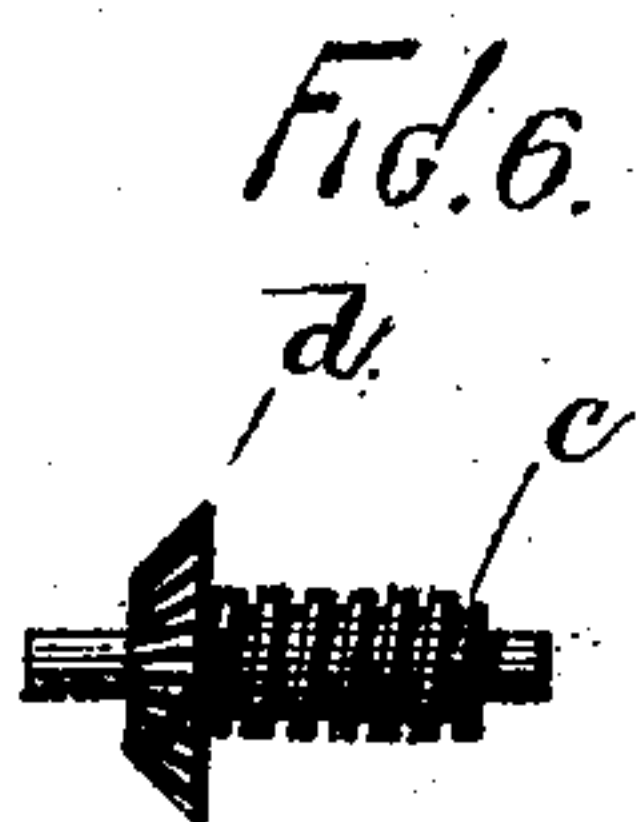
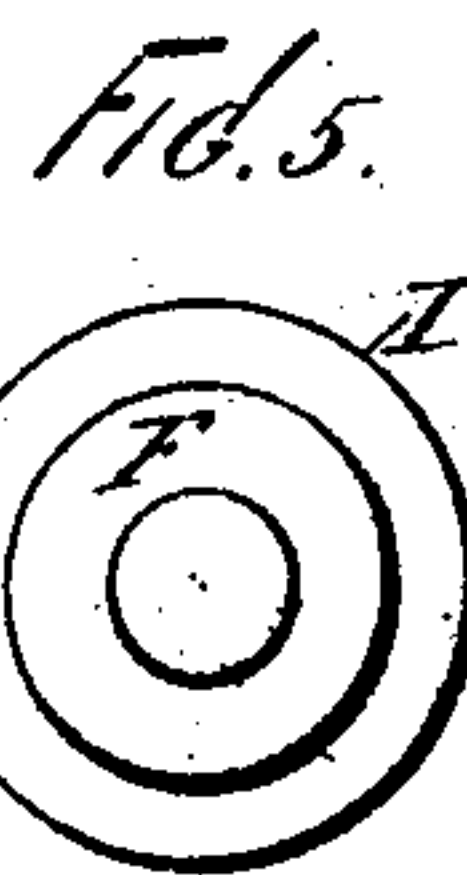
