No. 689,766. Patented Dec. 24, 1901.

A. WALKER.

POST DRILL FRAME.

(Application filed May 8, 1901.)

(No Model.)

Fig. 1.

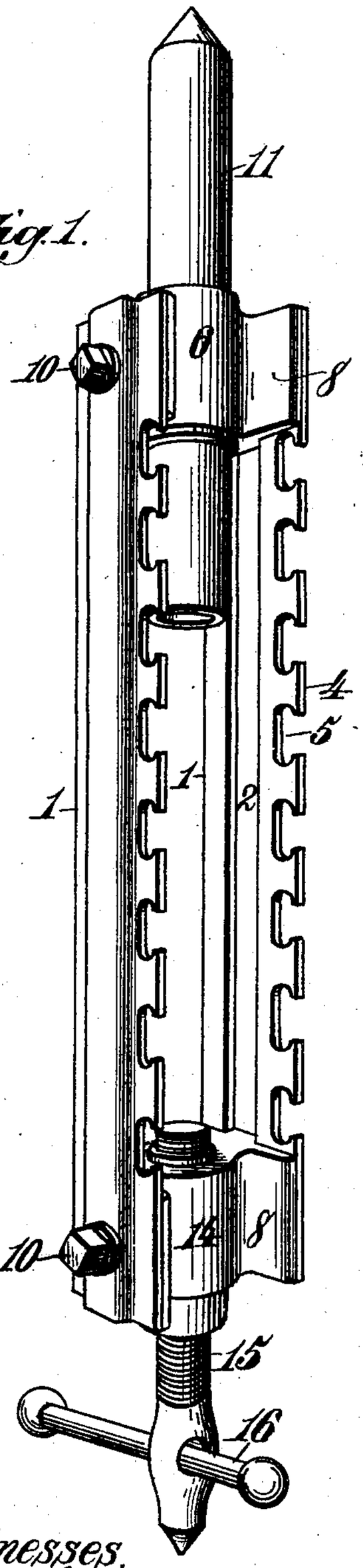


Fig. 2.

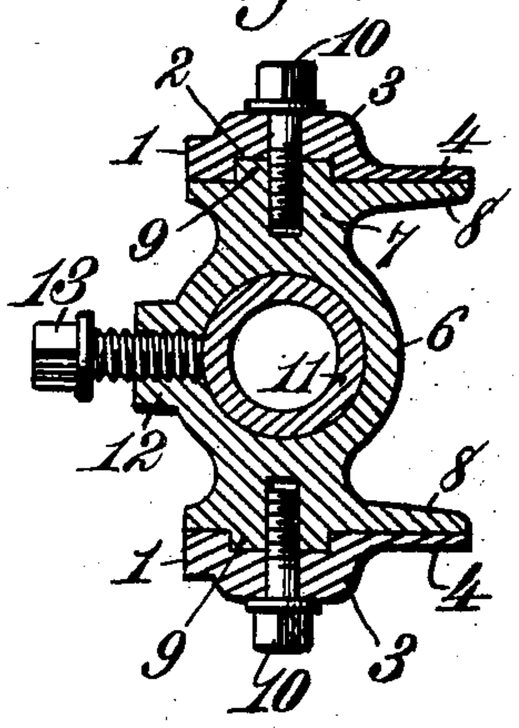


Fig. 3.

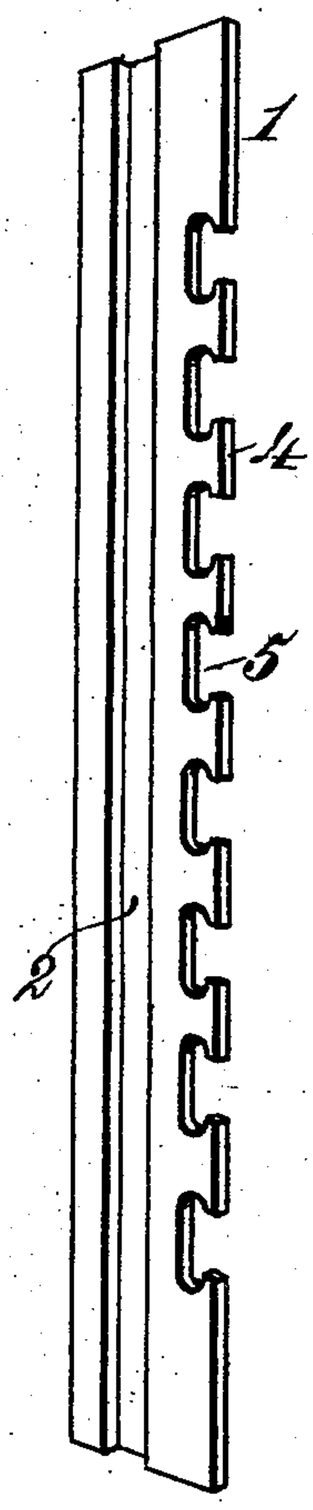
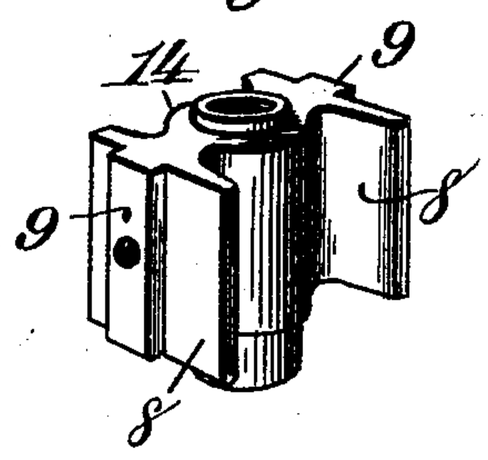


Fig. 4.



