No. 814,505. PATENTED MAR. 6, 1906.

V. ANGERER.

RAILWAY SWITCH.

APPLICATION FILED JUNE 8, 1905.

Fig. 1.

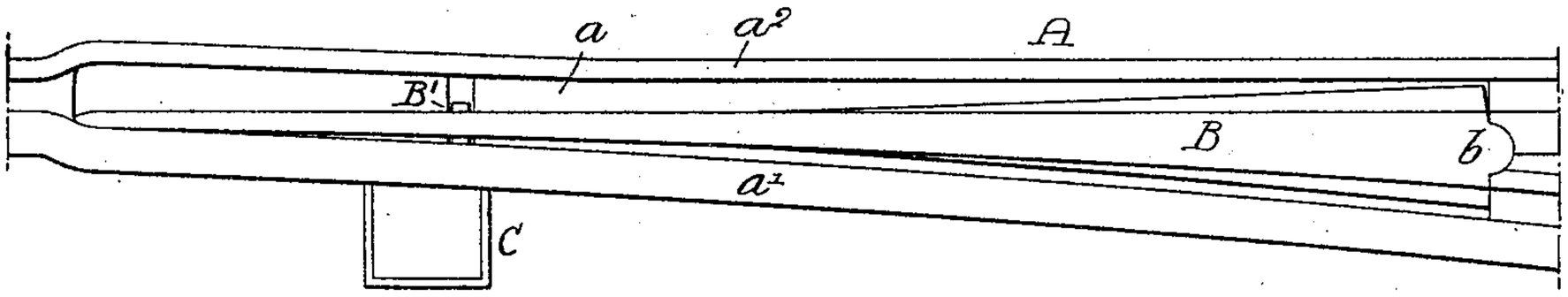


Fig. 2.

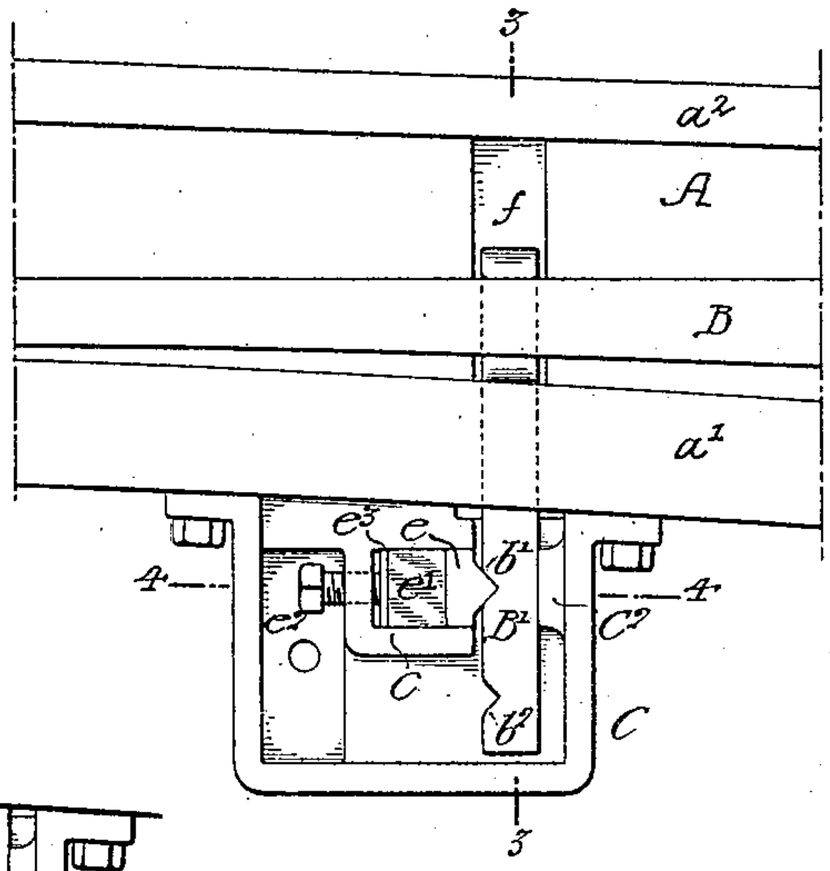


Fig. 6.

