

(No Model.)

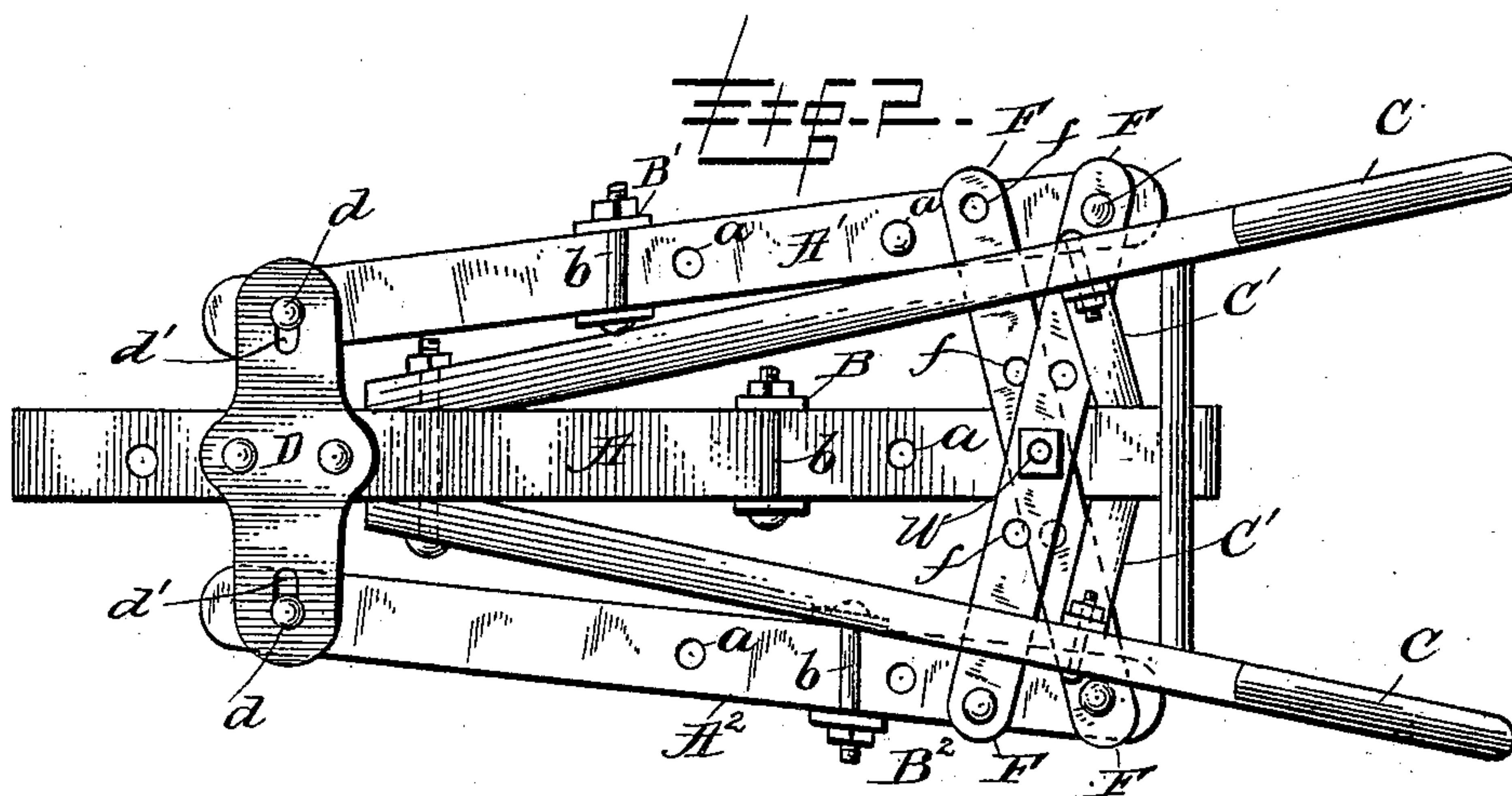
