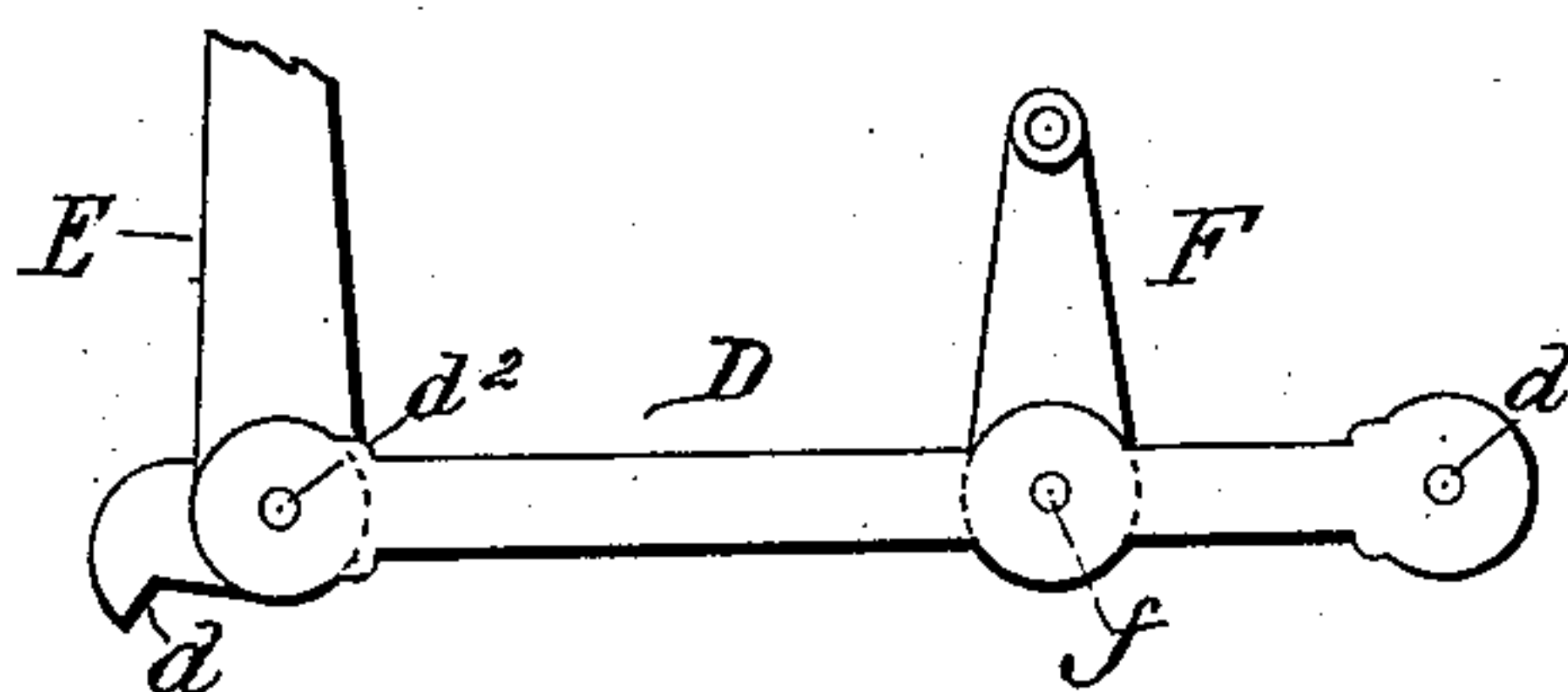
