

No. 771,550.

PATENTED OCT. 4, 1904.

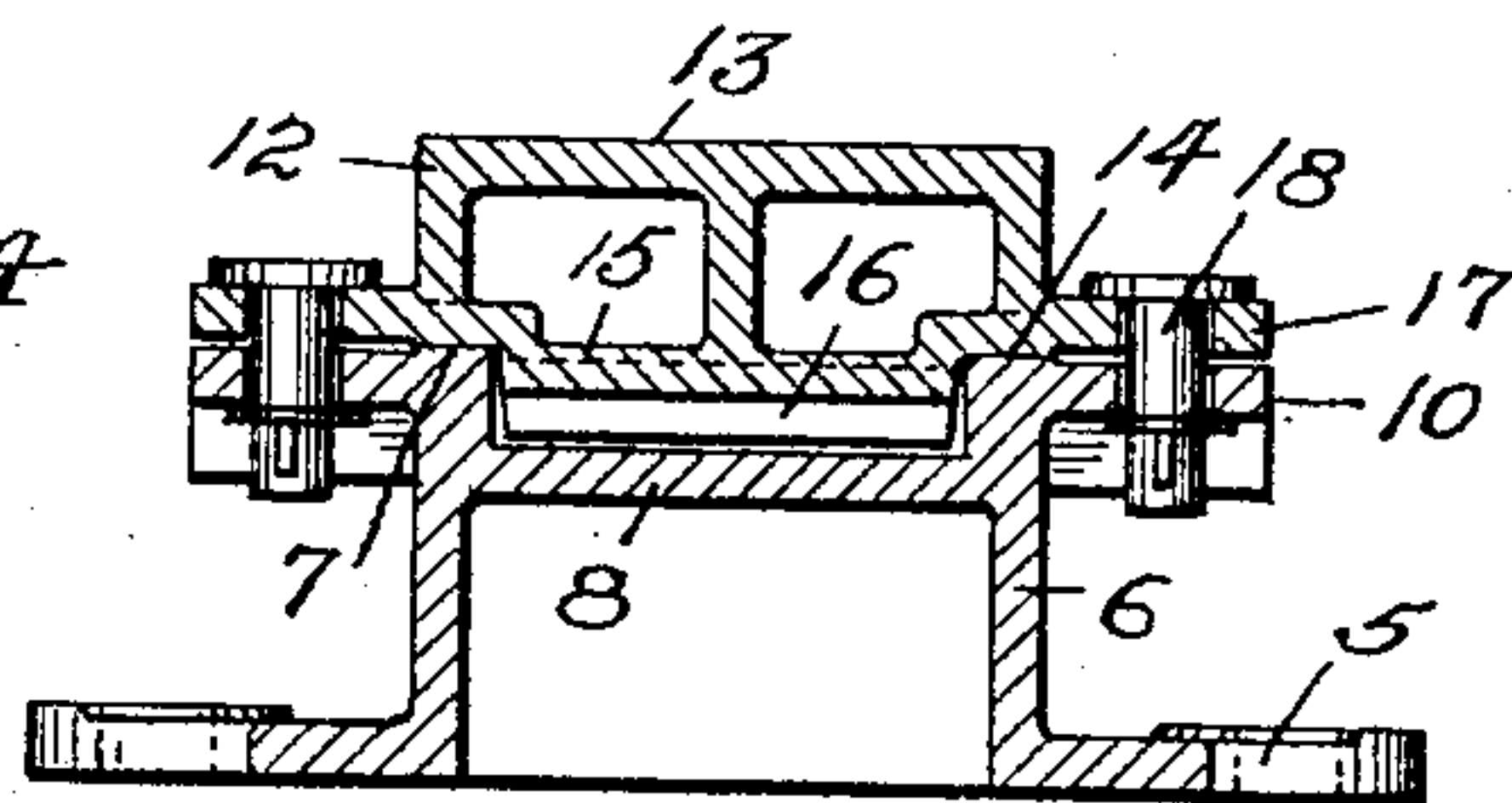
