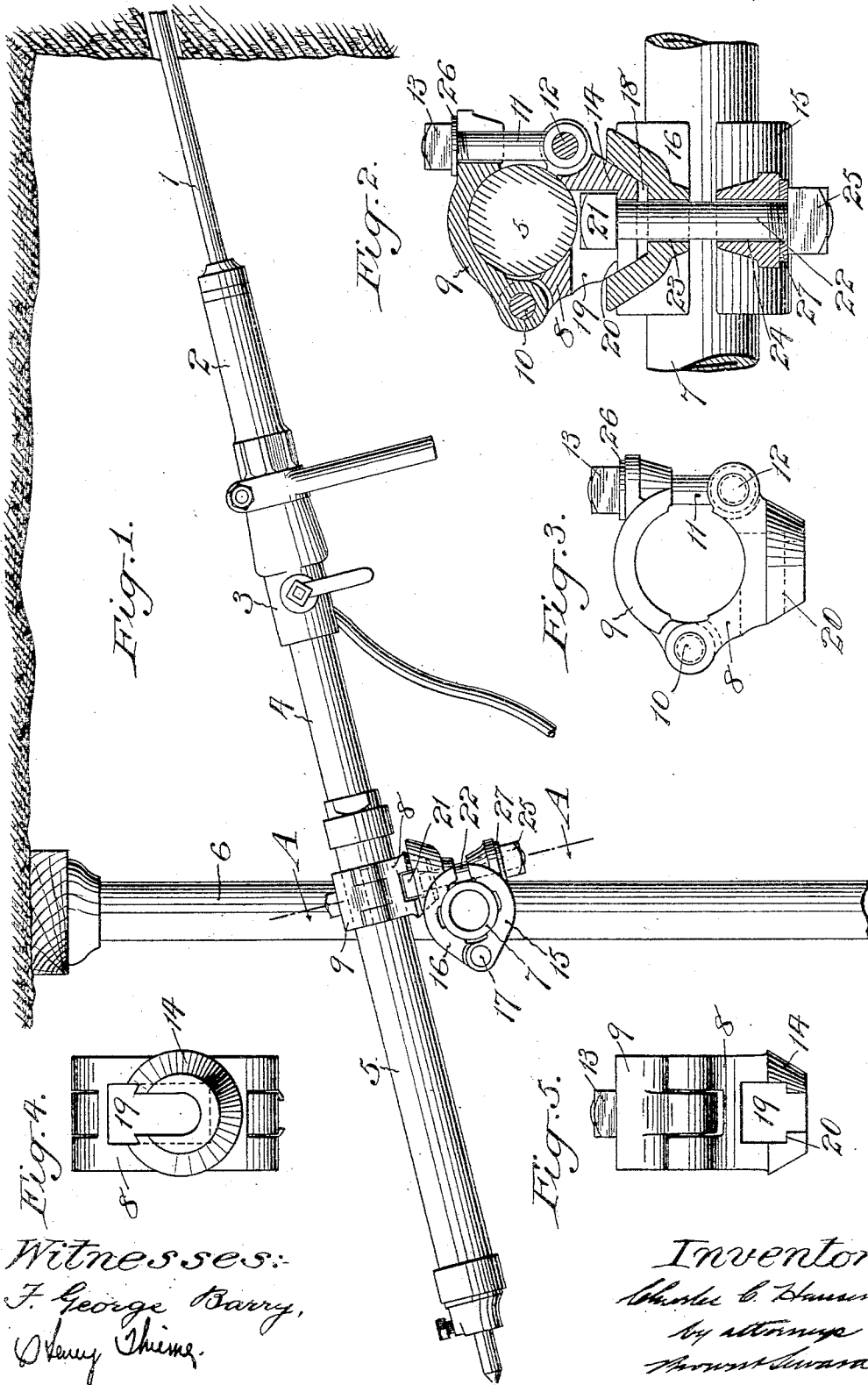


C. C. HANSEN.
MOUNTING FOR DRILLS.
APPLICATION FILED SEPT. 2, 1908.

956,850.

Patented May 3, 1910.



UNITED STATES PATENT OFFICE.

CHARLES C. HANSEN, OF EASTON, PENNSYLVANIA, ASSIGNOR TO INGERSOLL-RAND COMPANY, OF NEW YORK, N. Y., A CORPORATION OF NEW JERSEY.

MOUNTING FOR DRILLS.

956,850.

Specification of Letters Patent.

Patented May 3, 1910.

Application filed September 2, 1908. Serial No. 451,442.

To all whom it may concern:

Be it known that I, CHARLES C. HANSEN, a citizen of the United States, and resident of Easton, in the county of Northampton and State of Pennsylvania, have invented a new and useful Improvement in Mountings for Drills, of which the following is a specification.

The object of this invention is to provide certain improvements in the construction, form and arrangement of the several parts of a mounting for drills, especially adapted for hammer drills, whereby the drill may be secured to its support in the desired adjustments by a very simple device.

