

E. C. COVERT.  
TRUCK SIDE FRAME.

APPLICATION FILED JULY 28, 1910.

993,575.

Patented May 30, 1911.

2 SHEETS-SHEET 1.

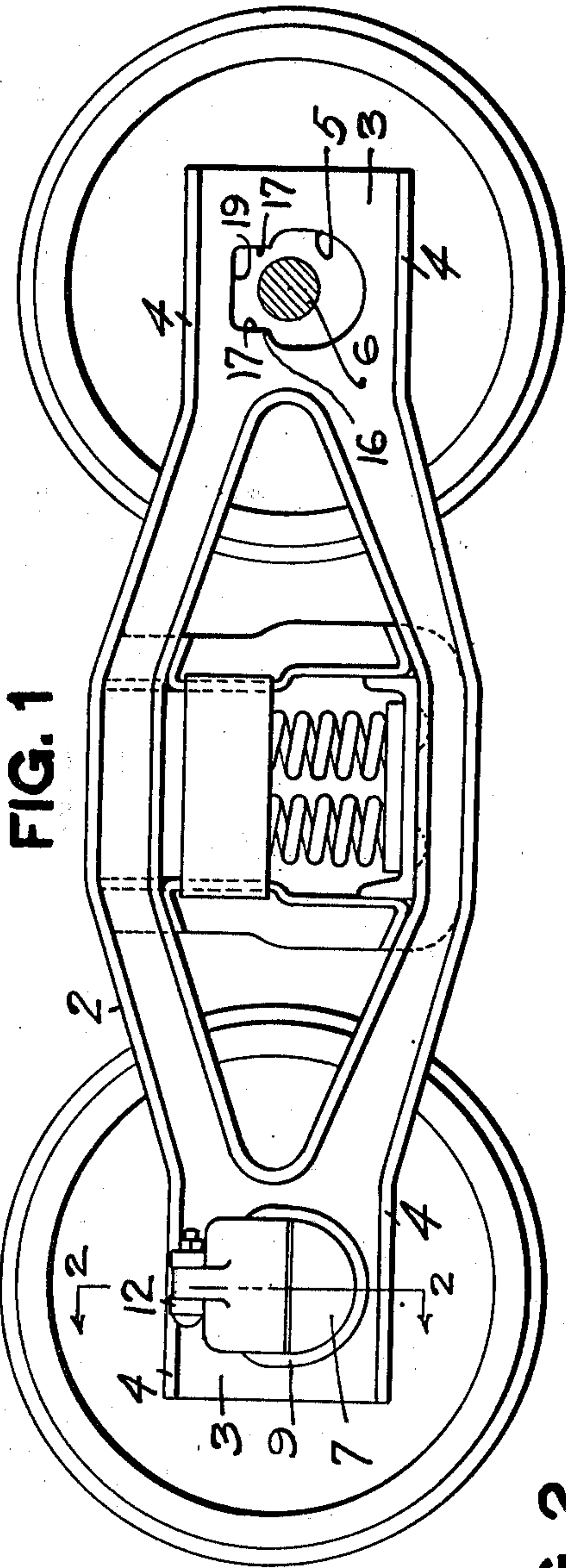


FIG. 1

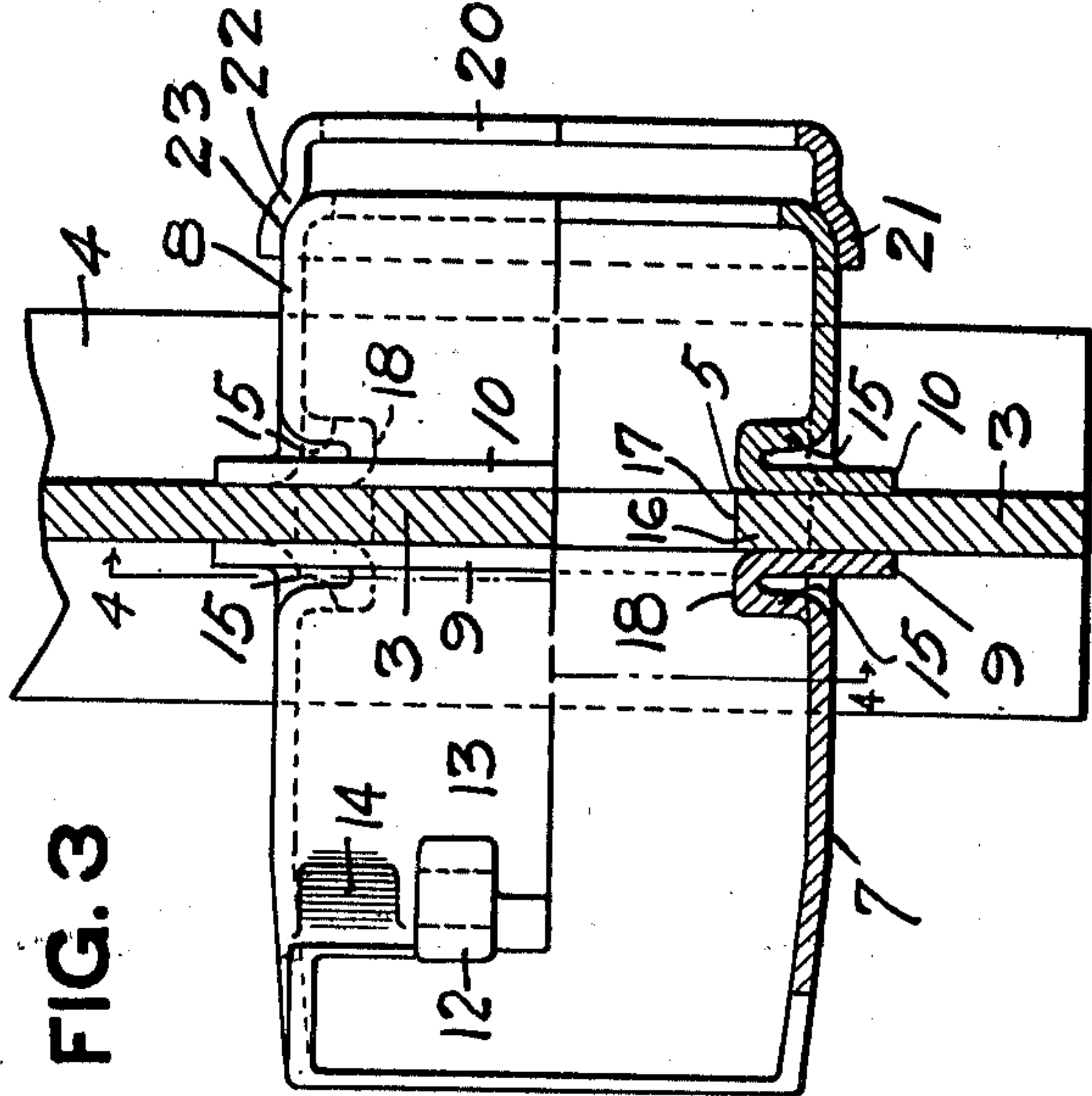


FIG. 3

