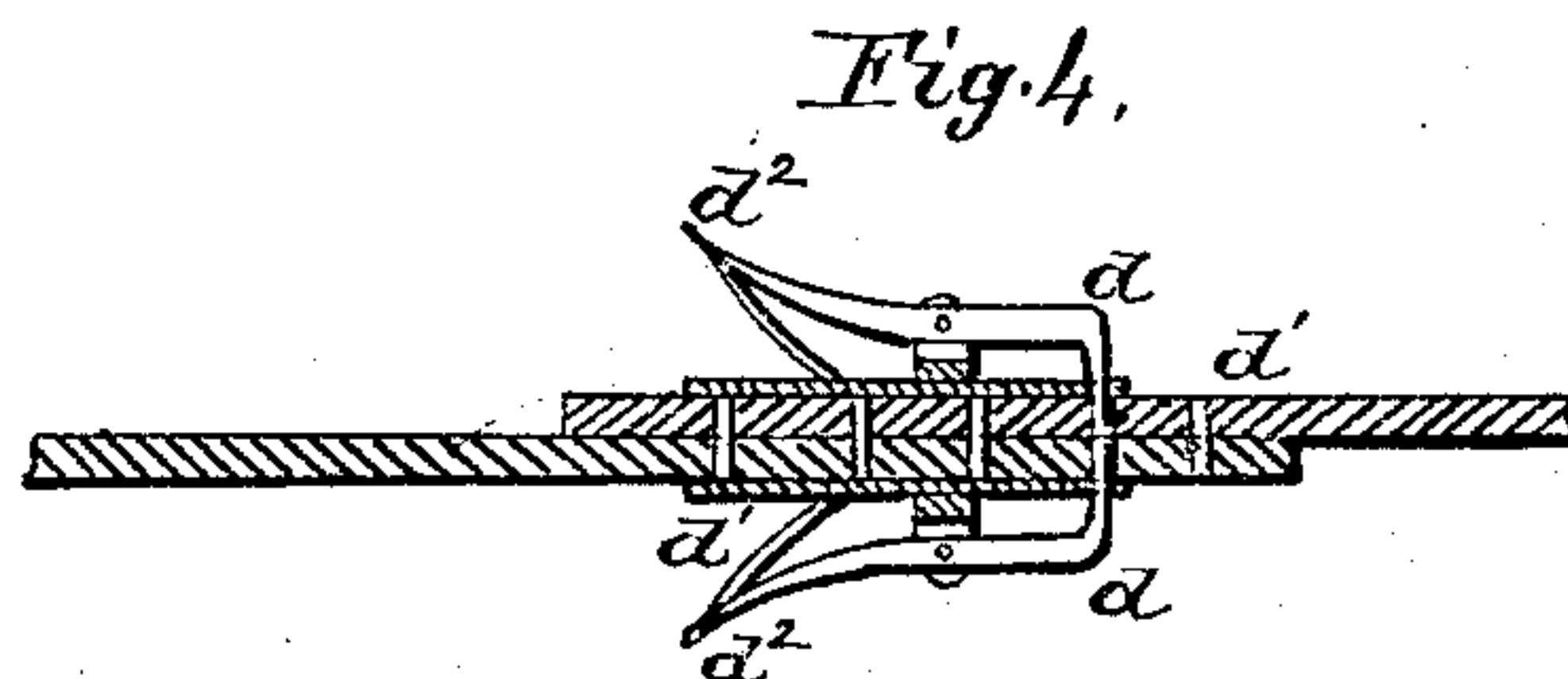
