

(No Model.)

2 Sheets—Sheet 1.

W. A. WRIGHT.
Flax Brake.

No. 238,266.

Patented March 1, 1881.

Fig. 1.

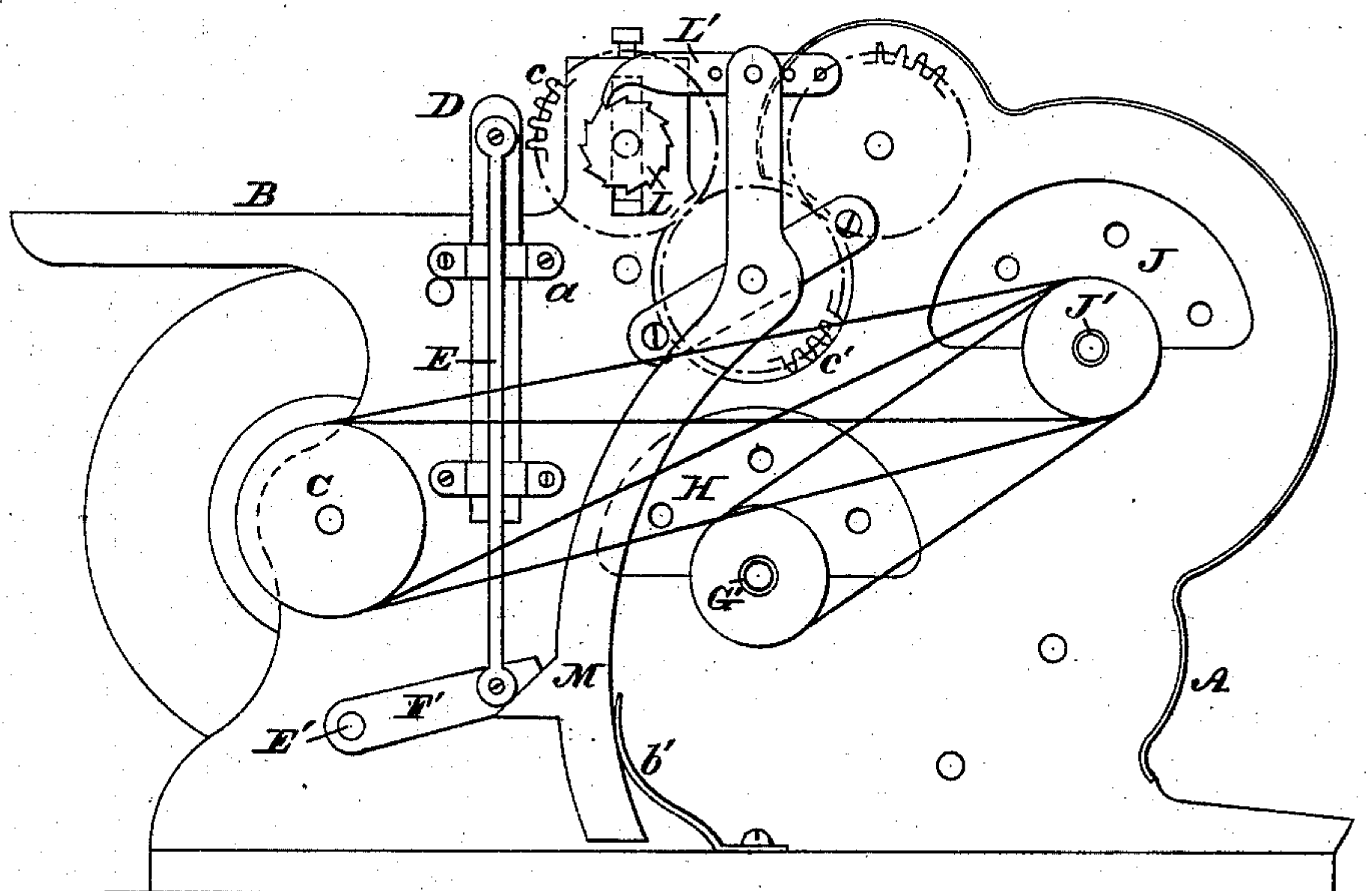


Fig. 2.

