

(No Model.)

H. G. CADY.
CULTIVATOR AND HARROW.

No. 387,856.

Patented Aug. 14, 1888.

Fig. 1.

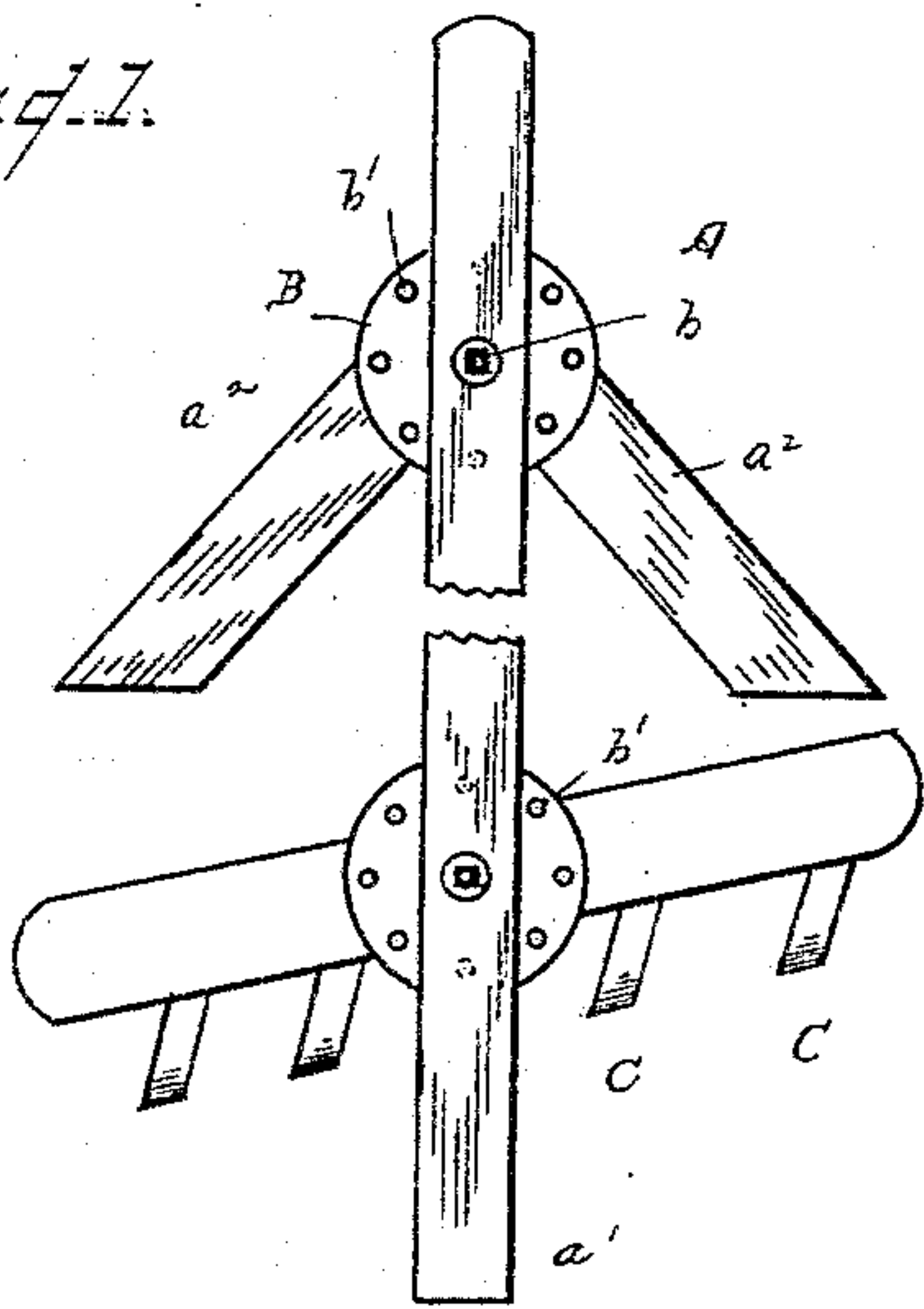


Fig. 2.

