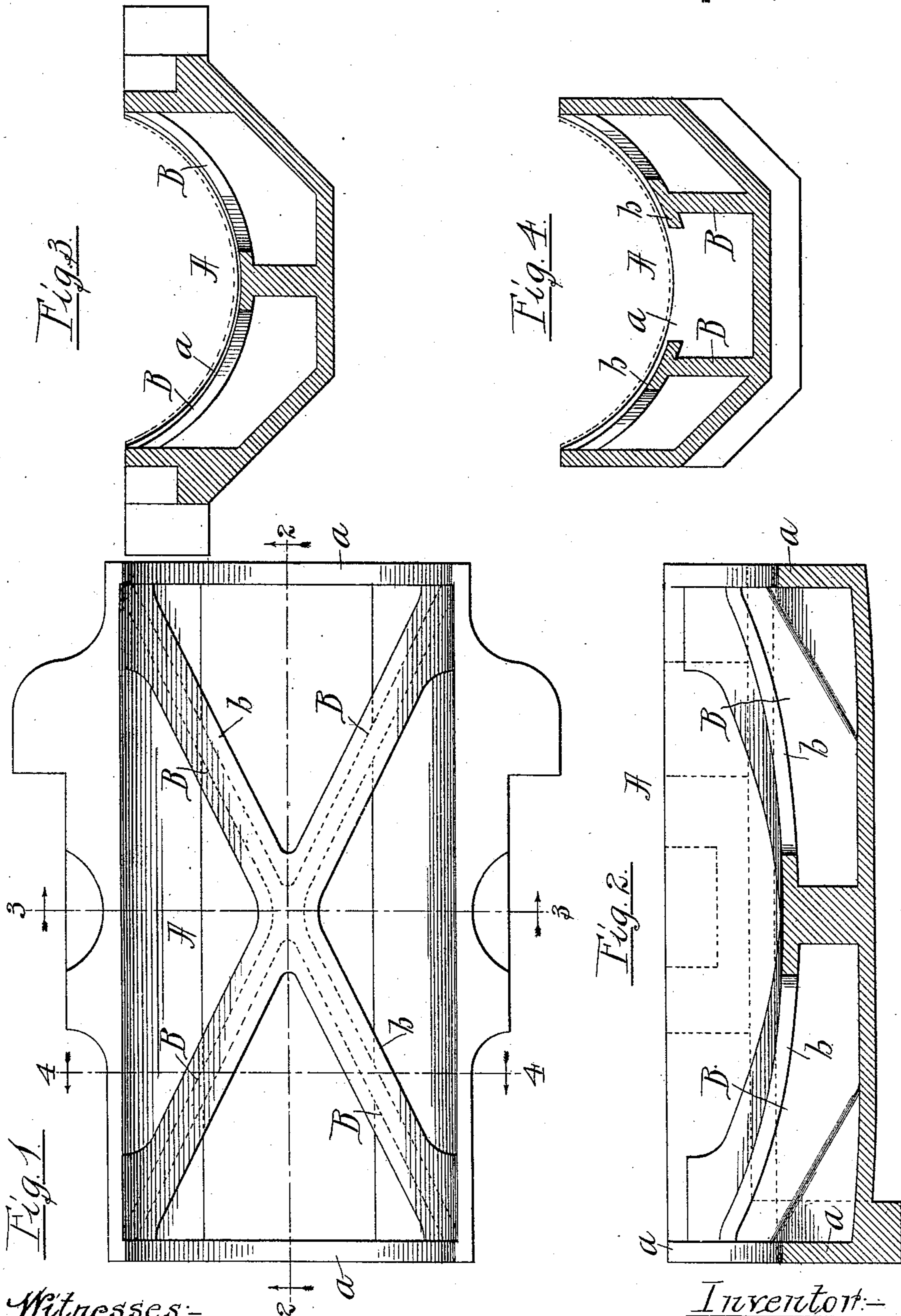


(No Model.)

H. F. SCHRODER, Jr.  
CAR BRASS.

No. 536,762.

Patented Apr. 2, 1895.



Witnesses:-  
John W. Adams.  
Clinton Hamlin.

Inventor:-  
Herman F. Schroder, Jr.  
by: Dayton, Pools & Brown  
his Attorneys

# UNITED STATES PATENT OFFICE.

HERMAN F. SCHRODER, JR., OF CHICAGO, ILLINOIS, ASSIGNOR TO THE  
RAYMOND LEAD COMPANY, OF SAME PLACE.