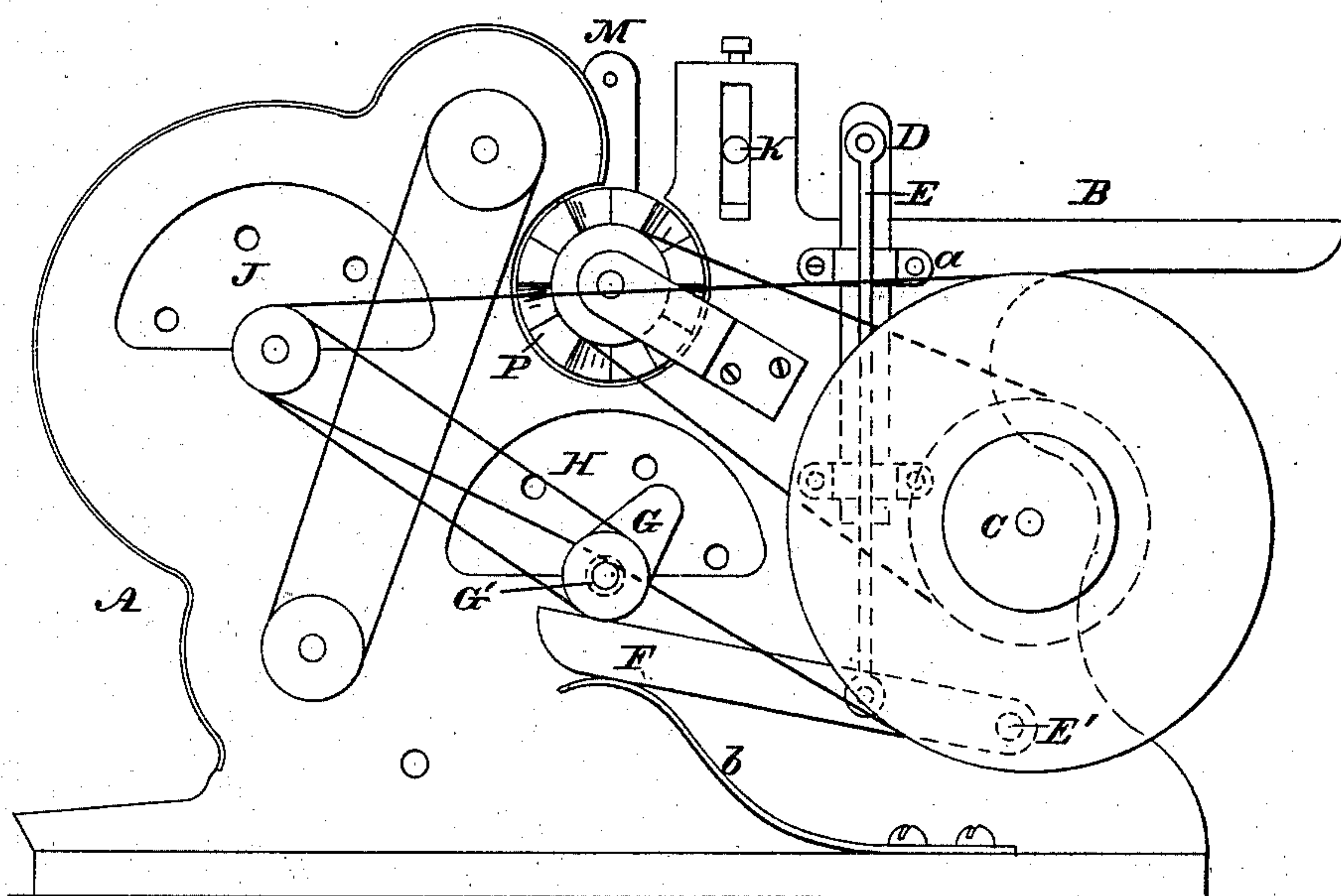
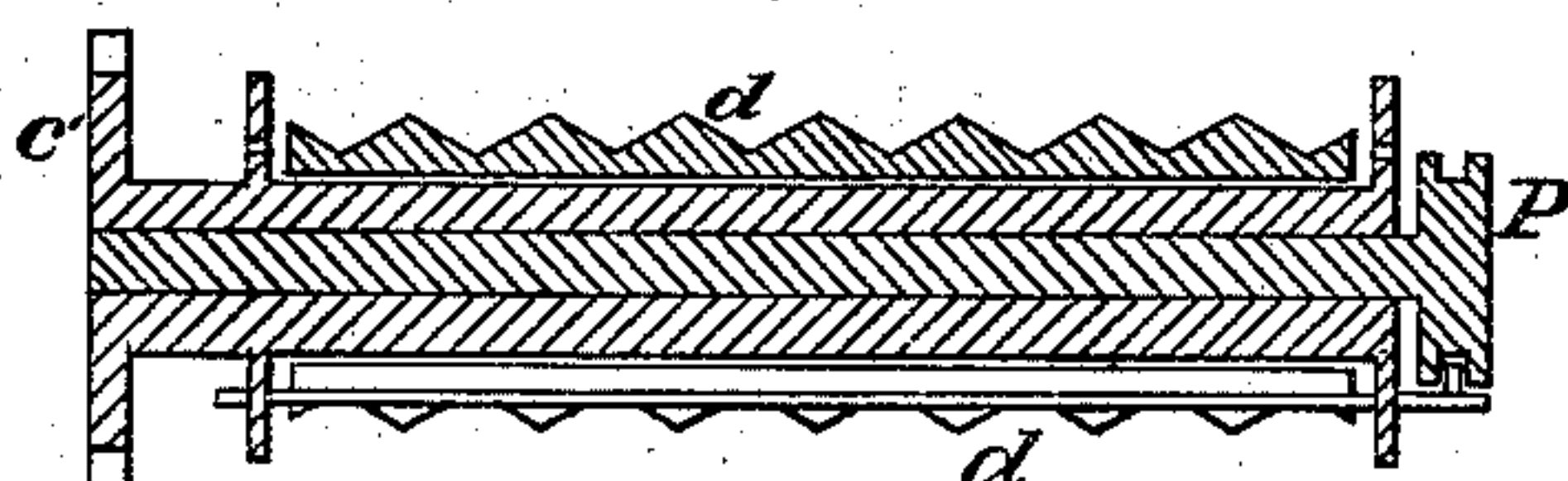


