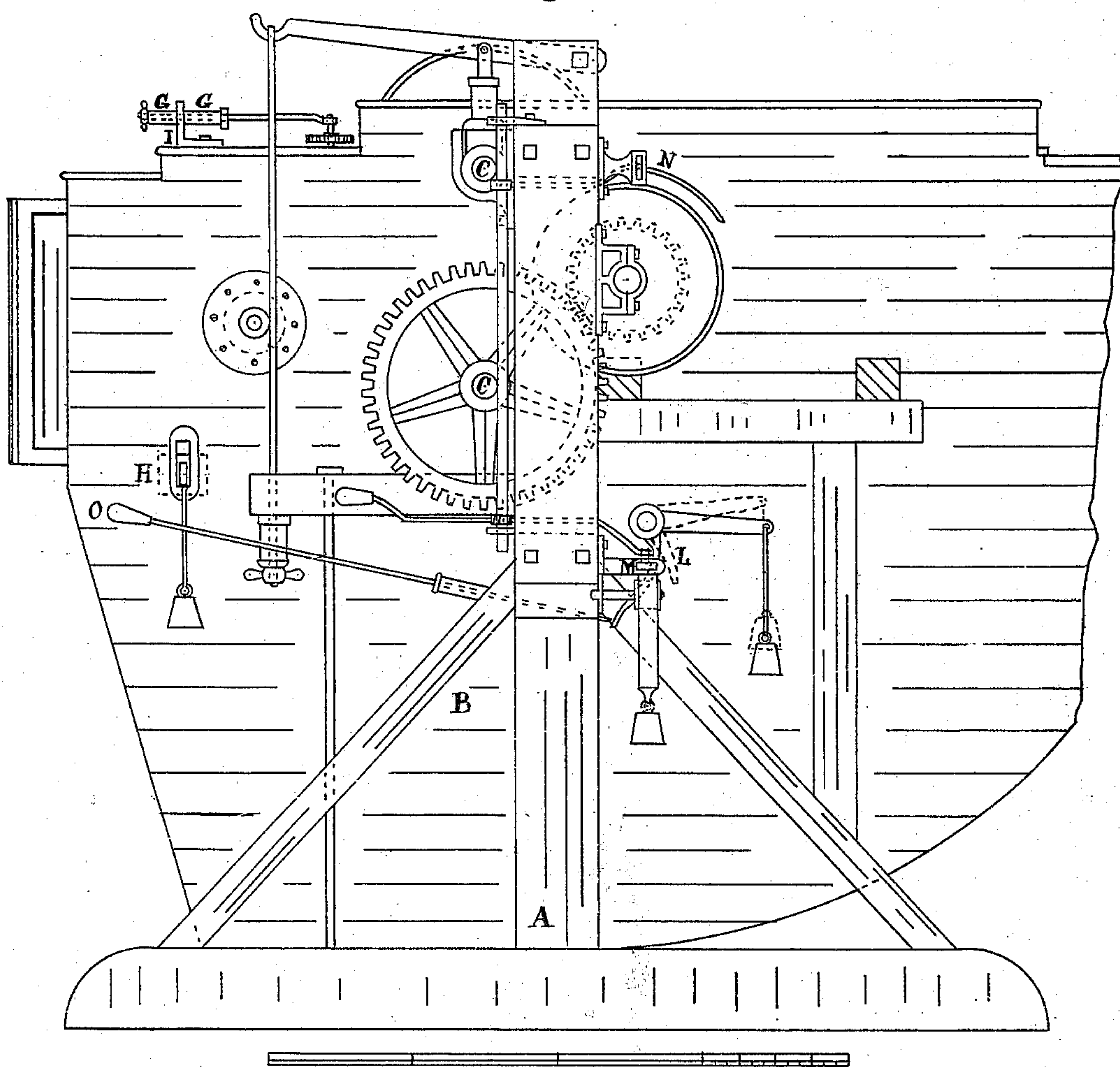


S. M. PIKE.
Fulling-Mills.

No. 127,267.

Patented May 28, 1872.