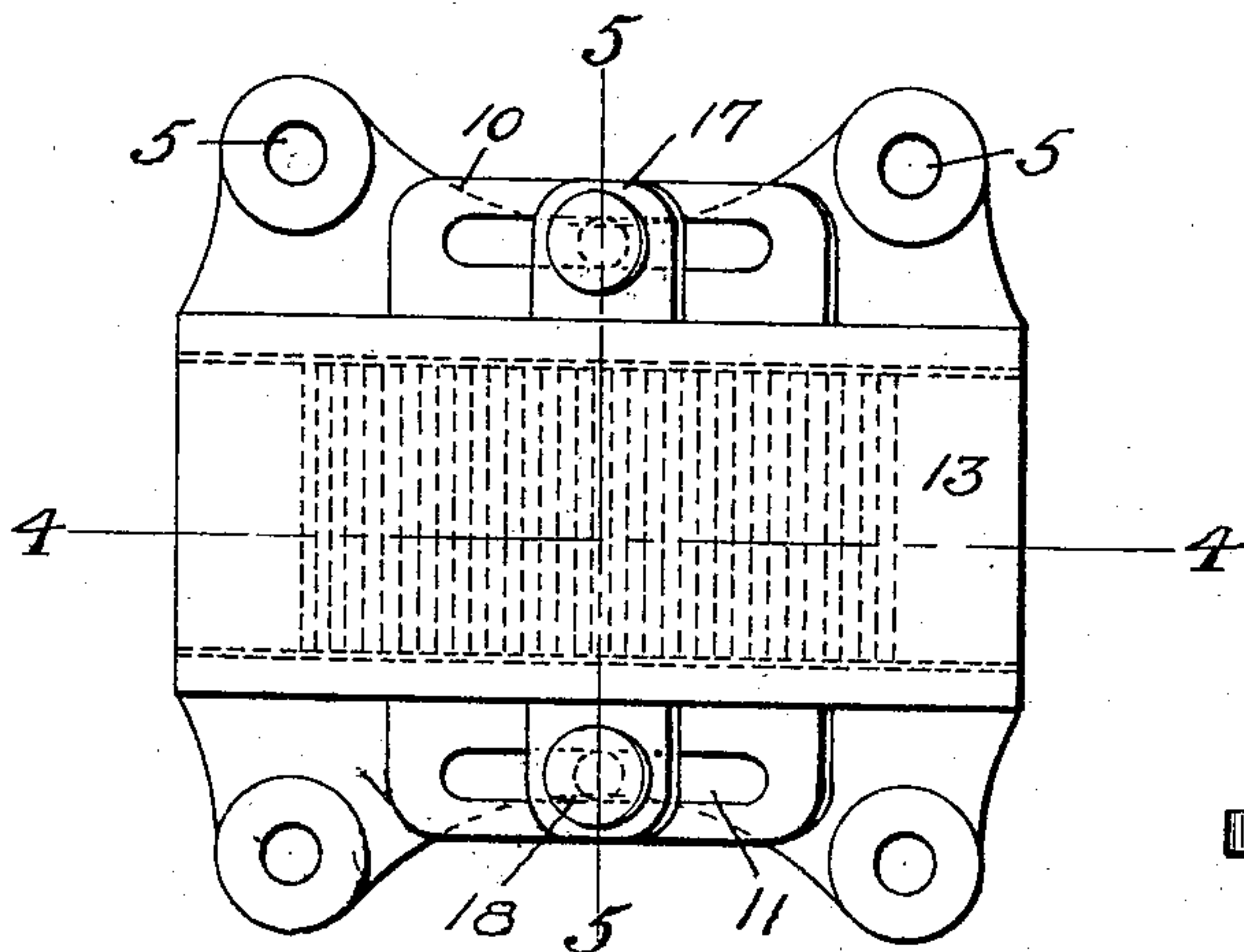
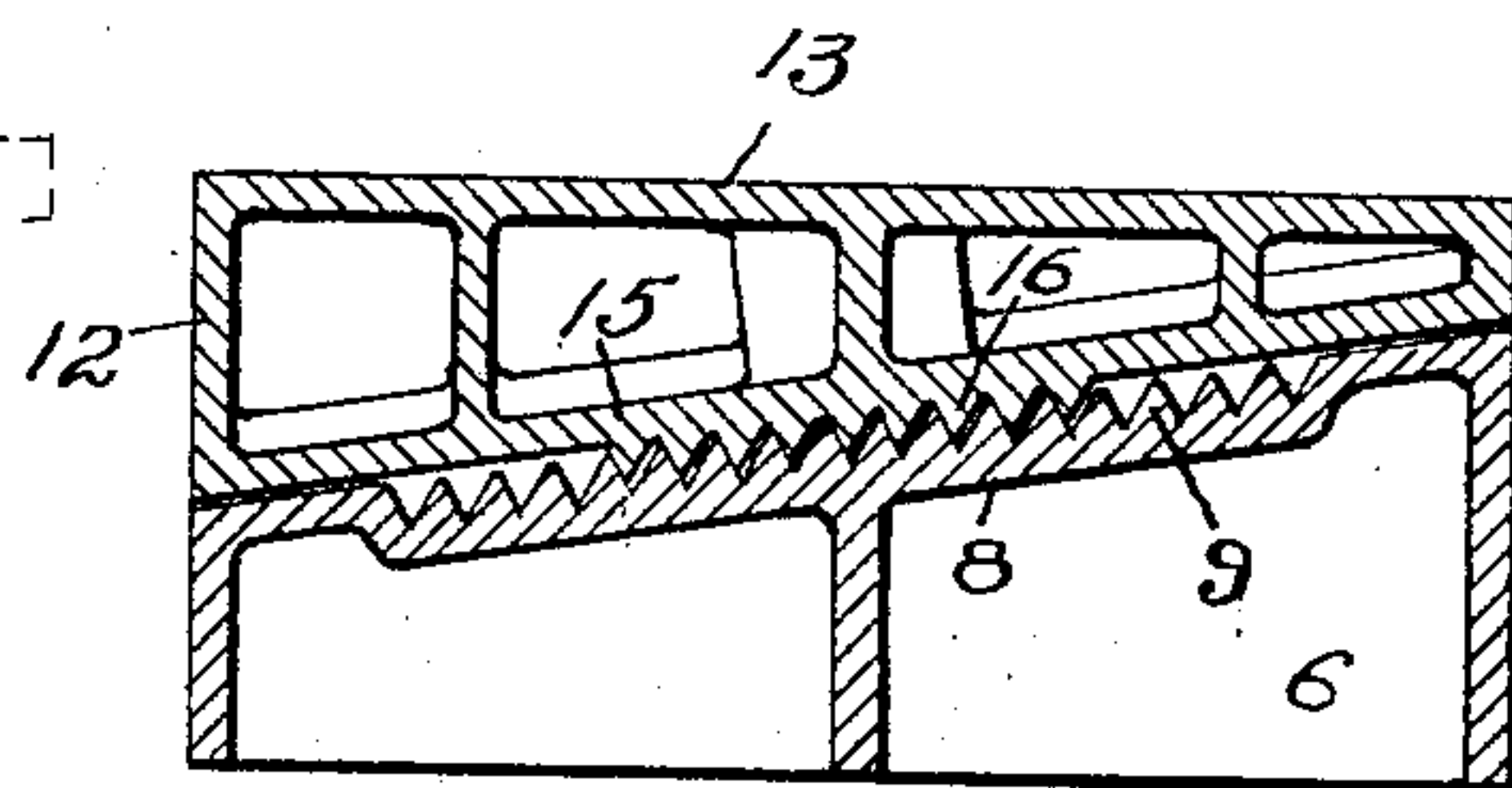
