

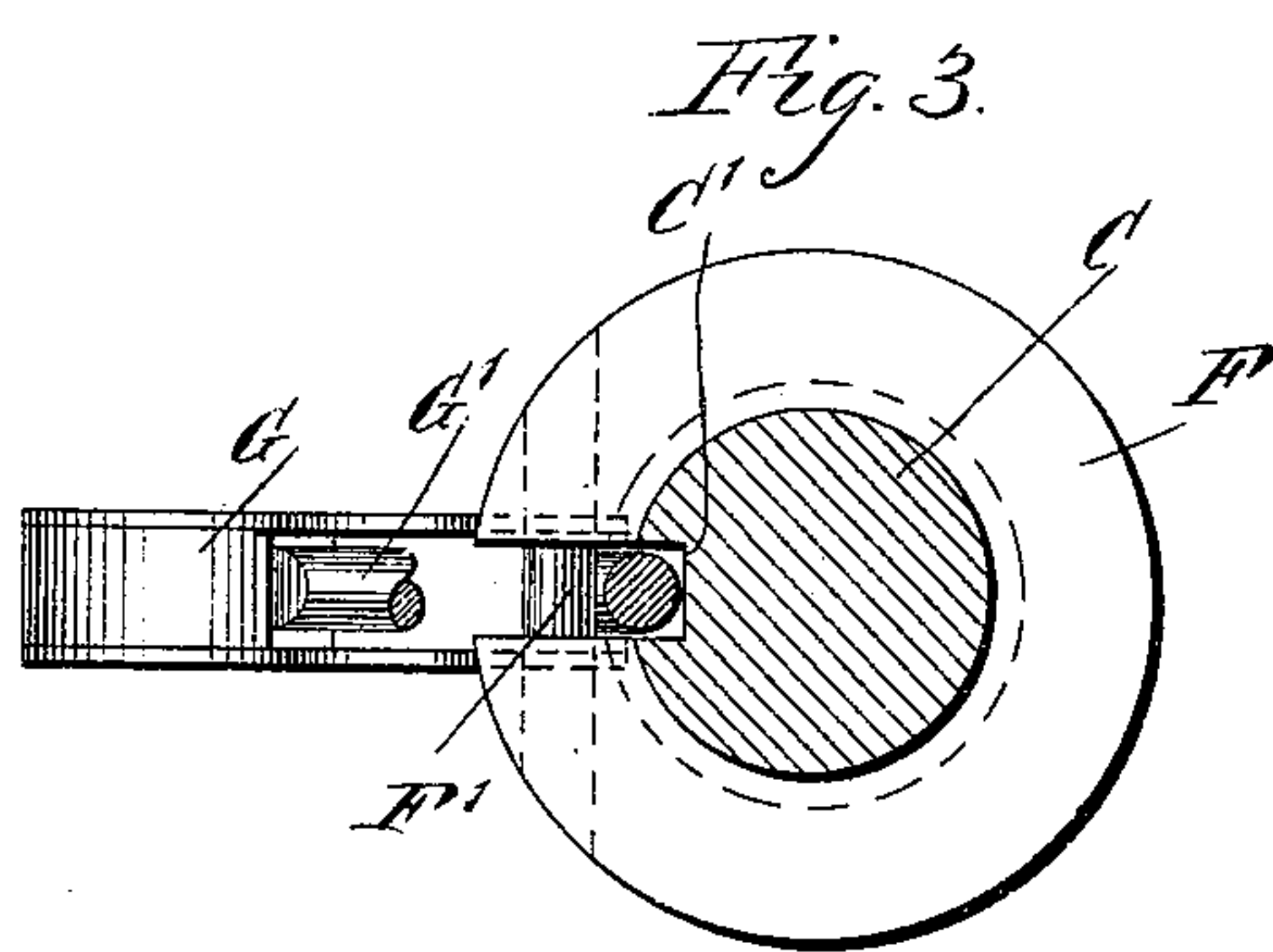