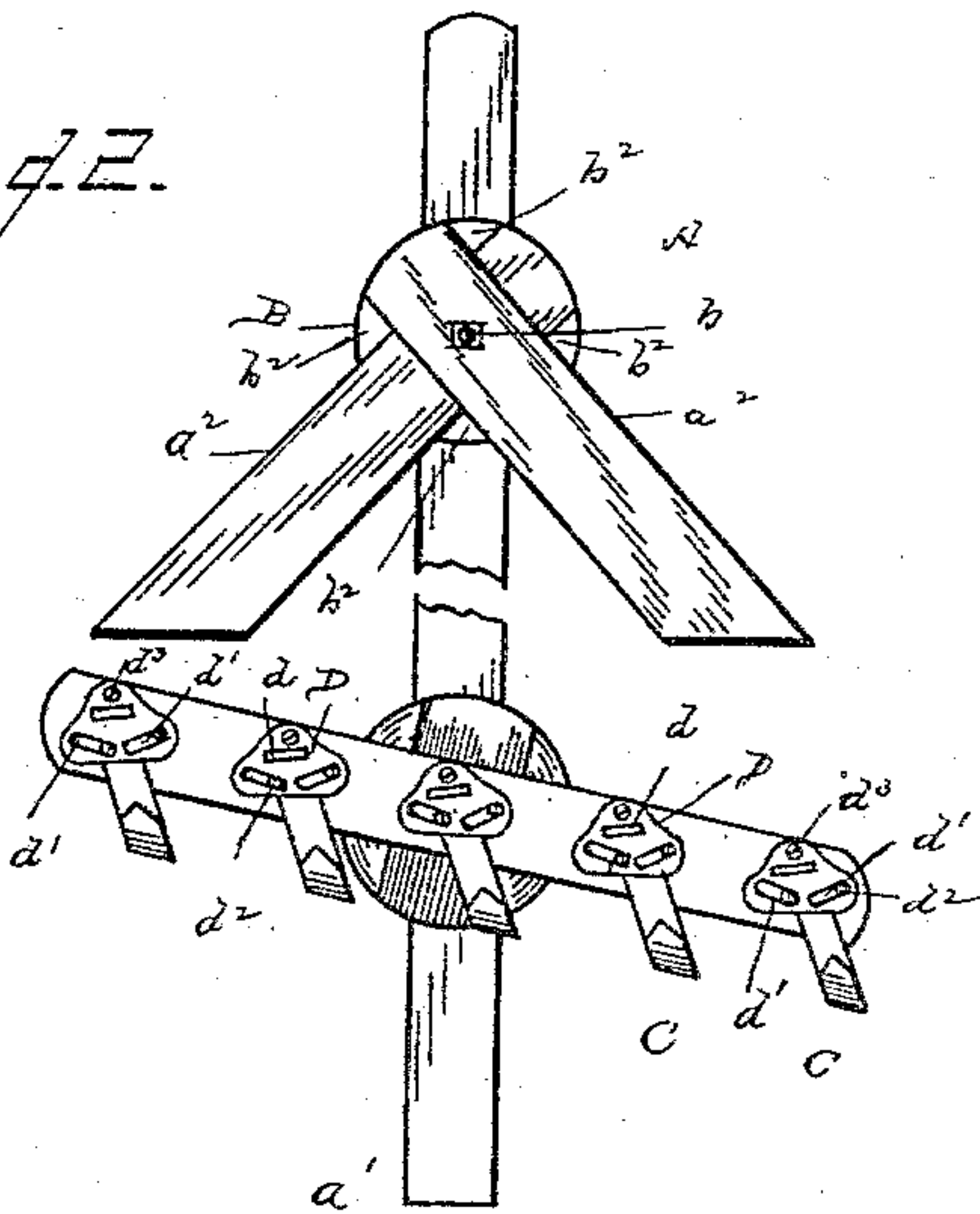


Fig. 3.

