

No. 850,047.

PATENTED APR. 9, 1907.

ARBOR VITA PEPPARD.  
CAR JOURNAL BOX.

APPLICATION FILED JULY 20, 1906.

Fig. 1.

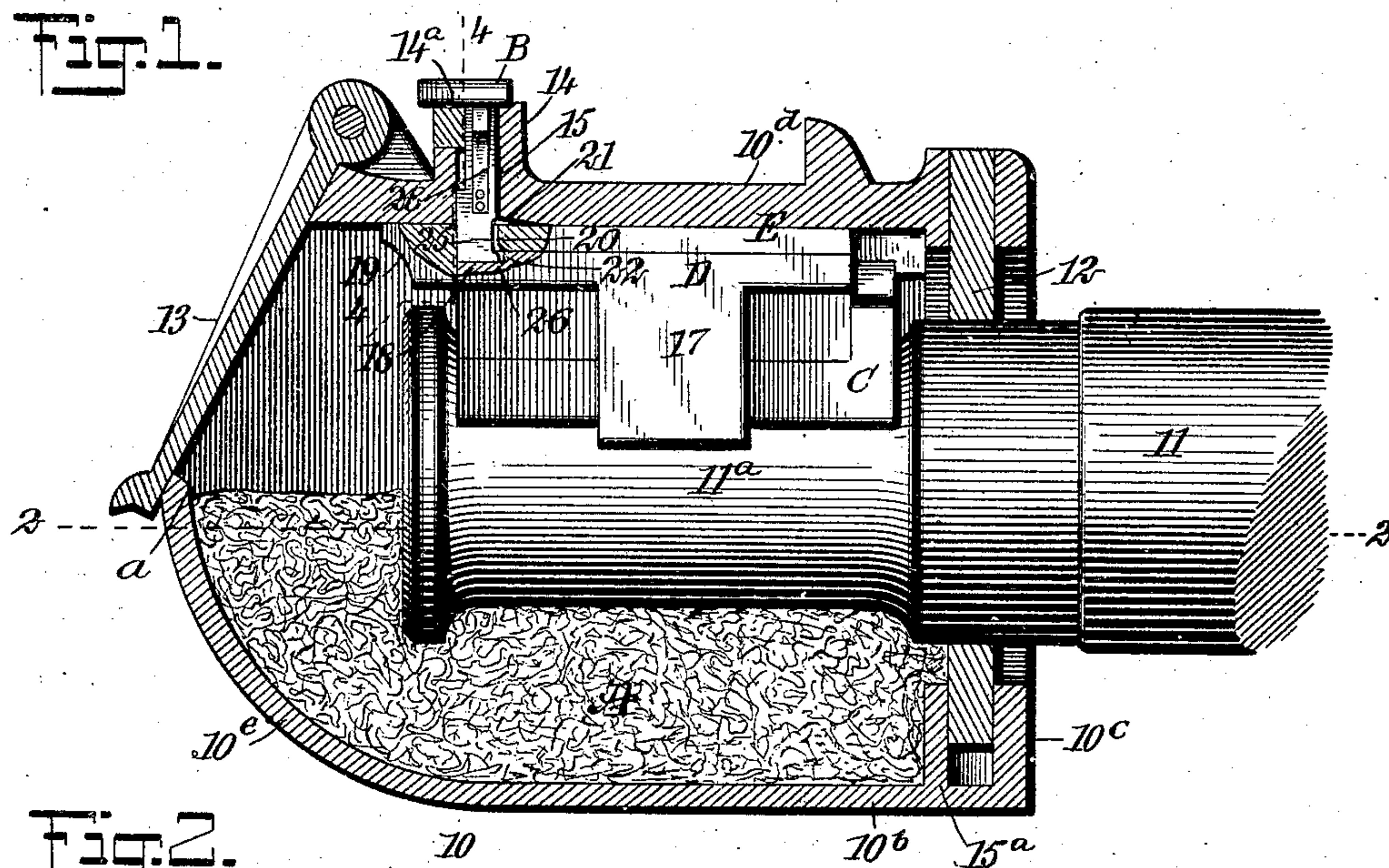


Fig. 2.

