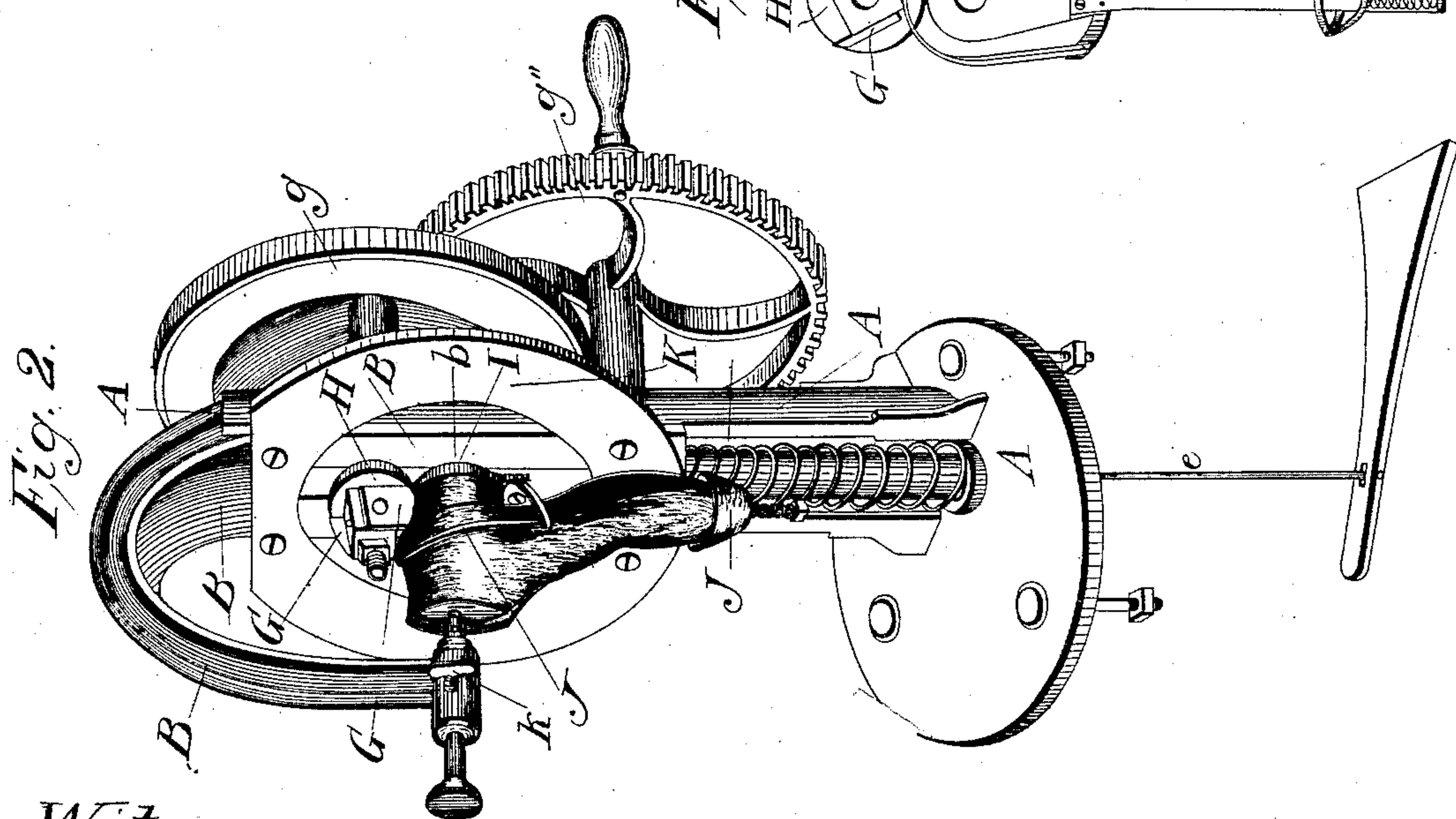
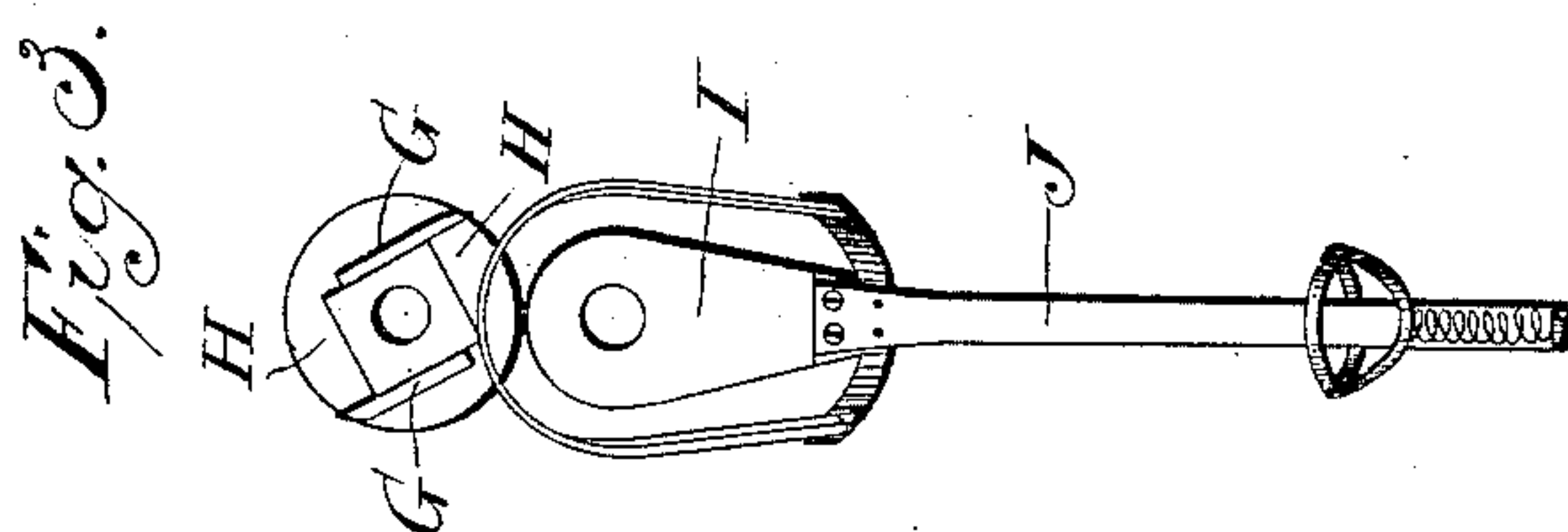