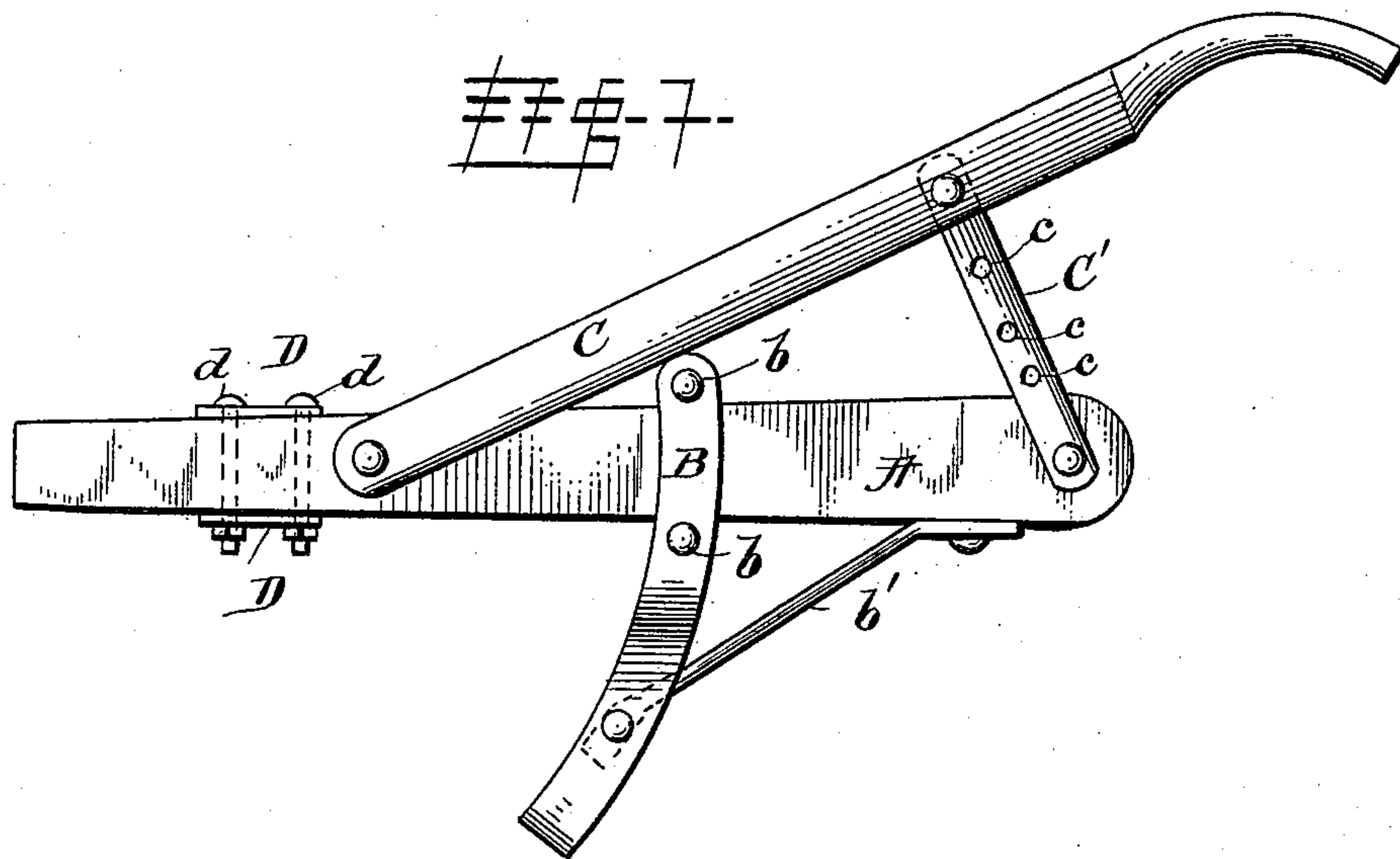
2 Sheets—Sheet 1.