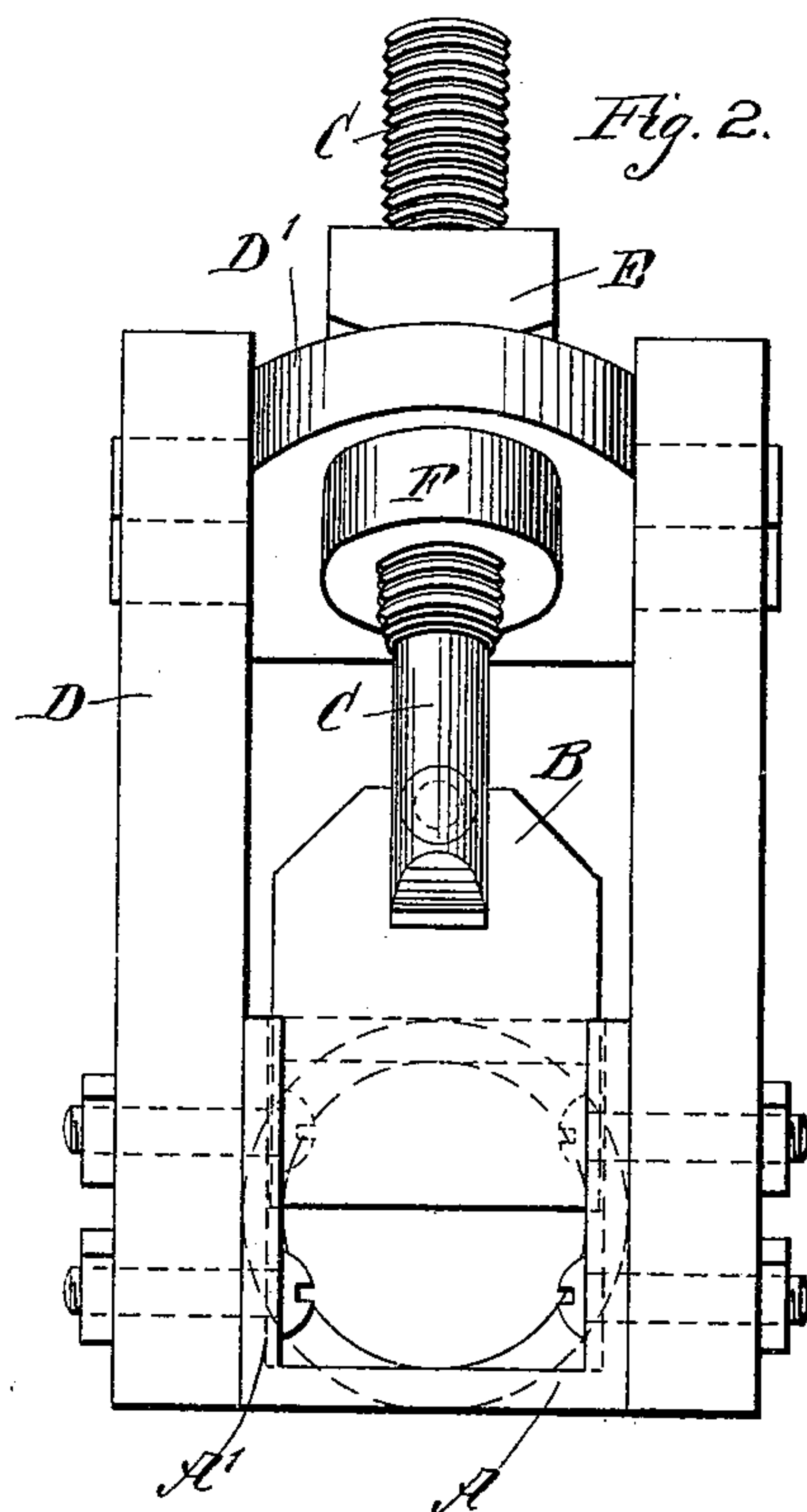
