

No. 719,592.

PATENTED FEB. 3, 1903.

J. H. HORAN & E. N. WINSTON.  
ADJUSTABLE PRINTING WHEEL.

APPLICATION FILED DEC. 5, 1901.

NO MODEL.

2 SHEETS—SHEET 1.

Fig. 1

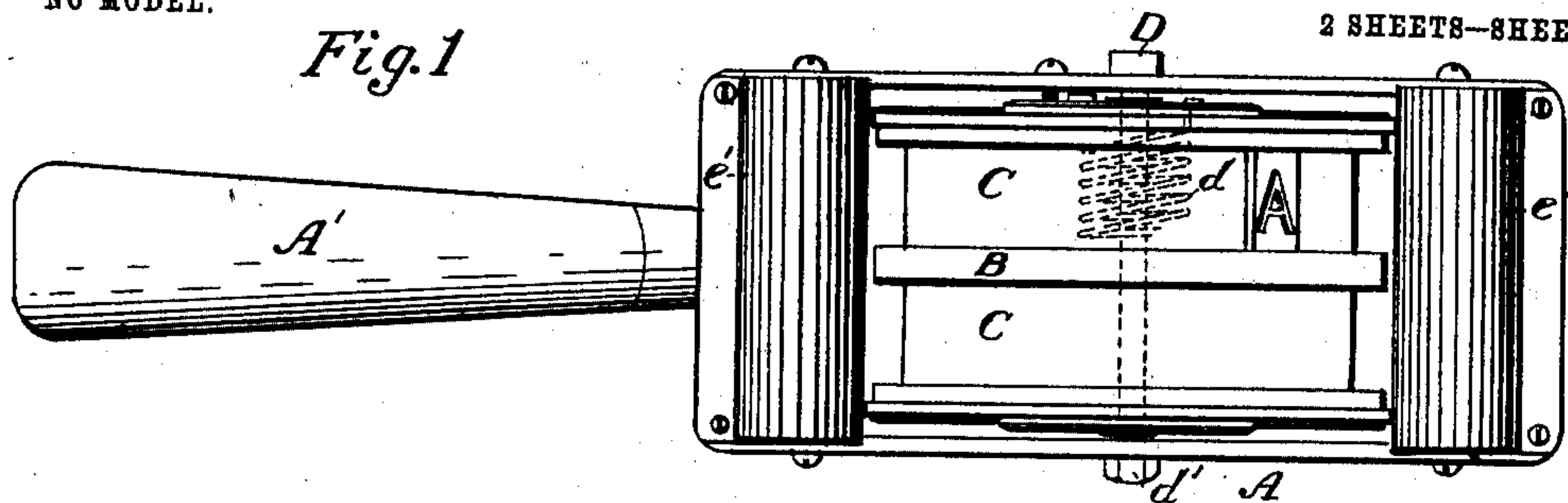


Fig. 2

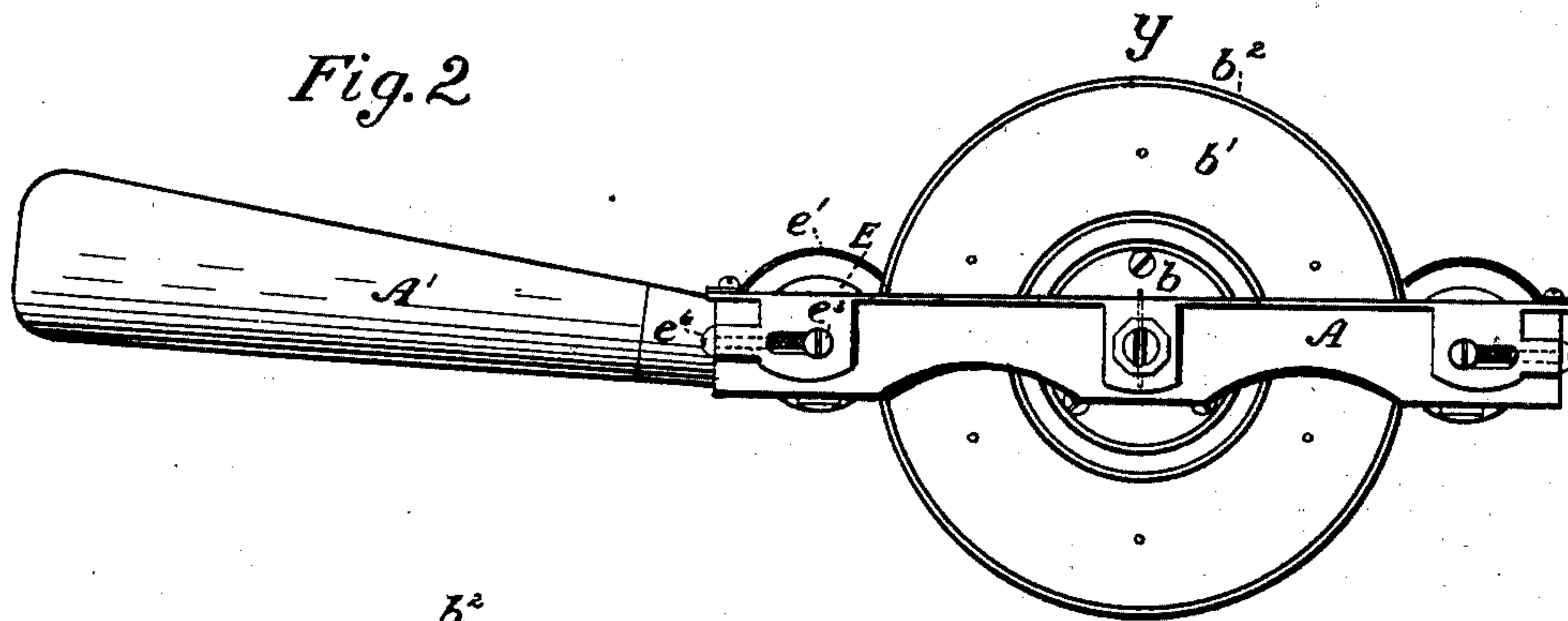


Fig. 3

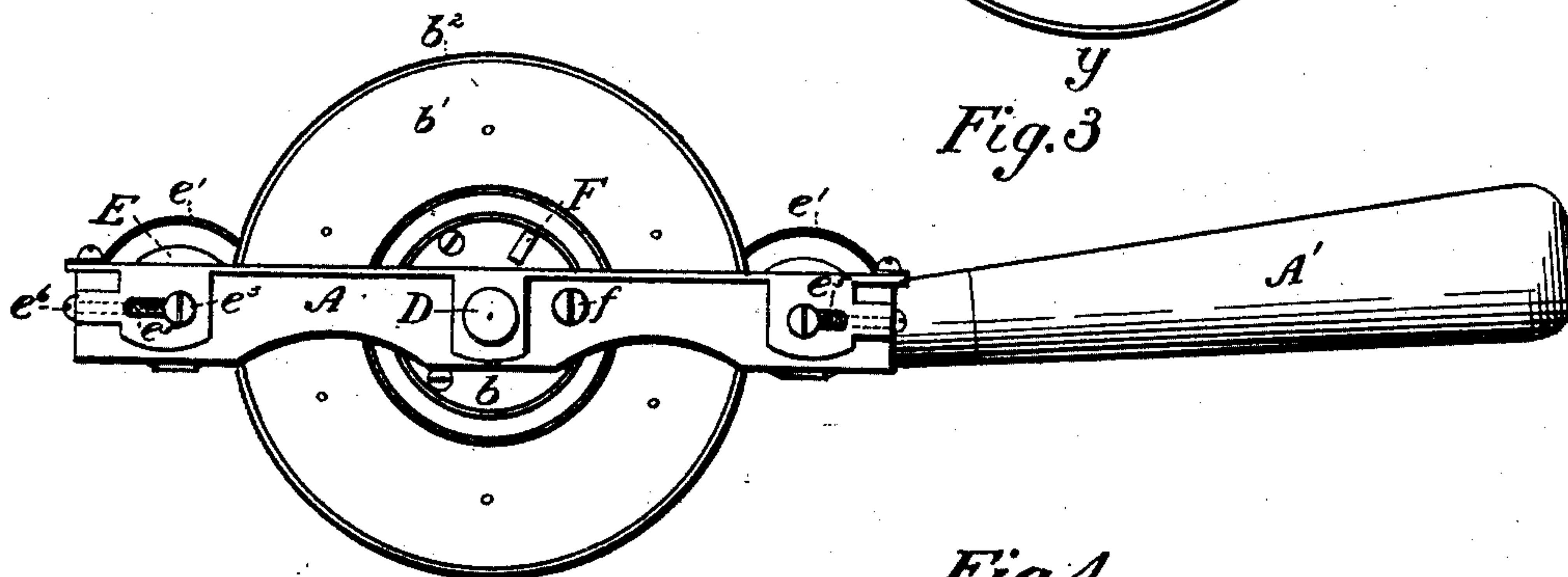
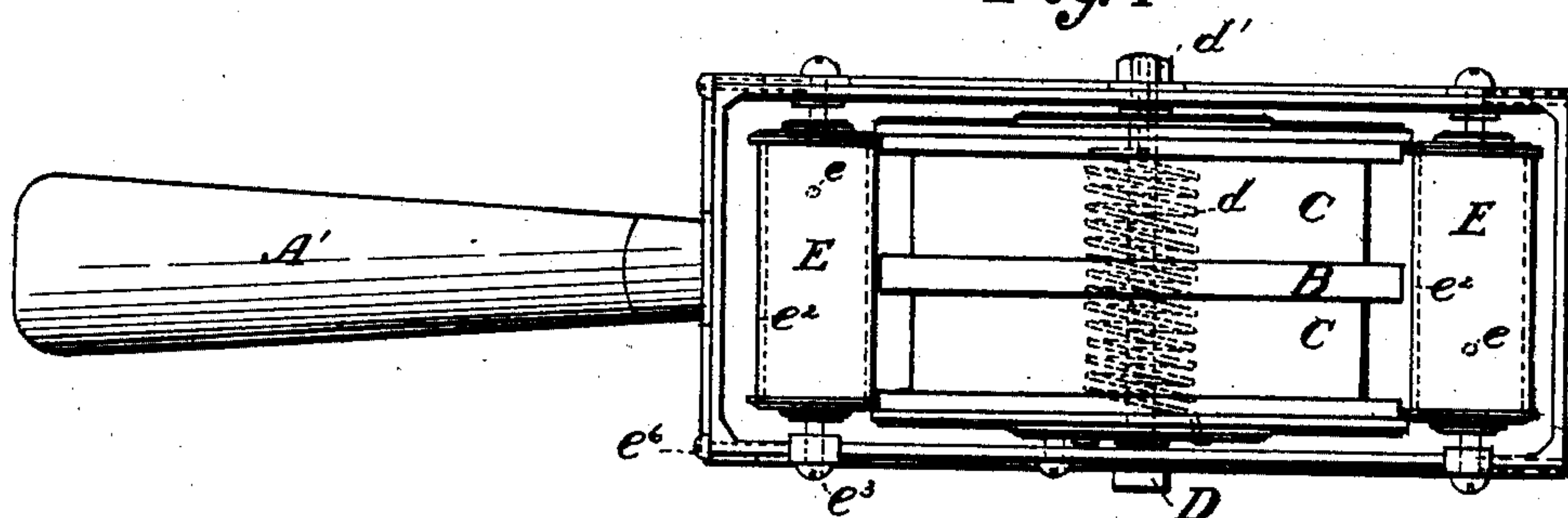


