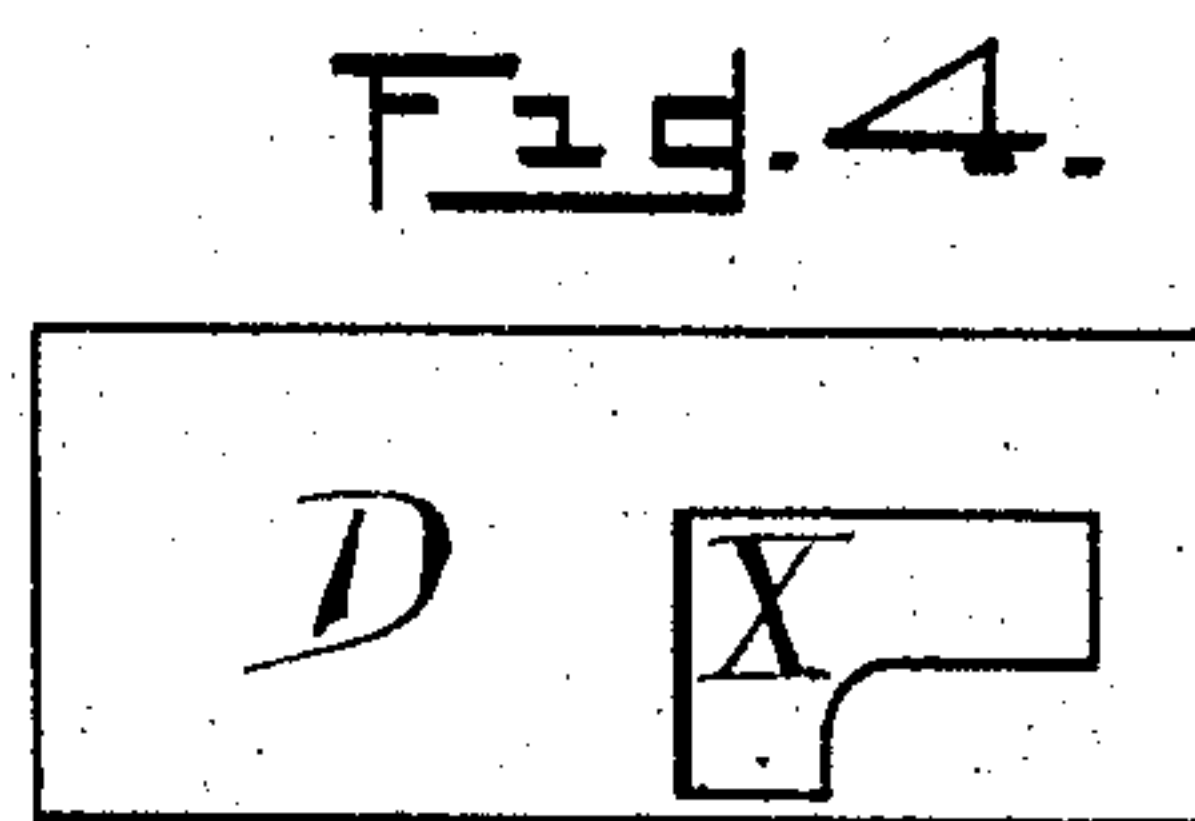
