

No. 881,721.

J. M. ROHLFING.

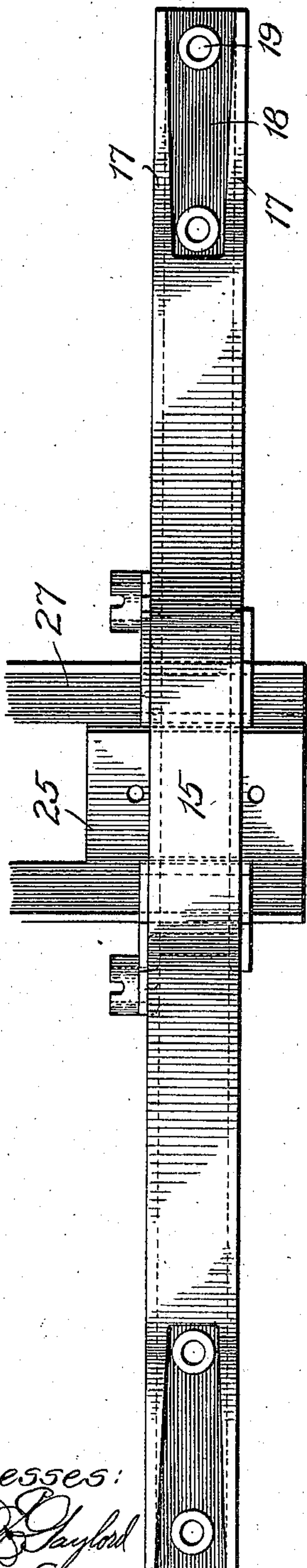
PATENTED MAR. 10, 1908.

TRUCK FRAME.

APPLICATION FILED NOV. 20, 1907.

3 SHEETS—SHEET 1.

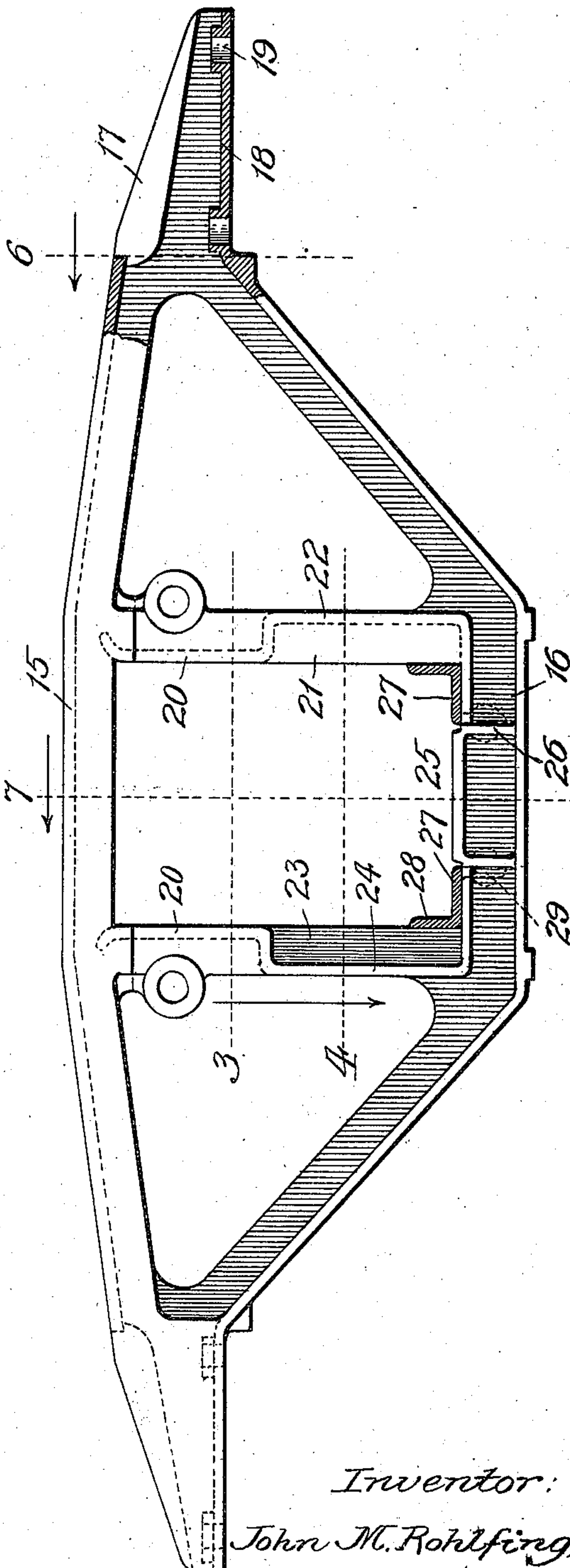
Fig. 1.



Witnesses:

*Edw. C. Layford*  
*John Enders.*

Fig. 2.



Inventor:

*John M. Rohlfing,*  
*By Sheridan & Wilkinson*  
*Attys.*

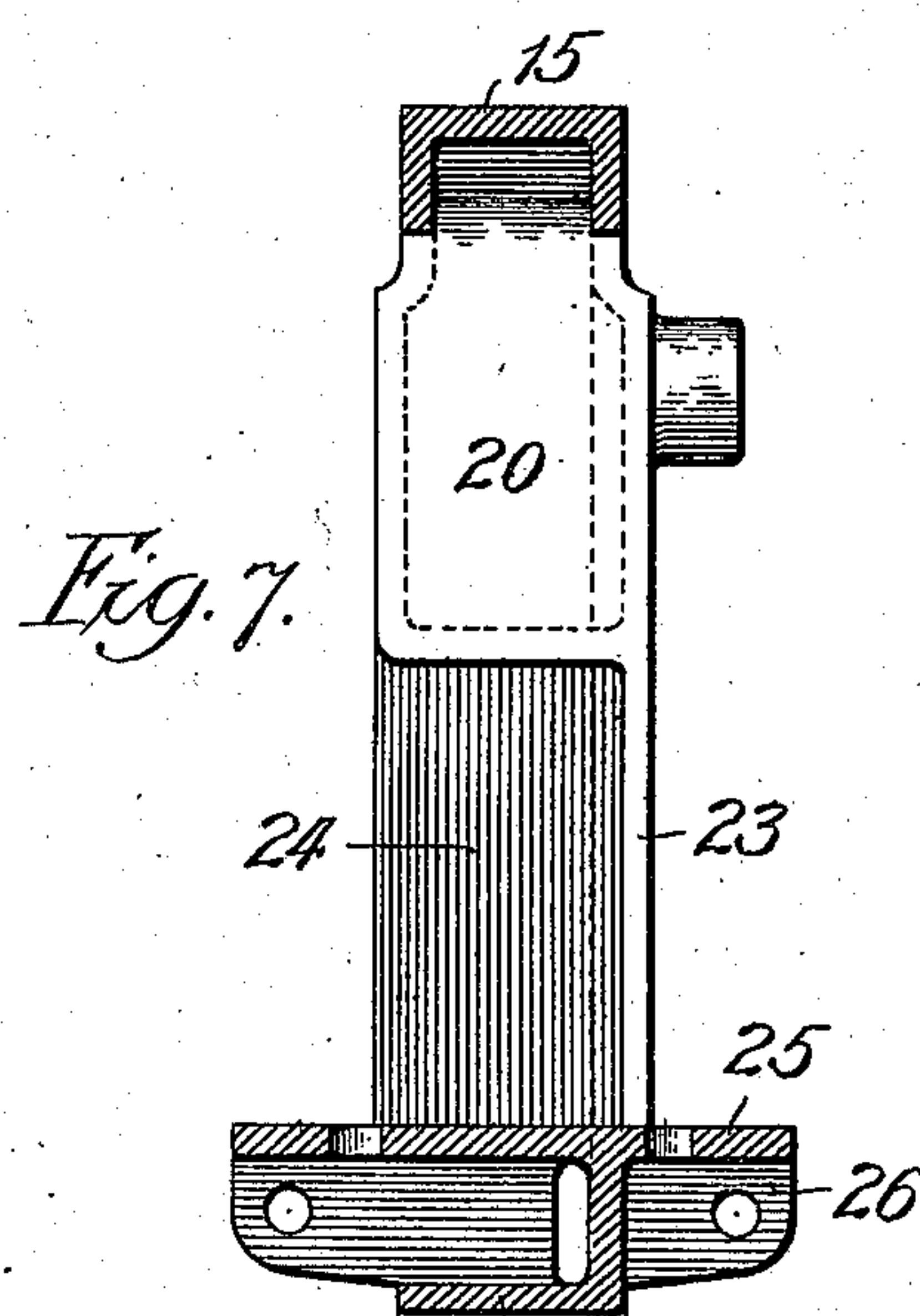
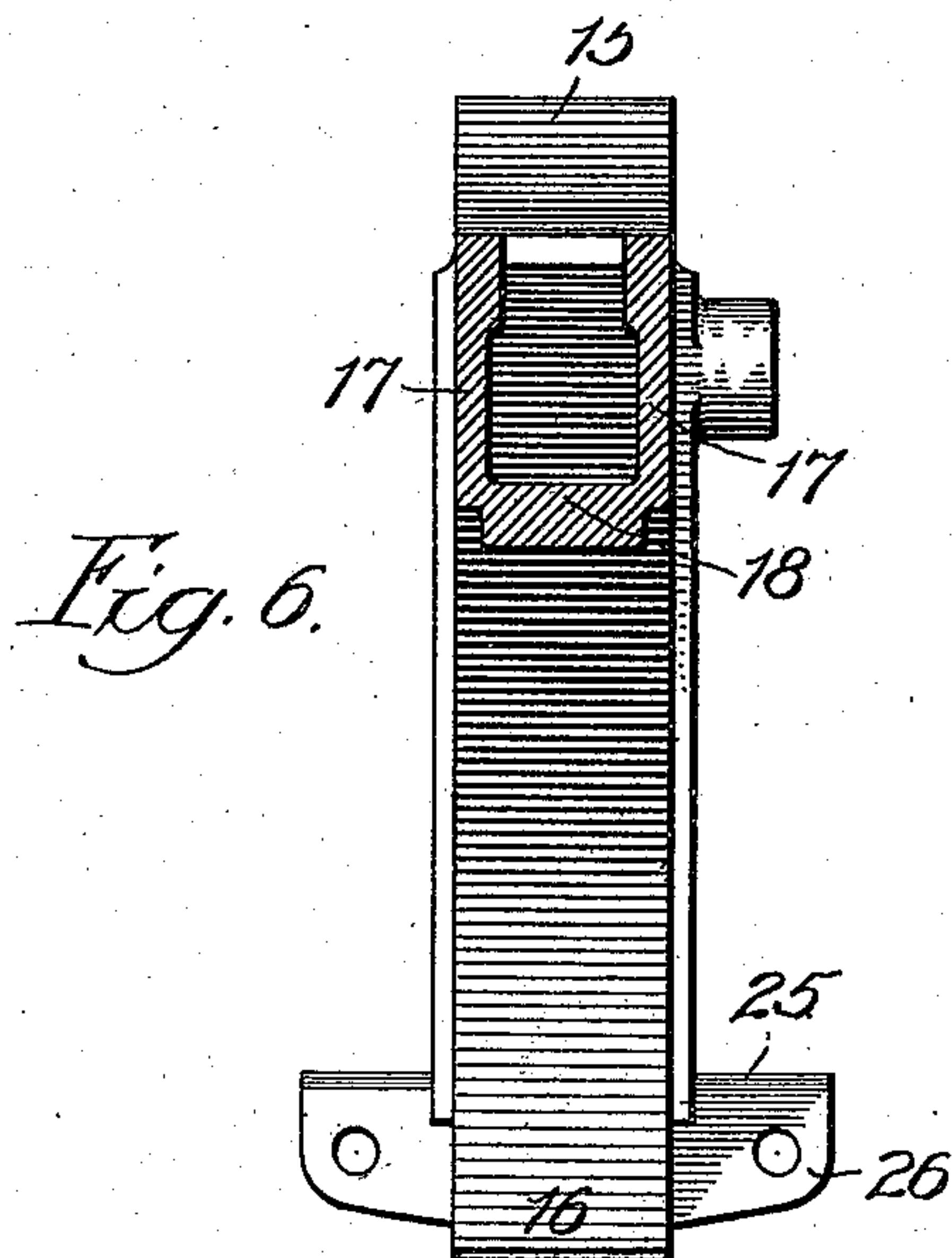