Fig. 1.



WITNESSES.

Robert Wilson

Chas L. Spencer

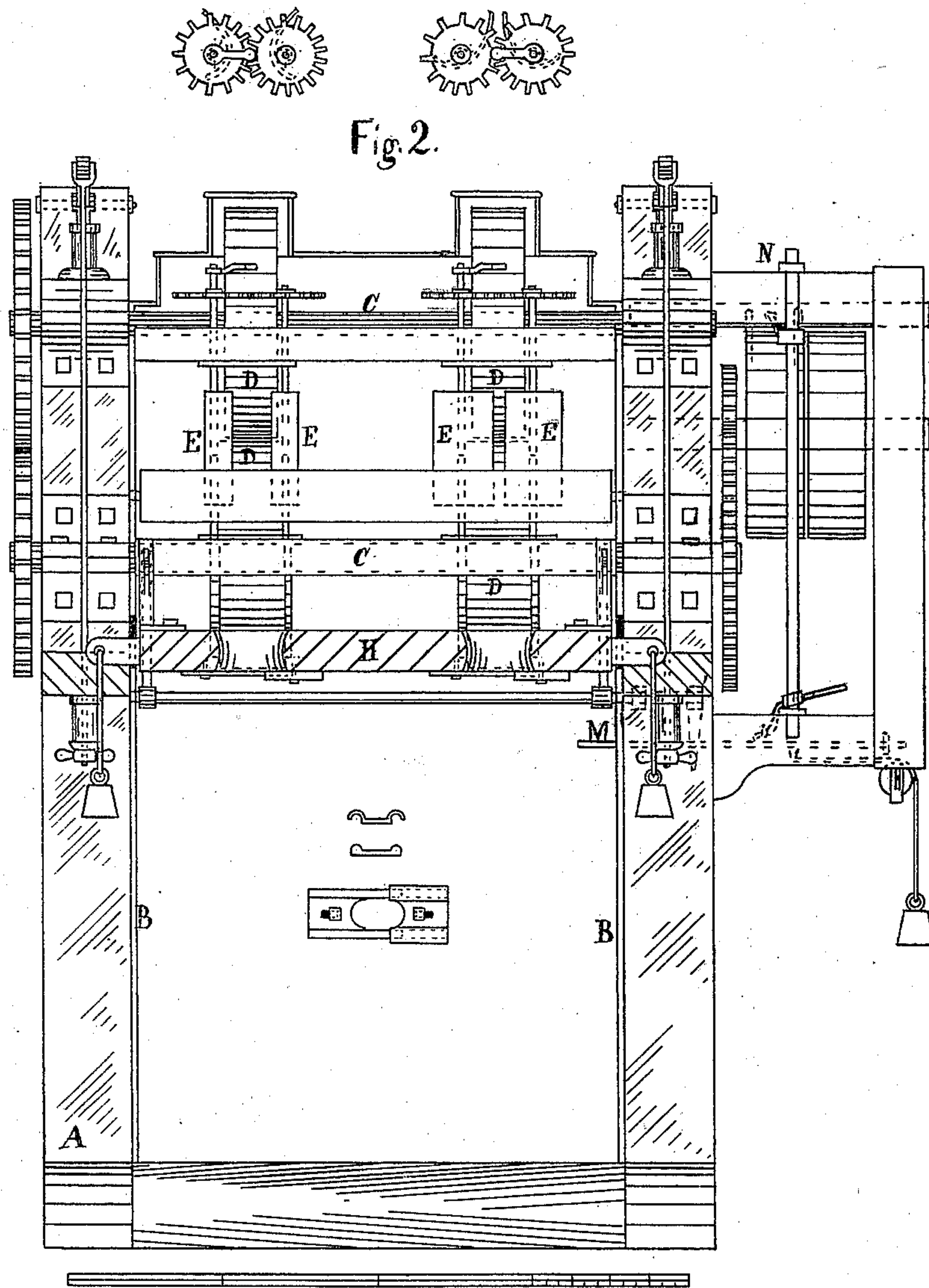
INVENTOR.

