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WRENCH KIT HOLDER

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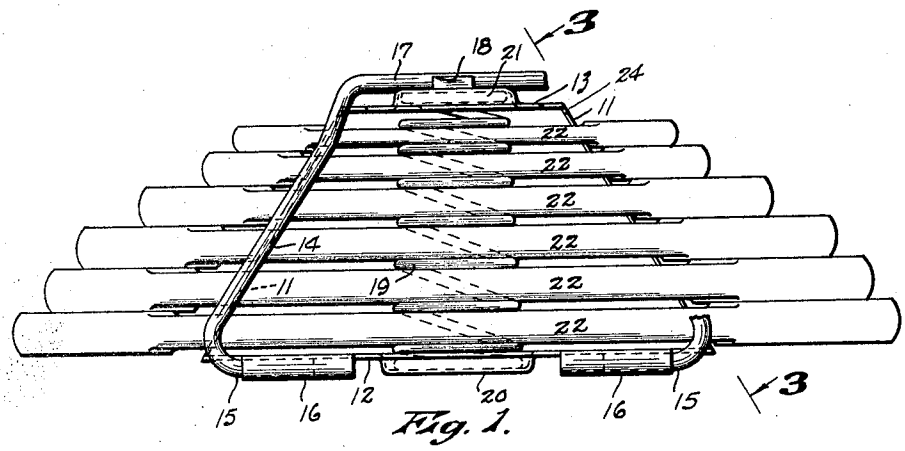


Fig. 1.

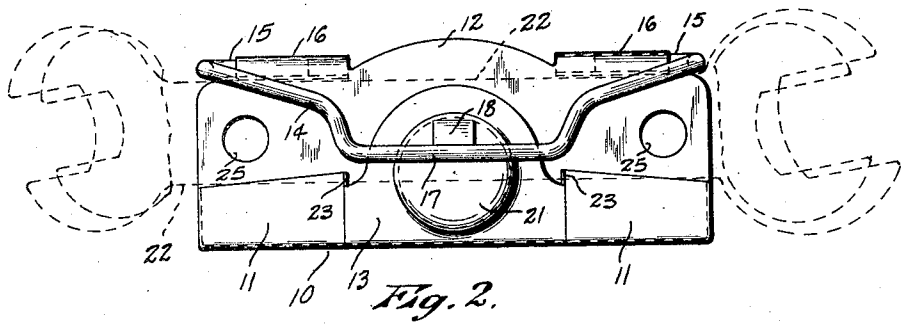


Fig. 2.

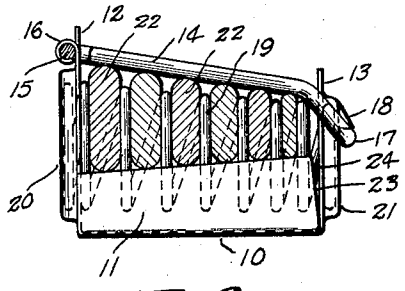


Fig. 3.

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UNITED STATES PATENT OFFICE

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WRENCH KIT HOLDER

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This invention relates to a wrench kit and holder, particularly a holder for carrying a number of end wrenches or similar tools of different sizes, and has for an object to provide such a holder which will carry a number of these tools of different sizes in such a way that each individual tool is easily accessible for use without disturbing any of the other tools.

It is also an object of the invention to provide a holder of simple and strong construction which may be manufactured at relatively low cost, and in which the tools are held so as to require the minimum of space.

It is a further object of the invention to provide improved means for retaining the tools in the holder.

With the foregoing and other objects in view, the invention consists in certain novel features of construction, combinations and arrangements of parts as will be more fully described in connection with the accompanying drawings. In these drawings,

Fig. 1 is a top plan view of the device showing the wrenches in position but with one side of the wire clip or holder broken away.

Fig. 2 is a front elevation of the holder looking toward the top of Fig. 1 with the wrenches shown in dotted lines, and

Fig. 3 is a section substantially on line 3—3 of Fig. 1.

The improved holder comprises a sheet metal base or body member 10 having upturned side walls or flanges 11, an upturned rear wall 12 and a yieldable front wall 13 which forms a catch. It is preferred to have the side walls tapered toward the front, as indicated in Fig. 1, so that the base is of less width at the front than at the rear to more easily accommodate wrenches of different lengths. The height of the side walls of these flanges may be also tapered, as indicated in Fig. 3, as usually the widths of the tools of different lengths also vary. Pivoted to the rear wall 12 is a holder or clip 14 which is preferably a piece of heavy wire bent to substantially the shape shown. It has inwardly turned free ends 15 extending into loops 16 formed by rolling over the top edges of the rear wall 12, and thus form a pivotal connection for this clip or holder to the rear wall 12, so that the free or loop end 17 may swing over the tops of the wrenches or other tools which may be mounted in the device and hold them in position. The transverse front portion 17 of this holder is adapted to engage under the lip or lug 18 on the front wall 13, this lip being formed by cutting the wall and forcing it outwardly. As this front wall 13 may yield inwardly the holder 14 may be released by pressing inwardly on the top edge of the wall 13 to thus remove the lug 18 from engagement over the bar 17 and permit the bar to be swung upwardly and give access to any individual tool.