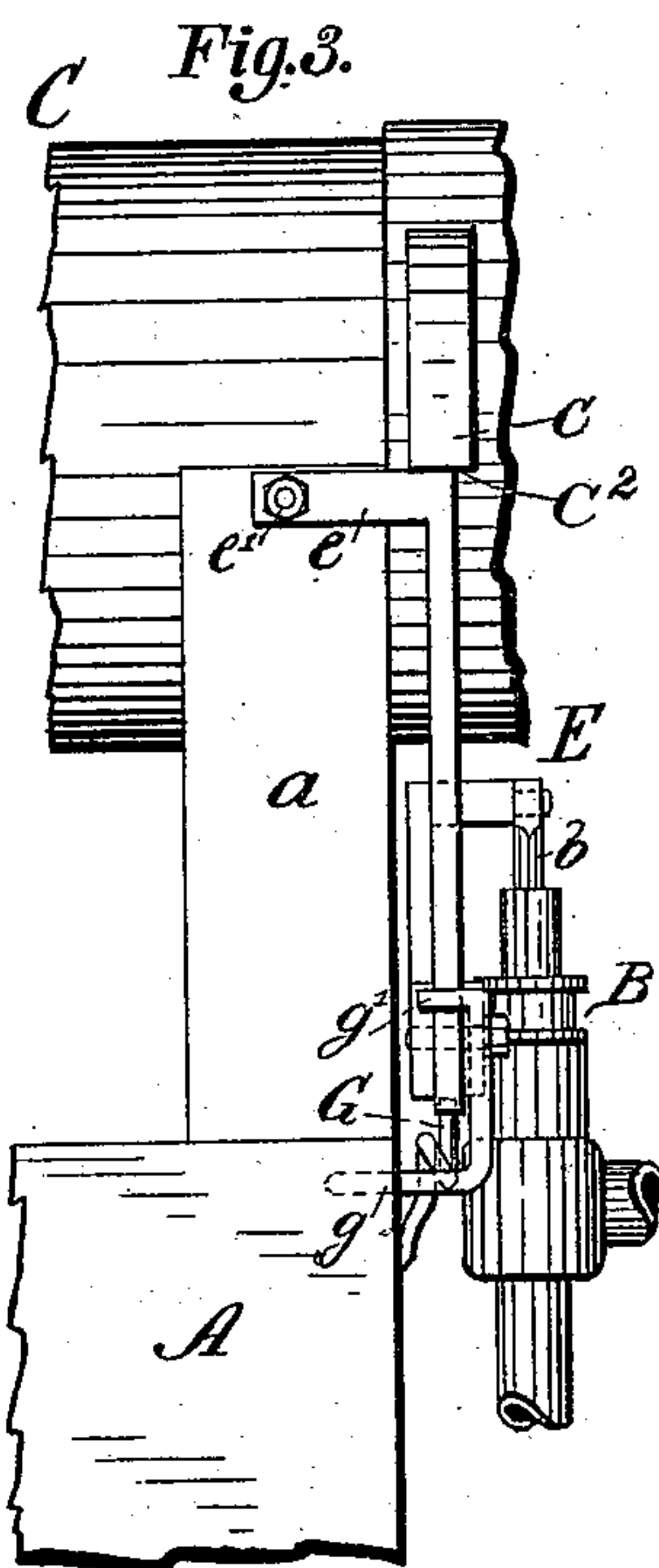
