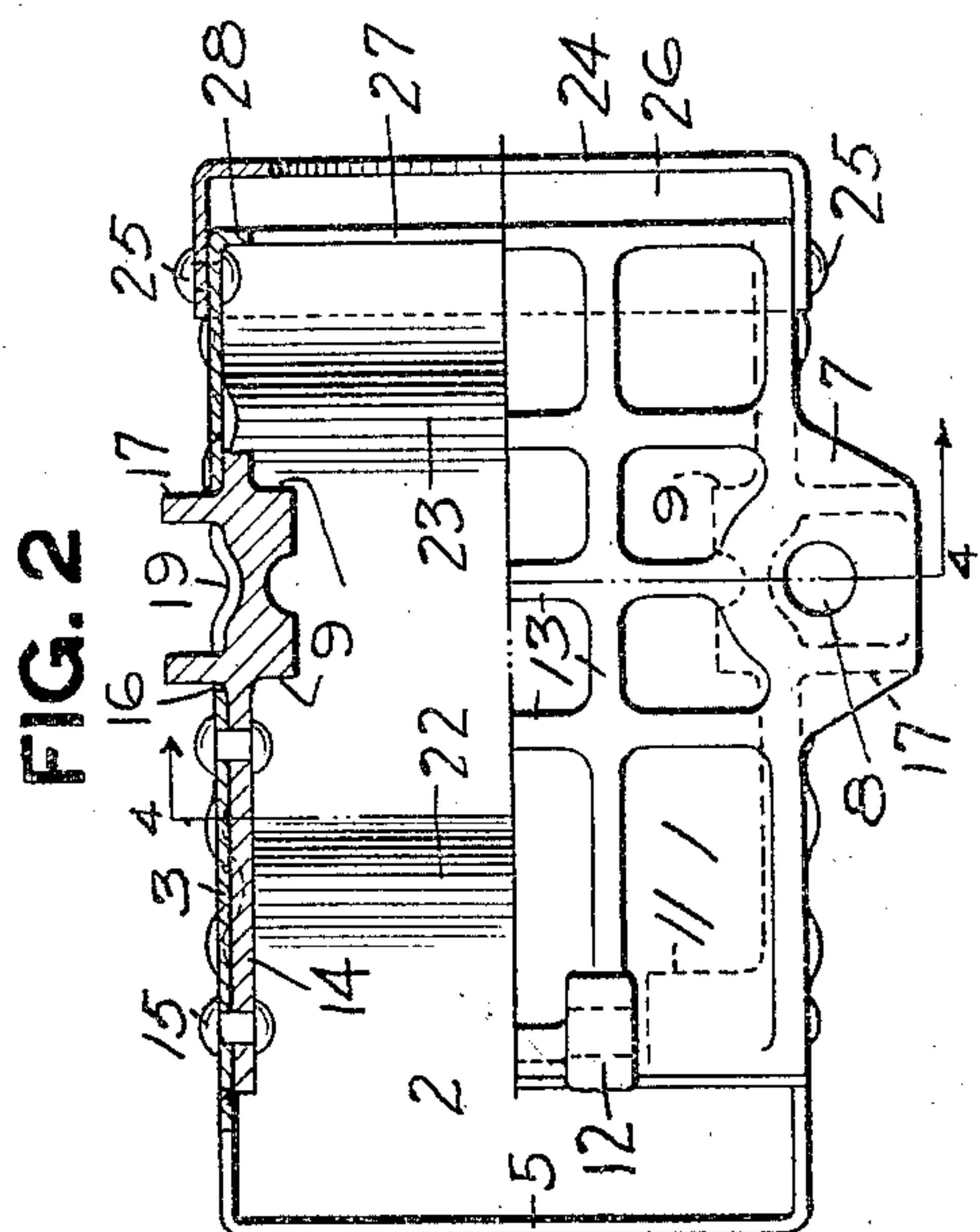