Fig. 4



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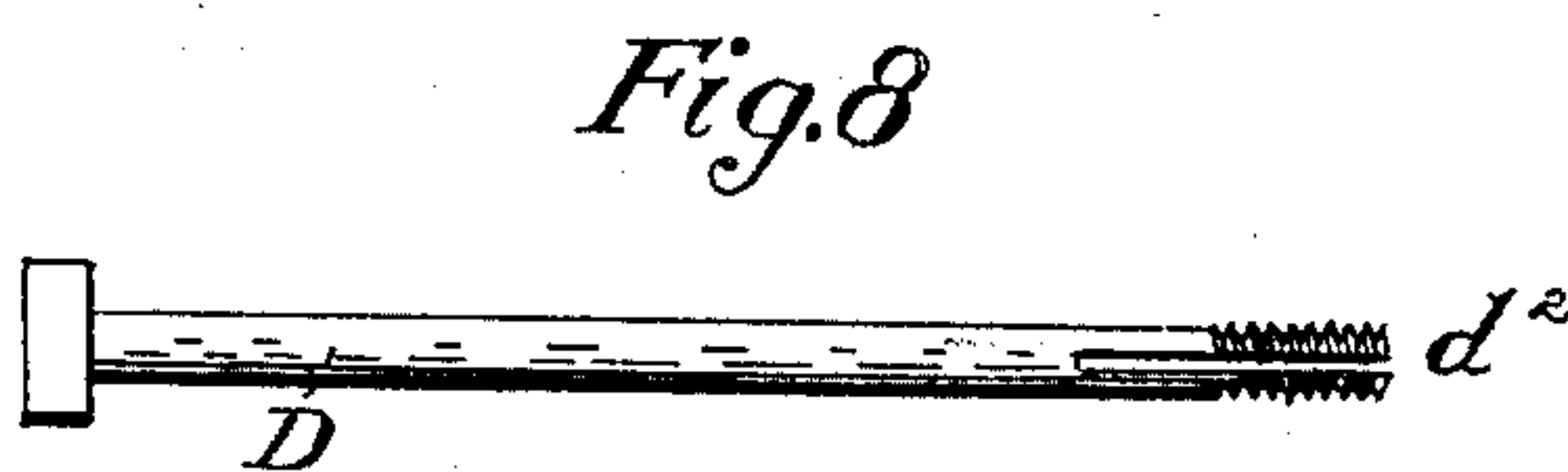
