

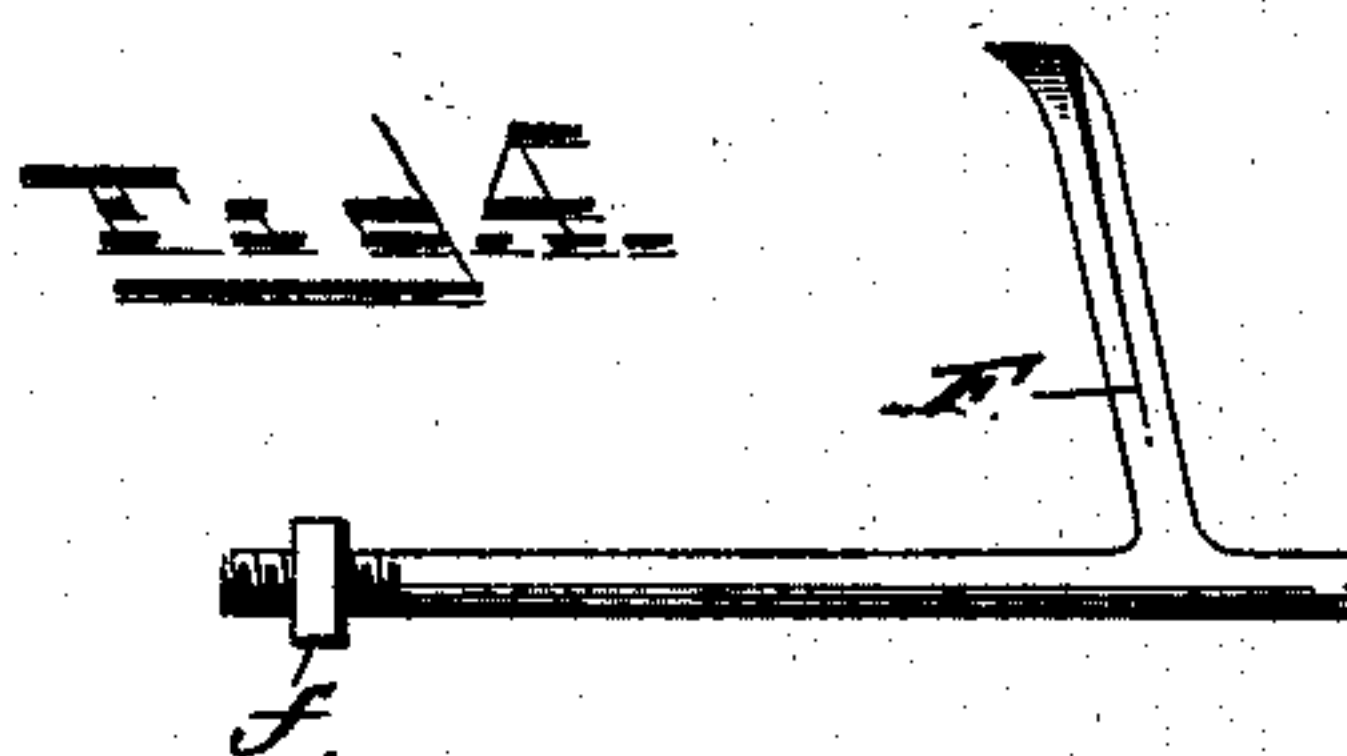
