding shape are made in the various implements, which have to be fastened upon the stock, so that when the said implements are placed upon the pins *d* they cannot turn. They are fastened there by bolts *d'* and nuts *d''*.

One of the faults of my original method of fastening by set-screws is the liability of the implements to turn when striking violent blows.

Six-sided pins are sufficient for the needs of every one of my set of implements, except the oblong hoe *e*, fig. 4.

In order to bring each of its four sides into use in turn, it is necessary that there be eight sides to the pin, or, to obviate the inconvenience of having a special stock with such a pin for this hoe, I use a washer, *c'*, with an eight-sided exterior, fitting the slot in the hoe, and a six-sided interior adapted to the pins *d*.

In fig. 2 is shown a three-sided hoe, *e*, applied to the stock by means of the polygonal pin and slot, so as to be capable of shifting and cutting with either of its three edges in succession.

The three cutting-edges may be made self-sharpening by reversing the hoe upon the stock.

Having thus described my invention,

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

1. In combination with the stock A, the polygonal hollow pins *d*, substantially as set forth.

2. In combination with the stock A, the equilateral triangular hoe *e*, substantially as explained.

HENRY MILLER.

Witnesses:

WM. T. COFFMAN,
E. S. MORRIS.