

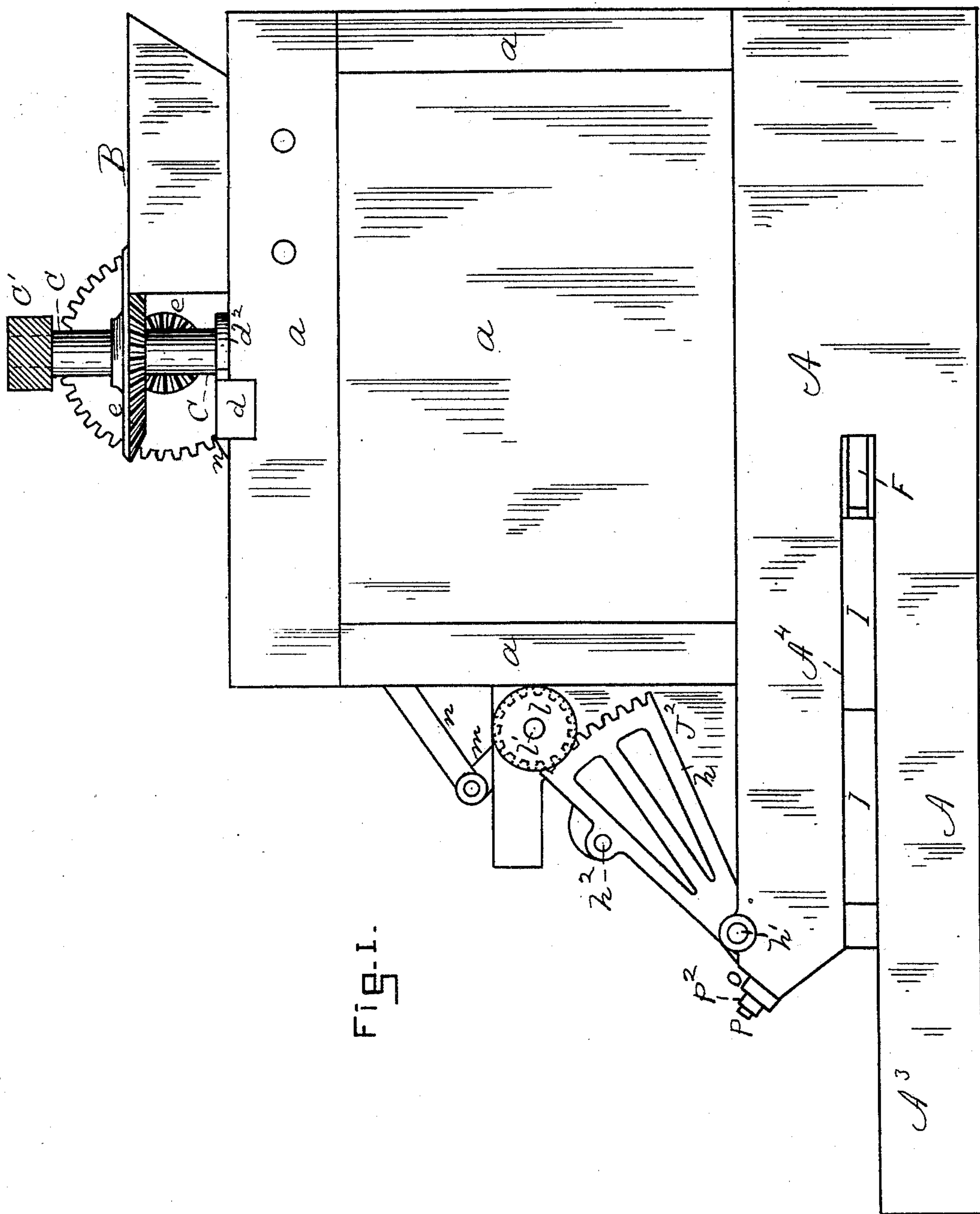
(No Model.)

5 Sheets—Sheet 1.

V. F. LANOUE.
BRICK MACHINE.

No. 491,657.

Patented Feb. 14, 1893.