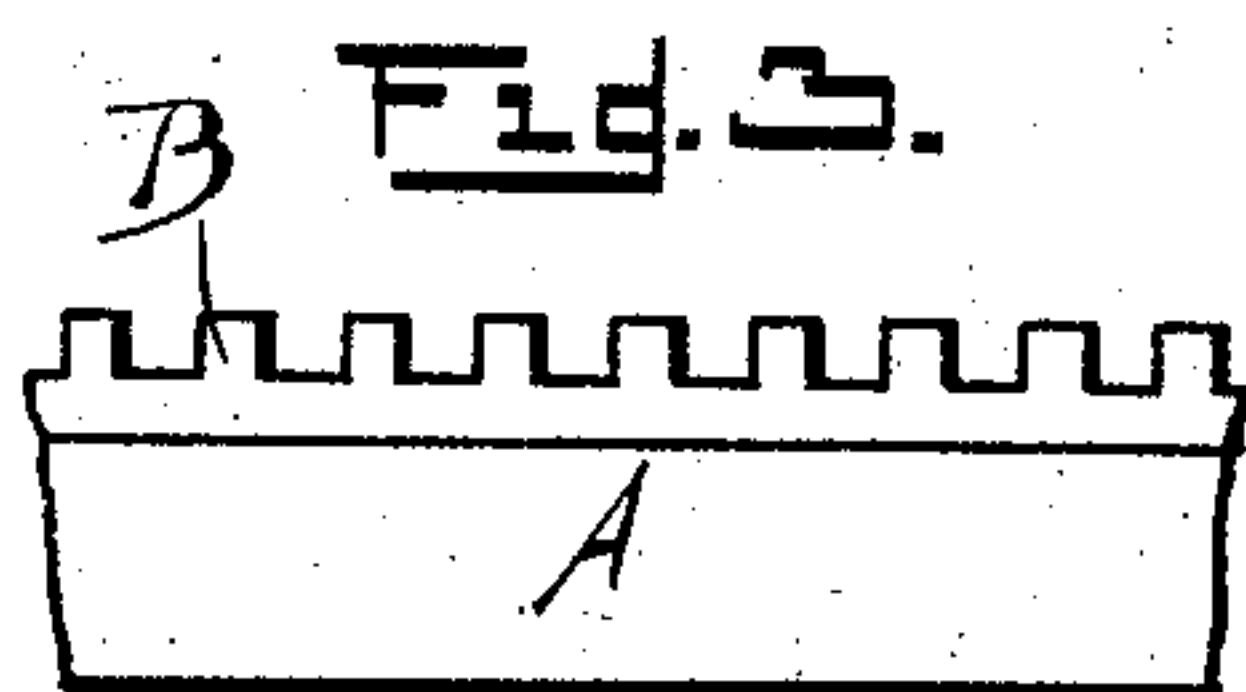
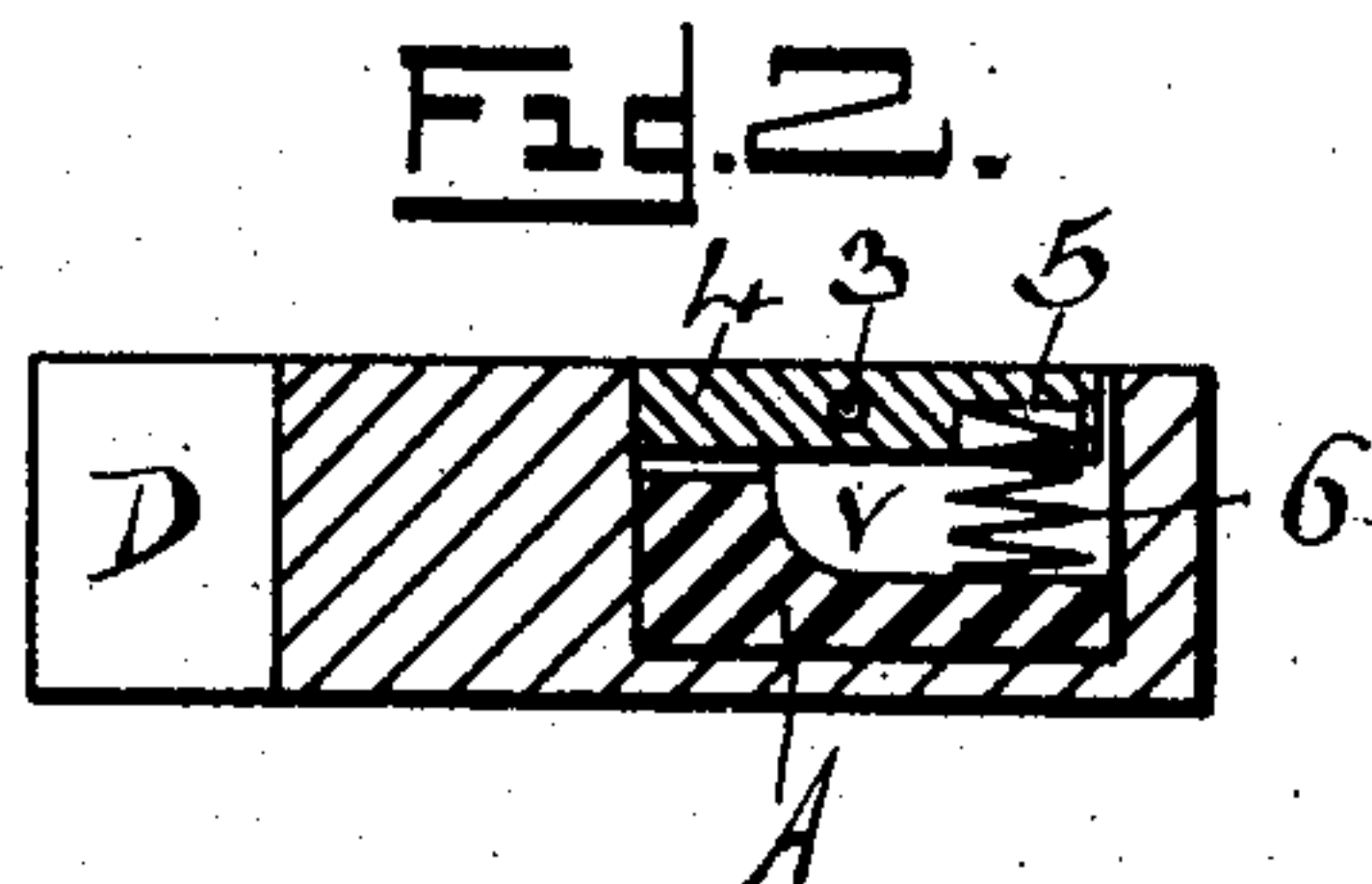
