

C. ALVORD.
Drag Bar for Cultivators.

No. 83,235.

Patented Oct. 20, 1868.

Fig. 1

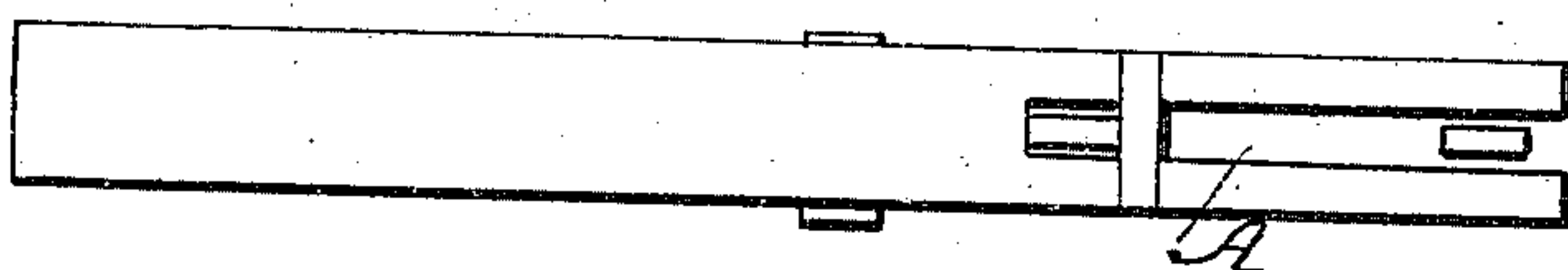


