J. ERTEL.

WRENCH.

APPLICATION FILED OCT. 9, 1908.

911,814. Patented Feb. 9, 1909.

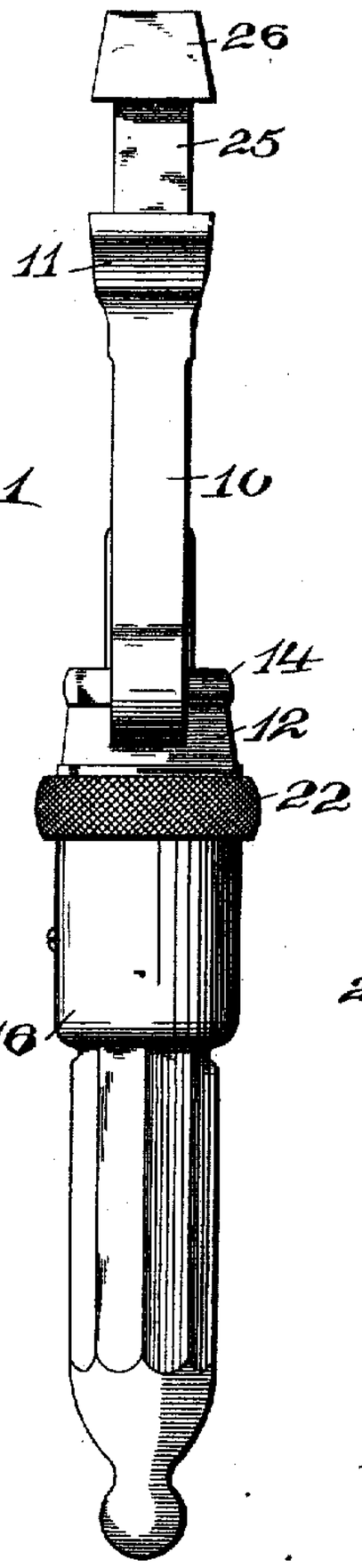

Fig. 1

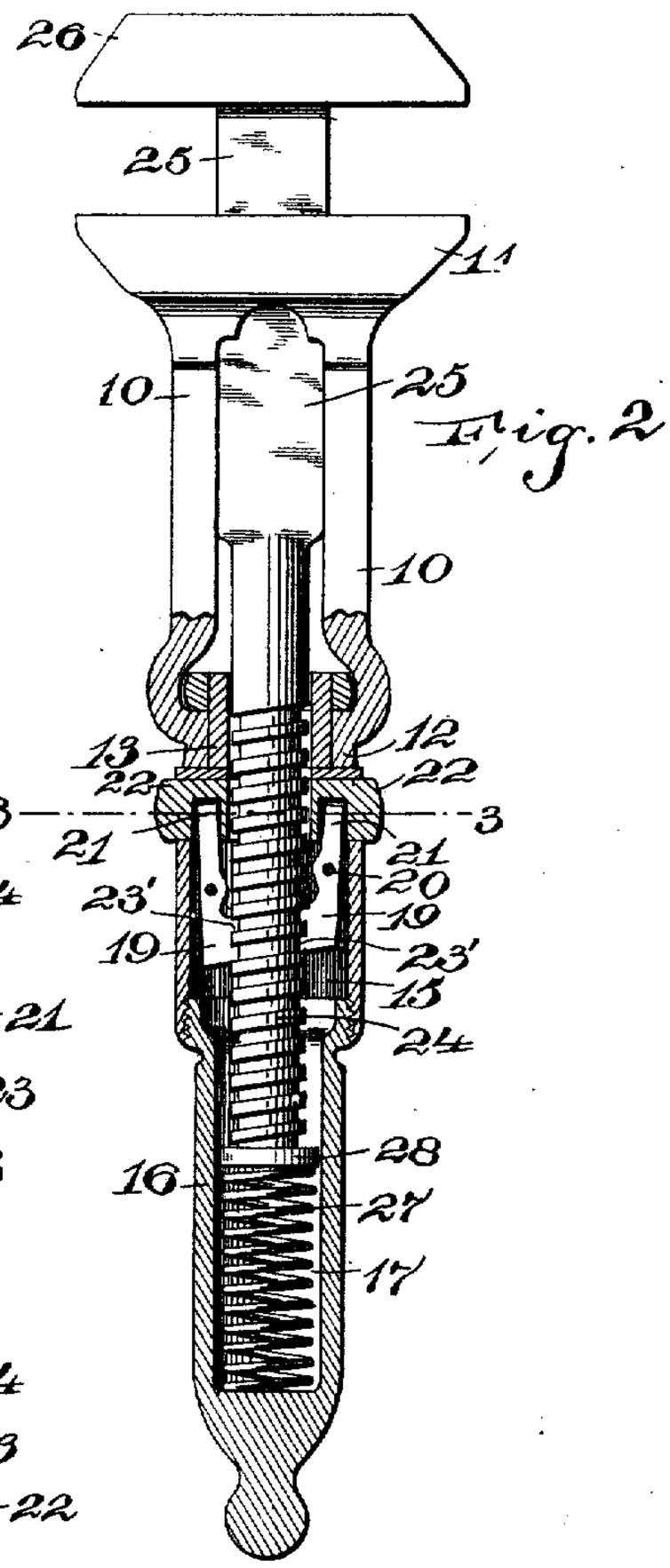

Fig. 2

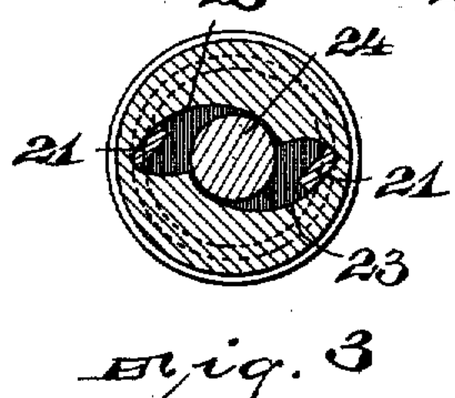

Fig. 3

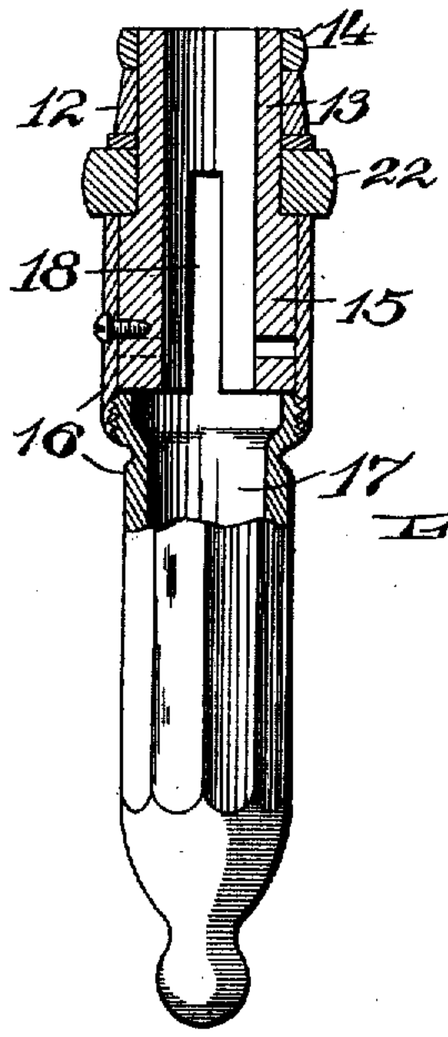

Fig. 4

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WRENCH.

No. 911,814. Specification of Letters Patent. Patented Feb. 9, 1909.

Application filed October 9, 1908. Serial No. 456,898.

To all whom it may concern:

Be it known that I, JOHN ERTEL, a citizen of the United States, residing at Newark, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in Wrenches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to figures of reference marked therein, which form a part of this specification.

This invention relates to a monkey-wrench and comprises a wrench having means for accurately adjusting the jaws of the same, and also provides means for easily and quickly releasing the means for regulating the relation between the jaws, so that the jaws can be slid apart or together without any hindrance, and the device also embodies a spring or similar means for forcing the jaws to their outward limits of movement when the adjusting means is released.

The device embraces a fixed jaw having a handle rotating on one end thereof, and a sliding shank on the fixed jaw having a jaw to coöperate with the fixed jaw, the handle being adapted to be turned and having means for regulating the relation of the jaws to each other, that is, means for withdrawing or projecting the sliding jaw from the handle on the fixed jaw, the handle being adapted to contain a spring to force the sliding jaw outwardly when the device for operating the sliding jaw is released.

The invention illustrated in the accompanying drawing, in which—

Figure 1 is an edge view of a monkey-wrench, and Fig. 2 is a side view of the same, but with the lower part shown in section. Fig. 3 is a horizontal section on line 3, 3, in Fig. 2, and Fig. 4 is a section of the handle, the lower part being shown in elevation.

