

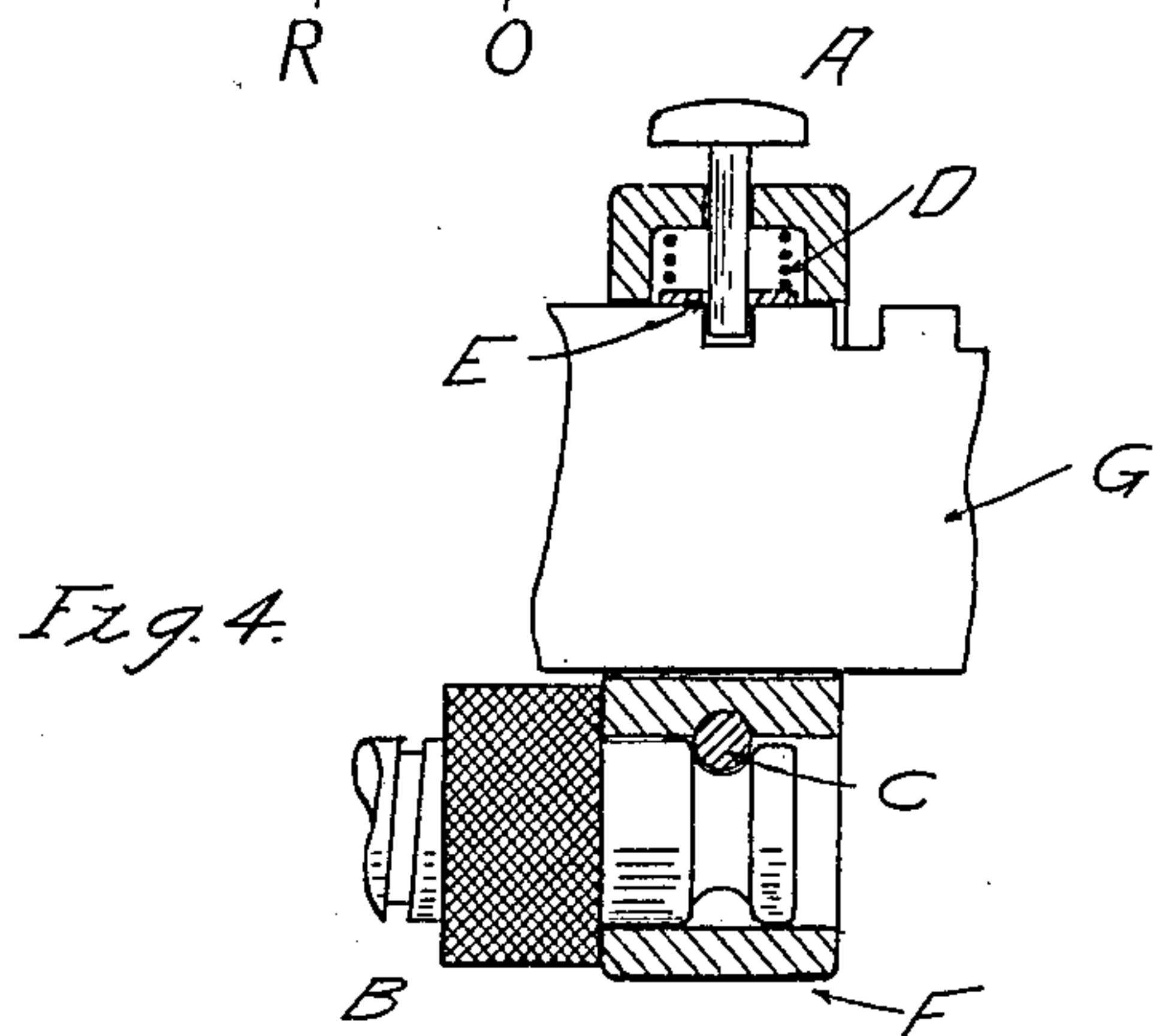