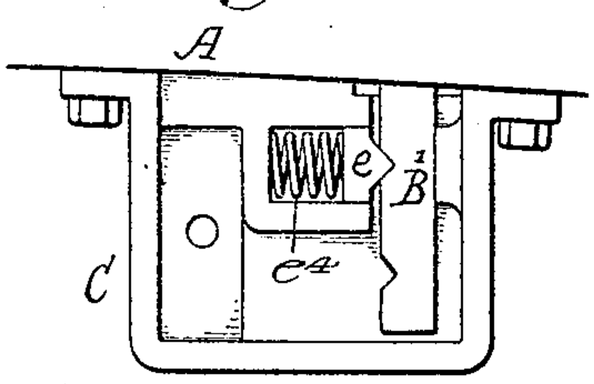


Fig. 5.

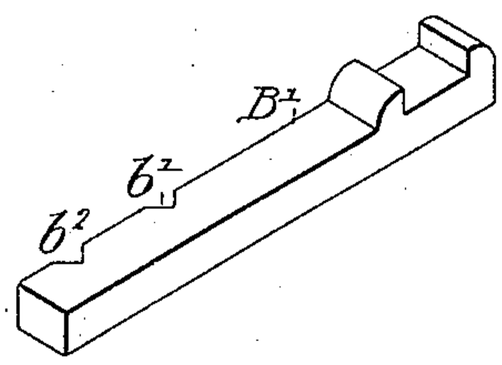


Fig. 4.

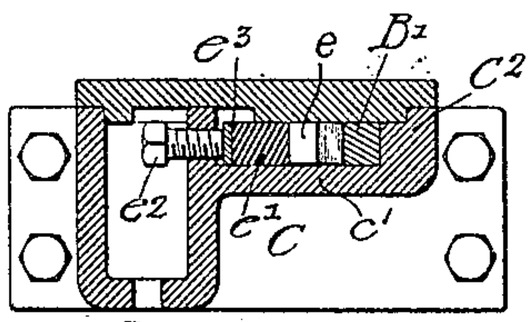
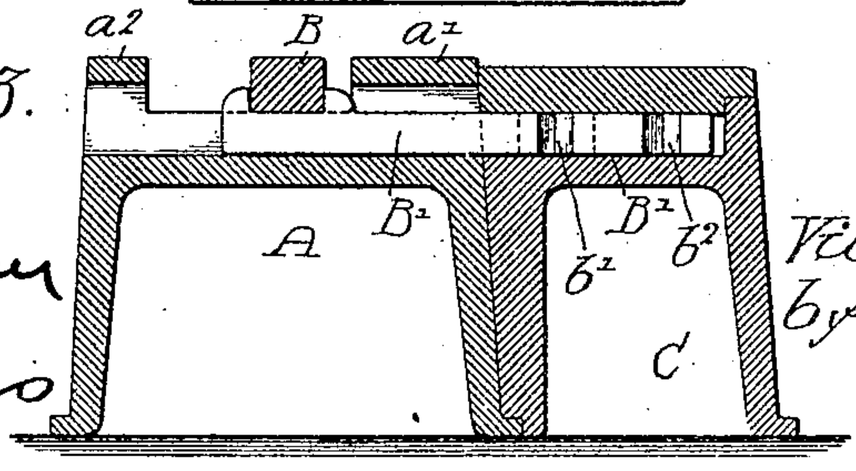


Fig. 3.



Witnesses:
Hamilton D. Turner
Jetus D. Lowe

Inventor:
Victor Angerer.
by his Attorneys,
Howson & Howson

UNITED STATES PATENT OFFICE.

VICTOR ANGERER, OF RIDLEY PARK, PENNSYLVANIA, ASSIGNOR TO WILLIAM WHARTON, JR., & COMPANY, INCORPORATED, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

RAILWAY-SWITCH.