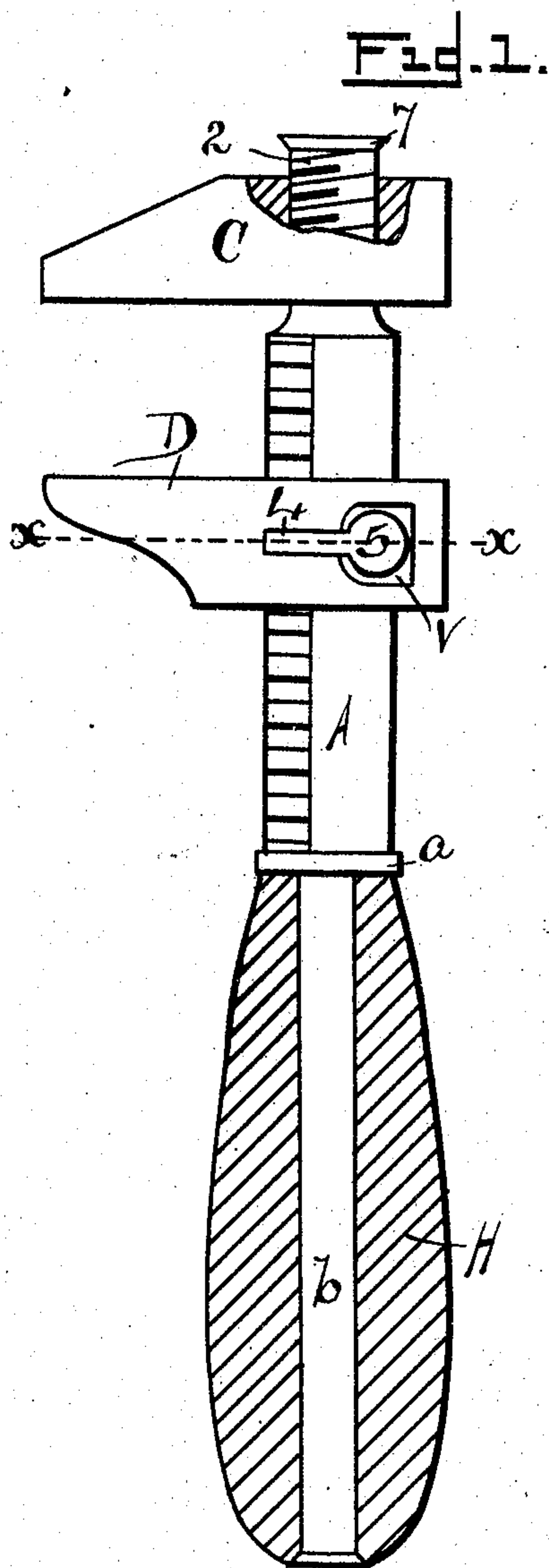