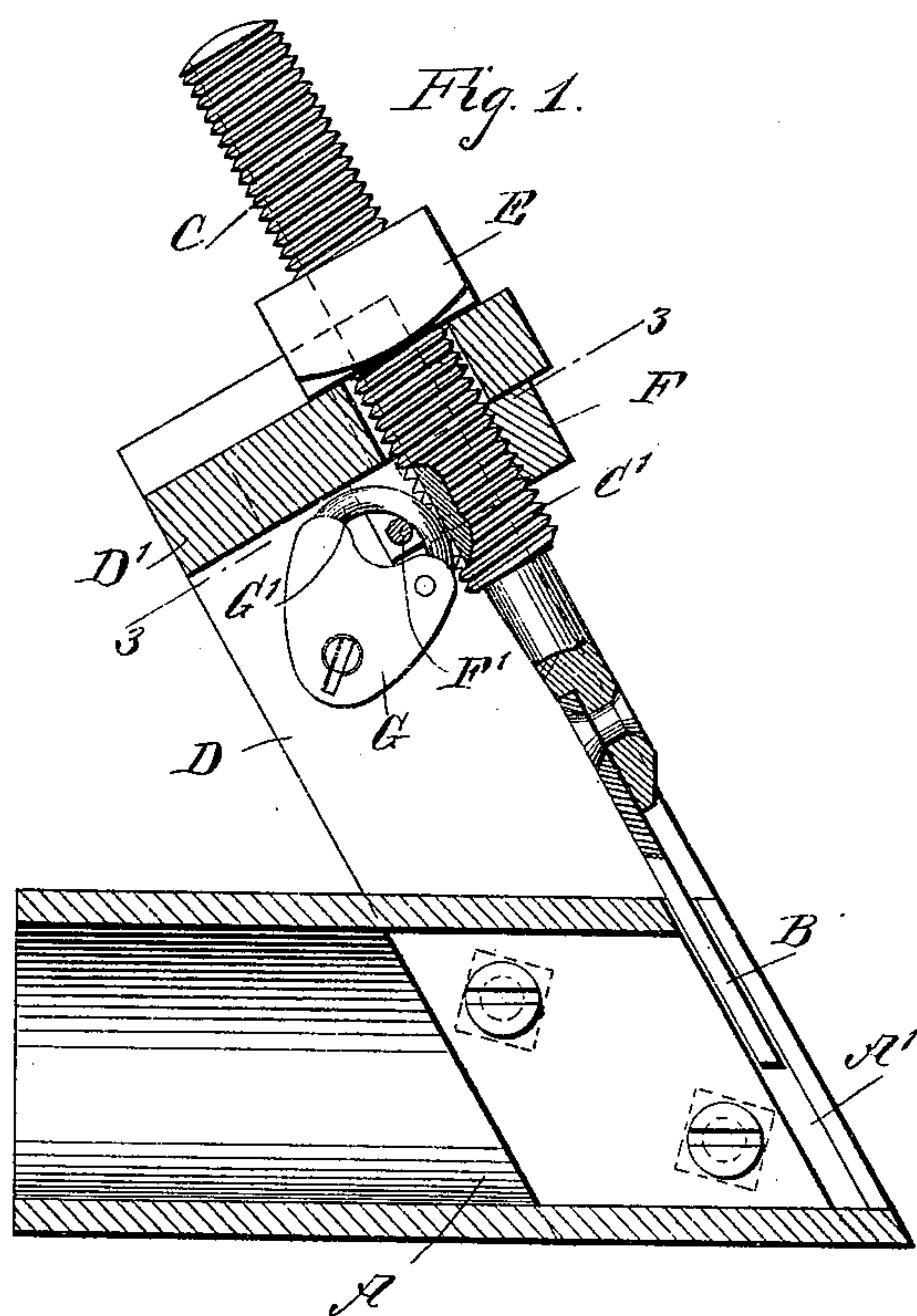
No. 631,667.