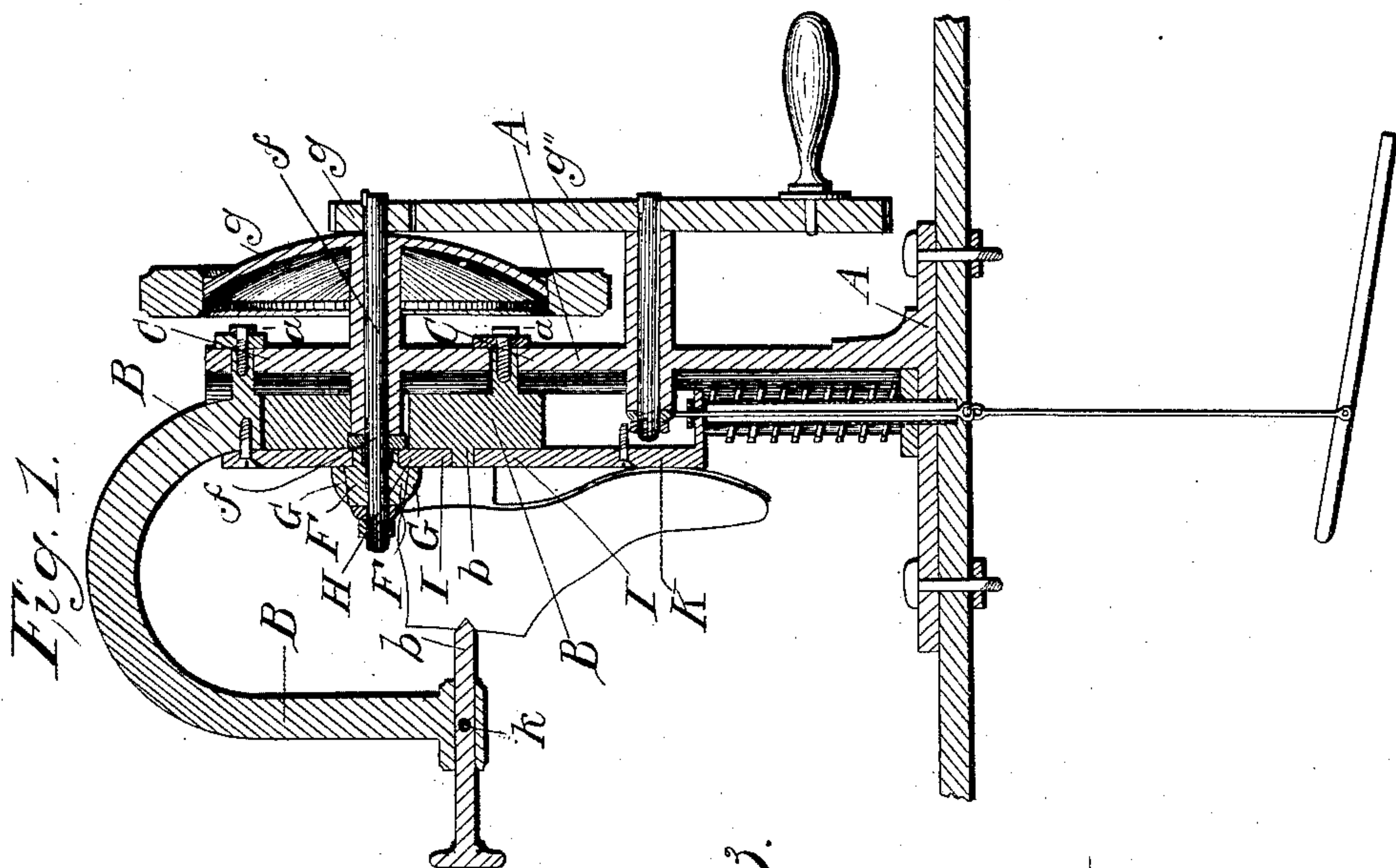


