No. 773,229. PATENTED OCT. 25, 1904.

L. H. SCHEPMAN.

MONKEY WRENCH.

APPLICATION FILED DEC. 21, 1903.

NO MODEL.

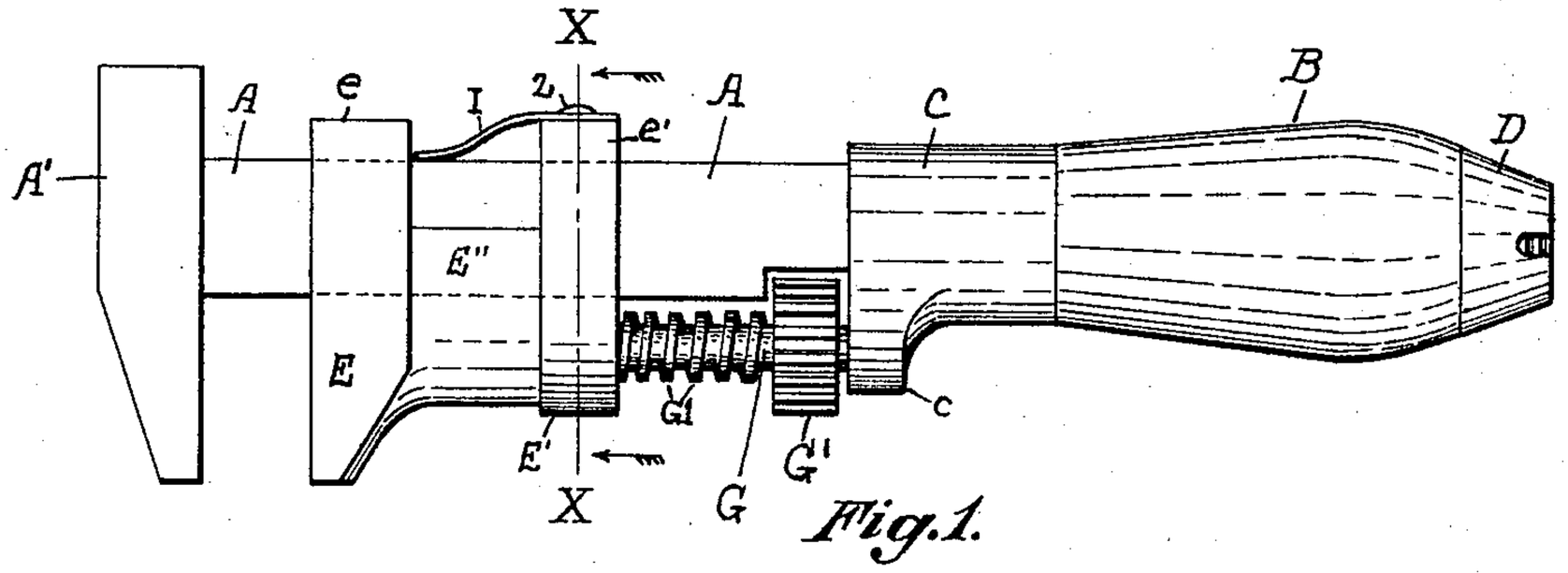

Fig. 1.

