Jan. 3, 1928. 1,654,703

H. G. RICE

HOLDER FOR SOCKET WRENCH SETS

Filed June 28, 1926

Fig. 1

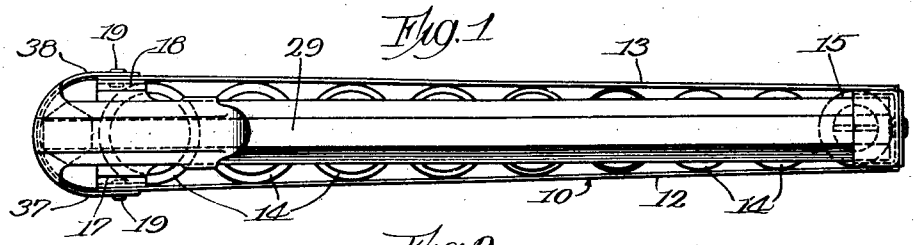


Fig. 2

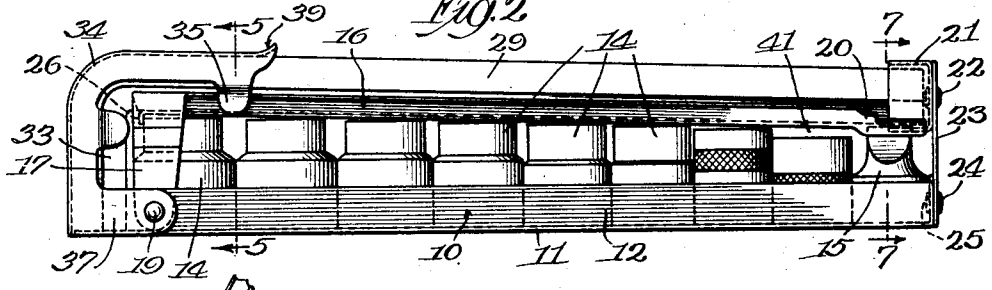


Fig. 4

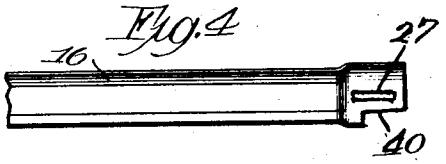


Fig. 3

Fig. 5

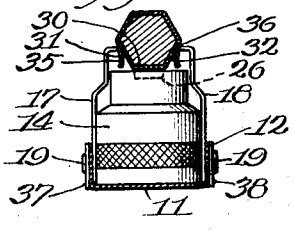


Fig. 6

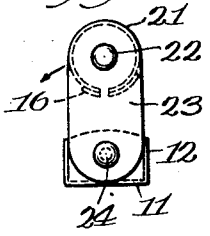
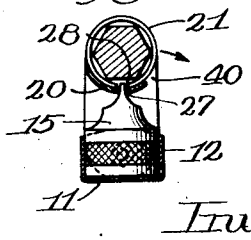


Fig. 7



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UNITED STATES PATENT OFFICE.

HAROLD G. RICE, OF CHICAGO, ILLINOIS.

HOLDER FOR SOCKET-WRENCH SETS.

Application filed June 28, 1926. Serial No. 118,873.

This invention relates to holders for socket wrench sets, and more particularly to holders adapted to hold a series of sockets of graduated sizes in a row, and for holding a bent end handle member in a convenient position relative to the sockets.

The principal object of this invention is to provide a holder having means for retaining the sockets in a compact and orderly arrangement, and also to provide means for firmly holding the handle member in packed position adjacent the sockets. Another object of the invention is to provide a holder from which the handle may be removed without disturbing the arrangement of the sockets in the holder and also to provide means whereby one of the sockets may be removed from the holder for use with the handle member without affecting the holding means as to the sockets remaining in the holder. Other objects of the invention are to provide means for positively locking the sockets in the container independent of the handle; to provide such means which will be effective to hold all or only a few of them and to provide a holder of this type which will be light in weight, and strong and substantial so as to withstand rough handling to which such devices are ordinarily subjected.