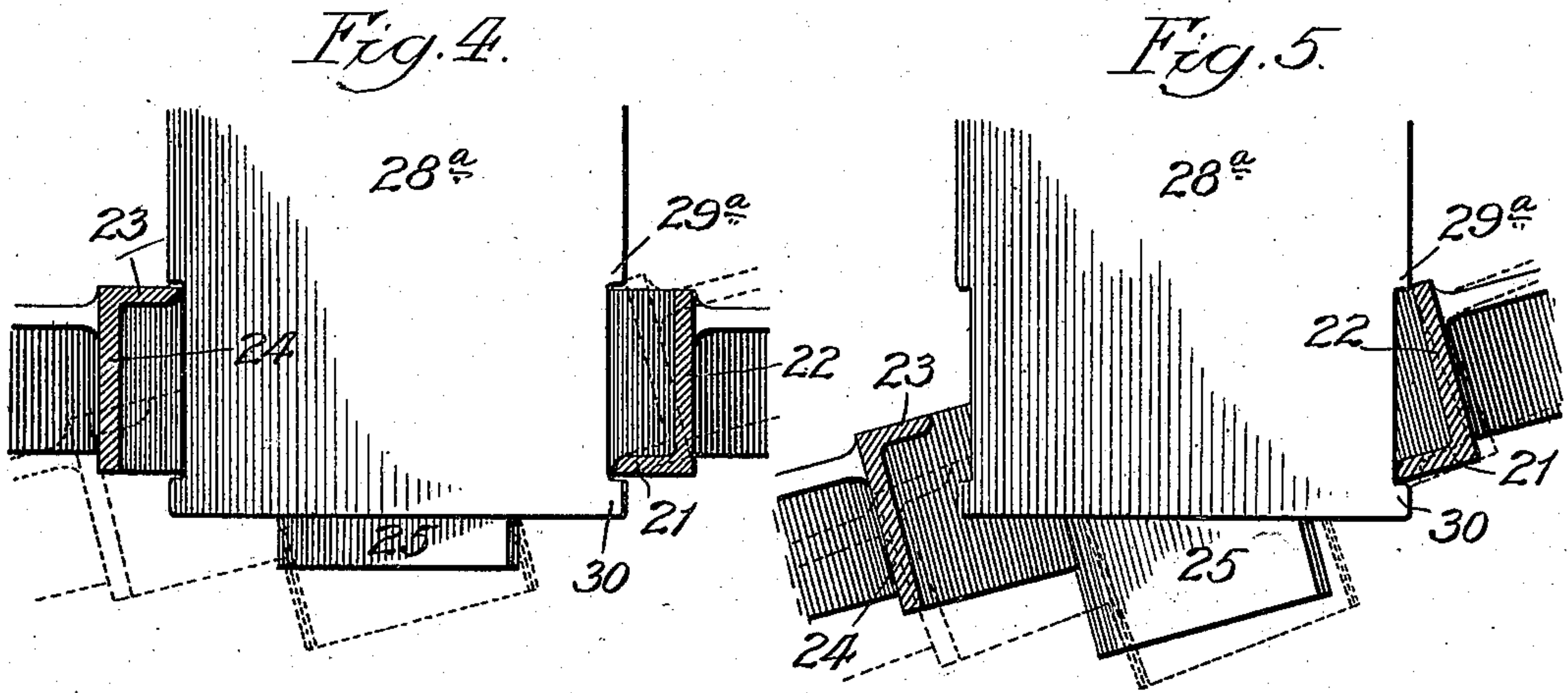
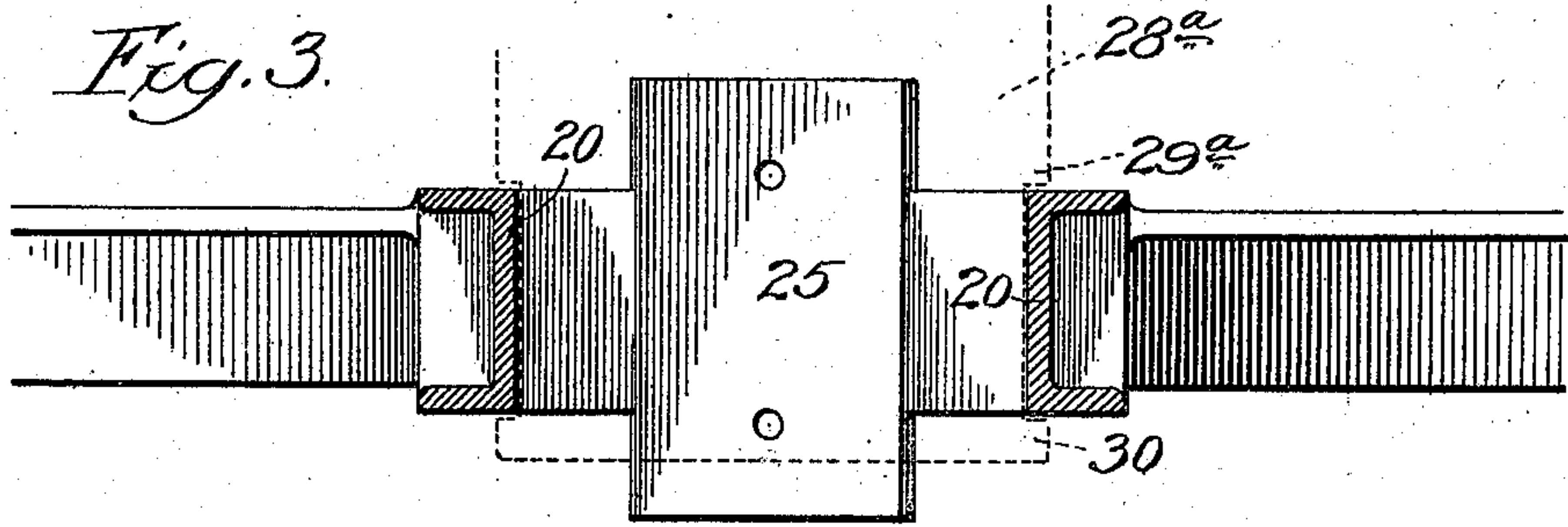
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3 SHEETS—SHEET 2.