C. L. DREW.

COMBINED PLOW, HARROW, AND CULTIVATOR.

No. 464,602.

Patented Dec. 8, 1891.



WITNESSES

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W. A. Redmond

INVENTOR

Charles L. Drew
by
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(No Model.)

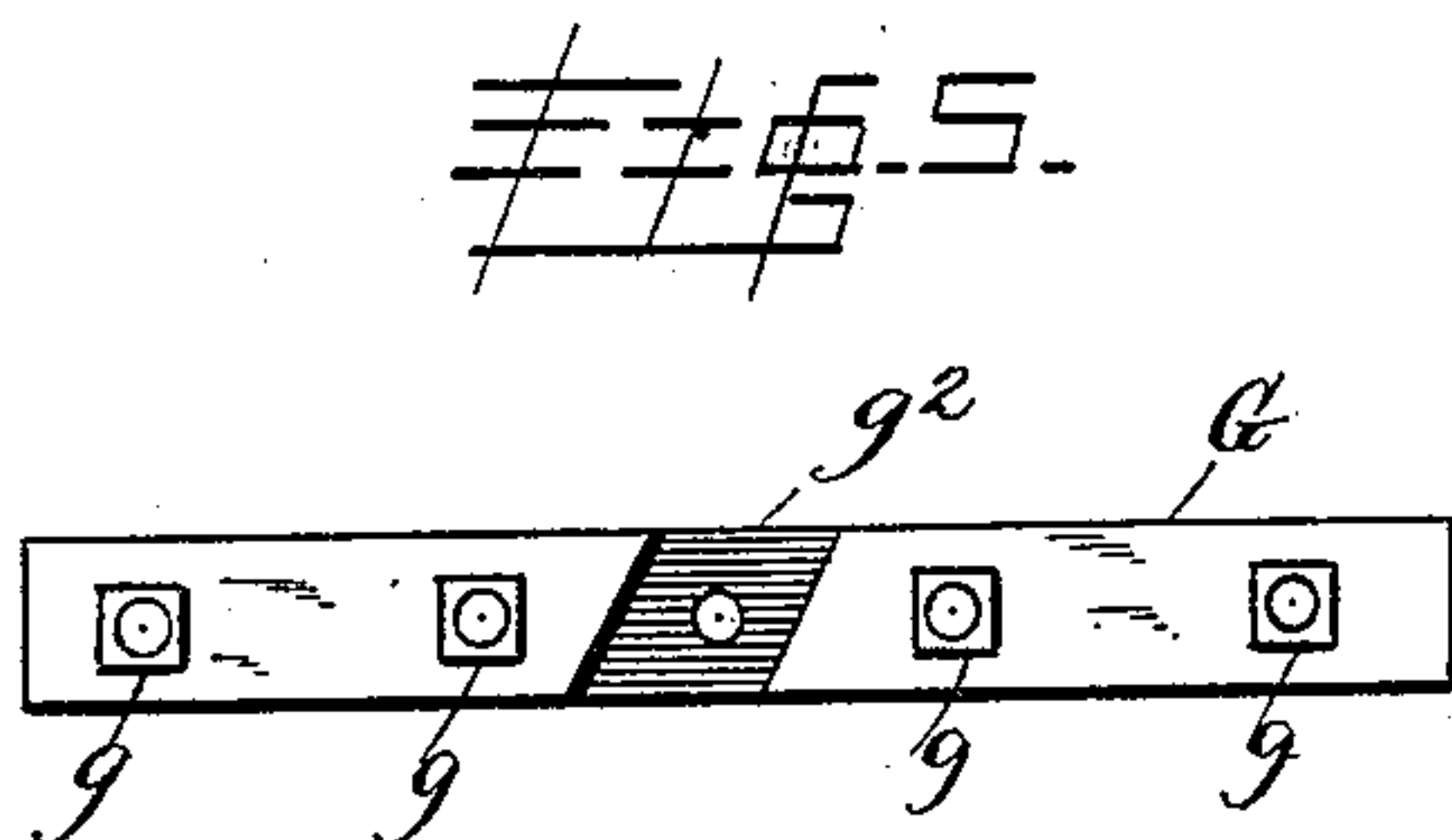