Other objects and advantages will become apparent when the following specification is considered in connection with the accompanying drawing wherein I have illustrated a selected embodiment of my invention, and in which

Fig. 1 is a plan.

Fig. 2 is a side elevation.

Fig. 3 is a side elevation showing the handle removed and the socket locking means opened to render the sockets accessible.

Fig. 4 is a plan of a portion of the locking element.

Fig. 5 is a section on the line 5—5 of Fig. 2.

Fig. 6 is an end elevation of the right end of Fig. 2, and

Fig. 7 is a section on the line 7—7 of Fig. 2.

Referring now to the drawings, 10 indicates a housing or tray having a bottom 11 and side flanges 12 and 13 projecting upwardly therefrom. The tray is preferably tapered so as to be narrow at one end and wide at the other end as best shown in Fig. 1 to receive a series of sockets 14 of graduated size and a screw driver socket member 15. A locking member 16 extends lengthwise over the tray immediately over the ends of the sockets and is provided with depending ears 17 and 18, preferably at the wide end of the tray, which are pivotally connected to the respective side flanges by means of pivot pins or rivets 19. The opposite end of the locking member is preferably depressed slightly, as indicated at 20, and is arcuate in cross section as best shown in Fig. 7.

A cup member 21 preferably cylindrical in form is adapted to be seated in the arcuate portion 20 of the locking member, and is secured by suitable means such as a rivet 22 to an arm 23. The arm 23 is pivotally connected by means of a rivet 24 to an upstanding end flange 25 of the tray 10.

As shown in Fig. 2, the locking member 16 is in locked position so that the sockets 14 are securely held in the holder. A lip 26 depending from the end of the locking member prevents the sockets from sliding outwardly between the arms 17 and 18 and the inside heads of the rivets 19 also serve this purpose by engaging the enlarged part of the end socket 14. At the opposite end of the holder I prefer to provide a screw driver socket member 15 and to more securely lock this member in place, I provide a slot 27 in the depressed end 20 of the locking member 16 through which the screw driver portion projects. The cylindrical receptacle 21 is also preferably slotted as indicated at 28 in Fig. 7 to permit the passage of the screw driver member.

A handle member 29 may conveniently be disposed over the locking member 16 with its straight end inserted in the receptacle 21 and with its bent end projecting downwardly at the other end of the holder alongside of the largest socket. To more securely hold the handle 29 in this position, I prefer to shape the locking member 16 to correspond to the shape of the lower portion of the handle. In the present instance, a handle hexagonal in cross section is illustrated, and I therefore provide the locking member with a bottom portion 30 and side portions 31 and 32 which form a channel adapted to snugly receive the handle as best illustrated in Fig. 5. By thus channeling the locking member 16 it is rendered sufficiently rigid so that it will withstand reasonable forces whereby it might otherwise be bent out of shape and consequently be rendered inoperative.

In order to lock the bent end 33 of the

handle in place, I provide a cap 34 which is provided with ears 35 and 36 which are adapted to clamp over the wide portion of the handle member between oppositely disposed edges. The cap 34 is shaped to embrace the bent end of the handle member and is provided at its lower end with ears 37 and 38 which are pivotally connected to the side flanges 12 and 13 of the housing by means of the aforementioned pivot pins 19. I also provide a finger grip as indicated at 39 to render opening of the cap more easily accomplished.

In order to take the handle 29 from the holder, the cap 34 is swung about its pivot 19 so that the bent end of the handle may be raised from the locking member 16, and the straight end withdrawn from the receptacle 21. The sockets then remain locked in the container and the handle may then be used for any desired purpose without disturbing the packing of the sockets. To withdraw a socket, the arm 23 and receptacle 21 are swung on the pivot 24 in the direction indicated by the arrow in Fig. 7 until they clear the arcuate portion 20 of the locking member. To render such swinging more easily accomplished, I provide a notch 40 in the locking member whereby it is only necessary to depress the end of the locking member a very slight amount, sufficient clearance for such depressure being provided as shown at 41 in Fig. 2. When the receptacle 21 is thus swung to the side, the locking member 16 may be raised about the pivots 19 and any one of the sockets may then be withdrawn. The remaining sockets may then be again locked in the container by closing the locking member 16. It will thus be seen that I have provided an efficient holder which is simple in construction, strong and light in weight, and which is effective to hold all or only a part of a socket wrench set, and which may be manufactured at a comparatively low cost.

