

No. 698,900.

Patented Apr. 29, 1902.

F. R. BROWN.
CLAMP FOR ROCK DRILLS.

(Application filed July 18, 1901.)

(No Model.)

2 Sheets—Sheet 1.

Fig. 1.

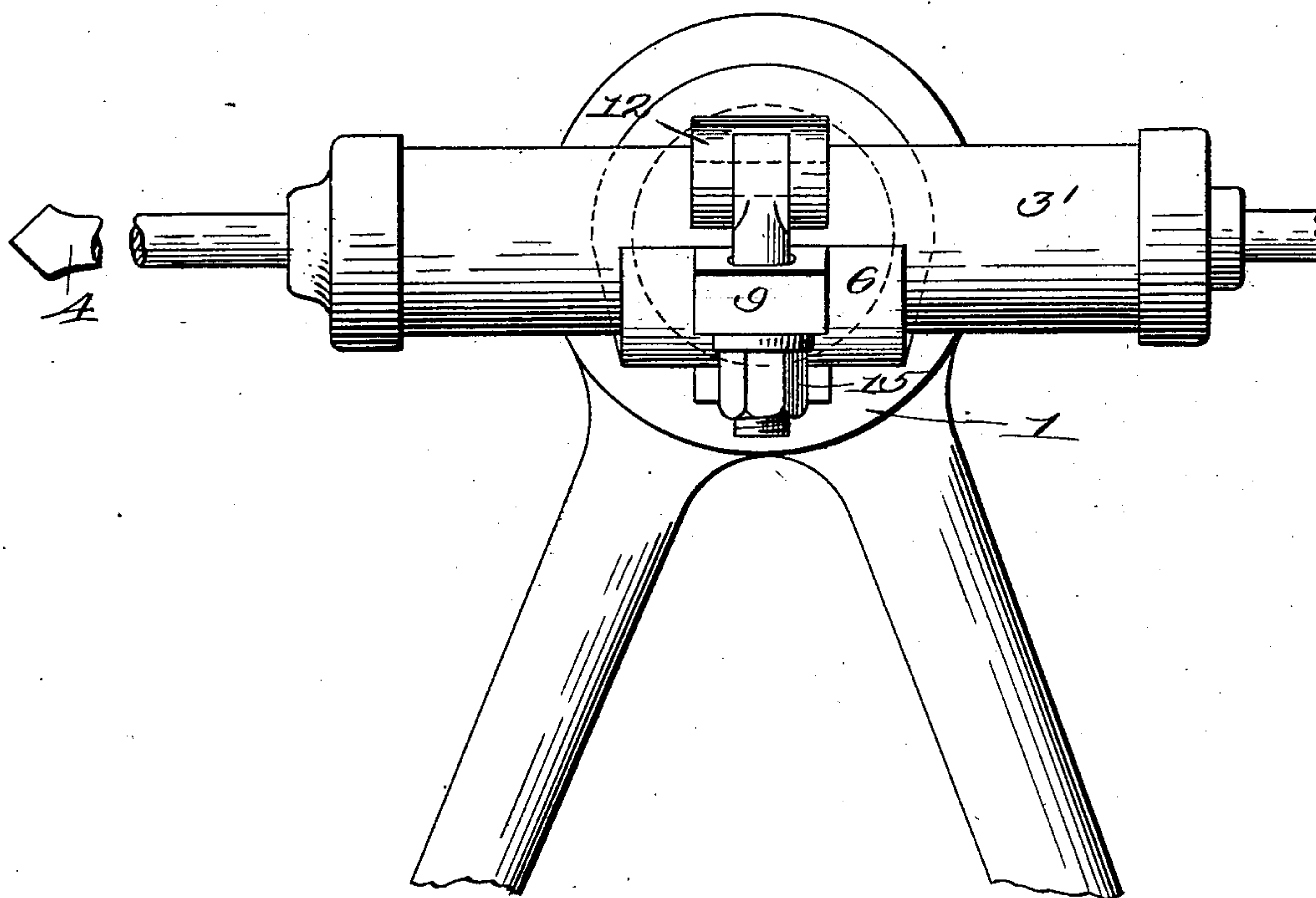
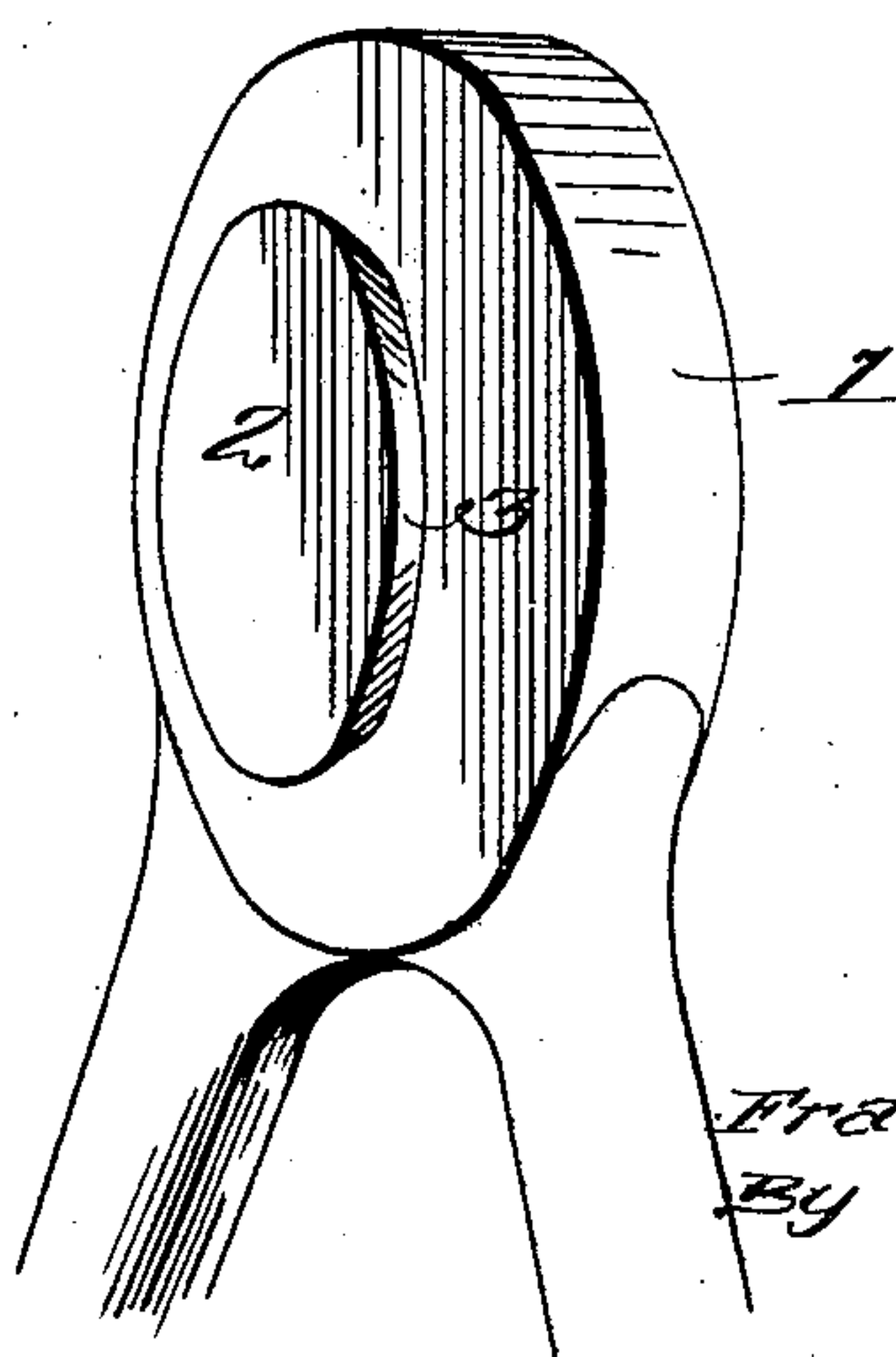