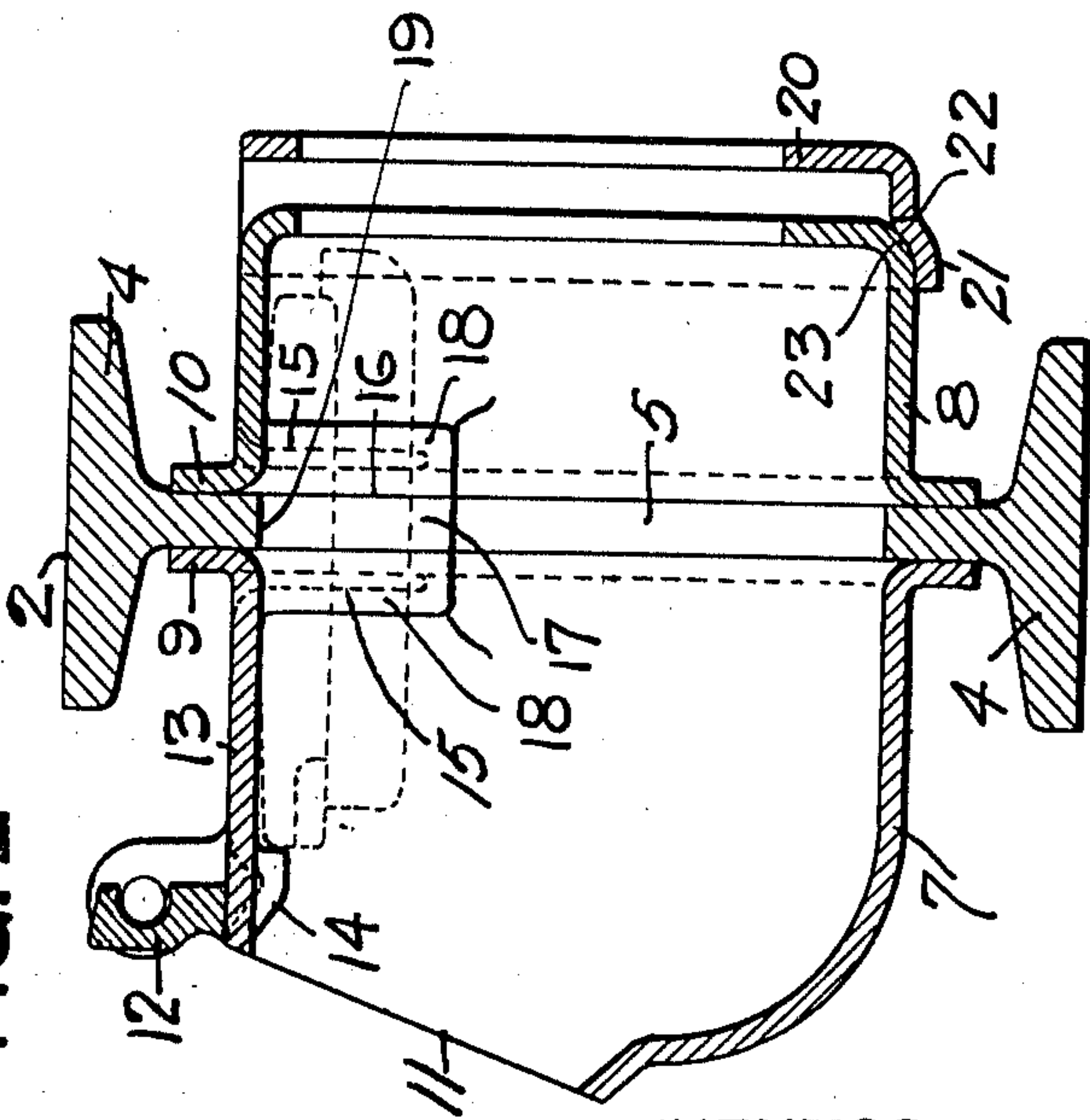


FIG. 2

WITNESSES.  
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*James R. Beatty*