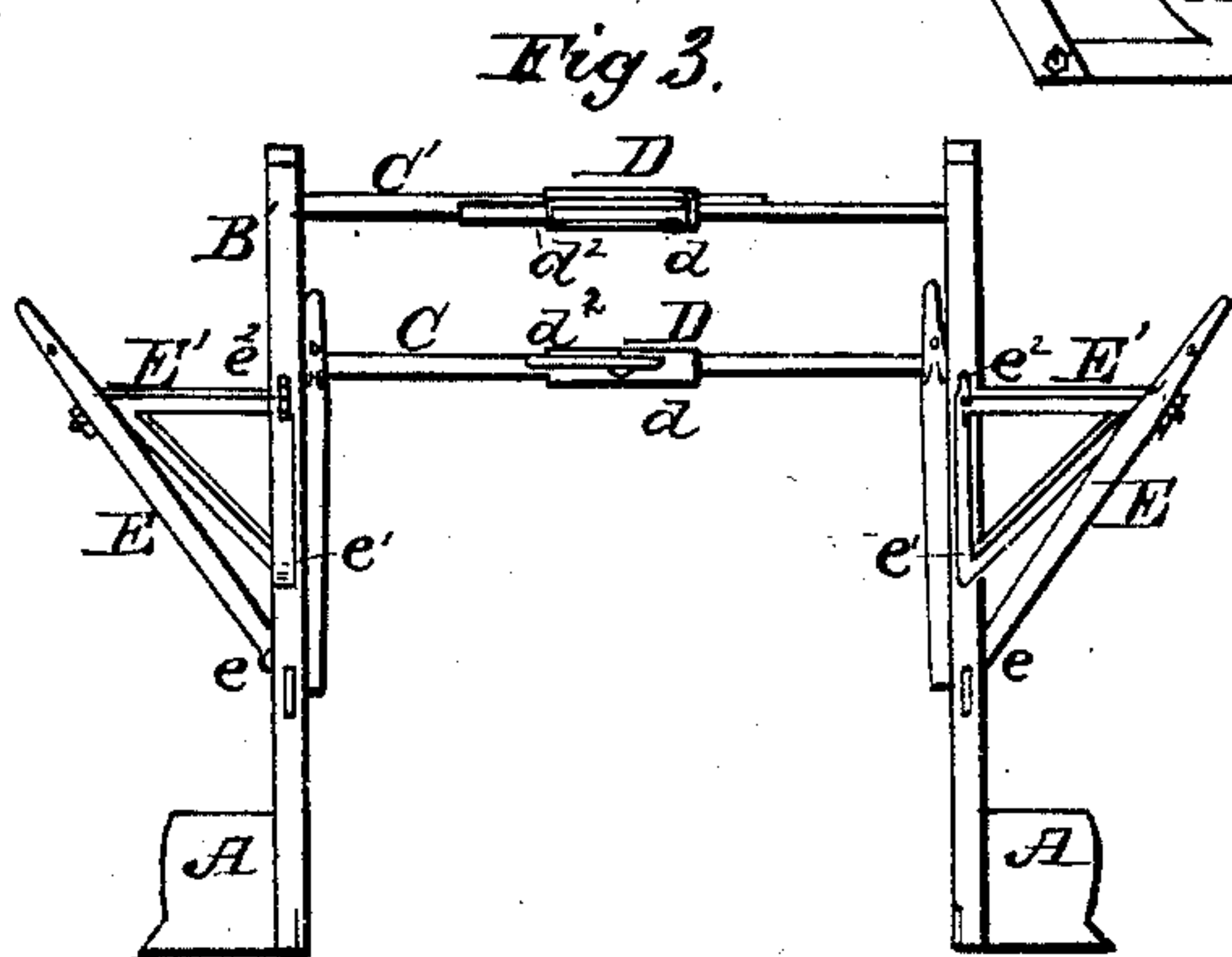
