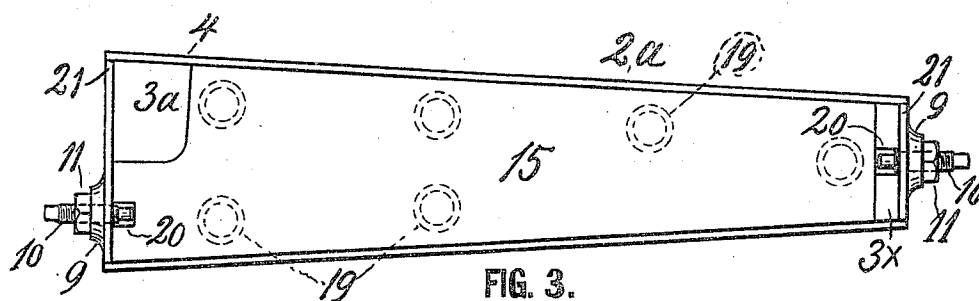
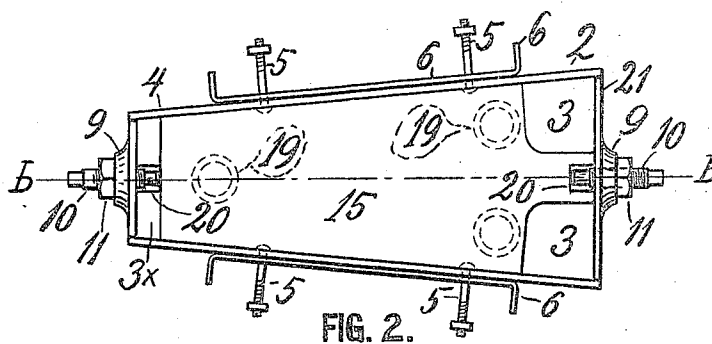
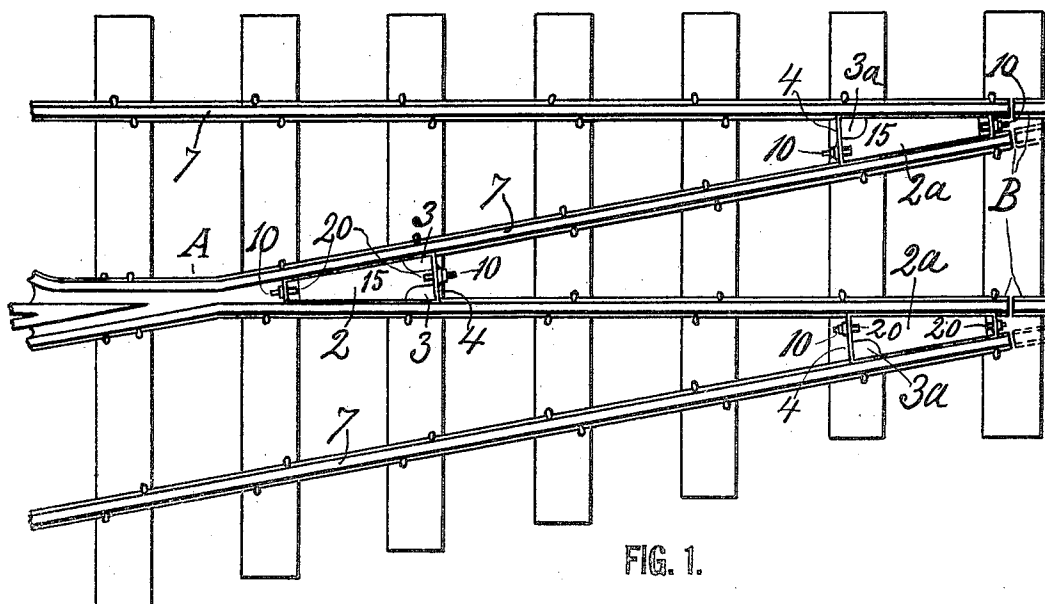


942,835.

