

T. H. RUSSUM.  
CAR BOLSTER CHAFING PLATE.  
APPLICATION FILED NOV. 7, 1910.

993,717.

Patented May 30, 1911.

Fig. 1.

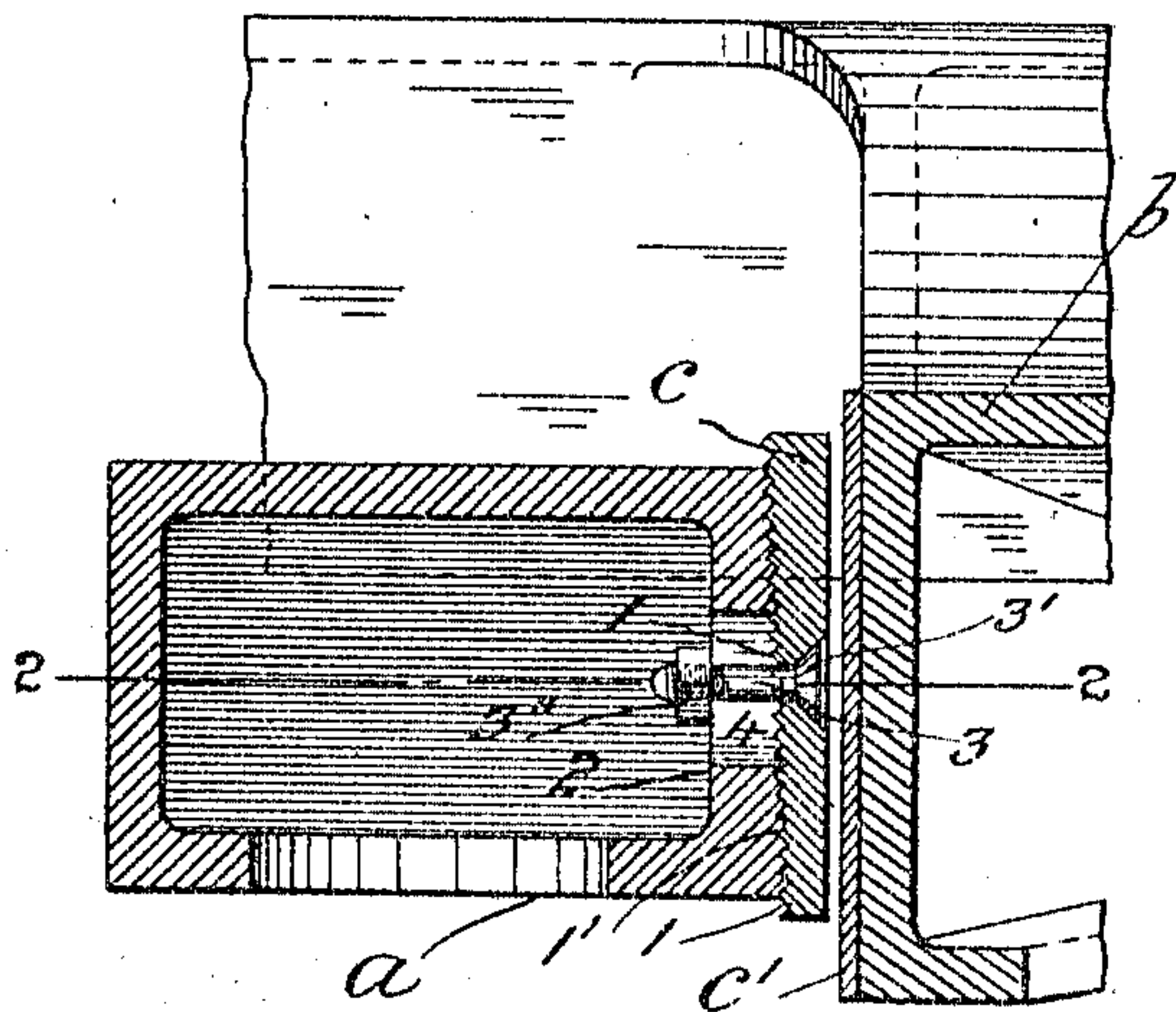


Fig. 2.

