No. 687,158. Patented Nov. 19, 1901.

C. P. KNOX.

RAILROAD SWITCH LOCK.

(Application filed Nov. 15, 1900.)

(No Model.)

Fig. 1.

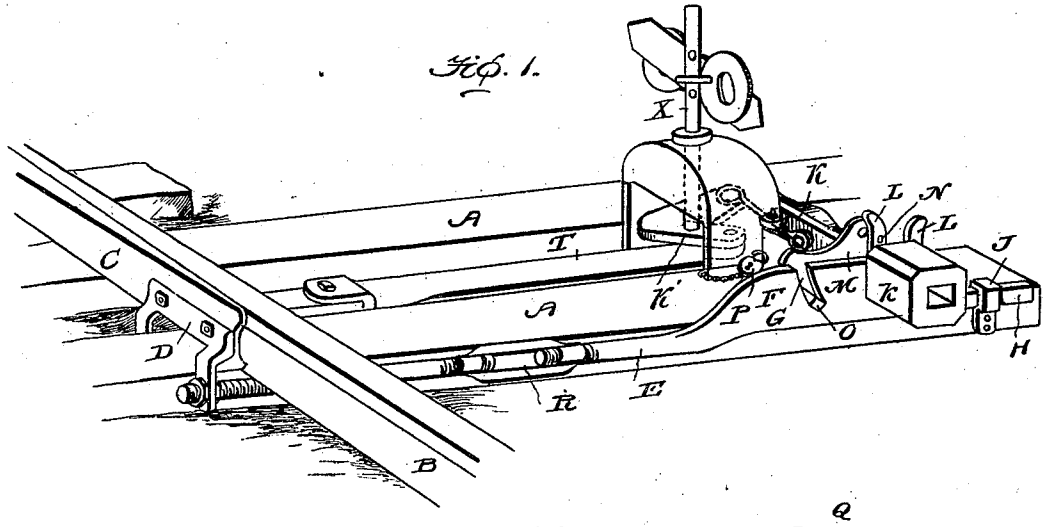


Fig. 2.

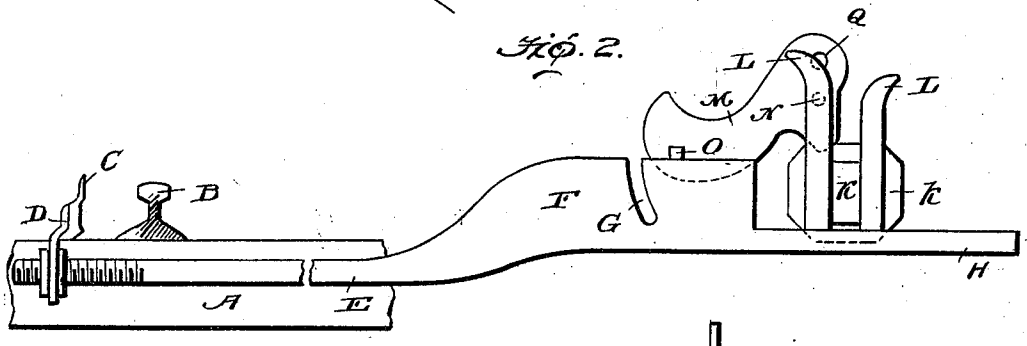


Fig. 3.

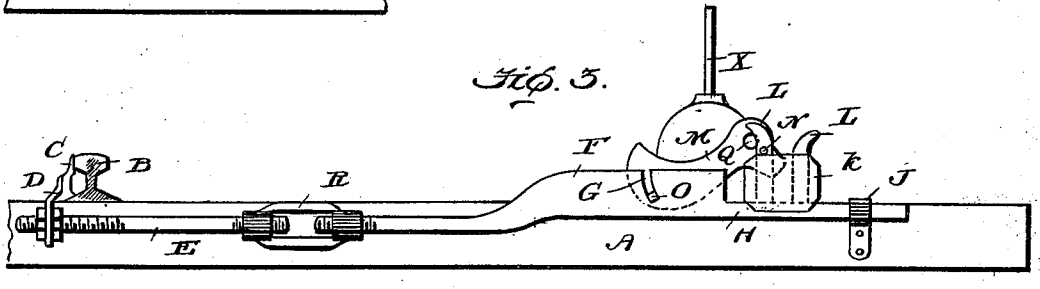
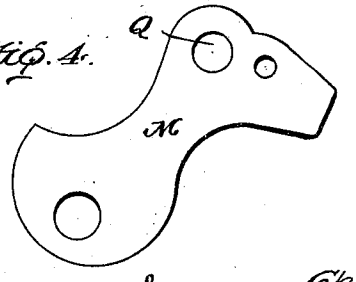


Fig. 4.