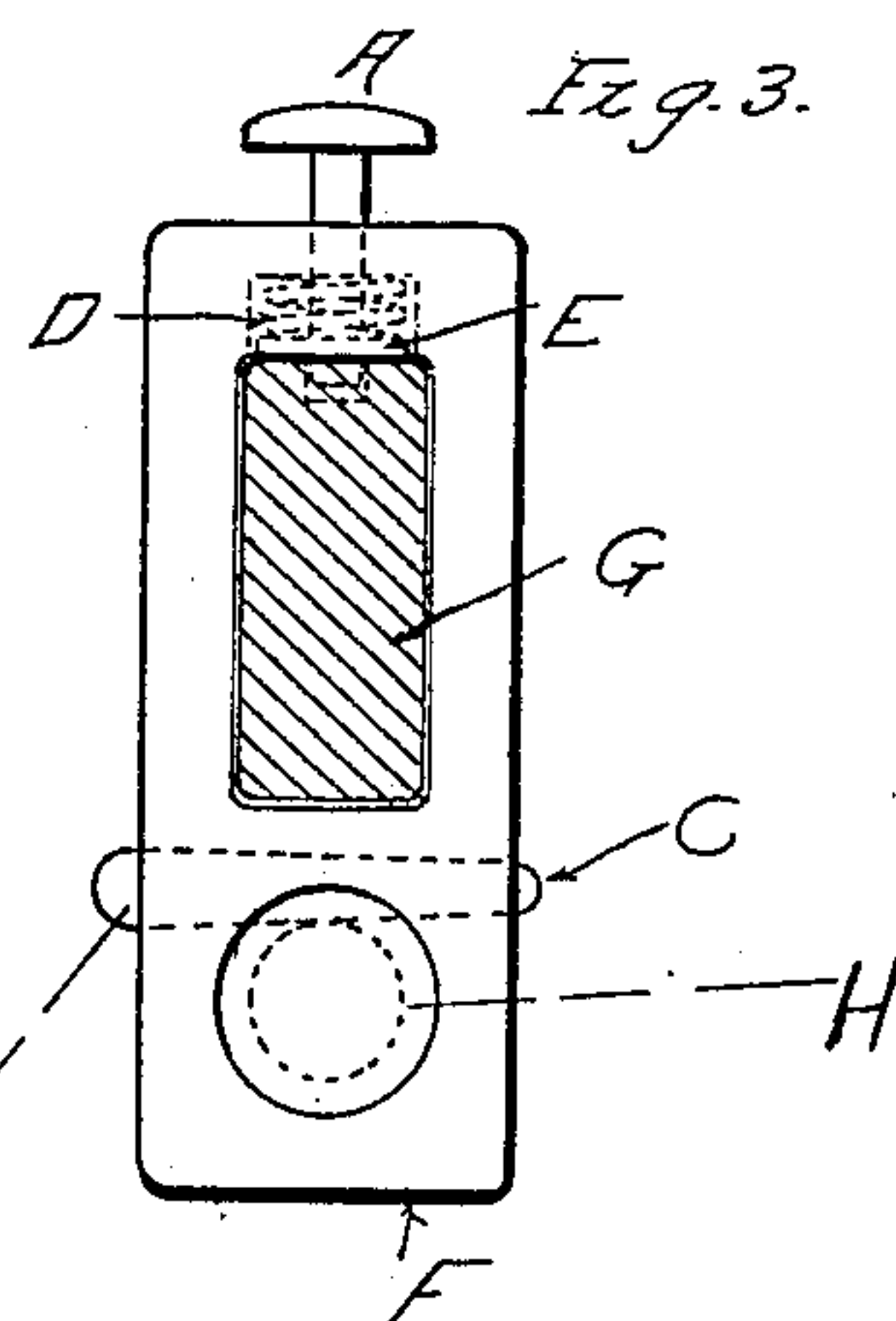
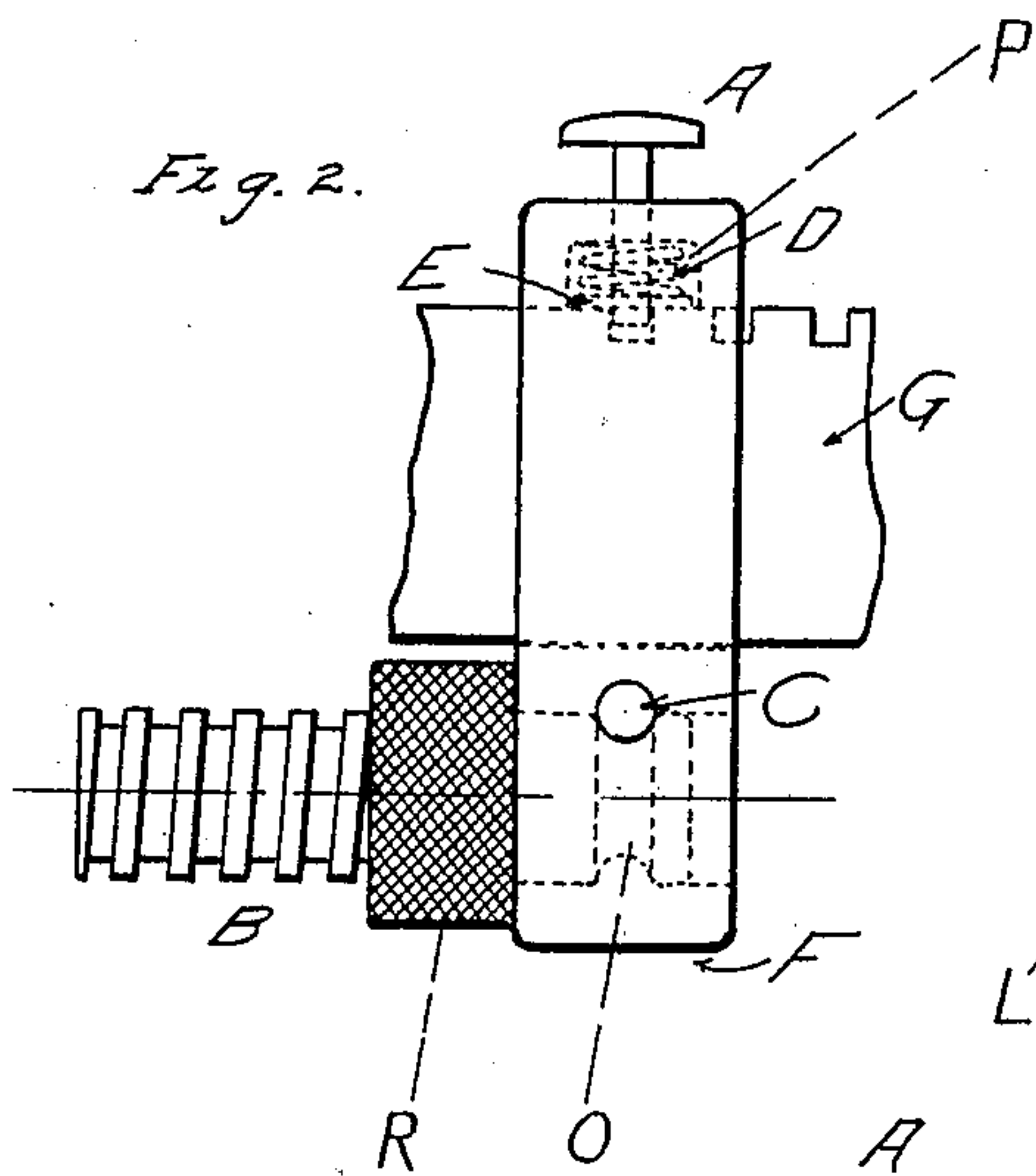