Samuel M. Pike

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WITNESSES.

Robert Wilson
Chas. L. Spencer

INVENTOR.

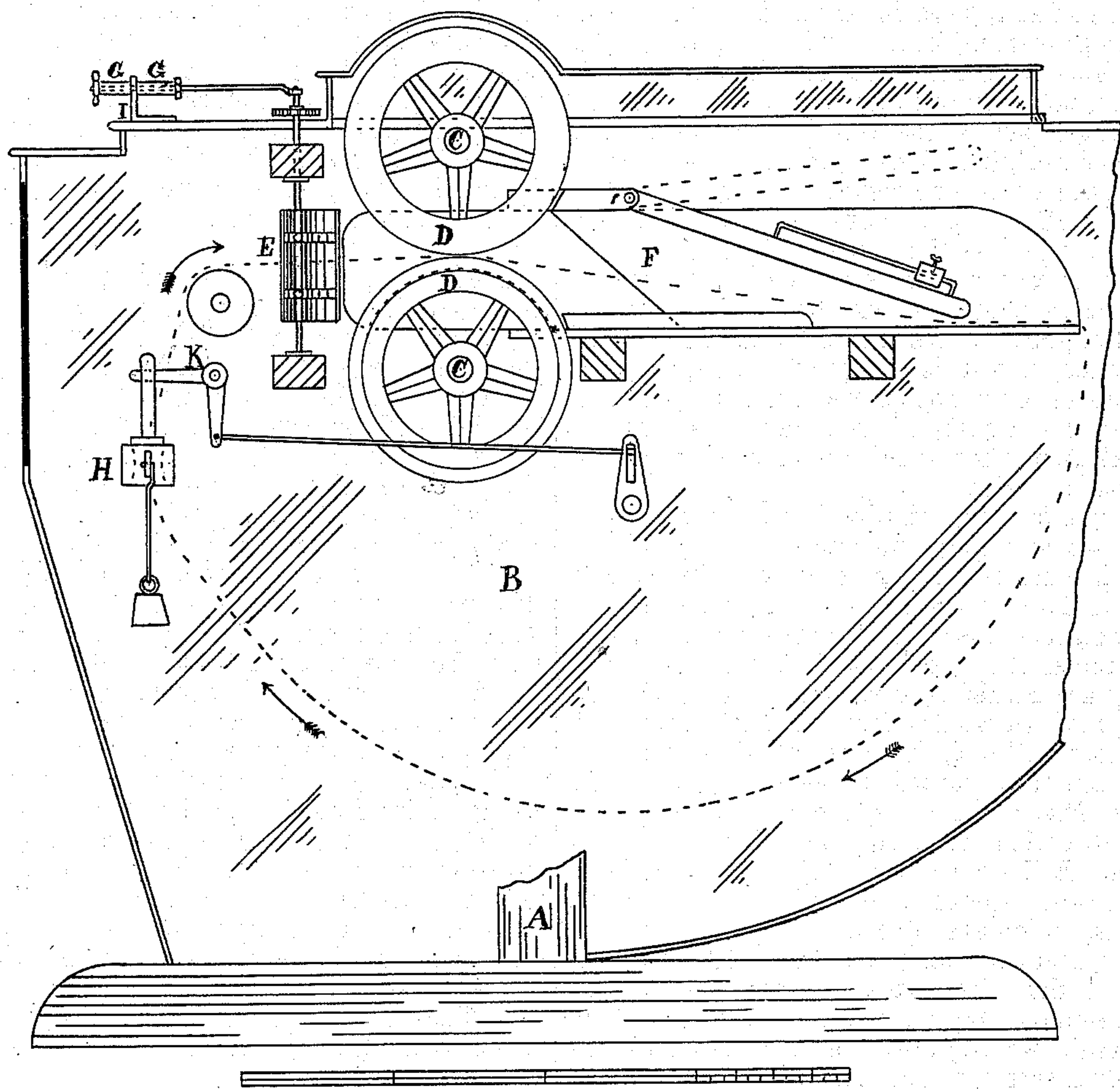
Simon M. Pike

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Patented May 28, 1872.