Witnesses:  
*Ed. Gaylord*  
*John Enders*

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3 SHEETS—SHEET 3.

Fig. 8.

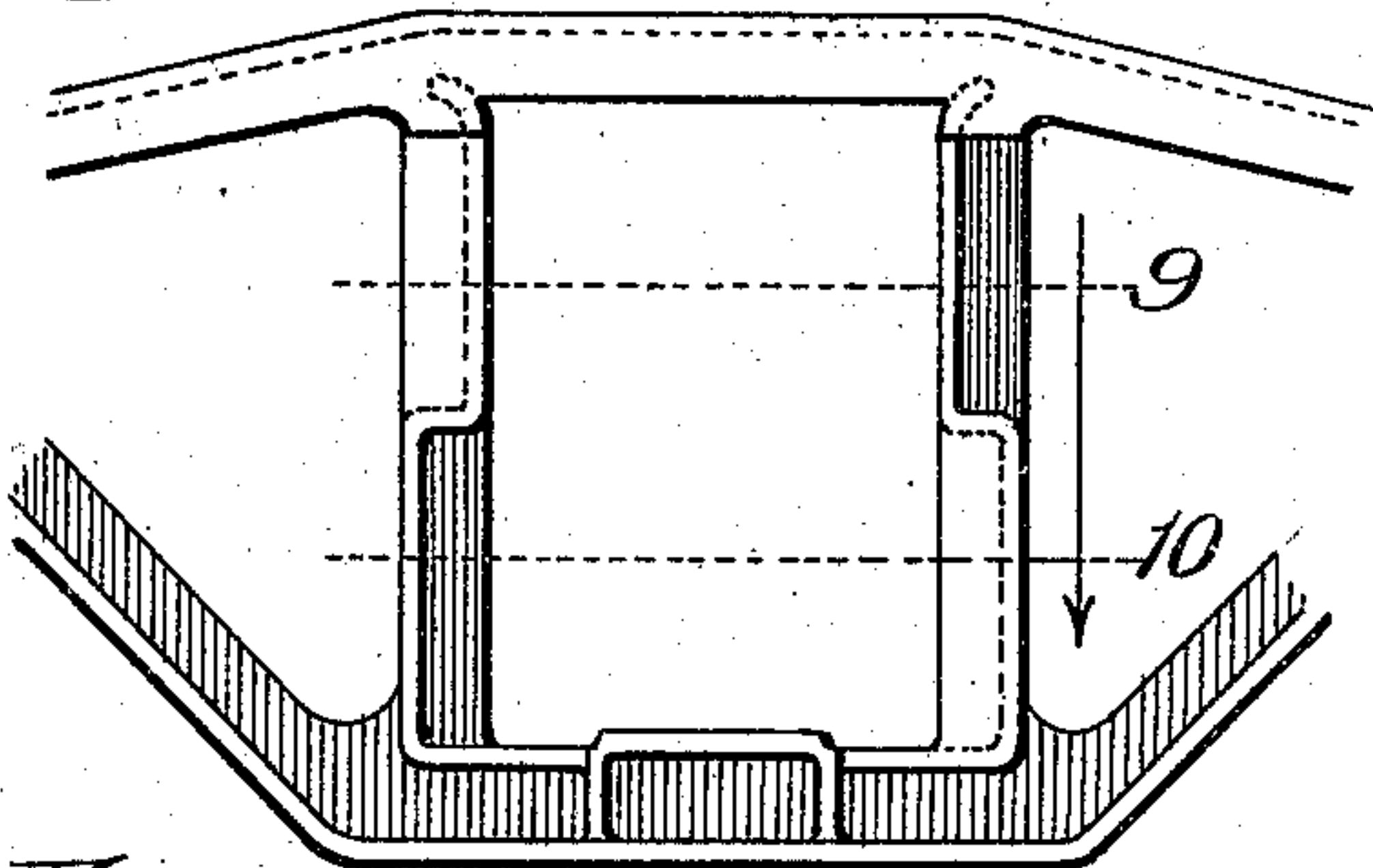


Fig. 11.

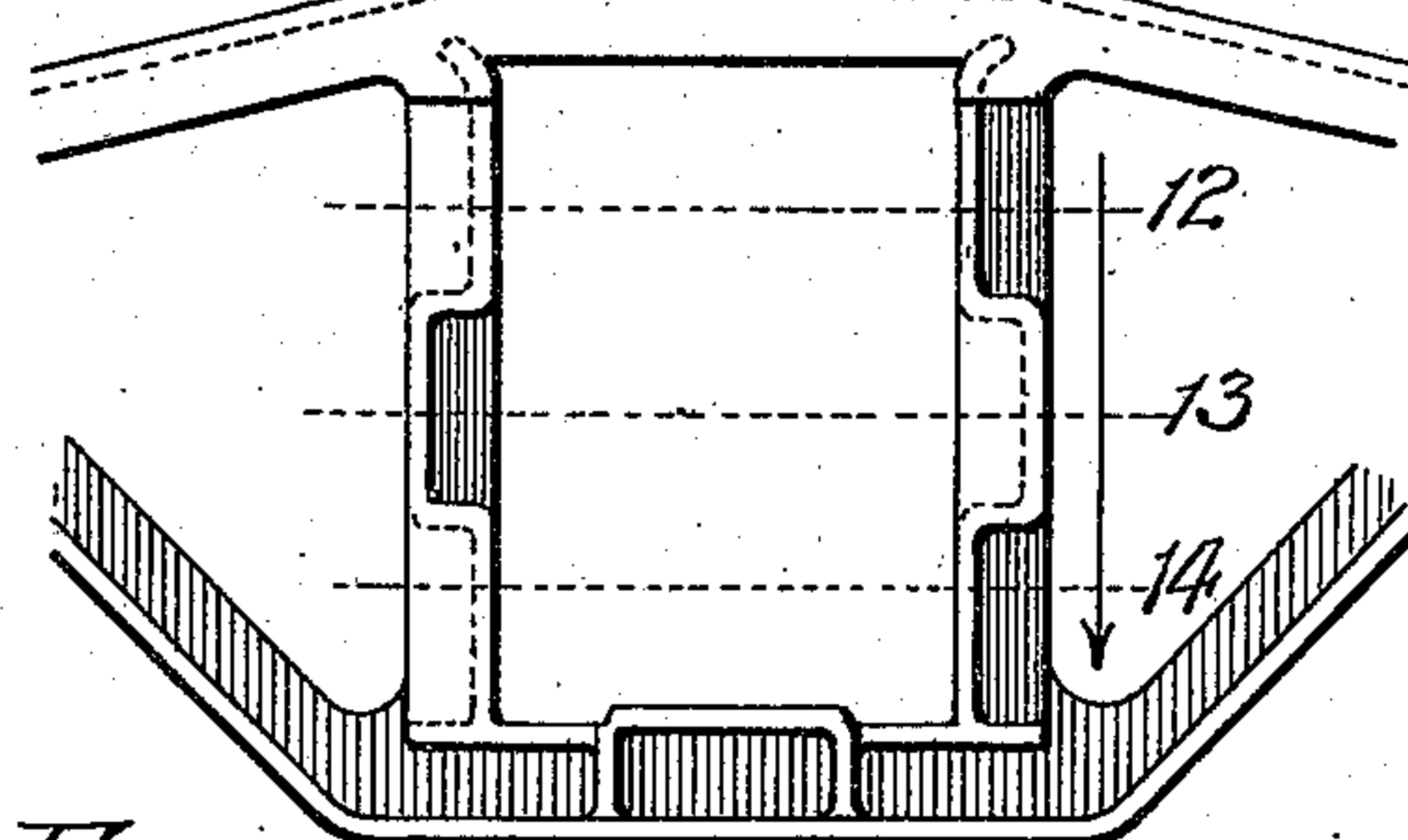


Fig. 15.