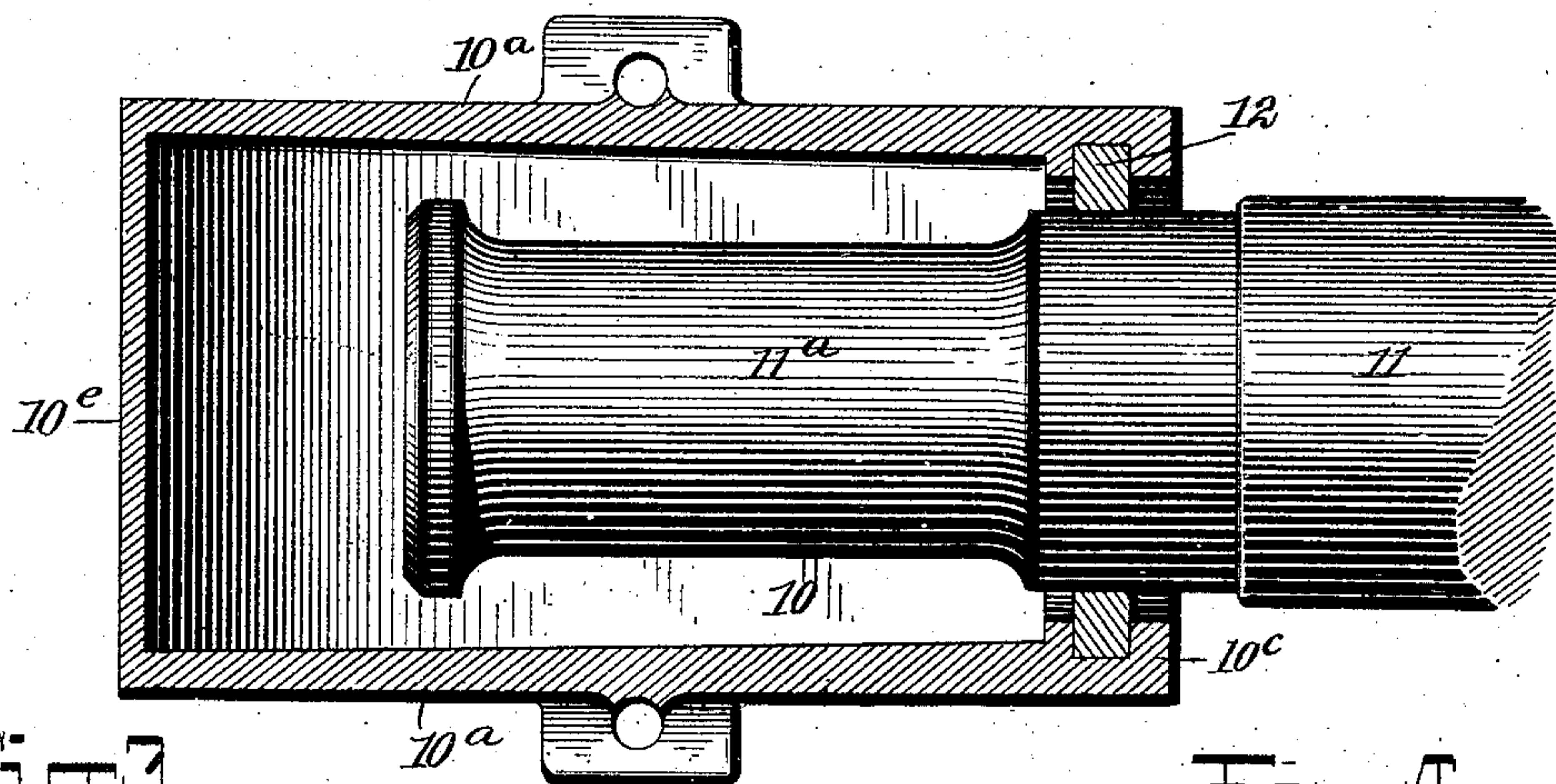


Fig. 3.