No. 781,291.

PATENTED JAN. 31, 1905.

E. J. MORIN.
RATCHET WRENCH.
APPLICATION FILED NOV. 9, 1904.



Edward J. Morin.

INVENTOR

BY

Geo. W. S. S. S.

Attorney

WITNESSES:

D. I. Suss.

Edwin C. Millar

UNITED STATES PATENT OFFICE.

EDWARD JAMES MORIN, OF SIOUX CITY, IOWA.

RATCHET-WRENCH.

SPECIFICATION forming part of Letters Patent No. 781,291, dated January 31, 1905.

Application filed November 9, 1904. Serial No. 231,986.

To all whom it may concern

Be it known that I, EDWARD JAMES MORIN, a citizen of the United States, and a resident of Sioux City, in the county of Woodbury and State of Iowa, have invented certain new and useful Improvements in Ratchet-Wrenches, of which the following is a specification.

The aim of my invention is to provide a wrench comprising a quick-adjusting traveling head and an adjustable stop-head, between which heads may be adjusted a nut-bar or other device to be promptly engaged; and my invention comprises certain other combinations more fully described hereinafter.

In the accompanying drawings I have shown in Figure 1 an elevation of a wrench embodying my invention. Fig. 2 shows a sectional view of the traveling head. Fig. 3 shows a broken portion of the wrench-stem, showing a rack, while Fig. 4 shows an end view of the traveling head.

As has been stated, the aim of my invention is to provide a wrench arranged so that the same may be quickly adjusted by means of a traveling head provided with a pawl engaging a rack forming part of the wrench-stem, while a fine adjustment is provided by means of the stop-head being revolubly secured to the threaded end of the wrench-stem, so that each revolution of the stop-head brings said stop-head the distance of the thread toward or away from the quick-adjusting traveling head, so that a quick course adjustment of the wrench may be instantly secured by means of the traveling head, while the final is secured through the revolubly-supported stop-head.

In the accompanying drawings I have shown a wrench-stem A, which is approximately L-shaped in the cross-section, as is shown in Fig. 2, being provided with a projecting rack B, the flange *a* acting as a stop for the handle H and the stem *b* securing the handle, while the opposite end is threaded, as is shown at Fig. 2, to revolubly receive the threaded stop-head C. Traveling upon this

stem A is the sliding quick-adjusting head D, provided with an approximately L-shaped opening, as is shown in Fig. 4, and being further provided with a recess *v*, as shown in Fig. 1, this recess *v* entering the socket *x*. This recess is upon one side of the traveling head E and is provided with a pin 3, upon which is held the stem 4 of the pawl 5, the stem 4 being adapted to engage the rack B, a spring 6 being secured below the pawl-head 5 to normally force the stem 4 into engagement with the rack. It will be noticed that the stem 4 snugly works within the slot of the head D, and this stem 4 locks the sliding jaw. The recess *v* is sufficiently large to permit an operator depressing the pawl 5 with his thumb or fingers in operating this slotting-head. The head C is threaded, while the end of the stem A is flanged, as shown at 7 in Fig. 1, so that the head C cannot become detached from the wrench-stem. By this means both heads may be adjusted, as set forth.

These wrenches are made of various sizes and of any suitable material.

Having thus described my invention, what I claim as new, and desire to secure by United States Letters Patent, is—

A wrench comprising a stem, having a rack, one end of said stem being threaded, a handle upon the opposite end of said stem, a wrench-head revolubly working upon said threaded end, a wrench-head, slidably working upon said wrench-stem, said slidable head being provided with a slot and recess, a pawl, pivotally working within said slot and recess, and a spring to normally force said pawl in an engagement with said rack, all arranged as set forth.

In testimony whereof I affix my signature in presence of two witnesses.

EDWARD JAMES MORIN.

Witnesses:

LOUISA JULCH,
N. C. FOULK.