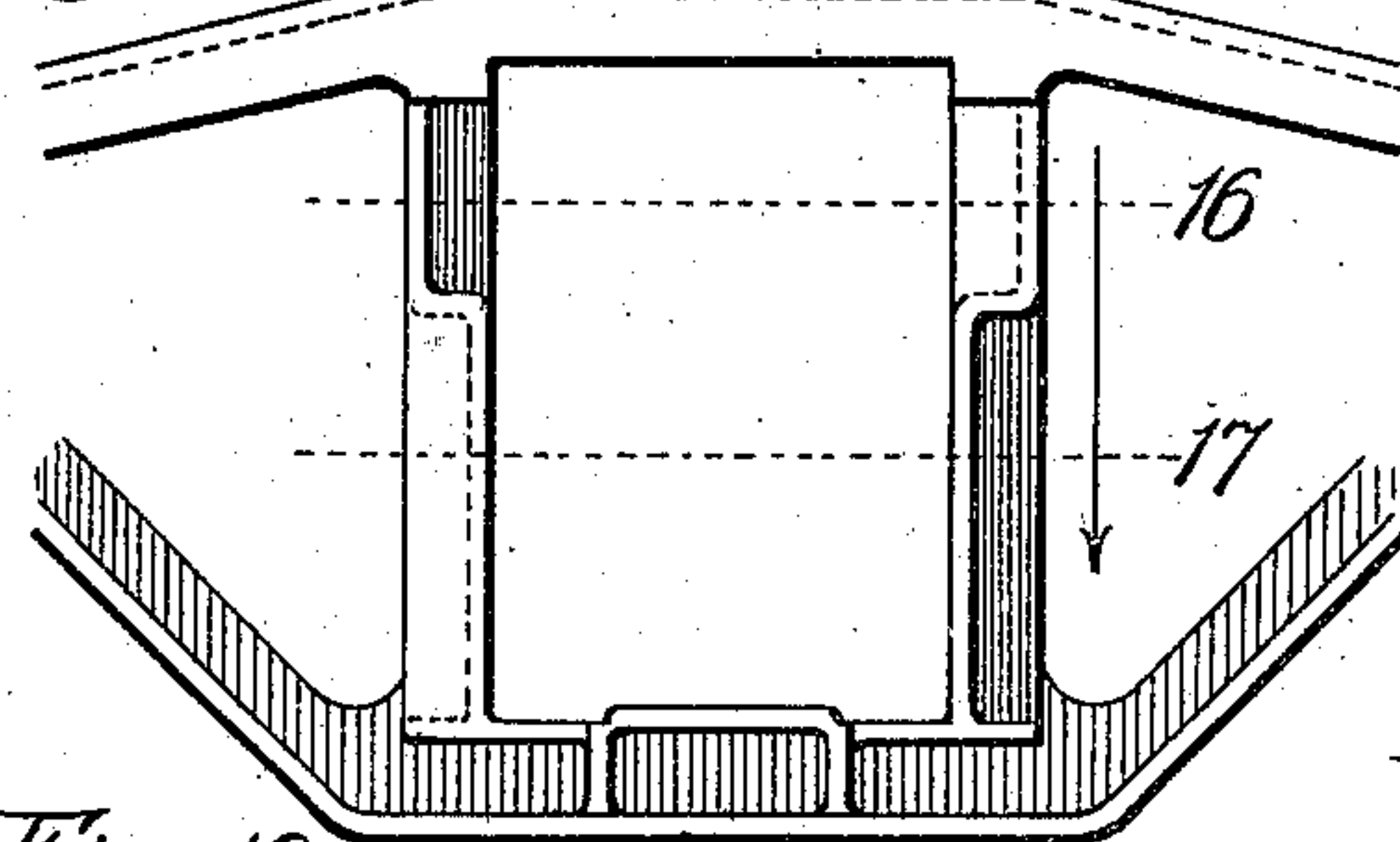
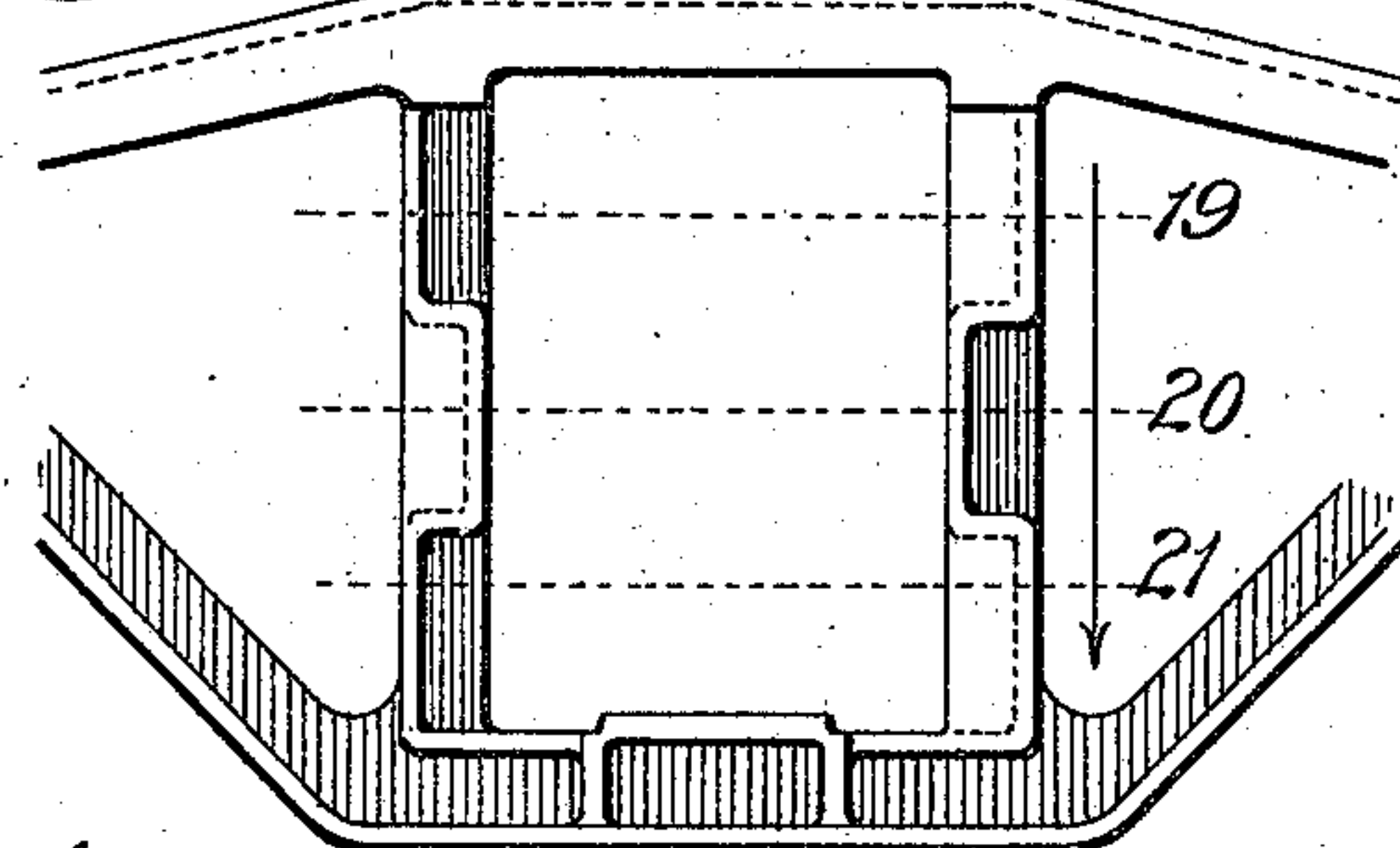


Fig. 18.