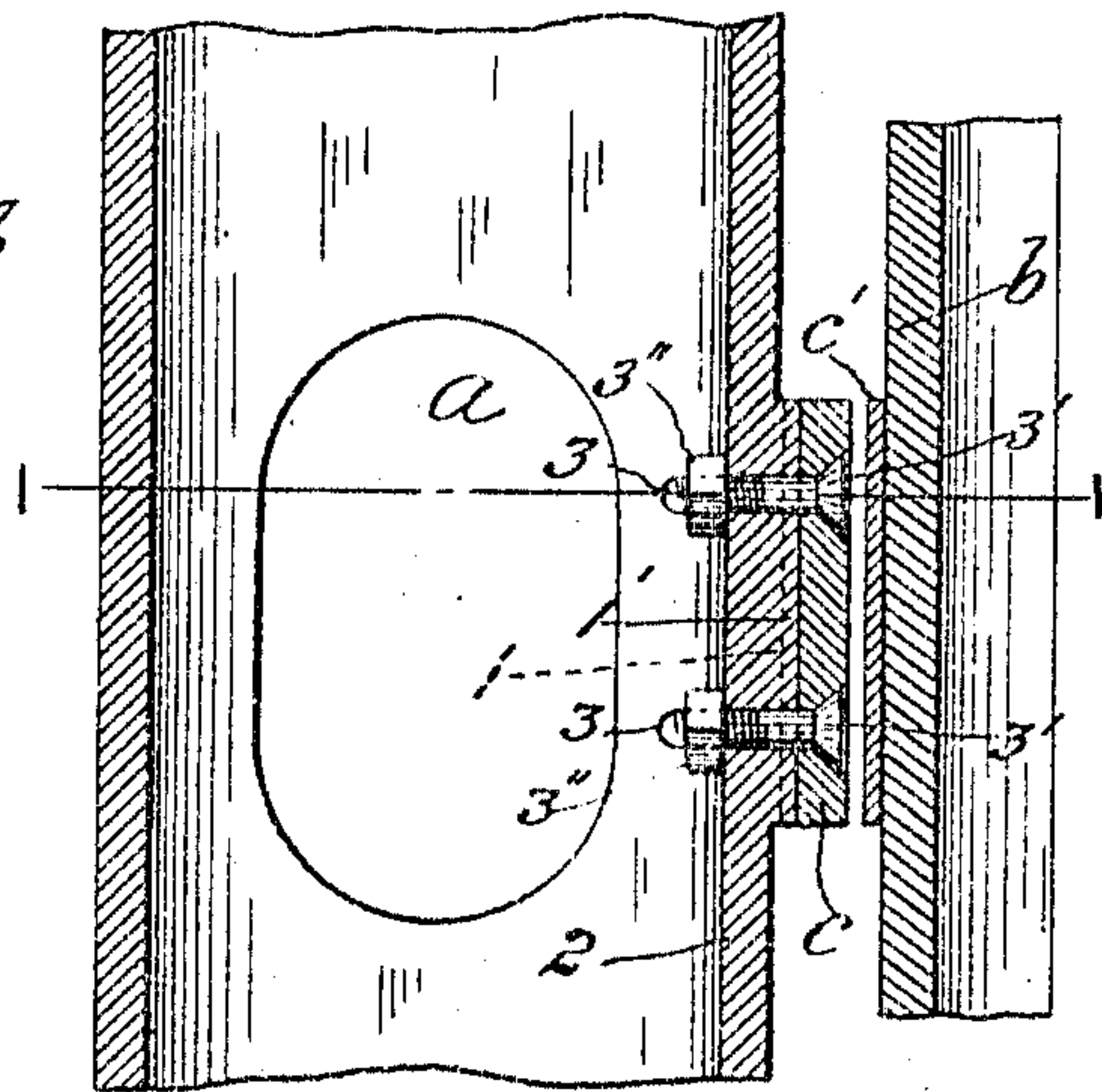


Fig. 3.

