

(No Model.)

2 Sheets—Sheet 1.

E. J. BROOKS.  
SEAL PRESS.

No. 438,140.

Patented Oct. 14, 1890.

Fig. 1.

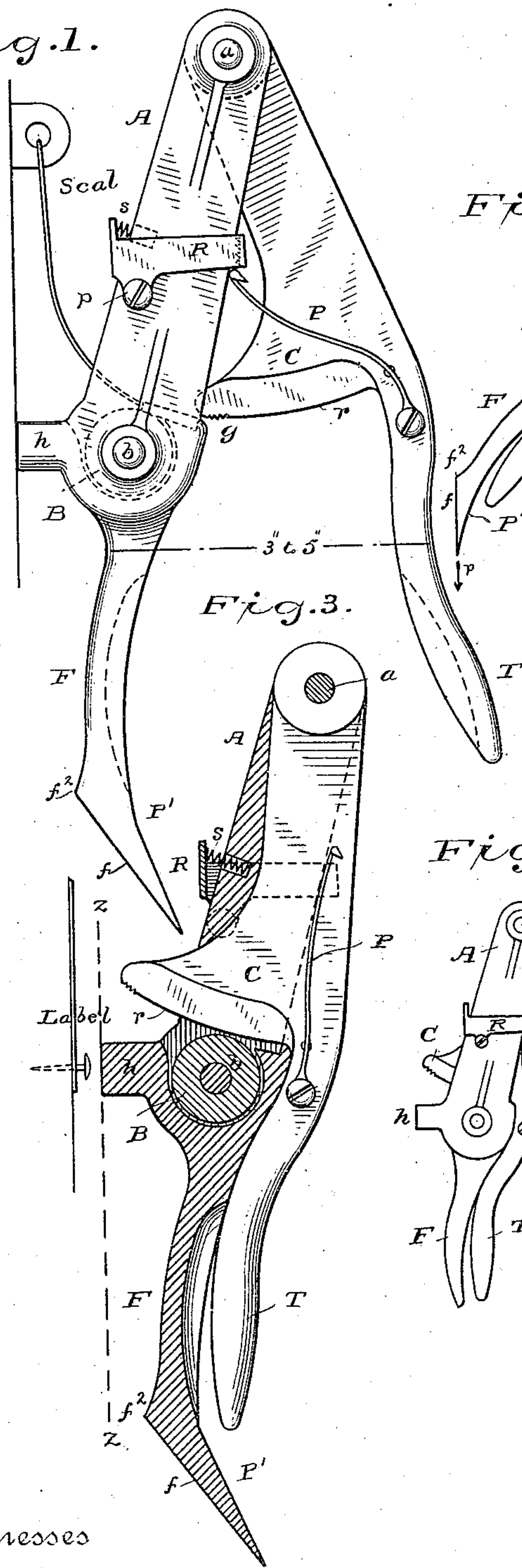


Fig. 2.

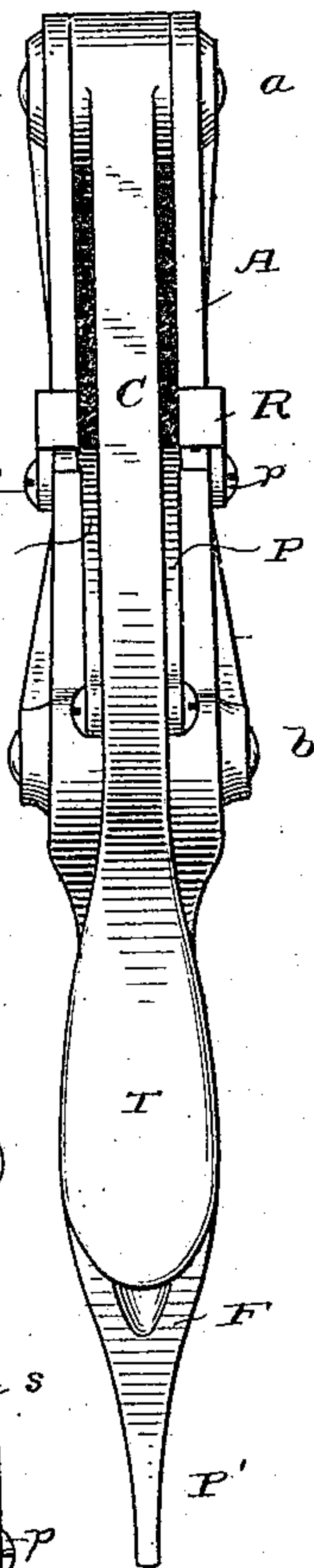


Fig. 5.

