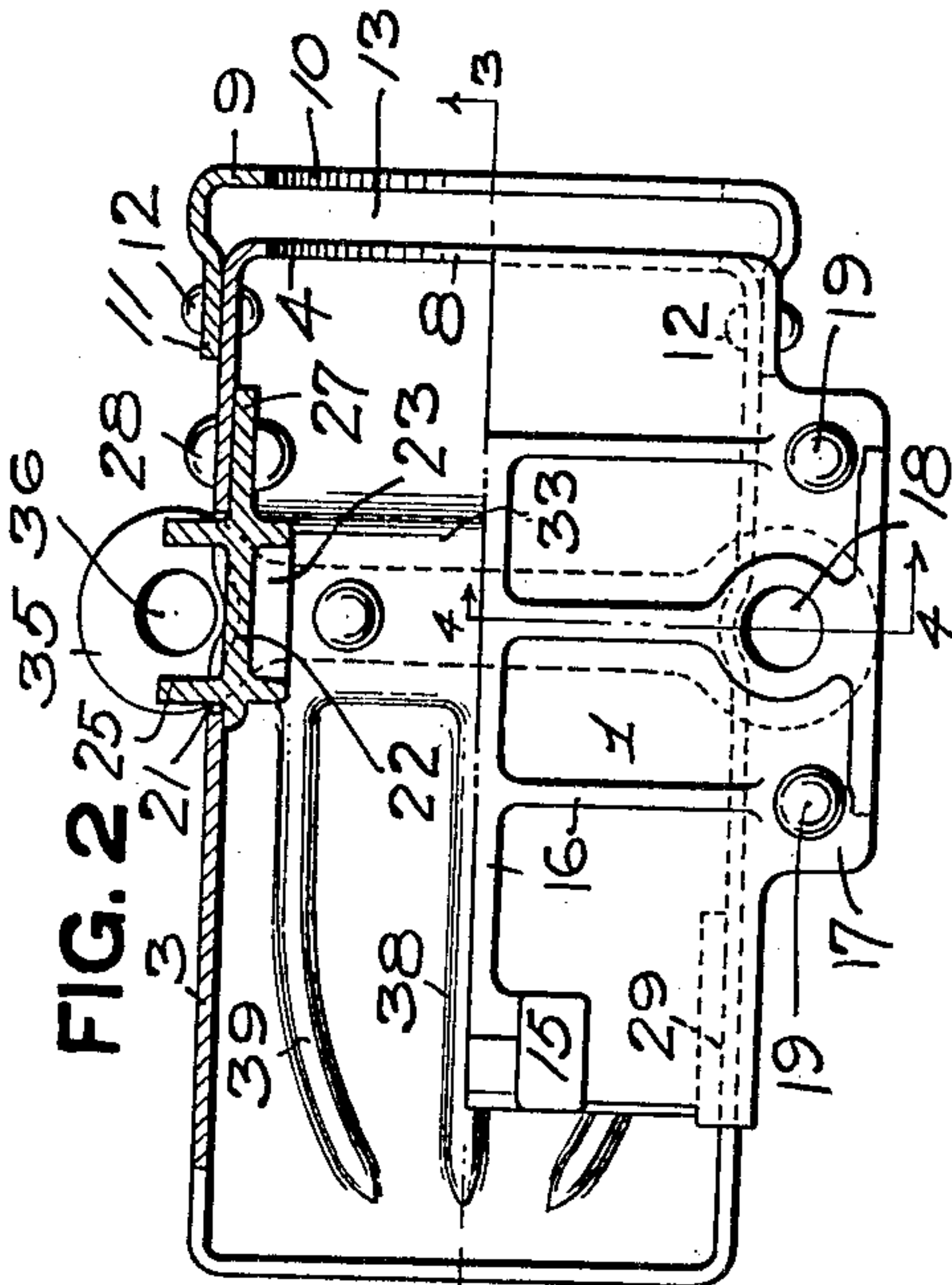