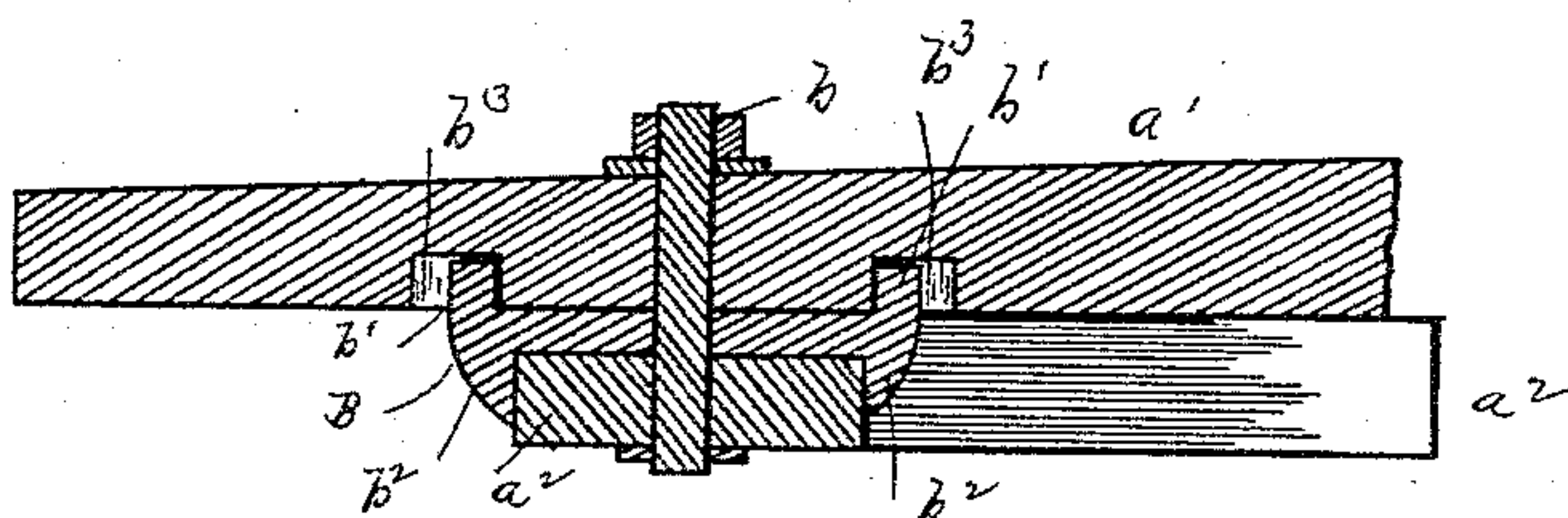
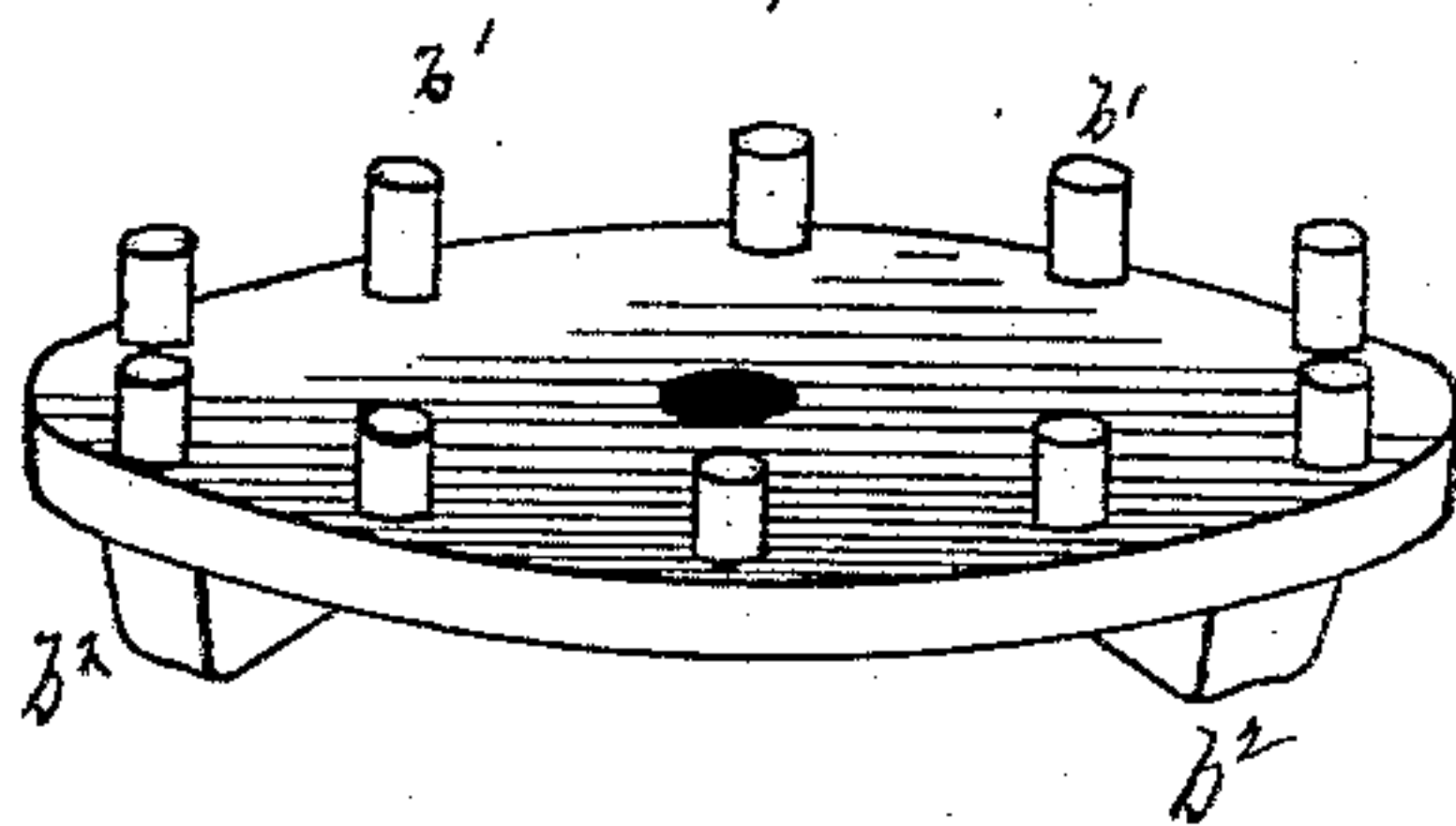


Fig. 4.



