No. 877,749. PATENTED JAN. 28, 1908.

A. WALKER.

DRILLING MACHINE.

APPLICATION FILED MAY 2, 1907.

Fig. 1.

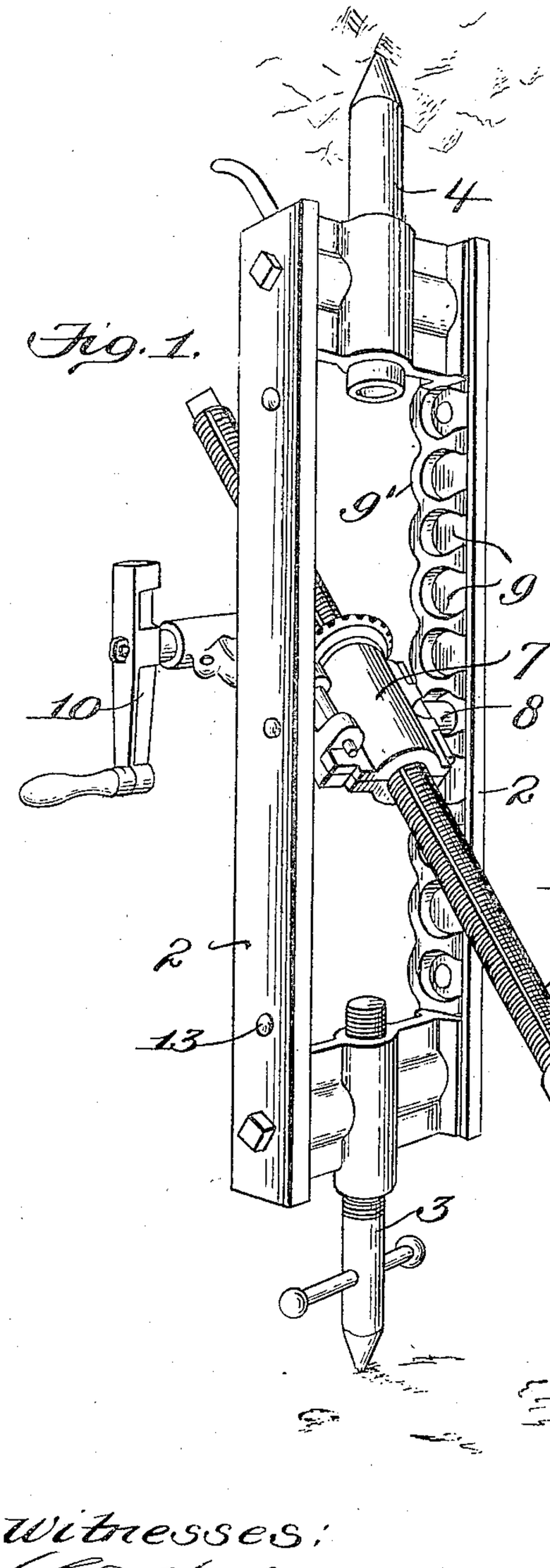


Fig. 2.

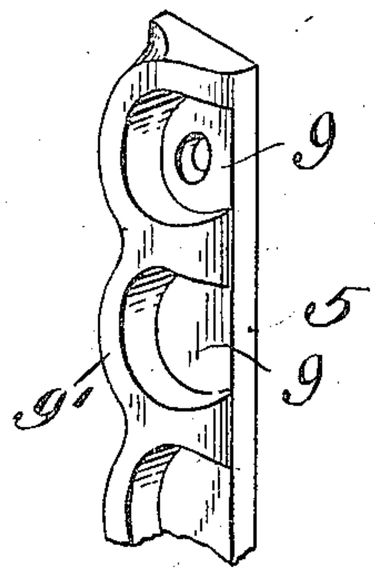


Fig. 3.

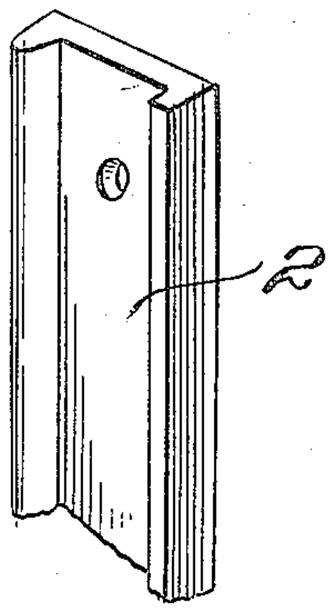
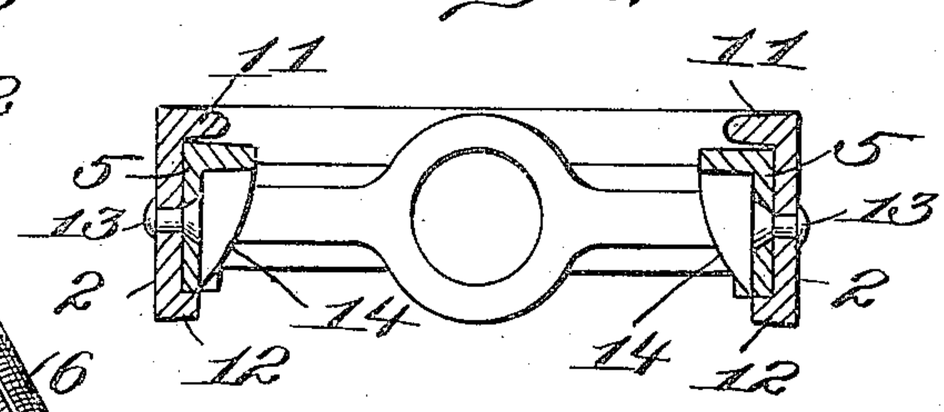


Fig. 4.