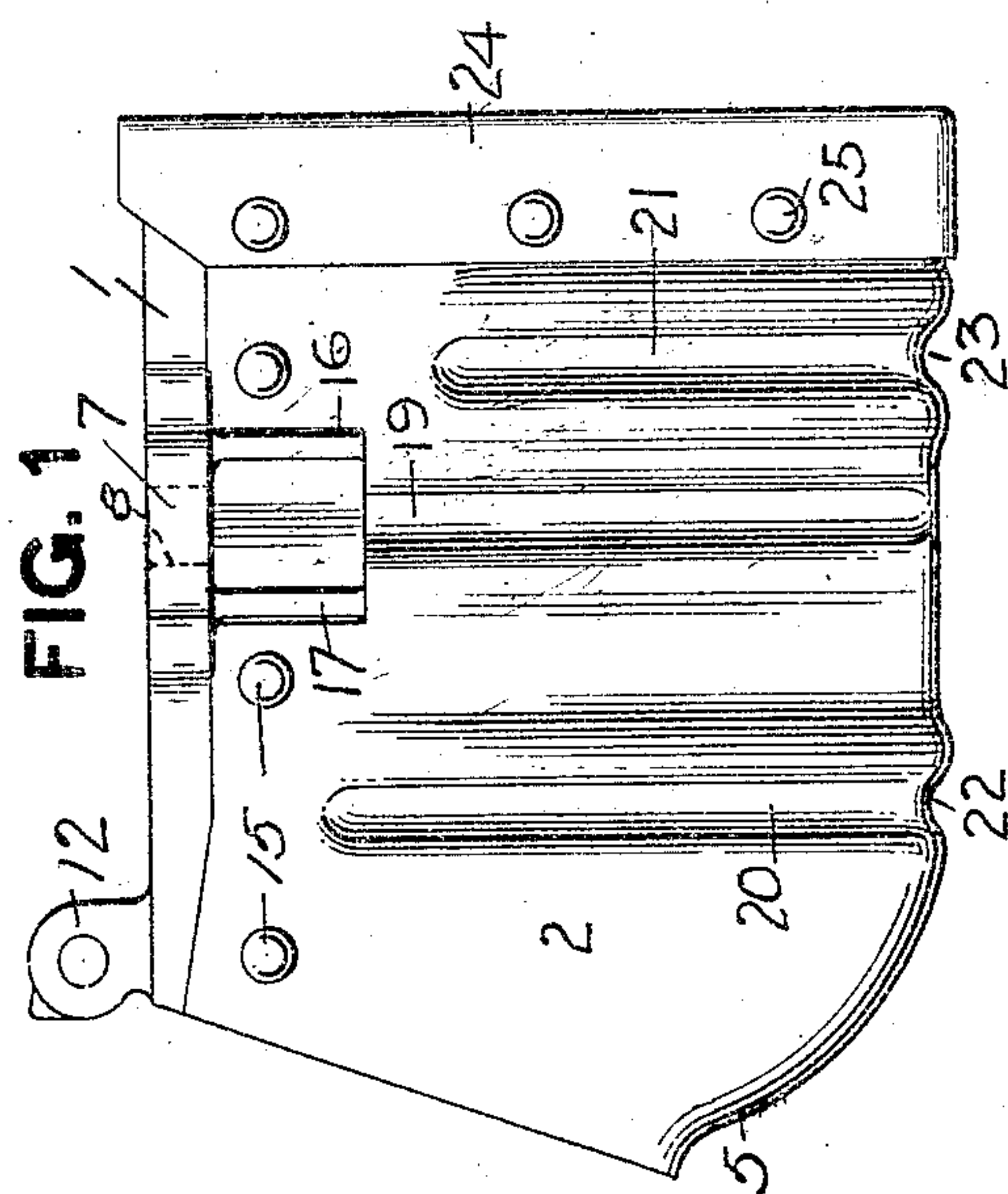
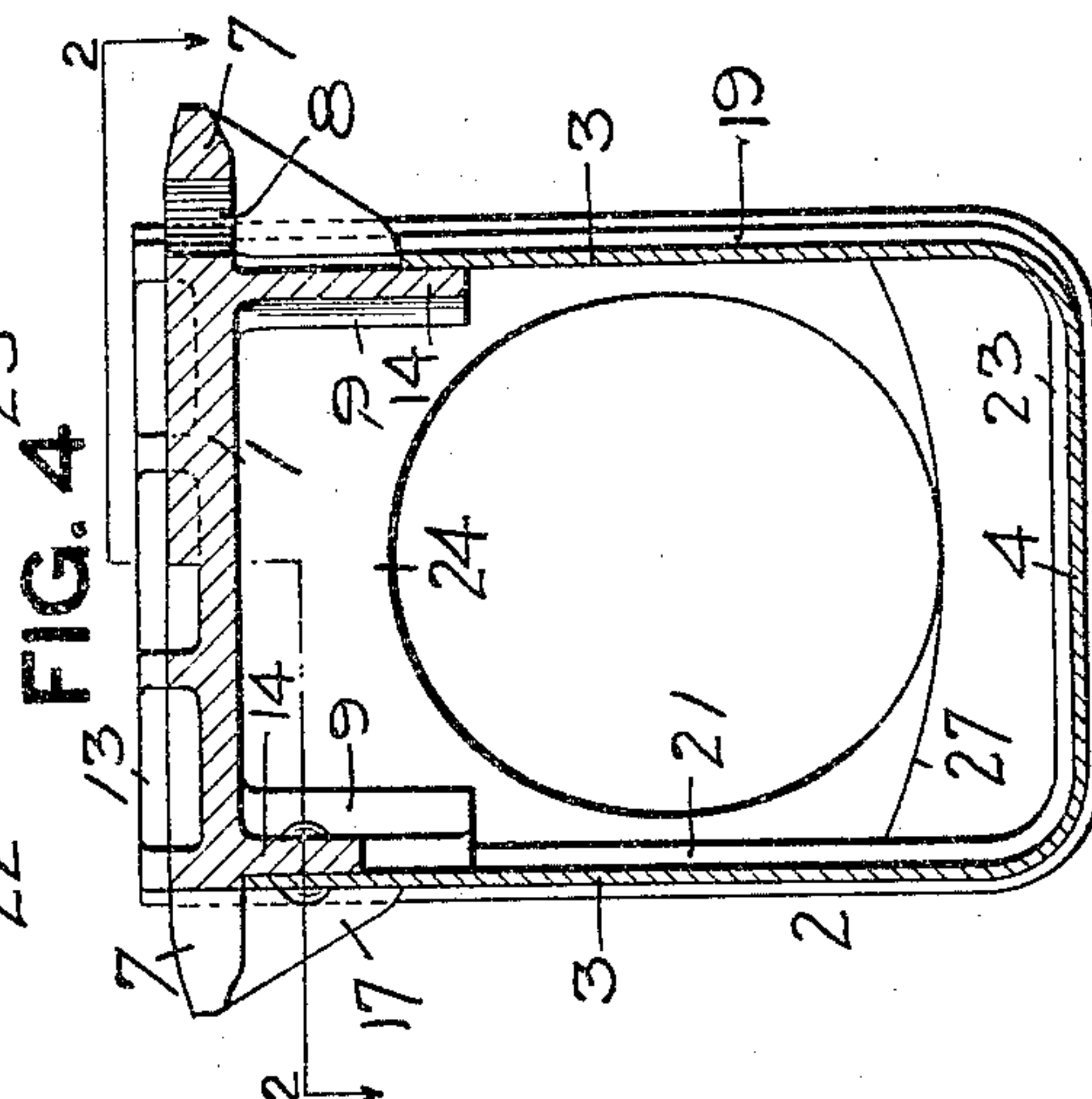