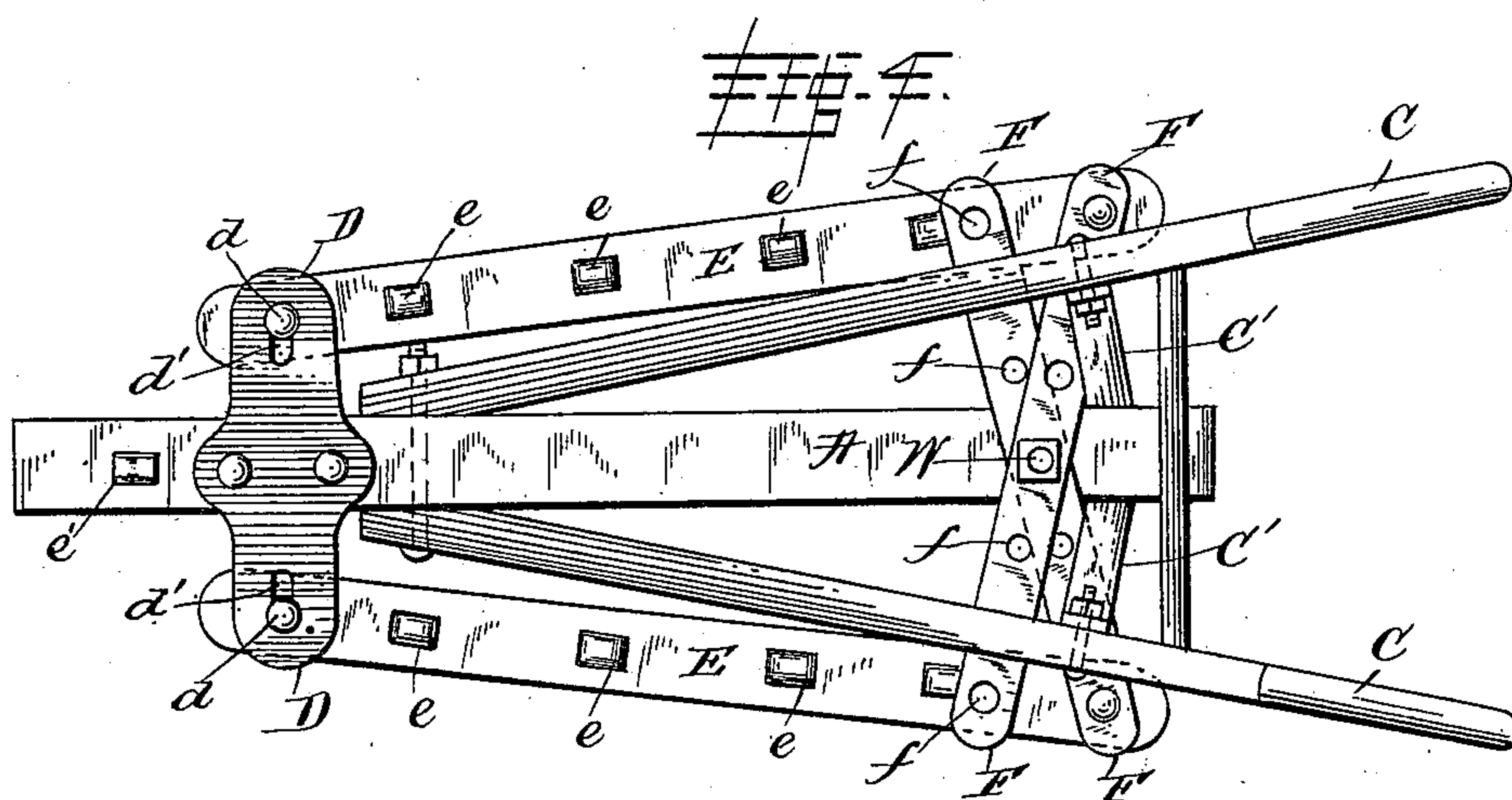
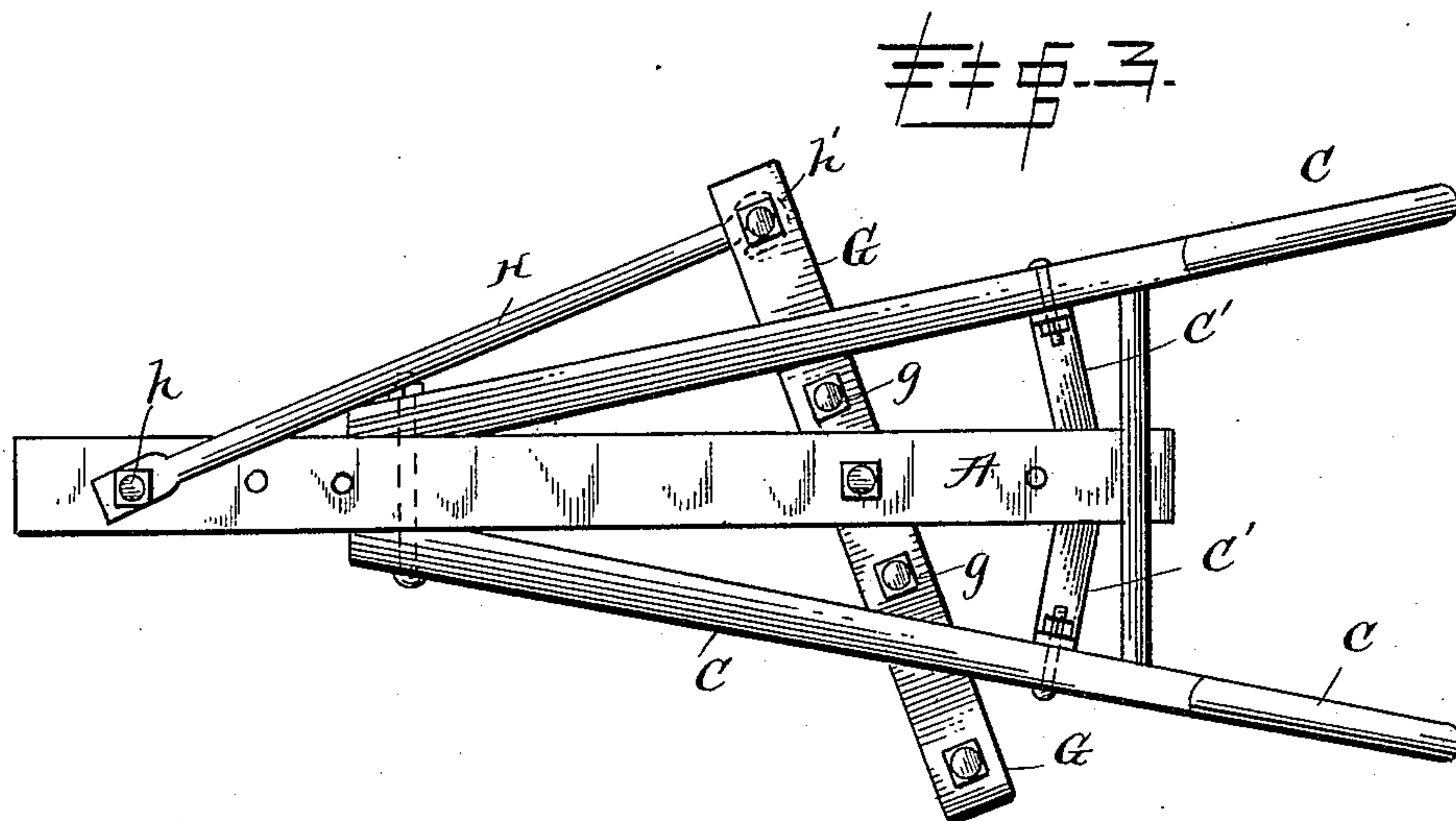
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WITNESSES