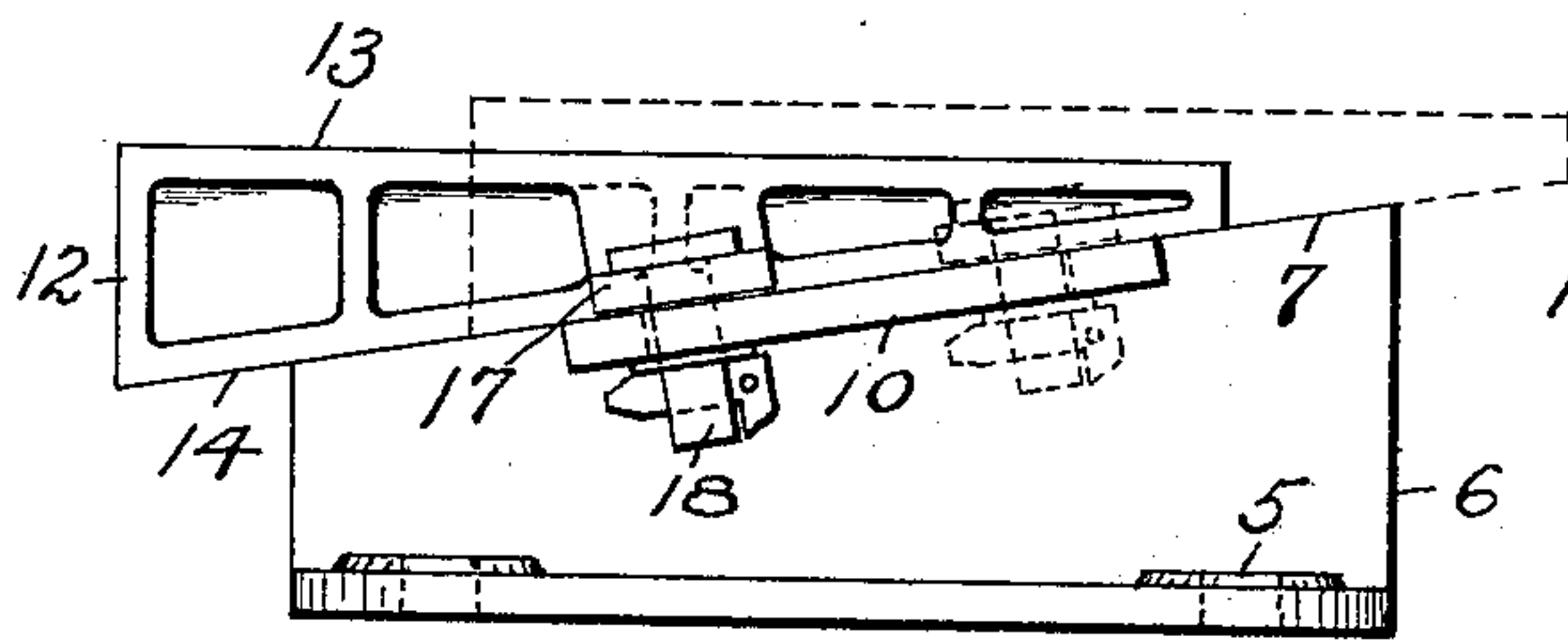
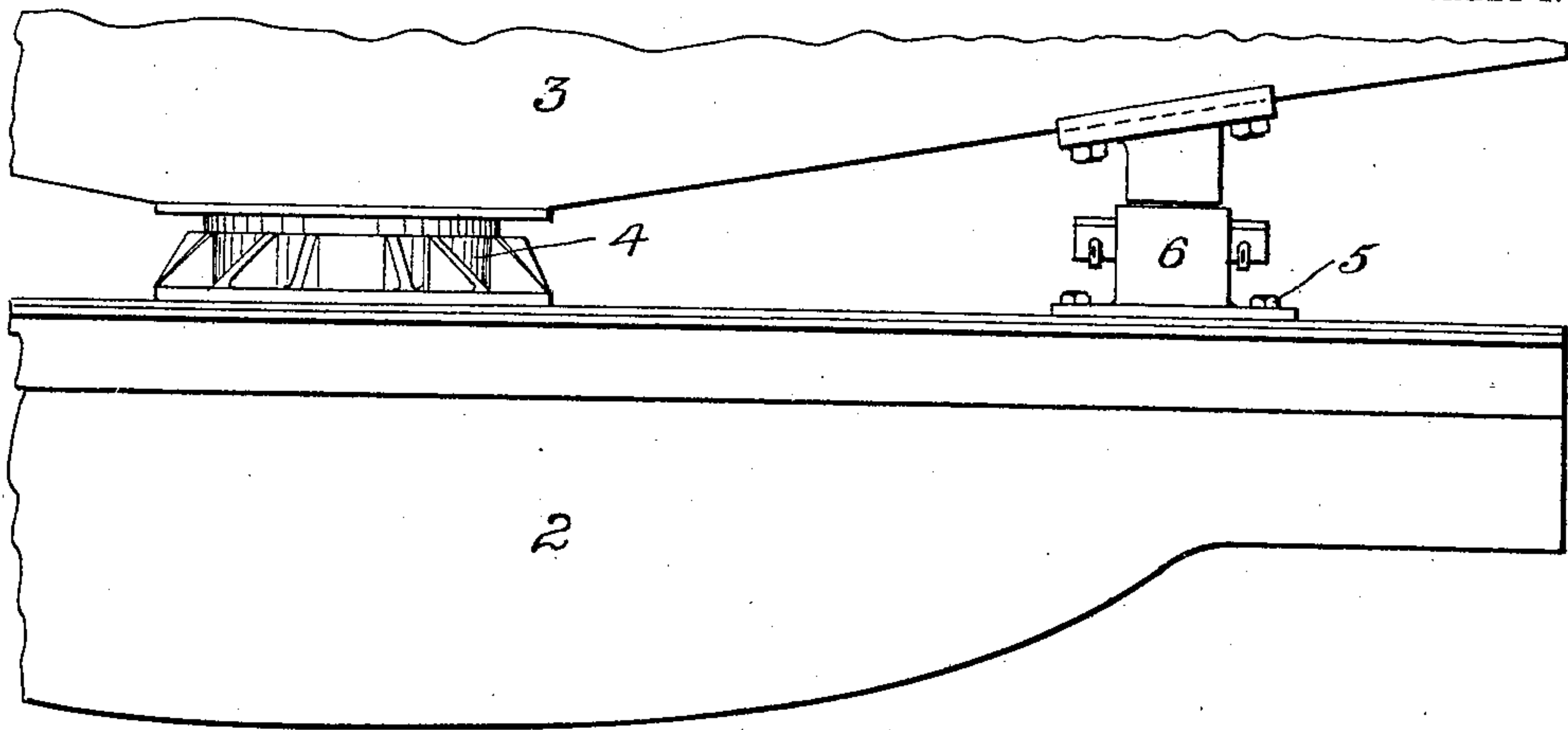
F. K. HOSLER & C. FUELLER.