A practical embodiment of the invention is represented in the accompanying drawings in which—

Figure 1 represents a hammer drill and a support therefor with my improved mounting applied thereto, the parts being shown in position for use. Fig. 2 is an enlarged detail section taken in the plane of the line A—A of Fig. 1, looking in the direction of the arrows. Fig. 3 is a detail end view of the drill clamp, Fig. 4 is a bottom plan view of the same, and Fig. 5 is a side view of the said drill clamp.

The tool shown herein is of the air feed hammer drill type, the drill steel being denoted by 1, the cylinder by 2, the head block by 3, the air feed piston by 4 and the air feed cylinder by 5. The support which I have shown for the hammer drill comprises a vertical column 6 and its laterally extended arm 7.

The drill clamp comprises two members 8 and 9 hinged at 10, which clamp is fitted to engage the drill by embracing the air feed cylinder 5 thereof. A clamp bolt 11 is hinged at 12 to the base member 8 of the clamp and the bolt is provided with a nut 13 for clamping the members to and releasing them from the said air feed cylinder of the hammer drill. This base member 8 of the drill-clamp is provided with a cone 14 for pivotally mounting the hammer drill on the support clamp to be herein described. The support clamp comprises two members 15, 16, hinged at 17, which members are herein shown as fitted to engage the support by embracing the laterally extended column arm 7. The member 16 of the column clamp is provided with a recess 18 for the reception of the cone 14 of the drill clamp.

The single means which I have shown for securing the drill clamp to the support clamp and the support clamp to the support in the desired adjustments is constructed and arranged as follows: The base member 8 of the drill clamp is provided with an elongated slot 19 extending into the cone, which slot is provided with shoulders 20 for engaging the head 21 of a bolt which may be freely entered and removed from said slot 19. The shank 22 of this bolt, when in position, passes through a hole 23 in the free end of the member 16 of the support clamp centrally with respect to the cone 14 and recess 18, which shank also passes through a hole 24 in the free end of the member 15 of the support clamp. The screw-threaded end of this bolt is provided with a nut 25, which nut, when screwed home, serves the double purpose of drawing the drill clamp cone 14 snugly into the recess 18 in the member 16 of the support clamp for securing the drill clamp to the support clamp and also serves to draw the two members 15, 16, of the support clamp into snug engagement with the column arm 7 for securing the clamp to its support.

A suitable washer 26 may be interposed between the nut 13 and the free end of the drill clamp member 9 and a similar suitable washer 27 may be interposed between the nut 25 and the free end of the support clamp member 15 if so desired.

By loosening the nut 25, the drill may be adjusted into any desired angular position with respect to its support by turning the drill clamp with respect to the support clamp and the support clamp with respect to its support. When the drill has been adjusted in the desired position, the parts may be clamped in such position by tightening the said nut 25.

The drill may be removed from its clamp by loosening the nut 13 of the bolt 11 sufficiently and the support clamp may be removed from its support by loosening the nut 25 on its bolt. Furthermore, the drill clamp may be removed from the support clamp by loosening the nut 25 sufficiently to permit the drill clamp cone to be removed from its recess so that the head of the bolt may be removed from the elongated slot in the member of the drill clamp which is provided with the said cone.

It will be seen from the above description

that a very simple device is provided for permitting the angular adjustment of the hammer drill with respect to its support.

While I have shown the mounting in connection with an air feed hammer drill, it is to be understood that it may be used in connection with any other tools to which it can be applied.

What I claim is:

10 1. In a mounting for drills, a suitable support, a clamp engaging the support having a recess therein, a clamp engaging the drill having a cone fitted to said recess and provided with a lateral opening through its wall for the passage of a bolt head and a single bolt for securing the drill clamp cone within the support clamp recess and the support clamp to the support in the desired adjustments.

20 2. In a mounting for drills, a suitable support, a clamp engaging the support having a recess therein, a clamp engaging the drill having a cone fitted to said recess and provided with an opening through its wall, the said opening having different widths for the passage of the head and shank of

a bolt and a bolt for securing the drill clamp cone within the support clamp recess and the support clamp to the support in the desired adjustments.

3. In a mounting for drills, a suitable support, a support clamp comprising two members hinged together one of said members having a recess therein, a drill clamp comprising two members hinged together one of said members having a cone fitted to said recess in one of the support clamp members and provided with an opening extending laterally through its wall for receiving and seating a bolt, means for securing the drill clamp on to the drill and a bolt for securing the drill clamp cone within its recess and the support clamp to its support in the desired adjustments.

In testimony, that I claim the foregoing as my invention, I have signed my name in presence of two witnesses, this twenty-ninth day of August 1908.

CHARLES C. HANSEN.

Witnesses:

ARTHUR J. SHIMER,
HERBERT S. YOUNG.