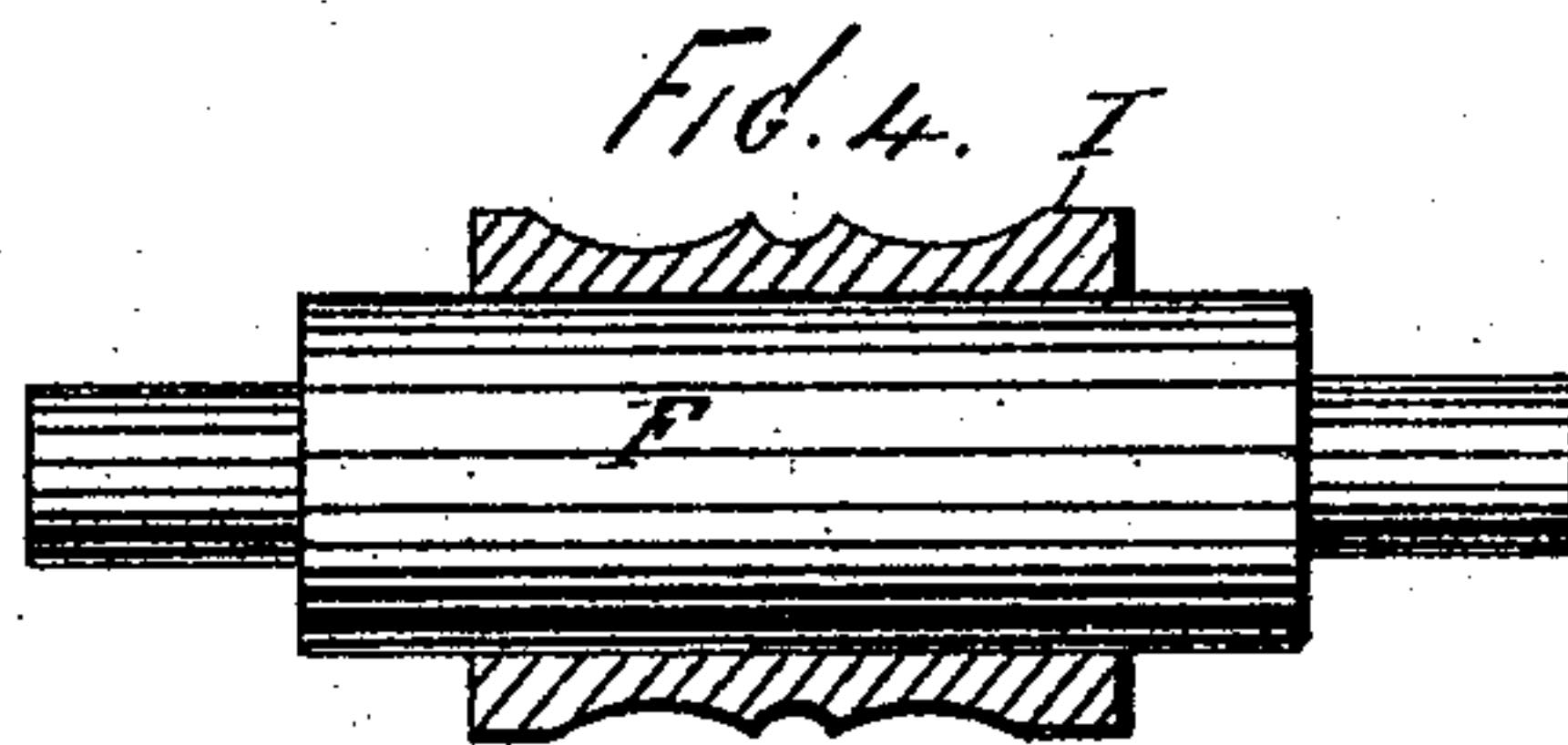
