

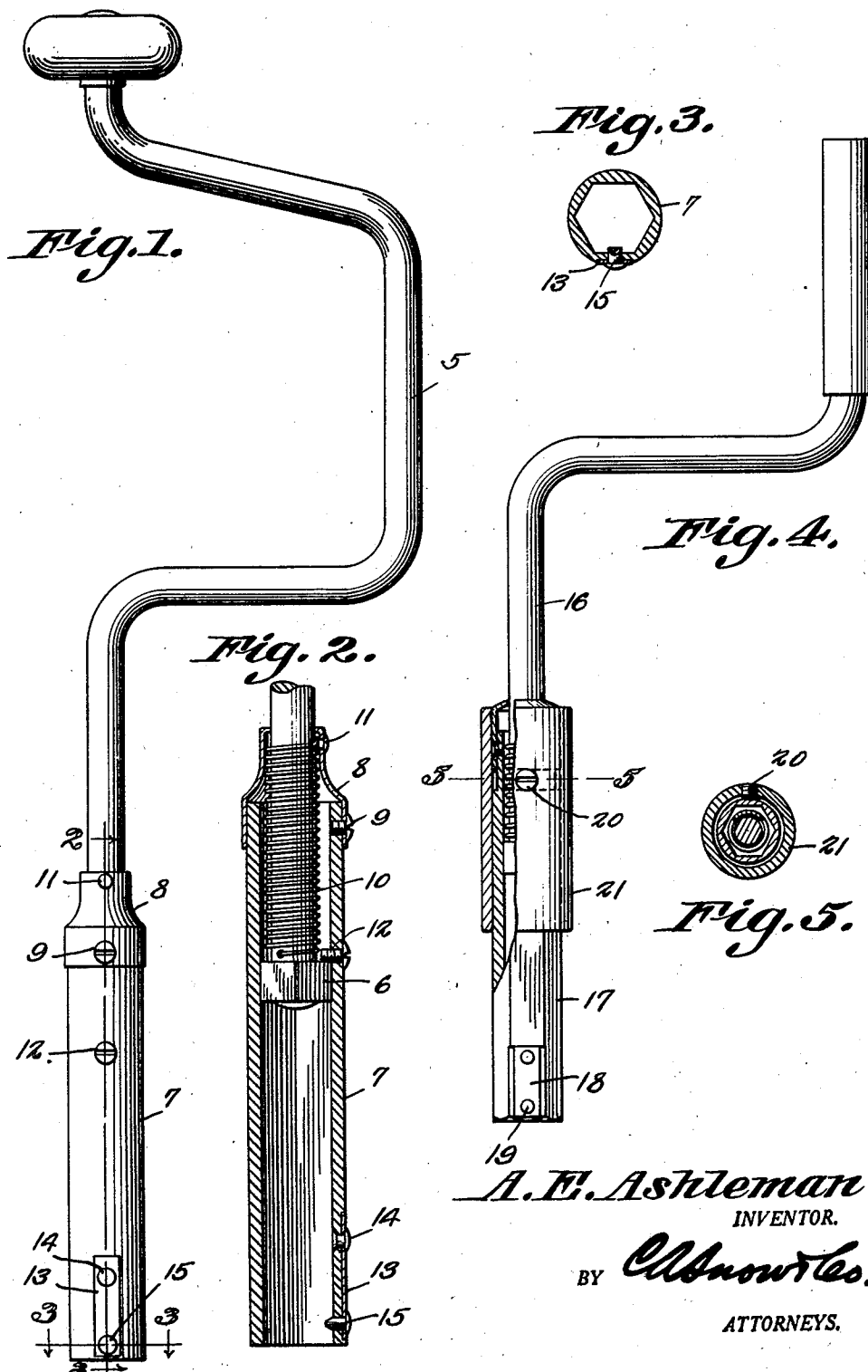
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WRENCH

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WRENCH

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1 Claim. (Cl. 81—124.1)

This invention relates to socket wrench construction, the primary object of the invention being to provide a socket wrench including a tubular body portion or magazine in which the nuts with which the wrench is used, are held, and a plunger for advancing the nuts to the free end of the body portion to position the nuts.

An important object of this invention is to provide a wrench of this character wherein the plunger will be normally held at the inner end of the body portion, leaving the jaw end of the wrench open and unobstructed by the nuts which are held in the wrench, thereby permitting the wrench to be positioned over a nut, with facility.