WITNESSES

J. M. Hartnett -
L. B. Smith.

INVENTOR

INVENTOR
Victor F. Larouette
By his Atty
Henry Williams

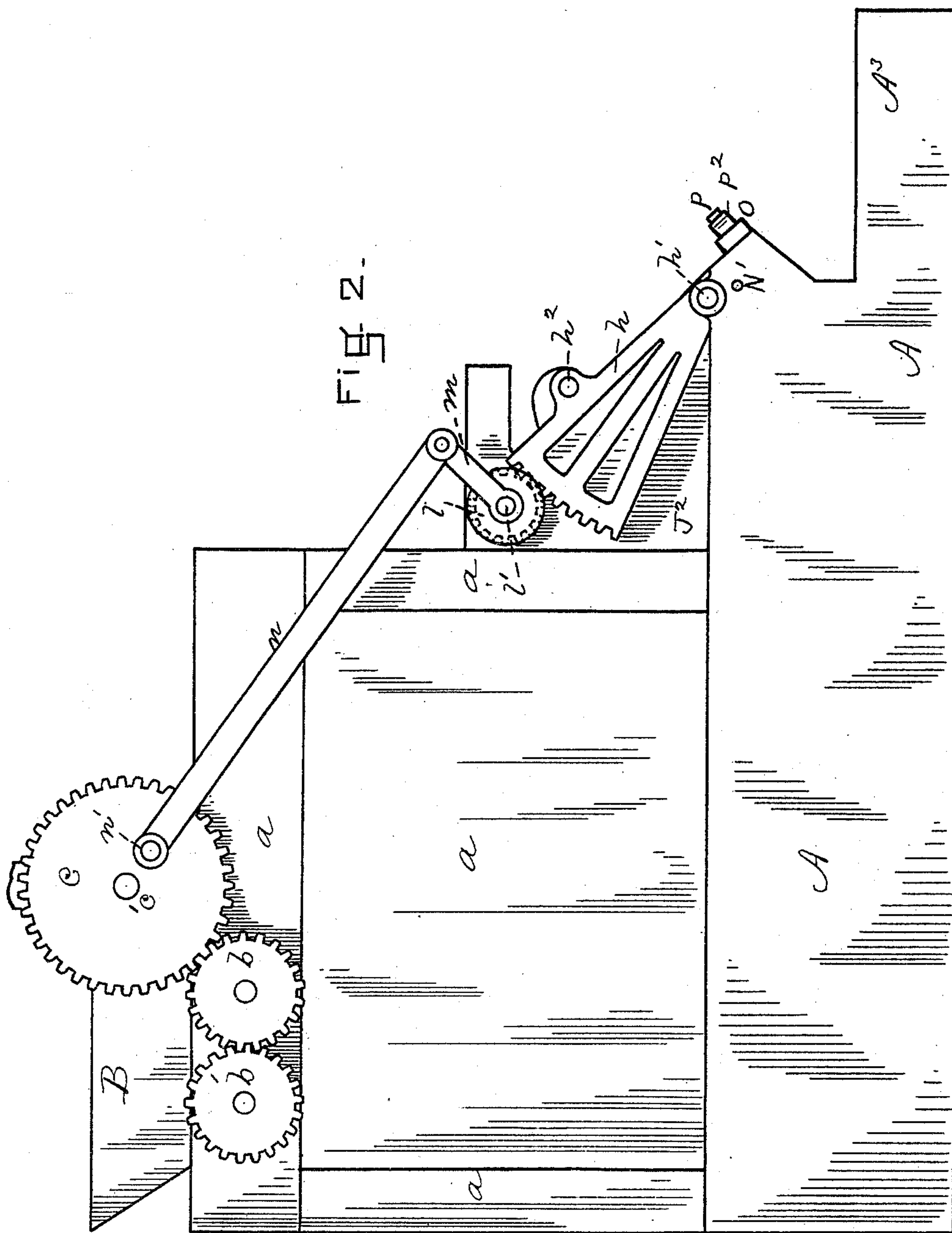
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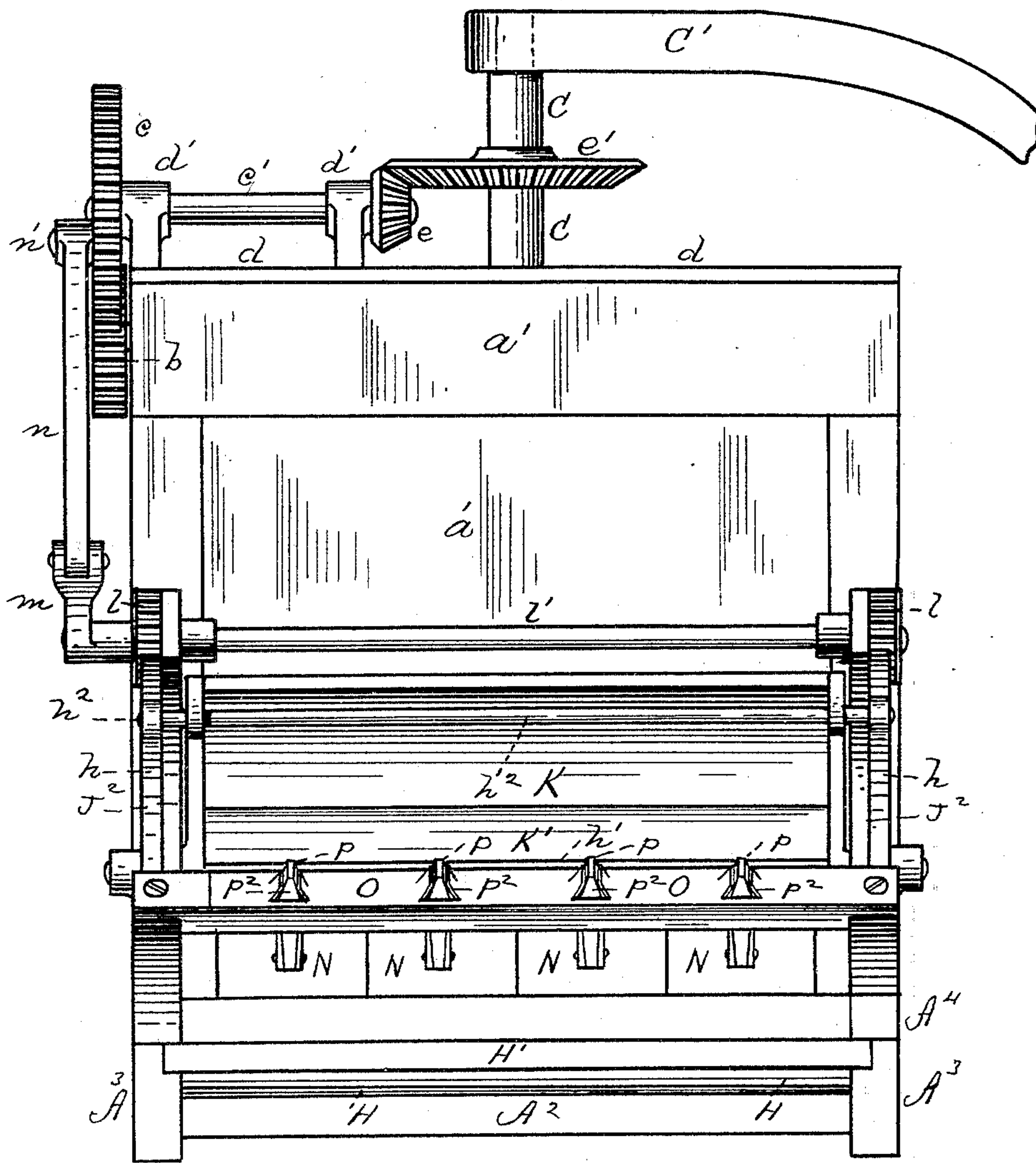