2 SHEETS—SHEET 1.



WITNESSES:

D. C. Carlsen.
E. C. Carlsen.

INVENTOR:

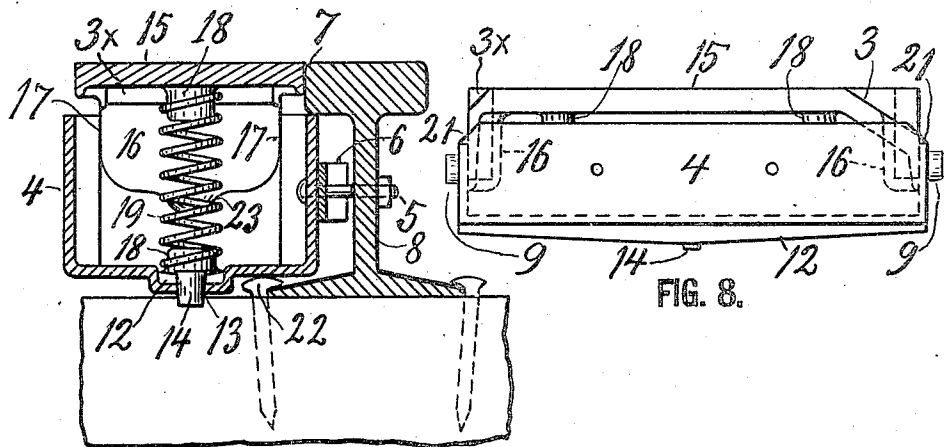
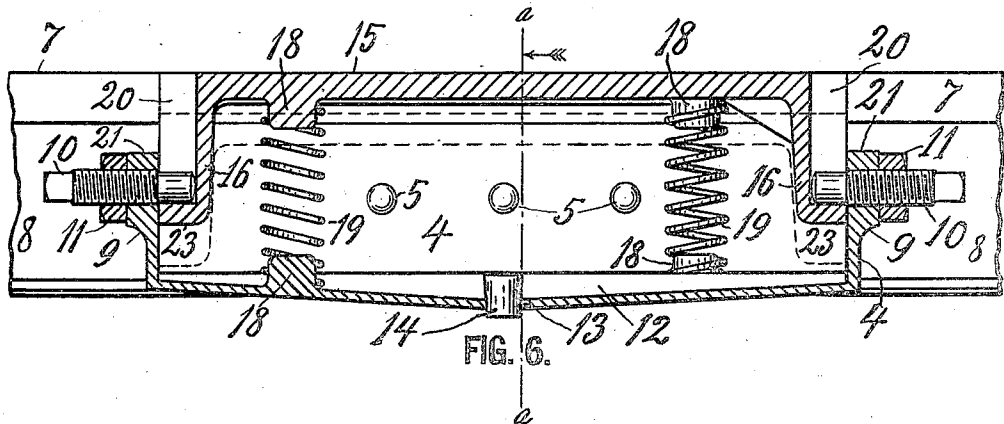
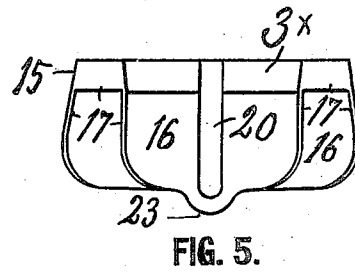
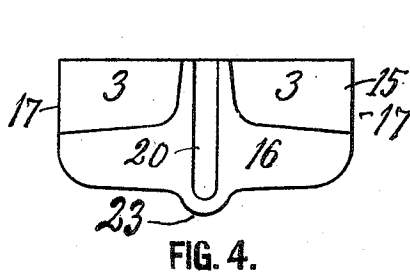
Louis F. Learman.
BY HIS ATTORNEY:
A. M. Carlson

L. F. LEARMAN.
SAFETY BLOCK FOR RAILWAY TRACKS.
APPLICATION FILED APR. 3, 1909.

942,835.