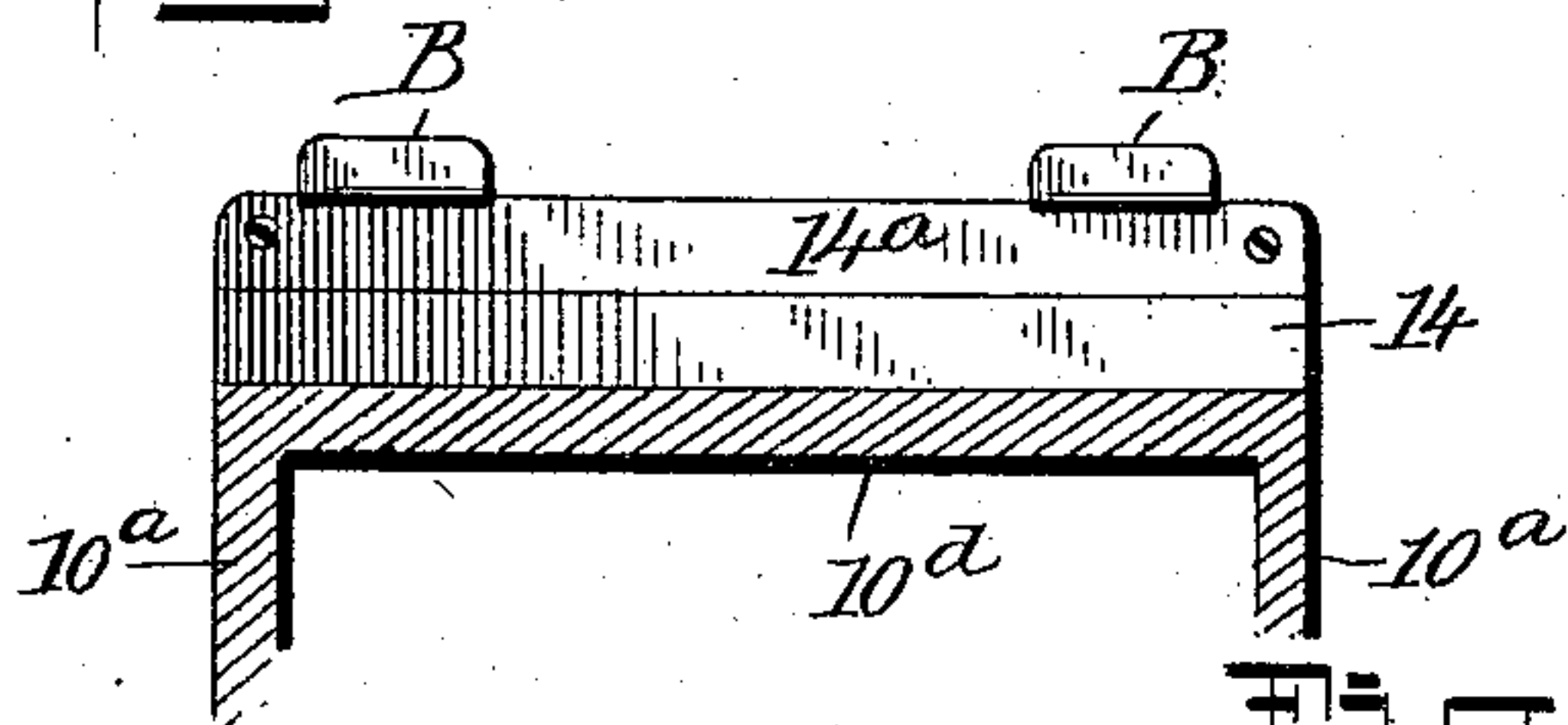


Fig. 5.