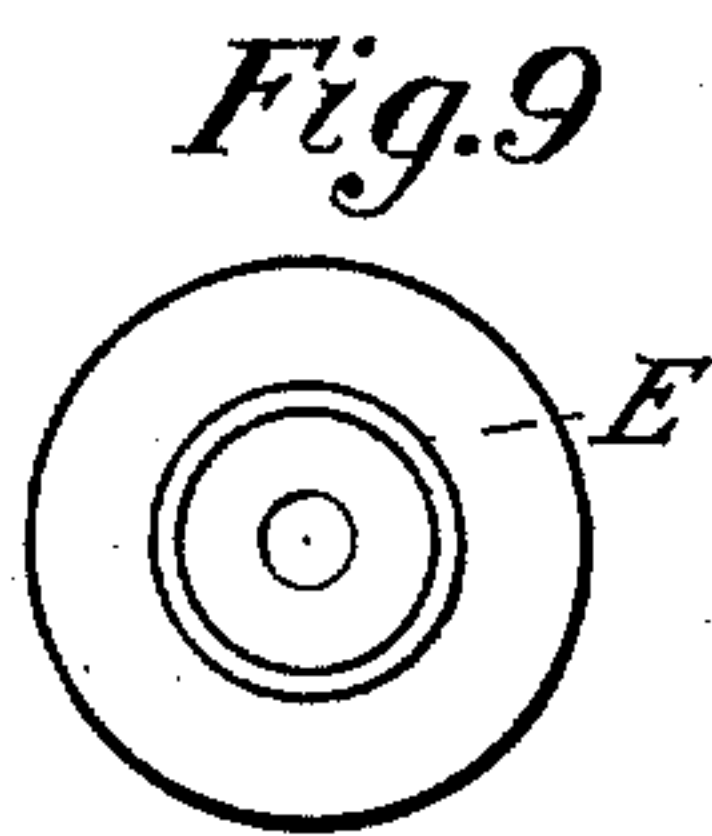
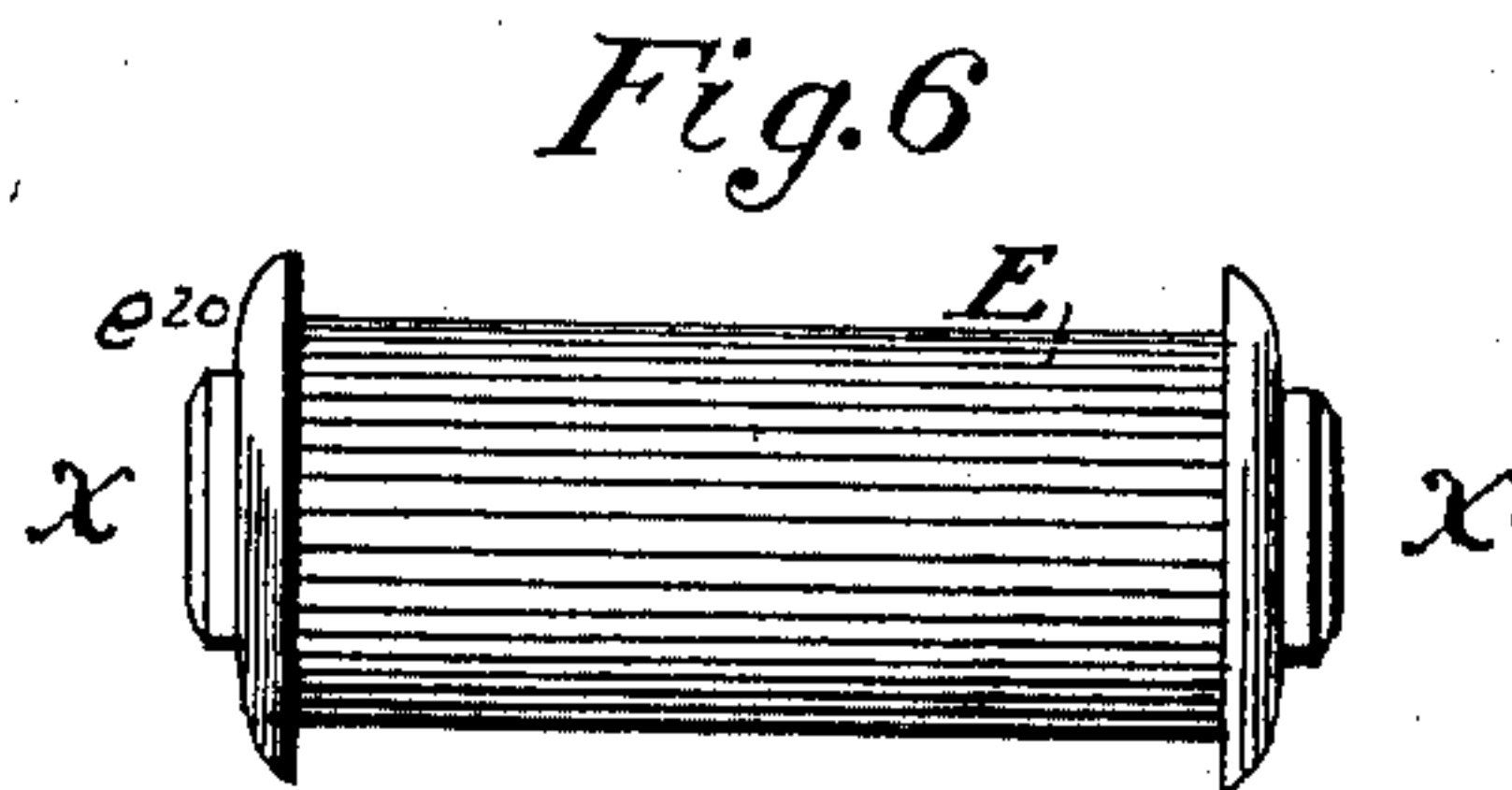
