No. 613,153. Patented Oct. 25, 1898.

J. J. KENNELLY.

WRENCH.

(Application filed Jan. 19, 1898.)

(No Model.)

Fig. 1.

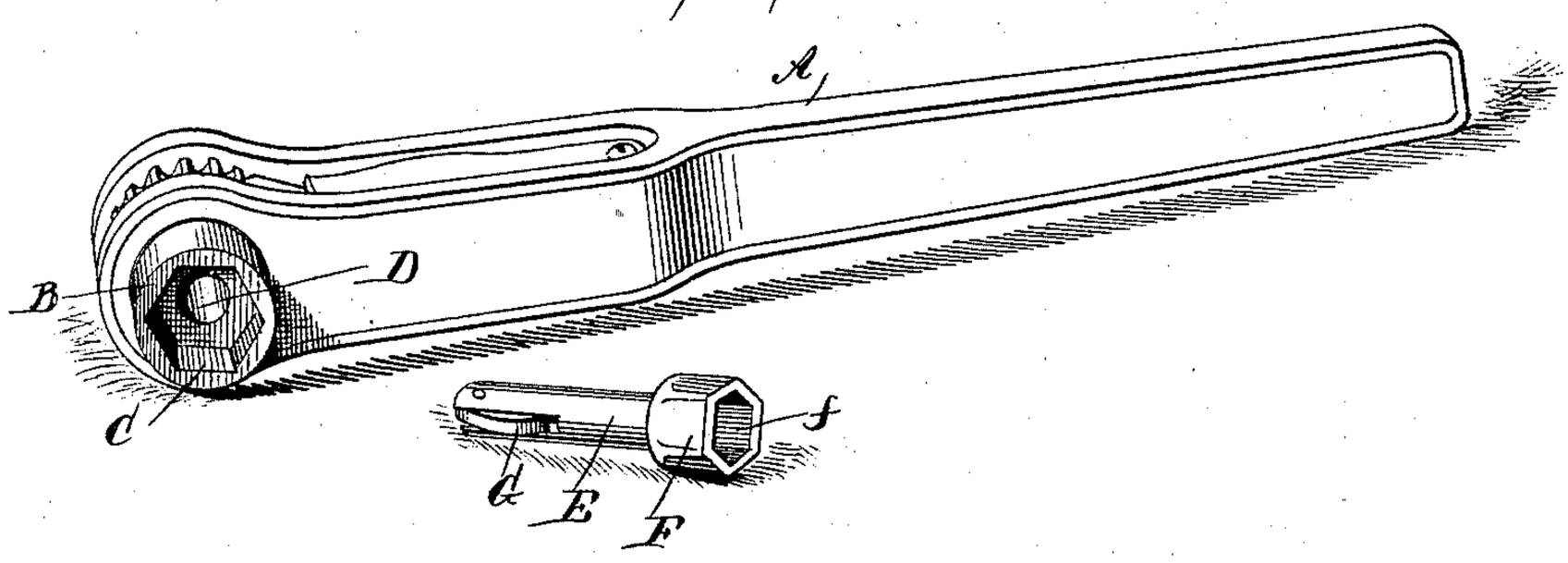


Fig. 2.