I am aware that changes may be made in the form and construction of my improved holder without departing from the spirit of the invention and I therefore reserve the right to make such changes as fairly fall within the scope of the following claims, which could be construed as broadly as possible, consistent with the state of the art.

I claim as my invention:

1. An article of the class described comprising a tray for receiving a set of sockets in a row, means extending lengthwise over said row of sockets for retaining said sockets in said tray, and means for holding a socket wrench handle in place over said retaining means.

2. In combination, a tray for receiving a set of sockets in a row, a set of sockets disposed in a row in said tray, means for retaining said sockets in said tray comprising a member disposed over the tops of said sockets and connected to one end of said tray so as to be adjustable from operative to inoperative position, means at the other end of said tray for locking said retaining means in operative position, a socket wrench handle disposed over said retaining means, means for holding one end of said handle in said position, and means for holding the opposite end of said handle in said position, the latter means being mounted so as to be adjustable from operative to inoperative position for releasably holding said handle.

3. In combination, a tray, a set of sockets arranged in a row in said tray, means for retaining said sockets in said tray comprising a part disposed lengthwise over the row of sockets and pivotally connected to one end of said tray on an axis transverse to the length of said tray, means at the other end of said tray for locking said retaining part in effective position, a socket wrench handle disposed over said part, means at one end of said tray for receiving the corresponding end of said handle, and mounted means at the other end for releasably holding the opposite end of said handle.

4. In combination, a tray, a set of sockets arranged in a row in said tray, means for retaining said sockets in said tray comprising a part disposed lengthwise thereover and pivotally connected to one end of said tray on an axis transverse to the length thereof, an arm mounted on the other end of said tray for releasably locking said part in effective position, a socket wrench handle disposed over and along said part, means on said arm for receiving one end of said handle and means for releasably holding the opposite end thereof.

5. In combination, a tray, a set of sockets arranged in a row in said tray, means for retaining said sockets in said tray comprising a part disposed lengthwise over the row of sockets and pivotally connected to one end of said tray on an axis transverse to the length of said tray, a socket wrench handle disposed over and along said part, means on said part for positioning said handle thereon, means at one end of said tray for locking said part in effective position and for receiving the corresponding end of the handle, and means at the other end for releasably holding the opposite end of said handle.

6. In an article of the class described, the combination of a tray for receiving a set of sockets in a row and means for holding the sockets in said tray and comprising a member extending lengthwise of said tray and including a bifurcated part forming a pair of ears depending from said member and straddling the tray, said ears being connected to said tray so as to permit relative

movement between the retaining member and tray.

7. In an article of the class described, the combination of a tray for receiving a set of sockets in a row, a set of sockets in said tray, a socket retaining member disposed over said sockets and including a bifurcated part comprising a pair of depending ears straddling a socket in the tray and pivotally connected to said tray, a bent end socket wrench handle member disposed over said retaining member and having its bent end projecting downwardly alongside the socket in the tray adjacent said bifurcated part, and means for releasably holding the handle over said retaining member.

8. In combination, a tray including a bottom portion and side wall portions extending upwardly from the bottom portion, a set of sockets arranged in a row in said tray between said side walls, means for retaining said sockets in said tray and including a part disposed lengthwise over the row of sockets, a socket wrench handle member disposed over said part, means at one end of said tray for locking the adjacent end of said part and handle respectively, in their respective positions, and means adjacent the other end of the tray for locking the adjacent end of the handle member in said position over the retaining part, said means and said part being pivotally connected to the side walls of said tray on a pivot common to both.

HAROLD G. RICE.