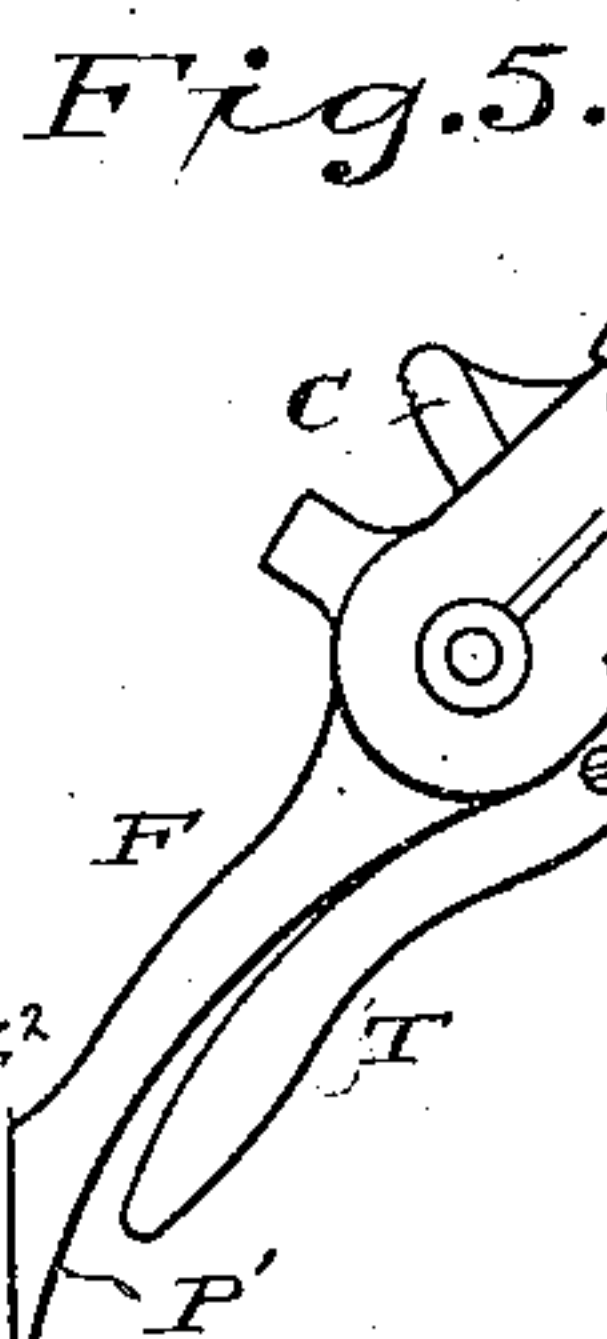


Fig. 4.

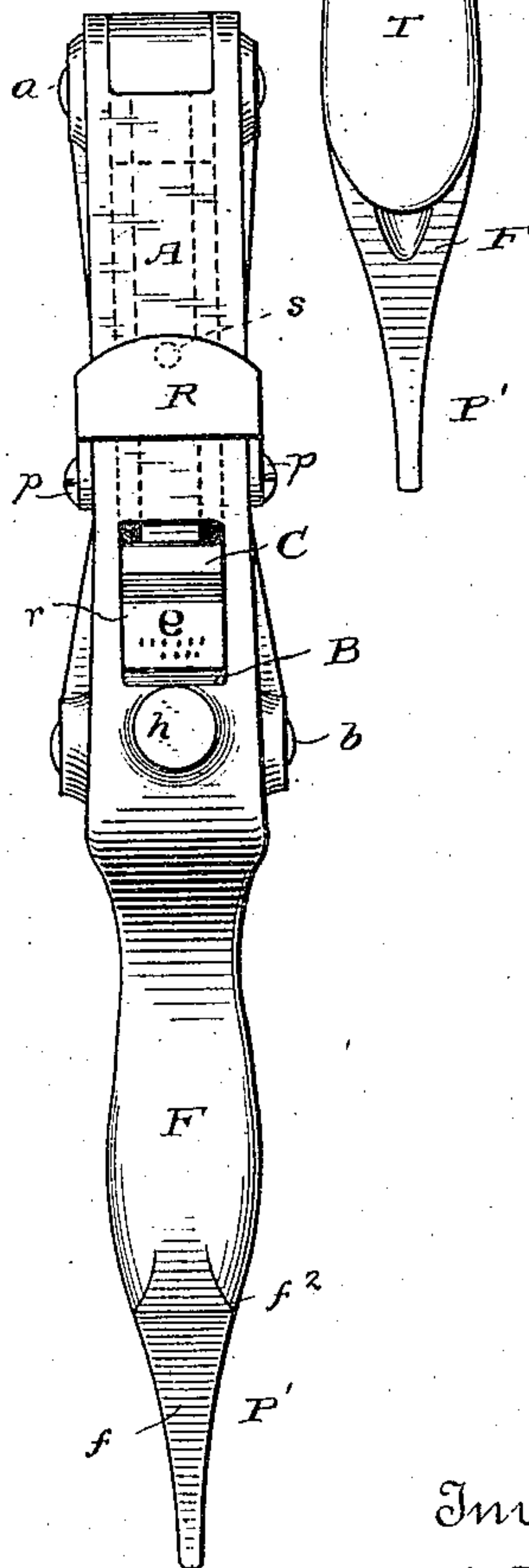
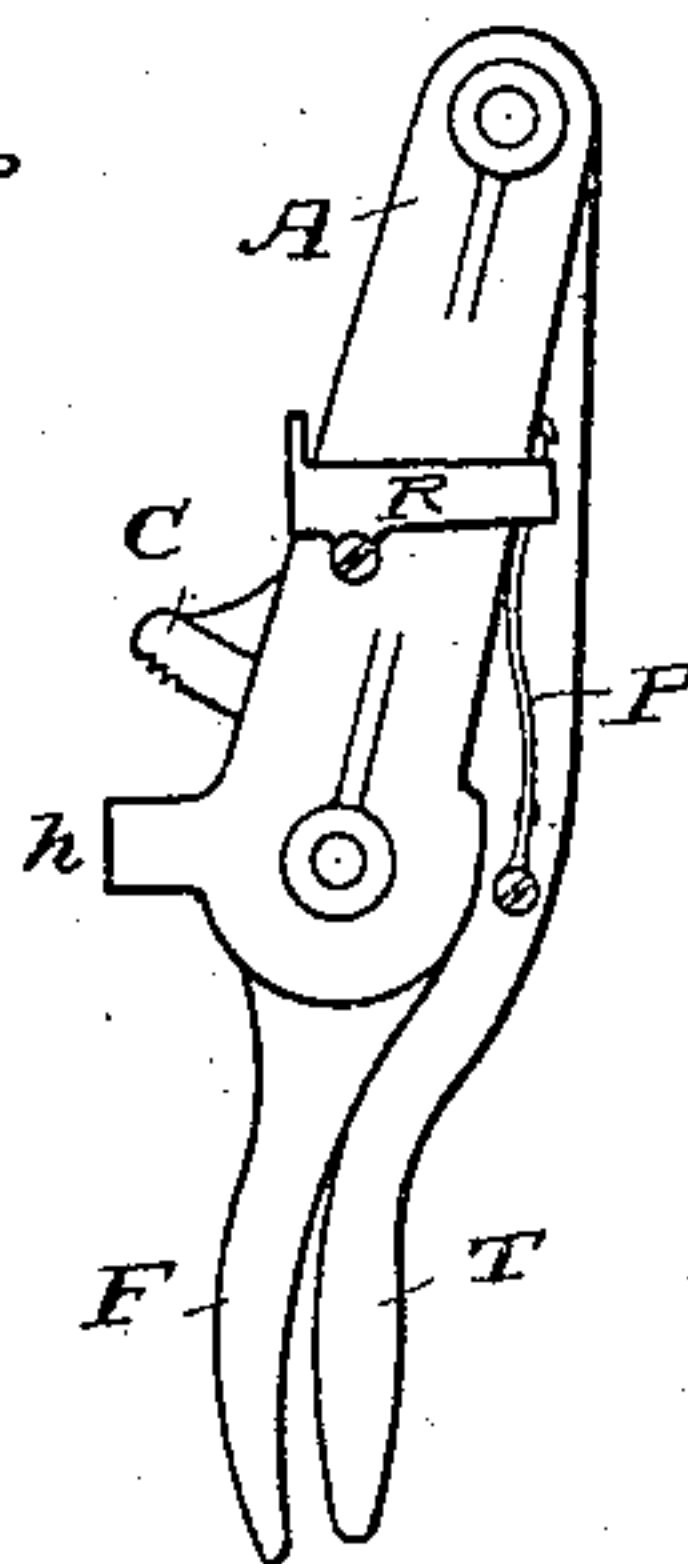