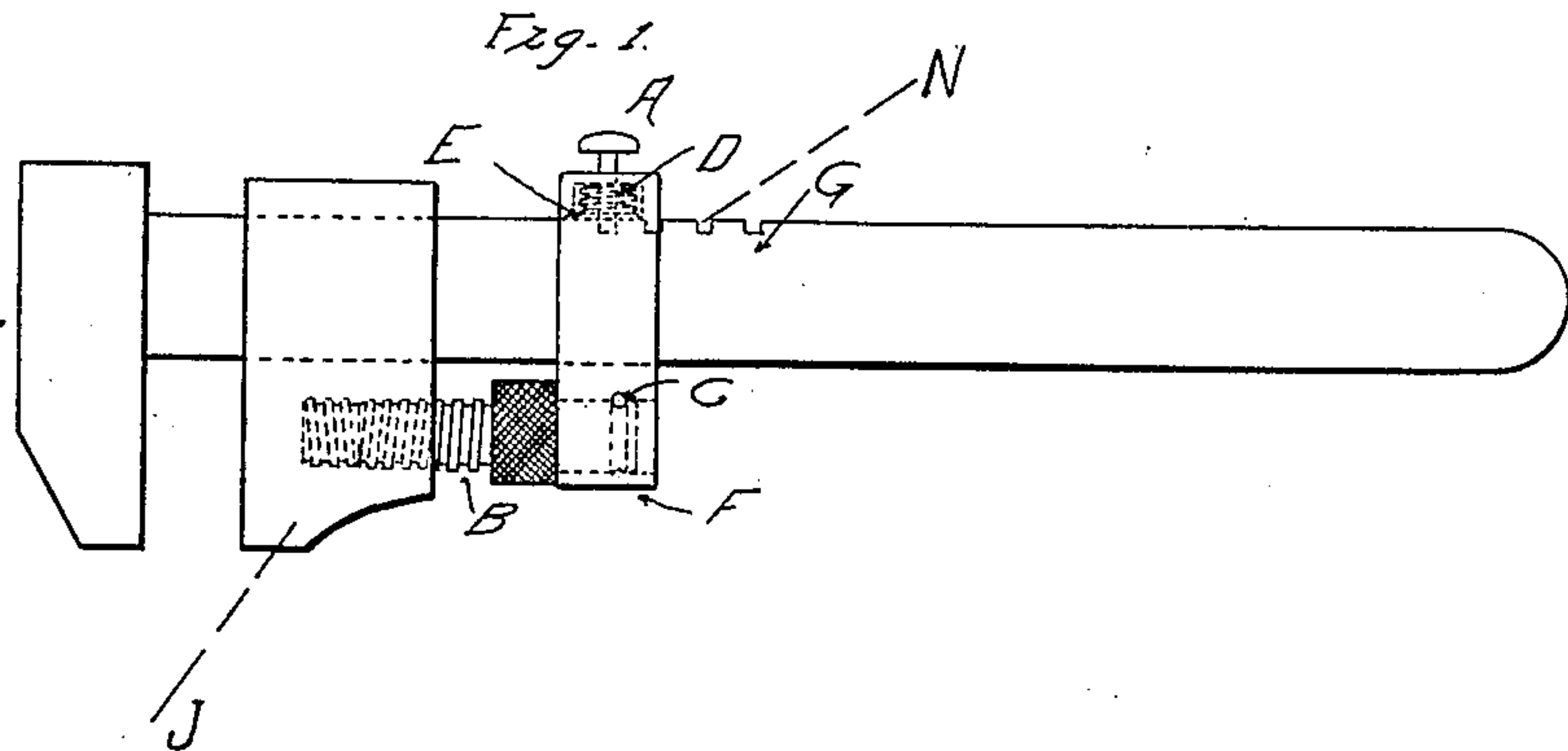
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WRENCH.