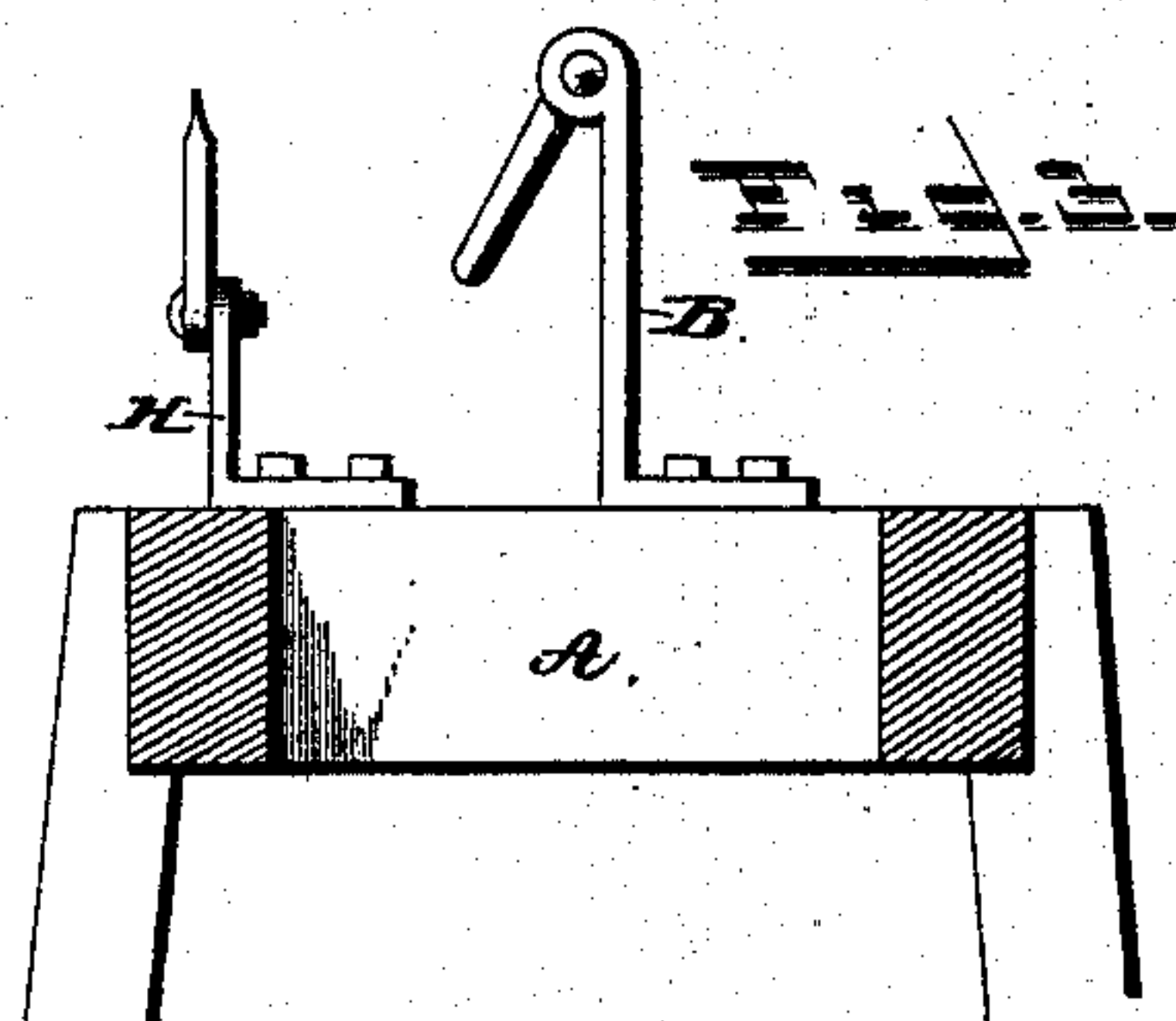