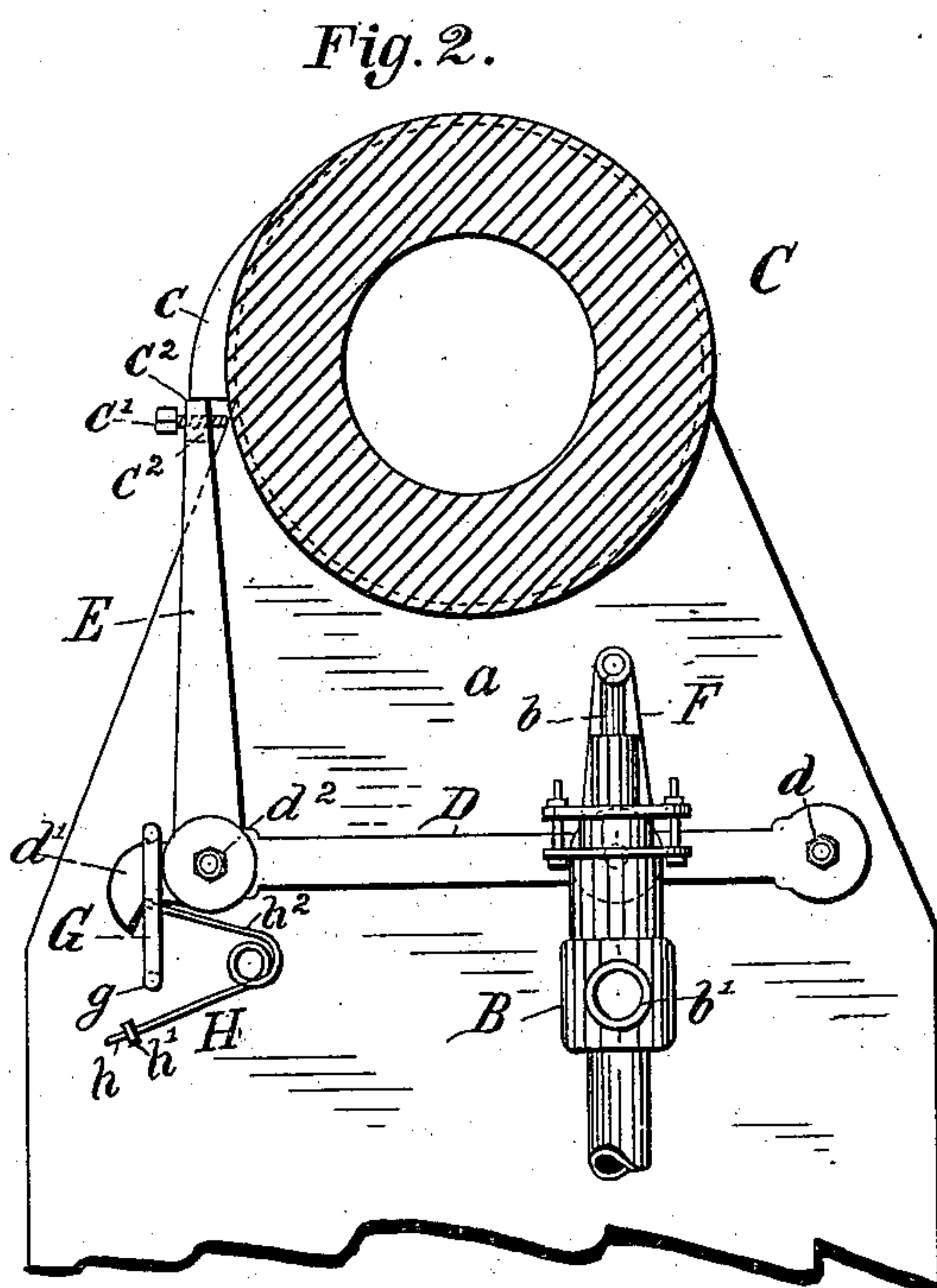