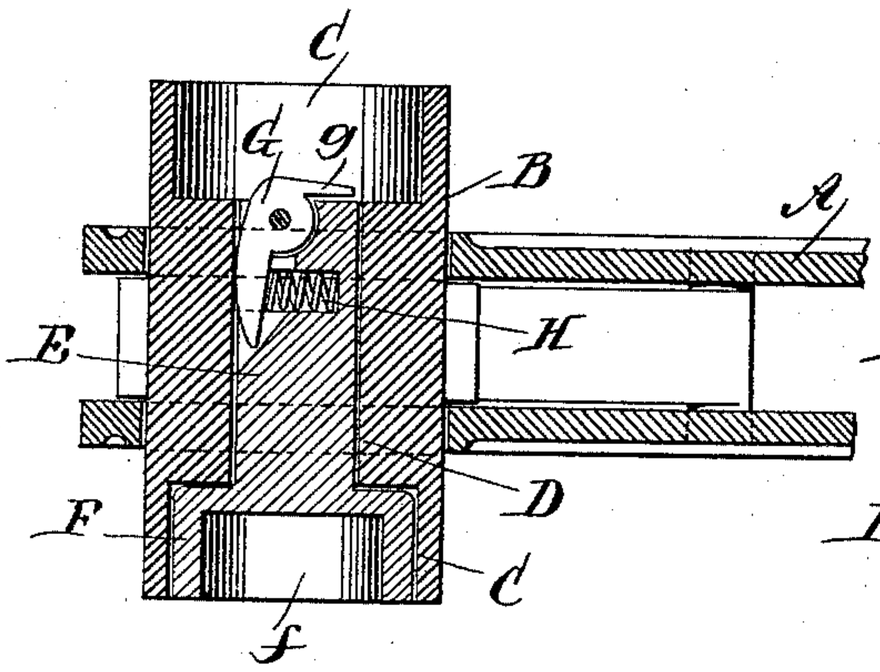


Fig. 3.

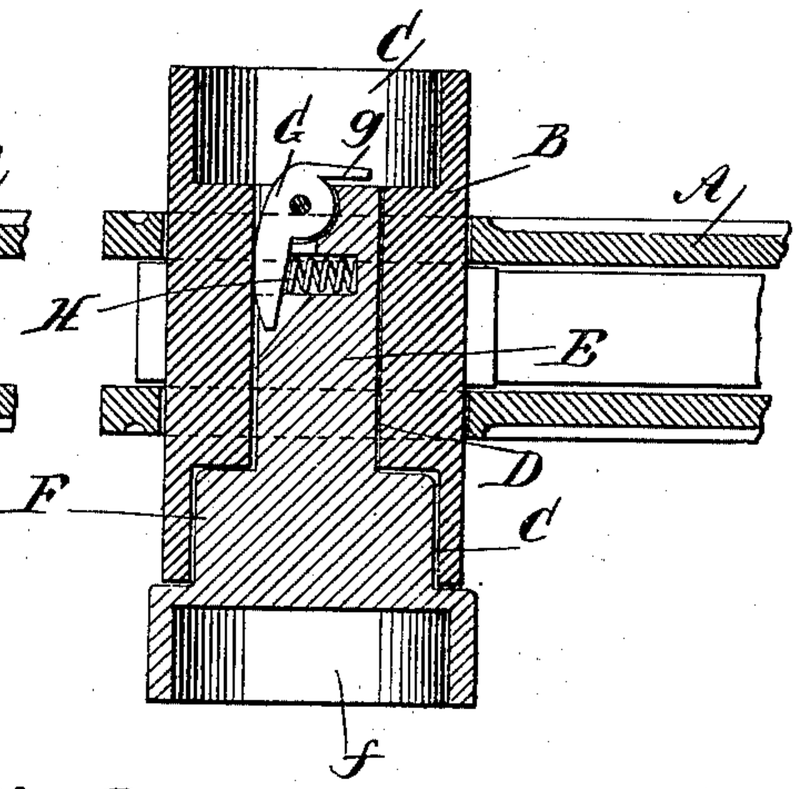
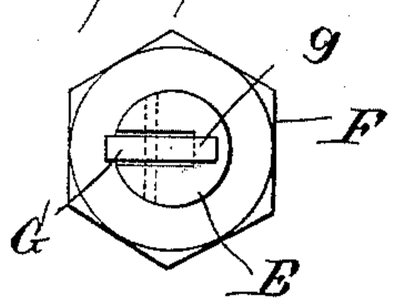


Fig. 4.



WITNESSES:

William P. Goebel.

H. L. Reynolds.

INVENTOR

J. J. Kennelly.

BY Munn & Co.

ATTORNEYS.

UNITED STATES PATENT OFFICE.

JOHN J. KENNELLY, OF NEW YORK, N. Y., ASSIGNOR TO JAMES H. HAGGERTY, OF SAME PLACE.

WRENCH.

SPECIFICATION forming part of Letters Patent No. 613,153, dated October 25, 1898.

Application filed January 19, 1898. Serial No. 667,167. (No model.)

To all whom it may concern:

Be it known that I, JOHN J. KENNELLY, of New York, borough of Manhattan, county of New York, in the State of New York, have invented a new and Improved Wrench, of which the following is a full, clear, and exact description.