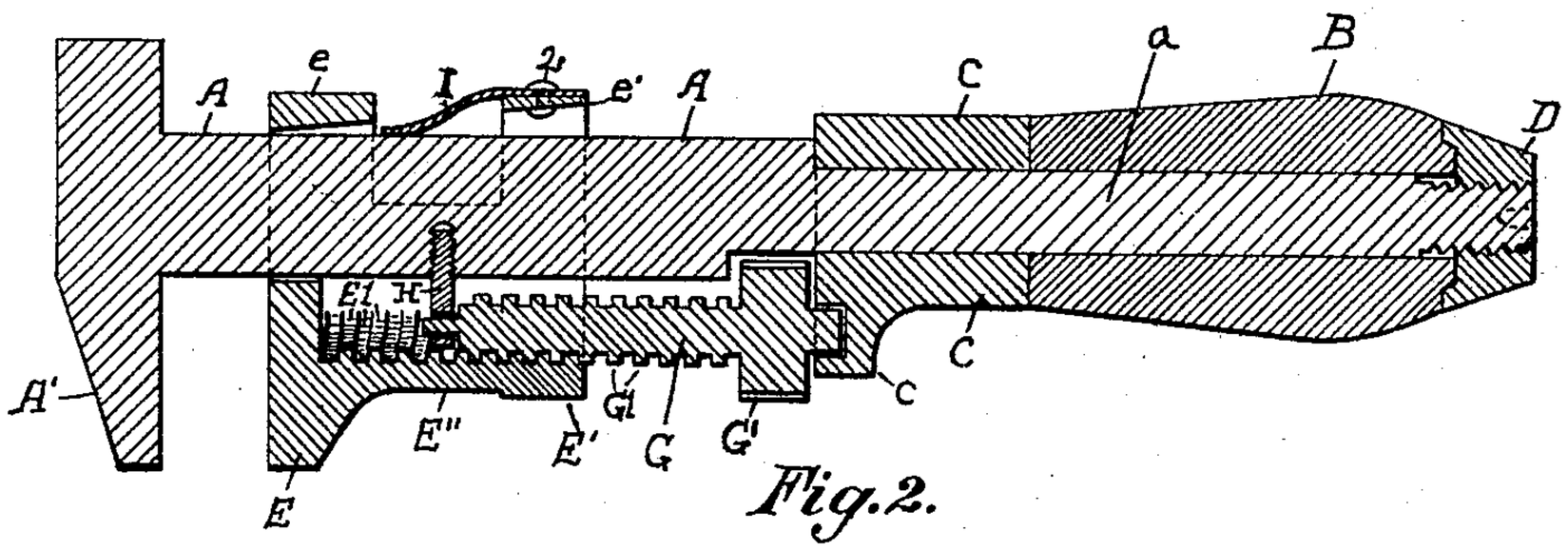

Fig. 2.

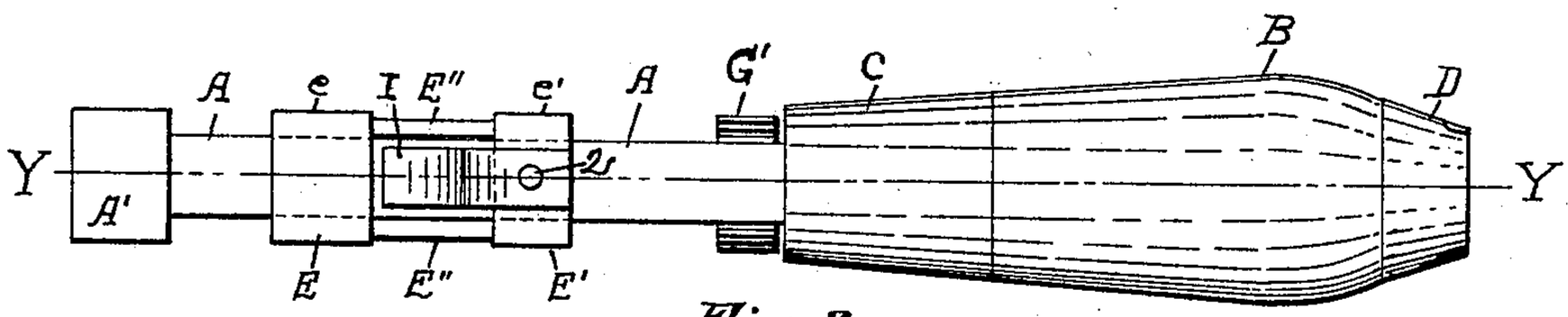

Fig. 3.

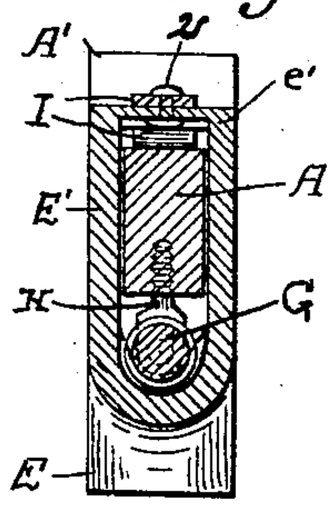

Fig. 4.