Fig. 6.



Witnesses

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(No Model.)

2 Sheets—Sheet 2.

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SEAL PRESS.

No. 438,140.

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Fig. 7.

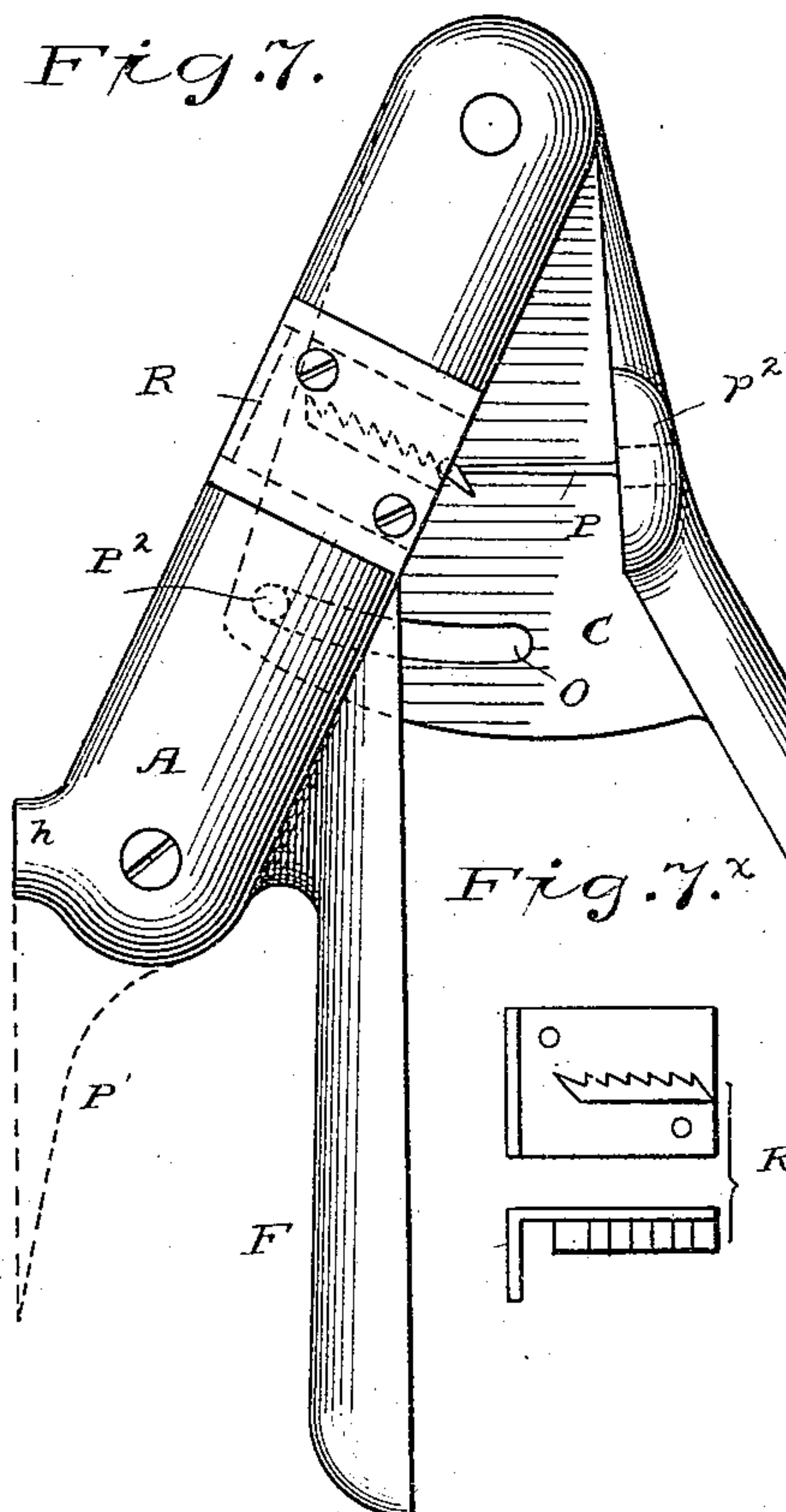


Fig. 8.