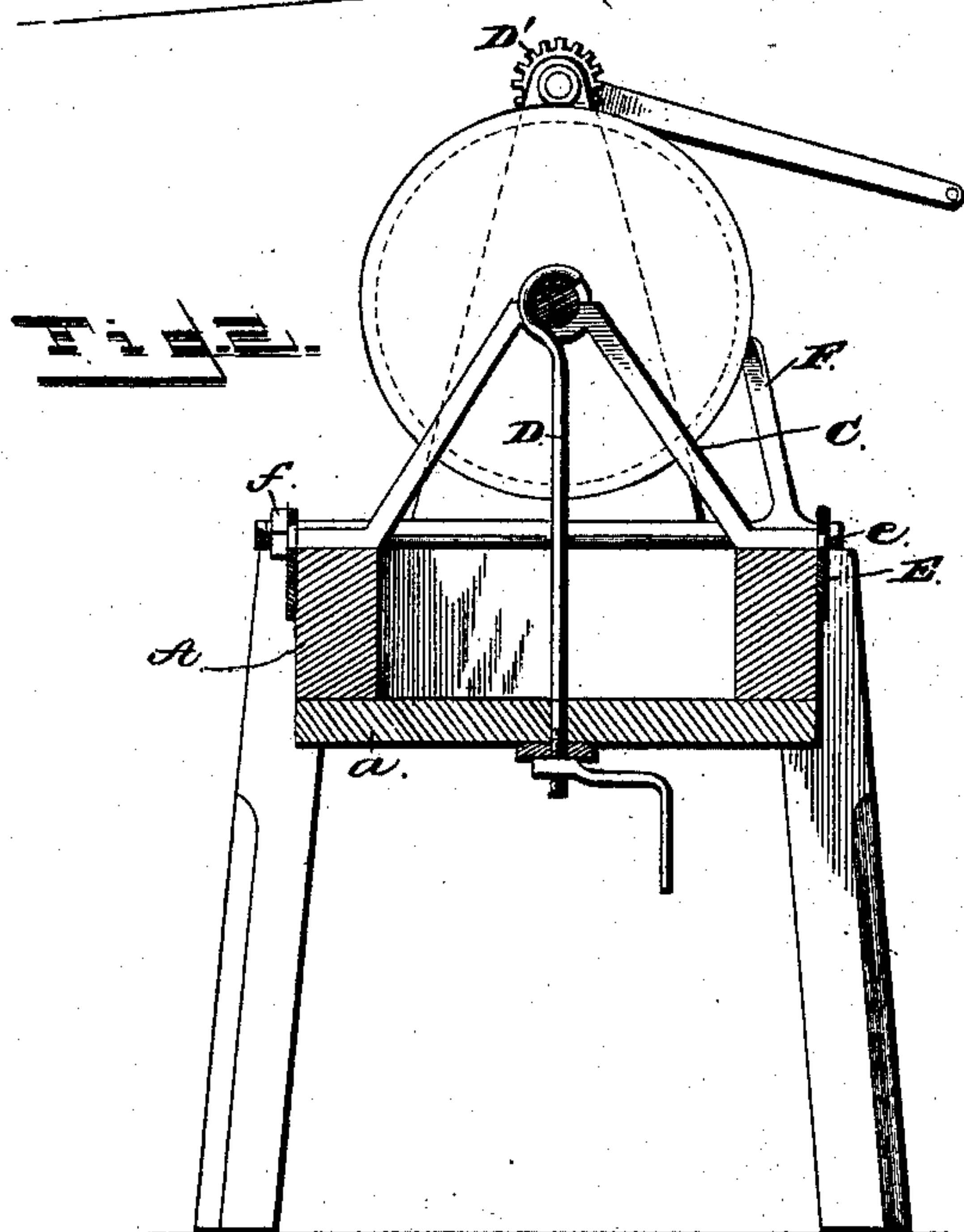