Fig. 5.

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No. 773,229. Patented October 25, 1904.

UNITED STATES PATENT OFFICE.

LOUIS H. SCHEPMAN, OF RICHMOND, INDIANA.

MONKEY-WRENCH.

SPECIFICATION forming part of Letters Patent No. 773,229, dated October 25, 1904.

Application filed December 21, 1903. Serial No. 185,937. (No model.)

To all whom it may concern:

Be it known that I, LOUIS H. SCHEPMAN, a citizen of the United States, residing in the city of Richmond, in the county of Wayne and State of Indiana, have invented certain new and useful Improvements in Monkey-Wrenches, of which the following is a complete specification, which when taken in connection with the accompanying drawings, forming a part thereof, will be found sufficiently clear and concise as to enable others skilled in the art to which it appertains to make and use the same.

My present invention does not contemplate a radical departure from the principles heretofore involved in devices of this general character, but rather the adoption of well-known principles with their mechanical elements reduced to their simplest propositions and as a natural sequence accentuating the utilitarian residual benefits and adapting them to subserve the highest economic ends with a minimum of mechanical elements.

The object of my present invention, broadly speaking, is to provide a wrench composed of coöperating interdependent, and subsidiary mechanical parts arranged and combined to produce the highest degree of efficiency.

A more specific object is to provide a wrench capable of quick and positive adjustment to a great variety of nuts or the like; to provide a wrench composed of the fewest possible number of parts; to provide a wrench that will be neat and attractive in appearance and capable of a wide scope of usefulness and efficiency; to provide a wrench which may be adjusted to any desired span of the jaws with a single hand of the operator and that in an instant of time; to generally improve the construction and operation of wrenches of this character, and to provide an adjustable wrench which can be manufactured and sold at a comparatively low price.

Other objects and advantages of my invention will appear from the following detail description and from the drawings forming a part thereof and as specifically set forth in the terminal claims.

This invention consists in an adjustable wrench embodying certain new and useful features and details of construction and relative disposition of the several parts, substantially as particularly described elsewhere in this specication and in the legitimate combinations herein set forth.

In order to make the construction and operation of my wrench more clear, I will now take up the detail description thereof, which I will refer to as briefly and compactly as I may.

One manner of carrying out the objects of my invention in a practical manner and that which in practice I have found the most desirable is illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of my entire invention complete. Fig. 2 is a longitudinal central section of same, taken on the line Y Y of Fig. 3. Fig. 3 is a top plan view of same. Fig. 4 is a cross-section of same taken on the line X X of Fig. 1, and Fig. 5 is a detail isometrical view of the hanger for the forward end of the screw-shaft thereof.

Similar indices refer to and denote like parts throughout the several views of the drawings.

In the accompanying drawings the indice A denotes the body-bar, rectangular in cross-section, having on its forward end the fixed head A′ integral therewith and an integral handle-bar *a*, of less diameter and of substantially same length, extending to the rear in alinement therewith and having a screw-thread on its free end.

The letter B denotes the removable substantially round handle surrounding the handle-bar *a* and adapted to be secured by the round nut D, abutting thereagainst and coincidingly threaded to said threaded end of the handle-bar *a*, substantially as shown.

The indice C denotes the breast-step, which is of greater diameter than is the bar A and is adapted to abut thereagainst and surround the bar A. An integral lug portion *c*, opposite the inner lower face of the jaw A′, extends down from the breast-step and has a bearing-cavity in its face to provide an axle-bearing for the rear end of the shaft G, hereinafter referred to.