Fig. 2

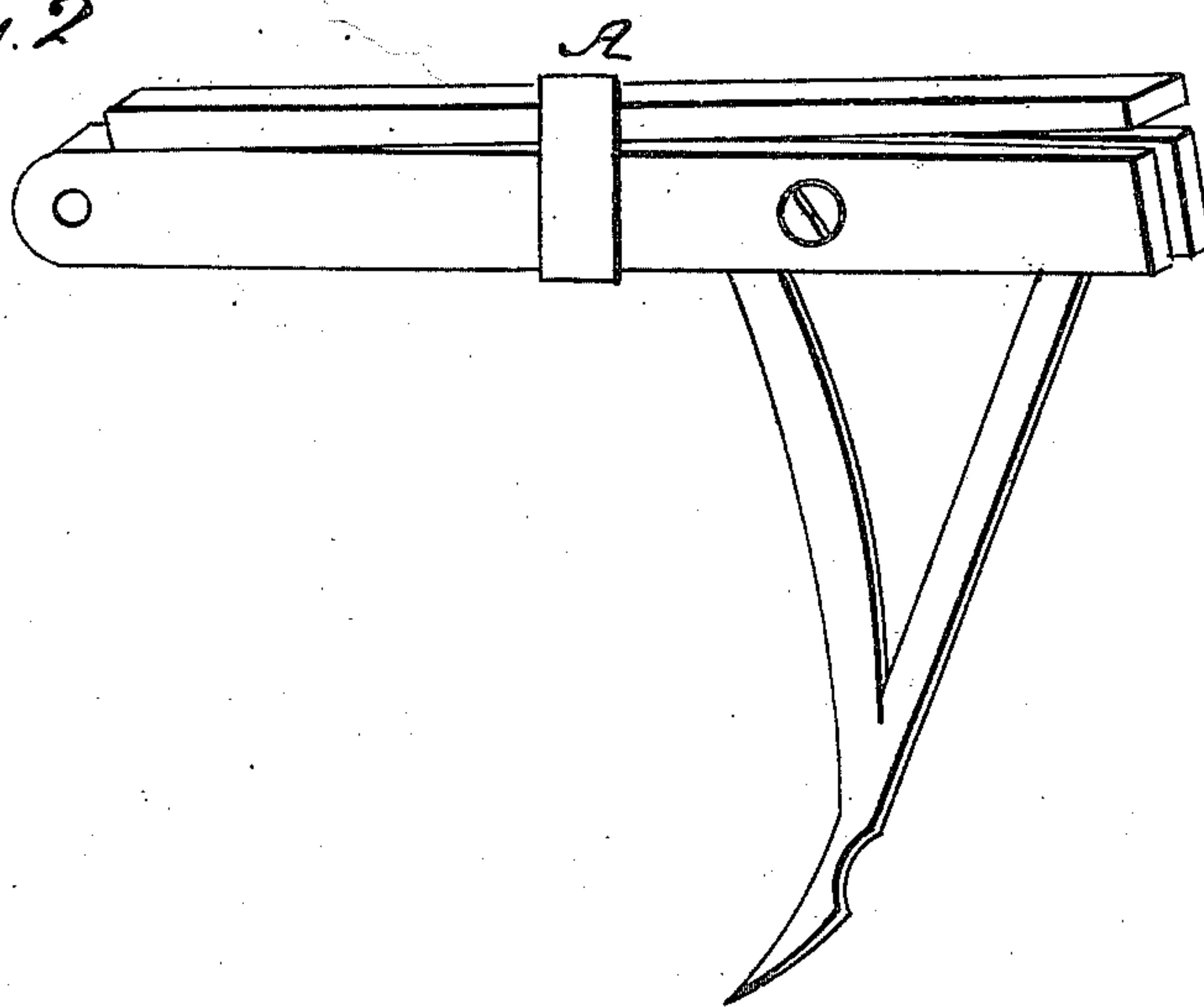
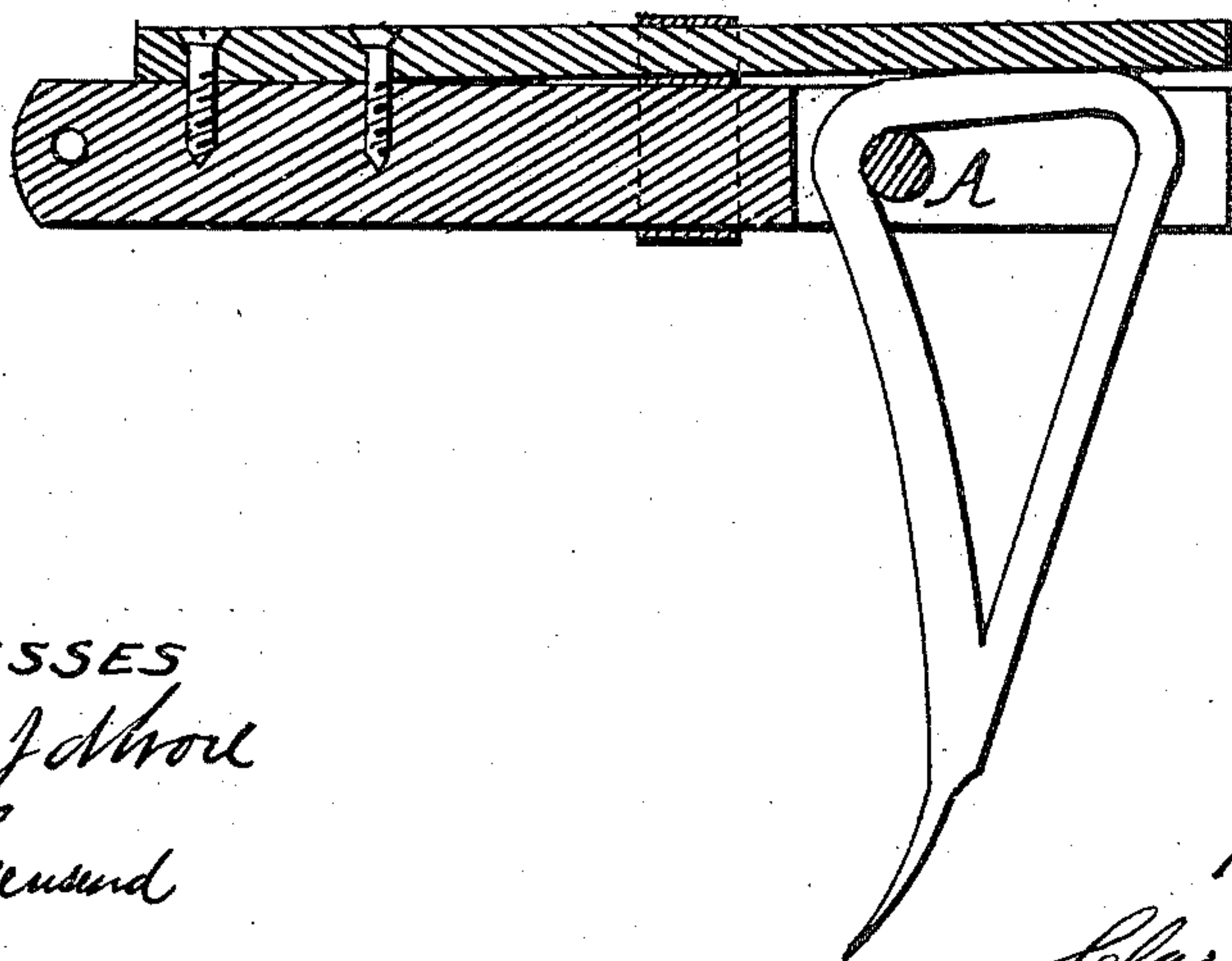


