

W. B. Rhoads,

Wringer,

N^o 37,007.

Patented Nov. 25, 1862.

Fig. 1.

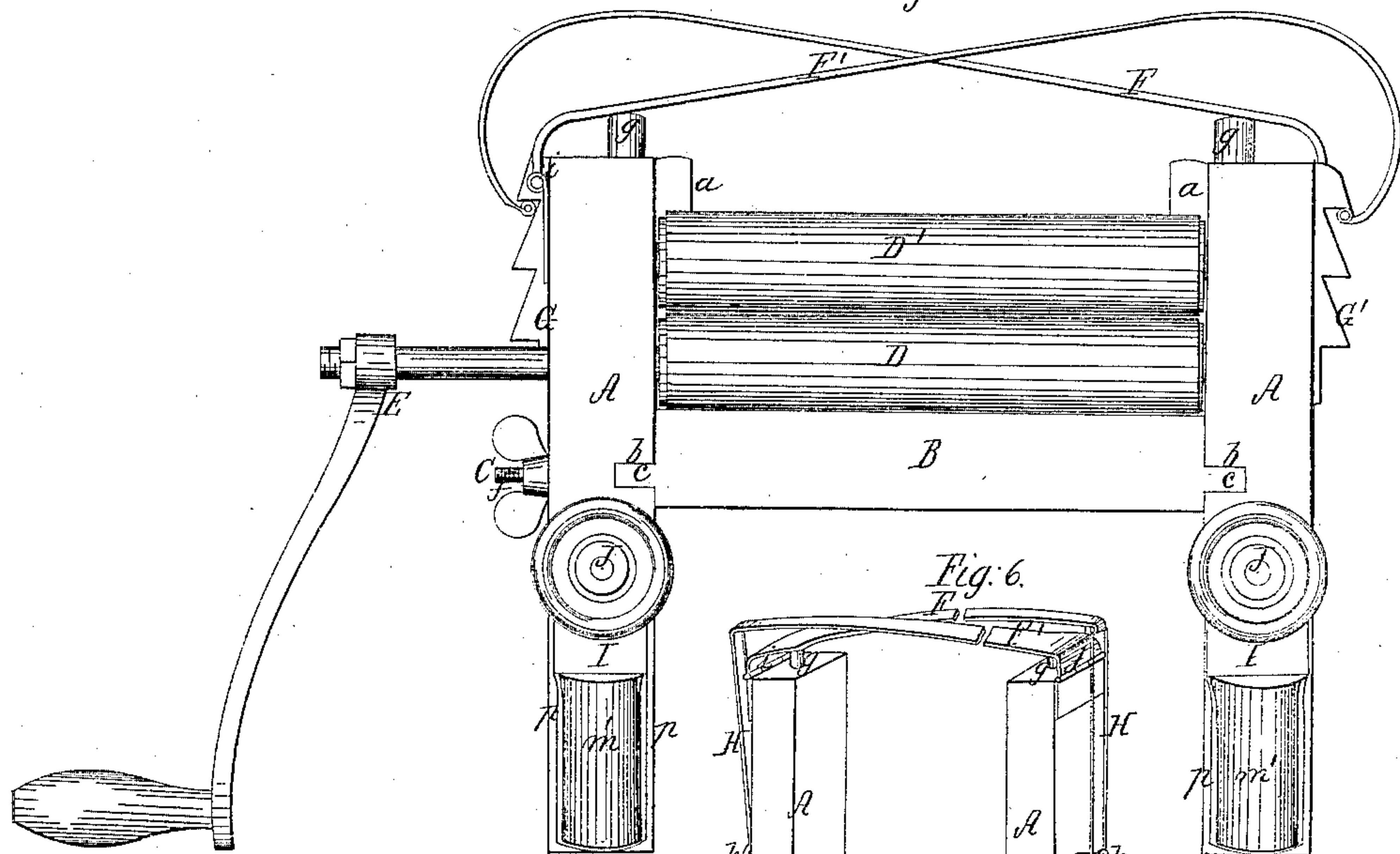


Fig. 6.