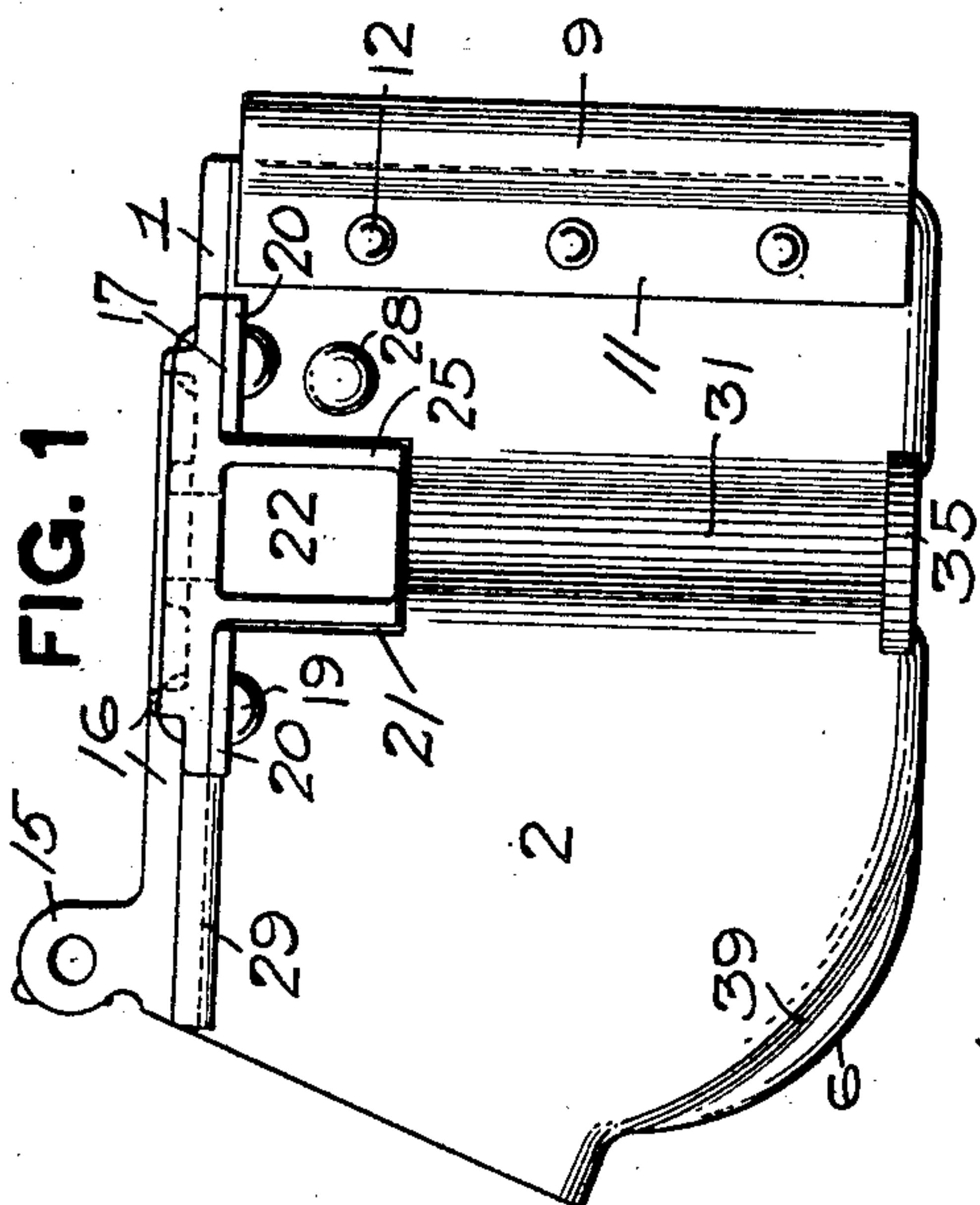
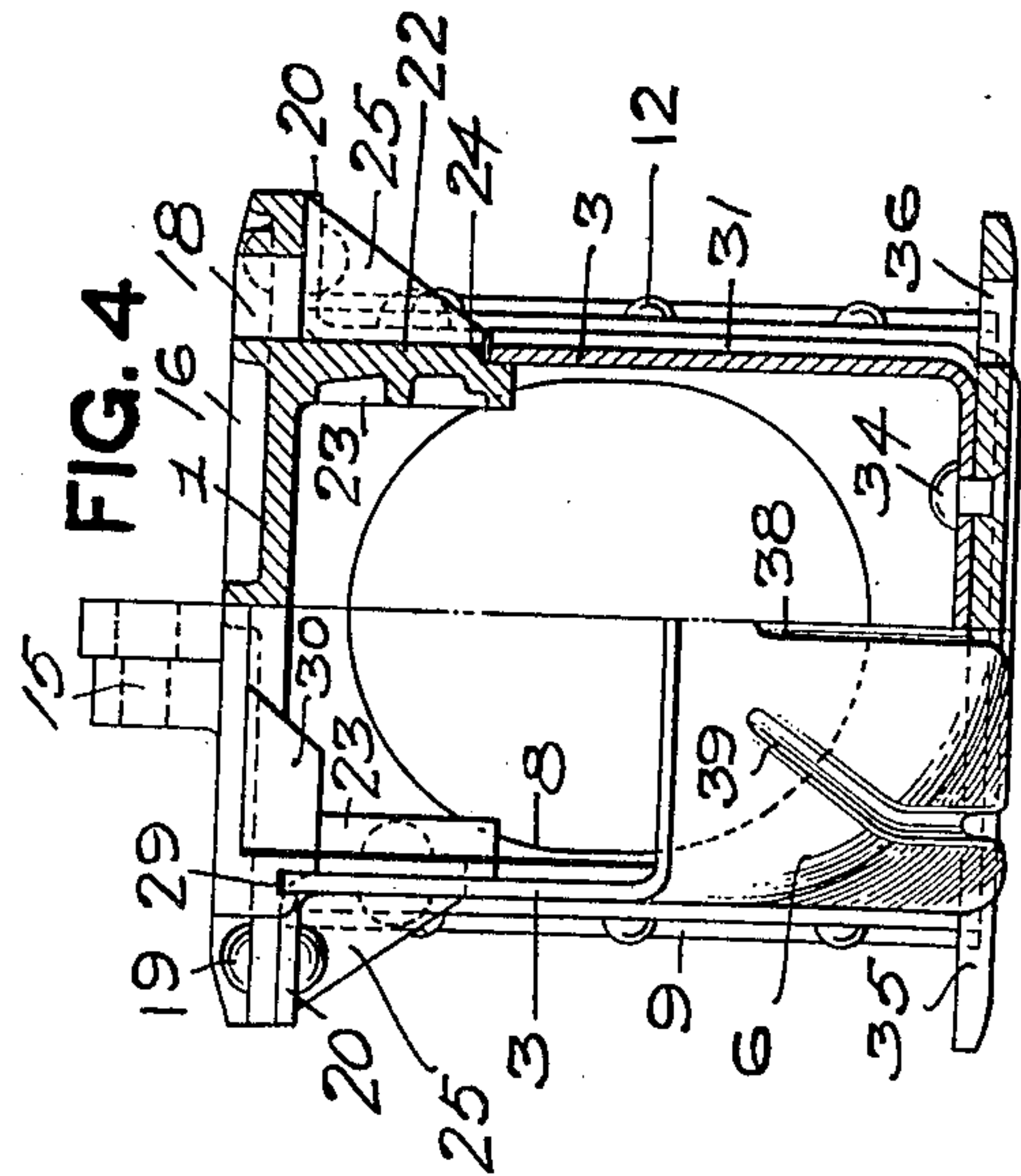