Fig. 3.



WITNESSES.

INVENTOR.

Robert Wilson
Chas L. Spencer

Simon M. Pike

UNITED STATES PATENT OFFICE.

SIMEON M. PIKE, OF PROVIDENCE, RHODE ISLAND, ASSIGNOR TO HIMSELF
AND WILLIAM WALTON, OF SAME PLACE.

IMPROVEMENT IN FULLING-MILLS.

Specification forming part of Letters Patent No. 127,267, dated May 28, 1872.

To all whom it may concern:

Be it known that I, SIMEON M. PIKE, of the city and county of Providence, in the State of Rhode Island, have invented a new and useful Improvement in Rotary Fulling-Mills; and I do hereby declare that the following specification, taken in connection with the drawing making a part of the same, is a full, clear, and exact description thereof, in which—

Figure 1 is a side elevation of my improved fulling-mill. Fig. 2 is an end view, and Fig. 3 is an inside sectional view of the same.

My invention relates to the machines employed in that part of the manufacture of woolen goods where the cloth is rendered more compact; and it is designed to enable such machines to produce more uniform work, and lessen the liability of damage in the process; at the same time to full the cloth any desired length or width.

In the drawing similar letters of reference indicate corresponding parts.

A is a frame having two side walls, B. The ends and top are arranged with movable pieces, to open and close. C C are two shafts extending across the machine and through the sides. They are geared to turn with each other, and are provided with rollers D D for the purpose of moving the cloth to be fulling that passes between them, as will be seen by the dotted lines, Fig. 3, which represent the cloth, and the direction it passes is indicated by arrows. E E are friction guide-plates, made elliptic and secured eccentrically to upright shafts, which are placed a suitable distance apart, and are connected at their tops by gearing, so that the space between the friction guide-plates may be widened or contracted, as the case may require; the gears being operated by a screw, which screw is provided with springs G G, so applied, on either side of the support I, that a yielding pressure is attained at the friction guide-plates in all their positions. F is the felting-box, through which the cloth is forced. It has a flap-door at one end, with an adjustable weight to regulate the pressure, creating more or less friction, as may be required for the goods to be fulling. The lower part of felting-box F is provided with a slide to draw out at the end. It is also furnished with a lining, which lining is fitted to

the sides of the lower roller D, on a smaller circumference turned for that purpose, and extends nearly to the friction guide-plates E E. By this arrangement the liability to damage the cloth passing into the felting-box (as with a double-flanged roller heretofore used in rotary mills) is diminished. H is a bar operating as a protector, the ends of which are fitted in slots through the side walls B, and held in position by springs or weights. Openings are made in the protector for the cloth to pass through, and an apparatus is fitted on the under side, to graduate the passage for heavy or light goods. The boxes of the upper shaft C are arranged with springs, to obtain a yielding pressure for the relief of the different thicknesses of cloth passing between the rollers D D. In the event that the cloth should tangle or bunch up, it would operate against the protector H, raising either end and causing it to move the independent lever K, Fig. 3, which lever, being connected to the dog L, Fig. 1, raises it, as shown by dotted lines, and disconnects it from a recess made in latch M. This latch is fitted to slide and is connected with the shipper N; and, when set free from the dog L, a weight or spring operates it to shift the belt and stop the machine, thus guarding against injuring the cloth.

To start the machine the latch is moved in the opposite direction until the dog L springs or drops into the recess. The machine may be stopped, at the option of the operator, by pressing the handle O, represented on Fig. 1.

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

1. The eccentric friction guide-plates E E, when arranged to operate substantially as herein described.
2. The felting-box F, with its lining extending into spaces turned in roller D to prevent injury to the cloth, as specified.
3. The independent protector-bar H, in combination with the lever K, dog L, latch M, and shipper N, when arranged as described, and for the purpose specified.

SIMEON M. PIKE.

Witnesses:

ROBERT WILSON,
CHAS. L. SPENCER.