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INVENTOR

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UNITED STATES PATENT OFFICE.

CHARLIE LILLY DREW, OF DUBBERLY, LOUISIANA.

COMBINED PLOW, HARROW, AND CULTIVATOR.

SPECIFICATION forming part of Letters Patent No. 464,602, dated December 8, 1891.

Application filed June 2, 1891. Serial No. 394,867. (No model.)

To all whom it may concern:

Be it known that I, CHARLIE LILLY DREW, a citizen of the United States, residing at Dubberly, in the parish of Webster and State of Louisiana, have invented certain new and useful Improvements in Combined Plow, Harrow, and Cultivator; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to combined agricultural implements.

The object of my invention is to provide by a combination of interchangeable parts an expanding harrow, a side harrow, a single plow-stock, a double plow-stock, either right or left hand, a reversible cultivator, and a triple plow-stock or cultivator.

In the accompanying drawings, forming a part of this specification, Figure 1 is a side elevation of my single plow-stock, showing coupling-plates attached near the forward end of the beam. Fig. 2 is a plan view of the triple plow-stock. Fig. 3 is a plan view of a side harrow. Fig. 4 shows a plan view of an expanding harrow, and Fig. 5 is a detailed view of the side-harrow beam.

Referring more particularly to the drawings, A denotes the beam of the single plow-stock, and A' A² the beams of the double plow-stock.

B B' B² denote standards, and b denotes bolts for securing the same to the beams.

b' are braces riveted to the standards and detachably secured to the beams by bolts and nuts.

a denotes bolt-holes passing vertically through the beams.

C denotes the handles pivoted to the forward part or forward of the center of the beam A, and C' denotes adjustable braces or supports for said handles provided with holes c.

D D denote coupling-plates secured to the forward end of the beam A by bolts d d, as shown in Fig. 1. Each of said plates are provided with slots or elongated bolt-holes. d' d' denote bolts passing through said slots and through bolt-holes in the forward ends of the beams A' A².

E E denote harrow-beams provided with teeth e e and having bolt-holes at both ends. e' denotes a harrow-tooth detachably secured to the forward end of the beam A.

F F denote extensible or adjustable brace-plates, having bolt-holes f. In Fig. 2 they are shown as crossing and secured together at the point of intersection by one bolt W.

G denotes a side-harrow beam, provided with teeth g and having a rectangular notch g² cut obliquely across the top and provided with a bolt and nut.

H denotes a bent or curvilinear brace-rod, provided with a screw-threaded bolt and nut h at one end, the opposite end having a hook h' formed therein. As shown in Fig. 3, said rod is hooked under the harrow-beam at the right-hand end around the harrow-tooth, and the opposite end is carried over on top of the beam A and bolted thereto.

When the single plow-stock is used, the coupling-plates D D may be removed by releasing the nuts and bolts.

To form a triple plow-stock or cultivator, place the brace-plates F F on the beam A crosswise, passing the bolt W through both plates at their point of intersection, as shown in Fig. 2. Then place the beams A' A², carrying the standards B' B², in position on either side of the beam A, and bolt the forward ends to the coupling-plates D D. The standards B' B² are then adjusted upon their beams backward or forward relatively to the center standard B to form either a right or left hand cultivator or triple plow-stock.

To change from a triple plow-stock or cultivator to a double plow-stock, remove the standard B and place the standards B' or B² back in position upon the beam until the bolt securing the standard-brace can enter the rearmost bolt-hole in the beam.

To convert the single plow-stock into a side harrow, remove the standard B and fit the notch g² to the under side of the beam A and secure the harrow-beam G thereto through the second bolt-hole from the rear in said beam A. Then hook the brace-rod H to the harrow-tooth at the right-hand end and secure the bolt h to the forward end of the beam A.

To convert the single plow-stock into an

expanding harrow, place the coupling-plates D D in position on the beam A. Then place the beams E E in position upon either side and secure said beam to the coupling-plates 5 D D. Then bolt the rear ends of the plates F F to the harrow-beams, and after adjusting said beams to form a harrow of the desired width bolt the plates F F by the bolt W to the beam A, thus locking the said harrow- 10 beams into the position adjusted. The harrow-tooth e' is then placed in position on the beam A. It is evident that the elongated bolt-holes or slots in the coupling-plates D D facilitate the ready adjustment of the double 15 harrow-beams. It is also evident that the plates F F serve as braces for the double and triple standard plow or cultivator beams and extensible-harrow beams, as well as means for adjusting the width of the expanding har- 20 row. The holes c in the brace-plate C' (shown in Fig. 1) serve for adjusting the handles to the height desired. The holes f in the braces

F F serve for adjusting the width of the expanding harrow.

Having shown and described my invention, 25 what I claim, and desire to secure by Letters Patent, is—

A combined agricultural implement having handles and a main beam common to the various uses and fitted and adapted to the 30 following interchangeable parts: side beams A' A² and coupling and brace plates constituting a three-beam cultivator and double plow-stock, or to receive the side beams E E, constituting an expansible harrow, or to re- 35 ceive the cross-beam G and brace-rod H, forming a side harrow, substantially as shown and described.

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

CHARLIE LILLY DREW.

Witnesses:

J. T. TAYLOR,
R. C. DREW.