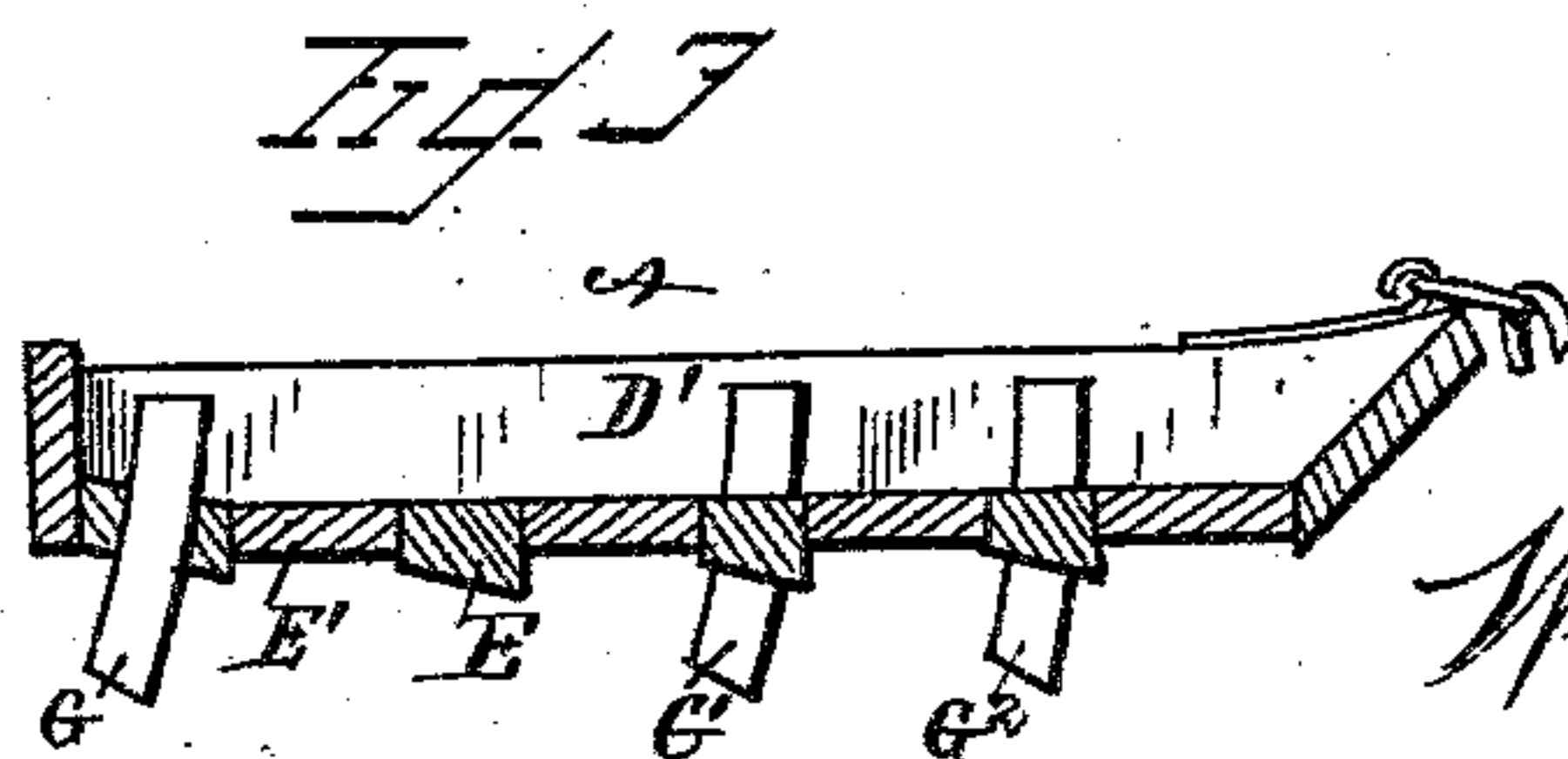
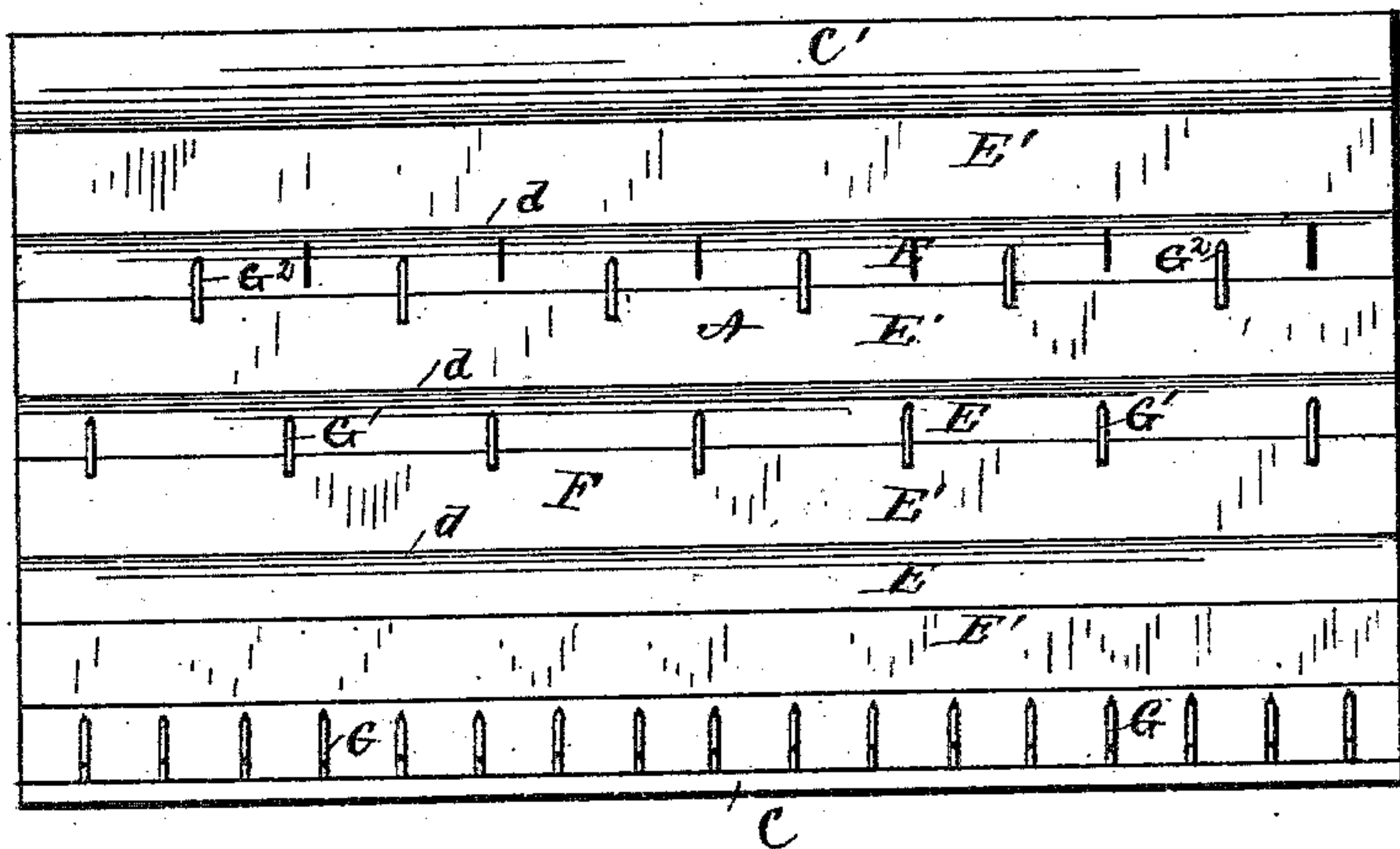
