

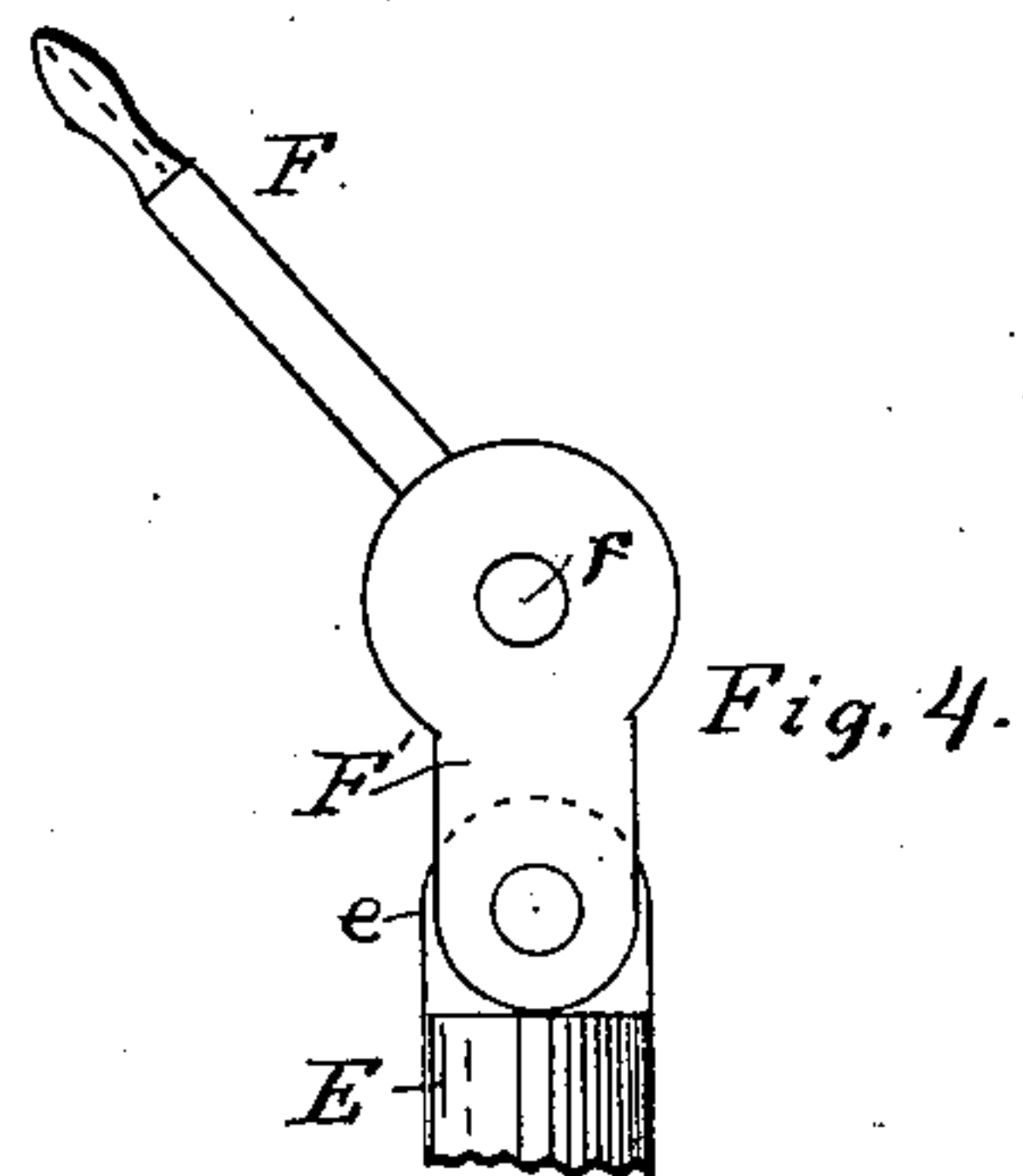