The indice E denotes a movable jaw; E′, a follower therefor and some distance therefrom and connected integrally therewith by the camber E″ and adapted to slide on the

body-bar A, to which bar said parts are slidably connected by the loops *e* and *e'*, as shown. The channel formed for the bar A through the member composed integrally of the jaw E, the follower E', the camber E'', and the loops *e* and *e'* is of a size at its forward end only slightly greater than the diameter of said bar, while the upper edge thereof slopes upward and rearward, whereby the size of said channel at its rear is somewhat greater vertically than at its forward end, as indicated in Fig. 2, the purpose of which will presently appear.

Secured in the center of the under side of the bar A, slightly forward of its length, is a screw-eye hanger H, threaded into said bar, as shown, and providing a pivotal bearing for the forward end of the shaft G. The said shaft G is provided with a pivot on both its forward and rear ends, as shown, and operative revolubly in the respective bearings referred to, and integral with said shaft G, immediately forward of the rear pivot, is a knurled rosette G', by which the shaft G may be manually rotated, and the periphery of said shaft between the forward pivot and the said rosette is provided with square spiral threads G', as indicated.

As is apparent, a cavity is formed in the follower E' and camber E'' below the bar A, opening only to the rear and of a length such that when the follower impinges the rosette G' the forward end will impinge (or nearly so) the hanger H. The lower inner face of said cavity is of such contour or curvature as the periphery of the threads of the shaft G, and said curved portion is provided with square threads E', corresponding with and adapted to engage the threads G', above referred to.

Secured by a rivet 2 on top of the loop *e'* or on the loop *e* is a flat spring I, projecting toward the opposite loop and having its free end resting resiliently on the upper surface of the bar A, by which the threads G' and E' are normally kept in engagement with each other.

Operation: It will now be apparent that the movable jaw E may be moved back and forth in the usual manner by revolving the rosette G', or, more particularly, the jaw E may be moved back and forth instantaneously by disengaging the threads E' from the threads G'—that is to say, by pressing down on the loop *e'*. From the above it will be seen that by pressing down on the loop *e'* the movable jaw may be quickly slid back to allow the jaws to span a nut and then instantly brought into engagement with the two sides thereof, then by releasing the pressure on the loop *e'* the threads E' will engage the threads G', and then to make the adjustment on the nut more positive the rosette G' may be turned until the two jaws are brought tightly in contact with the nut, and the release from the nut may evidently be made by the reverse operation.

From the above description, taken in connection with the accompanying drawings, it will be made manifest that I have produced an improved wrench embodying the objects referred to previously herein.

While I have illustrated and described the best means known to me for carrying out the objects of my invention in a practical manner, I desire that it be distinctly understood that I do not restrict myself to the exact details of construction shown and described, but hold that any slight changes or variations or changes therein as would suggest themselves to the ordinary mechanic would clearly fall within the limit and scope of my invention.

The terms "back and forth," "upper," "lower," and other similar terms are used for convenience of description only, and it is not intended by the use of such terms to limit the arrangement and operation of the several parts, but rather to indicate their relative location and operation in this instance.

Having now fully shown and described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

In a monkey-wrench, the combination, a body-bar having a fixed head, a handle, and a breast-step; a member slidable on said bar between said head and breast-step; said member consisting of a movable jaw adapted to engage the face of the fixed jaw, a follower to approach the breast-step, a camber integrally uniting said movable jaw and the follower, and loops extending from the movable jaw and from the follower over said body-bar; threads formed on the lower curvature of inner face of the follower and the camber; a screw-eye hanger threaded into and extending down from the under side of the body-bar into the chamber formed in the camber and the follower and continuously inclosed thereby; a threaded shaft pivoted at one end in said screw-eye hanger and pivoted at the other end in said breast-step; a rosette adjoining said breast-step and formed integral with said shaft; a spring secured at one end to the center of the upper surface of one of said straps with its free end resting on the upper surface of the body-bar; means for actuating the movable jaw by revolving said rosette; and means for sliding the movable jaw after disengaging it from the threads of said shaft by pressing down against the force of said spring, all substantially as shown and described.

In testimony whereof I have hereunto signed my name to this specification in the presence of two subscribing witnesses.

LOUIS H. SCHEPMAN.

Witnesses:
R. W. RANDLE,
R. E. RANDLE.