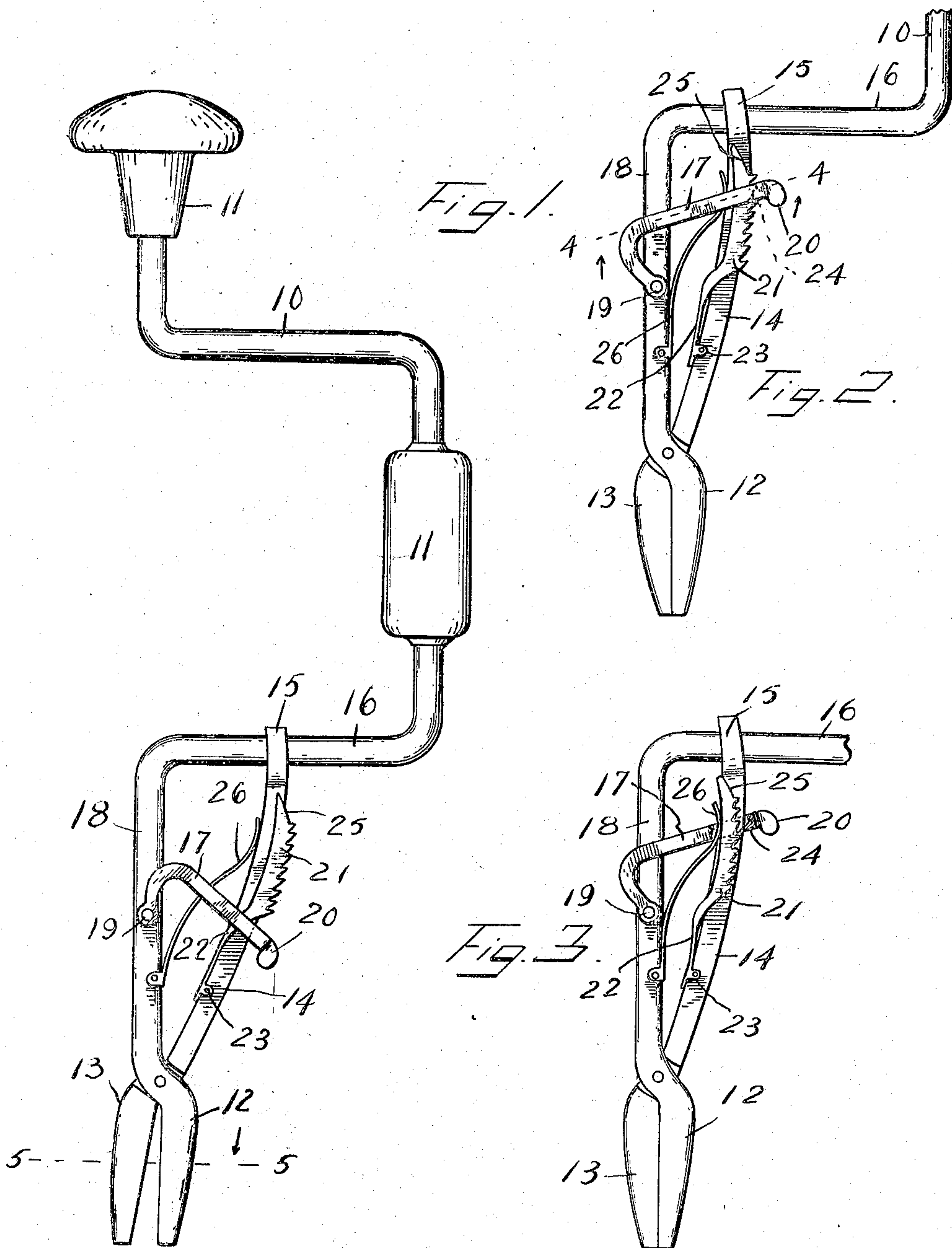


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923,848.

Patented June 8, 1909.

2 SHEETS—SHEET 1.



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BIT BRACE.

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2 SHEETS—SHEET 2.