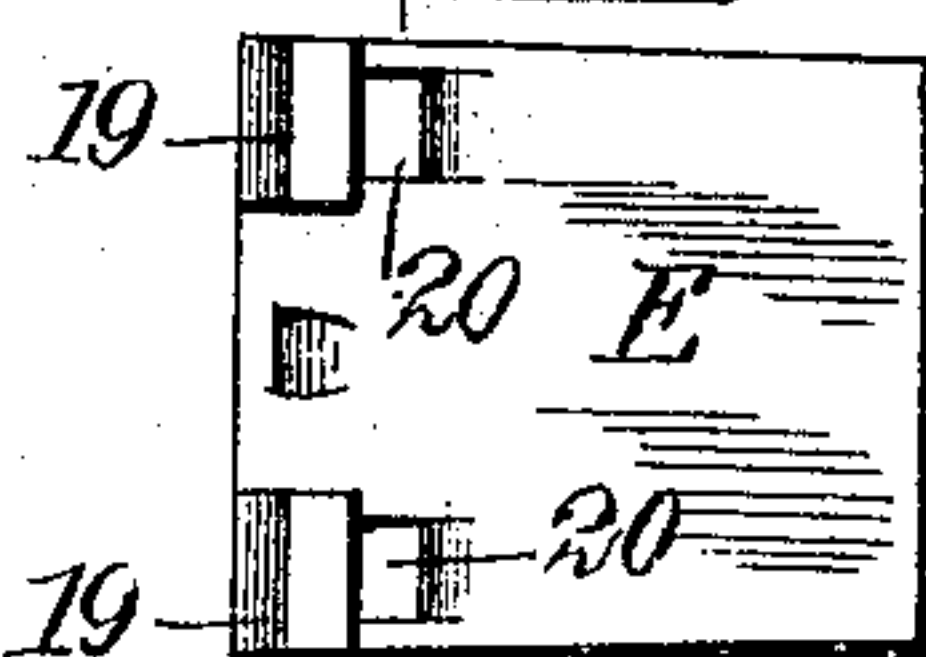
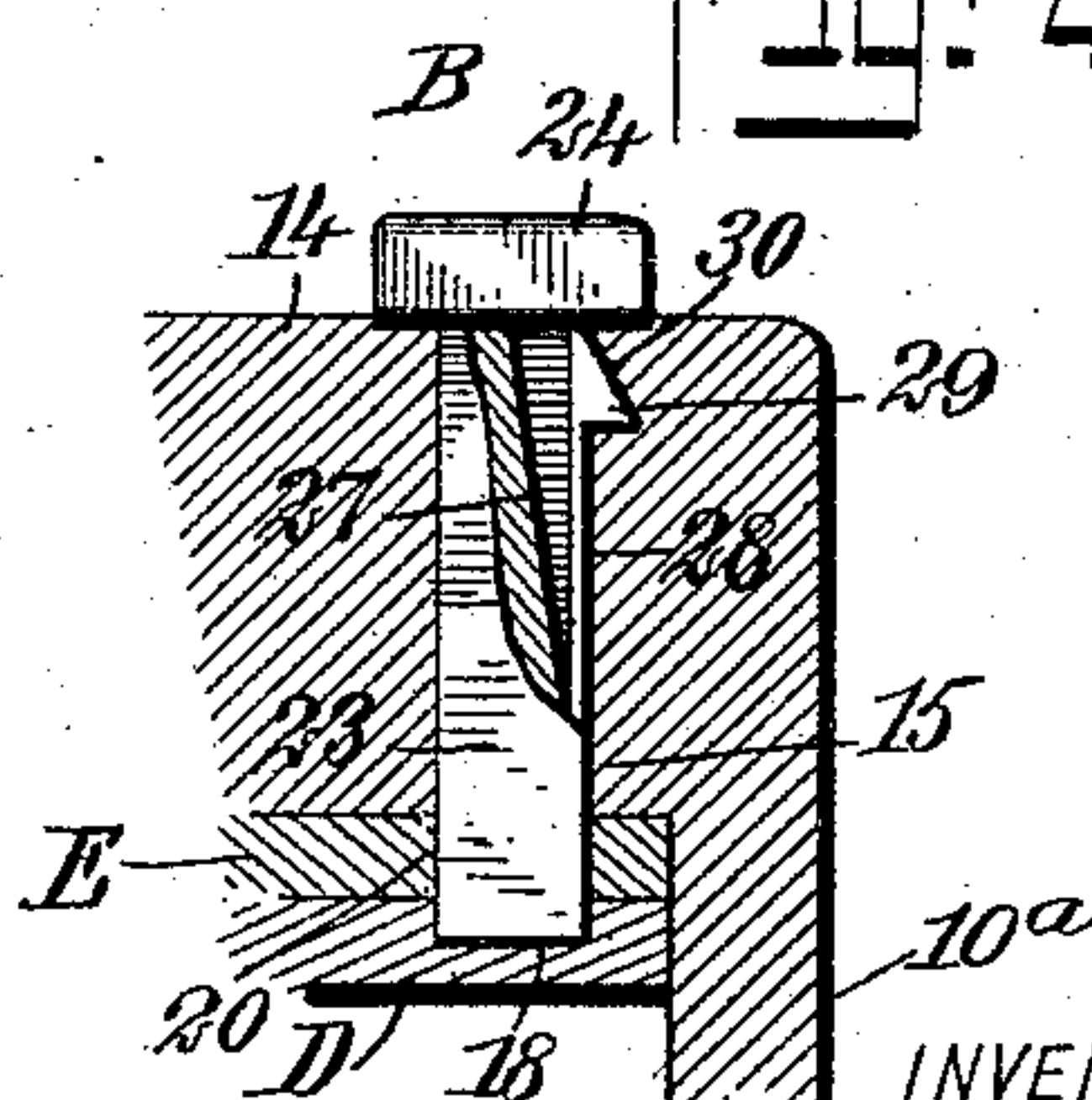


