

No. 618,714.

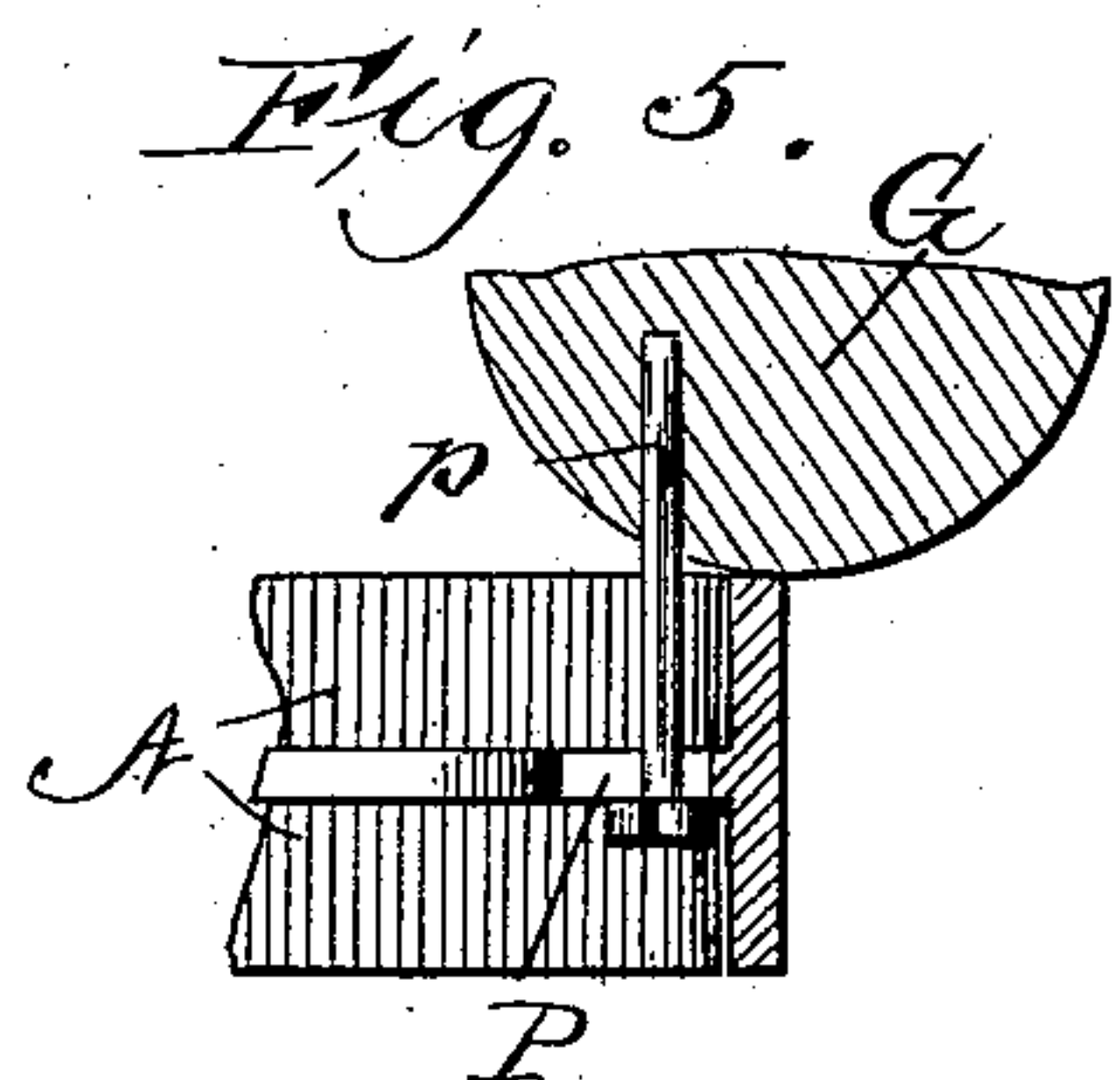
