W. C. GAY.

WRENCH HEAD.

APPLICATION FILED SEPT. 17, 1918.

1,324,042. Patented Dec. 9, 1919.

Fig. 1



Fig. 2

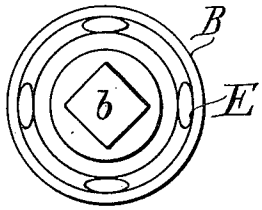
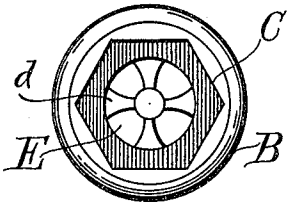


Fig. 3



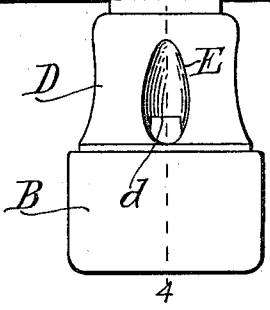


Fig. 6

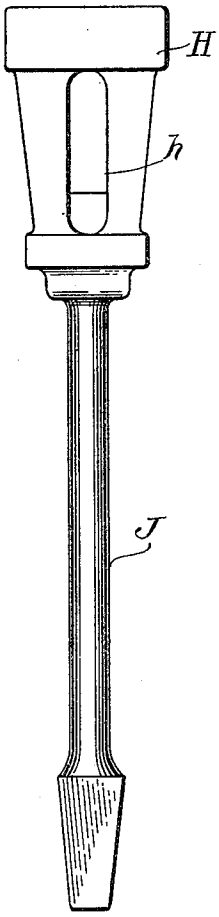


Fig. 5

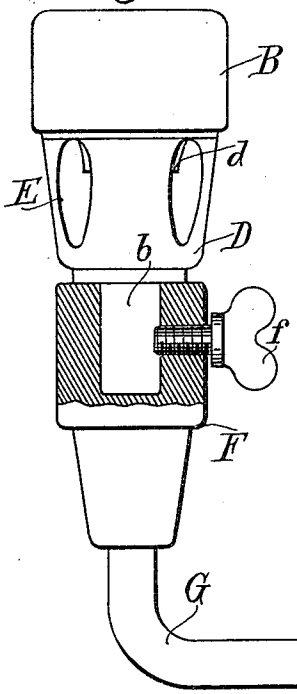
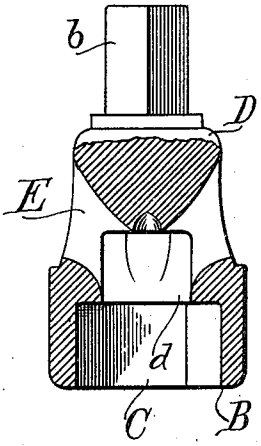


Fig. 4



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WRENCH-HEAD.

1,324,042. Specification of Letters Patent. Patented Dec. 9, 1919.

Application filed September 17, 1918. Serial No. 254,431.

To all whom it may concern:

Be it known that I, WESLEY C. GAY, citizen of the United States, residing at Augusta, in the county of Richmond and State of Georgia, have invented certain new and useful Improvements in Wrench-Heads, of which the following is a specification.

This invention relates to wrench heads, more particularly to heads for socket wrenches, and has for its object the production of a socket wrench head having parts of special construction and arrangement, comprising a nut socket in the base portion of the head, and a body portion adjoining the base portion provided with a recess opening into the nut socket, and passages leading from the exterior through the said body portion into the recess. The construction illustrated and described herein is believed by this applicant to possess very decided superiority in certain particulars over like devices with which he is familiar. That is to say, one of the advantages which it is believed to have over a solid head socket wrench is that the hole or hollow, termed in this description the recess, makes it convenient for either taking off or putting on a nut upon a projecting bolt, where a solid head socket wrench could not be used, as it would have no recess to receive the projecting end of the bolt. Another considerable advantage which a wrench constructed in accordance with this invention is thought to have over a solid head socket wrench is that, it often occurs that in taking off old nuts, much rusted, they hug or jam in the socket, and in many instances it consumes much time to detach the nut, more especially, where it is difficult to get at, for example when the end of the bolt is situated in a cavity of any kind. By the use of this invention a nut which thus becomes jammed may be dislodged by inserting a punch through one of the slanting passages and driving out the nut, thereby saving much time and annoyance.

For accomplishing the object set forth, the parts of this invention are constructed and arranged as illustrated in the accompanying drawings, of which Figure 1 represents a side view of this invention engaged and arranged to be operated by a ratchet bar. Fig. 2 is a top plan view of this invention. Fig. 3 is a bottom plan view. Fig. 4 is a vertical section of the base and body portion of this invention, the section being taken upon the vertical broken line 4—4 of Fig. 1. Fig. 5 shows a side view of this invention held in the head or chuck of a brace or bitstock. Fig. 6 is a side view of a modification of this invention in the form of a bit for use in a bitstock.

Throughout the drawings and description the same letter is employed to refer to the same part.

Considering the drawings, Fig. 1, the letter A refers to a wrench or ratchet bar, having the ratchet *a* shown as in engagement with the stem *b* of this invention, which comprises also the base portion B, having the nut socket C, and the body portion D from which the stem *b* projects upwardly.

As best set out in Fig. 4, the body portion D has a central recess or cavity *d*, which is located above and opens downwardly into the nut socket C. The cavity *d* is provided centrally with respect to the socket C, and is for the purpose of receiving the projecting end of the bolt when it extends beyond the nut acted upon. Also in Fig. 4 it will be best seen that the body portion D has the inwardly and downwardly slanting passages E, of which there are ordinarily four located at quadrantal points.

This invention is also adapted in the form illustrated to be held in the head or chuck F, by setscrew *f*, of a bitstock or brace G, as illustrated in Fig. 5.

Fig. 6 shows a modification of this invention. The upper end H is square, and the openings *h* are somewhat larger and longer than those described hereinabove. The modification shown in Fig. 6, is made in the form of a bit, the stem J being extended as shown. This form is especially useful in reaching for nuts in cavities or so located as to be otherwise out of reach of the usual form of this invention.

In explaining the operation of this invention, let it be assumed that the stem *b* is engaged by a handle or bar such as is illustrated in Fig. 1. The socket C is placed upon a nut, and, it may be that the nut is old and rusted and coated with accumulated and hardened dirt, which will make it bind or stick in the socket. It may be turned off the bolt threads, but, when it has been thus detached from the bolt it is found to be so embedded in the socket C that it cannot be knocked or picked out. Under such conditions, a punch is introduced by way of one

or the other of the passages E in the body portion D, and a blow with a hammer will drive the nut out of the socket without loss of time and by an easy action.

Having now described this invention, and explained the mode of its operation, what I claim is:—

A wrench head comprising a base having a nut socket therein, a body portion adjoining the base and having a recess located above and opening into the said socket, the body portion having passages opening exteriorly at a higher point than the bottom of said recess, the said passages extending inwardly and downwardly and opening into the said recess, and a stem formed integrally with the top of the head and projecting therefrom.

In testimony whereof I affix my signature.

WESLEY C. GAY.