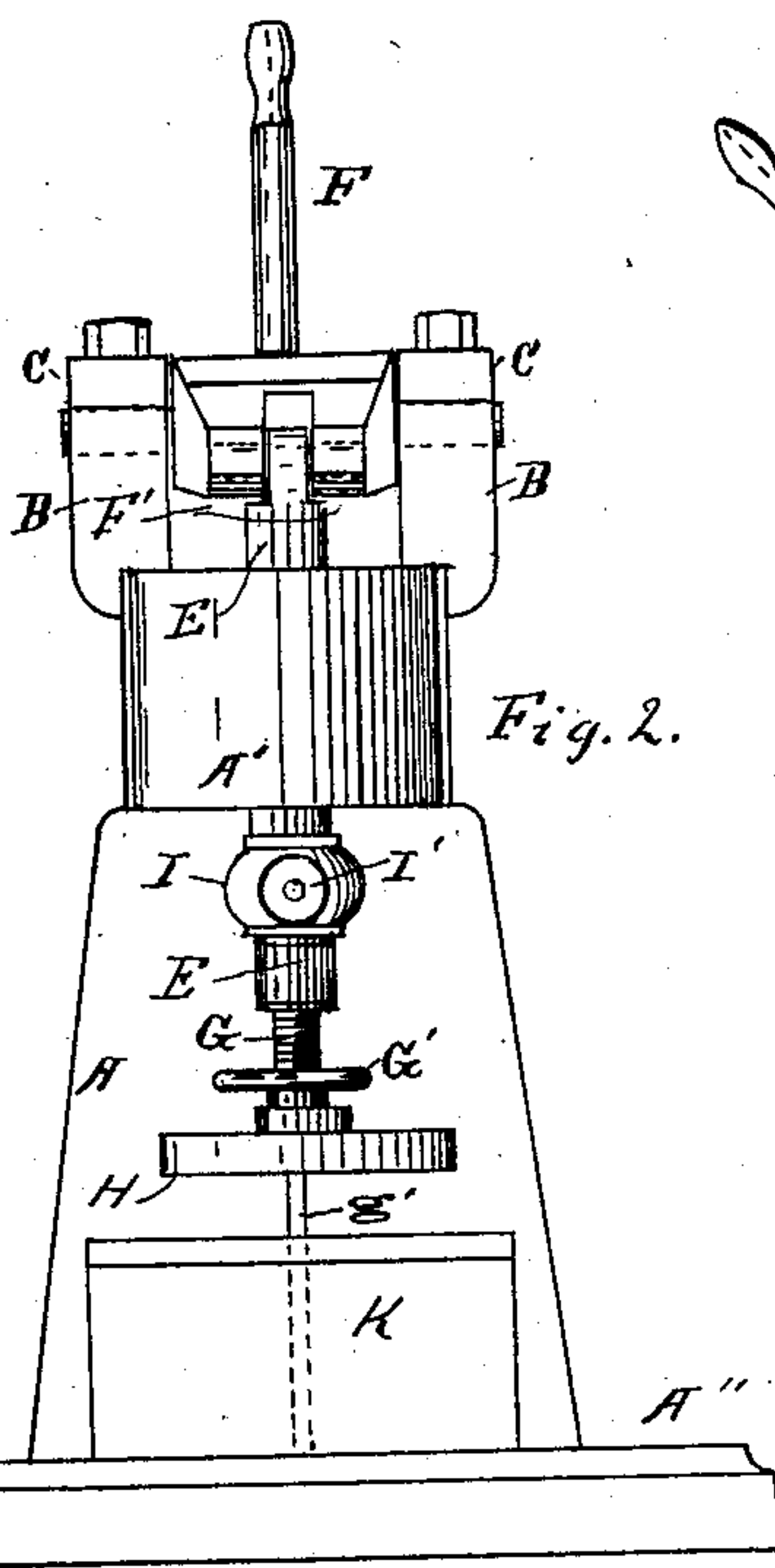