No. 814,505. Specification of Letters Patent. Patented March 6, 1906.

Application filed June 8, 1905. Serial No. 264,309.

To all whom it may concern:

Be it known that I, VICTOR ANGERER, a citizen of the United States, residing at Ridley Park, Pennsylvania, have invented certain Improvements in Railway-Switches, of which the following is a specification.

My invention relates to that class of switch structures which are used on city and suburban roads, particularly for trolley or other light traffic.

The object of my invention is to provide a pivoted tongue switch structure with means for preventing the accidental shifting of the tongue when the wheels of the car pass over the structure, yet will allow the tongue to be readily shifted by the operator of the car using the ordinary shifting-bar. This object I attain in the following manner, reference being had to the accompanying drawings, in which—

Figure 1 is a plan view of my improved switch structure. Fig. 2 is an enlarged plan view of a portion of the structure with the cover-plate of the box removed. Fig. 3 is a transverse sectional view on the line 3 3, Fig. 2. Fig. 4 is a transverse sectional view on the line 4 4, Fig. 2. Fig. 5 is a view of a detail of Fig. 2. Fig. 6 is a view illustrating a modification of the invention.

A is the switch structure, having longitudinal grooves *a* between the tread portion *a'* and guard a^2. Mounted in this longitudinal groove is a tongue B, pivoted at *b* in the present instance. Secured between the side of the switch structure is a box C, and in this box is a pocket *c*, in which is mounted a block *e*, having a toothed face, and back of the block is a body of rubber *e'*.

e^2 is a set-screw which bears against a plate e^3, so as to place more or less pressure on the block *e*.

B' is a bar attached to the tongue B and which extends laterally through a slot F in the body portion and into the box C. The bar rests on the bottom portion of the box and against a bearing c^2 on one side, as clearly shown in Fig. 3. The bar is either detachably secured to the tongue, as shown, or may be made integral therewith and may extend on either side of the switch structure.

The bar B' is notched at *b'* and b^2, the notch corresponding to the projection on the block *e*, the bevel of the notch, as well as the projection, being such that while it will place sufficient friction on the bar to lock the tongue in either position to which it is adjusted, so as to prevent accidental displacement, it will not be sufficient to overcome the pressure of a shifting-bar in the hands of the operator. As remarked above, the pressure can be adjusted by means of the set-screw e^2.

In place of the body of rubber *e'* (illustrated in Fig. 2) a metallic spring may be used, as shown at e^4, Fig. 6, without departing from the essential feature of the invention.

In operating the switch all that is necessary is to place the operating-bar on one side or other of the switch-tongue, when it can be shifted.

When sufficient pressure is applied to the switch-tongue to move it, the block *e* will be forced back, compressing the rubber spring *e'*, and when the block is out of the notch *b'*, for instance, the bar will ride past the block until the block is forced into the notch b^2, when the switch-tongue will be locked in the other position.

It will be understood that I do not wish to limit myself to the V-shaped notch and projection shown; but the notch can be varied according to the amount of friction desired, and a series of notches or serrations may be employed both on the bar and block, if desired.

The box C is provided with a cover-plate C', as clearly shown in Figs. 3 and 4, the cover-plate being preferably flush with the surface of the road-bed.

I claim as my invention—

1. The combination in a switch structure, of a body portion, a pivoted tongue, a bar extending laterally from the tongue and having two notches therein with beveled sides, a box at one side of the switch structure, a pocket in the box, a block mounted in the pocket and having a projection arranged to engage the notched bar, and a yielding support within the pocket back of the block, substantially as described.

2. The combination in a switch structure, of a body portion, a pivoted tongue, a later-

ally-arranged bar connected to the tongue, said bar having notches therein, a box, a block mounted in the box and having a projection arranged to enter the notches, a spring back of the block, and a screw for adjusting the pressure of the block against the bar, substantially as described.

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

VICTOR ANGERER.

Witnesses:
WILL. A. BARR,
JOS. H. KLEIN.