My invention relates to an improvement in ratchet-wrenches which are provided with a rotatable barrel having a socket formed therein adapted to engage the nut; and it consists of an auxiliary or removable socket-piece which is held in place by the friction of a spring-pressed block and is provided with a socket adapted to receive a nut of a different size from the socket in the barrel of the wrench proper.

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 figures.

Figure 1 is a perspective view of a wrench of this character with the removable socket-piece lying alongside. Fig. 2 is an enlarged longitudinal section taken through the socket end of the wrench with the removable socket-piece in place. Fig. 3 is a similar view showing a socket-piece in place, having a socket adapted to receive a nut of larger diameter than the barrel of the wrench; and Fig. 4 is an end view of the removable socket-piece.

The object of my invention is to provide a removable device which may be readily attached to a socket-wrench of this character and which will enable it to engage nuts of different diameters.

The particular construction of the wrench proper is not material and has not therefore been illustrated in great detail.

The wrench, as shown, comprises a handle A and a barrel B, journaled in one end thereof and rotatable by a suitable means mounted upon the handle. This means not forming an essential part of the present invention is not described in full.

The barrel B, as shown in the drawings, has sockets C in each end thereof fitted to engage a nut of a certain size. These two sockets are connected with each other by a central aperture D, which ordinarily would be formed, as shown, of a circular cross-section. This circular cross-section is not, however, an essential feature, but is only a convenient and cheap form of manufacture. It may be made of any cross-section desired.

The auxiliary socket-piece or "reducer," as it might be termed, consists of a stem or shank E, adapted to fit the central connecting-aperture D in the barrel, provided at one end with a head F, adapted to fit the socket C in the end of the barrel. This end of the auxiliary socket-piece or reducer is also provided with a socket *f*, fitted to receive a nut of a different diameter from that engaged by the socket C with the barrel B. As shown in Fig. 2, this socket *f* is of smaller diameter than the socket in the barrel, while, as shown in Fig. 3, the head F is projected beyond the end of the barrel and the socket *f* therein is of larger diameter than the socket in the end of the barrel. Either or both of these constructions will be provided in different socket-pieces adapted to be inserted in the same wrench.

To hold the socket-piece in place in the barrel, the shank or stem E is provided with a slot adapted to receive the spring-held friction-block G. This block is preferably pivoted in this slot and is provided with a tail-piece *g*, adapted to engage the end of the shank and prevent the block from being swung outward too far. The outer surface of the block is curved, as shown, so that the end thereof will be certain of entering the central aperture D in the barrel. It is held outward by means of a spring H, which is inserted in a transverse recess formed in the shank E. This spring engages the under side of the block G and holds the same out with force sufficient to hold the socket-piece in place and prevent its dropping out of the barrel in whatever position the wrench is placed. These socket-pieces are easily inserted and removed from the wrench and will enable the wrench to be used upon nuts of different diameters instead of their use being confined to nuts of one diameter only.

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

1. An attachment for socket-wrenches, comprising a removable socket-piece having

a central stem provided with a slot at the outer end thereof, a spring-held friction-block pivoted in said slot having an arm extending over and engaging the outer end of said stem, the body thereof being adapted to project from the side of the slot and to engage the surface of the wrench-socket to hold the attachment in place, and a head fitting the nut-socket and held thereby against turning and having a nut-receiving cavity or socket therein of different size from the one in the wrench, substantially as described.

2. A socket-wrench having a rotatable barrel provided with a nut-socket and a central aperture, and means for receiving said barrel, an auxiliary socket-piece comprising a stem adapted to fit the central aperture, and a head having an exterior surface adapted to fit the nut-socket in the wrench, and a nut-socket formed in said head of a different diameter from that in the wrench, the stem of said auxiliary socket-piece having a slot therein extending to its end, a friction-block pivoted in said slot having an arm extending over and engaging the end of the stem, the body of said block being adapted to bear against the walls of the central opening in the wrench and a spring beneath said friction-block, substantially as described.

JOHN J. KENNELLY.

Witnesses:
FRANCIS L. HAGGERTY,
CHAS. H. LEWIS.