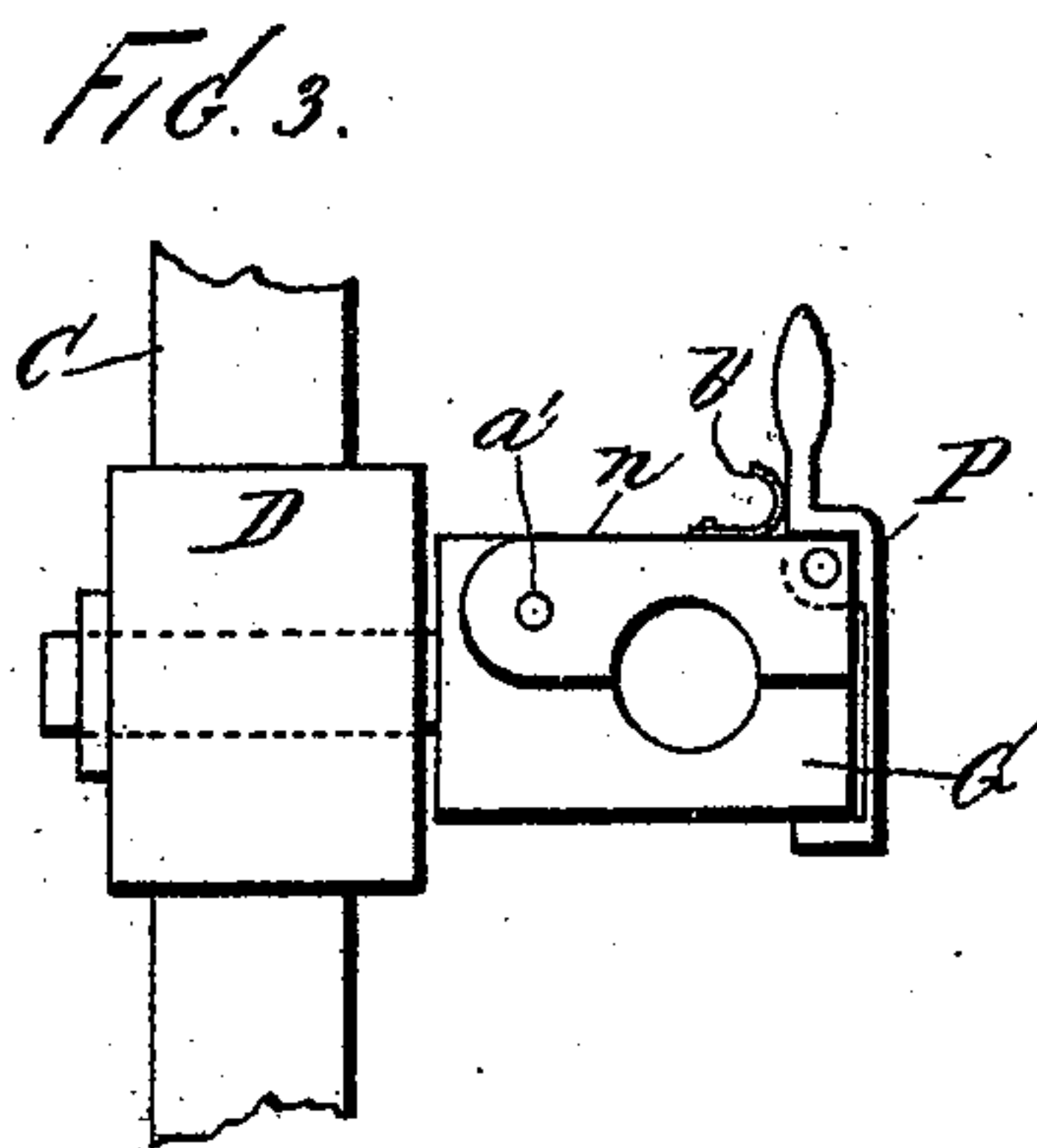
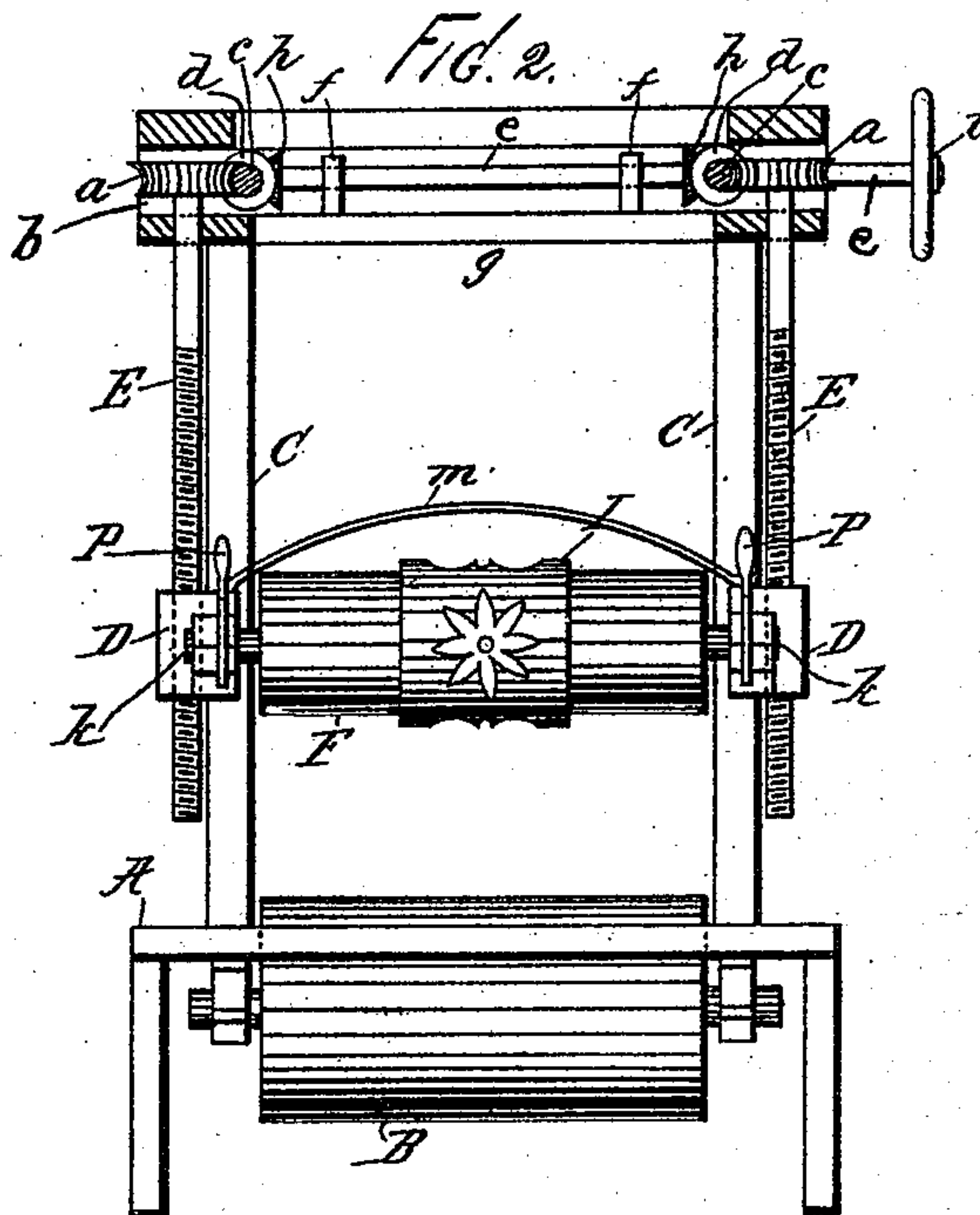