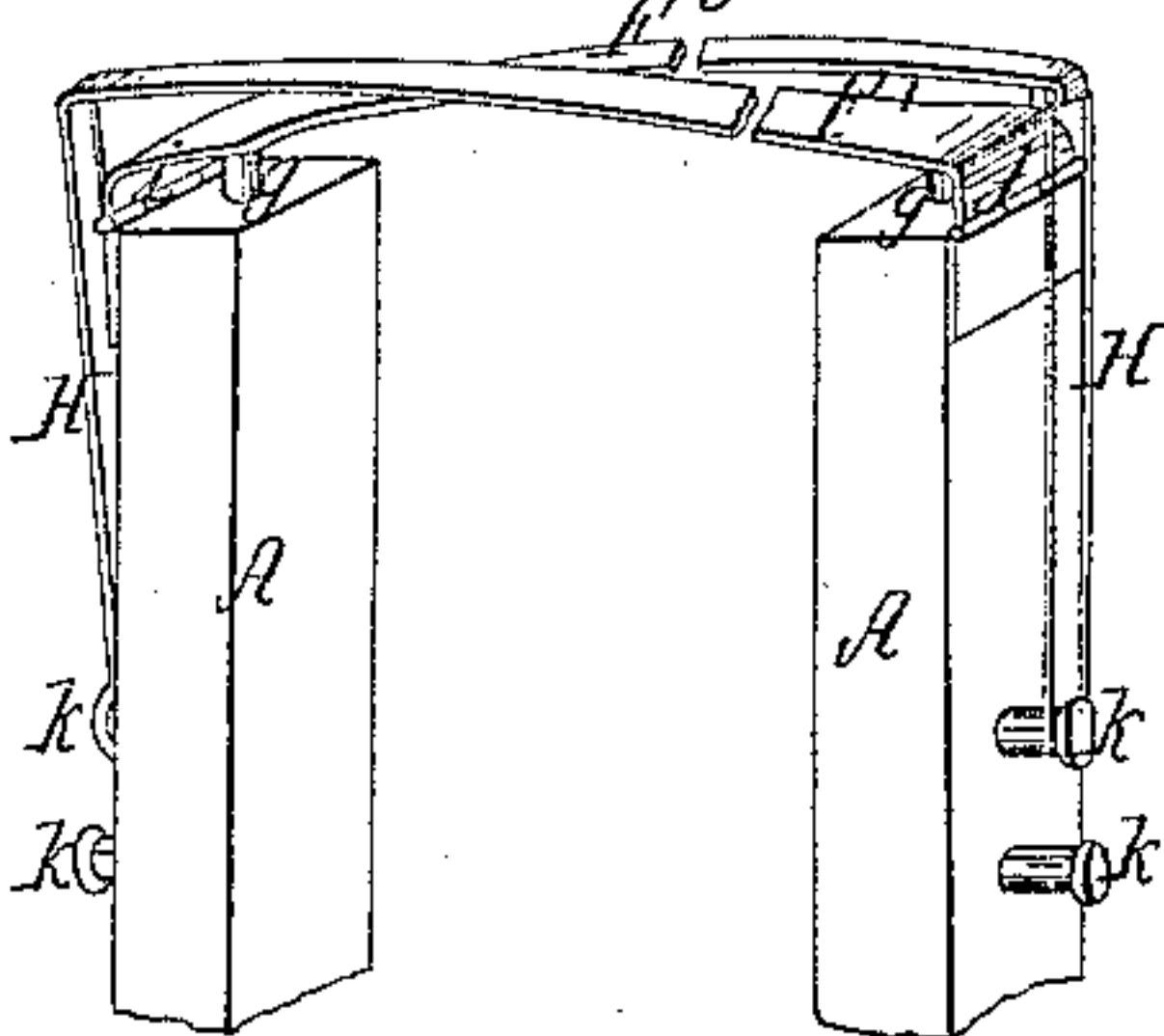


Fig. 5.