Patented Dec. 7, 1909.

2 SHEETS—SHEET 2.



WITNESSES:

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UNITED STATES PATENT OFFICE.

LOUIS F. LEARMAN, OF ST. PAUL, MINNESOTA, ASSIGNOR OF ONE-HALF TO EDITH M. COON, OF ST. PAUL, MINNESOTA.

SAFETY-BLOCK FOR RAILWAY-TRACKS.

942,835.

Specification of Letters Patent.

Patented Dec. 7, 1909.

Application filed April 3, 1909. Serial No. 487,745.

To all whom it may concern:

Be it known that I, LOUIS F. LEARMAN, a citizen of the United States, residing at St. Paul, in the county of Ramsey and State of Minnesota, have invented a new and useful Safety-Block for Railway-Tracks, of which the following is a specification.

My invention relates to safety blocks for railway tracks to prevent the feet of pedestrians and animals from getting caught in the sharp angles of crossing rails, frogs and switches of tracks; and the object is to further improve upon the invention covered by my U. S. Patent Number 861,295, issued July 30, 1907, in which I provided hollow blocks or boxes with one or more spring-supported covers, hinged with one edge to the box while the other edge was to be depressed by the flange of the wheels of a train, and raised again by springs. Said invention I have found to be liable to derangement of its hinges and springs when the cover suddenly assumes an inclined position from the passing of a heavy train over it. I have therefore so reconstructed the device that I dispense with said hinges and also make other improvements, as will now be fully described and pointed out in the claims; reference being had to the accompanying drawings, in which:

Figure 1 is a plan view of a section of track including a frog and a switch. Fig. 2 is an enlarged plan view of the block shown to the left in Fig. 1. Fig. 3 is an enlarged plan view of one of the blocks shown to the right in Fig. 1. Fig. 4 is an elevation of the larger end of the top or cover in Fig. 2. Fig. 5 is a reversed end view of Fig. 4 showing the smaller end of the cover. Fig. 6 is a longitudinal central section on line *b—b* of Fig. 2, showing the device also secured to a rail. Fig. 7 is a cross section on line *a—a* of Fig. 6 but showing the entire device in cross section. Fig. 8 is a side elevation of the block in Fig. 2 without set screws, bolts and side brackets.

In Fig. 1 of the drawings is shown a railway frog A of the usual construction with track crossings; also a switch B is shown in said view. The improved safety blocks, as used in the acute angles between the rails may be varied in form and length according to the spread of the angle and other circumstances, but they are the same in principle. Still I have shown two slightly modi-

fied forms, 2 and 2^a, of which the latter is adapted to go near the switch and in a more acute angle of the rails than the former, and is therefore longer and has only one corner of its large end beveled as at 3^a for the flange of the car wheels to pass upon it, the other corner never coming in line with such wheel flange, while the former has both corners 3 beveled for wheel flanges to enter either of them.

Each block comprises a box or casing 4 adapted to fit into the V-shaped angle between the rails and may be secured to one or both rails by bolts 5 passed through the side of the casing and through the vertical web 8 of the rail and bracket 6 interposed between the rail and the casing to hold the latter in such position to the rail that the inner face of the side of the casing comes in a vertical plane with the outer edge or side of the tread 7 of the rail (see Fig. 7). The sides of the box are vertical and higher than the end walls, and the latter are each provided with an external boss 9, through which a stud-screw 10 is threaded and provided with a jam-nut 11 to prevent accidental turning of the screw. The bottom of each box is formed with a longitudinal channel 12 (see Figs. 6, 7 and 8) which slopes toward the middle of the bottom and is there provided with an outlet opening 13 closed by a cork or other plug 14. The block further comprises a cover or upper member 15, the size of which is such as to fit snugly between the sides and ends of the box. The ends of the cover are provided with downward extensions 16, whose vertical edges 17 are guided by the vertical sides of the box, whereby vertical movement of the cover is insured and tilting of the cover is prevented.