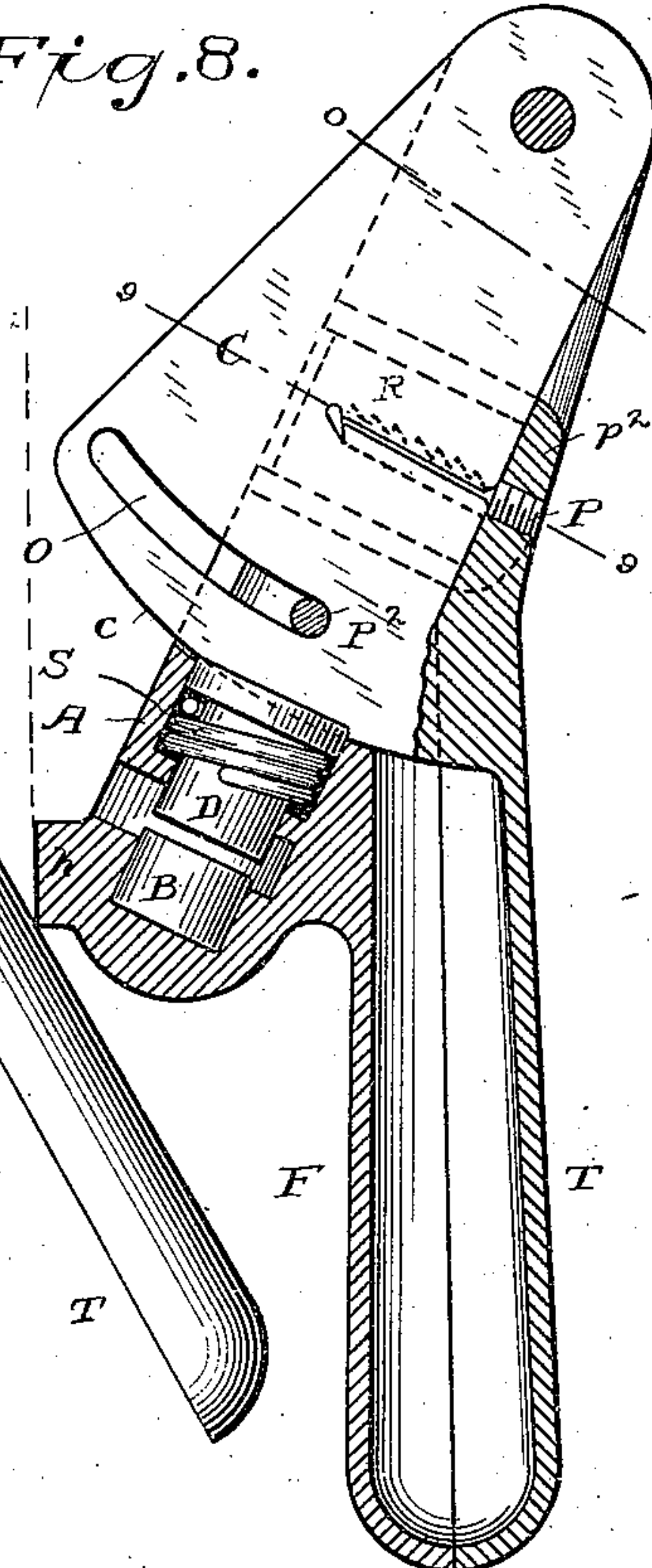


Fig. 9.

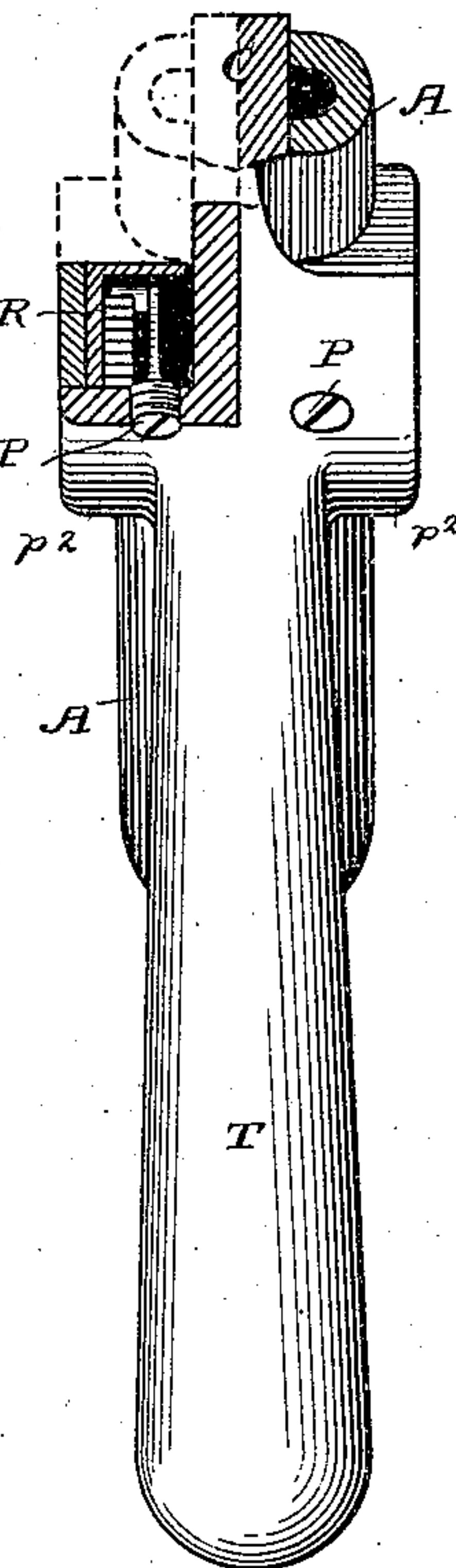


Fig. 10.