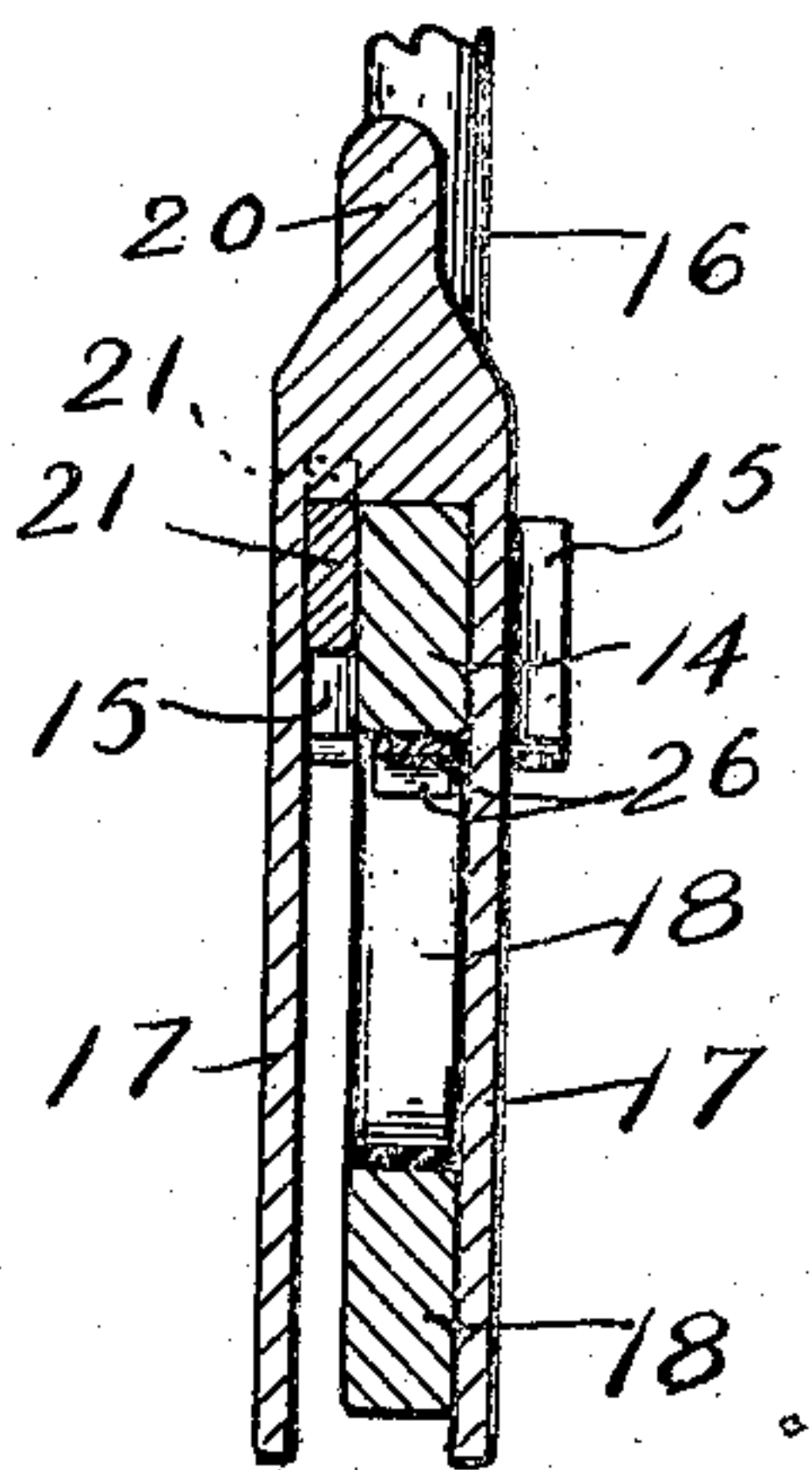


Fig. 4.

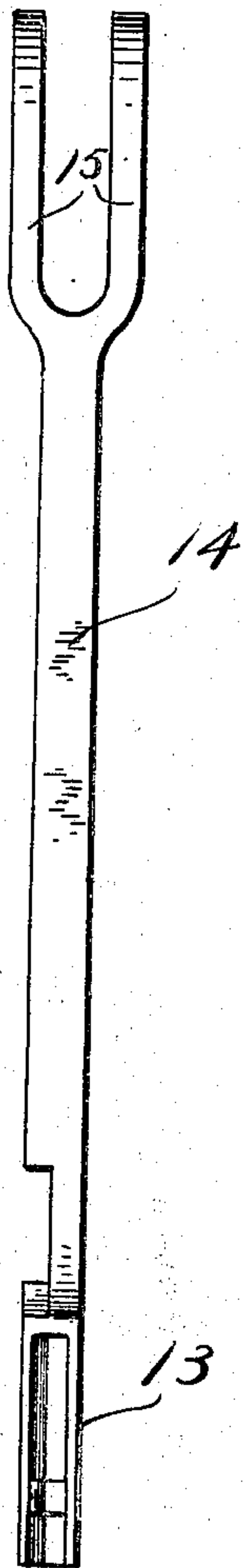


Fig. 5.



Fig. 6.