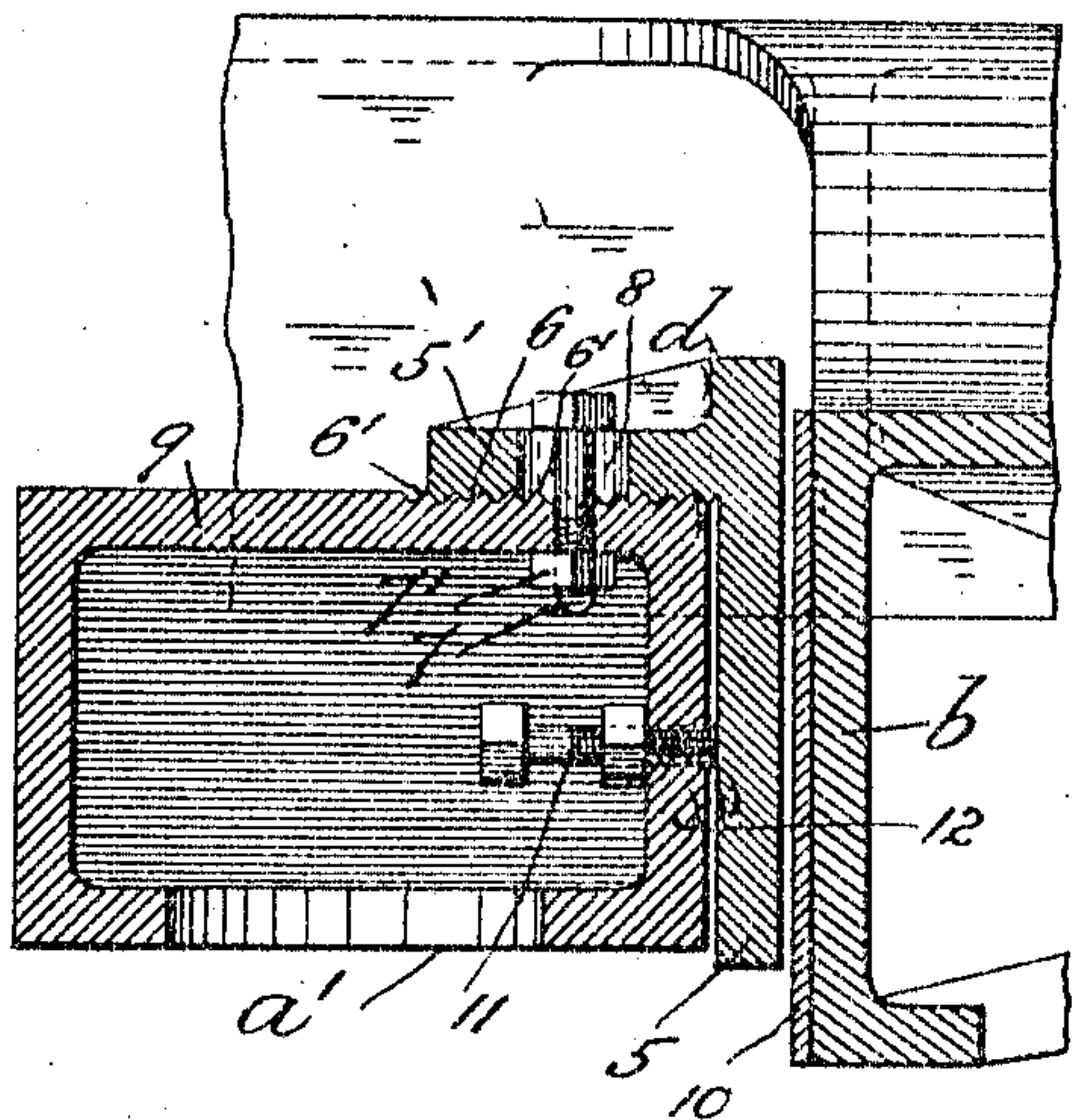


Fig. 4.