SIDE BEARING.

APPLICATION FILED APR. 29, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



## Witnesses

Lindsay dr B. Little  
Vinnie M. Myers.

## Inventors

F. K. Howland  
Chas. Fuller  
Dr. J. W. Nesbitt

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2 SHEETS—SHEET 2.

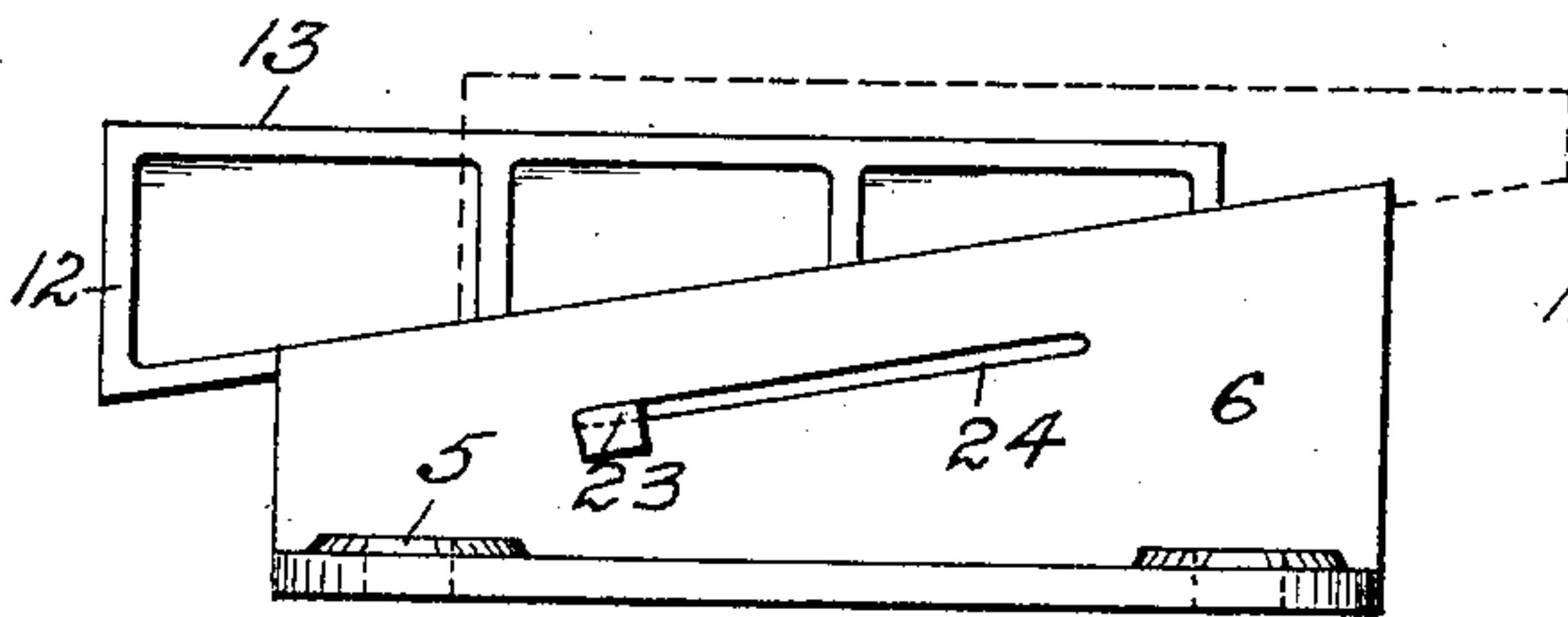


Fig. 6

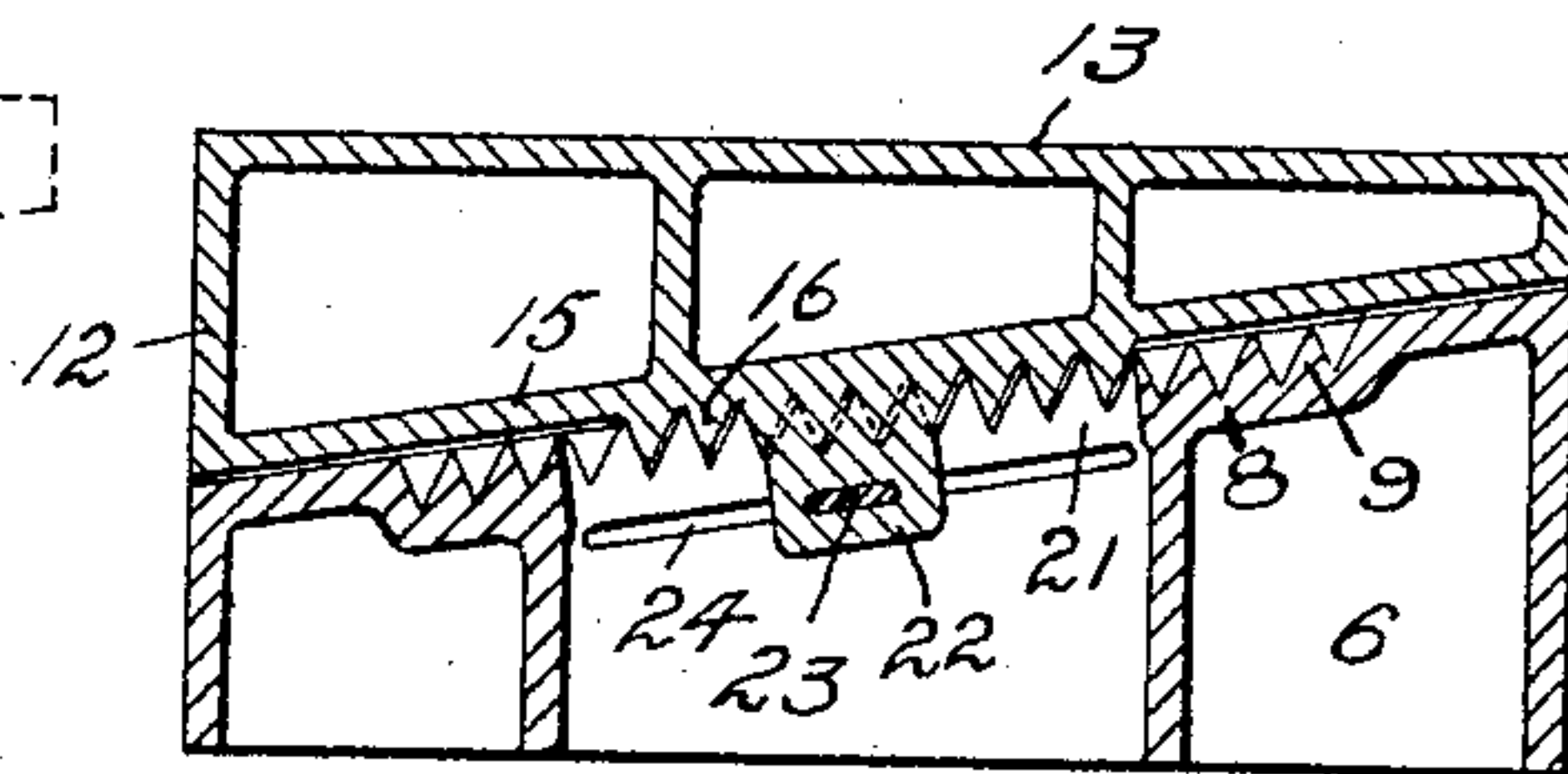


Fig. 8

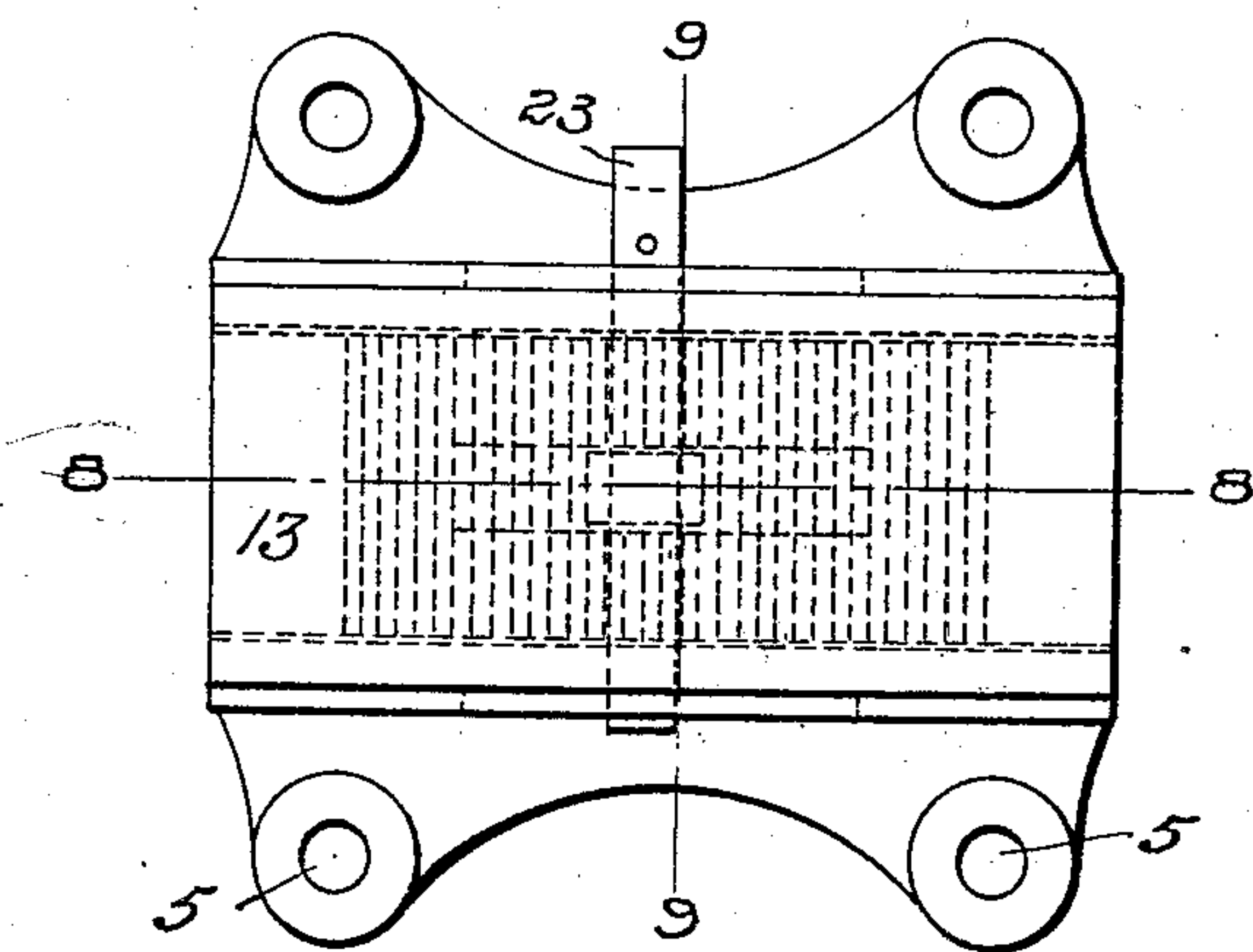


Fig. 7

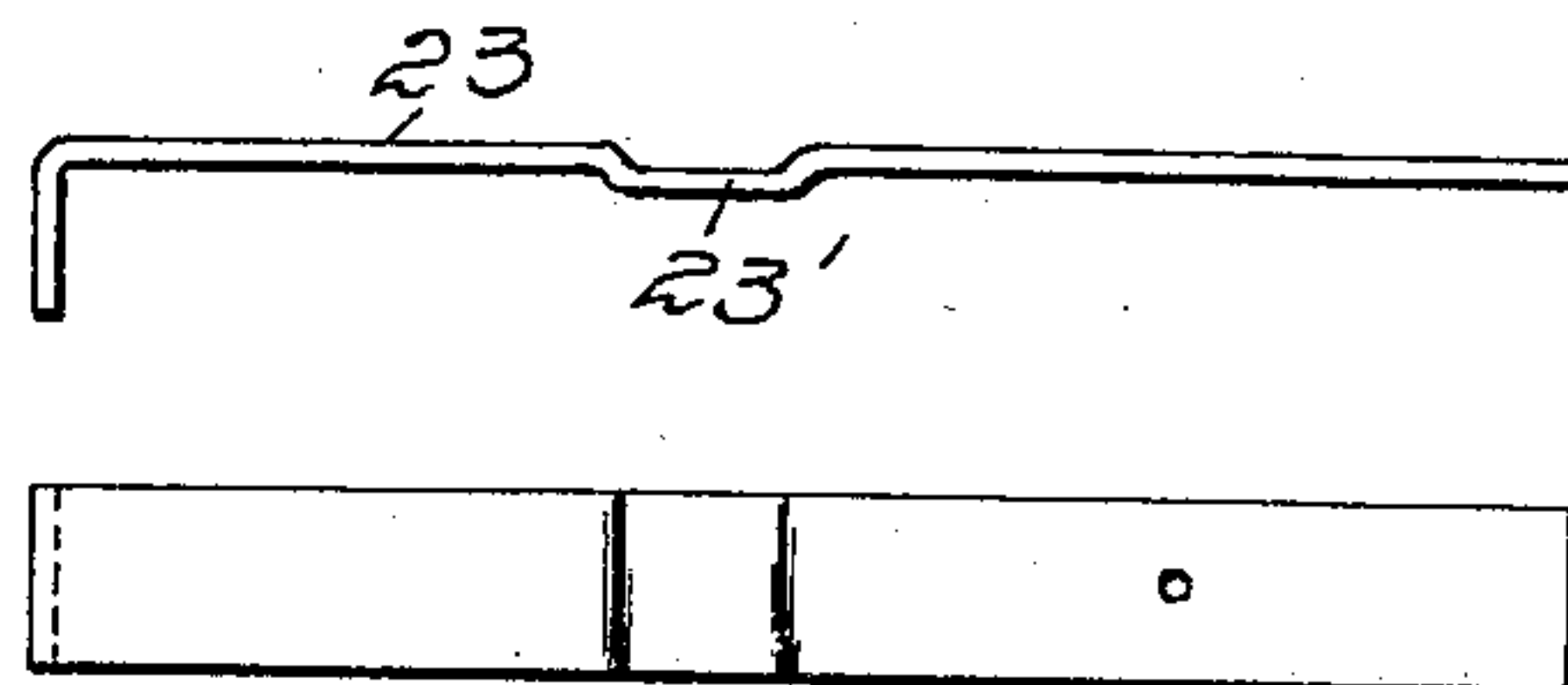


Fig. 10

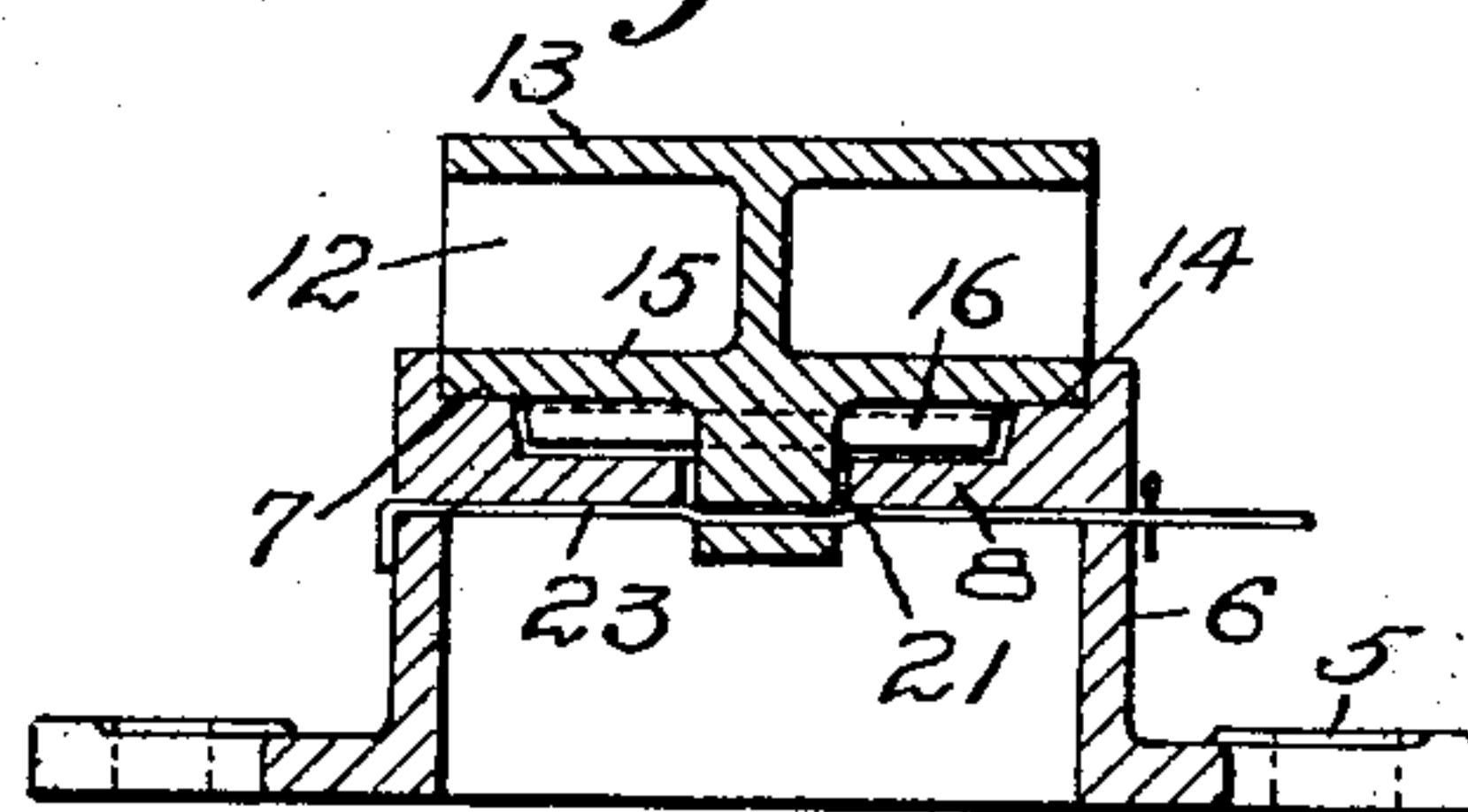


Fig. 9



Fig. 11

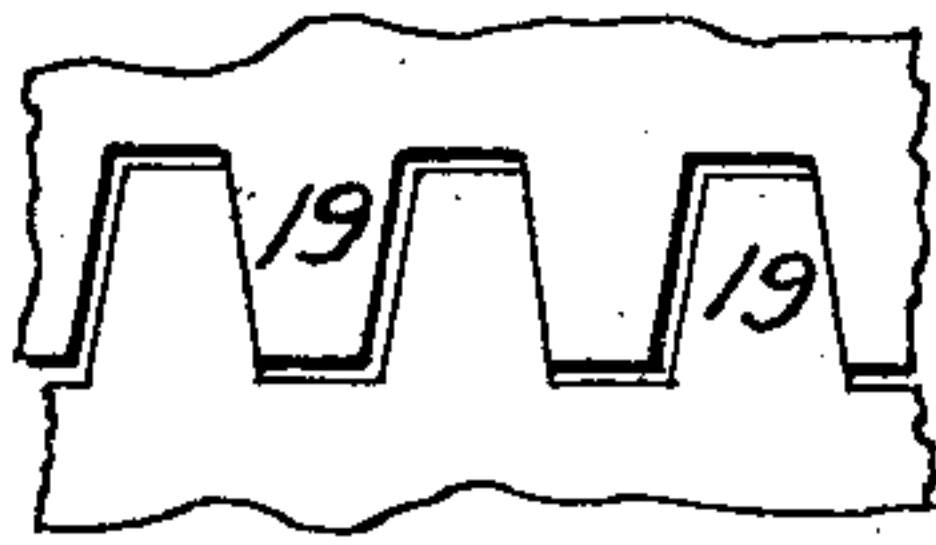


Fig. 12



Fig. 13

Witnesses

Lindsay B. Little  
Vinnie M. Myers.

Inventors

F. K. Hosler  
C. S. Fueller,  
By J. M. Nesbit, atty.



# UNITED STATES PATENT OFFICE.

FRANK K. HOSLER AND CHARLES FUELLER, OF BUTLER, PENNSYLVANIA.