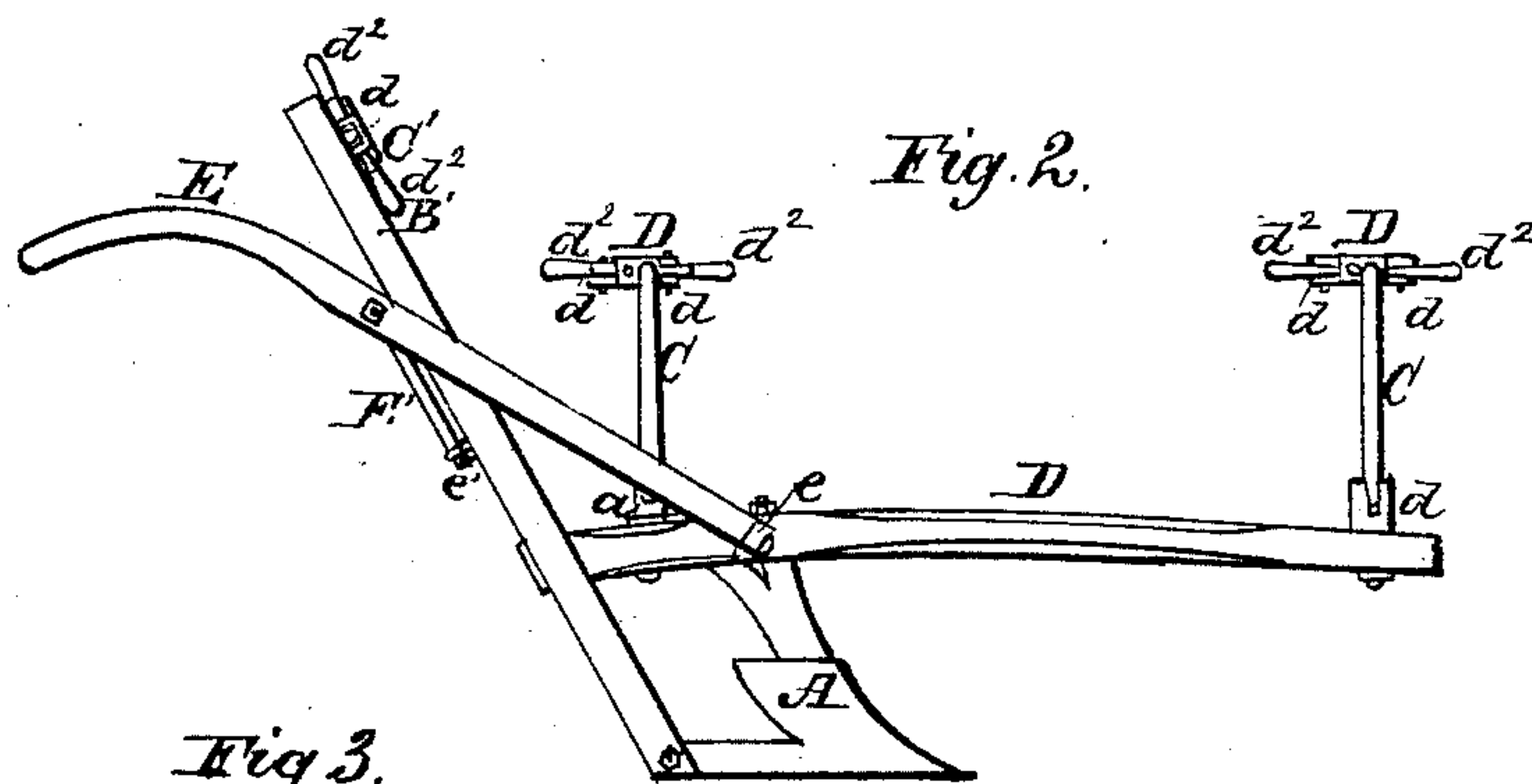