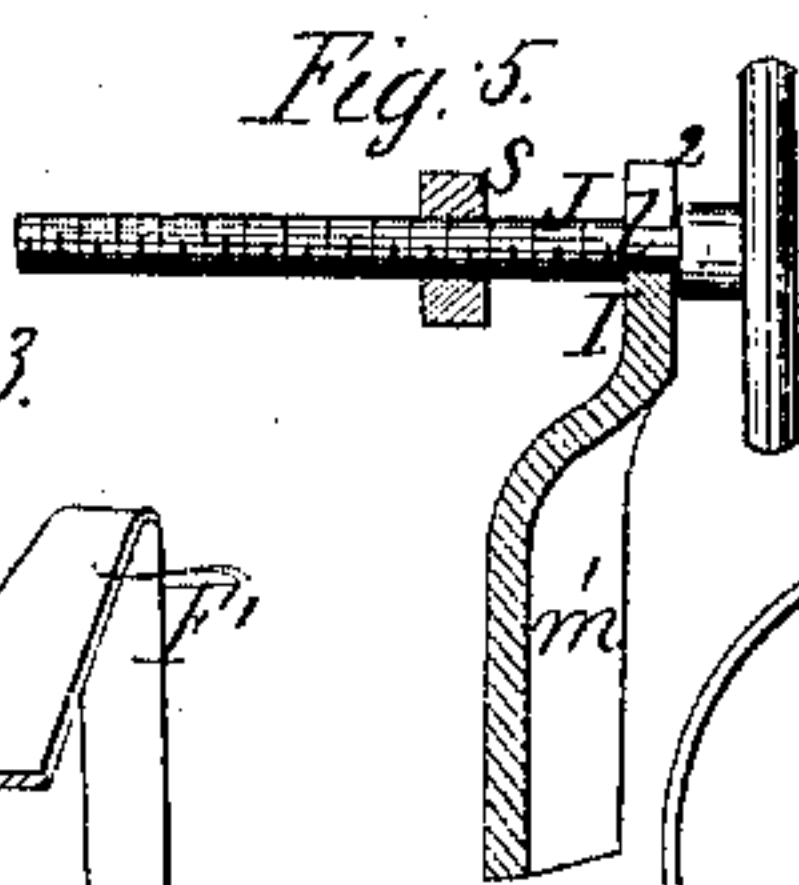


Fig. 3.

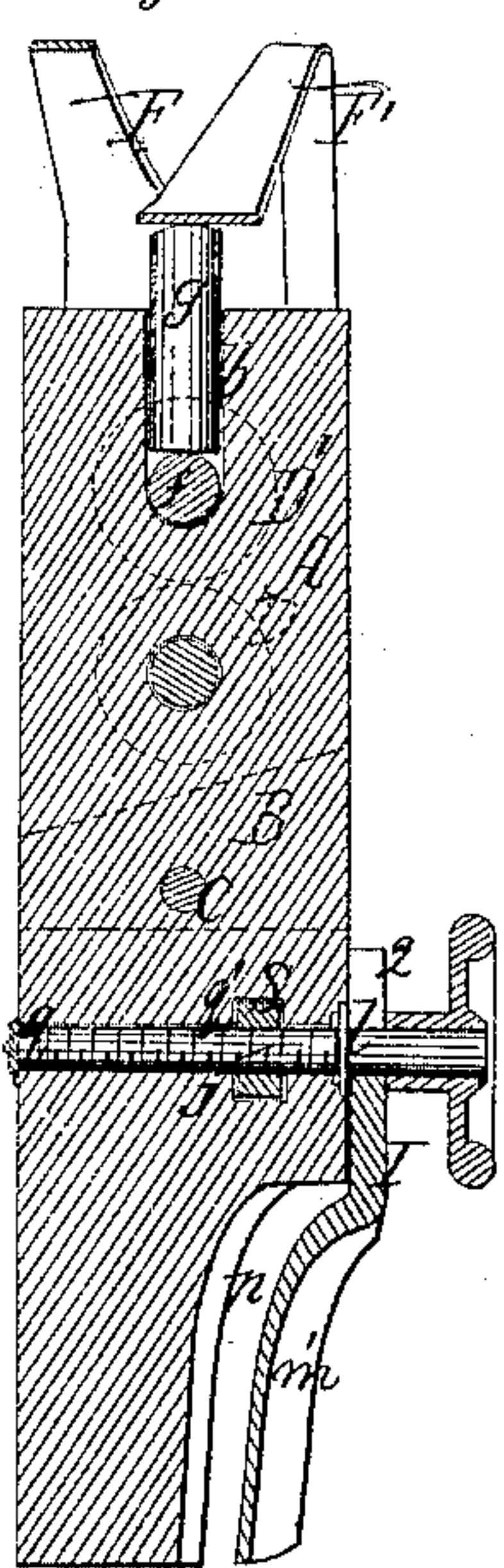


Fig. 2.