## CAR-BRASS.

SPECIFICATION forming part of Letters Patent No. 536,762, dated April 2, 1895.

Application filed December 3, 1894. Serial No. 530,649. (No model.)

*To all whom it may concern:*

Be it known that I, HERMAN F. SCHRODER, Jr., of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Car-Brasses; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to improvements in the construction of journal bearing boxes, shells or "brasses," and its object is to provide a shell or "brass" which is better adapted than those heretofore in use to retain the babbitt against displacement under heavy pressure, and which, at the same time, has maximum of strength with a minimum weight.

The invention consists in the matters hereinafter set forth and more particularly pointed out in the appended claim, being illustrated in the accompanying drawings.

In said drawings, Figure 1 is a plan view, looking at the inner face, of a journal box embodying the invention. Fig. 2 is a central, longitudinal section, taken on line 2—2 of Fig. 1. Fig. 3 is a transverse section, taken on line 3—3 of Fig. 1. Fig. 4 is a section similar to that of Fig. 3, taken on line 4—4 of Fig. 1.

Referring to said drawings, A designates, as a whole, a car brass or shell of the usual exterior pattern, being shown of semi-octagonal form. The interior of the box or shell conforms closely in shape to that of the outside, the several sides being relatively thin and allowably of practically uniform thickness throughout, except for the usual securing devices cast thereon, as shown in section Fig. 4. The shell is provided with end closing flanges *a a* cast integral with the sides, and the upper or inner margins of which are curved to conform to the shape of the journal, thus forming in conjunction with the sides a cavity which is laterally inclosed on all sides for the reception of the Babbitt or other soft metal.

B B are strengthening flanges or ribs arranged to extend diagonally across the inner

face of the shell in crossed relation, thus dividing the interior into four sections or cavities. The ribs B are also cast integral with the shell and are shown as being of a height slightly less than that of the end flanges *a a*. In order that these ribs may serve to retain the soft metal in proper position, they are made of approximately T-form in cross-section or undercut, as indicated clearly in the several Figs. 2, 3, and 4, of the drawings. The upper faces *b* of the ribs are hollowed or curved concentrically with the upper edges of the end flanges *a a*, as also indicated in Figs. 3 and 4. Obviously cores will be employed in forming the mold for the shell having the T-shaped or undercut ribs B. In running the Babbitt or other soft metal into the shell, the latter will be filled to cover the ribs and usually also the edges of the end flanges *a a*, as indicated by dotted lines in Figs. 3 and 4, so that an uninterrupted surface of babbitt will be provided for wearing contact with the journal.

A journal brass constructed in accordance with my invention has several important advantages. First, by reason of the peculiar form and arrangement of the ribs, and their integral connection with the shell proper, the shell is made exceedingly rigid and strong, while in fact containing a minimum of metal, and therefore being of minimum cost; second, by reason of the end flanges *a a* the babbitt in the end cavities is prevented from being pressed out of the shell; and, third, the undercut ribs confine and retain the body of babbitt in sections and as a whole so as to satisfactorily prevent its shifting or displacement under pressure of the journal.

The making of the ribs integral with the body of the shell and arranged to extend across from diagonally opposite corners and intersect at the center, is a feature of much importance, since in this construction the ribs act as trusses which prevent any springing of the center of the bearing (which is subjected to the greatest pressure) and make the shell practically as rigid as though cast solid.

It is to be understood that the ribs may be of somewhat different form in cross section;

but the T-form is preferred as affording great strength with the minimum amount of metal.

I claim as my invention—

- 5 A journal bearing shell or brass, provided with a cavity for soft metal, having end closing flanges and containing two integral undercut strengthening ribs having relatively wide upper faces curved concentrically with  
10 the journal, said ribs being of less height than the depth of the cavity as determined by the height of the end flanges, and ar-

ranged to extend across the shell from diagonally opposite corners so as to intersect at the center of the shell, thereby forming strength- 15 ening trusses, substantially as set forth.

In testimony that I claim the foregoing as my invention I affix my signature in presence of two witnesses.

HERMAN F. SCHRODER, JR.

Witnesses:

C. CLARENCE POOLE,  
W. L. HALL.