

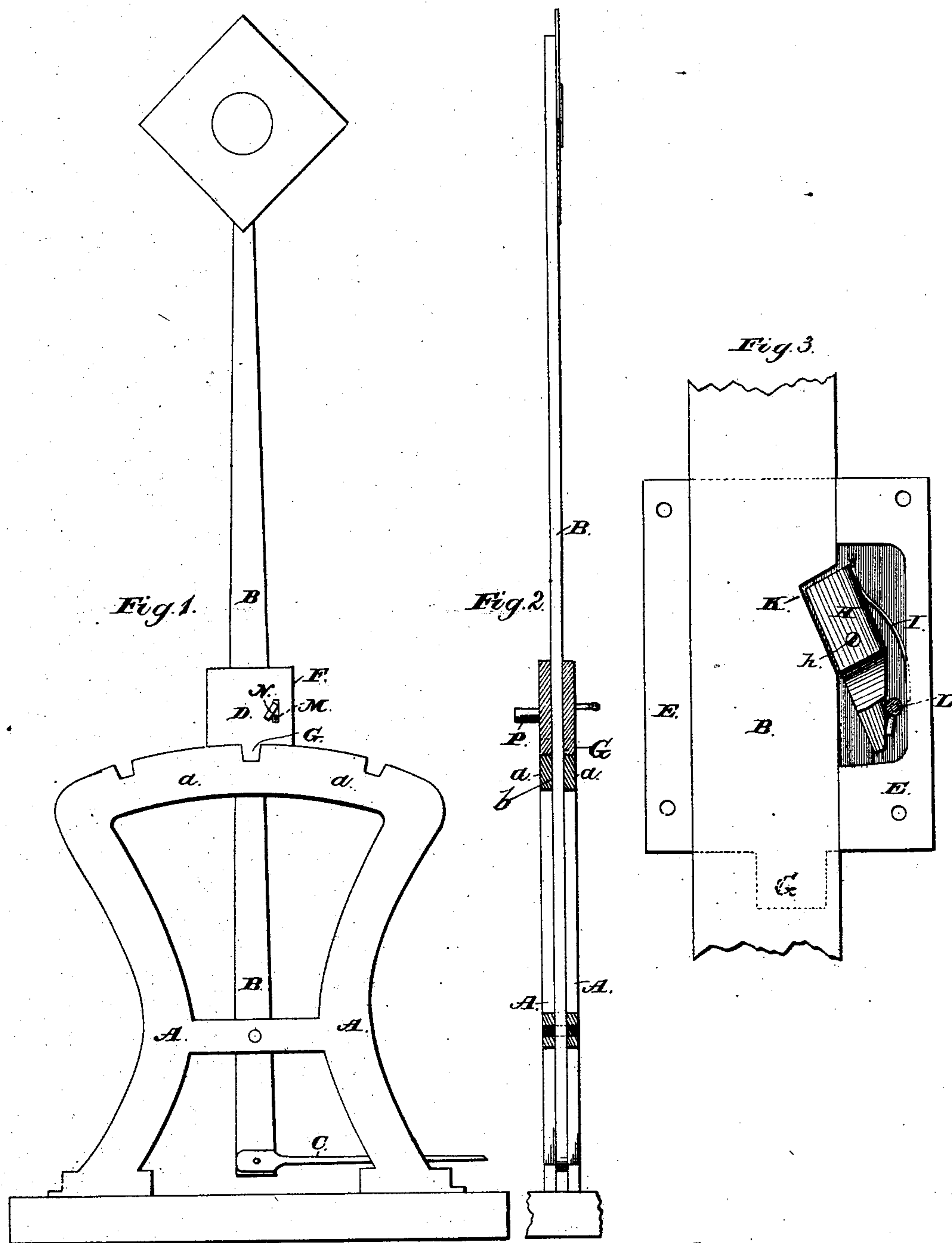
(No Model.)

A. ANGUS & G. PHILLIPS.

RAILWAY SWITCH LOCK.

No. 245,111.

Patented Aug. 2, 1881.



Witnesses.

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UNITED STATES PATENT OFFICE.

ALEXANDER ANGUS AND GEORGE PHILLIPS, OF CORSICANA, TEXAS.

RAILWAY-SWITCH LOCK.

SPECIFICATION forming part of Letters Patent No. 245,111, dated August 2, 1881.

Application filed May 11, 1881. (No model.)

