(No Model.) 2 Sheets—Sheet 1.

G. L. BROOMHALL.

STOP LOCK AND SAFETY BLOCK FOR RAILROADS.

No. 304,698. Patented Sept. 9, 1884.

Fig 1

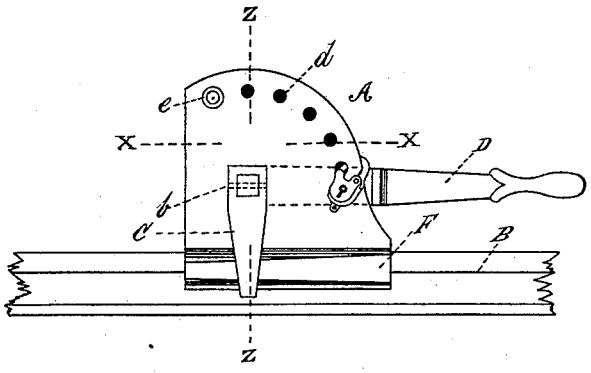


Fig 2

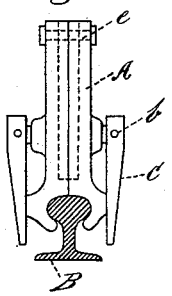


Fig 3

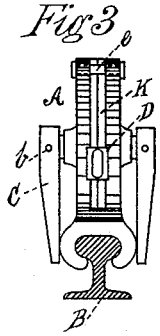


Fig 4

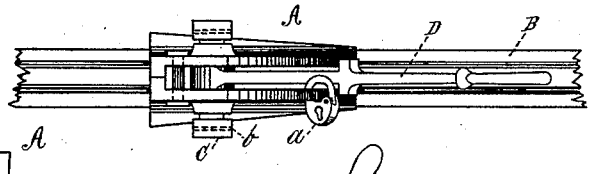


Fig 5

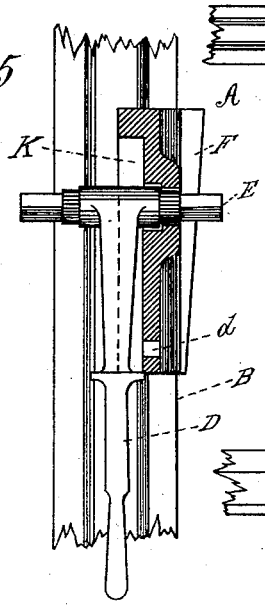


Fig 6

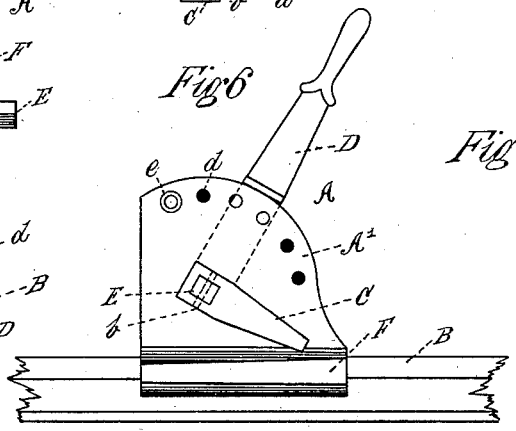
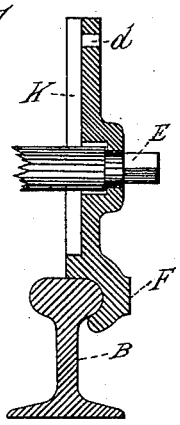


Fig 7



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(No Model.) 2 Sheets—Sheet 2.

G. L. BROOMHALL.

STOP LOCK AND SAFETY BLOCK FOR RAILROADS.

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Fig 8

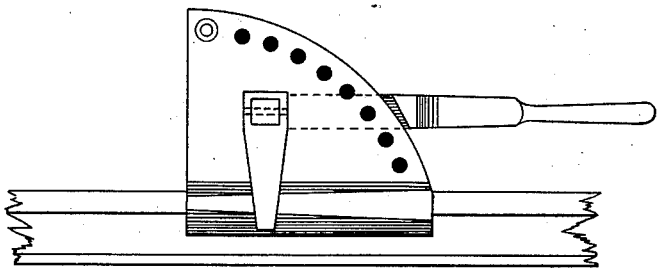


Fig 9

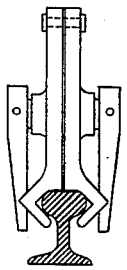


Fig 10

Fig 11

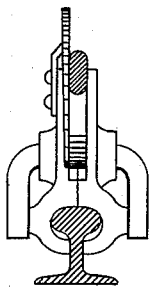
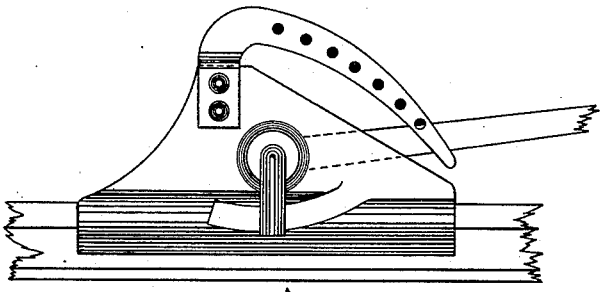


Fig 13



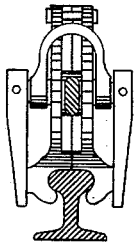


Fig 12

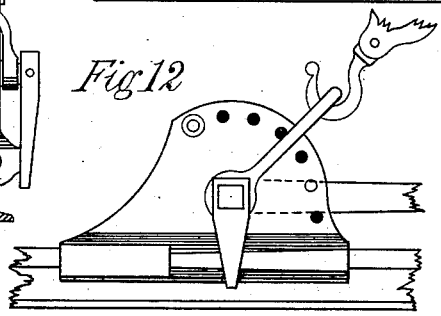


Fig 14

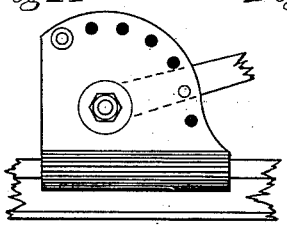
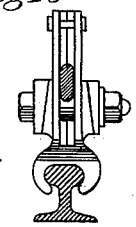


Fig 15



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UNITED STATES PATENT OFFICE.