Fig. 4.



WITNESSES

*W. B. Peppard*  
*John A. Peppard*

INVENTOR

*Arbor Vita Peppard*  
BY *Mumford*

ATTORNEYS



# UNITED STATES PATENT OFFICE.

ARBOR VITA PEPPARD, OF SAN LUIS POTOSI, MEXICO.

## CAR JOURNAL-BOX.

No. 850,047.

Specification of Letters Patent.

Patented April 9, 1907.

Application filed July 20, 1906. Serial No. 327,010.

*To all whom it may concern:*

Be it known that I, ARBOR VITA PEPPARD, a citizen of the United States of America, and a resident of San Luis Potosi, Mexico, have  
5 invented a new and Improved Car Journal-Box, of which the following is a full, clear, and exact description.

The car journal-box which is the subject of the present application is an improvement  
10 upon the box for which Letters Patent were granted to me November 1, 1905, No. 805,151, said improvement relating particularly to the construction of the keeper-bolts and the means employed for holding the said  
15 bolts in position.

A further purpose of the invention is to so construct the keeper-bolts that when the pressure of the car is downward and forward on the box the tendency of the liner and shoe  
20 or wedge will be to draw the bolts down and at the same time the liner will lock the keeper-bolts in their lower position, and also to provide a very simple construction of spring for each of the keeper-bolts, which  
25 springs act, first, to hold the keeper-bolts in their lower or operative position, and, second, to sustain the keeper-bolts in their upper or inactive position.

The invention consists in the novel construction and combination of the several  
30 parts, as will be hereinafter fully set forth, and pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference  
35 indicate corresponding parts in all the figures.

Figure 1 is a longitudinal vertical section through the journal-box proper and a side elevation of the axle-spindle in the box, the  
40 bearing-brass, shoe or wedge, and liner, a portion of the two latter being broken away, and said view also shows one of the keeper-bolts in side elevation. Fig. 2 is a longitudinal section through the journal-box proper, the section being taken practically on the  
45 line 2 2 of Fig. 1, a portion of the axle and its spindle being shown in plan view, together with the spindle-packing. Fig. 3 is a vertical section through the top of the box proper, taken in front of the box projection  
50 through which the keeper-bolts pass, showing the heads of the keeper-bolts in front elevation. Fig. 4 is a vertical section taken practically on the line 4 4 of Fig. 1, the  
55 keeper-bolt appearing in side elevation with

parts broken away; and Fig. 5 is a bottom plan view of the liner.

The journal-box which illustrates the application of the improvements is of the kind usually employed on railroad-cars and consists of a hollow body 10, cast into form, having side walls 10<sup>a</sup>, which diverge forwardly, a flat bottom wall 10<sup>b</sup>, and a rear end wall 10<sup>c</sup>,  
60 apertured for the free introduction of the spindle end 11<sup>a</sup> of the axle 11, the ordinary provision being made for the packing, as is shown at 12 in Figs. 1 and 2. It will thus be  
65 observed that the box is wider at the front than at the rear, which permits of the ready removal of the liner-plate, brasses, and shoe.  
70

A hinged lid 13 is located at the front end of the box 10, which lid closes an opening *a*, that extends down the width of the box from the top wall 10<sup>d</sup> to the upwardly-curved front wall 10<sup>e</sup>, as clearly shown in  
75 Fig. 1, which latter-named walls, with the other walls mentioned, afford a receptacle for the sponge A of fibrous material, which when saturated with a liquid lubricant applies the latter to the spindle 11<sup>a</sup> of the axle.  
80 The side walls 10<sup>a</sup> of the box are devoid of projections on their inner surfaces, and as the opening *a* extends from one side wall to the other means are afforded for the free insertion or removal of the parts, to be hereinafter  
85 described.