Fig. 3.

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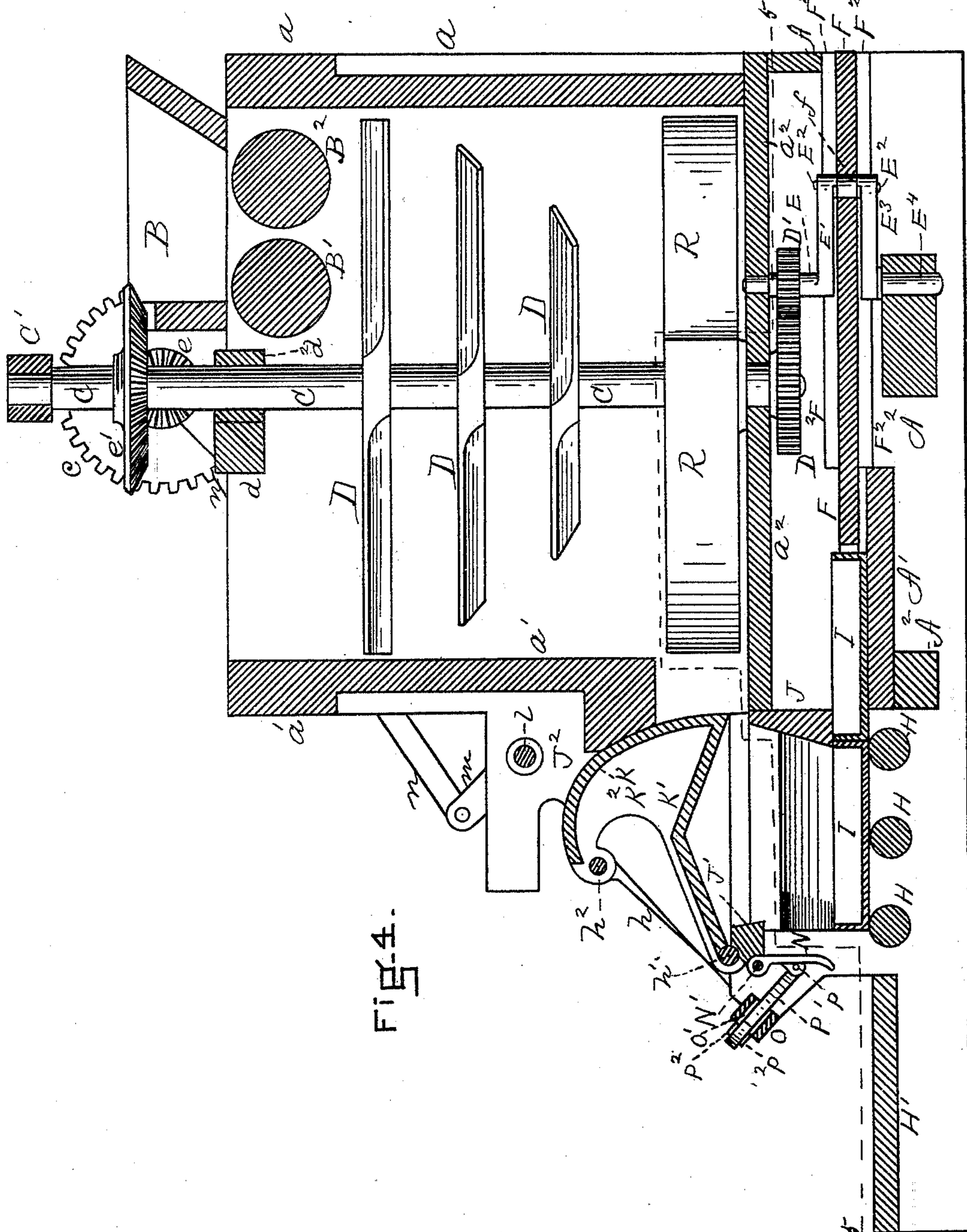
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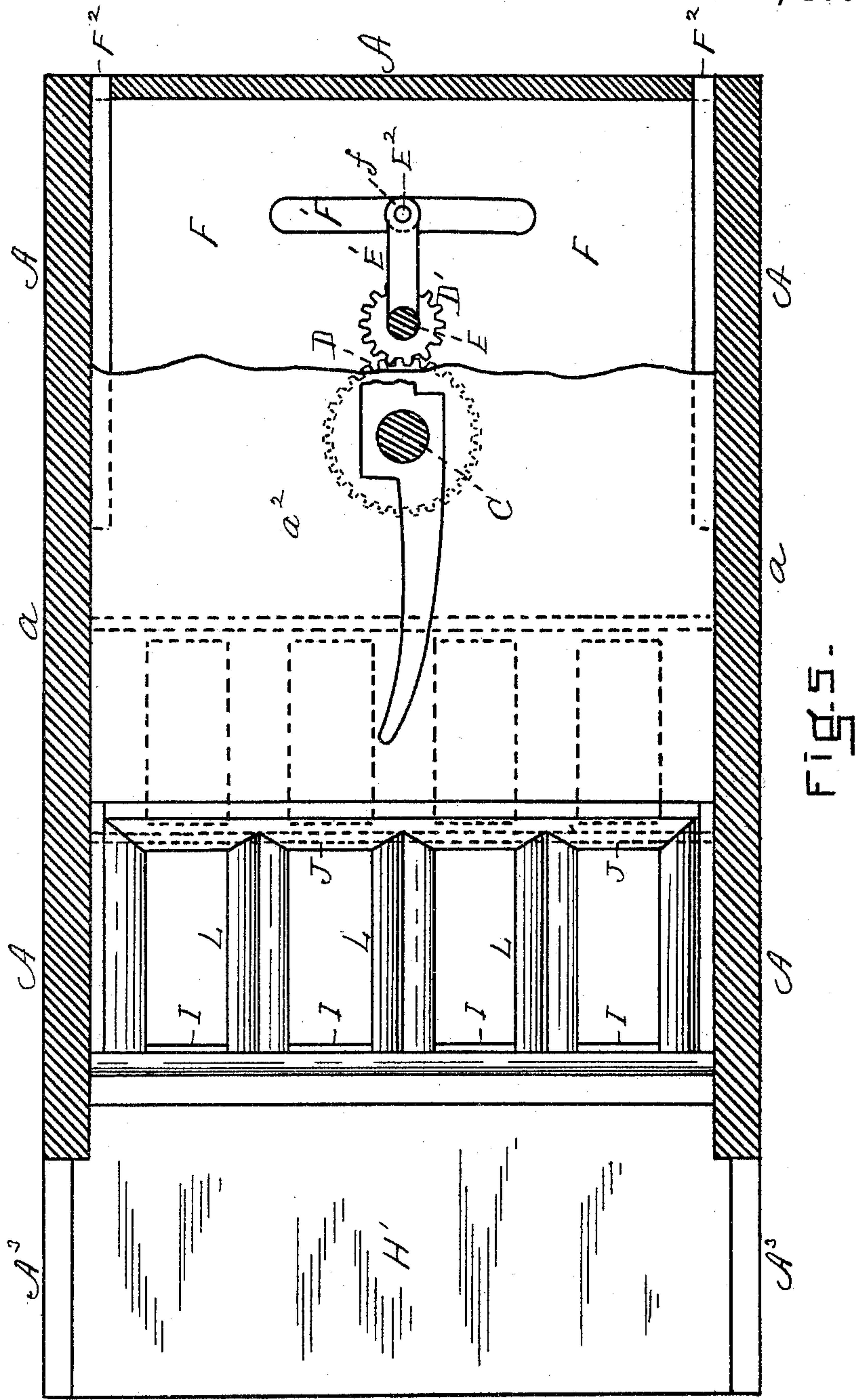
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UNITED STATES PATENT OFFICE.