Fig. 5.

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Inventor:

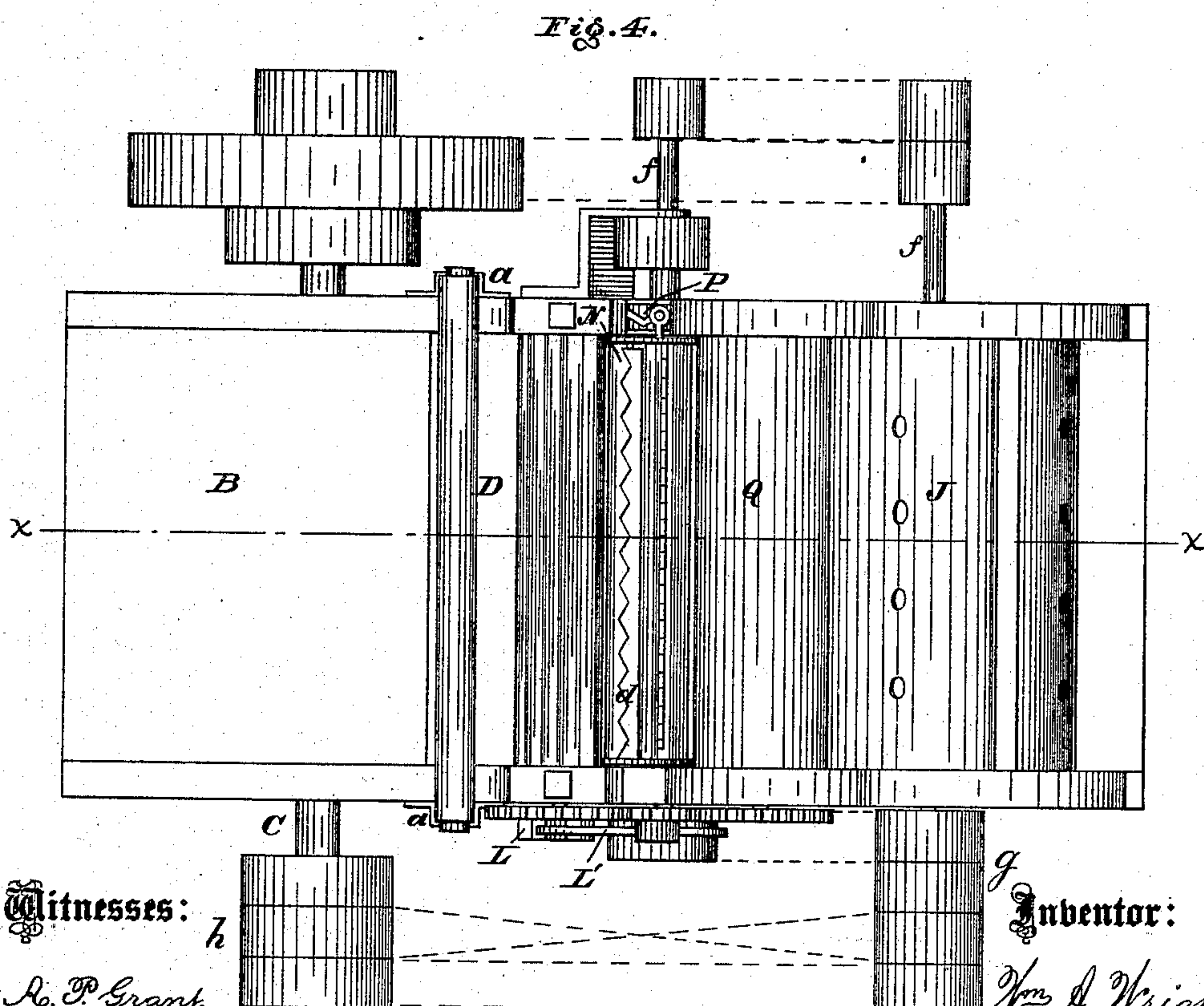