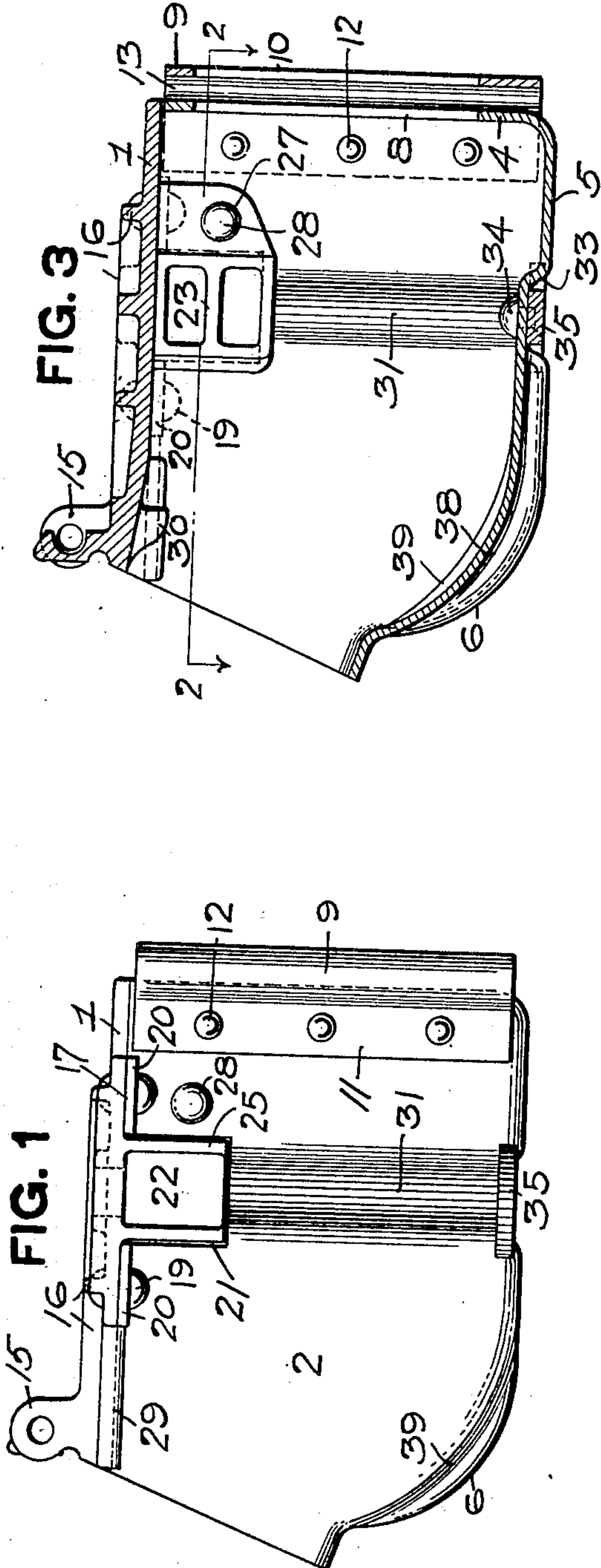