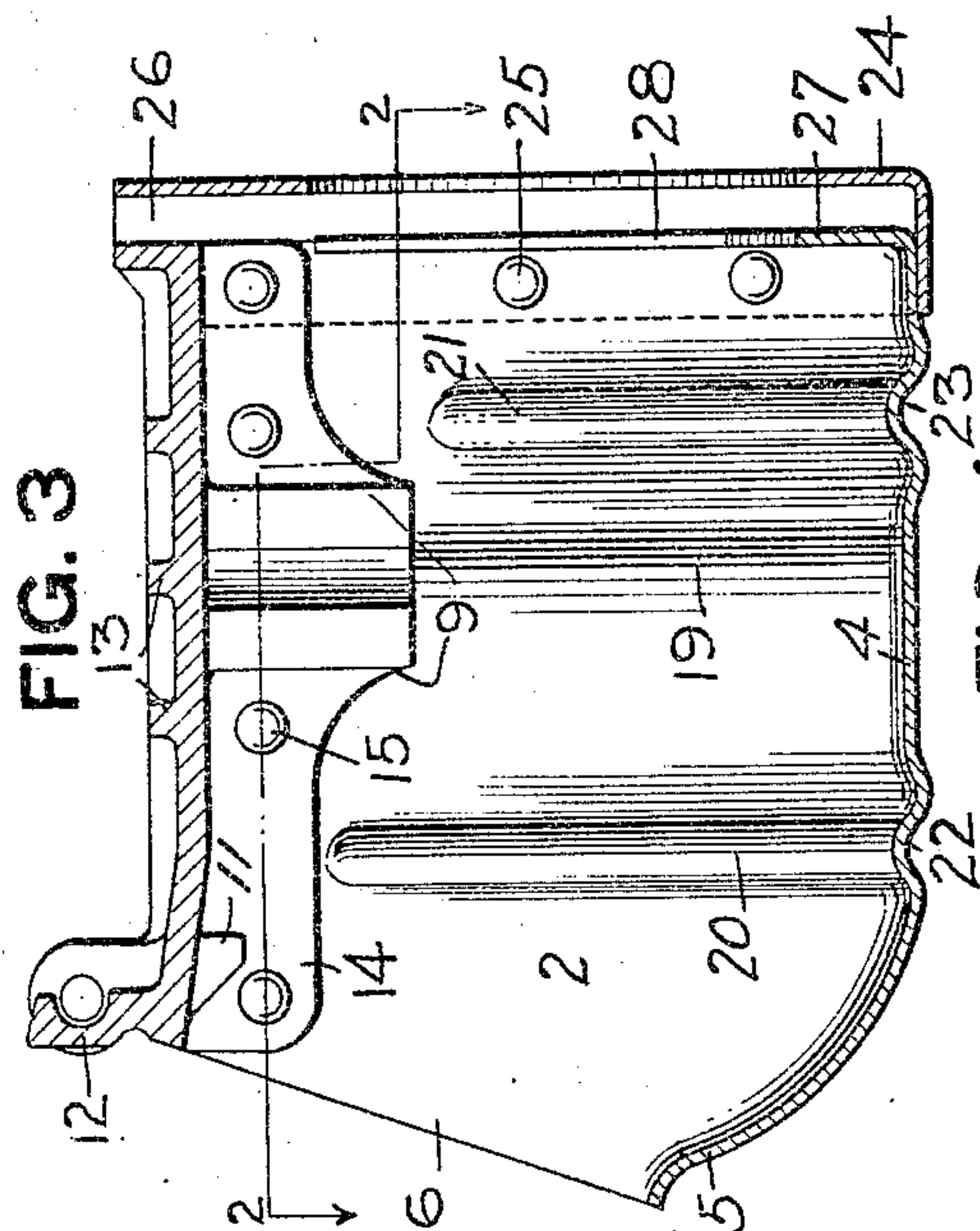