To all whom it may concern:

Be it known that we, ALEXANDER ANGUS and GEORGE PHILLIPS, both citizens of the United States, residing at Corsicana, in the county of Navarro and State of Texas, have invented new and useful Improvements in Railway-Switch Locks, of which the following is a specification.

This invention relates to that class of switch-locks in which a lock is arranged to slide on the target or switch lever and automatically engage the rack-bar to which said lever is pivoted.

Our invention consists in a novel construction and arrangement of parts whereby an independent key is used to unlock the latch or bolt of the bolt-case, and the improvements will be first described in detail, and then specifically pointed out in the claim.

In the drawings, Figure 1 is a side elevation of the apparatus embodying our improvement. Fig. 2 is a transverse section taken on a vertical central plane; and Fig. 3 is a view of the lock with the face-plate of the case removed, said view also illustrating a section of the switch-lever.

A indicates the switch-stand, that is provided with the usual curved rack-bar *a*, the notches in which correspond to the several positions to be occupied by the switch-lever. The switch-lever B is pivoted to the switch-stand and works through the slot *b* in the curved rack-bar of the said switch-stand in the ordinary way, and it is connected at its lower end with the rod C, and is provided at its upper end with a signal as usual.

D indicates the lock-case of the lock, which is arranged to slide upon the switch-lever, and which is constructed as follows: The back plate, E, and the face plate, F, that is secured thereto by bolts or screws, are each provided at the bottom with a tooth or lug, G, these lugs being coincident with each other and adapted to enter any one of the notches in the curved rack-bar. The back plate is channeled to form a passage-way for the switch-lever, which passes between the two plates of the lock-case and the lugs that are on the said plates.

The latch or bolt H is pivoted at or near its center, within the lock-case, by means of a suitable

pivot, *h*, and it is normally held against the switch-lever by means of a spring, I, within the lock-case, so that when the lock-case is slid upon the switch-lever so as to bring the notch K in the lever in line with the locking end of the bolt the spring will throw said end of said bolt into the notch, and thereby prevent the lock-case from being moved upward. The latch-bolt H, being pivoted at or near its center, leaves a depending free end, which can be acted upon by a removable and independent key, L, for the purpose of unlocking the parts. The notch in the switch-lever is located at such point thereon that it will be opposite to the locking end of the bolt when the lock-case has been moved down upon the switch-lever to an extent sufficient to bring its lugs or teeth into engagement with one of the notches of the rack-bar. The lock is provided with a key-post, L, and with a key-hole, M, for the introduction of a key within the case, in order to turn the bolt upon its pivot, and thereby unlock the same from the switch-lever. A suitable key will be provided for such purpose, a pivoted key-hole guard, N, being employed for covering the key-hole after the withdrawal of the key.

The lock-case is provided with a knob or handle, P, for the operator to grasp in raising the lock-case from its engagement with the rack-bar.

From the foregoing it will be readily understood that in changing the position of the switch-lever the operator will turn the key so as to unlock or free the bolt from the lever, and then free the lock from the rack-bar by elevating the lock sufficiently to clear the rack-bar, in order to admit of the free vibration of the switch-lever. After the switch-lever has been brought into proper position by the operator the lock will drop of itself into engagement with the rack-bar of the switch-stand, and the bolt will automatically engage the notch of the switch-lever, thus effectively locking the switch. In this way the switch will be automatically locked as soon as the switch-lever has been brought into proper position.

Heretofore a switch-lock has been constructed of a switch-lever provided with a vertical slot, in which is arranged a sliding bolt

adapted to engage a segmental rack, said bolt being held in its locked position by a depending spring-tumbler pivoted in a recess in the switch-lever and engaging a notch in the sliding bolt, the tumbler being released from the bolt by a key for the purpose of unlocking the bolt. Such structure, however, does not constitute our invention, and is not claimed.

What we claim is—

10 The switch-lever B, having the notch K, in combination with the lock-case E, surrounding and sliding upon the exterior of the switch-lever, and provided on its interior with the pivoted latch-bolt H and spring I, said latch-

bolt being pivoted at or near its center to provide a depending free end to be operated by a removable key inserted into the lock-case, and the lower edge of the latter having the lug G to engage the rack-bar, all substantially as shown and described. 15 20

In testimony whereof we have hereunto set our hands in the presence of two subscribing witnesses.

ALEXANDER ANGUS.
GEORGE PHILLIPS.

Witnesses:

SAM. R. FROST,
GILBERT C. HERON.