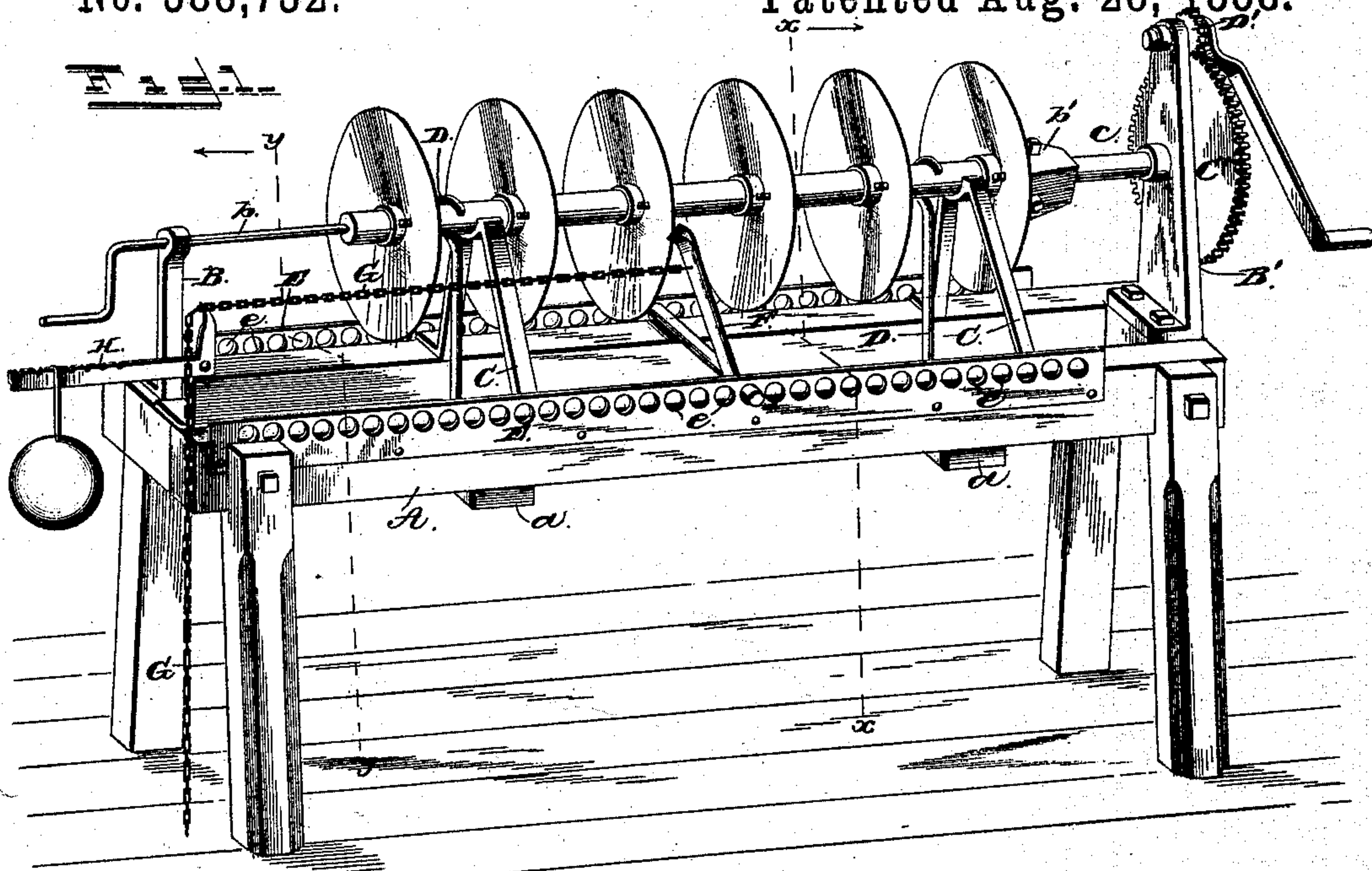
(No Model.)