In the further detail construction of the journal-box an upwardly-extending box-housing 14 is formed at the forward portion of the upper wall 10<sup>d</sup> of the box, and preferably the forward portion of this box-housing  
90 14 at its upper portion is removable, and such portion is designated as 14<sup>a</sup>. This removable section 14<sup>a</sup> of the box-housing 14 is provided in order to facilitate the original introduction of keeper-bolts B, to be hereinafter  
95 described in detail, the said box-housing 14 being provided near each end with a rectangular opening 15, which openings extend through the inner face of the upper wall 10<sup>d</sup>  
100 of the box, as shown in both Figs. 1 and 4.

A bearing-brass C is provided for the spindle 11<sup>a</sup>, and upon said bearing-brass a shoe or a wedge D is fitted, extending partially to the lower edges of the brass, and the said shoe  
105 is provided with a filling-block 17 at each side for engagement with the side walls 10<sup>a</sup> of the box 10. The upper face of the shoe D is flat and extends practically the width of the box 10—that is to say, practically from  
110



one side to the other—and at the forward end of the said shoe or wedge a recess 18 is made in its upper face adjacent to each of its side edges, which recesses extend out through the front edge of the shoe, as shown in Fig. 1.

A liner E is made to rest upon the upper flat face of the shoe D, and said liner extends from the rear of said shoe beyond its front and is provided at its front portion with downwardly-extending lugs 19, which engage with the forward edge of the shoe or wedge D at each of its side portions. As usual, this liner likewise has bearing against the inner face of the upper wall 10<sup>d</sup> of the said journal-box, as is shown in Fig. 1. It may be here remarked that the inner face of the upper wall 10<sup>d</sup> of the box 10 at the rear of each of the openings 15, extending through said wall and the box-housing 14, is given an upward and forward inclination, as is illustrated at 21 in Fig. 1, to facilitate the introduction and the removal of the keeper-bolts B.

The liner E is provided with two openings 20, which extend through it from top to bottom, and these openings 20 register with the recesses 18 in the top of the shoe when the liner is upon the shoe. The rear wall of each of the said openings 20 is inclined downward and rearward at its lower edge, as is shown at 22 in Fig. 1. The openings 15 in the housing 14 and continued through the top of the box are rectangular, as are likewise the openings 20 in the liner and the recesses 18 in the shoe or wedge, and when said shoe or wedge is in position in the box the recesses 18 and the openings 20 are in registry with the openings 15 in the housing through which the keeper-bolts B are passed. It may be here remarked that the width of the liner and shoe correspond to that of the box, both being wider in front than at the rear.

Each keeper-bolt consists of a rectangular body 23, and a head 24 extends beyond all sides of the body and is of sufficient length at its forward portion to extend somewhat beyond the forward edge of the housing 14, whereby to afford a grip to raise and lower the bolts. Each keeper-bolt is provided at the bottom portion of its rear side with a recess 25, (shown in Fig. 1,) and this recess is of suitable size to receive the front wall of the liner E when said liner is moved forward. Each keeper-bolt is provided just at its bottom and just below the recess 25 with a rearwardly-extending lip 26, the upper face whereof is inclined, so that when the car to which the box is attached is in motion the tendency of the liner and of the shoe or wedge will be to draw the keeper-bolts downward and hold them in their lowered position, since at such time the inclined portion 22 of the rear walls of the openings 20 in the liner E will be brought over the inclined lips 26, thus forcing the keeper-bolts downward and retaining them in their lowermost position.

This action particularly takes place when the shoe or wedge and the liner are subjected to downward and forward pressure by the weight of the car. This construction of the liner and the lip of the bolt constitutes a complete lock for the bolts, preventing the latter from possibly working upward when the car is in motion.