VICTOR F. LANOUILLE, OF DOVER, NEW HAMPSHIRE.

BRICK-MACHINE.

SPECIFICATION forming part of Letters Patent No. 491,657, dated February 14, 1893.

Application filed October 20, 1892. Serial No. 449,508. (No model.)

To all whom it may concern:

Be it known that I, VICTOR F. LANOUILLE, a citizen of the United States, residing at Dover, in the county of Strafford and State of New Hampshire, have invented new and useful Improvements in Brick-Machines, of which the following is a specification.

This invention relates to the novel construction and arrangement of parts fully described below and illustrated in the accompanying drawings, in which

Figure 1 is a side elevation of my improved brick machine. Fig. 2 is an elevation of the opposite side. Fig. 3 is a front elevation with the hopper removed. Fig. 4 is a longitudinal vertical section. Fig. 5 is a horizontal section on line 5-5, Fig. 4.

Similar letters of reference indicate like parts.

The frame of the machine consists of the lower portion A and upper portion a . The upper portion a is built upon the portion A and is substantially in the shape of a square box, open at the top. The sides and rear of this box or upper portion of the frame, including the cross pieces and corner posts, are lettered a , while the front wall is lettered a' .

B is a hopper (Figs. 1, 2, and 4,) supported on the top of the frame a directly over a pair of horizontal rolls B' B^2 , located and having their bearings in the sides of said frame a . The shafts of these rolls extend at one end through the frame, and have fixed upon them intermeshing gear-wheels b b' , the gear-wheel b being engaged by a gear-wheel c fast upon a shaft c' (Figs. 2 and 3) having its bearings in brackets d' mounted on a cross-piece d extending from one to the other of the sides of the box a . (Figs. 1, 3 and 4.) This shaft c' has fixed on its inner end a beveled gear-wheel e which is engaged by the beveled gear-wheel e' fast on the vertical driving shaft C, whose bearings are in the strap d^2 extending from the cross piece d , and in the floor a^2 of the box a . The upper end of this shaft is provided with a lever or sweep C, by means of which the shaft may be rotated by the employment of horse or other power. The rotation of the shaft C imparts motion to the shaft c' by means of the gear e e' , and, by means of the gear c b b' , motion is imparted to the rolls B' B^2 . The clay is dropped into

and through the hopper B onto and between said rolls with the effect that the rolls, as they rotate, crush out the rocks and lumps and allow the clay to drop between them upon agitators D rigidly secured to the shaft C in different relative positions within the box a , and thence upon the floor a^2 . The lower or base portion A of the frame has a floor A' and cross pieces A^2 , and one of its sides, at its front end, is provided with a long horizontal slot A^4 , for access to the molds.