INVENTOR.  
Edson C. Covert  
by *Bakerwell & Keller*  
*his attys.*

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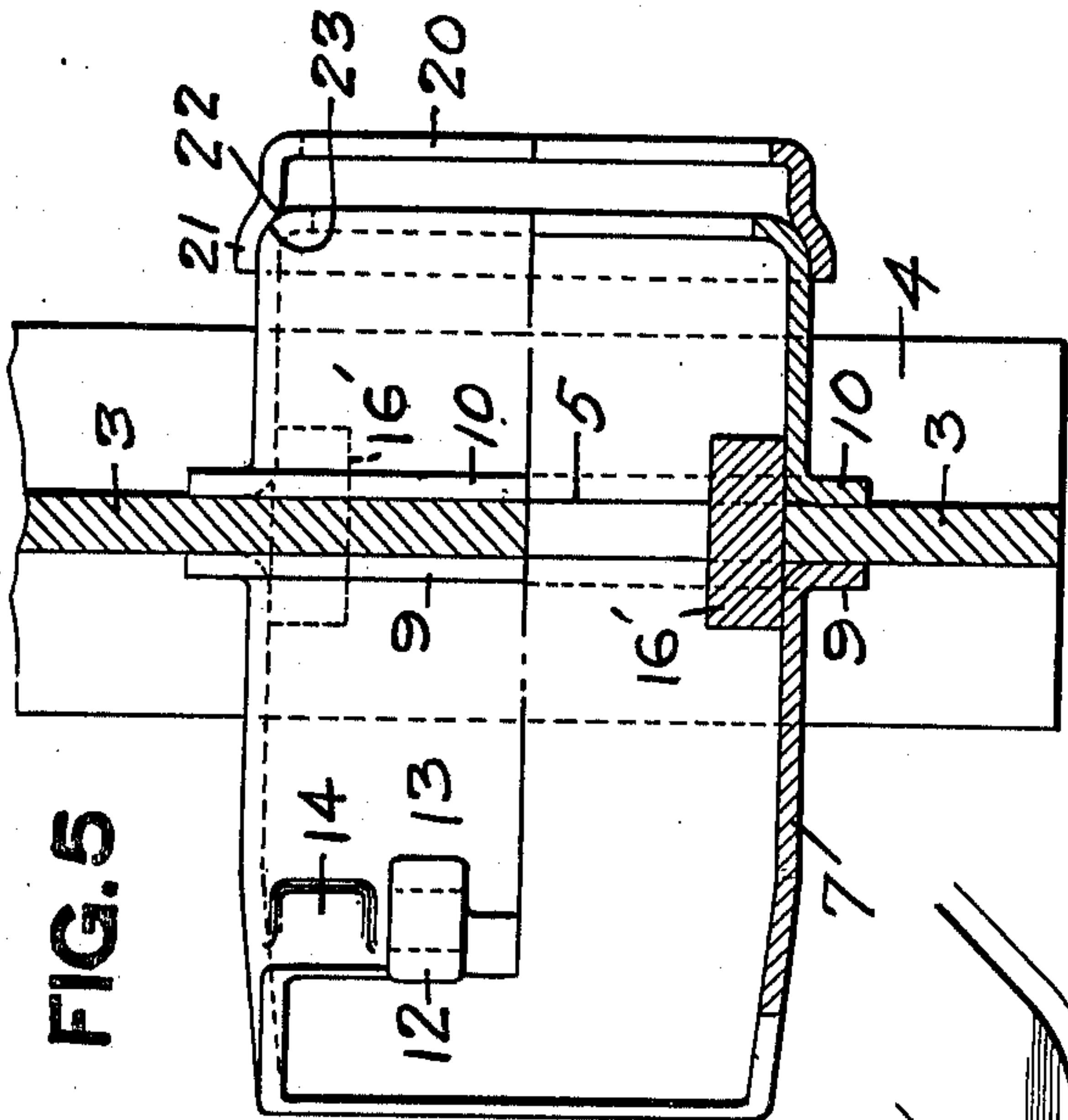