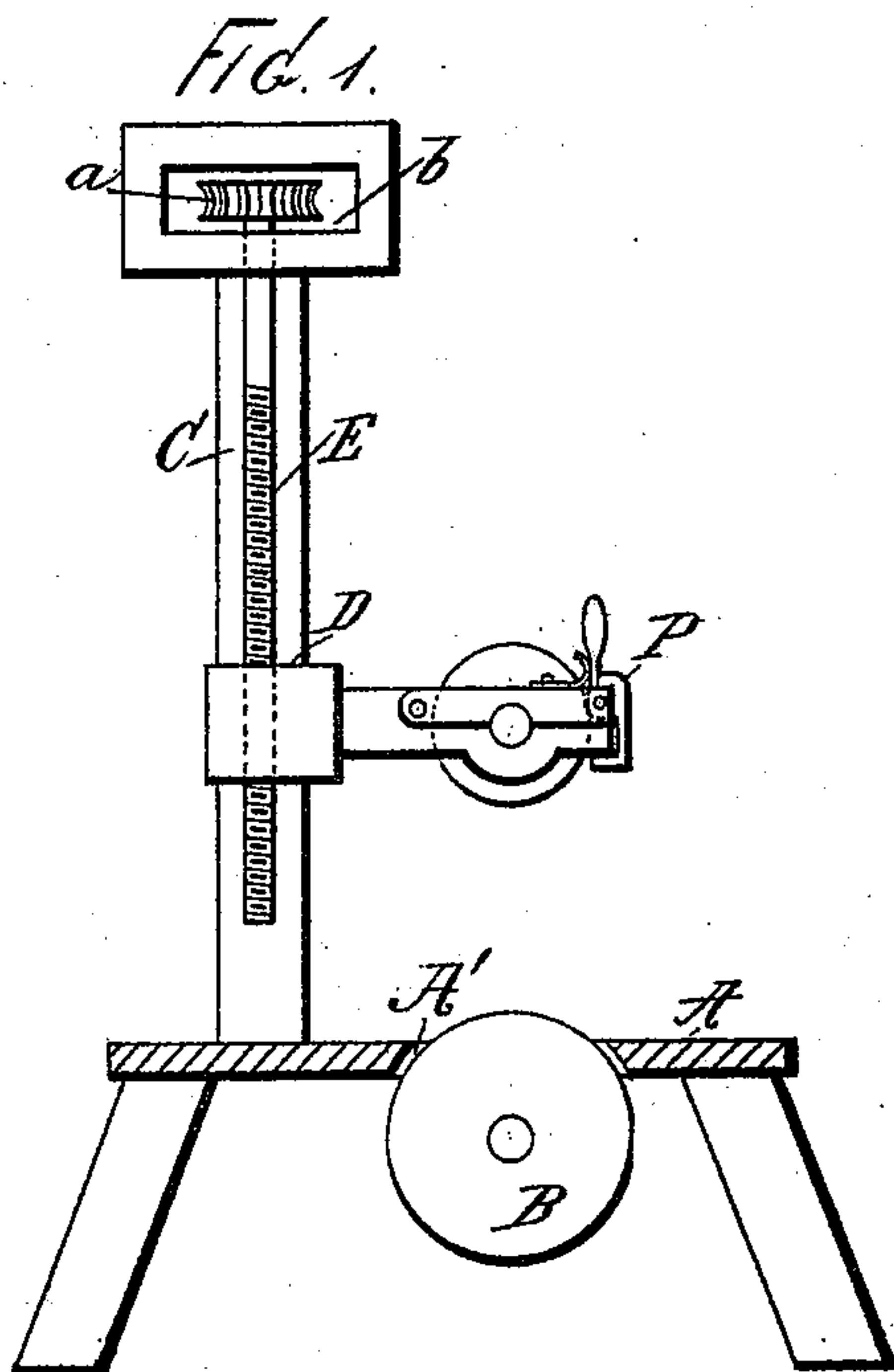