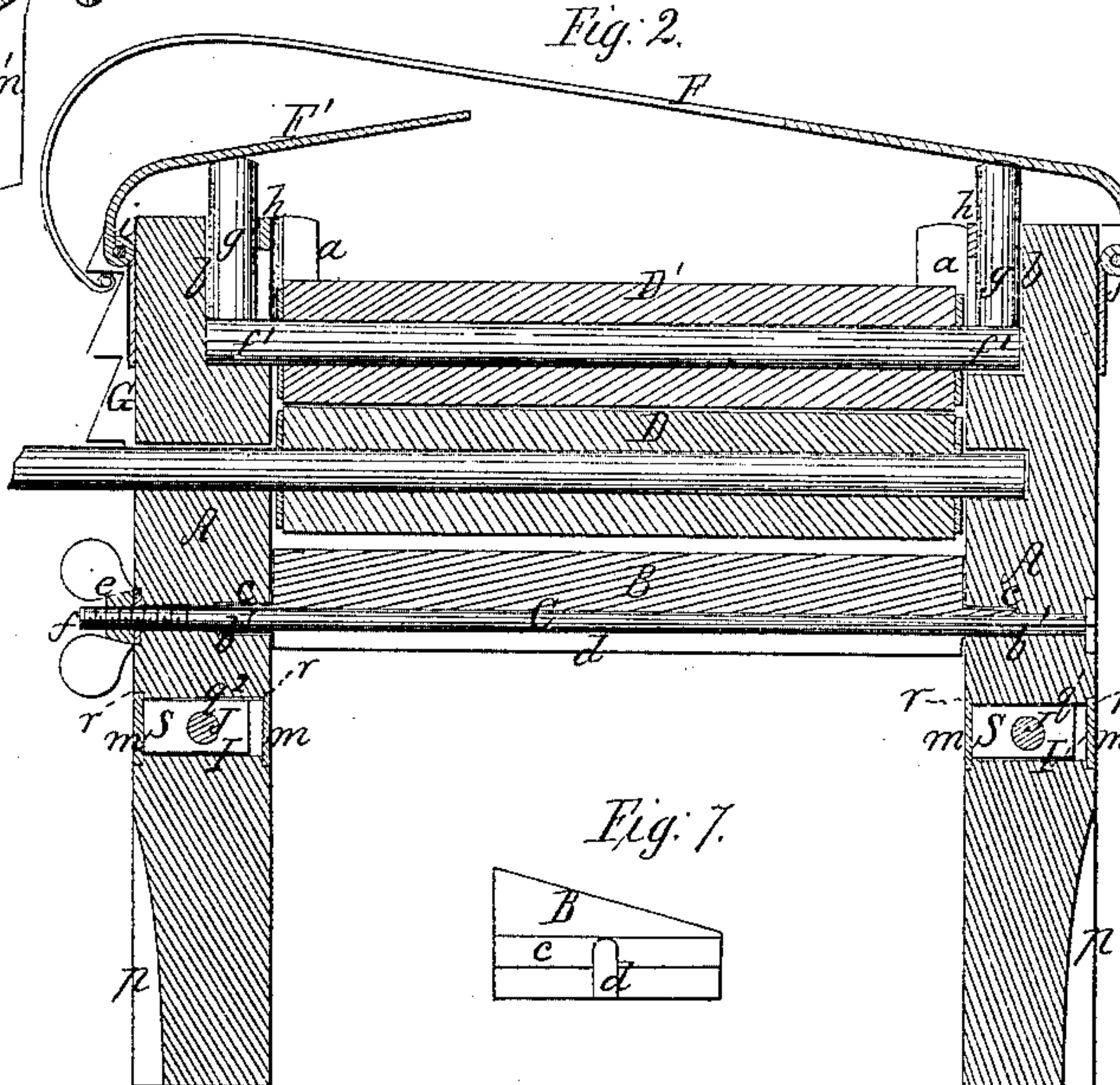


Fig. 4.