A gear-wheel D (Figs. 4 and 5) is fast to the lower end of the shaft C, below the floor a^2 , and engages a gear-wheel D' on the crank-shaft E having its bearing in the floor a^2 and carrying a crank E' whose outer end is provided with a pin E^2 which connects it with a corresponding crank E^3 on a shaft E^4 supported by the cross-piece A^2 . This pin E^2 carries a roll f which lies in a slot F' in a plate F sliding horizontally in ways F^2 on the inner sides of the frame A. Directly in front of the plate F are two or more trays I which rest on the floor A' and rollers H, said rollers being beneath the press-box and supported by the frame A. In front of the rollers is a plate H' which rests upon the projecting arms or ways A^3 extending forward from the sides of the frame A.

The press-box is located directly in front of the floor a^2 and comprises the rear portion or partition J, front portion J' , end portions J^2 , and hinged cover consisting of the curved upper portion K, angle shaped lower portion K' , and ends K^2 . The lower portion of the press-box is divided by reverse V shaped partitions L into compartments, said compartments being bounded by said partitions, the beveled back J, and swinging doors or scrapers N N (Figs. 3 and 4), which hang from a rod N' supported by and in front of the portion J' . These doors N are held normally down, not only by gravity but also by means of rods P whose lower ends are pivotally secured at P' to the doors or scrapers, and whose upper ends extend through suitable openings O' in a bar O and between springs P^2 which extend up from said bar next said openings and are bent inward against said rods P. Thus the pressure of the springs is added to the power of gravity in keeping the doors or gates hanging in a vertical position. The press-

box K K' K² swings upon a rod h' supported by the portion J' and its action is controlled by segment frames or gears h pivoted on the rod h' to the frame A and connected by a rod h² to the said cover.

The segments h are provided with teeth on their peripheries, and are engaged by the gear-wheels l fast on opposite ends of the shaft l' supported in the ends K² of the press-box. One end of this shaft has fixed to it a lever m whose opposite end is pivotally secured to a link n whose upper end is pivotally secured at n' to the outer surface of the gear-wheel c.

The vertical shaft C has rigidly secured to it just above the floor a² a pair of feeding paddles or arms R of substantially the shape shown in Figs. 4 and 5.

I have described above the operation of the device until the clay has dropped upon the floor a². At this point the paddles R, being actuated by the shaft C, sweep the clay forward until it is pushed by the clay pressing behind it, into the press-box and over the false molds constructed therein by the partitions L. At this time the forward tray I containing the true molds which correspond exactly in shape to the false molds above named (see broken lines in Fig. 5) is directly under the false molds, as shown in Fig. 4, having been pushed into place by the plate F which is actuated by the shaft C, to which it is connected by the intermediate gear D D' and crank E'. Upon the arrival of the forward tray I at this point, the cover of the press-box, which has been in a slightly raised position is forced down by means of the segments h, gear l, levers m n, and gear-wheel c to its lowest point, so that its portion K' presses the clay, which has been carried forward by the paddles R, into and through the false molds, forcing the clay beneath into the true molds

in the forward tray I. As the shaft C continues to rotate, the tray farthest forward is pushed by the tray at its rear and the advancing plate F, forward over the rollers H and under the gates or scrapers N onto the plate H', from which it is removed and the soft bricks taken from the mold to the yard to dry. These doors or gates serve to scrape the clay from the tops of the bricks in the mold and leave them smooth, the springs P² and rods P holding the doors or scrapers in the position shown in Fig. 4 unless a stone or something harder than the clay has found its way into one of the molds, in which case the gate or scraper N next said mold is lifted to let the hard substance or obstruction under. As soon as the forward tray I has passed under the scrapers, the plate F is carried rearward, and the cover of the press-box swung up, and the attendant places a fresh tray of molds between the plate F and the rear tray, when the operation above described is repeated.

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

In a brick-machine, in combination, the press-box, the vertically hanging and swinging gates or scrapers N hinged to the front wall or frame of the press-box in front of the different molds, rods P pivotally connected at their lower ends to the gates or scrapers, bar O provided with springs O' through which the upper ends of the rods extend, springs P² secured to said bar and pressing against said rods, and molds adapted to be forced under said gates or scrapers, substantially as set forth.

VICTOR F. LANOUILLE.

Witnesses:

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