Witnesses:  
*Sam. J. Gaylord*  
*John Enders*

Fig. 9.

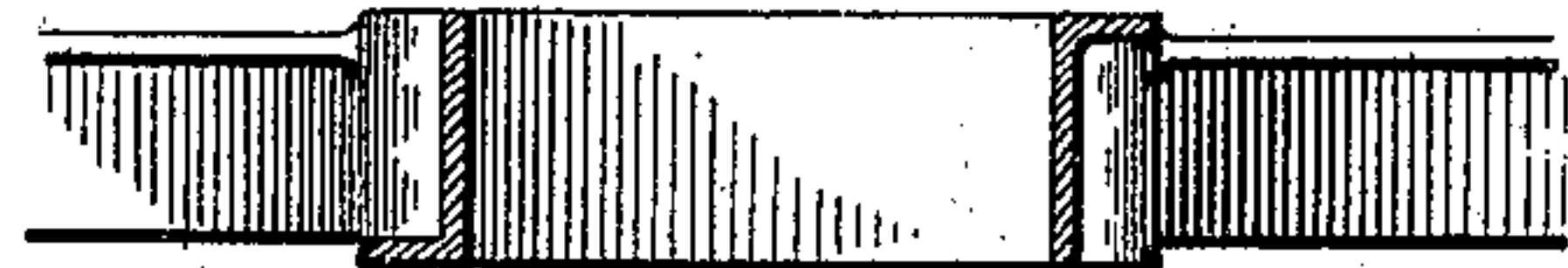


Fig. 10.

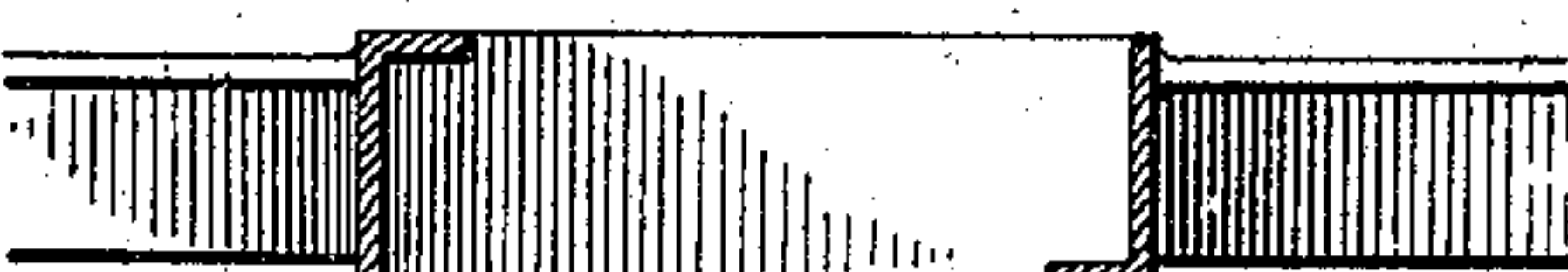


Fig. 12.

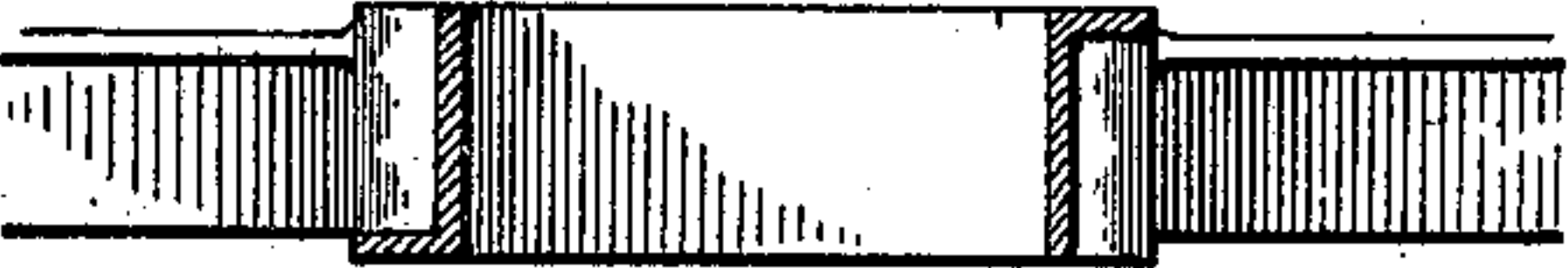


Fig. 13.

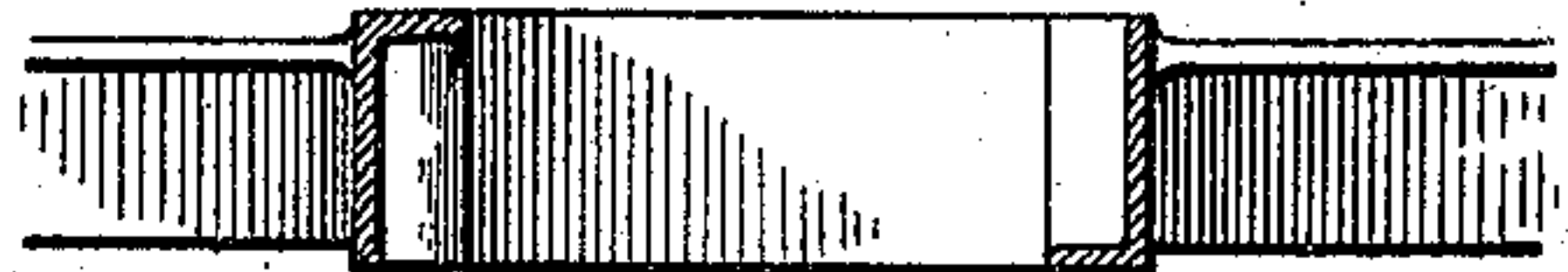


Fig. 14.

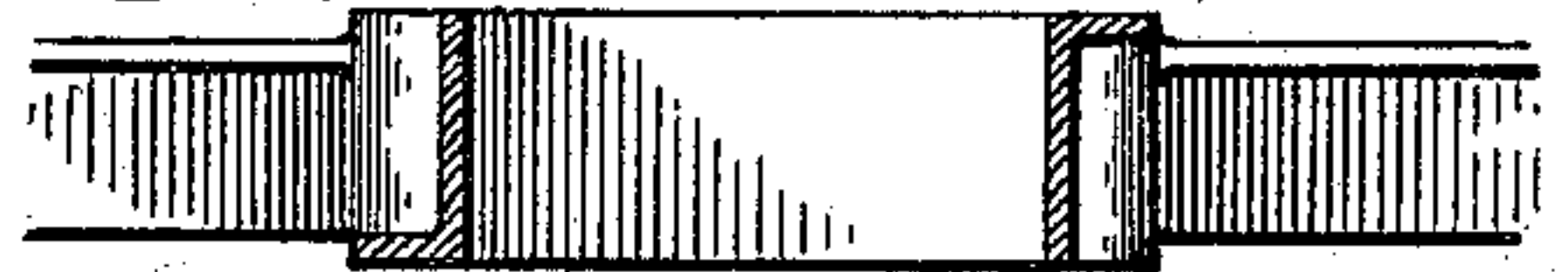


Fig. 16.

