Aug. 5, 1952 J. J. GRENAT 2,605,665

TOOL ADAPTED FOR USE AS A WRENCH OR AS AUXILIARY HANDLE FOR OTHER WRENCHES AND TOOLS

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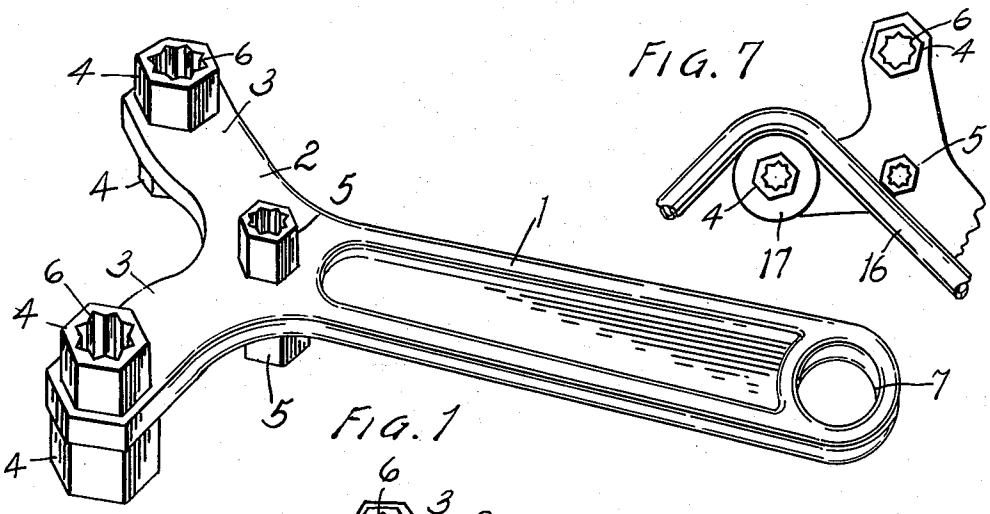