L. G. WOODS.
JOURNAL BOX.
APPLICATION FILED JULY 5, 1907.

904,665.

Patented Nov. 24, 1908.



WITNESSES.

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UNITED STATES PATENT OFFICE.

LEONARD G. WOODS, OF PITTSBURG, PENNSYLVANIA.

JOURNAL-BOX.

No. 904,665.

Specification of Letters Patent.

Patented Nov. 24, 1908.

Application filed July 5, 1907. Serial No. 382,336.

To all whom it may concern:

Be it known that I, LEONARD G. WOODS, a resident of Pittsburg, in the county of Allegheny and State of Pennsylvania, have invented a new and useful Improvement in Journal-Boxes; and I do hereby declare the following to be a full, clear, and exact description thereof:

This invention relates to journal boxes for railway car trucks. Its object is to provide a journal box which is light, yet strong so as to do away with frequent and dangerous breakages and which conforms to and is interchangeable with the Master Car Builders' standard journal box.

The invention consists in forming such journal box of a cast or drop forged top portion to secure rigidity in this part, and with a pressed plate lower or body portion comprising the sides and bottom, and also including a pressed metal dust guard pocket, all of said parts being suitably secured together.

In the accompanying drawing Figure 1 is a side view of my improved journal box; Fig. 2 is in part a plan view and in part a horizontal section of the same on the lines 2-2, Figs. 3 and 4; Fig. 3 is a central vertical longitudinal section of the same; and Fig. 4 is a vertical transverse section on the line 4-4, Fig. 2.