With the foregoing and other objects in view, which will appear as the description proceeds, the invention resides in the combination and arrangement of parts and in the details of construction hereinafter described and claimed, it being understood that changes in the precise embodiment of the invention herein described, may be made within the scope of what is claimed, without departing from the spirit of the invention.

Referring to the drawing:

Figure 1 is an elevational view of a wrench constructed in accordance with the invention.

Figure 2 is a sectional view taken on line 2—2 of Figure 1.

Figure 3 is a sectional view taken on line 3—3 of Figure 1.

Figure 4 is an elevational view of a modified form of the invention.

Figure 5 is a sectional view taken on line 5—5 of Figure 4.

Referring to the drawing in detail, the wrench embodies the ordinary brace structure indicated by the reference character 5 on the inner end of which is secured the rectangular head 6. The rectangular head 6 is constructed to closely fit within the rectangular inner surface of the tubular magazine 7 of the wrench.

At the inner end of the magazine 7, is a cap 8 that has one end thereof fitted over the magazine 7 and secured as by means of the screw 9, the cap engaging one end of the brace 5 closing one end of the magazine 7.

The reference character 10 designates a contractile spring that has one end thereof secured to the end of the brace, the opposite end of the spring being secured to the cap 8, at 11. The spring 10 encircles one end of the brace 5, and normally acts to draw the rectangular head towards the cap. The stop screw indicated at 12 extends through the wall of the tubular maga-

zine and lies in the path of travel of the head 6, as the head 6 moves towards the cap 8. Thus it will be seen that due to this construction, movement of the head towards one end of the magazine is restricted.

Disposed adjacent to the open end of the tubular magazine 7, is a flat spring 13 that is held in position by means of the rivet 14, the free end of the spring 13 providing a support for the pin 15 that has its inner end tapered so that when the wrench is positioned over the upper edge of a nut, the pin 15 will be moved laterally, allowing the nut to pass into the magazine. When the nut passes the pin 15, the spring 13 acts to move the pin against the opposite edge of the nut, securing the nut against accidental displacement.

In the form of the invention as shown by Figure 4 of the drawing, the handle portion of the wrench is indicated by the reference character 16, one end of the handle portion being provided with a head that slides in the tubular magazine 17, there being provided a spring such as indicated at 18 in Figure 2 of the drawing, secured to the handle portion and tubular magazine 7, so that under normal conditions, the head of the wrench is drawn towards the inner end of the tubular magazine.

The tubular magazine is hexagonal in formation, and is provided with a flat spring 18 adjacent to its free end, the spring 18 providing a support for the pin 19 that extends into the magazine 17 to engage nuts which are fed into the tubular magazine, to prevent the nuts from falling from the magazine.

A screw indicated at 20 extends through the sleeve 21 and operates in a groove formed in the outer surface of the magazine 17, so that the sleeve 21 acts as a hand grip to be held by the left hand of the person using the wrench, while the handle is being rotated to position or remove a nut.

From the foregoing it will be seen that due to the construction shown and described, I have provided a wrench which may be readily positioned over a nut and the wrench rotated in an anticlockwise direction, unscrewing the nut, and holding the nut within the magazine of the wrench. The wrench may then be positioned over another nut and operated to remove the nut. The nuts are fed into the wrench by the pressure of the nut which is being removed. Due to the fact that the head of the brace or handle is normally held towards the inner end of the magazine, it will be seen that the nuts will have an unobstructed passage into the magazine.

When it is desired to replace a nut, the nut is positioned over the bolt and the wrench operated in a clockwise direction. As the wrench is rotated, the nuts will be fed onto the bolt, the action of the nuts passing from the wrench, 5 overcoming the action of the spring 13 at the free end of the magazine, whereupon the nut will be released.

What is claimed is:

A magazine socket wrench comprising a substantially long tubular body portion providing a nut magazine having rectangular inner surfaces, a wrench handle having a substantially straight end section, a rectangular head secured to the free end of the straight section providing a 15

plunger, said head being fitted within the tubular body portion and adapted to rotate the tubular body portion when the handle is rotated, a cap closing one end of the body portion and through which the straight section of said handle extends, a contractal spring wound around the straight portion of the handle, one end of the spring being connected to the handle adjacent to the head, the opposite end of the spring being secured to the cap and adapted to normally draw the plunger towards the closed end of the magazine, and means for preventing accidental displacement of the nuts held in the magazine.

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