FIG. 1



FIG. 7

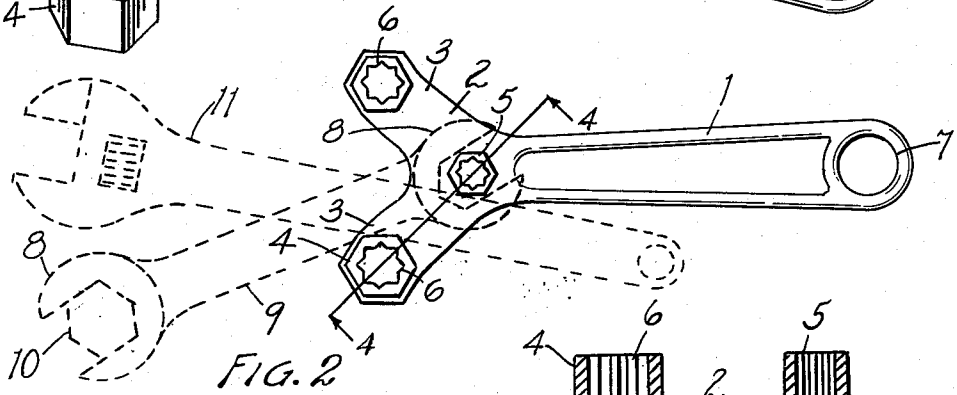


FIG. 2

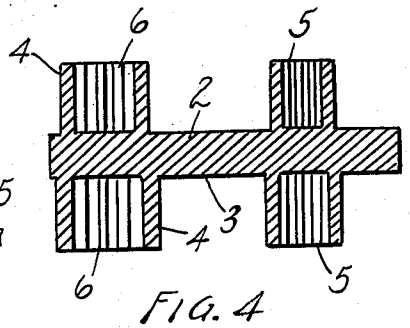


FIG. 4

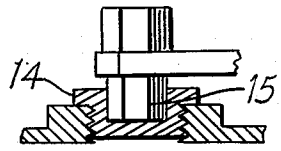


FIG. 5

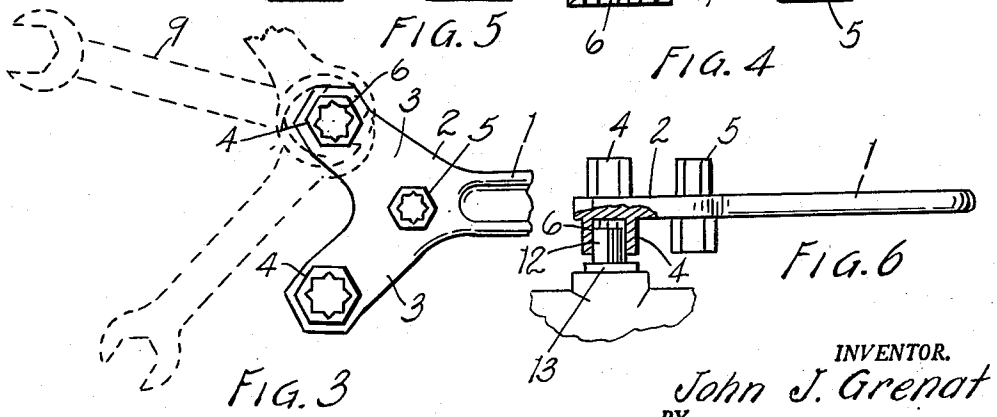


FIG. 6



FIG. 3

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## TOOL ADAPTED FOR USE AS A WRENCH OR AS AUXILIARY HANDLE FOR OTHER WRENCHES AND TOOLS

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4 Claims. (Cl. 81—121)

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This invention relates to a tool adapted for use as a wrench or as auxiliary handle for other wrenches and tools.

The main objects of this invention are:

First, to provide a tool which is adapted for use as a wrench for various sizes and kinds of work and also for use as an auxiliary or extension handle for wrenches and other tools facilitating the manipulation thereof in various working conditions.

Second, to provide a tool having these advantages which is very easily manipulated for the various kinds of work for which it is adapted.

Objects relating to details and economies of the invention will appear from the description to follow. The invention is defined and pointed out in the claims.

A preferred embodiment of the invention is illustrated in the accompanying drawing, in which:

Fig. 1 is a perspective view of a tool embodying my invention.

Fig. 2 is a side elevational view thereof showing two adaptations to other wrenches as an extension or auxiliary handle for wrenches shown by dotted lines.

Fig. 3 is a fragmentary side elevational view showing other adaptations to wrenches as an extension handle therefor, a wrench being indicated in three positions by dotted lines.

Fig. 4 is an enlarged sectional view on a line 4—4 of Fig. 2.

Fig. 5 is a fragmentary view partially in section illustrating the tool as used on a plug or as it would be used on an "Allen type" screw.

Fig. 6 is a fragmentary view partially in section illustrating an adaptation to another form of plug or as the tool would be applied to a nut or the like.

Fig. 7 is a side elevational view illustrating the tool as used for a bending tool.

The tool of my invention comprises a handle 1 having a head 2 integral therewith. The head is provided with forwardly diverging arms 3. Each arm is provided with opposed pairs of polygonal jaw members 4—4 and also with a central pair of such polygonal jaw members 5—5. The jaw members illustrated are hexagonal and that is a desirable shape. The jaw members are formed integrally with or otherwise fixedly secured by welding so that they become an integral part of the tool. Each jaw member is provided with an internal jaw socket 6, desirably of the serrated type.

The several jaw members are of relatively

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graduated external diameter and their sockets are of relatively graduated internal diameter. The handle is provided with an opening 7 at its outer end so that it may be hung up. The pairs of jaw members are so spaced that one of the jaws 8 of a double jaw wrench 9 may be engaged with one of the jaw members 4 or 5 in different angular relations as shown in Fig. 3. Thus engaged, the tool becomes an extension or auxiliary handle for the wrench 9.

It is desired to point out that there are many wrenches of this type in which the handle is relatively short and which do not provide sufficient leverage for properly tightening or loosening a nut. Also there are various other work conditions in which it would be desirable to use the wrench 9 but where the space is not sufficient to receive the hand of the operator. With the tool of my invention properly engaged in the angular relation best suited for the particular condition, not only additional leverage is provided but the auxiliary tool permits the wrench to be positioned and operated under conditions which would not otherwise permit its practical use.