WITNESSES.

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UNITED STATES PATENT OFFICE.

HENRY G. CADY, OF PINE BLUFF, ARKANSAS.

CULTIVATOR AND HARROW.

SPECIFICATION forming part of Letters Patent No. 387,856, dated August 14, 1888.

Application filed April 12, 1888. Serial No. 270,437. (No model.)

To all whom it may concern:

Be it known that I, HENRY G. CADY, a citizen of the United States of America, residing at Pine Bluff, in the county of Jefferson and State of Arkansas, have invented certain new and useful Improvements in Harrows, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention pertains to certain new and useful improvements in harrows, having reference more particularly to the class of spring-tooth harrows.

The object of the invention is the provision of simple and highly efficient means for securing together the draft or cross bars of a harrow-frame and for attaching the harrow-teeth thereto, substantially as hereinafter fully set forth, and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a plan view of a portion of a harrow with my invention applied thereto. Fig. 2 is an inverted view thereof. Fig. 3 is a detail sectional view, and Fig. 4 is a detail perspective view.

Referring to the drawings, A designates a portion of a harrow-frame, composed, preferably, of two side sections, a , between which is the longitudinal bar a' , to which are secured the convergent ends or crossing portions of the draft-bars a^2 .

B is a securing plate or head provided with a central aperture for insertion of a vertical securing-bolt, b . From the upper surface of this securing plate or head projects a circularly-arranged series of lugs or projections, b' , a uniform space or distance being observed between each two of said lugs or projections, as shown. The under surface of this securing plate or head has projecting therefrom four ears or shoulders, b^2 , between the opposite sides of each two of which is formed a groove or recess. In these grooves or recesses, between the ears or shoulders b^2 , are held the convergent crossed ends of the wings a^2 , the same being secured therein by means of the bolt b .

In the under side of the draft-bar a' are found two holes or apertures, b^3 , wherein are designed to project two opposite lugs or projections, b' . The securing plate or head is held

firmly against the under side of this longitudinal bar by the bolt b , which is fitted with a nut on its upper end, as shown. By this means the wing or the cross can be readily and easily secured at the desired angle, the same being changed when necessary by simply loosening the bolt and turning the plate or head, as is obvious.

C C designate the spring-teeth, which are secured to the under side of the draft-bars by means of plates D, which are provided with slots d for the end of the teeth to project through and to permit of the adjustment thereof when necessary.

Plates D are each provided with divergent slots d' , through which holding-bolts d^2 are passed, whereby said plates can be held at the desired angle. A single bolt, d^3 , is passed through the front end of each plate, as shown.

From the foregoing description it will be seen that my invention comprises simple and efficient means for readily and easily securing the parts of a harrow, cultivator, or plow to its beam and at the desired angle, and also for adjusting and holding each spring-tooth in the desired position, and the device embodies advantages in points of simplicity, durability, and general efficiency.

I claim as my invention—

1. As an improvement in harrow-frames, the securing head or plate having a series of upwardly-projecting lugs and the ears or shoulders formed on the under side of said head or plate, substantially as shown and described.

2. As an improvement in harrows, the central bar having holes or apertures in its under side, the securing plate or head having a series of upwardly-projecting lugs, and the central vertical bolt, substantially as shown and described.

3. In a harrow-frame having draft and cross bars, the securing plate or head having on its under side ears or shoulders, between which are grooves or recesses, and the central bolt passed through coincident apertures in said bars and plate or head, substantially as shown and described.

4. The combination, with the draft and cross bars and the longitudinal bar, of the securing plate or head having a series of upwardly-pro-

jecting lugs and ears or shoulders formed on its lower surface, and the securing-bolt, substantially as shown and described.

5 5. As an improvement in spring-tooth harrows, the heads having each divergent slots, and a slot or aperture through which the end of the spring-tooth projects, substantially as shown and described.

In testimony whereof I affix my signature in presence of two witnesses.

HENRY G. CADY.

Witnesses:

J. W. PARSE,

J. W. CRAWFORD.