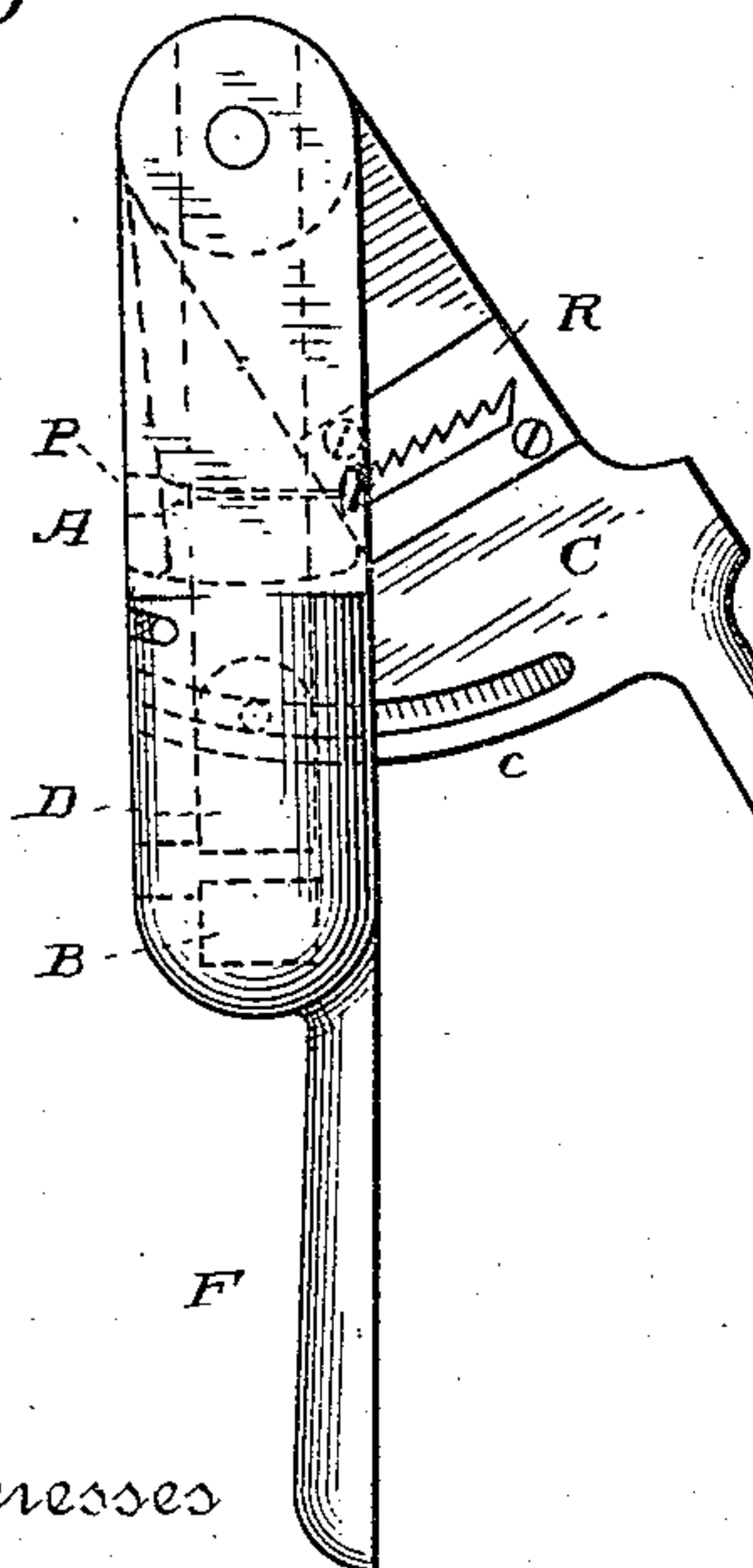


Fig. 11.