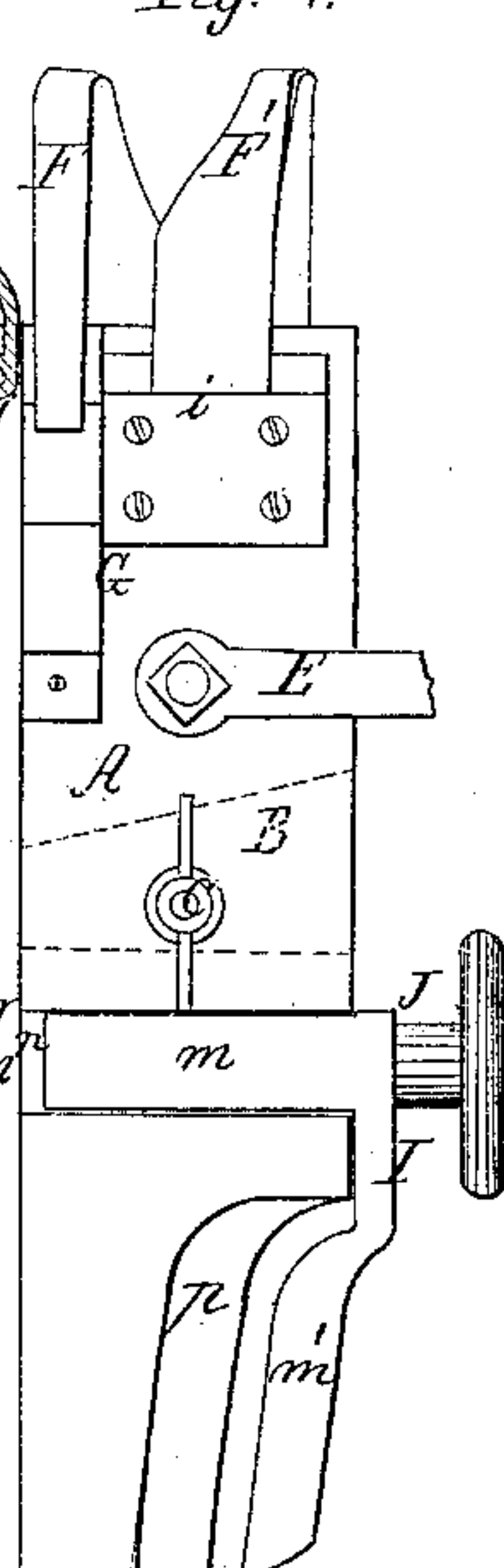
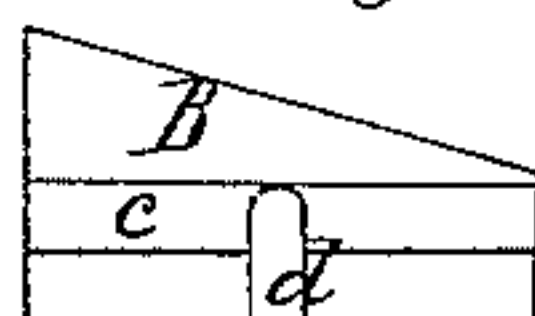


Fig. 7.



Witnesses;

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UNITED STATES PATENT OFFICE.

WILLIAM B. RHOADS, OF SOUTH DEDHAM, MASSACHUSETTS.

IMPROVED WRINGING-MACHINE.

Specification forming part of Letters Patent No. 37,007, dated November 25, 1862.

To all whom it may concern:

Be it known that I, WILLIAM B. RHOADS, of South Dedham, in the State of Massachusetts, have invented a new and useful Improvement in Wringing-Machines and Pressure Devices Therefor; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a front elevation of a wringing-machine with my improvements. Fig. 2 is a vertical transverse section of the same. Fig. 3 is a longitudinal section through one of the standards of the frame. Fig. 4 is a side view. Fig. 5 is a modification of the clamp. Fig. 6 is a modification of the pressure devices. Fig. 7 is an end view of the cross-tie B of the machine shown in Fig. 1.

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

The frame of my wringing-machine consists of two strong uprights, A A, and a strong beveled cross-tie, B. The uprights are furnished with back stops, *a a*, and are grooved on their inner sides, as at *b b'*. The cross-tie is beveled down from its front top edge to near its rear bottom edge, so as to freely shed and conduct the water back into the tub to which the wringer is attached. It also has rectangular tenons on its ends, as indicated at *c c*, and it is further grooved on its bottom, as indicated at *d*. The three parts thus constructed are tied together by means of a screw clamp-rod, C, the clamp-rod passing through the uprights A A and along in the groove *d* of the cross-tie, and acts, by reason of its head and a clamp-nut, *e*, on its screw-threaded end *f*, to bring the parts together, so that the tenons of the cross-piece fit snugly into the grooves or mortises *b'* of the uprights. This construction gives great firmness and strength, and affords every facility for separating the frame for packing purposes. It also is so simple that any person can set the machine up. Within this frame rubber rollers D D' are arranged, one above the other, just above the cross-tie B. The lower roller, D, is fixed as to sliding motion, but is capable of revolving. The metal shaft of this roller is long enough to constitute an arm for a hand-crank, E, as shown. The upper roller, D', has its journals arranged in the slots *b b* so as to