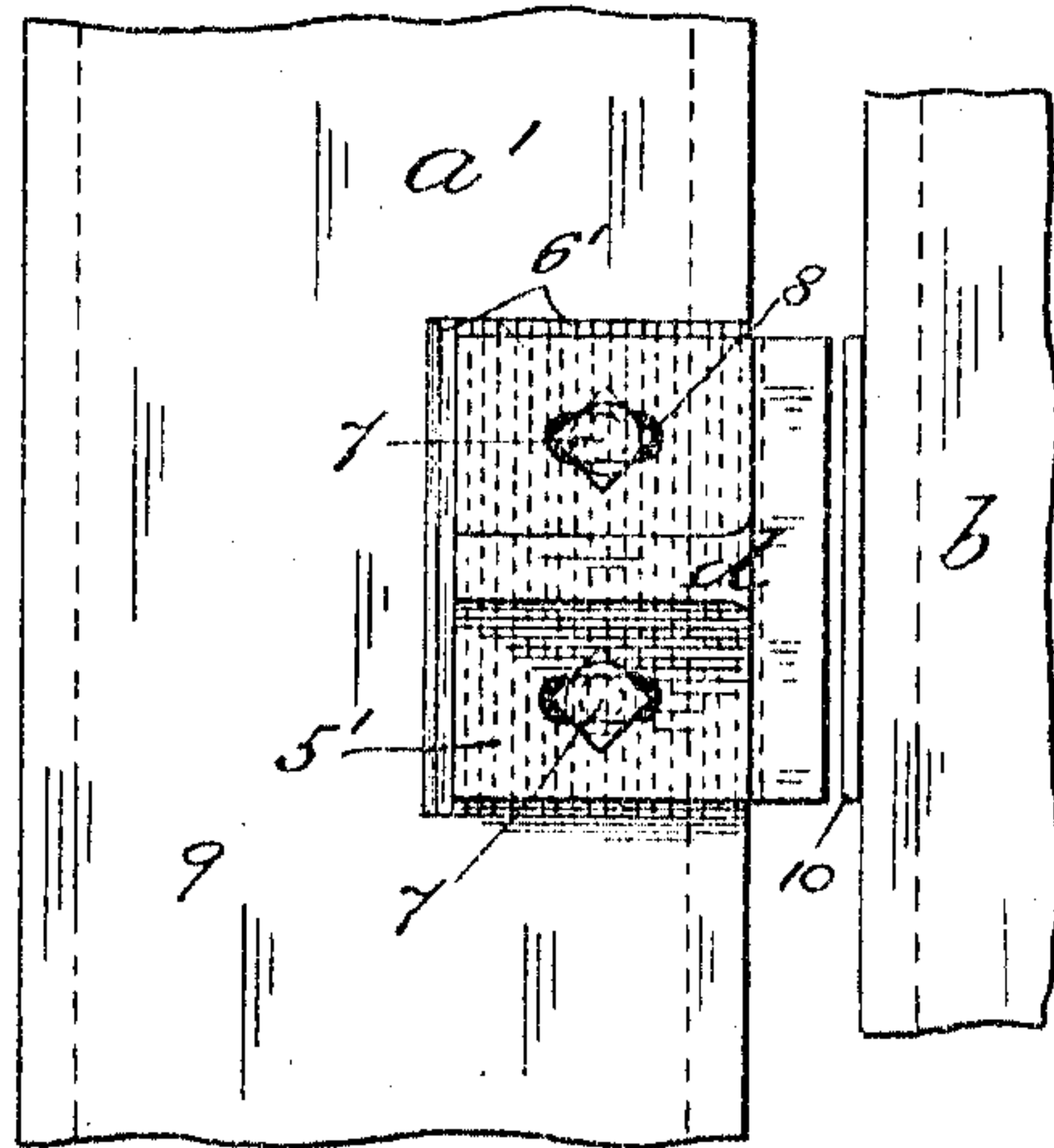