Patented Aug. 22, 1899.

B. F. POWELL.  
HEAD GATE LOCKING DEVICE.

(Application filed Mar. 14, 1899.)

(No Model.)



WITNESSES:

*L. Olmquist.*  
*W. G. Rooster.*

INVENTOR

*Benjamin F. Powell.*

BY

*Munn*

ATTORNEYS.



# UNITED STATES PATENT OFFICE.

BENJAMIN F. POWELL, OF MANZANOLA, COLORADO.

## HEAD-GATE-LOCKING DEVICE.

SPECIFICATION forming part of Letters Patent No. 631,667, dated August 22, 1899.

Application filed March 14, 1899. Serial No. 709,012. (No model.)

*To all whom it may concern:*

Be it known that I, BENJAMIN F. POWELL, of Manzanola, in the county of Otero and State of Colorado, have invented a new and Improved Head-Gate-Locking Device, of which the following is a full, clear, and exact description.

The object of the invention is to provide a new and improved head-gate-locking device designed for use on the gates of outlets from irrigating-canals and other water-supplies and waterways and arranged to allow of conveniently and quickly opening or closing the gate, but prevent raising the gate beyond the height allowed by the authorities in charge of the canal or waterway.

The invention consists of novel features and parts and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional side elevation of the improvement. Fig. 2 is a front elevation of the same, and Fig. 3 is an enlarged sectional plan view of part of the improvement on the line 3 3 in Fig. 1.

The outlet A from an irrigating-canal or other waterway is provided at its discharge end with inclined guideways A', in which is fitted to slide a head-gate B, secured at its upper end to a screw-rod C, extending loosely through the cross-bar D' of a framework D, riveted or otherwise fastened to the sides of the outlet A adjacent to the guideways A'. On the upper end of the screw-rod C screws a nut E, the under side of which abuts against the top of the cross-bar D', so that when the nut is turned in one direction the screw-rod C moves upward and carries the gate B along to open the outlet A, and when the nut is turned in the opposite direction the screw-rod C moves downward to close said gate B.

On the screw-rod C below the cross-bar D' is mounted to turn a threaded collar or nut F, split at one side and having a transverse pin F' extending through the split, as is plainly indicated in Figs. 1 and 3, the ends of the pin being secured in the collar or nut F. The pin F' is adapted to be engaged by the curved

bolt G' of an ordinary padlock G, said bolt also extending into a keyway C', formed lengthwise of the screw-rod C, so that when said bolt engages the pin F' and extends in the keyway C' and the bolt is locked in the usual manner then the collar F cannot be turned on the screw-rod. The collar F is adjustable on the screw-rod C and locked in place thereon by the authorities in charge of the canal or waterway to prevent the gate B from being raised beyond a certain height, gaged by the collar F, abutting against the under side of the cross-bar D'. Thus when the screw-rod C is moved upward by turning the nut E, as described, to open the gate B then the collar F will finally come in contact with the under side of the cross-bar D' to prevent further upward movement of the rod C—that is, prevent further opening of the gate B. It is understood that when the nut E is turned in the opposite direction and the gate B is closed then the collar F and lock G move bodily with the screw-rod C and out of engagement with the cross-bar D'.

When it is desired to adjust the collar F on the screw-rod C, an authorized person opens the padlock G with the proper key and then removes the bolt G' from the pin F' and the keyway C' to allow of turning the collar on the screw-rod until the desired position is obtained. When this has been done and the pin F' stands in front of the keyway C', then the padlock is again applied, as before explained, to lock the collar F against rotation on the screw-rod C'.

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

1. A head-gate, provided with a raising and lowering device, and an adjustable lock for limiting the opening movement of said device, as set forth.

2. A head-gate provided with a gate proper, a raising and lowering device for said gate, and an adjustable lock on said raising and lowering device, for limiting the opening movement of the device, as set forth.

3. A head-gate provided with a slidable gate, a screw-rod on said gate, means for moving the screw-rod to open or close the gate, a collar on said screw-rod and in the form of a nut to screw on said screw-rod, the said collar

serving to limit the opening movement of the gate and a lock for locking said collar against turning on said screw-rod, substantially as shown and described.

5 4. A head-gate provided with a slidable gate, a screw-rod on said gate, a fixed framework through which passes the screw-rod, a nut screwing on said screw-rod, for moving the latter to open or close the gate, a collar  
10 in the form of a nut and screwing on said screw-rod, and a lock for locking said collar to the screw-rod, to form a limiting device for the movement of the screw-rod, said collar being adapted to abut against the framework,  
15 substantially as shown and described.

5. A head-gate provided with a raising and lowering device, an adjustable device for limiting the opening movement of the gate, and means for locking the said device in the ad-  
20 justed position, substantially as described.

6. The combination with a gate fitted to slide in suitable guideways, a screw-rod extending upward from the gate and passing through a fixed cross-bar, the said screw-rod being provided with a longitudinal keyway 25 and a nut on the upper end of said screw-rod and arranged to bear against the top of the cross-bar, of a threaded collar or nut adjustable on the screw-rod below the cross-bar the said collar or nut being open at one side and 30 having a transverse pin extending across the opening, and a lock having a bolt adapted to engage said pin and extend into the keyway in the screw-rod to lock the collar to the screw-rod, substantially as described.

BENJAMIN F. POWELL.

Witnesses:

J. N. BEATY,  
G. M. HALL.