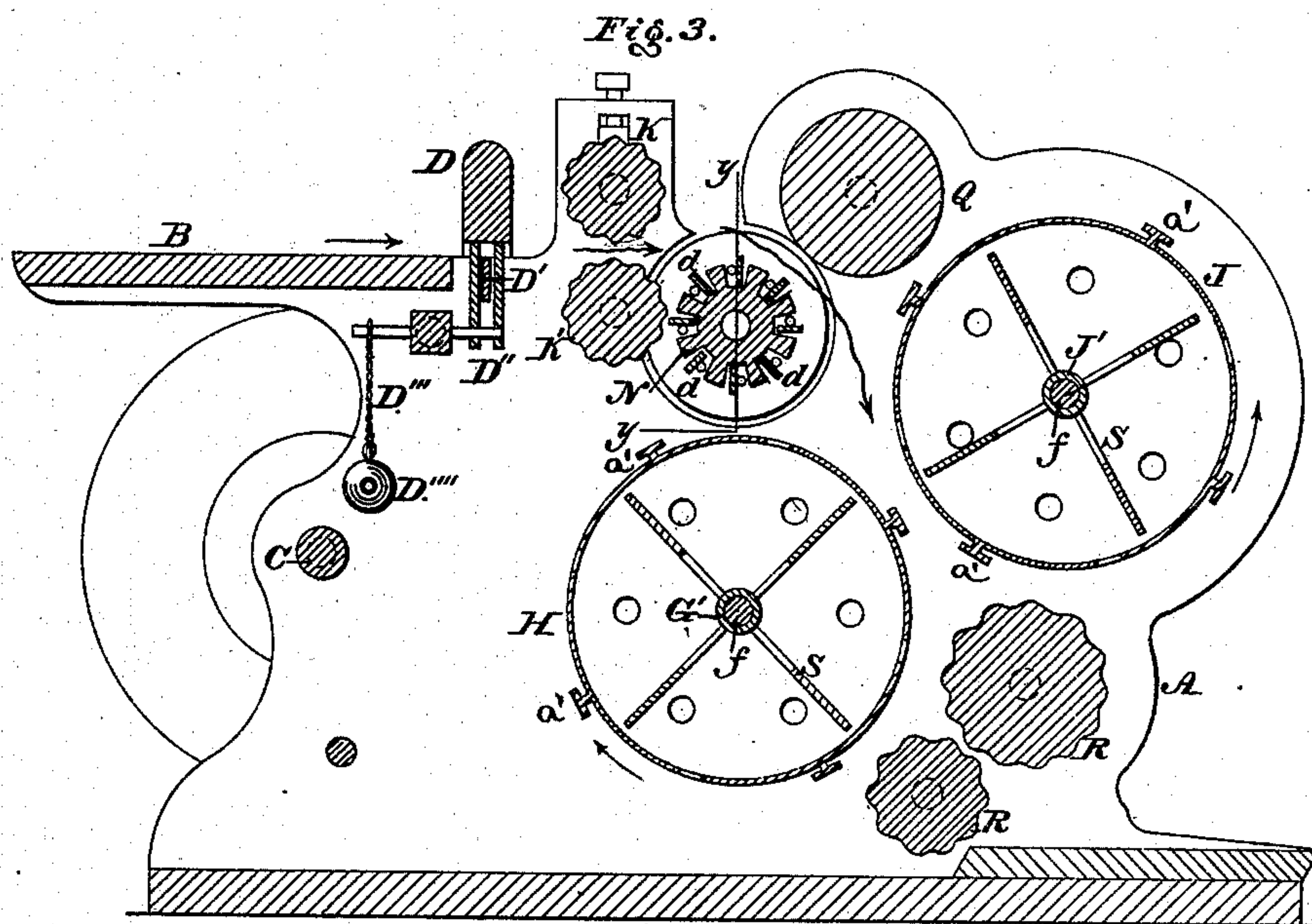
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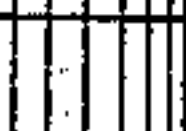
2 Sheets—Sheet 2.