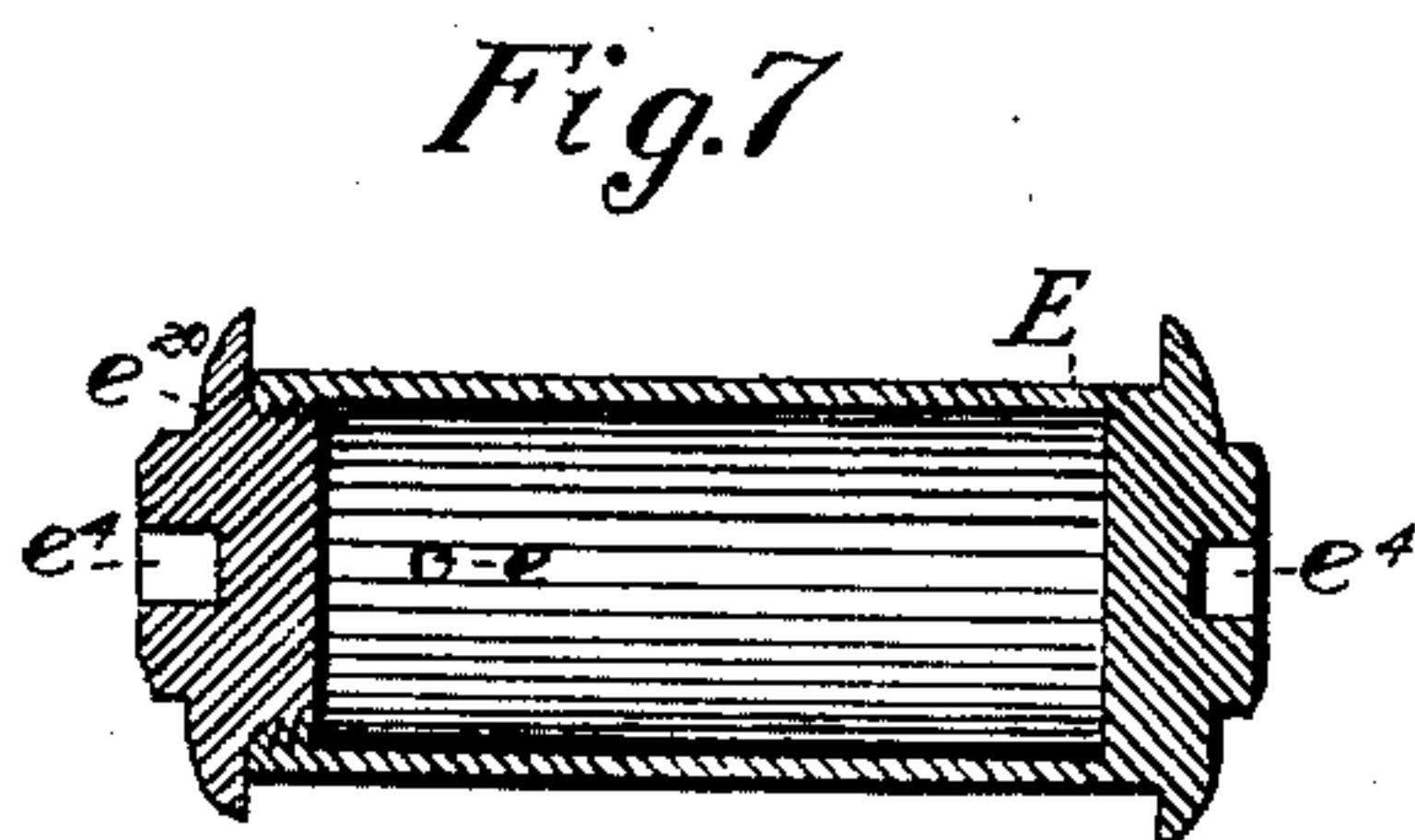
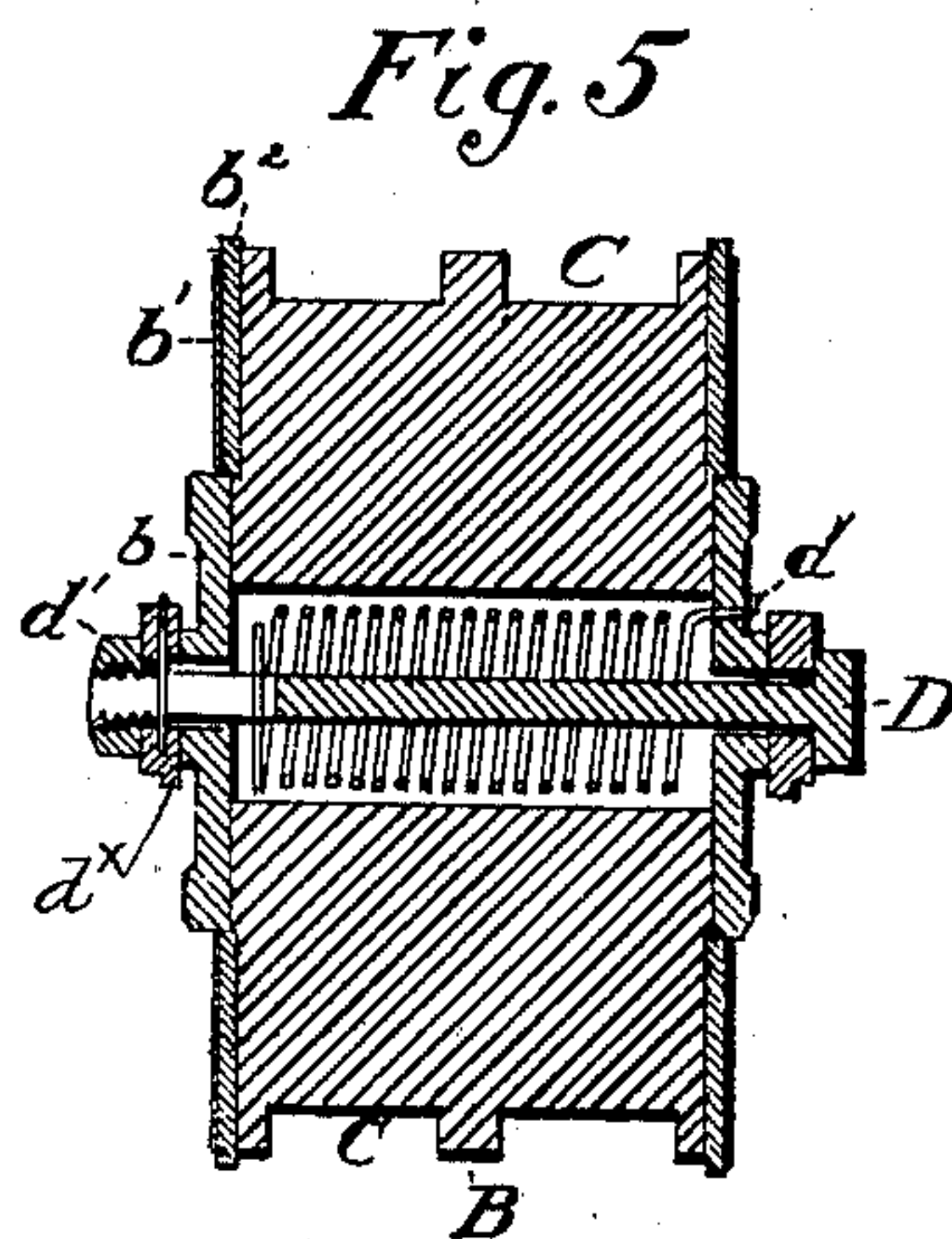
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2 SHEETS—SHEET 2.