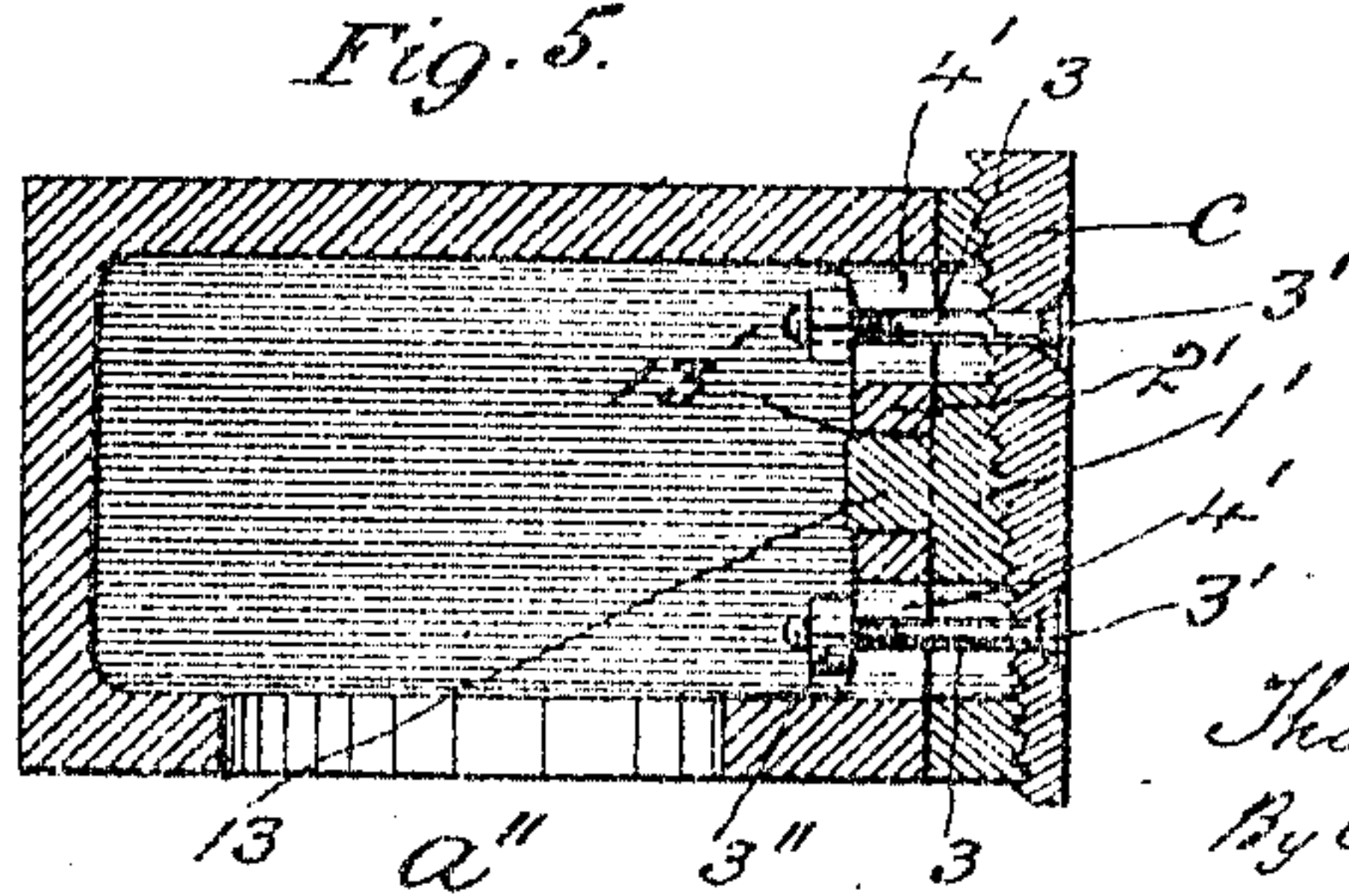