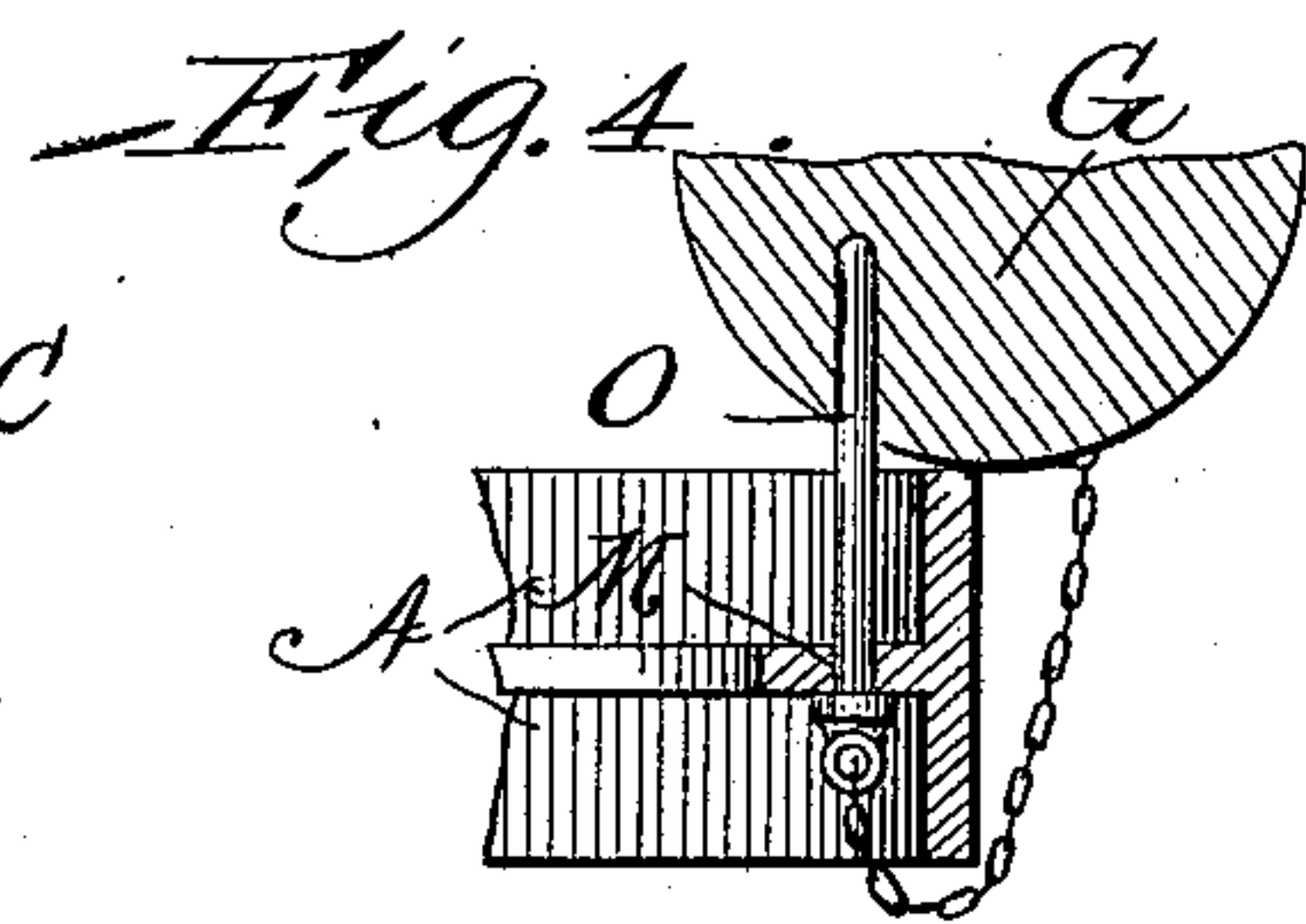
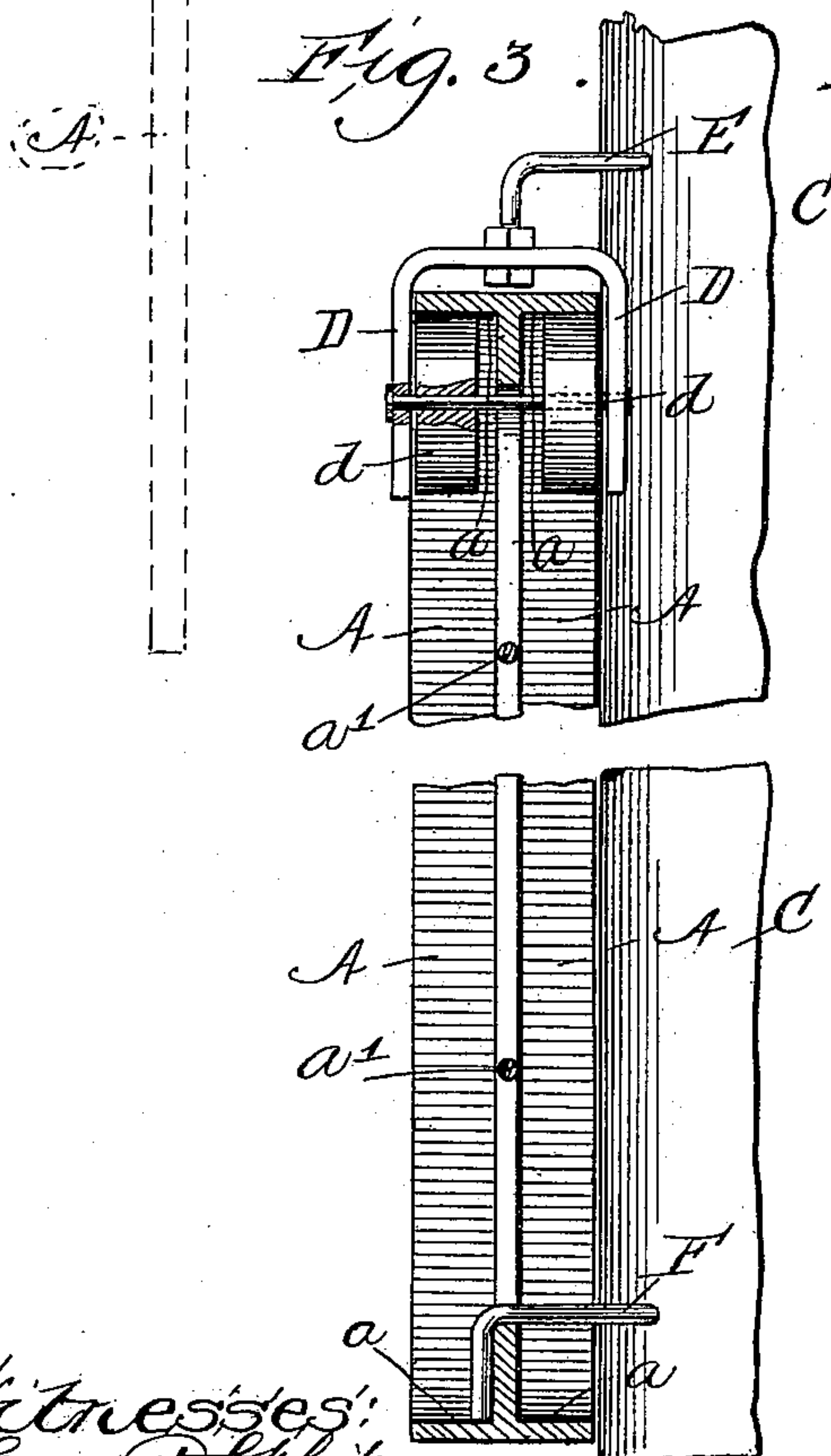