No. 238,266.

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UNITED STATES PATENT OFFICE.

WILLIAM A. WRIGHT, OF CENTRETON, NEW JERSEY, ASSIGNOR OF TWO-THIRDS TO JOSEPH B. DE YOUNG AND CHARLES Z. DE YOUNG, OF PHILADELPHIA, PENNSYLVANIA.

FLAX-BRAKE.

SPECIFICATION forming part of Letters Patent No. 238,266, dated March 1, 1881.

Application filed June 12, 1880. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM A. WRIGHT, a citizen of the United States, residing at Centreton, in the county of Burlington, State of New Jersey, have invented a new and useful Improvement in Flax-Brakes, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figures 1 and 2 are views of opposite sides of the flax-brake embodying my invention. Fig. 3 is a vertical section thereof in line *x x*, Fig. 4. Fig. 4 is a top or plan view thereof. Fig. 5 is a transverse section of a portion in line *y y*, Fig. 3.

Similar letters of reference indicate corresponding parts in the several figures.

My invention consists of certain improvements in flax-brakes, as will be hereinafter fully set forth and definitely claimed.

Referring to the drawings, A represents the frame of the brake or machine, and B the feed-table thereof.

C represents the driving-shaft, which, by means of proper pulleys, bands, or gearing, communicates power to the other parts of the machine requiring it.

D represents a vertically-arranged hammer or brake, which is fitted to guides *a* on the frame A, at the inner end of the table B, and has connected to its sides arms E, whose lower ends are attached to levers F F', which are fixed to a shaft, E', mounted on the frame A. One of the said levers is depressed by means of a cam, G, secured to the shaft G' of a beater, H, diagonal to which is a beater, J, the shaft J' whereof and the shaft G' being mounted on the frame A. The beaters H J consist of cylinders, each having surface projections *a'*. The return motion of the lever F is accomplished by a spring, *b*, suitably applied.