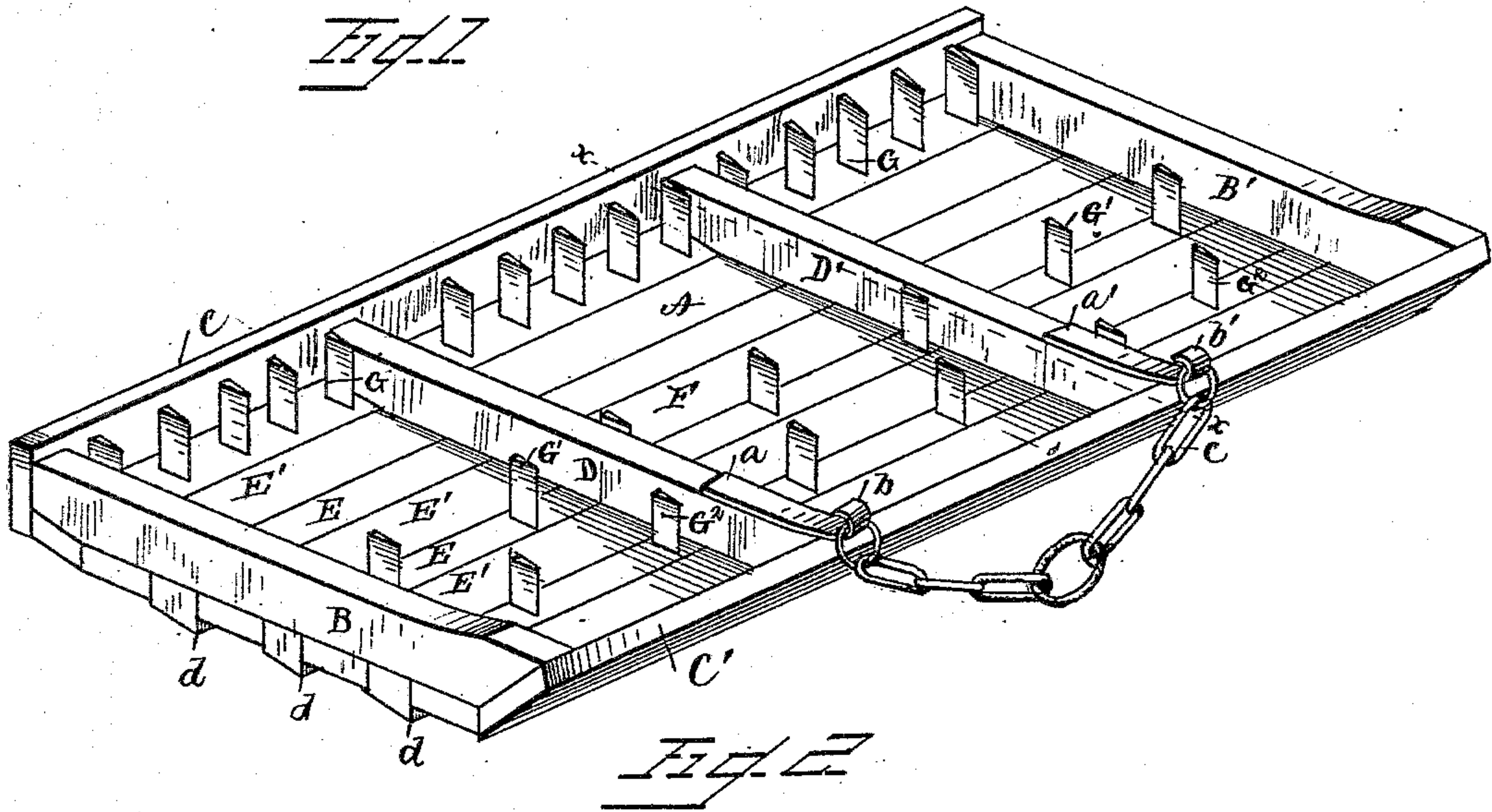


