

E. R. WHITNEY.
Harrow.

No. 214,974.

Patented April 29, 1879.

Fig. 1.

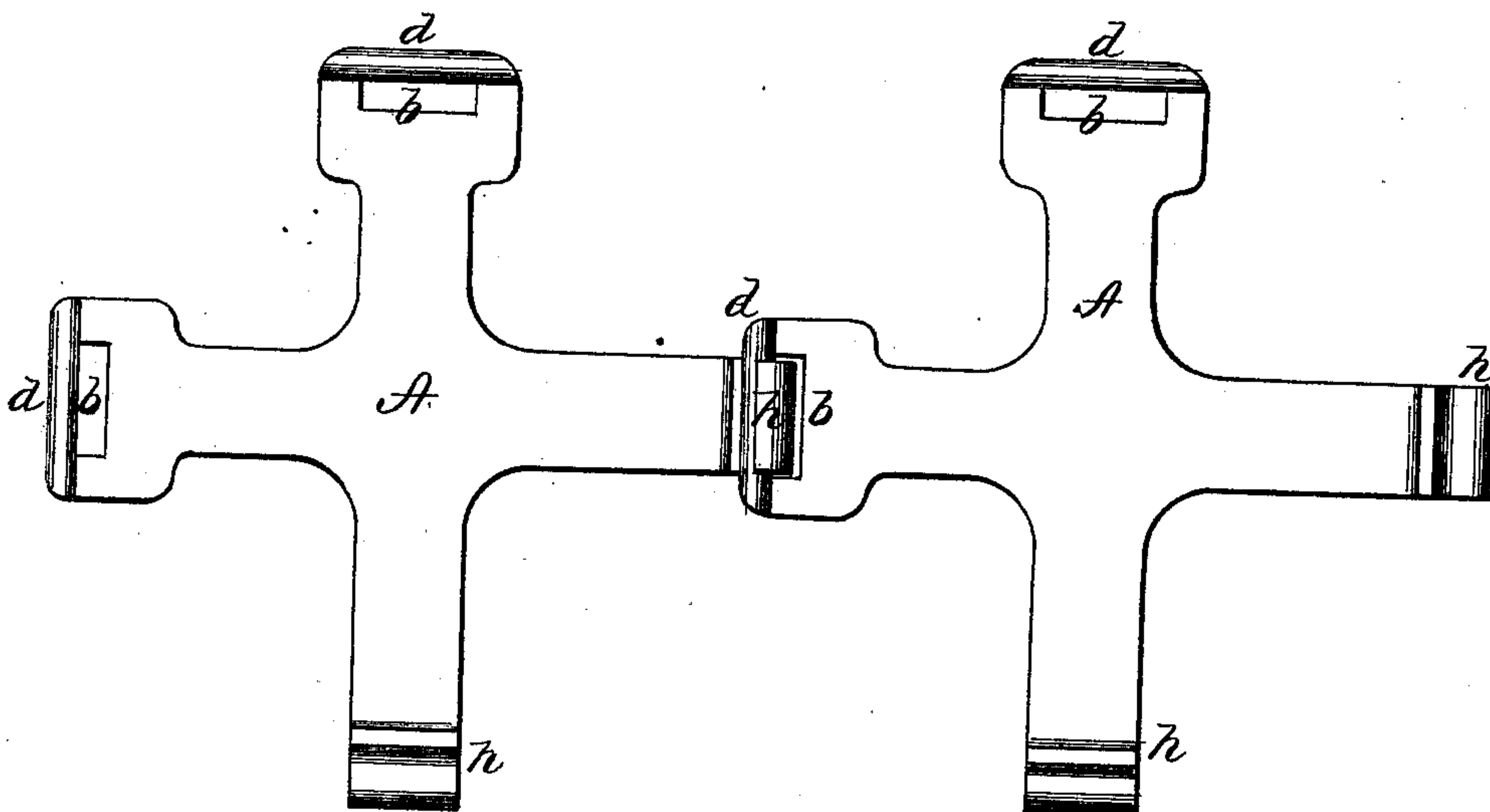
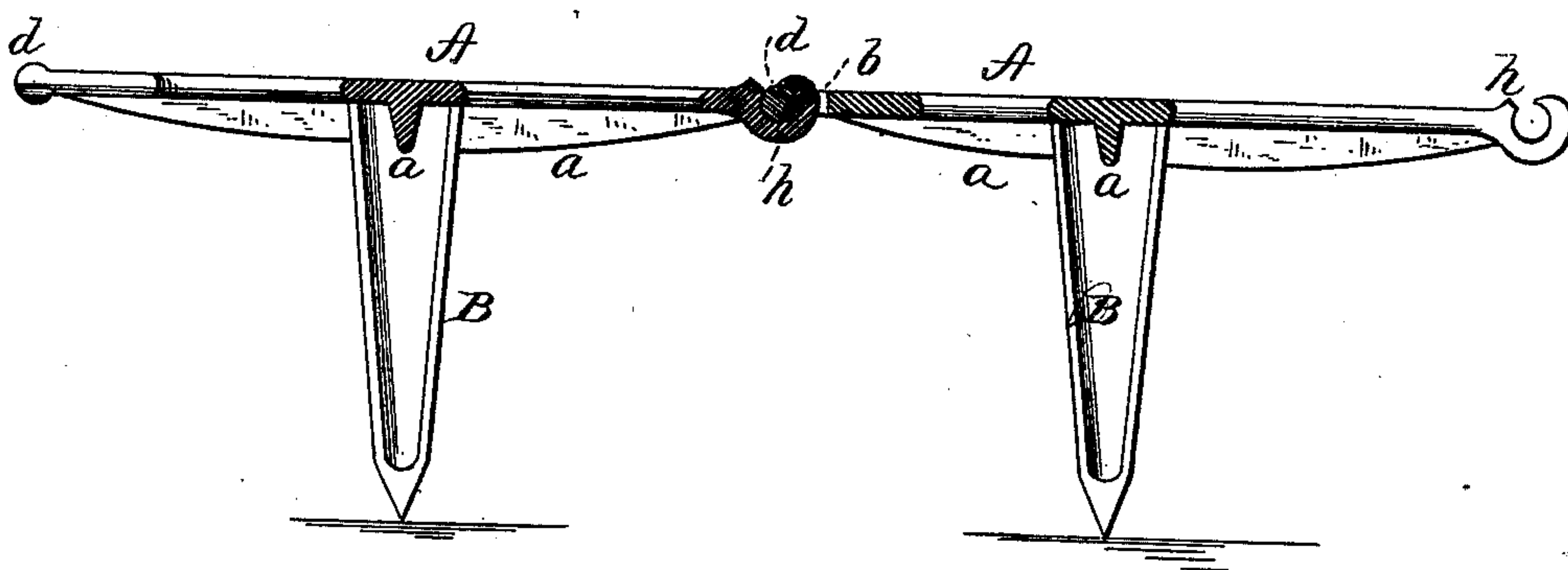