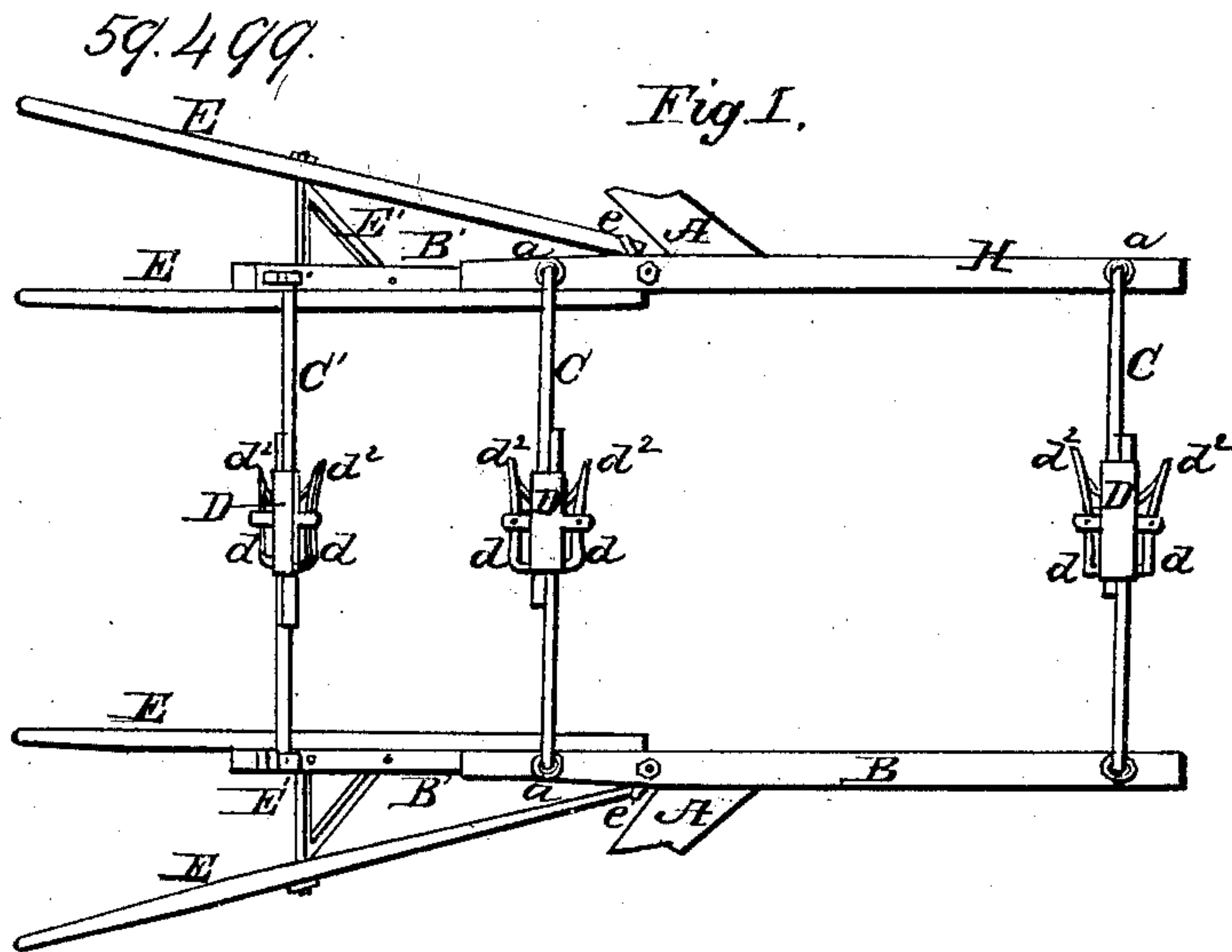