Witnesses

Wm. C. Dashiell.

Chas. G. Ennack

Inventor

Charles P. Knox

by Wm. J. Moore

Attorney

UNITED STATES PATENT OFFICE.

CHARLES P. KNOX, OF UNION CITY, INDIANA, ASSIGNOR, BY MESNE ASSIGNMENTS, OF ONE-HALF TO PERRY COPPESS, OF UNION CITY, INDIANA.

RAILROAD-SWITCH LOCK.

SPECIFICATION forming part of Letters Patent No. 687,158, dated November 19, 1901.

Application filed November 15, 1900. Serial No. 36,546. (No model.)

To all whom it may concern:

Be it known that I, CHARLES P. KNOX, a citizen of the United States, residing at Union City, in the county of Randolph and State of Indiana, have invented certain new and useful Improvements in Railroad-Switch Locks, of which the following is a specification.

My invention relates to improvements in railroad-switch locks; and the object of my invention is the provision of a simple, inexpensive, and durable mechanism which will lock the switch and positively prevent the release of the same until properly manipulated, and thus prevent the occurrences of the horrible accidents entailing loss of life and property, the mechanism being readily and easily operated and being entirely practical for the desired purpose.

To attain the desired object, the invention consists of a railroad-switch lock embodying novel features of construction and combination of parts, substantially as disclosed herein.

In order that the details of construction and the operation of my switch-lock may be readily understood and the advantages resulting from the use thereof be appreciated, I invite attention to the accompanying drawings.

Figure 1 is a perspective view illustrating my invention. Fig. 2 is a side elevation of the locking-rod and locking pawl or dog in the position they assume when the parts are unlocked. Fig. 3 is a side elevation showing the parts locked. Fig. 4 is a detail of the locking pawl or dog.

In the drawings, A designates the railroad-tie, of wood or metal, to which my mechanism is attached, and B designates one of the tracks or rails. At one side of the rail is arranged the switch-rail C, to which is connected the arm or plate D, which at its lower end is secured to the locking-rod E, which is formed with the intermediate raised portion F, provided with the slot or keeper G and terminating in the stem or shank H, which is guided by the eyed lug J, and the rod is moved back and forth through the medium of the lever K, which is provided with the weight *k* and is connected to the bell-crank lever K′, that operates the semaphore-shaft X, and to which lever K′ is connected the rod T, that is connected with the plate D, so that as the lever K is moved the rod T and plate D are moved, and as the rod E is attached to the said plate it must move therewith.

Secured to one side of the sliding locking-rod is the bifurcated or forked latch-stand L, to one arm of which is pivoted the locking pawl or dog M at N, and the inner weighted or larger end of the locking-pawl is provided with the stud or pin forming a latch O, which falls into the keeper or slot in the locking-rod and secures the switch in locked position, and to prevent tampering with the locking-pawl I use a suitable lock P, which fastens in the opening Q in the upper end of the said pawl, as is evident. The locking-rod may be made in one piece or may be composed of two parts provided with the adjusting mechanism R. The lever K engages in the latch-stand L, as seen in Fig. 1.

The operation of my invention will be readily understood from the foregoing description and drawings, and it will be seen that when the switch is locked the parts are in the position shown in Fig. 1, with the switch-rail close to the rail and the pawl securing the locking-rod, and that when unlocked the parts are in the position shown in Fig. 2, the pawl being disengaged, the switch-rail being away from the usual rail to allow switching of the train, and that the device is reliable, desirable, and thoroughly efficient for the intended purpose.

I claim—

1. The combination of a switch-rail, a rod connected therewith and having a slot, means for reciprocating said rod, and a locking-pawl pivotally mounted to move in the arc of a circle and having a pin to engage in said slot, as set forth.

2. The combination of a switch-rail, a rod connected therewith and having a curved slot, means for reciprocating said rod, a locking-pawl pivotally mounted to move in the arc of a circle, and having a pin to engage

in said slot, and a lock engaging said pawl, as and for the purpose specified.

3. The combination of a switch-rail, a rod connected therewith and having a curved slot, means for reciprocating said rod, a latch-stand, a pawl pivoted thereon to move in the arc of a circle and having a lateral pin to engage in said slot, and a lock engaged in a hole in said pawl and engaging the said stand, as and for the purpose specified.

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

CHARLES P. KNOX.

Witnesses:
HARRY J. WARREN,
THOMAS L. MORAN.