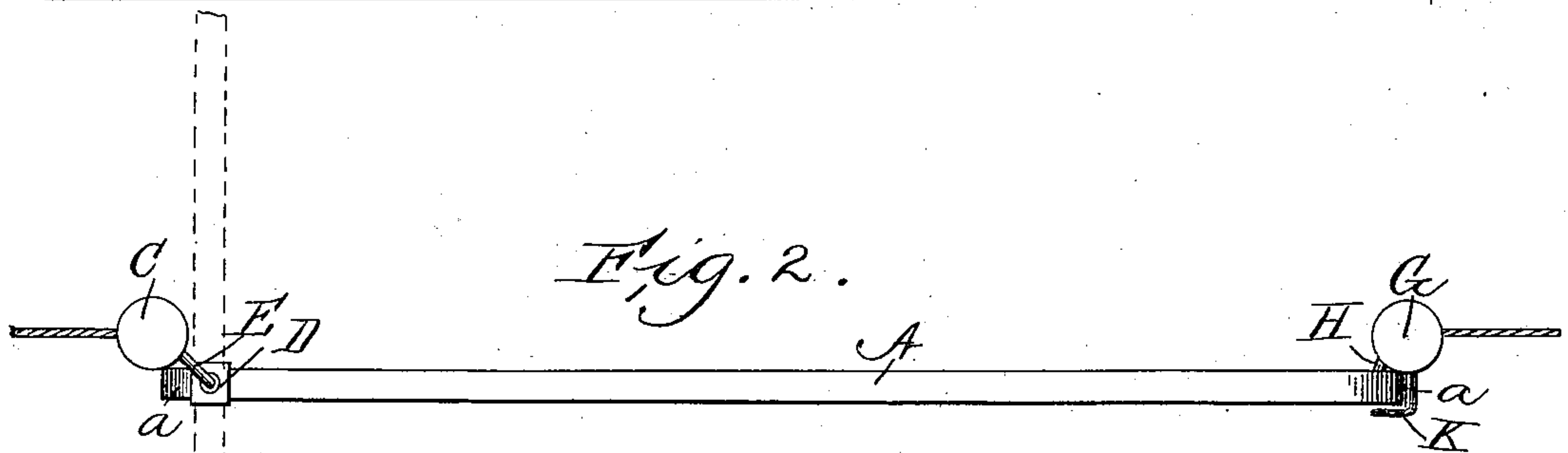