## SIDE BEARING.

SPECIFICATION forming part of Letters Patent No. 771,550, dated October 4, 1904.

Application filed April 29, 1904. Serial No. 205,465. (No model.)

*To all whom it may concern:*

Be it known that we, FRANK K. HOSLER and CHARLES FUELLER, citizens of the United States, residing at Butler, in the county of Butler and State of Pennsylvania, have invented certain new and useful Improvements in Side Bearings, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to vertical adjustable side bearings for railway-cars, and particularly to bearings having members formed with inclined or diagonal engaging faces, with means for adjusting one member on the other for the purpose of raising or lowering the active face of the bearing to the required plane. In bearings of this type there is necessarily considerable stress and tendency to displacement in the direction of the incline, and heretofore the adjusting means has been depended on entirely for resisting the same; but in practice this has proven ineffective for maintaining the adjustment and withstanding the wear for any considerable length of time. The clamping or adjusting bolts, screws, and other securing devices work loose, permitting the adjustable member of the bearing to shift, thus destroying the efficiency of the bearing.

The primary object of the present invention is to overcome the objections noted by so constructing the bearing members as to cause them to positively interlock at each adjustment, thus relieving the securing or clamping means of all strain or stress incident to maintaining the position of the adjustable member.

A further object is to so construct the bearing member that there must of necessity be a vertical separation thereof before the bearing-face can be raised or lowered, thereby absolutely precluding accidental disturbance of the adjustment.

Still a further object is to so construct the bearings as to relieve the interlocking elements of all weight which may be placed on the bearings, so that there is no danger of fracturing them, as in the preferred embodiment of the invention the only function of such elements is to prevent such relative movement of the bearing parts as would result in changing the plane of the bearing-face.

An additional object of the invention is to provide improved means for securing together the bearing members after the desired adjustment has been attained.