Between the front and rear walls is a coiled spring 19 and the rear wall 12 and the front wall 13 are preferably provided with a cupped recess 20 and 21 respectively to receive the ends of this spring and thus retain it in the holder. The coils of this spring are so spaced as to receive the shanks 22 of the wrenches or other tools and through their resilient action will grip these shanks after they are forced into the coil and hold them in position with the lower edges of the shanks resting on the top edges of the end walls or flanges 11. This spring also tends to force the front wall 13 outwardly and hold it in holding position with respect to the bar 17, and thus I do not rely entirely on the resilient action of the sheet metal forming the front wall 13 to give the catch effect as this may be uncertain. It is also to be noted that the front end walls 23 of the side flanges 11 are not immediately behind the front wall 13 but are inclined backwardly somewhat as shown in Fig. 3 to leave a space 24 between them and the front wall 13. The end 23, however, will lie back of the wall 13 and thus form a limit stop to limit the amount to which the front wall 13 may be pressed inwardly either in releasing the holder 14 or should the kit be dropped. These walls, therefore, prevent the catch of the wall 13 from being forced inwardly and set, and thus prevent being forced to such a position that it can no longer hold the member 14 in proper position to retain the tools in the holder. The rear wall may have openings 25 for suitable

screws for fastening the device on a wall, or similar openings may be provided in the bottom wall for the purpose of securing it to a bench or support.

In use the wrenches or other tools are placed so as to rest on top of the side walls 11 with their shanks forced between adjacent coils of the spring 19 by which they will be held in this position. The wrench or tool with the longest and thickest shank is placed adjacent the rear wall, and they gradually reduce in size toward the front. The clip holder 14 is then swung over the tops of the shanks and the front part 17 thereof is pressed down over the catch 18 and held thereby. This securely holds the tools in position, and the convolutions of the spring 19 not only hold the tools but the spring tends to force the yieldable wall 13 outwardly and retain the catch in holding position. Thus there is very little likelihood of the catch being accidentally released to permit the tools to fall out. When in use and the holder 14 is released the spring 19 grips the individual tools and holds them in proper position. It will be noted that each individual tool may be removed for use without disturbing any of the other tools and may also be reinserted in the holder without disturbing the other tools. It will also be seen that this holder carries the series of wrenches so that they are in contact with each other and thus it requires a minimum of space. In view of the fact that the shanks rest on the top edges of the side walls 11 the tools are held somewhat above the bottom wall sufficiently so that when the holder is placed on a bench or other support the heads of the wrenches are spaced a slight distance above the top of this support, and therefore, the tools are not forced upwardly out of the holder. Still further the front ends 23 of the walls 11 form a limit stop for the inward movement of the wall 13, and therefore, will not be set inwardly should the kit be dropped, and it will also prevent forcing this wall 13 inwardly sufficiently in releasing the catch to form a permanent set. It will also be apparent that the device is very simple in construction involving only three parts, the base or body being in one piece of sheet metal, and the two wire elements comprising the holder 14 and the spring 19.

Having thus set forth the nature of my invention, what I claim is:

1. In a wrench kit holder, a base member having side flanges on which a plurality of wrenches may rest, a spring catch secured to the front of the base, a holder pivoted to the rear portion of the base and adapted to be swung over the wrenches and engage the catch to prevent removal of the wrenches, and a coiled spring extending between the front and rear walls of the base and adapted to hold the shanks of the wrenches between its respective coils as they rest on said flanges.

2. In a wrench kit holder, a base member, a coiled spring carried by said base and adapted to hold the shanks of wrenches between its respective coils, a holder hinged to the base and adapted to swing over the tops of the wrenches to retain them in the spring, a catch on said base arranged to cooperate with the free side of said holder to retain it in position, and an abutment for one end of said spring on the base, the other end of the spring being arranged to press the catch to holding position.

3. In a wrench kit holder, a sheet metal base member having upturned side flanges, a rear wall and a yieldable front wall forming a catch, a holder pivoted to the rear wall and adapted to swing over wrenches resting on said flanges and engage said catch, and a coiled spring mounted in the base and adapted to hold the shanks of the wrenches between its respective coils as they rest on said flanges.

4. In a wrench kit holder, a sheet metal base member having an upturned rear wall and a yieldable front wall having a catch, a holder pivoted to the rear wall, and a coiled spring between the front and rear walls adapted to hold the shanks of the wrenches between its respective coils and also tending to force the catch to holding position, said pivoted holder being adapted to swing over said shanks and be secured by said catch to retain the wrenches in position.

5. In a wrench kit holder, a sheet metal base member having upturned side flanges, a rear wall and a yieldable front wall forming a catch, a holder pivoted to the rear wall, a coiled spring between the front and rear walls adapted to hold the shanks of the wrenches between its respective coils, the forward edges of said flanges lying to the rear of the front wall and spaced therefrom a suitable amount to form a stop to limit inward movement of said catch, and said holder being adapted to swing over the tops of the shanks and engage said catch to retain the wrenches in the holder.

6. In a wrench kit holder, a base member having side flanges on which a plurality of wrenches may rest, a spring catch secured to the front of the base and spaced from the ends of the side flanges whereby to allow the catch to yield toward the ends of the side flanges, said side flange ends serving to limit the yielding of said spring catch, and a holder pivoted to the rear portion of the base and adapted to be swung over the wrenches and engage the catch to prevent removal of the wrenches.

In testimony whereof I affix my signature.

ARTHUR I. PLATT.