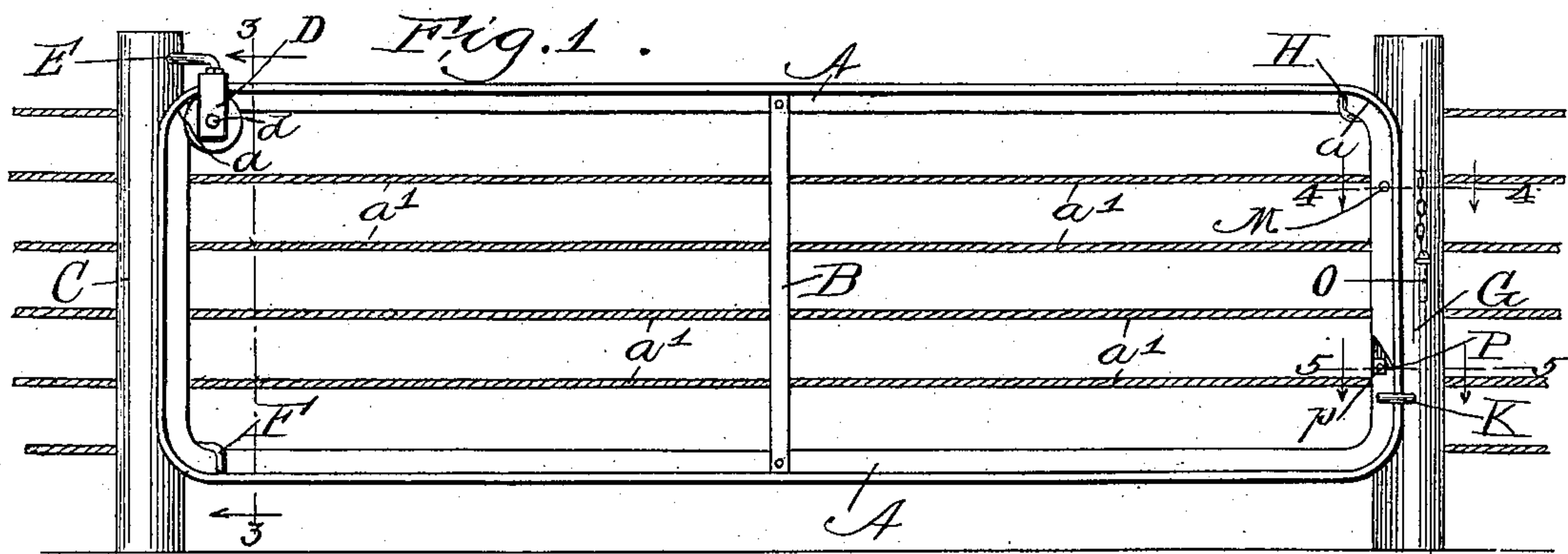
Patented Jan. 31, 1899.