C. H. HELM.

Machine for Trimming Heels of Boots and Shoes.

No. 31,666.

Patented March 12, 1861.



Witnesses:
Herman S. Seivitt.
William D. Jones.

Inventor:
Chas. H. Helm.

UNITED STATES PATENT OFFICE.

CHARLES H. HELMS, OF POUGHKEEPSIE, NEW YORK.

IMPROVED MACHINE FOR TRIMMING HEELS OF BOOTS OR SHOES.

Specification forming part of Letters Patent No. 31,666, dated March 12, 1861.

To all whom it may concern:

Be it known that I, CHARLES H. HELMS, of the city of Poughkeepsie, in the county of Dutchess and State of New York, have invented a new and useful Machine for Paring and Shaping the Heels of Boots and Shoes, which I denominate a "Heel-Trimmer;" and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the annexed drawings, making part of this specification, the same letters having reference to the same parts in the different figures.

Figure 1 is a transverse section. Fig. 2 is a perspective view. Fig. 3 is a plan of the rotary cutter and loose friction-roller, with the holder and heel-guide plate.

A is the standard supporting the whole, to be firmly fixed in a suitable place.

B is the carriage on which the boot or shoe is placed for operation, being centered at b b' . This carriage moves vertically in ways C C C, cut in the standard A, and is supported at the bottom by the strong spiral spring and in the ways by the nuts and washers a a . The rod e passes up through the spring, connecting the carriage B with a treadle on the floor.

F is the rotary cutter-stock placed on the end of the journal f and driven by the fly-wheel and pinion g' and driving-wheel g'' or any other suitable gear. The journal has its bearing in an elongated box z , projecting from the standard A, corresponding openings being made in the carriage B for its projection. The driving-wheel g'' has a similar bearing.

G is the cutter-knife, fastened to the stock F by a screw or otherwise. Any number and any form of knives desired may be used. The loose roller H fills the space between the cutter and the face of the carriage, and runs on a shoulder made for the purpose on the back of the cutter-stock.

I is the heel-plate, of any form or pattern

desired, and is of the same thickness, and is placed in line with the roller H, and when in operation they rotate together. It is centered and turns on a pivot in the carriage at b , which is in line with a corresponding center-bolt at b' . k is the set-screw to this bolt. This bolt finds a center on the last or on a loose block centered for the purpose. Small steady-ing-pins project from the face of the heel-plate.

K is a circular plate fixed to the carriage, whose face corresponds with that of the heel-plate, and center is the same.

To the heel-plate is attached the frame J, which I call the "holder." It may be of any desired form. It has a spring in the toe to admit of its receiving different sizes.

Operation: Place the boot or shoe in the holder detached. Put your foot on the treadle and bring down the carriage far enough to permit the heel-plate to go on its center. Now with the right hand keep the shoe steady with the sole pressed against the circular plate K, and with the left hand push up the bolt at b' and check it with k . Put the machine in motion with the right hand, and with the left take hold of the toe of the shoe and turn it on its own axis the full circle of the heel, and the work is done.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The arrangement of the heel-plate I and centering-pin b with the rotary cutters G, in the manner and for the purposes herein shown and described.

2. The arrangement of the cutter-stock with the carriage B, as herein shown and described—that is to say, the stock passing through a slot in the carriage, but leaving the latter free to move, all as set forth.

CHAS. H. HELMS.

Witnesses:

HERMAN J. JEWITT,
WILLIAM D. JONES.