both turn and slide therein. On top of the journals *f' f'* short vertical pillars *g g* are set and confined in the slots *b b* by cross-pieces *h h*, which constitute stops to the roller D.

In order to render the roller D' capable of exerting a powerful force and still have it yielding at its points of connection with the frame A A as well as in its rubber portion, I arrange long still springs, which constitute levers of the first order, over the roller and so as to bear down upon the short pillars *g g*, and through them upon the journals of the roller D, as represented in Figs. 1, 2, 3 of the drawings. These lever-springs F F' are hinged, respectively, at one of their ends to the frame A, as indicated at *i j*, and are held at a tension or in a distended condition by means of ratchet-stops formed on plates G G', which are screwed to the outer sides of the uprights A A, as represented. It will be noticed by the drawings that one spring-lever is hinged to one upright and the other to another upright, and that the spring-lever F acts upon one of the journals of the roller D', while the lever-spring F' acts on the other journal of said roller. It will also be noticed that the series of notches on the plates G G' admit of the power of the lever-spring being regulated accordingly as circumstances may require. The springs are represented in Fig. 1 as curved at their ends, so as to accommodate themselves to the location and form of the stops; but this is not essentially necessary, as the lever-springs may be nearly straight from a point near where they hinge to the frame, and have a wire loop, H, attached to their loose end, as indicated in Fig. 6. In this case holding-pins *k k* may be substituted for the notched plates; or the notched plates themselves may be used, the loops taking hold under the notches. In this connection I would remark that my invention under this head consists in the lever-springs for use on wringing-machines for producing pressure on the roller which slides in its bearings, and is not confined to any particular details for attaching them so long as the mode of attachment enables them to perform the function of a lever and spring combined.

As a convenient and effective means of attaching the wringing-machine to a tub or other article, I have devised a casting, I, of the construction shown, and in connection with

such casting provided a retaining-nut, S, and a headed screw, J, with a shoulder or collar, *l*, below its head, for coupling it to the casting, a vertical slot, 2, in the casting admitting the screw to its proper position. The casting has three prongs, *m m m'*, one of which, *m'*, having a scroll-bend or oblique twist in it below the side prongs, *m m*, so as to conform to the curve of the tub, and to come in proper clamping relation to it when the wringer is applied centrally along the top edge of the tub. The casting with the screw and nut, in order to be used, requires that the front portions of the lower ends of the wringer-standard should be cut away after the manner of a beveled scroll, as indicated at *p p*; also that a round passage, *q*, and a square one, *q'*, at right angles to and intersecting one another, should be cut through the standards, and, further, that open side notches, *rr*, be cut in the inner and outer sides of the standards, all substantially as represented. In the application of the clamp to the wringer the nut S enters the passage *q'*, and its eye stands concentric with the passage *q*, and through the passage *q* and the nut the screw J extends, while the side prongs, *m m*, of the casting fit into the open mortises, so as to confine the nut. By turning the screw J

in the nut S the prong *m'* is caused to move in or outward from the tub and to bind or cease to bind thereon, accordingly as the screw is moved. The vertical prong *m'* may be semi-circular in form, as shown in Fig. 1. In this construction it is bent so as to stand under the body of the standard and so as to strongly clasp and adjust itself to the flaring edge of the tub in substantially the same manner as shown in the other figures.

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

1. Lever-springs, as means for producing pressure on and allowing yield of the moving roller of wringing-machines, substantially as set forth.

2. The three-pronged device *m m m'*, with the shouldered screw J, nut S. and wringing-machine standards A A, substantially as and for the purpose set forth.

Witness my hand and seal in the matter of my application for a patent for a wringing-machine, this 24th day of April, A. D. 1862.

WM. B. RHOADS. [L. S.]

Witnesses:

GUSTAVUS DIETERICH,
EDWIN S. JACOB.