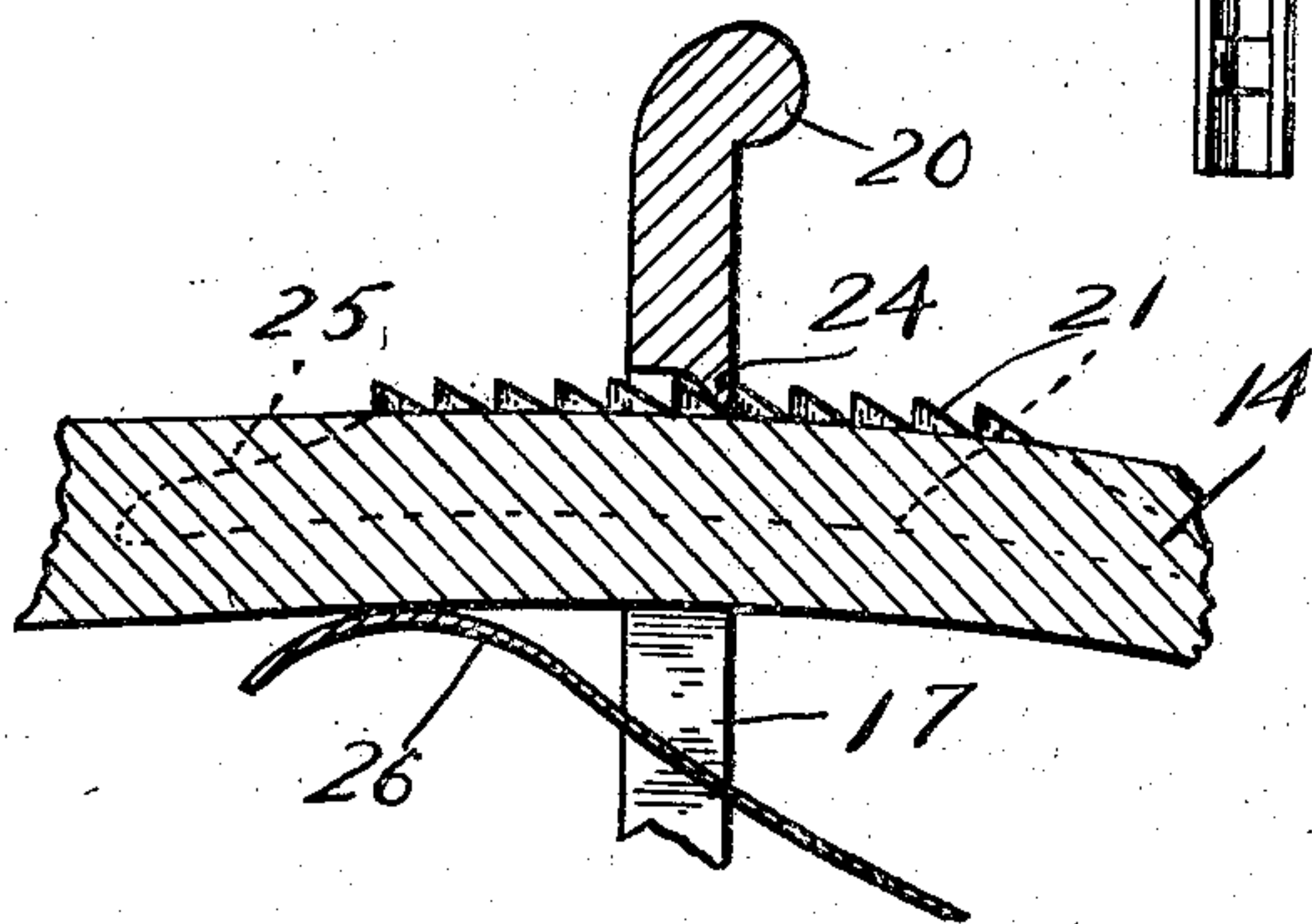


Fig. 7.

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UNITED STATES PATENT OFFICE.

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BIT-BRACE.

No. 923,848.

Specification of Letters Patent.

Patented June 8, 1909.

Application filed April 22, 1908. Serial No. 428,653.

To all whom it may concern:

Be it known that I, WILLIAM P. JOHNSON, a citizen of the United States, residing at Plumtree, in the county of Mitchell, State of North Carolina, have invented certain new and useful Improvements in Bit-Braces; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to bit braces and it has for its object to provide a simple and efficient construction, wherein a bit may be quickly engaged and disengaged, and when engaged, will be held securely in place.

Other objects and advantages of the invention will be understood from the following description.