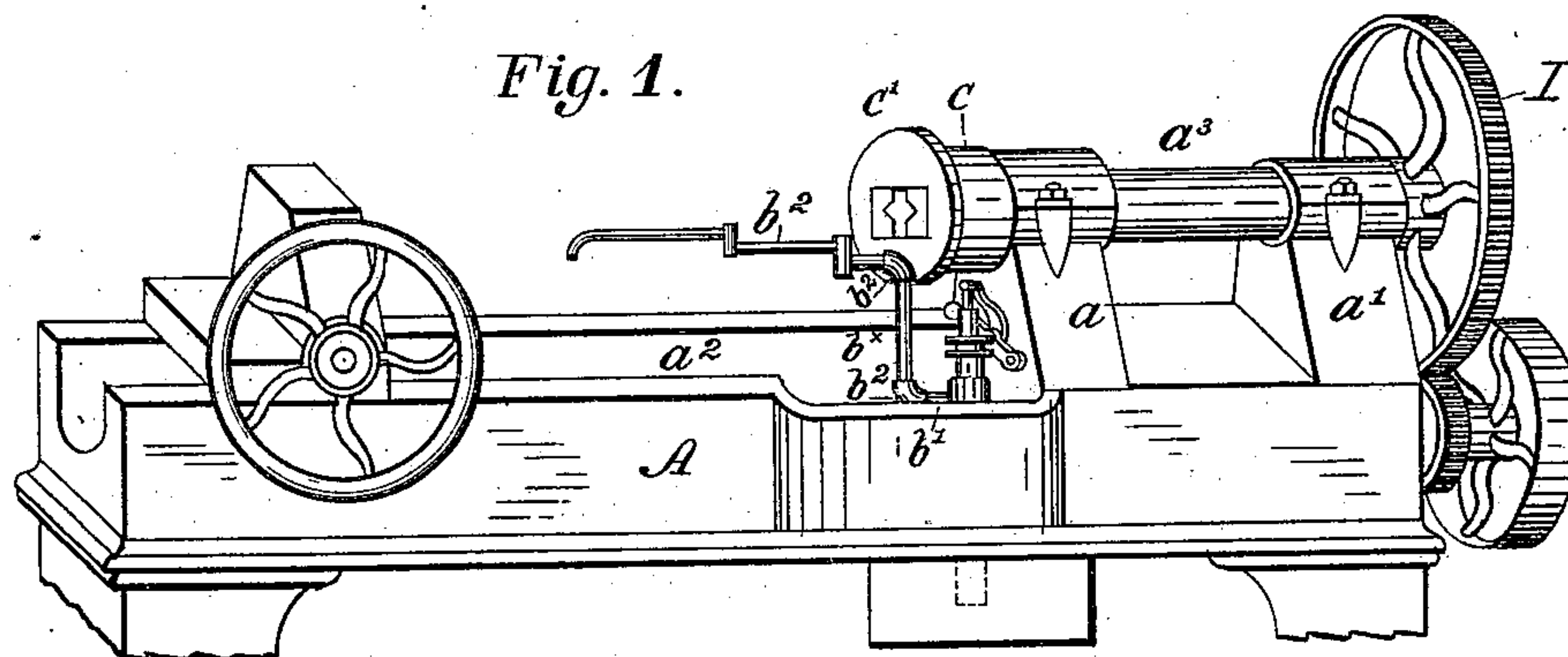