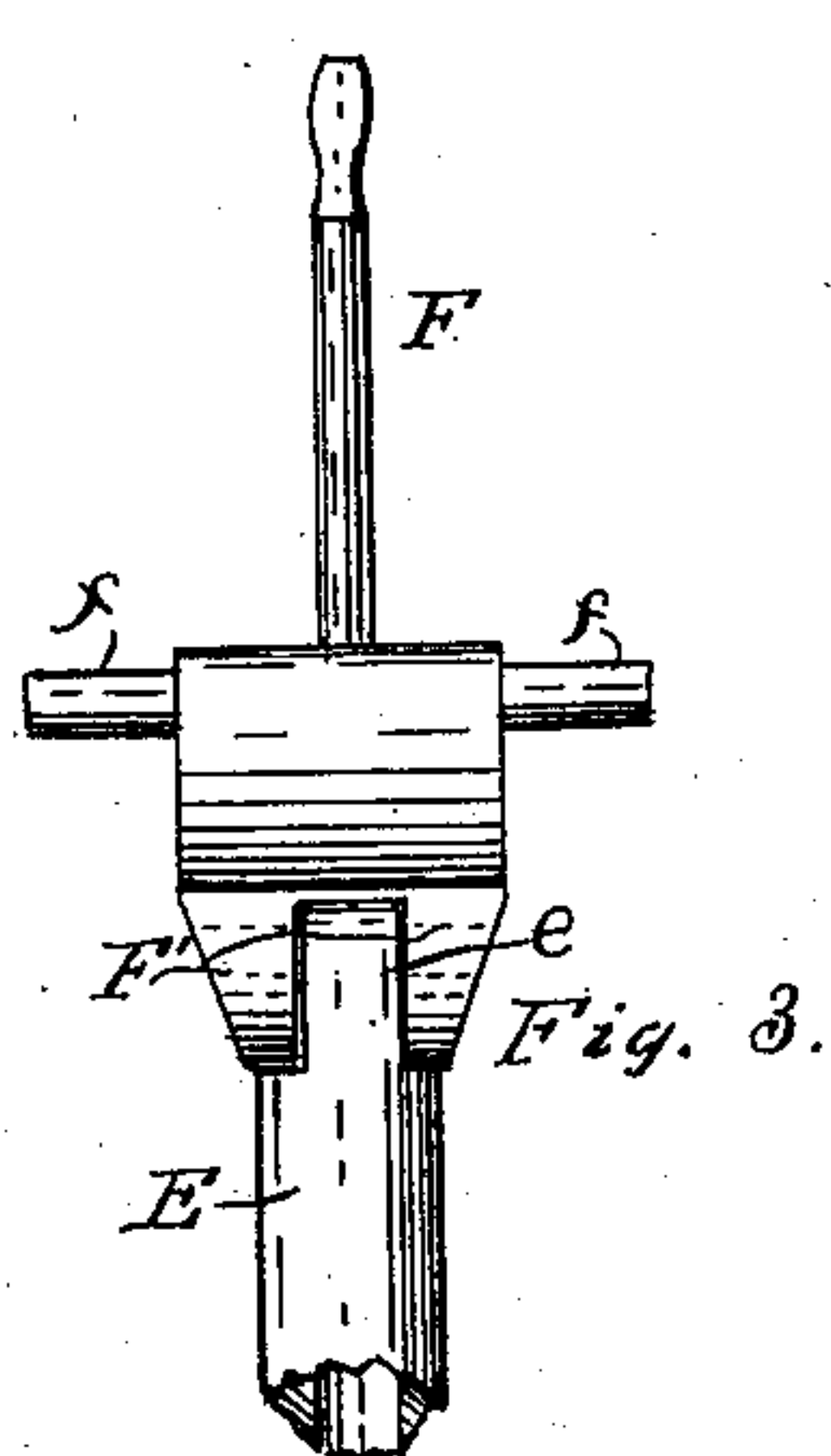