GEORGE L. BROOMHALL, OF PATERSON, NEW JERSEY.

STOP-LOCK AND SAFETY-BLOCK FOR RAILROADS.

SPECIFICATION forming part of Letters Patent No. 304,698, dated September 9, 1884.

Application filed March 14, 1884. (No model.)

To all whom it may concern:

Be it known that I, GEORGE L. BROOMHALL, a citizen of the United States, residing at Paterson, Passaic county, State of New Jersey, have invented a new and useful Improvement in Stop-Locks and Safety-Blocks for Railroads, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which—

Figure 1 shows one side of the block in elevation. Fig. 2 is a front view of the same. Fig. 3 is a back view showing the end of the operating-handle. Fig. 4 is a plan of the block. Fig. 5 is a part sectional plan taken on line *x x* of Fig. 1. Fig. 6 is a side elevation, and Fig. 7 is a vertical sectional elevation, of a part of the block on line *z z* of Fig. 1. Figs. 8 and 9, 10 and 11, 12 and 13, and 14 and 15 are modifications of those above referred to.

A represents a portable stop-lock and safety-block, which block is an improvement on the one shown by me in a former application, and numbered 116,592, filed January 7, 1884. The block A is constructed with sides or cheeks A′, which sides or cheeks are curved at the top, and are provided with holes *d*. The cheeks or sides A′, on their inner sides or surfaces, have a recess, *k*, to accommodate an operating handle or lever, D, the inner end of which lever is provided with a sleeve, in which sleeve there is arranged and suitably secured a shaft, E, that journals in the sides or cheeks A′. The outer ends of the shaft E are made square to accommodate square openings that are arranged in the ends of depending arms C, which arms are arranged on the ends of said shaft E, and which are secured thereon by pins *b*. (Shown in Fig. 1.) The cheeks or sides A′ have projections or hubs formed on the same to accommodate the ends of the sleeve formed on the handle or lever D, as shown in Fig. 5. The cheeks or sides A′, which are adjustably secured together at the top by a rivet, *e*, are made to conform at the bottom of the same to the rail B, and are supported thereon, as shown in Fig. 7. There is arranged in the holes *d*, formed in the cheeks or sides A′, a suitable lock, *a*. The outer bottom part of the cheeks or sides A′ are provided with inclined or wedge surfaces F, for the action of the arms C. (Shown in Fig. 5.) In practice, the portable block is placed where needed on the switch, side track, or where there is a parting of trains on grades, and wherever else needed to hold cars in position and prevent the same from rolling on the track; and when the block is thus placed on the track B the devices are in the position shown in Fig. 6. To secure the same in its placed position on the track or rail B, the handle or lever D is depressed by the attendant, which action brings the arms C into forcible contact with the inclined or wedge surfaces F, by which means, when the lever or handle D has reached its lowest point of depression, the cheeks or sides A′ have been forced into heavy frictional contact with the rail B, and are firmly secured thereto, as shown in Figs. 1, 2, and 3, and the devices occupy the position shown in the last-named figures. After the safety device has been secured in position against the wheels of the cars in the manner stated, and to guard against the danger of the portable block being removed from its position by designing persons, the lock *a* is placed in the hole *d* next above the lever D, and is locked, which action removes all danger of the cars secured thereby on switches, side tracks, downgrades, and elsewhere from escaping from their secured positions, from the jar of passing trains, high winds, steep grades, and other influences which so frequently roll cars from their side position onto the main track, to be run into by trains, causing great damage to property, and frequently to life and limb. If found desirable, for frictional purposes on the rail B, the sides or cheeks A′ may be made in the modified form shown in Figs. 8 and 9; or, if it be deemed advantageous to grip the rail by the web, and bolt wrought-iron guides to the sides, and form a curve to prevent a heavy shock on the block, the block may then be made in the modified form shown in Figs. 10 and 11; and when it is desirable to secure guys or tackles to the lock-block the device may be made in the modified form shown in Figs. 12 and 13; and if found necessary to augment the power of the lever on the sides or cheeks the device may be made in the modified form shown in Figs. 14 and 15.

Having described my invention and its operation, I claim and desire to secure by Letters Patent—

In a stop-lock and safety-blocks for railroads,

the combination, with the sides or cheeks A′, provided with curved tops and having holes *d*, for a lock, and recess *k*, to accommodate the handle or lever D, and inclined or wedge surfaces for the action of the arms C, of the handle or lever D, provided with a sleeve, the lever secured to the shaft E, and shaft E, the shaft journaled in the sides or cheeks, the shaft having square ends to accommodate arms C, and arms C, adapted to fit on the shaft, the arms arranged to be brought into forcible contact with inclined or wedge surfaces F, and rail B, for the action of the sides or cheeks, and lock *a*, for locking the device, with rivet *e*, substantially as set forth.

GEORGE L. BROOMHALL.

Witnesses:
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JAMES B. YOUNG, Jr.