Fig. 2.



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Fig. 3.

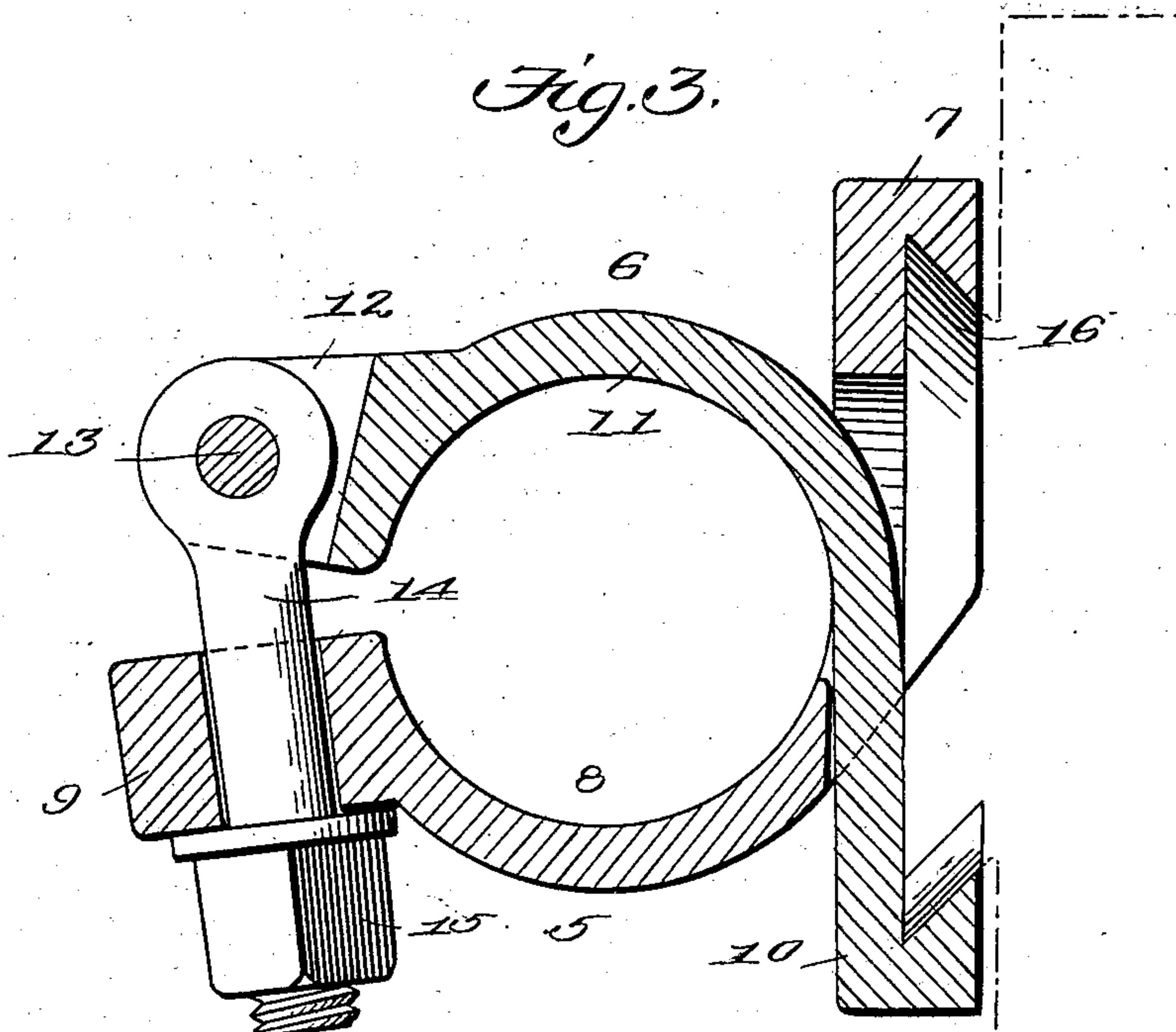
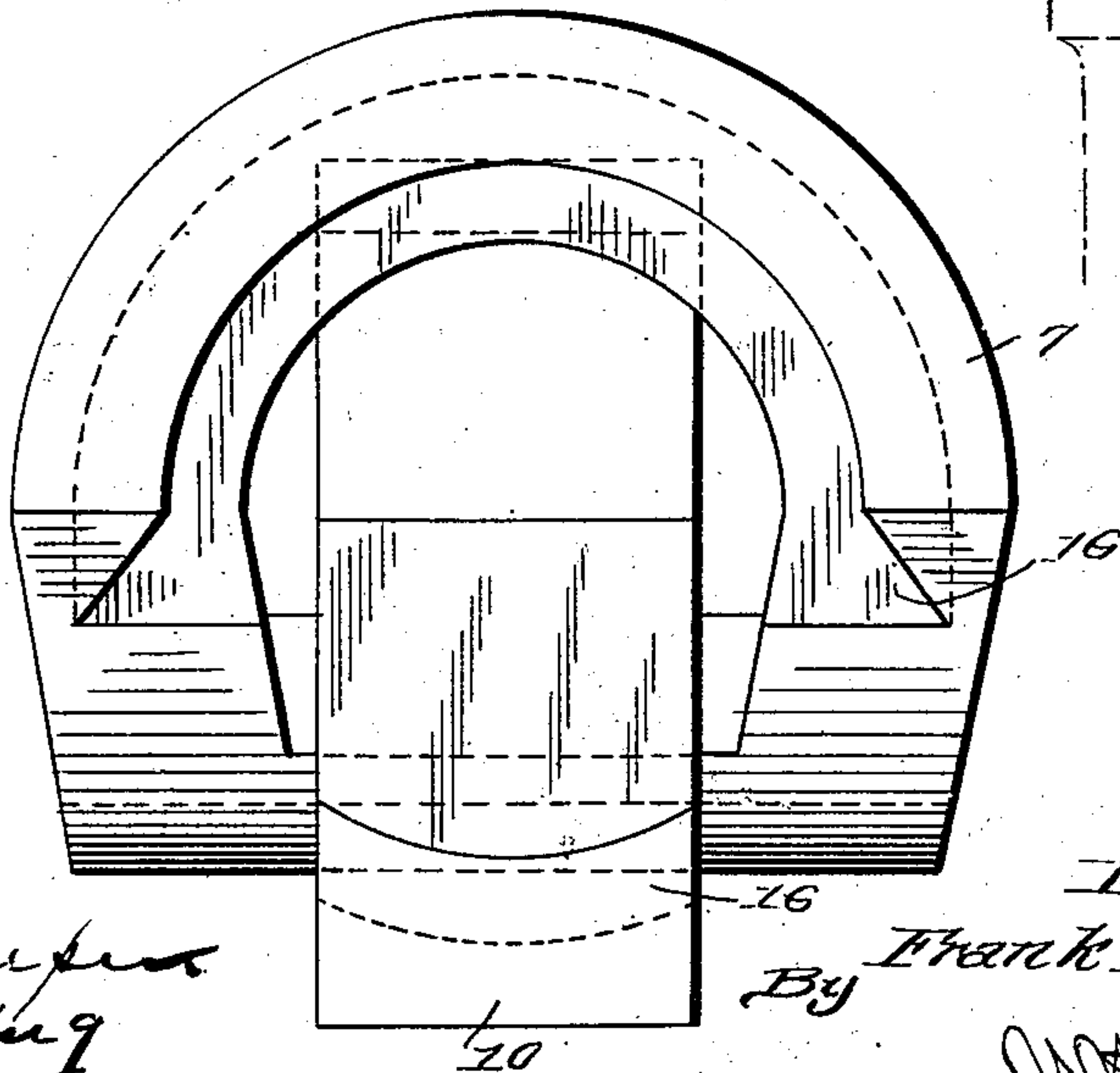