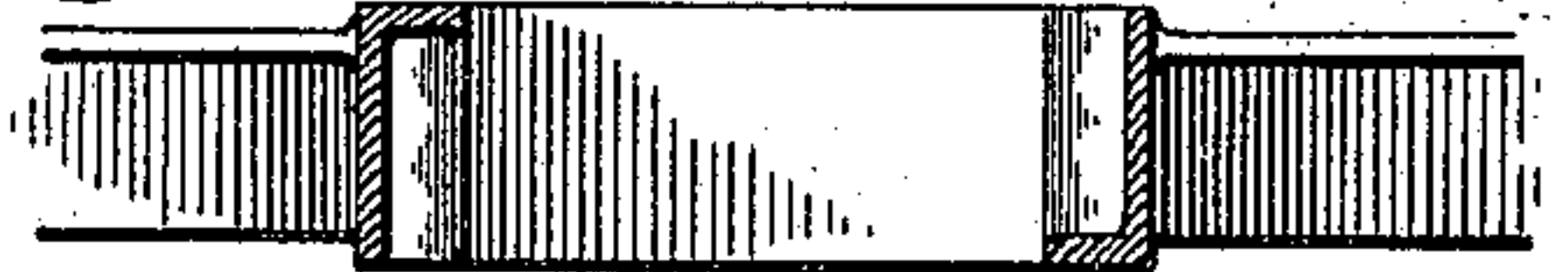


Fig. 17.

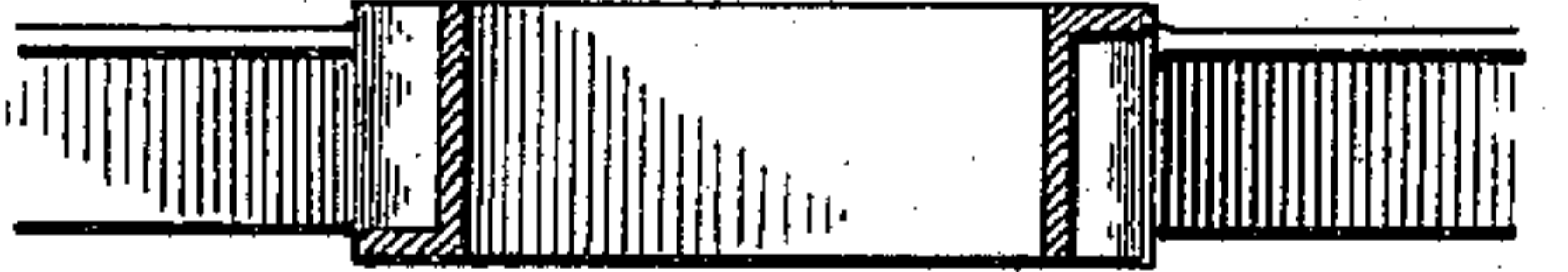


Fig. 19.

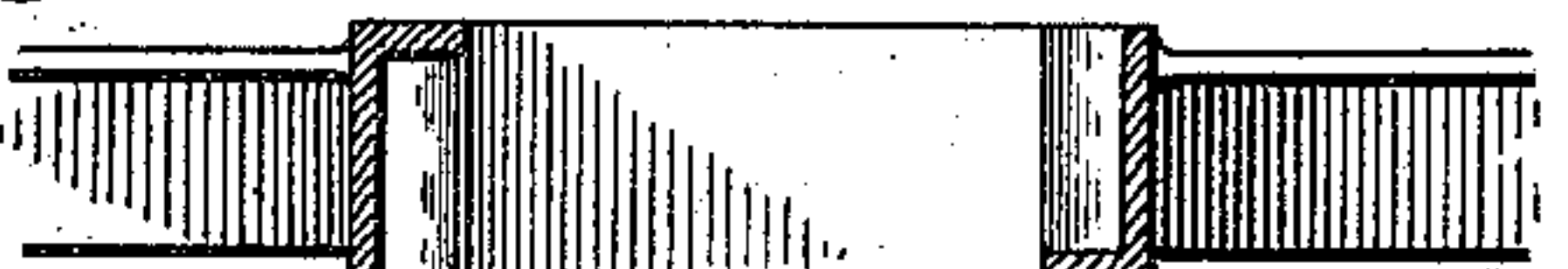


Fig. 20.

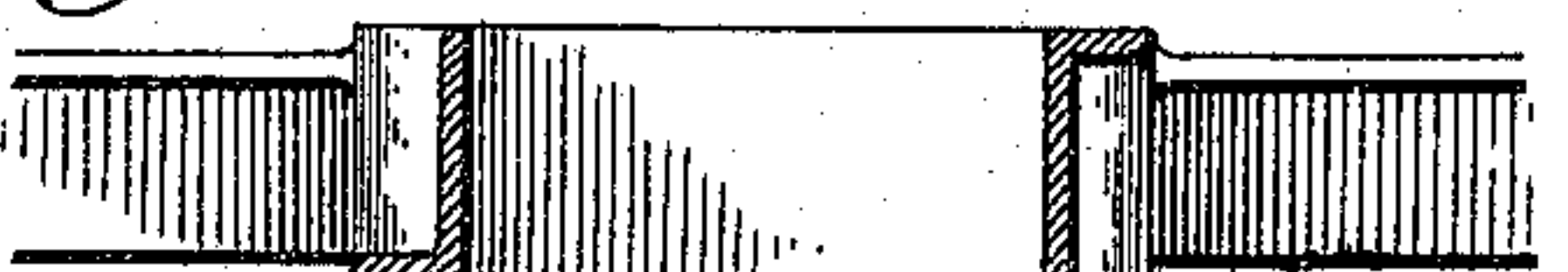
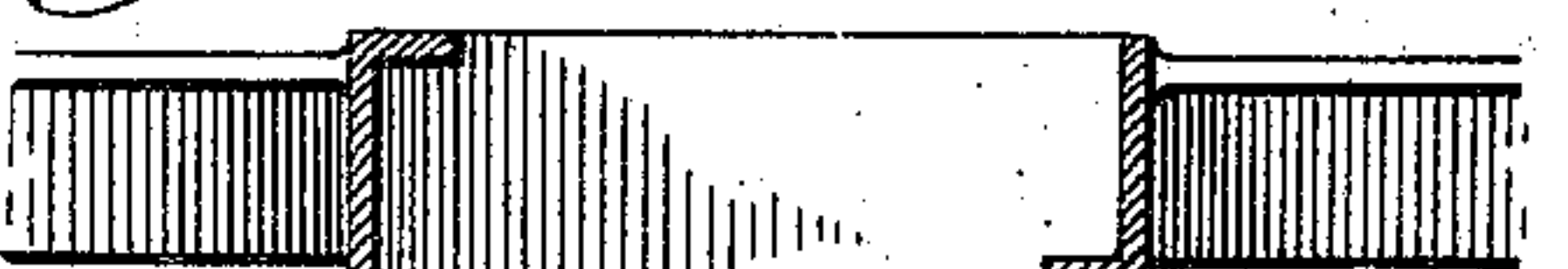


Fig. 21.