FIG. 5

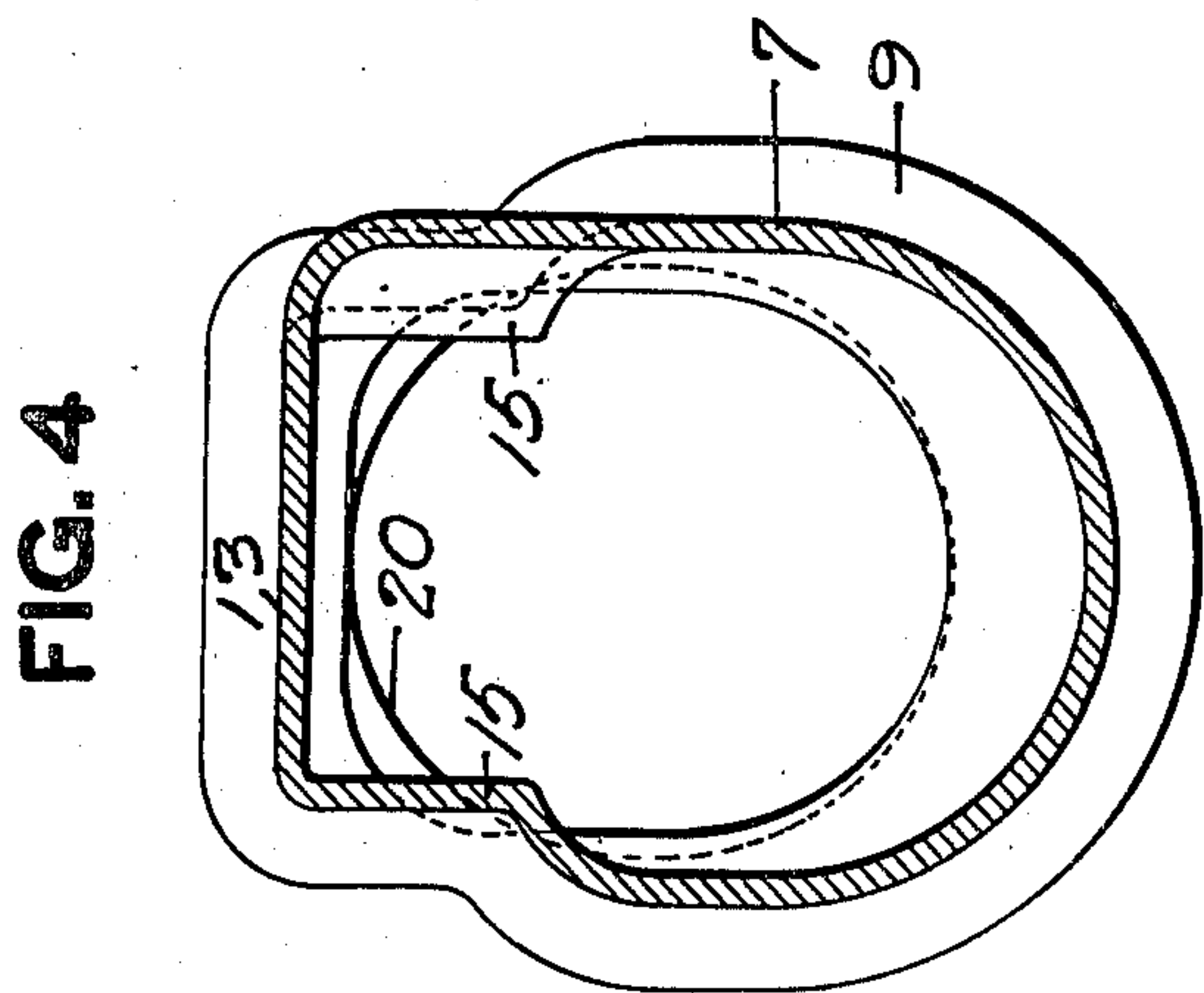


FIG. 4

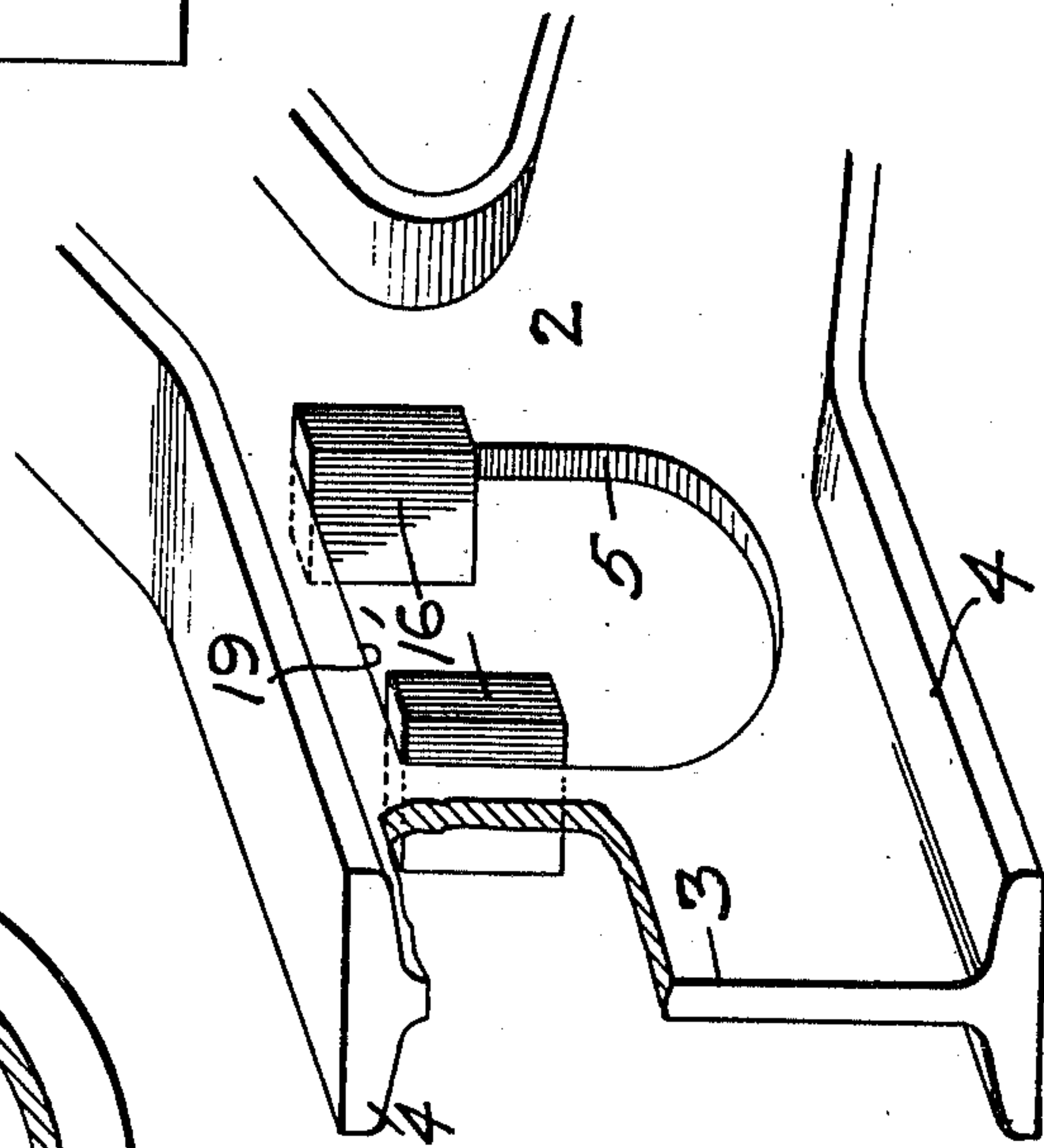


FIG. 6

WITNESSES.

*W. Barth*  
*Anna R. Beatty*

INVENTOR.

*Edson C. Covert*  
*by Bakewell & Keller*  
*attys.*



# UNITED STATES PATENT OFFICE.

EDSON C. COVERT, OF NEW KENSINGTON, PENNSYLVANIA.

## TRUCK SIDE FRAME.

993,575.

Specification of Letters Patent.

Patented May 30, 1911.

Application filed July 28, 1910. Serial No. 574,343.

*To all whom it may concern:*

Be it known that I, EDSON C. COVERT, of New Kensington, county of Westmoreland, and State of Pennsylvania, have invented a new and useful Improvement in Truck Side Frames, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, which form part of this specification.

This invention relates to side frames for car trucks, and it aims to provide a cheap and simple improved construction therefor.

The invention is directed more particularly to the connection and construction of the journal boxes.

I will now describe my invention so that others skilled in the art to which it appertains may understand and construct the same.

Figure 1 is a side elevation of a truck side frame embodied in my invention; Fig. 2 is a vertical transverse section on the line 2—2 of Fig. 1; Fig. 3 is a top plan view partly in section; Fig. 4 is a section on the line 4—4 of Fig. 3; Fig. 5 is a sectional plan corresponding to Fig. 3 and showing a modified form of my invention; and Fig. 6 is a perspective view of the end of the frame showing the journal box, casing removed and illustrating the said modification.