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UNITED STATES PATENT OFFICE.

ALEXANDER WALKER, OF WHATCHEER, IOWA, ASSIGNOR TO WHAT CHEER DRILL AND MINERS TOOL CO., OF WHATCHEER, IOWA, A CORPORATION OF IOWA.

POST-DRILL FRAME.

SPECIFICATION forming part of Letters Patent No. 689,766, dated December 24, 1901.

Application filed May 8, 1901. Serial No. 59,339. (No model.)

To all whom it may concern:

Be it known that I, ALEXANDER WALKER, a citizen of the United States, residing at Whatcheer, in the county of Keokuk and State of Iowa, have invented new and useful Improvements in Post-Drill Frames, of which the following is a specification.

This invention relates to an improved post-drill frame of the general character shown and described in my prior patent, No. 463,469, dated November 17, 1891, and has for its object to provide a drill-frame having certain novel features of construction whereby the structure as a whole will be light and simple and possess great strength.

In order to enable my invention to be clearly understood, I have illustrated the same in the accompanying drawings, in which—

Figure 1 is a perspective view of the drill-frame. Fig. 2 is a transverse section thereof, taken through one of the end castings. Fig. 3 is a detail view of one of the side bars, and Fig. 4 is a like view of an end casting.

Referring now to the drawings, 1 indicates the side bars of the drill frame or post, which are formed of plates of metal provided on their inner sides with flat bearing-faces and with central longitudinal grooves 2, extending throughout the length of the bars. Said bars are thickened or convexed longitudinally, as indicated at 3, so that they shall not be weakened by the provision of the grooves 2. On the contrary, said bars constructed as described are much stronger than ordinary flat metal bars would be on the principle well understood by those familiar with metal constructions. At one side each of the bars 1 has a flange extension 4, which is provided with a series of recesses 5 to receive the trunnions of the gear-box, as usual. At their upper ends the side bars are united to an end casting, which consists of a central cylindrical sleeve 6, provided on opposite sides with thick integral webs 7, terminating in relatively wide flanges 8, which have their outer sides flat to bear against the faces of the side bars and provided with tongues 9, adapted to be received and fit closely in the grooves 2 of the side bars. The end casing is secured in position by means of cap-screws 10 passing through openings in the side bars and engaging in suitable screw-threaded openings in said casting. Upon one side of the sleeve 6, which forms a box for an extension-pipe 11, is cast a boss or nipple 12, having a threaded opening for a set-screw 13, by means of which the extension-pipe 11 may be locked in any desired adjusted position. At their lower ends the side bars are connected to an end casting 14, similar in all material respects to the one described and differing therefrom only in the provision of a female thread in the central sleeve or box, which receives a jack-screw 15, having a handle or lever 16, as usual.

By the construction of side bars above described I am enabled to dispense with separate trunnion-supporting plates, such as shown in my patent named, and also with the side flanges on the end castings for embracing the edges of the side bars, as the tongue-and-groove connection shown answers all the purposes of these flanges—that is to say, the engagement of the tongues 9 in the grooves 2 operates to hold the end castings in firm fixed relation to the side bars.

Having thus fully described my invention, what I claim as new is—

1. A post-drill frame having side bars each of which is in the form of a metal bar flat on its inner side and provided on said inner side with a central longitudinal groove and a corresponding thickened portion opposite said groove.

2. A post-drill frame having side bars, each of which is in the form of a metal bar flat on its inner side and provided with a central longitudinal groove, and end castings secured between said bars at opposite ends thereof and having on opposite sides tongues seated in said grooves.

3. A post-drill frame having side bars, each of which is in the form of a metal bar flat on its inner side and provided with a central longitudinal groove and an integral flanged extension 4 provided with recesses 5.

4. A post-drill frame having side bars, each of which is provided with a flat bearing-surface and with a central longitudinal groove, and end castings secured between said bars

at opposite ends thereof and having on opposite sides flat surfaces bearing against the faces of said side bars and tongues seated in the grooves thereof.

5. A post-drill frame having side bars, each of which is provided with a central longitudinal groove and with an integral flanged extension 4, provided with recesses 5, and end castings secured between said bars at opposite ends thereof and having on opposite sides tongues seated in said grooves.

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

ALEXANDER WALKER.

Witnesses:

JESSE N. SOUTHWICK,

JAMES DAVISON.