Inventor:

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*Attys*



# UNITED STATES PATENT OFFICE.

JOHN M. ROHLFING, OF ST. LOUIS, MISSOURI.

## TRUCK-FRAME.

[[[No. 881,721.

Specification of Letters Patent.

Patented March 10, 1908.

Application filed November 20, 1907. Serial No. 402,956.

*To all whom it may concern:*

Be it known that I, JOHN M. ROHLFING, a citizen of the United States, residing in the city of St. Louis and State of Missouri, have  
5 invented certain new and useful Improvements in Truck-Frames, of which the following is a specification.

The object of my invention is to provide an improved car truck that shall facilitate  
10 the assembling of the bolster and the side frames to operative relation.

It is also my object to provide improved extensions on the side frames to be connected to the journal boxes and to provide an im-  
15 proved construction for the tie-bars that connect the two side frames.

All these objects and others will be apparent from the following specification and claims.

20 Referring to the drawing—Figure 1 is a plan view of one side of my improved truck frame. Fig. 2 is a side elevation thereof. Fig. 3 is a section taken on the line 3 in Fig. 2, showing the end of the bolster in dotted  
25 lines. Figs. 4 and 5 are sections taken on the line 4 in Fig. 2, showing the relation of the end of the bolster to the side frame. Fig. 6 is a section on the line 6 in Fig. 2. Fig. 7 is a section on the line 7 in Fig. 2. Figs. 8, 11,  
30 15 and 18 are side elevations illustrating modifications. Figs. 9, 10, 12, 13, 14, 16, 17, 19, 20 and 21 are sections taken on the correspondingly numbered lines in Figs. 8, 11,  
15 and 18.

35 The side frame of my improved car truck is a single casting having the top arch bar 15 with a channel section and the bottom arch bar 16 with an L section. At each end two flanges 17 project out from the frame and are  
40 connected by a horizontal web 18, thus forming an extension of the side frame which is adapted to be bolted by means of the bolt-holes 19 to the journal box.

The column guides on each side of the  
45 opening which receives the end of the bolster have flat guiding faces 20 at their upper parts, as shown in Fig. 3, where the column guides are illustrated as each having a channel section. Lower down each column guide  
50 has an L section, as shown in Figs. 4 and 5. The flange 21 of one column guide at its lower part is directed toward the bolster opening and is near the end of the bolster, while the flange 22 thereof is parallel to the  
55 guiding face 20, but set back therefrom. On

the other hand one flange 23 of the other column guide at its lower part is directed toward the bolster opening away from the end thereof while the other flange 24 is parallel to the guiding face 20 but set back  
60 therefrom. The reference numeral 25 indicates the bolster spring seat at the bottom of the bolster opening. From the front and rear edges of this bolster spring seat 25 bracing flanges 26 depend. The tie-bars that extend across from one side frame to the other  
65 are indicated by the reference numeral 27. These tie-bars have a Z section, one flange 28 resting against the column guides and the other flange 29 being notched so that the  
70 notch can drop over the lower arch bar 16. The flange on each side of the notch can be riveted to the flanges 26 which depend from the bolster spring seat 25. The web of the  
75 Z bar 27 rests on the bottom of the bolster opening on either side of the bolster spring seat 25.

Referring to Figs. 3, 4 and 5, the bolster is represented by the reference numeral 28<sup>a</sup>. This has shoulders 29<sup>a</sup> and 30 on each side  
80 adapted to engage the guide faces 20 of the two column guides. When it is desired to disconnect the side frame and the bolster this may be done by raising the side frame relatively to the bolster, until the bolster lies  
85 in the lower part of the bolster opening in the side frame. Then the side frame may be turned from the position shown in full lines in Fig. 4 to that shown in dotted lines. The diagonal width between the two inturned  
90 flanges 21 and 23 is made greater than the width of the bolster end over the shoulders 30. Therefore, the side frame may be shifted from the position shown in full lines in  
95 Fig. 5 to that shown in dotted lines, and then slipped off from the bolster. When it is desired to reassemble the parts, these movements can be reversed, as is obvious.

It is not necessary that the parts of the column guides which normally act as guides  
100 shall have channel sections, nor is it necessary that the end of the bolster should be entered and withdrawn at the lowest part of the bolster opening. Figs. 8 to 21 show  
105 modifications that depart from these conditions. In Fig. 8 the bolster opening is adapted to receive the end of the bolster at its lower part; in Fig. 11 at its intermediate part; in Fig. 15 at the top, and in Fig. 18 at  
110 either the top or bottom. The sections ac-



companying each of these figures show the structure without any necessity for further explanation.

It will be seen that I have provided a side frame with an opening for the end of the bolster, which at no part of its height permits any horizontal displacement of the bolster with relation thereto, without rotation thereof. However, by rotation about a vertical axis, the side frame may be assembled to the bolster or disconnected therefrom. This is made possible without any sacrifice of strength in the column guides. The Z tie-bars give great strength in proportion to the amount of material employed and the extensions at the ends of each side frame, with their double bracing flanges 17, afford a very secure construction.

I claim:

1. In a car truck side frame, two column guides each having a flat guide face extending part of its height, the remainder of each column guide having an L-section, the said L-sections of the two column guides being reversely positioned.

2. In a car truck, a side frame having a bolster opening therein a transverse Z-tie-bar having its web adjacent the bottom of the bolster opening one flange adjacent the side thereof and the other being notched, the portions on each side of the notch extending on either side of the bottom of the bolster opening.

3. In a car truck side frame, two column

guides each having a flat guide face at its upper part and an L-section at its lower part the two L-sections being reversely positioned with a flange of each directed toward the bolster opening.

4. In combination a bolster, and a car truck side frame having an opening of uniform width adapted to receive the end of the bolster, the walls of the bolster opening being so shaped over part of their height as to prevent rotation of the side frame relatively to the bolster, and the said walls being so shaped over another part of their height as to permit such rotation.

5. In combination, a bolster and a car truck side frame having an opening adapted at all heights thereof to prevent lateral displacement of the frame relatively to the bolster and to permit relative rotation on a vertical axis.

6. In a car truck side frame, two column guides, each having an L-section, the said L-sections of the two column guides being reversely positioned.

7. A car truck side frame having an opening to receive the end of the bolster, the walls of said opening being so shaped as to prevent the application of the side frame to the bolster, except by rotation of the side frame on a vertical axis.

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Witnesses:

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