Fig. 5.



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# UNITED STATES PATENT OFFICE.

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## CAR-BOLSTER CHAFING-PLATE.

993,717.

Specification of Letters Patent.

Patented May 30, 1911.

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*To all whom it may concern:*

Be it known that I, THOMAS H. RUSSUM, a citizen of the United States, residing at Baltimore city, in the State of Maryland, have invented a new and useful Improvement in Car-Bolster Chafing-Plates, of which the following is a specification.

My invention relates to the chafing-plates attached to the sides of a car truck-bolster for engagement with similar plates or strips on the inner faces of the transverse members or transoms of the truck frame, between which the bolster rides, and has for its object to maintain a normal clearance between the engaging plates and thereby reduce the side play of the bolster at all times.

It consists in features of novelty as hereinafter described and claimed, reference being had to the accompanying drawing forming part of this specification, whereon,

Figure 1, is a vertical transverse section through a car truck-bolster and one of the adjacent transverse members or transoms of the truck frame, on line 1, 1, in Fig. 2, showing the application of my improved chafing-plate thereto; Fig. 2, a horizontal section thereof on line 2, 2, in Fig. 1; Fig. 3, a similar view to Fig. 1, showing a modification of my invention; Fig. 4, a top plan thereof, and Fig. 5, a similar view of the bolster to Fig. 1, showing a modified means of attaching the chafing-plate thereto.

Like letters and numerals of reference denote like parts in the respective figures.

Referring to Figs. 1, and 2, *a* represents a car truck-bolster, and *b* a transom of the truck frame adjacent to the bolster *a*, the bolster *a* and transom *b* in the present case being preferably, composed of cast steel, but may be of the ordinary, or any suitable material and construction.

*c* is my improved chafing-plate which in the present case is attached to one side of the bolster *a* as hereinafter more particularly described. The chafing-plate *c* is preferably wedge-shaped, having its outer face vertically arranged and adapted for sliding contact with the chafing-plate *c'* which is riveted to the side of the transom *b* in the usual manner and may be either of the ordinary description as shown, or similar in construction to the chafing-plate *c* as desired. The inner side of the chafing-plate *c* is inclined upward and rearwardly from the bot-

tom in the direction of the bolster *a* and is preferably, formed with a series of triangular (or other suitably shaped) teeth 1, which preferably, extend entirely across the plate *c* and are adapted to engage with similarly shaped teeth 1' formed on, and in the present case integral with the side wall 2 of the bolster *a*, the toothed portion 1' of the side wall 2 being facially inclined correspondingly to the inner side of the plate *c*. Through the chafing-plate *c* at right angles to its outer face, and through the inclined toothed portion 1' of the side wall 2 of the bolster *a* are passed preferably, two parallel horizontally arranged bolts 3 having their heads 3' countersunk in the outer face of the plate *c* and their nuts 3'' adapted to be tightened against the inner face of the side wall 2, the openings 4 for the bolts 3 being vertically slotted above and below the bolts 3 as seen in Fig. 1.

By this construction, the chafing-plate *c* is securely attached to the bolster *a* in any desired position relatively to its corresponding plate *c'* on the transom *b*, and when in service, owing to wear or other cause, the play between the chafing-plates *c*, *c'*, becomes excessive, on loosening the bolts 3 and disengaging the chafing-plate *c* from the teeth 1' on the side of the bolster *a*, the chafing-plate *c* can be lowered along the inclined toothed portion 1' of the bolster *a* and thereby moved forward or outward from the latter until the normal play or distance between the plate *c* and *c'* is restored, when the chafing-plate *c* is reengaged with the teeth 1' and the bolts 3 (adjustable in their slots 4) re-tightened.

