W. J. G. TAYLOR.

HOLDER FOR BITS AND SIMILAR TOOLS.

APPLICATION FILED JULY 24, 1914.

1,152,669. Patented Sept. 7, 1915.

Fig. 4.

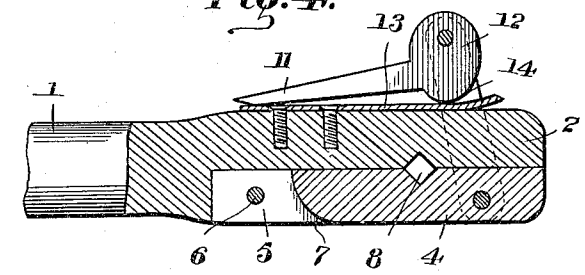


Fig. 1.

Fig. 2.

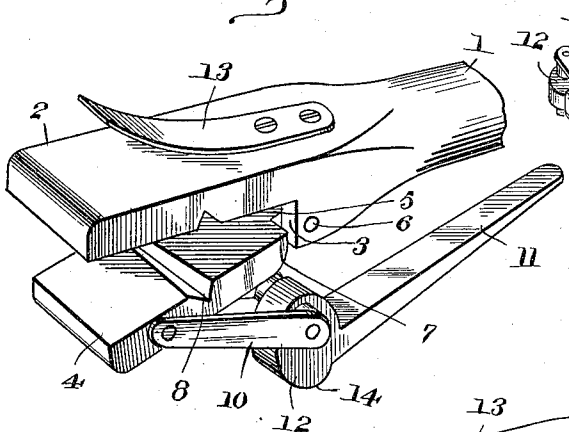
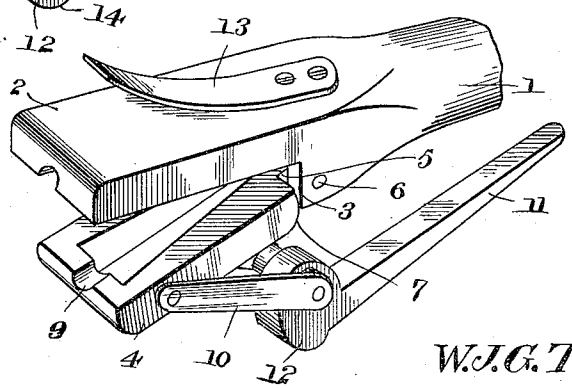


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

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HOLDER FOR BITS AND SIMILAR TOOLS.

1,152,669. Specification of Letters Patent. Patented Sept. 7, 1915.

Application filed July 24, 1914. Serial No. 852,917.

To all whom it may concern:

Be it known that I, WILLIAM J. G. TAYLOR, a citizen of the United States, residing at Clarksburg, in the county of Harrison and State of West Virginia, have invented new and useful Improvements in Holders for Bits and Similar Tools, of which the following is a specification.

The invention relates to an improved holder for bits and similar tools, comprehending more particularly a bit holder forming a part of an ordinary brace.

The main object of the present invention is the provision of a bit holder made in pivotally connected sections or jaws, and lever means whereby the jaws may be quickly operated for clamping coöperation with or separation from a bit socket.

The invention in the preferred form of details will be described in the following specification, reference being had particularly to the accompanying drawings, in which:—

Figure 1 is a perspective view of the particular type of brace, showing the improved device applied thereto. Fig. 2 is an enlarged perspective view of the improved holder with the parts shown in open position. Fig. 3 is a similar view showing a slightly modified form of holder.

In constructing the improved bit holder, the shank or stem 1 of the brace is integrally formed to provide a gripping jaw 2, the stem being slightly enlarged at the holding end and the jaw 2 being approximately one-half of such enlargement, the remaining portion of the stem being cut away as shown, providing a shoulder 3. The jaw 4 is arranged for coöperation with the jaw 2, said jaw 4 having a projecting stem 5 pivotally connected at 6 to the stem 1 in rear of the shoulder 3. That portion of the jaw 4 overlying the shoulder is cut away at 7 to permit necessary pivotal movement of the jaw 4.

The jaws 3 and 4 are formed with complementary recesses to receive the bit, the jaws in use with the one type of brace illustrated in Fig. 1, having said recesses 8 formed at right angles to the length of the jaws, while the jaws shown in Fig. 3 designed for use with the ordinary carpenter's brace have such recesses formed longitudinally of the jaws, as at 9. The jaws are moved to their operative relation through the medium of the simple type of operating mechanism designed to more or less resiliently clamp the jaws to permit proper gripping of the bit. In the type of such operating mechanism illustrated, 10 represents a yoke and terminally connected to the opposing sides of the jaw 4 and pivotally supporting beyond the jaw 3, or at the opposite end of the yoke arms an operating lever 11. The lever has a cam head 12, and a spring strip 13 is secured to the jaw 3 with its free end normally underlying the cam head. The cam head 12 has a bearing portion 14 so disposed with relation to the pivot of the lever that when the lever is in operative position, it is disposed beyond the line joining the pivot of the lever and the pivot of the yoke, whereby the strain upon the jaws tends to further bind the holding action of the lever, as will be obvious.

In use, the operation of the lever to open the jaws releases the tension on the spring and as the cam head is moved around the spring rides outwardly, maintaining contact with said head. This permits the jaws to remain practically closed simply under the holding influence of the spring, so that pressure upon the lever toward the movable jaw will tend to spread the jaws to permit the insertion of the bit. Upon moving the lever toward locking position, the spring is forced downwardly into contact with the jaw 2, so that the strain of the jaws is taken up through solid contact, hence rigidly locking the bit in place.

What is claimed is:—

A brace having a bit receiving end thereof projected laterally and then forwardly to provide a jaw, the laterally projected portion of the brace being slotted, a second jaw pivotally mounted in the slot and having an area coextensive with that of the first named jaw, the contacting surfaces of the jaws being formed with coöperating channels to together form a bit receiving recess, a yoke pivotally connected to the pivoted jaw, a cam lever mounted upon the yoke, said yoke being of a length to swing around the free ends of the jaws to position the lever beyond the first mentioned jaw or be-

yond the pivoted jaw and a spring strip carried by the fixed jaw to be put under tension in the clamping operation of the lever, the yoke when the lever is in clamping position being inclined to permit a play of the spring under a slight release movement of the lever for initially operating the jaws.

In testimony whereof I affix my signature in the presence of two witnesses.

WILLIAM J. G. TAYLOR.

Witnesses:
H. V. SIVERT,
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Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."