D. S. McMULLEN.

GATE.

(Application filed Aug. 24, 1898.)

(No Model.)



Witnesses:
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UNITED STATES PATENT OFFICE.

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GATE.

SPECIFICATION forming part of Letters Patent No. 618,714, dated January 31, 1899.

Application filed August 24, 1898. Serial No. 689,395. (No model.)

To all whom it may concern:

Be it known that I, DAVID S. McMULLEN, a citizen of the United States of America, and a resident of Evanston, county of Cook, and State of Illinois, have invented certain new and useful Improvements in Gates, of which the following is a specification and which are fully illustrated in the accompanying drawings, forming a part thereof.

10 This invention relates to that class of gates in which the gate has both a sliding and pivotal connection with the supporting-post, so that in opening it is first moved longitudinally upon a supporting-bracket and then
15 swung to a position parallel with the driveway.

The objects of the invention are to provide improved means for supporting the gate so that when closed its weight assists in securing
20 it to the fastening-hook with which its swing end is engaged and to simplify and cheapen the construction of gates of this class. These objects are attained by the construction hereinafter fully described and illustrated in the
25 accompanying drawings, in which—

Figure 1 is an elevation of the gate in its closed position. Fig. 2 is a plan view showing in solid lines the gate in its closed position and in dotted lines in its open position. Fig.
30 3 is a sectional view on the line 3 3 of Fig. 1. Figs. 4 and 5 are sections on lines 4 4 and 5 5, Fig. 1.

The gate A is shown as being oblong-rectangular in form and having a frame of a continuous piece of T-steel, the flange or stem of the T being directed inwardly, and having
35 wires or cables *a'* stretched between its ends and midway of its length a vertical cross-bar B. The hinge-post is shown at C and the
40 latch-post at G. The gate is hung upon a U-shaped swivel-block D, carried by a shank or bracket E in L form, the longer arm of which is driven into the post C and the shorter arm of which is bent downwardly and extends
45 through the bow of the block D as a pivot. A pair of rollers *d* are mounted upon a suitable arbor, uniting the arms of the block D, and are spaced apart to accommodate the flange of the T-rail forming the frame of the
50 gate, the head of the rail resting upon the two rollers.

The bottom of the gate is guided by an L-shaped hook F, driven into the post C, its head extending through the gate and being turned downwardly to engage the flange of the lower
55 side of the gate-frame. The hooks E F project from the post C diagonally with reference to the driveway, so that the gate may slide past the post C without being turned. In opening the gate the cross-bar B serves as
60 a stop, and being located substantially midway between the ends of the gate the latter is balanced when the cross-bar comes in contact with the swivel-block and the lower
65 guide-hook, so that it may be easily swung to the position indicated by dotted lines in Fig. 2.

The latch-post G is provided with a pair of hooks, the upper one, H, of which turns upwardly and the lower one, K, of which is
70 turned horizontally toward the driveway. The gate is secured by being caught over the upper hook and within the lower one.