Witnesses:
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UNITED STATES PATENT OFFICE.

ALEXANDER WALKER, OF WHAT CHEER, IOWA, ASSIGNOR TO WHAT CHEER TOOL CO., OF WHAT CHEER, IOWA, A CORPORATION OF IOWA.

DRILLING-MACHINE.

No. 877,749. Specification of Letters Patent. Patented Jan. 28, 1908.

Application filed May 2, 1907. Serial No. 371,430.

To all whom it may concern:

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

This invention relates to drilling-machines, the object of the invention being to provide an article of this character which is comparatively light yet thoroughly strong.

The device possesses other objects and advantages which with the foregoing will be set forth at length in the following description wherein is outlined in detail that form of embodiment of the invention which I have selected for illustration in the accompanying drawings forming a part of the present specification.

The present machine is of the same general character as that shown in Letters Patent No. 463,469 issued to me November 17, 1891, and to which reference may be had.

Referring to the drawings: Figure 1 is a perspective view of said drilling machine. Fig. 2 is a detail view in perspective of a portion of a trunnion-supporting plate. Fig. 3 is a like view of a portion of one of the side bars of the frame of the machine, and Fig. 4 is a cross sectional view of said machine.

Like characters refer to like parts throughout the several figures of the drawings.

In said drawings I have shown the complete drilling machine, and the same includes in its construction two side bars each designated by 2 and of duplicate character. To the lower portion of the frame is connected a jack screw as 3 and to the upper end thereof is connected an extension member 4 substantially as shown in the Letters Patent to which I have referred. As these features form in themselves no part of the present invention, it is needless to describe the same more fully.

To the inner faces of the side bars 2 are fitted respectively trunnion-supporting plates as 5, and the respective plates may be connected to the side bars in any desirable way, for example, by riveting, as disclosed in said Letters Patent.

The drill is designated by 6 and it is movable through a divided boxing as 7 having trunnions as 8 adapted to fit registering seats as 9 in the companion trunnion-supporting plates 5, all as fully set forth in the said Letters Patent. The drill 6 may be operated exactly as disclosed by said Letters Patent, for which reason it is not necessary to describe in detail this feature of the present machine, except to briefly allude to the actuating crank 10.

I extend practically along the rear of each side bar 2 a flange as 11, the two flanges facing each other, as clearly shown in Fig. 4. In addition to the rear flanges I provide upon the bars 2 front flanges as 12 which also extend toward each other, from which it will be apparent that the several flanges project inwardly from the inner faces of the respective side bars. The respective flanges 11 and 12 provide channels therebetween and the trunnion-supporting members 5 fit in these channels, the flanges forming which prevent lateral motion of the supporting plates. I prefer to make the inner faces or edges of the flanges 12 substantially flush with the inner faces of the bodies of the coöperative trunnion-supporting plates so that there will be no projection between the forward flanges 12 and the plates 5, by means of which the trunnions 8 can be readily entered in their seats 9 formed by the serpentine ribs 9′. The flanges 11 and 12, therefore, materially take the strain off the rivets 13 which connect the plates 5 with the side bars 2. The back or rear flanges 11 are deeper than the front flanges 12, as the former are subjected to greater strain than the latter.

It will be seen, on reference to Figs. 2 and 4, that the inner faces of the ribs 9′ are rounded or beveled off as shown at 14, and that these rounded or beveled off faces 14 merge into the respective surfaces of the flanges 12, so that, in addition to providing for lightness, I provide for the ready entrance of the two trunnions 8 into the receiving seats therefor.

What I claim is:

1. A drilling machine comprising a frame having side bars, each side bar having flanges along the front and rear thereof facing respectively toward each other to provide channels, and trunnion-supporting plates fitted between the respective flanges, the inner faces of the front flanges being substantially flush with the inner faces of the bodies of the respective plates.

2. A drilling machine comprising a frame

having side bars, each side bar having flanges along the front and rear thereof facing respectively toward each other to provide channels, and trunnion-supporting plates fitted between the respective flanges, the inner faces of the front flanges being substantially flush with the bodies of the inner faces of the respective plates, and said plates having serpentine ribs beveled on their inner surfaces and the beveled surfaces merging in the surfaces of said front flanges.

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

ALEXANDER WALKER.

Witnesses:

WILLIAM EDWARD WALKER,

ROBERT SCHOTT.