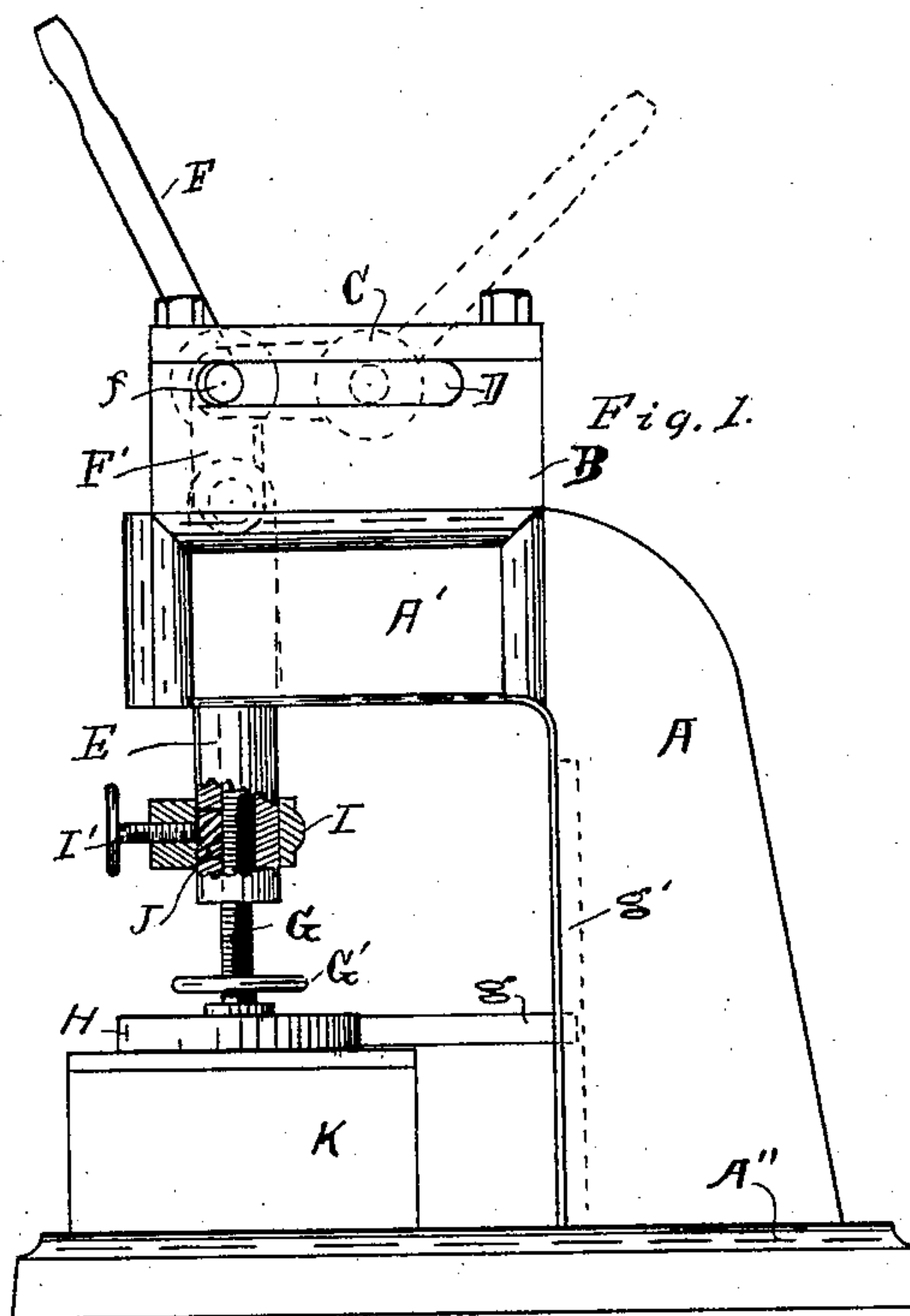
No. 608,532.