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# UNITED STATES PATENT OFFICE.

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A CORPORATION OF KENTUCKY.

## ADJUSTABLE PRINTING-WHEEL.

SPECIFICATION forming part of Letters Patent No. 719,592, dated February 3, 1903.

Application filed December 5, 1901. Serial No. 84,751. (No model.)

*To all whom it may concern:*

Be it known that we, JAMES H. HORAN and ERASMUS N. WINSTON, citizens of the United States, residing at Louisville, in the county of Jefferson and State of Kentucky, have invented certain new and useful Improvements in Adjustable Printing-Wheels; and we do 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 the letters of reference marked thereon, which form a part of this specification.

Our invention, the object of which is to furnish a convenient method of imprinting names, addresses, and other desired matter on packages sent out by merchants and others in paper bags, bales, or boxes so constructed as to enable the printing matter thereon readily to be changed, consists of certain peculiarities of construction and combinations of elements, substantially as hereinafter described, and particularly set forth in the subjoined claims.

In the drawings, Figure 1 is a plan view of our adjustable printing-wheel, showing one letter in position in a groove. Fig. 2 is a side elevation of same. Fig. 3 is a side elevation of the opposite side to that shown in Fig. 2, showing the stop-lug and stop-bolt, which stops the revolution of the wheel when the coiled spring is fully wound. Fig. 4 is a bottom plan view of our device, showing the frame of the wheel, the spring in dotted lines, and the inking-cylinders in position, the pads on the inking-cylinders indicated by dotted lines. Fig. 5 is a transverse sectional view of the grooved wheel, spindle and spring, and the bearings of the spindle on the line Y Y in Fig. 2. Fig. 6 is a detail of one of the inking-cylinders. Fig. 7 is a longitudinal sectional view of one of the inking-cylinders on the line X X in Fig. 6. Fig. 8 is a detail of the spring-bearing spindle, and Fig. 9 is a detail end view of one of the ink-cylinders.