Fig. 4.



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UNITED STATES PATENT OFFICE.

FRANK R. BROWN, OF UNGA, ALASKA TERRITORY.

CLAMP FOR ROCK-DRILLS.

SPECIFICATION forming part of Letters Patent No. 698,900, dated April 29, 1902.

Application filed July 18, 1901. Serial No. 68,794. (No model.)

To all whom it may concern:

Be it known that I, FRANK R. BROWN, a citizen of the United States, residing at Unga, Alaska Territory, have invented certain new and useful Improvements in Clamps for Rock-Drills, of which the following is a specification.

This invention relates to clamps for rock-drills, and has for its object to provide a clamp of the character described which will be simple, strong, and durable in construction and secure and efficient in operation and by means of which the drill may be adjusted at any desired angle with ease and rapidity and may be as quickly and easily locked in its adjusted position.

To these ends my invention consists in the features and in the construction, combination, and arrangement of parts hereinafter described, and particularly pointed out in the claims following the description, reference being had to the accompanying drawings, forming part of this specification, wherein—

Figure 1 is a view in elevation, showing the drill in operative position. Fig. 2 is a detail view of that portion of the stand or support upon which the drill is adjustably mounted. Fig. 3 is a vertical sectional view of the clamp, and Fig. 4 is a bottom or under side view thereof.