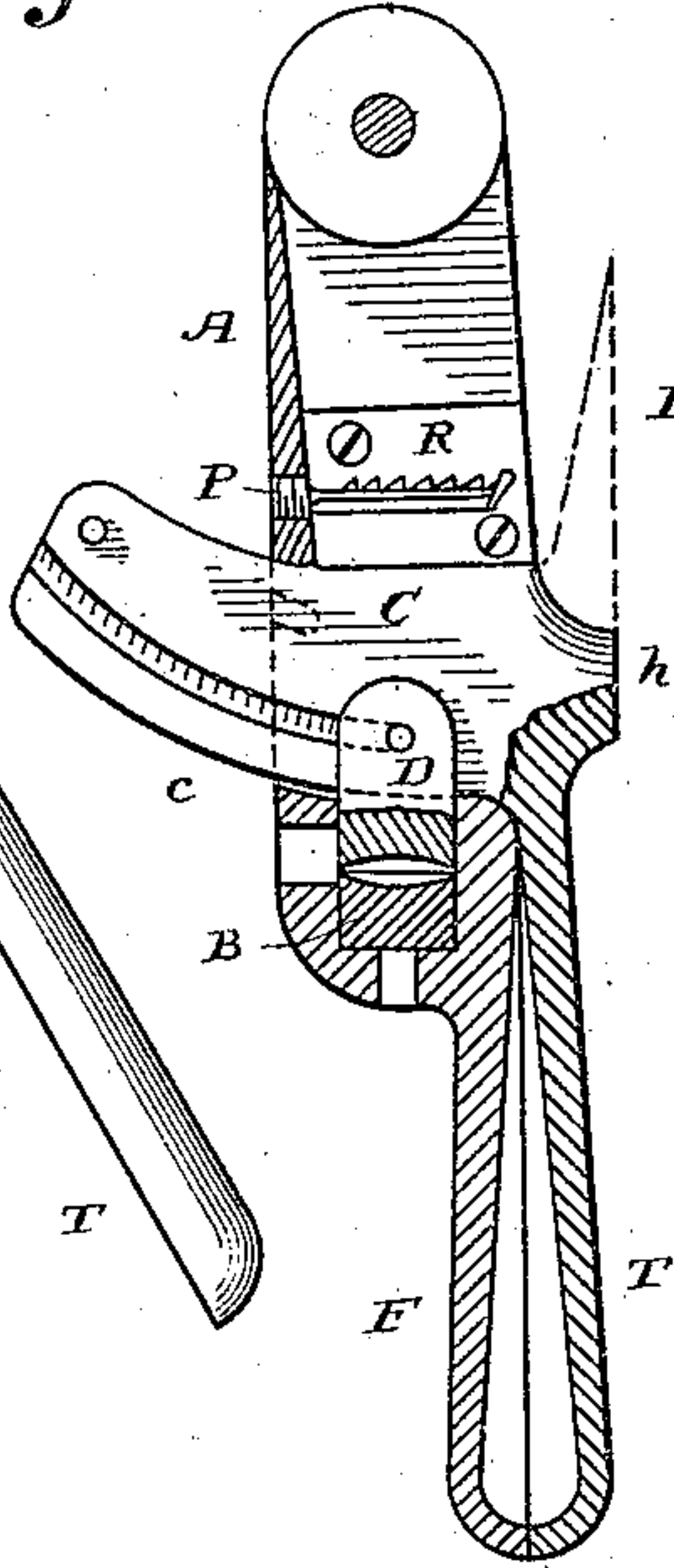
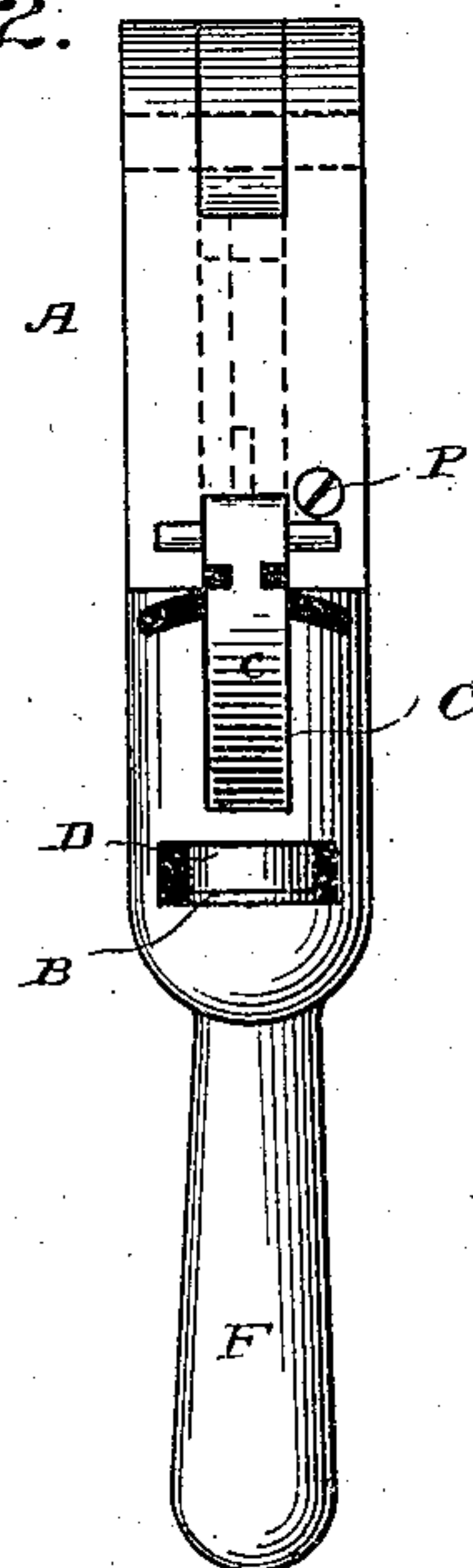


Fig. 12.



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# UNITED STATES PATENT OFFICE.

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## SEAL-PRESS.

SPECIFICATION forming part of Letters Patent No. 438,140, dated October 14, 1890.

Application filed December 10, 1889. Serial No. 333,171. (No model.)

*To all whom it may concern:*

Be it known that I, EDWARD J. BROOKS, a citizen of the United States, residing at East Orange, in the State of New Jersey, have invented a new and useful Improvement in Seal-Presses, of which the following is a specification.

This invention is additional to improvements in seal-presses heretofore patented by me, and particularly those patented, respectively, March 7, 1882, and May 6, 1884, (Letters Patent No. 254,601 and No. 298,284.) It relates, with the subject of said patent of March 7, 1882, to the adaptation of portable seal-presses by "hammer attachments" or "hammer projections," as they are hereinafter termed, for labeling railway freight-cars or pieces of freight or baggage, as well as for sealing them; and with that of said patent of May 6, 1884, it relates to "ratchet attachments" to insure fully compressing the seal-disks of seals which are thus secured or fastened, and so impressing or stamping them with lettering or other distinguishing-marks that the latter shall be uniformly sharp and distinct.