Fig. 2.



WITNESSES
Frank L. Curand
J. J. McCarthy

INVENTOR
E. R. Whitney
By his Attorneys
Alexander Mason

UNITED STATES PATENT OFFICE.

EDWIN R. WHITNEY, OF MONTREAL, QUEBEC, CANADA, ASSIGNOR OF ONE-HALF HIS RIGHT TO CHARLES L. BOSSÉ, OF SAME PLACE.

IMPROVEMENT IN HARROWS.

Specification forming part of Letters Patent No. **214,974**, dated April 29, 1879; application filed September 25, 1878.

To all whom it may concern:

Be it known that I, EDWIN R. WHITNEY, of Montreal, in the Dominion of Canada, have invented certain new and useful Improvements in Harrows; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

My invention relates particularly to harrows; and it consists in the construction of a sectional frame and means for coupling the sections together, as will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawings, in which—

Figure 1 is a plan view, showing two sections of the harrow-frame coupled together. Fig. 2 is a longitudinal section of the same.

Each section A of my harrow-frame is made in the form of a four-armed cross, having strengthening-ribs *a a* on the under side. The cross A may be cast or otherwise made in one piece, and has a tooth, B, projecting downward from the center. The tooth B may be cast with the cross, or made separate and fastened to it in any suitable manner.

In two adjacent arms of the cross A, near

the end, are made slots *b b*, one across each arm, and the metal outside of this slot at the extreme end forms a round bar or rod, *d*. The other two adjacent arms of the cross are formed with wide curved hooks *h h*, of such size as to enter the slot *b* in an adjoining section and fasten on the round bar *d*. The hook *h* is made in such a manner that when two sections are to be coupled together one of them must be held at an angle, and when they are brought down in position they cannot become accidentally uncoupled.

Any desired number of sections may be connected together in like manner to form any sized harrow.

This invention may also be applied to cultivator-frames, if desired.

Having thus fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

The frame-section A, made in the form of a cross, and having two of the arms formed with the slots *b* and round bars *d*, and the other two arms with the hooks *h*, substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 3d day of September, 1878.

E. R. WHITNEY.

Witnesses:

A. S. ISAACSON,
J. M. MASON.