E. A. SLOAT.

MACHINE FOR GRINDING HARROW DISKS.

No. 388,732.

Patented Aug. 28, 1888.



Edward A. Sloat.

by *B* INVENTOR,

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WITNESSES,

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UNITED STATES PATENT OFFICE.

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MACHINE FOR GRINDING HARROW-DISKS.

SPECIFICATION forming part of Letters Patent No. 388,732, dated August 28, 1888.

Application filed May 17, 1888. Serial No. 274,151. (No model.)

To all whom it may concern:

Be it known that I, EDWARD A. SLOAT, a citizen of the United States of America, residing at La Fargeville, in the county of Jefferson and State of New York, have invented certain new and useful Improvements in Machines for Grinding Harrow-Disks; 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, reference being had to the accompanying drawings, and to letters or figures of reference marked thereon, which form a part of this specification.

My invention relates to certain new and useful improvements in machines for sharpening and truing harrow-disks, or similar disks which are secured in series or singly upon a common shaft; and it consists in the construction and combination of the parts, as will be hereinafter fully set forth, and specifically pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of a machine for sharpening harrow-disks constructed in accordance with my invention. Fig. 2 is a sectional view taken through the line *x x* of Fig. 1. Fig. 3 is a sectional view taken through the line *y y* of Fig. 1. Fig. 4 is a detail view.

A refers to a suitable table or support, the longitudinal beams thereof being provided with cross-beams *a a*. The end pieces of the frame have bearings B and B' rigidly attached thereto and extending upwardly. The longitudinal pieces support bearings C C, the upper ends of which are curved to receive the shaft which carries the disks, said shaft being held on these bearings C by hooked bars D, the upper ends of which partly embrace the shaft, while the lower ends pass through the beams *a* and are secured beneath the same by turn-screws. The longitudinal side pieces of the frame have attached to the sides, so as to project above the upper edges thereof, plates E E, each of which is provided with a series of longitudinal perforations, *e*, which form bearings for the cutter F. This cutter is formed integral with the cross-bar, the ends of which are adapted to lie within opposite per-

forations, *e e*, and the bar is provided on one side with a nut, *f*, to prevent the same being displaced. From one side of the cutter extends a chain, G, with which a pivoted weighted lever, H, engages, so as to hold said cutter against the edge of the disk when the device is in operation.

The bearing B at one end of the machine carries a screw-threaded bar, *b*, which is adapted to be turned to engage with one end of the shaft carrying the disks, and the opposite end of said shaft is connected to a chuck, *b'*, carried by the shaft *c*, which is driven by the cog-wheel C', turned by a pinion, D', to which the crank-handle is attached.

Usually it is only desired to dress one side of the disk, which can be readily done by simply rotating the disk-carrying shaft when the cutter F is in contact with the edge of one of the disks. If it is desired to sharpen both sides of the disk, the disk-carrying shaft can be reversed.

By moving the nut *f* the position of the cutter can be changed so as to regulate the amount of metal removed from the periphery of the disk.

Instead of employing a cutter, as shown, I may use a hone, which can be connected to a cross-bar adapted to be adjusted by placing the same in the perforations *e*.

The pressure of the cutter against the disk can be regulated by moving the weight upon the lever H.

The device hereinbefore described may be run either by hand, steam, or other power.

Having thus described my invention, what I claim as new is—

1. The combination, in a device for sharpening disks, of a frame having supports and means for attaching a disk-carrying shaft thereto, side strips, E, having a series of perforations, *e*, a cutter having a cross-bar which engages with the perforations *e*, and a chuck connected to the driving-shaft for rotating the disk-carrying shaft, substantially as shown, and for the purpose set forth.

2. In a device for sharpening harrow or cultivator disks, a frame having bearings for the support of the disk-carrying shaft, and mechanism for rotating said shaft, side strips, E,

provided with perforations *e*, a cutter attached to a cross-bar which engages with said perforations, and a weighted lever and chain, *G*, connected to said lever and cutter, substantially as shown, and for the purpose set forth.

5 3. The combination, in a device for grinding or sharpening disks, shaft-supports attached to the main frame, so as to hold the disk-carrying shaft in its bearings, a driving-
10 shaft provided with a chuck for engaging with one end of the disk-carrying shaft, and the cutter adjustably secured to a frame and held automatically in engagement with one of the disks
15 by a weighted lever connected to the cutter, the parts being organized substantially as shown, and for the purpose set forth.

4. The combination, in a device for sharpening disks constructed substantially as shown, of a frame provided with perforated side pieces, *E E*, of a cutter having a horizontal
20 bar, one end of said bar being screw-threaded and provided with an adjusting-nut, the cutter projecting from the opposite end of said bar, substantially as shown, and for the purpose set forth.

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

EDWARD A. SLOAT.

Witnesses:

GEO. L. LANNON,
JACOB BARNER.