A. YOUNG.
Parallel Cultivator.

No. 59,499.

Patented Nov. 6, 1866.



Witnesses:
S. M. Randolph
Chas. H. Boyle

Inventor:
Adam Young
By his atty.
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UNITED STATES PATENT OFFICE.

ADAM YOUNG, OF MILLSTADT, ILLINOIS.

IMPROVEMENT IN CULTIVATORS.

Specification forming part of Letters Patent No. 59,499, dated November 6, 1866.

To all whom it may concern:

Be it known that I, ADAM YOUNG, of Millstadt, in the county of St. Clair and State of Illinois, have invented a new and useful Improvement in Cultivators; and I do hereby declare that the following is a full and clear description thereof, reference being had to the accompanying drawings, and to the letters marked thereon.

This invention relates to the arrangement and construction of two cultivator-plows so that they may be set at any required distance apart to accommodate rows of plants varying in the distance between them. In order to arrange the connections between the plows so as to pass over the tops of corn-leaves after the latter have considerably advanced in growth, as is always the case with the late or final plowing, the connecting-beams between the two plows are constructed in a peculiar manner, by taking them in a vertical direction above each beam and conducting them horizontally across toward the other plow. There are two of these bent beams attached to each beam and to each other in the horizontal part of them, so as to form a pair. Each pair of these beams is coupled together by a peculiar clamp arrangement, which admits of a ready adjustment of the parts to accommodate the width of the rows, as before recited.

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

Figure 1 of the drawings is a plan of the improved cultivator. Fig. 2 is a side elevation. Fig. 3 is a rear-end elevation; and Fig. 4 is a sectional plan of the locking-clamp.

The plows A and the beams B are similar in construction and operation to those at present in use for the same purpose. At each end of both of the beams there is a socket-piece, *a*, inserted into a circular vertical mortise made through the beam. These socket-pieces have round tenons on their lower ends, that pass down through the said circular mortises, into which they loosely fit, so that they may easily be turned around, for a purpose hereinafter more fully explained. A shoulder on these socket-pieces at the top end of the tenon and a nut or pin at the lower end confines them to their vertical position in the beam. The upper ends of these sockets extend two or three inches

(more or less) above the tops of the beams, and a transverse slot cut in them receives the connecting-beam C. These beams C are L-shaped pieces of iron, forming a right-angled turn at *c*, and two of them are formed into a pair by the locking-clamp D for each connection. The lower end of the vertical arm is fitted into the slot cut in the top end of the socket *a*, and there pivoted by means of a single round pin passing through both pieces and permitting the beam to have a lateral motion.

The two upper ends of each pair of the beams C are made to overlap each other, as clearly shown in Fig. 4, and are held together by means of the clamp D. This clamp is simply a band of metal loosely surrounding the two parts of the beam, and provided with a spring-catch, *d*, on each side of it. The forward or toothed end of this catch is arranged to pass loosely through a mortise cut in the clamp-band D, and enter mortises cut in the sides of the beams C. There should be a number of these mortises *d*¹ cut in the said beams, so as to allow for the widening or narrowing of the distance between the plows, as may be required.

The clamp may be easily disengaged from its beam by pressing down on the back ends of the spring-catches at *d*², so as to disengage the dogs from their hold in the mortises of the beams, when the beams may be adjusted to the proper length and the catches replaced. There will be a single straight beam, C', attached to each of the plow-handles B', and the two adjacent ends of these beams will overlap each other and be clamped in the same manner as the beams C.

The beam C' and the horizontal part of the beams C are to be high enough to pass over the corn after it has become about half-grown, as it usually is at the time of the final plowing.

The connecting-beams C and C' are so arranged that they may easily be detached from the plows when it is desirable to use only one plow, and when this is done the outer handle, E, of each plow can easily be removed by disconnecting it from the brace E' and then withdrawing it out of the staple *e*, by means of which its lower end is secured to the beam.

The construction of the brace E' is clearly shown in Fig. 3. It consists of three iron bars welded together in the form of a triangle. The lower end of the brace-piece has a tenon, *e*¹,

which fits into a staple driven into the handle-piece B'. The upper end of the brace-piece has a similar tenon, which fits into a mortise made through the handle E, and is secured therein by means of a nut or pin outside of the said handle. The remaining corner of the triangular brace is perforated at e^2 , so as to receive a pin projecting from the handle B'.

All of this construction is clearly shown in Fig. 3. The sockets a are permitted to turn easily around their vertical axis, so as to allow one of the plows to be drawn ahead of the other without wrenching or straining any of the parts, and the beams C and C' are pivoted to the sockets a or the handle B', so as to allow the requisite lateral motion of these parts.

Having described my invention, what I claim is—

1. The construction of the beams C and C', and their combination with the sockets a or the handle B', as the case may be, for the purpose of forming the connection between two corn-plows.

2. The adjustable clamps D, for the purpose of uniting the two parts of the beams C or C', substantially as herein described and set forth.

3. The braces E' and the staples e , for the purpose of attaching the handles E to the other portions of the plow.

ADAM YOUNG.

Witnesses:

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