Referring to the drawings, the numeral 1 indicates a stand or support upon which the drill is operatively supported, and said stand may be constructed in any of the ordinary and well-known manners or in any desired or preferred way suitable for the purpose. Fixed to or formed in the stand is a circular lug 2, the periphery of which is beveled off or undercut at 3, forming a frusto-conical pivot, the base or outer portion of which is of the greatest diameter.

The numeral 3' indicates the barrel of the drill, and 4 the drill-point. The barrel 3' is secured in the clamp, which I will now describe.

Referring more particularly to Figs. 3 and 4 of the drawings, the numeral 5 indicates one member of the two-part or sectional clamp, and 6 the other member thereof. The member 5 comprises a flat base 7 of substantially horseshoe or U shape, from which arises a semicircular jaw 8, provided at its end with

an upwardly or substantially radially projecting lug 9. The other member 6 of the clamp comprises a flat base 10, from which arises a semicircular jaw 11, provided on its upper end with a bifurcated lug 12. In the bifurcated lug 12 is pivoted, by means of a bolt or rivet 13, a screw 14, which passes through a suitable perforation formed in the lug 9, before referred to. Over the threaded end of the screw 14, outside of the lug 9, is screwed a nut 15, which is adapted to engage the outer face of the lug 9, as most clearly shown in Fig. 3. In the under inner faces of the bases 7 and 10 of the two jaws are formed dovetailed rabbets or grooves 16, each of said grooves being formed on the arcs of a common circle. The bases 7 and 10 fit over the lug 2 on the stand, and by screwing up the nut 15 said bases embrace or hug said lug tightly, so as to prevent any rotation of the clamp upon said lug. The jaws at the same time are caused to tightly clamp the barrel of the drill-rod and hold the latter in a fixed position. When it becomes necessary to change the inclination or angle of the drill-rod, it is only necessary to loosen the nut 15, whereupon the clamp partially releases the barrel of the drill-rod, which may then be adjusted as desired within the clamp, and the clamp and drill-rod may then be turned around the lug 2 as a pivot or axis to point the drill-rod in the desired direction. Then by taking up the nut the parts are again locked rigidly against movement. By means of my improved clamp the drill may not only be adjusted at any angle desired, but the same manipulation of the parts that permits of the angular adjustment of the drill also permits of the adjustment of the drill in any desired manner within the clamp. The adjustments referred to may be effected instantly and with ease, and after they are effected the drill is rigidly and securely locked in position against accidental displacement.

Having now described my invention, what I claim is—

1. In a clamp for rock-drills, the combination with a stand or support having a frusto-conical pivot, of a clamp comprising two oppositely-disposed semicylindrical jaws adapted to embrace the barrel of the drill-rod, one of said jaws being provided with a substantially

U-shaped base and the other jaw being provided with a base arranged to slide between the sides of said U-shaped base, each of said bases on their inner edges being provided
5 with arc-shaped dovetailed grooves, the said bases embracing the pivot on the stand, and means carried by the ends of the jaws for adjustably drawing the latter and said bases together, substantially as described.

10 2. In a clamp for rock-drills, the combination with a stand or support having a laterally-projecting pivot, of a clamp comprising two oppositely-disposed semicylindrical jaws adapted to embrace the barrel of the drill,
15 one of said jaws being provided with a substantially U-shaped base and the other jaw being provided with a base arranged to slide between the sides of said U-shaped base, each of said bases on their inner edges being
20 shaped to correspond to the shape of the said pivot and to embrace and clasp the latter, a screw pivoted at one end to one end of one of said jaws and loosely passing through the corresponding end of the other jaw, and a nut
25 screwed over the end of said screw for drawing the jaws and bases together, substantially as described.

3. In a clamp for rock-drills, the combination with a stand or support having a frusto-
conical pivot, of a clamp comprising two oppositely-disposed semicylindrical jaws adapted
30 to embrace the barrel of the drill-rod, one of said jaws being provided with a substantially U-shaped base and the other jaw being provided with a base arranged to slide between
35 the sides of said U-shaped base, each of said bases upon their inner edges being provided with arc-shaped dovetailed grooves, a screw pivoted at one end to one end of one of said jaws and loosely passing through the corresponding
40 end of the other jaw, and a nut screwed over the end of said screw for drawing the jaws and bases together, said bases embracing the pivot on the stand, substantially as described and for the purpose specified.
45

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

FRANK R. BROWN.

Witnesses:

FRED GREGG,

W. F. SCHLOTHAN.