In the drawings forming a portion of this specification and in which like numerals of reference indicate similar parts in the several views, Figure 1 is an elevation showing the brace with the jaws in disengaging position, Fig. 2 is a view similar to Fig. 1, showing the gripping portion only of the brace, the jaws being in their engaging position, and locked, Fig. 3 is a view similar to Fig. 2, the retaining pawl or link being ready to spring forwardly to release the jaws, the spring pawl being depressed, Fig. 4 is a section on line 4—4 of Fig. 2, Fig. 5 is a section on line 5—5 of Fig. 1, Fig. 6 is an elevation on an enlarged scale, of one of the jaw provided levers of the brace, Fig. 7 is a longitudinal section through one of the levers and the locking pawl or link, the rack being in elevation.

Referring now to the drawings, there is illustrated a brace, including the usual bar 10, having a pressure receiving knob 11 at its upper end, and including a crank portion provided with a grip 11. The lower end of the bar 10, which is usually provided with a type of screw operated chuck, is in the present instance provided with a laterally offset gripping jaw 12 to which is pivoted a cooperative jaw 13 from which extends one arm 14 of the curved operating lever, the opposite end of which is bifurcated as shown at 15 and straddles the lower member 16 of the crank portion of the brace. The mutually adjacent or gripping faces of the jaws 12 and 13 may be constructed in any desired way to afford an efficient gripping action.

In order to hold the gripping jaws 12 and

13 at times in fixed gripping relation, a locking link 17 is provided, which is of U-shape and is disposed to straddle the lever arm 14, and likewise the lower portion 18 of the bar 10, to which portion 18, the extremities of the link are pivoted as illustrated. The pivoted extremities of the legs of the U-shaped link 17 are extended at substantially a right angle from the portions that straddle the lever arm 14, to the pivot 19 by which they are connected to the portion 18 of the bar. The bight portion of the link is provided with a thumb piece 20 which may be grasped, to facilitate the movement of this bight portion along the face of the lever arm 14 in a direction away from the jaws. By reason of the angular extensions of the free ends of the legs of the link 17, it will be understood that rearward movement of the bight portion of the link will affect rapid movement of the free end of the lever arm 14, in the direction of the portion 18 of the bar of the brace. The portion 18 forms in effect a lever extension of the jaw 12 in exactly the same manner as the portion 14 forms a lever extension of the jaw 13, all of which will be readily understood.

The curved outer edge of the lever arm 14 is normally in engagement with the bight portion of the link 17.

To hold the link 17 in its rearward or locking position, the rack 21 is provided, this rack having an integral spring extension 22 at one end, which extension is disposed against the inner face or edge of the lever arm 14, in which position this spring held rack bar is secured by a pin passed through the lever arm 14 and through the embracing ears 23 formed upon the spring extension of the rack. The spring extension 22 serves to hold the rack normally with its teeth projected beyond the outer or upper face of the lever arm 14 so that its teeth may receive the pawl lip 24 formed on the inner face of the bight of the locking link. To facilitate depression of the rack into releasing position, it is provided at its free end with a thumb extension 25.

Secured to the inner edge portion of the member 18, is a leaf spring 26, the free end of which bears against the inner end of the lever arm 14, and serves to throw it outwardly and thus open the jaws, when the link 17 is thrown forwardly or in the direction of the jaws. In fact, as soon as the rack is depressed, the upward movement of the

lever arm 14 under the influence of this leaf spring, serves to throw the link or pawl 17 into its disengaging or forward position. Thus to release the bit, it is only necessary to
5 press the thumb extension 25 of the spring rack bar.

From the above description it will be understood that there is provided a structure having all the functions contemplated
10 in the present invention.

Having thus described the invention what is claimed is:

1. A clamp comprising gripping members, a locking member carried by one of the gripping members and movable into and out of
15 position to hold the gripping members in active correlation, said locking member including a knife-edge, and a rack yieldably supported on the second gripping member
20 and movable into and out of position for engagement by the knife-edge.

2. A clamp comprising gripping members, a locking member carried by one of the gripping members and movable into and out of
25 position to hold the gripping members in active correlation, said locking member in-

cluding a knife-edge, a rack yieldably supported on the second gripping member and movable into and out of position for engagement by the knife-edge, and means for
30 holding the rack normally and yieldably in engagement with the knife-edge.

3. A bit brace provided with a clamping jaw, a lever pivoted to said brace and having a clamping jaw complementary to said brace
35 jaw, a yielding rack bar carried by said lever, and a link pivotally secured to said brace and engaging the rack bar.

4. A bit brace provided with a clamping jaw, a lever pivoted to said bit brace and
40 having a clamping jaw complementary to said bit brace jaw, a yielding rack bar carried by said lever, a link pivotally secured to said brace and engaging the rack bar, and means to normally hold said rack bar in
45 operative connection with said link.

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

WILLIAM P. JOHNSON.

Witnesses:

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