Fig. 3



WITNESSES
Andrew Johnson
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INVENTOR
Clark Alvord



CLARK ALVORD, OF COURTLAND, WISCONSIN.

Letters Patent No. 83,235, dated October 20, 1868.

IMPROVEMENT IN DRAG-BAR FOR CULTIVATORS.

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, CLARK ALVORD, of the town of Courtland, in the county of Columbia, and State of Wisconsin, have invented a new and improved Drag-Bar for Cultivators; also, an improved mode of constructing the cultivator-tooth, and attaching it to the said bar; 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, making part of this specification.

The nature of my invention consists in making the drag-bar of an independent-acting cultivator of two pieces of timber, arranged, compounded, and put together as shown in the annexed drawings, and constructing and attaching the cultivator-tooth to the same, as shown in the same drawings.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct the lower part of the drag-bar of hard wood, three inches square, and about three feet long; cut a slot in the end, as shown at A, fig. 1, to receive the tooth, as shown in position in figs. 2 and 3.

Upon the top of this bar, I bolt another timber, covering the entire top of the other, including the slot; this timber being of the same width of the drag-bar, and from one and one-fourth to one and three-fourths of an inch thick. This should be good timber; white oak or white ash will answer well. The bolt should be at the front end, or the end opposite and furthest from the location of the cultivator-tooth. Over and including both timbers, I place a metallic clasp, fitting closely, but not so close but what it can be moved from end to end, for the purpose of varying the stiffness of the

spring or upper piece of timber, and keeping it in place. This clasp is shown at A, fig. 2.

The cultivator-tooth is constructed of one piece, bent as shown at A, fig. 3, and welded at the lower end, upon which the shovel or point is welded. The bolt that holds the tooth to the drag-bar passes through the bar and the front angle of the tooth, as shown at A, fig. 3, upon which the tooth is allowed to swing, being arrested in its backward movement by coming in contact with the top timber of the drag-bar, by which it is supported.

In the annexed drawings—

Figures 1 and 3 are sectional views, and

Figure 2 a perspective view of the bar and tooth combined, and with the clasp as it appears in operation.

The object of the arrangement is to allow the tooth to yield when it comes in contact with an unyielding substance.

By moving the clasp forward, the elasticity of the top timber is increased; by moving it back, the elasticity is diminished, and may be almost or quite destroyed.

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

1. The compound drag-bar, as above described and shown.
2. The construction of the cultivator-tooth, and fastening it to the drag-bar by passing the bolt through the angle, as above described and shown.
3. The movable clasp, in combination with the drag-bar, as above described and shown, and for the purposes above set forth.

CLARK ALVORD.

Witnesses:

ANDREW J. ALVORD,
I. A. TOWNSEND.