The device consists of a yoke 10 which may be of any number of particular forms, but is preferably made as shown, that is having the flanking upright pieces terminating at the top in a jaw 11 and at the bottom in a ring 12. This ring forms a bearing into which is fitted the portion 13 of the handle, it being rotatable therein, and the withdrawal of the handle is prevented by a collar 14. The portion 13 of the handle is an extension of a block 15 which fits into the hollow portion 16 which forms a chamber 17, and this portion also forms the main handle for the manipulation of the wrench and also for its adjustment. The block 15 has a slot, as at 18, into which are fitted the levers 19, these levers being pivoted at 20 and having the ends 21 extending up into slots 23 in a ring 22. The levers are notched as at 23′ so that when these notches are swung toward each other they engage the screw-threaded portion 24 of the shank 25 which slides through the yoke 10 and the jaw 11 and is provided, on its end, with the movable jaw 26. The slot 23 is a cam slot and when the ring 22 is rotated in one direction, the ends 21 of the levers are drawn inward and the notched portions are thrown out of mesh with the screw-threads 24, and a spring 27 in the handle, having one end abutting on the end of the chamber 17 and the other end abutting on the end 28 of the sliding shank 25, immediately snaps the sliding shank and its jaw 26 out to their limit of movement and of course permits the shoving together of these elements to their inward limit of movement so that an instantaneous adjustment from one extreme to the other is possible. In the meantime the one hand of the operator grasps the handle 16 and with the thumb and forefinger can easily turn the ring 22 so that the cam slot 23 is turned back whenever the proper time arrives, that is when the jaws are properly adjusted, and the levers 19 are swung so that the notched ends engage the screw-threads 24 of the sliding shank 25, and the shank is securely held in any position to which it has been slid.

This wrench has its parts well concealed whereby they are not subjected to mutilation or damage, and is also a cheap wrench which is quickly adjusted and in which none of the parts of the handle are slid as in other constructions, and all the parts are in the same relation to each other, except the sliding jaw from the fixed jaw. This is a near approach to an ordinary monkey-wrench, but it has the advantage of being extremely rapid in its extreme adjustments.

Having thus described my invention, what I claim is:—

1. A monkey-wrench comprising a yoke having a fixed jaw thereon, a handle rotata-

bly arranged on the end of the yoke opposite the jaw, a sliding shank in the yoke and the handle and having a jaw on its free end and a screw-thread on its inner end, means in the handle for engaging the screw-thread to operate the shank when the handle is rotated to cause the jaws to be adjusted for their entire adjustment, said means holding the jaws in their adjusted position, and means on the handle for re easing the adjusting means at all points of the handle's rotation whereby the shank can be s.id in the yoke and the handle without hindrance.

2. A monkey-wrench comprising a yoke having a jaw thereon, a handle rotatably arranged on the end of the yoke opposed to the jaw, a s.iding shank passing through the yoke and into the handle having a jaw on its projecting end, screw-threads on the inner end of the s.iding shank, elements in the handle to be thrown into and out of engagement with the screw-threads, means rotatable on the handle and covering the engaging elements and also adapted to operate them, and a spring having one end abutting on the handle and its other end abutting on the end of the s.iding shank.

3. A monkey-wrench comprising a yoke having a jaw on one end, a handle rotatably arranged in the other end of the yoke, a shank adapted to s.ide in the yoke and into the handle, a jaw on the projecting end of the shank, screw-threads on the inner end of the shank, elements in the handle adapted to engage the screw-threads of the shank to place the handle and shank in screw-threaded engagement, and a ring rotatable on the handle and engaging the elements in the handle to cause them to be engaged or disengaged from the screw-threads of the shank.

4. A monkey-wrench comprising a yoke having a jaw on one end, a handle rotatably arranged in the other end of the yoke, a shank adapted to slide in the yoke and into the handle, a jaw on the projecting end of the shank, screw-threads on the inner end of the shank, elements in the handle adapted to engage the screw-threads of the shank to place the handle and shank in screw-threaded engagement, a ring rotatable on the handle and engaging the elements in the handle to cause them to be engaged or disengaged from the screw-threads of the shank, and a spring having one end abutting on the handle and its other end abutting on the end of the shank.

5. A monkey-wrench comprising a yoke having a jaw on one end, a handle rotatably arranged on the other end of the yoke, a shank adapted to s.ide through the yoke and into the handle, a jaw on the free end of the shank, screw-threads on the inner end of the shank, levers pivoted in the handle and having notched ends to engage the screw-threads of the shank, a ring rotatable on the handle and having cam slots for engaging the free ends of the levers to cause their notched ends to engage or retreat from the screw-threaded shank, and a spring between the shank and the handle adapted to force the handle and the shank to their outward limits of movement when the notched ends of the levers are disengaged from the screw-threads of the s.iding shank.

In testimony, that I claim the foregoing, I have hereunto set my hand this 9th day of September 1908.

JOHN ERTEL

Witnesses:
E. A. PELL,
WM. H. CAMFIELD.