The present invention consists primarily in the adaptation of lever-handle seal-presses to be operated by a single hand with one movement, without detrimental loss of power in shortening the lever-handles and reducing their movement to the requisite extent, and without multiplication of parts, by constructing the press with a swinging segment of long radius (whether the same act directly as a "roller-die" or, through the medium of a sliding die, as a cam,) such segment having a periphery of the requisite length at about mid-length of the press, and the lever-handle which carries the segment being pivoted together therewith at the upper extremity of the head of the press and formed to close against the back of a rigid lever-handle which projects from at or near the lower end of said head.

This invention consists, secondly, in a seal-press so compacted and having a hammer projection on one of its parts, forming the most prominent point on its face or back in the closed condition of the press and project-

ing at about mid-length of the press, and thus in line or substantially in line with the transverse axis of greatest inertia, so located by such segment; thirdly, in a seal-press so compacted and having a retreating head with a hammer projection on the prominent lower portion of its face, so that the segment may project in the closed condition of the press without interfering with the use of said hammer projection in attaching car-cards and other labels, and the press can consequently be used first for pressing a seal and then for tacking on the label without changing its position in the hand; fourthly, in a lever-handle seal-press having a swinging segment of long radius and provided with a ratchet attachment comprising a ratchet part or a pair of such ratchet parts having free-ended projections bearing the ratchet-teeth and located between the pivot and the periphery of the segment, so that relatively short-toothed projections suffice, and the pawl-spring engaging each toothed projection is adapted to be disengaged for the return-stroke automatically; and, fifthly, in a lever-handle seal-press having a ratchet attachment, as above, with its pawl spring or springs so applied as to automatically open the press when the grasp of the hand is relaxed after the pressing operation is completed.

Two sheets of drawings accompany this specification as part thereof.

Figure 1 of the drawings is a side elevation of a "roller" seal-press constructed according to this invention, showing the same open. Fig. 2 represents a back view thereof. Fig. 3 represents a sectional view of the same press closed, illustrating its use as a hammer. Fig. 4 is a face view of the closed press; and Figs. 5 and 6 are small-scale outline views of the same press, illustrating, respectively, the use of its "prong" and the omission of the latter. Figs. 7, 7<sup>x</sup>, 8, and 9 represent a "die" seal-press constructed according to the same invention in part, Fig. 7 being a side view of the press open, Fig. 7<sup>x</sup> side and top views of one of its ratchet parts detached, Fig. 8 a sectional side view of the press closed, and Fig. 9 a back view, partly in section, on the line 9 9 and partly on the line 0 0,



Fig. 8; and Figs. 10, 11, and 12 are respectively a side view open, a sectional view closed, and a face view of another die seal-press, illustrating additional modifications.

5 Like letters of reference indicate corresponding parts in the several figures.

In each of said seal-presses there is a swinging "segment" C of long radius having its periphery  $r$  or  $c$  at about mid-length of the press, 10 coacting directly or indirectly with a bed-roller or bed-die B, within a "head" A, and a pair of "lever-handles" FT, adapted to be grasped, respectively, by the fingers and thumb of one hand, said handle F projecting rigidly from 15 at or near the lower end of said head and said handle T projecting rigidly from said segment C, and so formed that both may be readily reached by fingers and thumb when the press is "open," as shown in Figs. 1, 7, 20 and 10, which is determined by the measurement indicated at  $x$  in Fig. 1, and so that they shall come together properly when the press is "closed," as shown in Figs. 3, 5 6, 8, and 11. Heretofore such segments (seg- 25 mental rollers and segmental cams) have been formed close around their pivots, so as to get as much leverage as possible in lever-handles of a given length. By relatively elongating the radii of the segments I of 30 course lose leverage; but in a die-press (Sheet 2 of the drawings,) where this would be detrimental by correspondingly elongating the peripheral cam-surface  $c$ , I obtain the same pressure upon its die D with the reduced 35 leverage; and in a roller-press (Sheet 1) the reduced leverage is ample, owing to the progressive nature of the compressing operation, a given length of peripheral rolling-surface  $r$  being all that is required.

40 Another feature common to the several seal-presses shown by the drawings is what I term a "ratchet attachment," whereby fully compressing and distinctly stamping the seals is insured, as aforesaid, and the same is in each 45 case composed of a "ratchet" part or parts R and a "pawl" spring or springs P, the latter carrying at the free end of each a lug or lugs which coact with the ratchet-teeth of the opposing ratchet part during each pressing 50 movement or closing of the press. During each opening movement the pawl-lugs ride on the backs of those free-ended projections of the ratchet parts, the faces of which bear the ratchet-teeth.

55 In the preferred forms of roller and die presses represented, respectively, by Figs. 1 to 6 and 7 to 9, the head A is retreating, as seen in the side and sectional views, and a hammer projection  $h$  is formed on the 60 prominent lower portion of the face, so that when the press is closed, as shown in Figs. 3, 5, 6, and 8, the segment C may project, as shown, or to any necessary extent without interfering with the use of the hammer projec- 65 tion, as illustrated by Fig. 3. A sufficient space between the front handle F and the plane of the hammer projection  $h$  (indicated