In the drawings, the numeral 2 represents a truck frame, as shown in one piece, although a frame of fabricated or built up construction may be used. This frame may be of any desired shape or size as this does not form part of my invention. The end portion of the frame is provided with a vertical web-like portion 3 which, if desired, may be provided with the laterally projecting marginal flanges 4. This vertical portion 3 is provided with the opening 5 which receives the journal 6 of the car wheel.

The journal box or casing proper is shown in the form of the two sections 7 and 8; having flanges respectively 9 and 10 which lie in facial abutment with and are secured, preferably by welding, to the member 3 as shown in Figs. 2 and 3. Each section 7 and 8 preferably comprises a single pressed sheet metal shell-like portion; the section 7 having the usual forward opening 11, and cover hinge lugs 12. These hinge lugs 12 are preferably welded to the upper face 13 of the box in the manner shown. Stop lugs 14 for the journal and bearing plate are prefer-

ably integrally formed in the top 13 by being struck downwardly therefrom in the manner clearly shown in Figs. 2 and 3. The side lugs of the box are preferably formed by striking in the box in the manner indicated by the numeral 15, this depression or indentation being on opposite sides of the shoulder or projection 16 of the frame 2, which projection is preferably of such nature as to provide the vertical face 17 which alines in coöperative association with the faces 18 of the struck-in portions 15.