E. G. CAUGHEY.
RAILROAD JOURNAL BOX.
APPLICATION FILED APR. 18, 1908.

913,360.

Patented Feb. 23, 1909.



WITNESSES.

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UNITED STATES PATENT OFFICE.

EDWARD G. CAUGHEY, OF SEWICKLEY, PENNSYLVANIA.

RAILROAD JOURNAL-BOX.

No. 913,360.

Specification of Letters Patent.

Patented Feb. 23, 1909.

Application filed April 18, 1908. Serial No. 427,844.

To all whom it may concern:

Be it known that I, EDWARD G. CAUGHEY, a resident of Sewickley, in the county of Allegheny and State of Pennsylvania, have
5 invented a new and useful Improvement in Railroad 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
10 railway car trucks.

The object is to provide a journal box which is light, yet strong, so as to do away with the dangerous and frequent breakages, and which conforms to and is interchangeable
15 with the Master Car Builders' standard journal box.

The invention relates to that style of journal box consisting of a pressed plate body portion with a rigid top portion of a metal
20 of different character secured to the body portion.

One special feature of the invention is to provide a box of this type with journal box bolt lugs at the bottom as well as at the top.

Another special feature is to provide the
25 box with longitudinal integral ribs or corrugations to prevent the waste from rolling and winding on the axle journal.

Other features of the invention comprise
30 certain details of construction and the manner of connecting the top of the body, all as hereinafter described and claimed.

In the accompanying drawing Figure 1 is a side view of my improved journal box;
35 Fig. 2 is in part a plan view and in part a horizontal section on the line 2—2, Fig. 3; Fig. 3 is a vertical longitudinal section through the box on the line 3—3, Fig. 2; and Fig. 4 is in part an outer end view and
40 in part a vertical transverse section on the line 4—4, Fig. 1.

The journal box comprises a rigid top portion 1, either formed as a casting or as a drop forging, and a pressed metal body
45 portion 2. The latter comprises sides 3, rear end wall 4 and bottom 5. The bottom is curved upwardly at its outer end, as at 6, to conform to the Master Car Builders' standard and to provide the usual opening
50 or mouth which is closed by the axle box lid. The inner end wall 4 is provided with the axle opening 8.

The dust guard pocket is formed by a plate 9 also provided with an axle opening
55 10 and having its side edges flanged, as at 11, and secured to the sides of the body by

means of rivets 12. The dust guard may be of any suitable type and will be located in the space 13 between the plate 9 and rear wall 4 of the body.