(No Model.)

S. L. DAVIS.
MACHINE FOR EMBOSSING WOOD.

No. 500,998.

Patented July 4, 1893.



WITNESSES:

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UNITED STATES PATENT OFFICE.

SPENCER L. DAVIS, OF BROOKLYN, NEW YORK.

MACHINE FOR EMBOSSING WOOD.

SPECIFICATION forming part of Letters Patent No. 500,998, dated July 4, 1893.

Application filed June 22, 1891. Serial No. 397,028. (No model.)

To all whom it may concern:

Be it known that I, SPENCER L. DAVIS, of Brooklyn, county of Kings, and State of New York, have invented certain new and useful

5 Improvements in Machines for Embossing Wood; 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, in which—

10 Figure 1 is a side elevation of the machine, partly in section. Fig. 2 is a front elevation, partly in section, showing the die, the supporting-roller, and the mechanism for adjusting the die with relation to the roller. Fig. 3
15 is an enlarged detail view, showing the mechanism for holding the die-shaft in place. Fig. 4 is a detail view, showing the die-shaft and the die, the latter being in section. Fig. 5 is an end view, showing the die and the die-
20 shaft. Fig. 6 is an enlarged detail view of a combined worm and bevel gear.

This invention relates to machines for embossing wood by the action of rotating dies, and its object is to enable dies of different
25 character to be readily interchanged or replaced, one for another, according as the machine is to be used; or one or another of different kinds of work or ornamentation.

A further object of my said invention is to
30 provide mechanism that will permit of the ready raising and lowering of the die with reference to the support which carries or receives the wood while being passed underneath the die and operated upon by the latter.

35 My invention comprises certain novel combinations of parts whereby the said objects are effectually secured.

A is the usual table having a transverse slot A' therein through which works the usual supporting roller B of a wood embossing machine; and C C are the standards which support the movable parts hereinafter referred to. The table, the supporting roller, and the said standards may be raised upon any suitable frame-
45 work. Upon each standard, C, is placed a vertically sliding block, D, the standards serving as guides for the blocks. Each block, D, is internally threaded to receive a screw, E, the upper end of which is provided with a
50 worm wheel, *a*. The said worm wheels, *a*, are

