No. 697,321. Patented Apr. 8, 1902.

V. C. BROWN.

WRENCH.

(Application filed July 6, 1901.)

(No Model.)

Fig. 1.

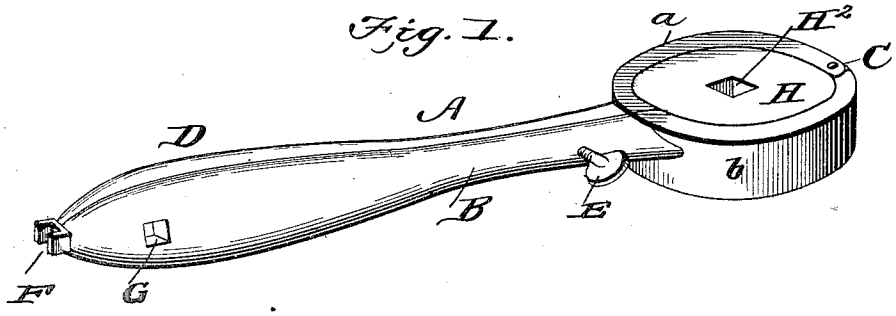


Fig. 2.

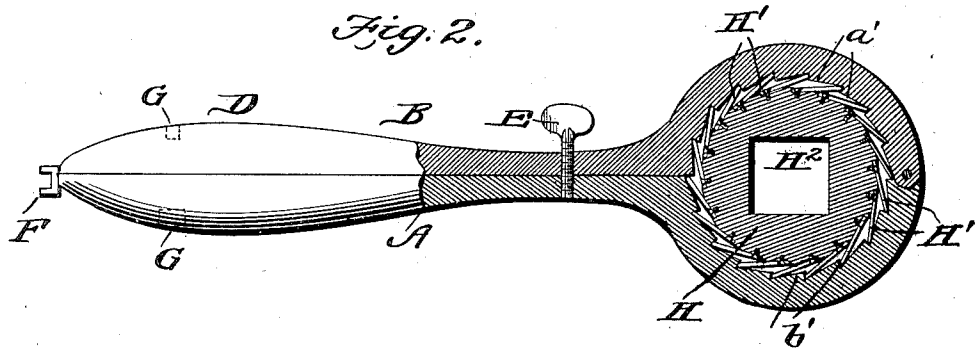


Fig. 3

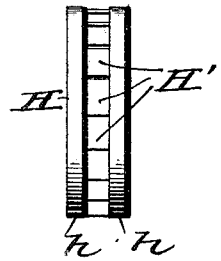
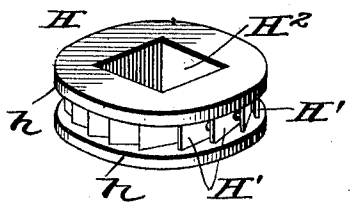


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

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WRENCH.

SPECIFICATION forming part of Letters Patent No. 697,321, dated April 8, 1902.

Application filed July 6, 1901. Serial No. 67,312. (No model.)

To all whom it may concern:

Be it known that I, VOLNEY C. BROWN, a citizen of the United States, residing at Baileys Harbor, in the county of Door and State of Wisconsin, have invented a new and useful Wrench, of which the following is a specification.

My invention is an improvement in wrenches and has for its object to provide a simple and inexpensive form of a stock which is adapted to receive and hold different wrench-heads, each of which is provided with sockets of varying sizes.

Another object of my improvement is to provide the stock of the wrench with teeth that are arranged for engagement by a series of spring-pawls carried by the heads which catch in the teeth when the handle is turned one way and when moved in the opposite direction readily slip by the teeth, thus forming a device that can be used as a ratchet-brace.

With these general objects in view my improvement consists in certain details of construction and novel combination of parts, all of which will be fully described in the following specification and pointed out in the claim, reference being had to the accompanying drawings, in which—

Figure 1 is a perspective view of my improvement complete. Fig. 2 is a sectional elevation of the same, and Figs. 3 and 4 are detail views of the wrench-heads.

In constructing a wrench in accordance with my improvement I employ two sections A and B, that terminate at one end in semicircular jaws *a* and *b*, forming a stock hinged together, as at C, and having their inner faces provided with a series of ratchet-teeth *a'* and *b'*. The opposite ends of the sections are made to form a handle D, the said sections being securely held together by a thumb-screw E, carried by one of the sections and adapted to work in a screw-socket formed in the opposite section. The extreme outer end of one of the handle-sections is formed with a wrench-socket F, and in rear of this socket I arrange upon each side of the handle sockets G, and in practice I prefer to form these sockets of different sizes, as clearly shown in the drawings, the purpose of which is obvious.

H indicates a head of cylindrical form and having its periphery provided with flanges *h h*, which are of a diameter equal to the inner faces of the jaws *a* and *b* of the wrench, and between these flanges I secure a series of spring-pawls H', that are spaced so that one pawl will engage a tooth of the said jaws of the wrench, and in practice I prefer to secure these pawls in place by screws; but they may be welded to the heads or otherwise secured, as desired.

The central portion of the head is provided with a non-circular socket H^2, that is adapted to fit over a nut to which the wrench is applied, and this socket may be of an even diameter through the head or it may be made smaller upon one side than the other, thereby adapting each head to a different-sized nut; but in practice I prefer to have several heads to go with each wrench to make a complete tool.

From the foregoing it will be seen that I provide an exceedingly simple form of wrench that may be used as a ratchet-brace and at the same time provides the device with sockets of various sizes, which adapts the tool to various sizes of nuts, bolts, or any object upon which a wrench is used.

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

In a wrench composed of two sections each of which terminates at one end in handle portions, and at their opposite ends terminating in semicircular stock-sections that are hinged together, ratchet-teeth formed upon the inner surface of each semicircular section, a head having a non-circular opening formed therein and having its periphery provided with spring-pawls that are adapted for engagement by the ratchet-teeth, and a thumb-screw carried by one of the said handle-sections and arranged for engagement with a recess formed in the opposite section for locking the said sections together, substantially as described.

VOLNEY C. BROWN.

Witnesses:
HENRY R. BERRY,
ARTHUR MEYER.