KK' represent two corrugated rollers mounted on the frame A, and arranged one above the other, the upper roller, K, having connected to its shaft a ratchet-wheel, L, with which engages a pawl, L', whereby an intermittent motion is imparted to said roller K. The pawl is hinged to an upright lever, M, whose lower end is moved in one direction by the engaging

contact of the lever or arm F', and in the other direction by a spring, *b'*, whereby the pawl is advanced and returned and the ratchet receives its motion.

Fixed to the shaft of the roller K is a spur-wheel, *c*, which meshes with a spur-wheel, *c'*, the axis of which latter has secured to it a breaker, N, consisting of a grooved cylinder, the grooves receiving toothed bars *d*, which are loosely fitted thereto and properly guided, and receive lateral motion by means of a scalloped or zigzag wheel, P, which bears against one end of the series of toothed bars *d*, and is secured to a shaft loosely mounted in the cylinder of the breaker N, it being noticed that while the breaker has an intermittent motion the wheel P has a continuous motion, the shaft of said wheel carrying a suitable band or other gear-wheel for purposes of operation. The ends of the bars *d* opposite to the wheel P bear against a spring or springs, to cause the return motion of said bars advanced by the wheel P; but, if desired, said wheel may be so grooved and have the ends of the bars provided with studs or otherwise fitted in the groove of the wheel that both advance and return motions of the bars are occasioned.

Mounted on the frame A above the breaker N is an intermittently-operated roller, Q, which serves to hold the flax against said breaker; and likewise mounted on said frame, adjacent to the beaters H J and at the rear of the frame, are two discharge-rollers, R, which, with the beaters H J, are continuously rotated.

Beneath the hammer or brake D is a bed or support, D', circumscribing which are pieces D'', forming a lifter for the flax when the hammer or brake D is elevated, said lifters then rising above the bed D'. The lifter is connected to a hinged or rocking support, D''', whose outer end carries a weight or is provided with a spring, as at D''', for causing the lifter to return to its normal position. (See Fig. 3.)

Within each beater H J is a fan or blower, S, whose axes *f f* are independent or free of the tubular axes G' J' of said beaters, the former being inclosed in the latter, it being noticed that said axes G' J' are provided with

a number of pulleys, *g*, around which pass cross-belts passed from a number of pulleys, *h*, on the driving-shaft, the object whereof is to change the direction of rotation of the
5 beaters H J.

The operation is as follows: Power is applied to the various shafts, and the flax, placed on the table B, is pushed under the hammer D and beaten and broken down. The lifter
10 D'' raises the broken flax above the bed D', so that it does not adhere thereto and is in line for the rollers K K', which further break or crush the flax, which next reaches the breaking or scutching wheel N, between which and
15 the roller Q the flax is subjected to the lateral working action of the toothed bars *d* of said wheel N, so that the shive or woody fragments are removed and the fiber to a certain extent separated. The beaters H J then act on the
20 flax, so as to drive out the shive, and the fans S blow or carry away said shive, dust, &c., the rollers R then passing out the flax, ready for other necessary operations beyond the work of the present machine. When the
25 rear end of the flax leaves the rollers K K' the action of the beaters H J is to force the flax into a mass or lump; but when this state of the case is reached the belts on the pulleys *h* are shifted so as to cause the beaters H J to

rotate in reverse direction to that shown by 30 the arrows, Fig. 3, whereby, while the rollers R R draw along the flax, said beaters, now acting against the flax, keep it straightened out, the advantages whereof are evident.

Having thus described my invention, what 35 I claim as new, and desire to secure by Letters Patent, is—

1. The hammer or brake D and bed D', in combination with the lifter D'', substantially 40 as and for the purpose set forth.

2. The breaking or scutching wheel N, having bars *d*, adapted for lateral operation, substantially as and for the purpose set forth.

3. The intermittent-acting rollers K K' and intermittent-acting scutching-wheel N, with 45 moving bars *d*, in combination with the continuously-operated zigzag wheel P, substantially as and for the purpose set forth.

4. The beaters H J, with inclosed fans S, substantially as and for the purpose set forth. 50

5. The brake D, rollers K K', scutching-wheel N, roller Q, beaters H J, fans S, and discharge-rollers R, combined and operating substantially as and for the purpose set forth.

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