In the accompanying drawings, Figure 1 is a side view of portions of car-bolsters equipped with the improved bearing. Fig. 2 is a side view of the bearing, and Fig. 3 a top plan view. Fig. 4 is a longitudinal section taken on line 4 4 of Fig. 3, and Fig. 5 is a cross-section taken on line 5 5 of the same figure. Fig. 6 is a side view of a bearing of modified form, and Fig. 7 is a top plan view of the same. Figs. 8 and 9 are sectional views taken on lines 8 8 and 9 9, respectively, of Fig. 7. Fig. 10 is a detail view of the securing-key. Figs. 11, 12, and 13 are views illustrating different forms of interlocking teeth or projections for the bearing members.

Referring to the drawings, 2 designates the truck-bolster, 3 the body-bolster, and 4 the center bearing. Bolted to bolster 2 at 5 is the rectangular base member 6 of the bearing, inclined at the top from end to end and formed with the parallel longitudinal supporting-faces 7. Between these faces the bearing member is formed with depressed bottom 8, inclined complementary with faces 7 and formed with upwardly-projecting teeth or ribs 9, preferably V-shaped in cross-section. On opposite sides of bearing member 6 are lateral flanges 10, longitudinally slotted at 11.

The upper or adjustable member 12 of the bearing is smooth and level on top to form the active bearing-face 13 and on its under side is inclined and formed with the longitudinal bearing-faces 14, which engage faces 7 and sustain all weight or pressure to which the side bearing may be subjected. The bottom 15 of member 12 projects downward between faces 14, and depending therefrom are the transverse teeth or ribs 16, which are similar in form to and interlock with teeth 9 of the base member. The number of teeth for the members may vary, dependent on the range of adjustment desired, the range of the present embodiment being shown by the full and dotted lines in Fig. 2.

Projecting laterally from opposite sides of member 12 are the apertured ears 17, which overhang flanges 10, and by means of bolts 18



extending therethrough and through slots 11 the bearing members are secured in the desired adjustment. Flanges 10 and ears 17 are preferably slightly separated, so as to afford an appreciable spring when bolts 18 are tightened and also to prevent accidental breaking thereof, as might occur if said parts engaged.

With the described construction it is clear that the securing or locking means is relieved of all weight or pressure to which it would be subjected if it had to resist the thrust or shifting tendency of the adjustable bearing member.

The teeth or ribs and intervening grooves of the two members of the bearing are of such height or depth that when the members are together they engage at one side only, their points or edges being out of contact with the bottoms of the grooves, so that there is no wedging tendency. The function of said parts is thus confined to maintaining the movable member of the bearing in permanent position on the fixed member and positively resisting any tendency to shift due to the inclined engaging faces or other causes.

While the V-shaped teeth or ribs (shown in detail in Fig. 11) are preferred, it is obvious that the interlocking elements may be of various forms. Thus, as in Fig. 12, bevel teeth or ribs 19 may be employed, or the same may be of oval form, as indicated at 20, Fig. 13.

In the modification illustrated by Figs. 6, 7, 8, and 9 the side exterior securing means are dispensed with by longitudinally slotting bottom 8 of base member 6 at 21 and forming bottom 15 of top member 12 with projecting head 22, which extends through slot 21 and is formed with a passage for the spring-metal key 23, which extends through side slots 24 of base 6. The key is formed, preferably, with a bulge 23', which enters head 22 and exerts a downward pull thereon and holds the parts of the bearing tightly together. The construction just described is only one of several means that may be employed for securing the bearing members without departing from our invention.

It is characteristic of the invention that the fixed and movable members of the bearing must be separated or parted vertically before one can be moved or shifted with relation to the other and the adjustment changed, and as it is obvious that this may be accomplished by a great variety of constructions we do not confine ourselves to the means here shown for accomplishing the same.

While the improved side bearing is here shown as applied to the truck-bolster, it is obvious that it may be reversed and secured to the body-bolster whenever such arrangement is preferred.

We claim—

1. A side bearing comprising a fixed member, a movable member engaging and adjust-

able transversely of the fixed member, and an interlocking connection between the members, whereby the movable member must be separated from the fixed member before it can be adjusted.

2. A side bearing comprising fixed and adjustable members having inclined engaging faces, and projections on one member adapted to extend into depressions in the other member, whereby the members must be separated before they can be adjusted.

3. An improved side bearing comprising inclined fixed and movable members formed with a series of interlocking points, said series extending in the direction of the incline.

4. A vertically-adjustable side bearing comprising a fixed member, an adjustable member movable laterally on the fixed member for vertically adjusting it, and vertically-interlocking means rigid with the members, whereby the members must be separated vertically before they can move laterally for the vertical adjustment.

5. A side bearing comprising a fixed member, a movable member bearing and adjustable on the fixed member, and projections and depressions carried by the members adapted to interlock and engage each other at their sides only.

6. A side bearing comprising a fixed member, a movable member bearing and adjustable on the fixed member, projections carried by each member, and each member formed with depressions adapted to receive the projections of the other member, the depressions being deeper than said projections, whereby when interlocked the projections engage each other at the side only.

7. A side bearing comprising a fixed member having inclined and separated bearing-faces and between said faces formed with alternating projections and depressions, a movable member having inclined bearing-faces on its under side complementary with the bearing-faces of the fixed member and adapted to rest thereon, and alternating projections and depressions on the under side of the movable member adapted to interlock with the projections and depressions of the fixed member.

8. A side bearing comprising a fixed member, a movable member adjustable laterally on the fixed member when being raised or lowered, interlocking projections and depressions carried by the members whereby the same must be separated vertically before being moved laterally, and means for securing the movable member in any desired adjustment.

In testimony whereof we affix our signatures in presence of two witnesses.

FRANK K. HOSLER.  
CHARLES FUELLER.

Witnesses:

W. A. STEIN,  
ARTHUR J. PEET.