There are other situations where it is desirable to engage one of the jaws 8 with one of the center jaw members 5 and fulcrumingly engage the handle of the wrench 9 with one of the arm jaw members 4. This provides for further adaptation to meet particular conditions and may be resorted to where it is desired to manipulate a wrench of this type, the jaws of which do not fit any of the jaw members of the tool.

A nut 10 is indicated by dotted lines in Fig. 2. In Fig. 2, I also illustrate by dotted lines an adjustable jaw wrench 11, which wrenches commonly have jaws only at one end. For that kind of a wrench the tool is engaged with the handle by positioning the handle between one of the arm jaws and the central jaw. Pipe wrenches may also be engaged in the same manner as the wrench indicated at 11.

In all of these adaptations as an extension handle or auxiliary handle, my tool is of great advantage not only in the matter of increasing leverage but the engagement in different angular relations; and, in conditions where the space does not permit a grasp of the handle of the work engaging tool, is of great practical importance. The provision of the internal sockets enables the engagement of nuts and other work such as the stems 12 of the plug indicated at 13. The jaw members may also be engaged with plugs 14 having jaw receiving sockets 15 or with the "Allen type" of screws.

My tool may also be used with bending rods, tubes and the like such as indicated at 16 and for that work, I preferably provide a collar 17 which is engaged over one of the arm jaw members and around which the work is bent by engaging the work with one of the central jaw members. This collar is peripherally circular. Work can be bent without the collar but the collar lessens the likelihood of kinking. Certain types of work require a short, rather sharp angular bend and in such work the collar is omitted and the work bent around the selected arm jaw member.

I have illustrated and described various adaptations of my tool and it is believed others will be apparent from this disclosure to those skilled in the art and to users of the tool. I have not attempted to illustrate various other adaptations and uses as I believe this disclosure will enable those skilled in the art to embody or adapt my invention as may be desired.

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

1. A wrench also adapted for use as an auxiliary handle for other wrenches or tools and comprising a handle, spaced externally polygonal laterally projecting jaw members at one end of the handle, and an externally polygonal laterally projecting jaw member disposed on said handle inwardly from said jaws and intermediate thereof, said jaw members being of relatively graduated diameters whereby the jaw members may be engaged directly with work, or a jaw member may be individually engaged with the jaw of a wrench having jaws at each end thereof in selected angular relation to such wrench to provide an auxiliary handle therefor, or the intermediate jaw member may be engaged with the jaw of a wrench with its handle in supported levering engagement with one of said spaced jaw members to provide an auxiliary handle for the wrench so engaged, or the handle of a tool may be engaged between the intermediate jaw member and one of said spaced jaw members to provide an auxiliary handle therefor.

2. A tool of the character described comprising a handle spaced polygonal laterally projecting jaw members at one end of said handle, and a laterally projecting polygonal jaw member disposed on said handle inwardly from said jaw members and intermediate thereof, said jaw members being of relatively graduated diameters, said jaws being spaced to permit their individual engagement with jaws of a wrench having jaws at each end thereof in selected angular relation thereto to constitute an extension handle for the wrench so engaged, said spaced jaws being spaced relative to said intermediate jaw to permit the positioning of a tool handle between them to provide an angularly disposed auxiliary handle.



3. A wrench also adapted for use as an auxiliary handle for other wrenches or tools and comprising a handle and a head integral with the handle and having forwardly diverging arms, laterally projecting jaw members at the outer ends of the arms, and a jaw member projecting laterally from said head, said jaw members having polygonal relatively graduated internal jaw sockets whereby the jaw members may be engaged directly and externally with work.

4. A wrench also adapted for use as an auxiliary handle for other wrenches or tools and comprising a handle and a head integral with the handle and having forwardly diverging arms, laterally projecting externally polygonal jaw members at the outer ends of the arms and an externally polygonal jaw member projecting laterally from said head, said jaw members being of relatively graduated diameters.

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