(No Model.)

W. H. HARTZELL.  
CLOD CRUSHER.

No. 296,750.

Patented Apr. 15, 1884.



WITNESSES

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# UNITED STATES PATENT OFFICE.

WILLIAM HENRY HARTZELL, OF PIKEVILLE, OHIO.

## CLOD-CRUSHER.

SPECIFICATION forming part of Letters Patent No. 296,750, dated April 15, 1884.

Application filed November 8, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, WILLIAM H. HARTZELL, a citizen of the United States, residing at Pikeville, in the county of Darke and State of Ohio, have invented a new and useful Clod-Crusher, of which the following is a specification, reference being had to the accompanying drawings.

My invention relates to clod cutters and crushers, the object being to provide a device of this character which shall cut and crush the sod and level the same, and which shall be cheap and durable in construction and thoroughly effective in its operation.

The invention consists in the improved construction and combinations of parts hereinafter fully described, and pointed out in the claim.

In the drawings, Figure 1 is a perspective view of my improved cutter and crusher. Fig. 2 is a bottom view of the same; and Fig. 3 is a transverse vertical section on the line *x x*, Fig. 1.

A represents my improved cutter and crusher, which is constructed in the following manner:

B B' represent the side pieces or strips, which are beveled or cut off diagonally at their front ends.

C C' represent the end strips or boards secured to the ends of the side strips, B B'.

D D' represent beams or braces secured to the end strips, C C', and having secured at their ends metal plates *a a'*, bent to form eyes *b b'*, to which are secured the ends of any suitable draft-chain, *c*.

To the undersides of the side pieces, B B', and the beams or braces D D', is secured the floor or platform F, consisting of a series of strips or bars, E E', the strips E being of a greater thickness than the strips E', thus forming a projecting portion, *d*, which serves to crush the clods. These strips or bars E are beveled or inclined rearwardly, as shown.

G G' G<sup>2</sup> represent knives or cutters, which project through the strips E E', and which are slightly curved in form and provided with cutting-edges, the knives G being secured to the extreme rear strip and very closely arranged together. The knives G' G<sup>2</sup> are secured in the two forward strips of the crusher at a greater distance apart than the knives G. I have provided slots in the strip E between the knives G<sup>2</sup>, in order that the knives G' may be inserted therein when it is so desired.

I do not limit myself to the number of knives shown, or to any exact manner of arranging the same upon the platform.

The operation will be readily apparent, and is as follows: When the crusher or cutter is moved, the knives G G' G<sup>2</sup> cut the clods into small pieces, and the projections or offsets E crush or pulverize the same. Weights may be placed upon the platform to hold it in close contact with the ground and prevent any jumping of the same.

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

In a clod-crusher, the drag frame consisting of the side pieces or beams, B B', the intermediate beams, D D', the strips C C', and the alternating strips E E', secured to the under faces of the beams, the lower faces of the strips E projecting below the strips E', and having rearwardly-inclined lower faces, in combination with the rearwardly-curved knives secured in slots in the strips E E', and the draft-chain secured to the beams D D', substantially as specified.

In testimony that I claim the foregoing as my own I have hereto affixed my signature in presence of two witnesses.

WILLIAM HENRY HARTZELL.

Witnesses:

D. WISE,

P. S. HARTZELL.