(No Model.)

C. CROTHERS.  
MECHANICAL OILER.

No. 355,757.

Patented Jan. 11, 1887.



WITNESSES:

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# UNITED STATES PATENT OFFICE.

CALEB CROTHERS, OF WYANDOTTE, KANSAS.

## MECHANICAL OILER.

SPECIFICATION forming part of Letters Patent No. 355,757, dated January 11, 1887.

Application filed March 23, 1886. Serial No. 196,205. (No model.)

*To all whom it may concern:*

Be it known that I, CALEB CROTHERS, a citizen of the United States, residing at Wyandotte, in the county of Wyandotte and State of Kansas, have invented certain new and useful Improvements in Mechanical Oilers; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to

10 which it appertains to make and use the same, reference being had to the accompanying drawings, forming a part of the specification. My invention has for its object a mechanical oiler more particularly adapted for lathes

15 in cutting bolts, wherein the remote portions of the lathe and the dies held by the lathe may be conveniently reached, and also to afford a more convenient means for regulating the supply of the oil thereto; and it consists in the

20 novel combination and arrangement of parts, hereinafter fully described, and specifically pointed out in the claim.

In the drawings, Figure 1 is a side view of a lathe, showing the oiler applied thereto. Fig. 2 is a view of a portion of the lathe to which the levers for operating the pump are attached. Fig. 3 is a side view in detail of the chuck and pump, and showing the means for regulating the supply of oil. Fig. 4 is a detail view of

30 the levers for operating the pump. In the construction of my invention I arrange fixedly within the longitudinal opening  $a^2$  of the bed of the lathe A, and near the front head-block,  $a$ , which forms a bearing and supports the shaft  $a^3$ , the oil-pump B. I then make a horizontal lever, D, of a sufficient length to extend nearly across the face of the head-block  $a$ , one end of which is pivotally attached at  $d$  to the face of said head-

40 block at one side, and the opposite end bent downward to form a shoulder,  $d'$ . In arranging the pump B in the longitudinal opening  $a^2$  in the bed of the lathes, I place the said pump opposite the lever D, and at a distance

45 to one side sufficient to give leverage and permit the plunger  $b$  of said pump to be operated vertically thereby. I then pivotally attach to the lever D, opposite the pump B, one end of a short vertical lever, F, and connect the opposite end of said lever pivotally with the

50 plunger  $b$  of the pump. To the opposite end

of lever D, and slightly in rear of the shoulder  $d'$  and of the bent end of said lever, I pivotally attach one end of the upright connecting-bar E, the said end being halved at the point of attachment to said bar. The opposite end of the bar E extends upwardly to a point slightly below the center and at one side of the enlarged portion C of the shaft  $a^3$ , and is bent at right angles at  $e$ . The enlarged portion  $c'$  of the shaft  $a^3$  projects beyond the head-block  $a$ , and upon its circumference I form a cam, C, having a shoulder,  $c^2$ , and arranged to strike against the bent end  $e$  of the connecting-bar E. The extreme end of the angular portion  $e$  of the connecting-bar E is brought opposite the side head-block  $a$ , and through said bent end I make a threaded opening,  $e^2$ , and insert a screw,  $e'$ , the inner end of which rests against the side of said head-block  $a$ .

Below the end of the horizontal lever D, provided with the shoulder  $d'$ , I arrange against the side  $a$  of the head-block the spring H, one end of which is extended to and rests against the shoulder  $d'$  of the lever D and against the end of lever E, pivotally attached to lever D, and is then coiled sufficiently to give tension, and the opposite end,  $h$ , extended below and fastened by means of staple  $h'$  to the side of the head-block  $a$ . I then attach to the face of the head-block at T, below the shoulder  $d'$  of the lever D, a one-end guide-rod G, the opposite end being bent at  $g'$  over bent end of the lever D, whereby the said bent end of lever D is prevented from being thrown too far upward by the spring H in operating the plunger  $b$  of pump B.

To the pump B, I attach an extension-joint,  $b'$ , and to angle-joints  $b^2$  the upright joint  $b^x$ , to the end of which is also attached a similar angle-joint,  $b^2$ , and from which latter joint extends the oil-conducting bracket  $b^3$ .

In the operation of my invention power is applied to the cog-wheel I, which rotates shaft  $a^3$ , and shoulder  $c^2$  on cam  $c$ , which is in the path of the angular portion  $e$  of the bar E, is brought in contact therewith, which throws the lever D in a downward direction and also the plunger  $b$  in pump B. As soon as the movement is completed, the cam passes beneath and away from the angular portion  $e$  of the bar E,



and the spring H acts to throw up the said lever D, and a constant supply of oil is fed through the pipes of bracket *b*<sup>3</sup>. The bracket may then be turned in any direction as the work necessitates.

When a limited supply of oil is required, the screw *e'* is turned in against the head-block *a*, which throws the angular portion *e* outwardly, and the shoulder *c*<sup>2</sup> of cam *c* is permitted to contact in a lesser degree with the said angular portion *e*. The bearing of the end of spring upon the end of arm E keeps the said arm inclined toward the cam *c* under tension.

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

The combination, with a lathe having a suitable head-block, a rotating shaft on said head-

block, and a cam on said shaft, of a horizontal lever pivotally attached to said head-block at one end, an oil-pump on said lathe having a plunger attached to said horizontal lever, a spring attached to said head-block and to said lever for the upward retraction of said lever, and an upright bar attached to the end of the said lever opposite to that attached to said head-block, a portion of said bar extending at an angle therefrom and in the path of said cam, and a screw extending through said angular portion of said arm in the direction of said head-block for adjusting the said bar in its contact with said cam.

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Witnesses:

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