Patented Aug. 2, 1898.

J. & E. TISCH.  
TOBACCO PRESS.

(Application filed Dec. 11, 1897.)

(No Model.)



Witnesses.

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# UNITED STATES PATENT OFFICE.

JULIUS TISCH AND EMIL TISCH, OF GRAND RAPIDS, MICHIGAN.

## TOBACCO-PRESS.

SPECIFICATION forming part of Letters Patent No. 608,532, dated August 2, 1898.

Application filed December 11, 1897. Serial No. 661,574. (No model.)

*To all whom it may concern:*

Be it known that we, JULIUS TISCH and EMIL TISCH, citizens of the United States, residing at Grand Rapids, in the county of Kent and State of Michigan, have invented certain new and useful Improvements in Tobacco-Presses, of which the following is a specification.

Our invention relates to improvements in small packing-presses; and its objects are, first, to provide an eccentric action with an ordinary lever directly attached to the press-shaft; second, to provide for the principal vertical adjustment of the press, with a screw passing into, but not through, the shaft of the press; third, to provide a packing-press having the exertion of the lever directly over and longitudinal of the shaft without pitman connection, and, fourth, to avert the danger of the head turning. We attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of our press with the shaft cut away to show the application of the clamping-block upon the adjusting-screw. Fig. 2 is a front elevation of the press complete. Fig. 3 is a front elevation of the lever and a portion of its shaft to show the connection between them, and Fig. 4 is a side elevation of the same.

Similar letters refer to similar parts throughout the several views.

In constructing our press we make use of a standard A, a base A'', and a supporting-arm A', through which the shaft or guide E passes. The shaft E is cylindrical for a distance up from the lower end, and an adjusting-screw G is inserted, by means of which the head H may be readily adjusted to the various thicknesses of the matter K to be pressed. This screw is provided with a small hand-wheel G', by means of which it is manipulated as desired. To insure a rigid connection between the shaft and the screw after adjustment, we insert a clamping-block J in the side of the shaft, so that it may be forced solidly against the screw by the hand-screw I', which passes through the ring I.

Thus far our press is not materially different from others now in use, except that our adjusting-screw passes up into, but not through, the shaft, while with most presses now in use

the screw passes entirely through the shaft and has the manipulating-wheel G' above the arm A'. Our object in making this change is to enable us to exert our lever or eccentric motion central of the shaft.

To manipulate our shaft E to exert greatly-increased pressure upon the matter K after the proper adjustment of the head H, we make use of a lever having a long arm F, a short arm F', and a movable fulcrum or pivotal bearings *f*. For the support and manipulation of this lever we form two parallel bearings B above the head A', the ends of which project upward and support removable caps C, which are securely bolted to these projecting ends to form the slot or guideway D, in which the trunnions *f* fit closely, but may slide freely, so that the throwing of the lever F to the position indicated by its dotted lines will carry the trunnions back to the position indicated by their dotted lines in Fig. 1, and the short arm F' of the lever to position to raise the shaft, as indicated in Fig. 1 and shown in Fig. 2, while the carrying of the lever back to the position indicated by the solid lines in Fig. 1 will throw the shaft down to the position indicated in said figure, at first rapidly, as with a lever motion, but at the last portion of its movement with a slow strong movement, as by the action of an eccentric. Thus we have by this construction availed ourselves of both a lever and an eccentric motion, together with a direct longitudinal motion, of the shaft without the use of a connecting link or pitman and are enabled to apply said action directly longitudinal and central of the shaft.

The connection between the arm F' and the shaft E at *e* should be close, but free, so that perfect action is insured.

To avert the danger of the head H turning when approaching the matter to be pressed, we extend an arm *g* back from the head and into the slot *g'* in the standard A.

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

In a press, a vertically-reciprocating shaft, and a standard for supporting said shaft, said standard provided with slots to form adjustable bearings for the lever-fulcrum, a lever fulcrumed in said slots with sliding trunnions,



one end of said lever being pivotally attached  
to the top of the shaft, the other end being  
free to actuate the shaft first by direct lever  
motion and finally by eccentric motion caused  
5 by the sliding of the trunnions in the slot as  
it is drawn forward to force the shaft down,  
substantially as and for the purpose set forth.

Signed at Grand Rapids, Michigan, this  
8th day of December, 1897.

JULIUS TISCH.  
EMIL TISCH.

In presence of—

ITHIEL J. CILLEY,  
ANDREW ALLGIER.