The upper corner *a* of the hinge end of the gate is curved, and the posts C G are spaced
75 apart, so that in order to lodge the gate upon the hook H it is necessary to draw it toward the post G until the curved portion of the corner *a* is carried up upon the roller *d*. When the longitudinal strain is released, the
80 gate settles back by reason of this cam form of its corner *a*, and its swing end is thereby drawn into closer engagement with the hook H. This hook H is set in the post obliquely
85 to the direction of the gate when closed, so that as the gate is drawn backwardly by the cam action of its corner *a* the lateral end of the hook binds against the web of the top rail and the body portion of the hook binds
90 against the web portion of the end rail of the gate-frame, gripping the gate so firmly that it cannot be easily dislodged from the hook without drawing it slightly forward. The
95 length of the lateral portion of the hook K is such that this retraction of the gate does not release it from engagement with this hook.

Instead of using the hook K a notch P may be cut in the web of the end rail of the gate-frame and a headed pin *p* may be set in the
100 post G to engage this notch, so that in securing the gate its frame is caught over both the hook H and the pin *p*, and as the gate settles

back by reason of the action of the cam *a* the notch *P* engages the pin *p*, thereby effectually preventing the gate from being raised without being first drawn forwardly. The head
5 of the pin *p* secures the gate against pressure upon its opposite side.

When the hook *K* is used, a pin *O*, preferably permanently secured to the post *G* by means of a piece of chain, may be employed
10 to prevent the gate from being moved upwardly by being set through a hole *M* in the web of the end rail of the gate-frame, a socket of course being provided in the post *G* to register with this hole. When the pin *p* is used
15 in coöperation with the notch *P* or an equivalent device, it will not be found necessary to employ the pin *O*, as the locking of the gate is automatic.

While I have shown the gate-frame as being
20 formed of T-steel, any other form of frame may be employed—such, for example, as a gas-pipe frame—and it will be understood, of course, that with any modification in the form of the gate there will be a corresponding modification in the form of the rollers *d*.
25

While I have shown a gate having all of its corners rounded, the locking action is dependent only upon the rounding of the corner
30 *a*. The rounding of the other corners is incidental to the form of frame used. The cam action of the corner *a* could be secured by any other form of inclined rail for running upon the supporting-swivel.

While I have shown a cam movement for
35 retracting the gate after it has been drawn forward to engage with the latch-post, I do not desire to be restricted to this form of construction, as any means which will accomplish this retraction for the purpose of locking the
40 gate will come within the scope of my invention.

I claim as my invention—

1. The combination with a post and with a swivel-block carried thereby, of a gate supported by the block and capable of longitudinal movement thereon, the gate having the rearward end of its block-engaging track inclined downwardly.

2. The combination with a gate adapted to

slide longitudinally in opening, of a latch-
50 post, a pin projecting from such post, and means for drawing the gate longitudinally away from the latch-post, the gate having in an upright member a lateral bearing-surface adapted to be brought into engagement with
55 the pin by such movement.

3. The combination with a hinge-post and a latch-post for a gate, a bracket projecting laterally from the hinge-post and being oblique to a line connecting the two posts, a swivel-
60 block carried by the bracket, and an upturned hook projecting laterally from the latch-post obliquely as to a line connecting the two posts, of a gate supported by and adapted to slide upon the swivel-block, and having intersecting longitudinal and vertical members for engaging the hook in the latch-post, and means
65 for drawing the gate longitudinally away from the latch-post.

4. The combination with a gate having a
70 rectangular frame with a rounded upper corner at its hinge end and a notch in the inner face of its swing-end rail, of a hinge-post, a bracket projecting laterally therefrom, a swivel-block carried by the bracket and supporting and in sliding engagement with the
75 top rail of the gate-frame, a latch-post, an upturned hook set in the latch-post for engaging the upper corner of the swing end of the gate-frame, and a pin projecting from the latch-
80 post for engaging the notch aforesaid.

5. The combination with a gate having a rectangular frame with a rounded upper corner at its hinge end and a notch in the inner face of its swing-end rail, of a hinge-post,
85 a bracket projecting laterally therefrom, a swivel-block carried by the bracket and supporting and in sliding engagement with the top rail of the gate-frame, a latch-post, an upturned hook set in the latch-post for engaging
90 the upper corner of the swing end of the gate-frame, and a headed pin projecting from the latch-post for engaging the notch aforesaid.

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