In the modification of my invention shown in Figs. 3 and 4, the chafing-plate which is vertically arranged at, and clear of the side of the bolster *a'*, is formed preferably, by the dependent leg 5 of an inverted L-shaped bracket *d*, having its other leg 5' horizontally arranged and overlapping the top of the bolster *a'*, the leg 5' being formed on its underside with a series of teeth 6 which are similar to the teeth 1 in Fig. 1 and arranged at right angles to the chafing-plate 5 for engagement with similar teeth 6' formed on the top of the bolster *a'* to which the bracket *d* is securely attached by preferably, two parallel bolts 7 which pass through slotted openings 8 in the leg 5' of the bracket *d*, and



through the top wall 9 of the bolster  $a'$  against the inner face of which they are tightened by their nuts 7'.

On loosening the bolts 7 and disengaging the teeth 6 of the bracket  $d$  from the teeth 6' of the bolster  $a'$ , the bracket  $d$  with the chafing-plate 5 may be moved forwardly from, or rearwardly to, the bolster  $a'$  according to the required play between the plate 5 and the corresponding chafing-plate 10 on the transom  $b$  of the truck frame, when the teeth 6 are reengaged with the teeth 6' and the bracket  $d$  in the adjusted position of the plate 5 secured to the bolster  $a'$  by re-tightening the nuts 7' of the bolts 7.

For resisting the rearward springing of the chafing-plate 5 when engaged by the transom chafing-plate 10, I preferably use a set screw 11 which is threaded through the side wall 12 of the bolster  $a'$  and butts at its outer end against the inner side of the plate 5, the screw 11 being operated from the inside of the bolster  $a'$  as shown.

It is obvious that the slotted openings 4 for the bolts 3 in Figs. 1 and 2, and for the slotted openings 8 for the bolts 7 in Figs. 3 and 4, may be formed through the chafing-plate  $c$ , and the top wall 9 of the bolster  $a'$ , respectively, in lieu of through the side wall 2 of the bolster  $a$  and horizontal leg 5' of the bracket  $d$ .

In the modification of my invention seen in Fig. 5, the inclined toothed portion 1' for engagement by the teeth 1 of the chafing-plate  $c$ , is made separate from, and adapted to bear against the side wall 2' of the bolster  $a''$ , the toothed portion 1' being formed on its rear side with a stud 13 which engages in a corresponding hole 13' through the side wall 2', the slotted openings 4' for the bolts 3 in this case being extended through the inclined portion 1' as shown.

What I claim as my invention and desire to secure by Letters Patent is:—

1. The combination with a truck member, of a chafing plate mounted on said member and adjustable toward and away from the side face of said member the meeting faces of which chafing plate and member have inter-

locking engagement and means for rigidly fixing the chafing plate to the bolster in its adjusted position.

2. The combination with a truck member, of a chafing plate mounted on said member for adjustment toward and away from the side faces of said member, and interlocking teeth on the meeting faces of the chafing plate and truck member.

3. The combination with a truck member, of a chafing plate mounted on the member, for horizontal adjustment toward and away from the side faces of said member, and corresponding corrugations formed on the meeting faces of the truck member and the chafing plate.

4. In a car truck, a chafing plate having ribs formed on its inner face, which chafing plate is horizontally adjustable toward and away from the side face of said chamber, and means whereby said chafing plate is rigidly fixed to a truck member with the ribs against the face of said member.

5. A car bolster chafing-plate having teeth adapted to engage teeth on the bolster, and means for releasing the said plate from, and for adjustably fixing it in, the engaged position of the said teeth, to the said bolster.

6. A car bolster chafing-plate having its outer face vertical and its inner side inclined thereto, teeth on the said side, a member on the bolster having its outer face inclined correspondingly to the said side, teeth on the said member adapted for engagement by the teeth on the said side, and means for releasing the said plate from and for adjustably fixing it in, the engaged position of the said teeth to the said member and bolster.

7. The combination with a truck bolster having a portion of one of its faces provided with corrugations, a chafing plate applied to the corrugated portion of said bolster and means for rigidly fixing the chafing plate to said bolster.

THOMAS H. RUSSUM.

Witnesses:

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