In Figs. 5 and 6, in lieu of striking in the box as at 15 in the manner just described, the wall of the box at this point may be straight; assuming a position back of the shoulder of lug 16—' which is carried, preferably by being welded thereto, by the web-like portion 3. This particular construction enables the ready replacing of the side lug should it become worn, broken off or otherwise injured.

As shown in Fig. 2, the opening 5 is of such nature as to cause the top horizontal face 19 thereof to lie preferably flush with the under face of the top wall of the box. The reason for this arrangement is that the vertical stresses delivered to the bearing plate, indicated in dotted line, will in turn be transmitted substantially directly to the vertical member of the frame and not indirectly through the journal box sections 7 and 8 in such manner as to place shearing stresses thereon. This is also true of the thrusts upon the side lugs of the box, in the construction shown in Figs. 2 and 3, the inwardly projecting shoulder 16 lying, as above stated, flush with the inner faces 18 of the inwardly struck portions 15.

The numeral 20 indicates a suitable dust guard plate having the flange portion 21, which is shouldered as at 22 so as to receive in abutment the edge 23 of the section 8. This section 20 is, through the flange 21, preferably welded to the section 8.

It will be apparent that many changes may be made in the construction shown without departing from my invention.

While I have spoken of the several parts as being secured together by means of welding, which may be done electrically or otherwise, it will be apparent that rivets or other fastening means may be employed for this purpose. However, the primary purpose of the invention is to dispense with these separate fastening means and produce substan-



tially a boltless side frame in so far as it concerns the end construction. Where the employment of the particular journal box construction shown is desired with cast structures, where welding is not feasible, such

5 separate fastening means may be employed.

Having thus described my invention, what I claim and desire to secure by Letters Patent is:

10 1. A truck side frame having a vertical member and a separately formed journal box removably weld-secured thereto.

2. A truck side frame, having a vertical member and a separately formed vertically  
15 divided two part journal box removably weld-secured thereto.

3. A truck side frame having a vertical member and a separately formed journal box having flange portions in abutment with  
20 and weld-secured to the vertical portion.

4. A truck side frame having a vertical portion and a wrought metal journal box removably weld-secured thereto.

5. A truck side frame having a vertical  
25 portion apertured for the passage of the journal, a separately formed journal box secured thereto, and a lug portion carried by the vertical member and projecting within the box.

30 6. A truck side frame having a vertical portion apertured for the passage of the journal, a separately formed two-part journal box oppositely disposed on each side of the vertical portion, and a lug portion carried by the vertical member and projecting  
35 inwardly of the box.

7. A truck side frame having a vertical portion apertured for the passage of the journal, a separately formed journal box  
40 secured thereto, lug portions carried by the vertical member and associated lug portions carried by the box member.

8. A truck side frame having a vertical member, a separately formed journal box  
45 secured thereto, and a lug portion weld-secured to the vertical portion and so dis-

posed as to lie substantially within the journal box.

9. A truck side frame having a vertical portion, a separately formed journal box  
50 comprising separate sections disposed on opposite sides of the vertical member and secured thereto, and a weld-secured lug carried by the vertical member and lying within the journal box.

10. A truck side frame having a vertical member, a two-part journal box secured on opposite sides thereof and a lug carried by the vertical member and projecting in-  
60 wardly and intermediately of the box sections.

11. A truck side frame having a vertical portion, a separately formed box secured thereto and provided with an inwardly projecting lug, and an inwardly projecting lug  
65 portion carried by the vertical member and having a face projecting in registering cooperative association with the box lug.

12. A truck side frame having a vertical portion, a vertically divided, separately  
70 formed journal box secured thereto, and inwardly projecting lugs carried by the box.

13. A truck side frame having a vertical portion, a separately formed two part journal box secured in opposite disposition on  
75 each side of the vertical member and inwardly cooperative lug portions carried by the box sections.

14. A truck side frame having a vertical portion apertured for the reception of the  
80 journal and having a separately formed journal box removably weld-secured thereto; said journal box having an interior outline registering substantially with the shape of the journal aperture in the vertical mem-  
85 ber.

In testimony whereof, I have hereunto set my hand.

EDSON C. COVERT.

Witnesses:

M. A. BARTH,

M. ARTHUR KELLER.