In the drawings, A represents the rectangular frame carrying the wheel B, having grooves C in its periphery, journaled on the

spindle D, having bearings in the opposite sides of the frame A, which frame also carries at its opposite ends the ink-holding cylinders E, covered by dust-shields  $e'$ , attached to the ends of the frame, said cylinders having apertures  $e$  to allow the ink to escape and saturate the ink-pad  $e^2$  surrounding them. The apertures  $e$  (shown in Fig. 4) are presented in dotted lines because covered by the ink-pad.

A' represents the handle of our device, attached to one end of the frame A.

In the drawings the wheel is presented as made of wood, having an aperture through its center from side to side to admit the axle D with the coiled spring  $d$  surrounding it. One end of the spring is put through the slot  $d^2$  (shown in Fig. 8) in one end of the axle D and bent at right angles, and the other end is fastened in the opposite side of the wheel, as shown in Fig. 4. The axle has bearings in the sides of the frame A and is held in place by a screw-nut  $d'$  and washer  $d^x$  on the slotted end, which will also hold or assist in holding the end of the coil-spring in the split end of the axle. The ink is put in the cylinders by removing a screw-cap  $e^{20}$ , and the cylinders are supported in the frame by bolts  $e^3$ , having a screw-head, passing through the frame and their shafts working in slots  $e$ , shown in the heads of the cylinders in Fig. 7. Said bolts  $e^3$  thus constitute the axles or shafts of the inking-roller and are separately formed from said roller and readily removable therefrom to facilitate the removal of the inking-roller from the frame of the device. The bolts  $e^3$  pass through the frame in a longitudinal slot  $e^5$ , which allows them play to suit the height of the type in the grooves C, and screw-bolts  $e^6$ , passing through the ends of the frame A, are arranged to press on the bolts  $e^3$  and press the cylinders on the wheel according to the height of the type.

When the wheel is made of wood, we put around the sides of the wheel a rubber disk  $b^2$ , the edges of which project slightly above the rims of the wheel and form a tire which serves to steady the wheel. This rubber is held in place by thin metal disks  $b'$ , fastened



to the sides of the wheel, and these metal bands are in turn held by metal flanges *b*, one of which carries the stop-lug *F*.

To enable the user to change at will the subject-matter to be imprinted by the device, the printing-wheel *B* preferably has its periphery formed with the groove *C*, within which there are inserted the separate and independent type, one of which is indicated in Fig. 1. Preferably the wheel has a plurality of said grooves spaced from each other, as shown, so as to provide for the imprinting of more than one line simultaneously.

The operation of our device may be described as follows: The movable rubber types composing the words to be printed having been arranged in the grooves *C*, the wheel is rolled along the surface to be printed, the ink-pads on the ink-bearing cylinders pressing against the type and inking them till the entire rows of types are inked and impressed, when the forward revolution of the wheel is stopped by the impinging of the screw *f* in the frame against the stop-lug *F* in the side of the wheel, whereupon the operator lifts the wheel free from the printed surface and the spring carries back the wheel to the starting position.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. The combination with a frame and a printing-wheel journaled therein, of an inking-roller for said printing-wheel, said inking-

roller having its heads formed with openings and one of said heads removable to afford access to the interior of the roller, separately-formed journals having their ends inserted in said openings, said journals being located in bearings elongated toward the printing-wheel, and adjustable bolts engaging said journals and operative to adjust the inking-roll relative to the printing-wheel.

2. The combination with a frame, of a printing-wheel consisting of a body having an axial opening extending entirely through it, an axle extending through opening, said axle being journaled in said frame and having a split threaded end, disks closing the ends of the opening through said body, a returning-spring coiled around said axle and located in said opening, one end of said spring being secured to the side of the body remote from the split threaded end of the axle and the other end of said spring being inserted in said split threaded end, a nut and a washer on said split threaded end acting thereon to clamp and confine the end of the spring therein and to prevent longitudinal movement of the axle in one direction, and means for stopping rotation of said wheel.

In testimony whereof we affix our signatures in presence of two witnesses.

JAMES H. HORAN.

ERASMUS N. WINSTON.

Witnesses:

JNO. B. TILFORD,

E. V. KYLE.