The cover as well as the bottom of the box are provided with studs 18 for holding in vertical position a series of coil springs 19, which at all times tend to raise the cover, and such raising is limited by the inner ends of the stud-screws when they engage the lower terminals of vertical grooves 20 with which the ends of the covers are provided, and which may have their upper ends open.

As already mentioned, and as shown at 21, the end walls of the box are lower than the side walls so as to allow the wheel flange to pass freely over them, and to facilitate the depressing of the cover by the car wheels

the cover has the beveled portions 3 or 3^a at its large end, and for similar purpose also the small ends are beveled as at 3^x. In the modification Fig. 3, the set screw in the large end and the groove 20 for the same are disposed to one side so as to be out of line with the travel of the car wheels and thus will not be injured by the wheel even though the screw may preferably be disposed higher up than in the other end of the box.

In use the box will stand about as in Fig. 7, resting upon heads of the rail spikes as at 22, secured to at least one of the rails, and the cover or upper section stands normally elevated and forms a platform for the feet of pedestrians or animals, preventing them from going down and being accidentally caught between the rails. When a car passes over the safety block the entire cover thereof is depressed against the resistance of the supporting springs 19, and as soon as the wheel has passed, the springs will raise the cover again to normal position level with the top of the rail. When the cover is fully depressed the lower extremity 23 of each vertical end portion descends into the channel 12. In the summer season the plug 14 may be removed to prevent accumulation of water in the box from possible leakage of rain in between the rails and the sides of the cover or between the ends of the cover and the ends of the box. In winter the plugs are replaced so as to prevent the entrance of water from below through the aperture 13 when the snow and ice accumulate under the box. If sand or snow should possibly find way into the box they may be removed by screwing the set screws partly out and raising the cover 15 so as to gain access to the interior of the box.

What I claim is:

1. In a safety block for railway tracks, a casing adapted to be secured at the side of the rail, a cover having portions guided by the casing so as to move vertically therein, springs interposed between the cover and the bottom of the casing and means stopping the upward movement of the cover when it is about flush with the top of the rail, said stopping means consisting of a stud screw in each end of the casing, said cover having at each end a vertical groove closed at its

lower end and straddling the inner end of the adjacent screw.

2. In a safety block for railway tracks, a casing adapted to be secured at the side of the rail, a cover having portions guided by the casing so as to move vertically therein, springs interposed between the cover and the bottom of the casing and means stopping the upward movement of the cover when it is about flush with the top of the rail, said casing having its bottom inclined toward a certain point and at said point provided with an aperture, and means for closing the aperture.

3. In a safety block for railway tracks, a casing adapted to be secured at the side of the rail, a cover having portions guided by the casing so as to move vertically therein, springs interposed between the cover and the bottom of the casing and means stopping the upward movement of the cover when it is about flush with the top of the rail, said cover having vertical end portions guidingly fitted in the casing and said casing having in its bottom depressions for said end portions of the cover and a longitudinal channel connecting the depressions, the bottom of said channel being lowest near the middle and its lowest point provided with an aperture and means for easily closing and opening the same.

4. In a safety block for railway tracks, a casing adapted to be secured at the side of rail, a cover having portions guided by the casing so as to move vertically therein, springs interposed between the cover and the bottom of the casing and means stopping the upward movement of the cover when it is about flush with the top of the rail, said stopping means consisting of a stud screw in each end of the casing, said cover having at each end a vertical groove closed at its lower end and straddling the inner end of the adjacent screw, said stud screws having jam-nuts adapted to be turned tight against the ends of the casing.

In testimony whereof I affix my signature, in presence of two witnesses.

LOUIS F. LEARMAN.

Witnesses:

A. M. CARLSEN,
D. E. CARLSEN.