The top 1 is formed either of cast iron or steel, or as a forging. It is provided on its top at its forward or outer end with the usual lug 15 to which the axle box lid is hinged, and is also ribbed, as at 16, to give
60 lightness without sacrificing strength. On its side edges, intermediate its ends it is provided with the outward projections 17 forming the journal box bolt lugs, being provided with the journal box bolt holes 18 and
65 also serving as a means for securing the top portion to the body, being provided for this purpose with holes for receiving rivets 19 passing through said outward extensions and through outwardly turned flanges 20 on
70 the top edge of the sides of the body. The sides of the body between these outwardly turned flanges 20 are cut away or recessed, as at 21, to fit around depending webs 22 integral with the top and which project into
75 the body of the box to form shoulders 23 for holding the journal bearing, said inwardly projecting portions extending below the cut-away portions 21 in the sides of the box so as to provide recesses 24 into which the top
80 edge of the sides of the box at the recesses project. Braces 25 extend from the depending web portions 22 up to the outward projections 17 to stiffen the latter. The web portions 22 have rearward projections 27
85 lying inside of the box and secured to the sides of the body by means of rivets 28. Forwardly of the outward projection 18 the top of the box on its lower face at each edge is provided with a groove 29 into which the
90 top edges of the sides of the body project. Interiorly at its forward end the top is provided with the usual lugs 30 which act as stops for the journal box wedge.

The sides of the body in line with the
100 journal box bolt holes 18 are corrugated or pressed inwardly, as shown at 31, to conform to the Master Car Builders' standard, these corrugations also serving to strengthen and stiffen said body. Usually boxes of the type
105 described are provided with journal box bolt lugs at the top only. I add to the same such lugs at the bottom also. This is accomplished by providing the bottom of the box with a transverse corrugation 33 and secur-
110 ing in said corrugation, as by means of rivets 34, a bar 35 which projects beyond the sides

of the body and has its ends enlarged and forming journal box bolt lugs, being provided with holes 36 for said bolts. The bar 35 seats flush in the recess formed by the corrugation 33, thereby giving a full bearing across the bottom of the box for the usual tie-bar.

In order to keep the waste from winding around the axle journal and from rolling in the journal box, the body of the box is provided with one or more longitudinal corrugations, the drawings showing a central corrugation 38 and two side corrugations 39. These corrugations are formed by pressing the metal of the bottom inwardly. They extend from near the mouth of the box inwardly to the transverse corrugation 33. They may, if desired, be extended beyond the transverse corrugation 33 to the inner end of the box.

The box described is light, serviceable and conforms to the Master Car Builders' standards. It can be made at a moderate price and has the necessary strength to take care of all the stresses to which journal boxes are subjected.

The rigid top portion gives ample strength to take care of the shocks and loads to which the box is subjected and also serves as a brace for the pressed plate body. The latter, while light, is not subject to breakages, as is the case with cast boxes of much greater weight. By providing journal box bolt lugs at the bottom of the box as well as at the top, the box is securely held in place and braced by the journal box bolts in the truck frame. The body is fairly well strengthened by the vertical corrugations forming the grooves for the journal box bolts, by the transverse bottom corrugations in which the bottom journal box bolt bar is located, and

by the longitudinal corrugations which also serve to prevent the waste from rolling around the axle. The means for securing the body to the top are ample for strength, and as practically all the riveting is outside, these parts can be joined at a minimum labor cost.

What I claim is:

1. A journal box composed of a pressed plate body portion and a rigid top portion, the body portion having its sides recessed from the top edges and having the top edges on both sides of said recesses flanged outwardly, and the top having outward projections riveted to the outwardly projecting flanges of the body and having a web extending down into the recesses in the sides of the body and braces extending from said webs to the outward projections.

2. A journal box composed of a pressed plate body portion and a rigid top portion, said body portion having its sides recessed from the top edges and having the upper edges turned outwardly at the sides of said recesses, and the top portion having outward projections riveted to the flanges on the body portion and having web portions projecting downwardly into the recesses in the sides of the body portion and extending to one side of said recesses, said side extensions being riveted to the sides of the box, and braces extending from said webs to the outward projections of the top portion.

In testimony whereof, I the said EDWARD G. CAUGHEY have hereunto set my hand.

EDWARD G. CAUGHEY.

Witnesses:

ROBERT C. TOTTEN,
JOHN F. WILL.