The journal box comprises a cast or drop forged top portion 1 and a pressed metal body portion 2, the latter comprising sides 3, and bottom 4, said bottom being turned upwardly at its outer end as at 5 to conform to the usual Master Car Builders' type, and provided with the usual opening 6 for the axle box lid. The top 1 is provided on the exterior with the usual lugs 7 provided with openings 8 for the journal box bolts and on its interior is provided at the middle of the box with the shoulders 9 for holding the journal bearing and near the forward end with the lugs 11 which act as stops for the journal box wedge. At the forward end on the exterior it is provided with the usual lugs 12 to which the axle box lid is hinged. This top is preferably ribbed on its outer surface as shown at 13 to reduce weight without affecting the strength.

In order to secure the pressed body portion to the top the latter is provided at its side edges with continuous depending flange portions 14 to which the body portion 3 is suitably secured, such as by means of rivets

15. The flanges 14 are continuous from the outer to the inner ends of the journal box and therefore offer a strong attachment between the top and body. Said flanges are made deepest at their central portions and have the shoulders 9 formed thereon. Braces 17 are formed on the outer faces of the flanges 14 and form stiffeners for the journal box bolt lugs 7. The body portion is cut away as at 16 to fit around these braces.

The pressed steel body portion is preferably corrugated in order to impart strength thereto, the sides 3 being corrugated at 19 in line with the openings 8 for the journal box bolts, the bolts fitting in the corrugations 19. The sides are also vertically corrugated at 20 in front of the pedestal bolts, also preferably at 21 at the rear thereof, and the bottom is also transversely corrugated, preferably on both sides of the position of the tie bar, such as at 22 and 23. The side corrugations 20 and 21 and bottom corrugations 22 and 23 are preferably continuous, as shown, so as to extend around the bottom corners of the body and give strength at these points and prevent the box from getting out of square.

The pocket 24 for the dust guard is preferably formed of pressed metal having flanges on the bottom and two side edges, by means of which it is secured to the body portion such as by rivets 25. This pocket at its upper end is spaced from the inner end of the top as at 26 to permit the insertion of the dust guard. Preferably the inner end of the body will be flanged at the bottom as shown at 27 to provide a pan for the oil, and also on the sides as at 28; the latter, however, serving no special function except that it does away with the necessity of trimming the inner edges of the body portion, these flanges being formed by the dies in pressing the box to shape.

The axle box described is interchangeable with the Master Car Builders' type. It is light and yet stronger than the usual cast box. The top portion is rigid so as to effectively take care of the vertical load, also of the lateral load produced by starting and stopping a train, and also to resist the endwise thrusts of the axles due to the swinging of the car bodies, while the corrugations in the pressed metal body portion act as braces and stiffeners so as to resist the vertical pinching stresses due to drawing the journal box bolt nuts very tight. They also stiffen

the box so as to act as diagonal bracing between the arch bar and tie bar. This box will resist all of these various stresses as effectively as an all-cast metal box and at the same time is very much lighter and is not liable to break when the truck leaves the track. It is much stronger than the all-pressed boxes which have heretofore been designed and which do not conform to the Master Car Builders' standard.

What I claim is:

1. A journal box composed of a pressed plate body portion comprising sides and bottom, and a rigid top portion of metal of a different character provided with vertical flanges on its side edges which are secured to the body portion and having outwardly projecting journal box bolt lugs and braces extending from the flanges to said lugs, the sides of the body at their upper edges being cut away to fit around said braces.

2. A journal box composed of a pressed

plate body portion comprising sides and bottom provided with corrugations extending continuously across the bottom and up the sides, and a rigid top portion of metal of a different character secured to the body portion.

3. A journal box composed of a pressed plate body portion comprising sides and bottom open at the inner end and provided with corrugations extending continuously across the bottom and up the side portions, a rigid top portion of metal of a different character secured to the body portion, and a dust guard pocket spaced from the inner end of said body portion and secured thereto.

In testimony whereof, I the said LEONARD G. Woods have hereunto set my hand.

LEONARD G. WOODS.

Witnesses:

J. M. CORBOY,

ARCHIBALD M. MCCREA.