APPLICATION FILED FEB. 8, 1908.

906,695.

Patented Dec. 15, 1908.



Witnesses.
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UNITED STATES PATENT OFFICE.

HARVEY DAVIS, OF NILES, AND DONN C. BURROWS, OF WARREN, OHIO.

WRENCH.

No. 906,695.

Specification of Letters Patent.

Patented Dec. 15, 1908.

Application filed February 8, 1908. Serial No. 415,004.

To all whom it may concern:

Be it known that we, HARVEY DAVIS and DONN C. BURROWS, citizens of the United States, residing at Niles and Warren, respectively, in the county of Trumbull and State of Ohio, have invented certain new and useful Improvements in Wrenches, of which the following is a specification.

Our invention relates to improvements in wrenches in which a sliding member carries one jaw of the grasping mechanism which, in use, closes upon nuts, bolts, pipes and the like; and the objects of our improvement are, first, to provide means for rapidly bringing the jaws of a wrench together into approximate contact with the article that is to be grasped, and save the time and trouble necessitated by the use of wrenches, as now made, in which the approach of the jaws is entirely effectuated by the turning of a milled nut on a threaded screw; second, to lock said jaws in said position automatically; and third, to provide means for quickly completing the grasp of said jaws to one of positive retention of the article grasped. We attain these objects by the mechanism illustrated in the accompanying drawing, in which,

Figure 1, is a side elevation of the entire wrench; Fig. 2, is an enlarged view of the portion of a wrench that contains our invention; Fig. 3, is a transverse sectional view of the part shown in Fig. 2; and Fig. 4, is a view of the parts shown in Fig. 2, showing the same in section.

Similar letters refer to similar parts throughout the several views.

The handle of a wrench, G, passes through the usual collar F, and is constructed with a plurality of notches N, at suitable intervals on its upper edge. The collar F, is made with a pocket P, to contain a spring D, and a washer E, and through which passes, the lower part of a retaining key A, which may be made in one piece with washer E, or be attached to it; and which is held normally in engagement with one of the notches N, by the spring D. The collar F, has a hole H, through it, near the bottom, for the entrance of the threaded arm B, and has a smaller hole C, through it, perpendicular to the course of

the hole H, and cutting tangentially across the circumference of the hole H, and preferably, slightly tapered, into which a peg L, preferably tapered also, is driven.

B, is a threaded bar that serves to move the jaw J, along the wrench handle G, as the milled thumb-ring R, is turned, and is restrained from lateral motion in the collar by the annular groove O, and the pin L.

In operation, instead of making many turns of milled ring R, as is necessary in other wrenches to close or separate the jaws of the wrench, it is only necessary to release the key A, slide the collar as far as desired, permit the key to lock into the nearest notch N, and give the nut R a half turn to firmly clamp the jaws on any object.

As a preferred form and for simplicity of illustration, we have shown our invention adapted to a monkey wrench; but it is apparent that it is equally well and similarly adapted to pipe wrenches, or wrenches or grasping tools having any form of jaws whatsoever. It is obvious that the notches N, can be placed on either side or the bottom of the handle G, quite as well as on its top.

We are aware that the jaw J, the screw B, and the ring R, are in common use and do not broadly claim them; but

We claim:

In a wrench, a shank provided with a plurality of spaced notches and carrying a stationary jaw, a movable jaw, and a member coöperating with the latter to move the same, a movable pin carried by said member and projecting thereinto, said pin carrying, interiorly of said member, a washer bearing normally upon said shank, the lower portion of said pin projecting below said washer and adapted to engage one of said notches, and a coiled spring disposed interiorly of said member, surrounding said pin and bearing against said washer, to maintain the pin normally in engagement with one of said notches.

In testimony whereof we affix our signatures in presence of two witnesses.

HARVEY DAVIS.
DONN C. BURROWS.

Witnesses:

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