In the outer side portion of each keeper-bolt a recess 27 is made, (shown best in Fig. 4,) which recess commences at a point between the center and the bottom end of the bolt and is carried upward to the head with an inward inclination, and a spring 28 is secured to the said outside face of each keeper-bolt B at the lower portion of the said recess 27, extending up to the upper end of said recess, each spring terminating at its upper end in a head 29, which is given a downward and outward inclination, and in the outer side wall of each of the openings 15, receiving a keeper-bolt, an inclined recess 30 is made, the inclination of the recesses 30 corresponding to the inclination of the heads 29 of the springs 28, so that when the keeper-bolts B are forced downward to a locking position (shown in Figs. 1 and 4) the heads 29 of the springs 28 automatically fit into the recesses 30, thus holding the bolts in their lower position, and these springs act in conjunction with the liner E.

The springs 28 have another function. They serve to hold the bolts in their upper position when it is desired to remove the bearing-brass, the shoe, and liner from a box, since at such time the lower edges of the heads 29 of the springs 28 will rest upon the top of the housing 14.

It will be observed that by removing the section 14<sup>a</sup> from the housing 14 the bolts may be conveniently entered into the openings 15, particularly since the lower rear portions of the said openings are inclined, as has been stated.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. In a car journal-box, the combination with the box, the shoe or wedge having recesses at its forward upper portion, and a liner mounted on the said shoe, having openings therein corresponding to the recesses in the shoe or wedge, the lower edges of the rear walls of the said openings being downwardly and rearwardly inclined, of keeper-bolts mounted to slide in openings in the top of the box registering with the openings in the liner and the recesses in the shoe or wedge, the said keeper-bolts being provided with recesses and inclined bottom lips extending rearwardly from their rear faces, which lips are adapted to enter the recesses in the shoe or wedge and the liner to enter the recesses in the keeper-bolts, bringing the inclined portions of the walls of said open-



ings over the inclined portions of the lips of the bolts, thus drawing the bolts downward and locking them in active position.

2. In a car journal-box, the combination  
5 with the box having openings in its upper wall adjacent to its forward portion, a shoe or wedge for the bearing-brass of the box, which shoes or wedges are provided with recesses in their upper faces, and a liner located  
10 on the said shoe or wedge and provided with openings extending through from top to bottom, which openings register with the recesses in the shoe or wedge and with the openings in the box, the lower edges of the  
15 rear walls of the liner-openings being beveled downward and rearward, of keeper-bolts mounted to slide in the openings in the box and passed through the openings in the liner into the recesses of the shoe or wedge, each  
20 bolt being provided with a recess in its rear edge at its lower portion of sufficient size to receive the rear wall of the openings in the liner, a rearwardly - extending lip being  
25 formed at the lower end of each of the keeper-bolts, the said lips having their upper surfaces inclined for engagement by the inclined portions of the rear walls of the openings in the liner, and means for locking the bolts in active or in an inactive position.

3. In a car journal-box, the combination  
30 with the box provided with a transverse housing at its upper forward portion, said housing being provided with rectangular openings which extend vertically through the housing and through the top of the box, each of the said openings having an angular  
35 recess in its upper side wall at the top portion of the housing, a shoe or wedge for the bearing - brass of the box, having recesses produced in its upper face at its forward portion, and a liner mounted on the said shoe or

wedge, having openings therein extending through from top to bottom, and registering with the openings in the housing and with the recesses in the shoe or wedge, the rear wall of  
45 each opening in the liner being inclined downwardly and rearwardly at its lower edge, of keeper-bolts comprising a head and a body rectangular in cross-section, which body is adapted to slide through the openings in the  
50 housing, the top of the box and the openings in the liner, and to enter the recesses in the shoe or wedge, the body portion of each of said keeper-bolts being provided with a recess in its rear wall at its bottom portion, capable of receiving the rear walls of the openings in the liner when the latter is moved forward, a rearwardly-extending lip being located at the lower portion of said recesses in the keeper-bolts, which lips have their upper  
60 faces downwardly inclined, and a spring secured to the outer side face of each keeper-bolt adjacent to its center, which springs extend upward practically to the heads of the said bolts and are located over the inclined  
65 recesses produced in the said outer side faces of the bolts, each spring terminating in an inclined head at its upper end, adapted when the bolts are in their operative position to enter the recesses in the openings of the  
70 housing, which springs also when the bolts are elevated hold said bolts in elevated position by engaging with the upper edge portion of the housing.

In testimony whereof I have signed my  
75 name to this specification in the presence of two subscribing witnesses.

ARBOR VITA PEPPARD.

Witnesses:

M. LACÁVEX,  
ADOLFO GONSALES.