at  $z$ , Fig. 3) accommodates the fingers of the sealer when the press is applied to a seal, and particularly when it is used as a hammer, so 70 as to prevent striking the knuckles against the car-door or piece of baggage. Said roller-press (shown in Figs. 1 to 6) is mainly composed of two malleable iron castings A F C T, a rotary bed-roller B, and two pivot-pins  $a$   $b$ , 75 which unite the parts and are accommodated by transverse holes drilled in said head parallel with each other. Said head is further constructed with a gage-stop  $g$ , which arrests the disk of a seal S within the open press, as 80 illustrated by Fig. 1, so that the front edge of the segment C shall bite the disk at its outer edge upon the apex of the bed-roller B at the beginning of each pressing operation, during the progress of which the seal-disk 85 travels outward between the segment and bed-roller until it is finally ejected, which occurs before the handles F T come together. In admitting the seal-disk, as in Fig. 1, the handle T is held back by the pawl-springs P, 90 two of which, each carrying a laterally-projecting pawl-lug, are attached to the respective sides of said handle T, and press at their free ends against the rear edges of the head A, so as to serve additionally as opening- 95 springs to open the press automatically after each pressing operation. The ratchet part R embraces the head A, and is held in place by a spring  $s$  and pivotal attaching-screws  $p$ , the spring tending to hold the pivoted ratchet 100 part in the position of rest in which it is shown. The ratchet-teeth are formed on in-turned edges at the respective sides of the press. Compare Figs. 1 and 2. Another feature of said roller-press, as shown in Figs. 1 to 105 5, is a shackle-admitting "prong" P, which projects conveniently when the press is closed, as shown in Figs. 3 and 5, and is preferably of a tapering form, so as to be used by a longitudinal thrust of the closed press in the direction 110 determined by the face F of the prong, as represented by the arrow  $p$ , Fig. 5. Like prongs may be applied to other seal-presses and in other locations, as illustrated by dotted out- 115 lines at P' in Figs. 7 and 11. In said roller-press, Figs. 1 to 5, the prong P' terminates at its head end in a distinct fulcrum  $f^2$ , on which the press may be worked as a lever, if necessary. The omission of the prong, which forms 120 no part of the present invention, is illustrated by Fig. 6. Said die-press (shown in Figs. 7 to 9) has a retreating head A, with hammer projection  $h$  thereon, in connection with a bed-die B, segment C, sliding die D, Fig. 8, and handles 125 F T, as aforesaid. It has, moreover, a die-lifting spring S, Fig. 8, shown for convenience in the form of a spiral spring surrounding the sliding die within the bore of the head A, and it has a stop-pin P<sup>2</sup>, which passes through 130 a slot O in the segment C, and is supported at its ends in holes in the respective cheeks of the head. The ratchet attachment applied to this press comprises ratchet parts R, inclosed within lateral recesses, which are



formed in the head A, and closed at back by projections  $p^2$  on the other main part of the press. These projections also carry the pawl-springs P, which in this case project substantially in line with the toothed portions of the ratchet parts R, and cause the pawl-lugs to coact with the inclines at the respective ends of the toothed projection of each ratchet part without the aid of pivots or other springs.

Said die-press (shown in Figs. 10 to 12) has a grooved segment C and a sliding die D, the upper end of which is bifurcated and provided with lug-pins to coact with such segment, as in my springless "barrel" presses, patented March 30, 1886, Letters Patent No. 339,042. Its head A is, moreover, "straight" or substantially in line with the front handle F by way of illustration, and its hammer projection  $h$  is formed on the back of the segment C, so as to be properly presented when the press is closed and turned about face from its pressing position. (See Fig. 11.) A ratchet part R is attached to the segment C of this press, and its spring-pawl P is screwed into the front of the head A, so as to be inclosed at all times within the latter.

Other like modifications will suggest themselves to those skilled in the art. For example, the ratchet attachment shown in Figs. 1 to 6, or one constructed on the same principle, may preferably be inclosed within recesses formed in the main parts of the press, so as to be protected against accidental injury in handling the press, like those shown in Figs. 7 to 12, and known ratchet devices employed for insuring complete reciprocations or complete oscillations of other working parts may be substituted for either of the particular forms above described without disadvantage or without wholly losing the effects of this part of my invention.

Details which have not been specified may be of any approved description.

Having thus described the said seal-presses, I claim as my invention and desire to patent under this specification—

1. The combination, in a seal-press, of a head having rigidly connected therewith a lever-handle, which projects from at or near its lower end, and a swinging segment of long radius pivoted at the upper end of said head and having its periphery at about mid-length of the press and which is rigidly connected with a lever-handle that closes against the back of the lever-handle first named, substan-

tially as herein specified, for the purposes set forth.

2. The combination, in a seal-press, of a head having rigidly connected therewith a lever-handle, which projects from at or near its lower end, and a segment of long radius pivoted at the upper end of said head and having its periphery at about mid-length of the press and which is rigidly connected with a lever-handle that closes against the back of the lever-handle first named, one of said parts being provided with a hammer attachment at about mid-length, which when the press is closed projects in line or substantially in line with the transverse axis of greatest inertia so located by such segment, substantially as herein specified.

3. The combination, in a seal-press, of a retreating head provided with a hammer projection on the prominent lower portion of its face and having rigidly connected therewith a lever-handle, which projects from at or near its lower end, and a segment of long radius pivoted at the upper end of said head and having its periphery at about mid-length of the press and which projects at the front of the head when the press is closed, substantially as hereinbefore specified.

4. The combination, in a lever-handle seal-press, of a head having rigidly connected therewith one lever-handle, a segment of long radius rigidly connected with the other lever-handle and pivoted in said head, a ratchet part attached to one of the main parts of the press and having free-ended toothed projections located between the pivot and the periphery of said segment, and a pawl-spring attached to the other main part of the press and coacting with said toothed projections of the ratchet part, substantially as hereinbefore specified.

5. The combination, in a seal-press, of a pair of lever-handles, which close the press in the pressing operation, a ratchet part comprising a free-ended toothed projection, or a pair of such ratchet parts movable with one handle, and a press-opening spring or springs connected with the other handle and provided with pawl-lugs to coact with the respective toothed projections, substantially as hereinbefore specified.

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Witnesses:

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THOMAS TIERNEY.