placed in horizontal slots, *b*, in the upper ends of the standard C, as represented more clearly in Fig. 1, so that the screws E are prevented from moving up or down. Into each of the worm wheels, *a*, gears a worm, *c*, upon one end
55 of which is a beveled wheel, *d*. A horizontal shaft, *e*, is supported in suitable bearings, *f*, which may, themselves, be supported upon a cross-bar, *g*, affixed to the upper ends of the standards C. Upon this shaft, *e*, are beveled
60 wheels, *h*, which gear into the beveled wheels, *d*, on the worm, *c*. The shaft, *e*, may also be provided with a hand wheel, *i*, by which it may be turned. By rotating said shaft, *e*, simultaneous movement is communicated through
65 the beveled gear wheels, *h*, and, *d*, the worms *c*, and the worm-wheels, *a*, to the screws, *e*, so that the said screws being of the same pitch and character simultaneously raise and lower, as the case may be, the two blocks D, thereby
70 raising and lowering both ends simultaneously of the die-carrying shaft F and journals or gudgeons, *k*, which are journaled in said blocks. To insure greater steadiness of motion—the said blocks may be connected by a
75 cross-bar, *m*.

It will be observed that, inasmuch, as the blocks D move simultaneously and are actuated in unison they constitute, so to speak, a single block for the purpose of raising and
80 lowering the die shaft F. Each of the said blocks is provided with an extension G, which are parallel with each other and which carry the journal boxes which receive the journals, *k*, hereinbefore referred to of the die carrying shaft F. These extensions G having
85 the relations just described constitute in effect, a single arm which carries the die carrying shaft F and the construction hereinbefore described viz: that of two blocks D working
90 on two separate standards E, is especially designed for use when the die shaft F is of considerable length; but when said die shaft is of inconsiderable length, as for example, a few inches only, the extensions G may be pro-
95 vided upon a single block placed between the standards E, so as to be guided thereby, and may in such case be operated, if desired, by a single screw, E, which should be placed midway between the two standards. One or both 100

of the extensions, G, has its upper half, *n*, movable and pivoted as shown at, *a'*. The catch P, is so pivoted to one of the parts of extension G as to catch over the outer end of the other part thereof, as illustrated in Fig. 3. The spring *b'* may be so arranged as normally to hold the catch in place, and by pressing the catch against the spring, the part *n* may be turned upward and backward to release the journal of the die-carrying shaft F.

When desired, only one of the extensions G may be constructed with the movable parts, *n*, as herein described. Thus, for example, in Fig. 2 that at the left-hand of said figure is supposed to be so constructed while the other is not. One or both of the said extensions G, is furthermore itself pivoted to its adjacent block, D, with an axis substantially at right angles with that of the die carrying roller, F, as represented in Fig. 3 so that when the journal of the die carrying shaft, F, at the opposite end of the latter, is released from its bearings or journaling box in the extension G, it may be turned upward clear of its bearing or journaling box, thereby permitting the die, I, to be slid longitudinally off and away from the die carrying shaft F, and replaced by another. The die I, may be held in position upon the die carrying shaft F, in any usual or suitable manner.

It will be seen, that by the combinations of parts hereinbefore described provision is made for the ready removal and replacement of the dies, and also for a vertical movement thereof without liability of any inequality in

the movement of the ends of the die carrying shaft F, or die itself.

What I claim as my invention is—

1. In a machine for embossing wood, a table having a transverse slot therein and a supporting-roller working in said slot and extending above the table, in combination with a frame supported on the table, vertical screw-shafts journaled in the frame and carrying screw-gears at their upper ends and threaded blocks at their lower ends, a die-carrying shaft journaled in the blocks, a brace-bar connecting the two blocks, a combined worm and bevel gear journaled on each side of the frame, the worm-portions *c* of which are engaged by the screw-gears *a*, and a shaft carrying bevel-gears engaging the gear-portions *d*, as set forth.

2. In a machine for embossing wood, the combination, with a frame carrying vertical screw-shafts, of threaded blocks on the shafts, an extension carried by each block and having a half-bearing therein, a die-carrying shaft journaled in the said bearing, a cover or cap pivoted to each extension and having a half bearing, a catch carried by the pivoted cap and having a projection on its lower end adapted to contact with the under side of the extension and a spring for holding the catch in its closed position, substantially as described.

SPENCER L. DAVIS.

Witnesses:

GEO. HARRISON MCADAM,
EDWARD L. WALSH.