

A. THOMSON.
RAILWAY SWITCH LOCK.

No. 113,112.

Patented Mar. 28, 1871.

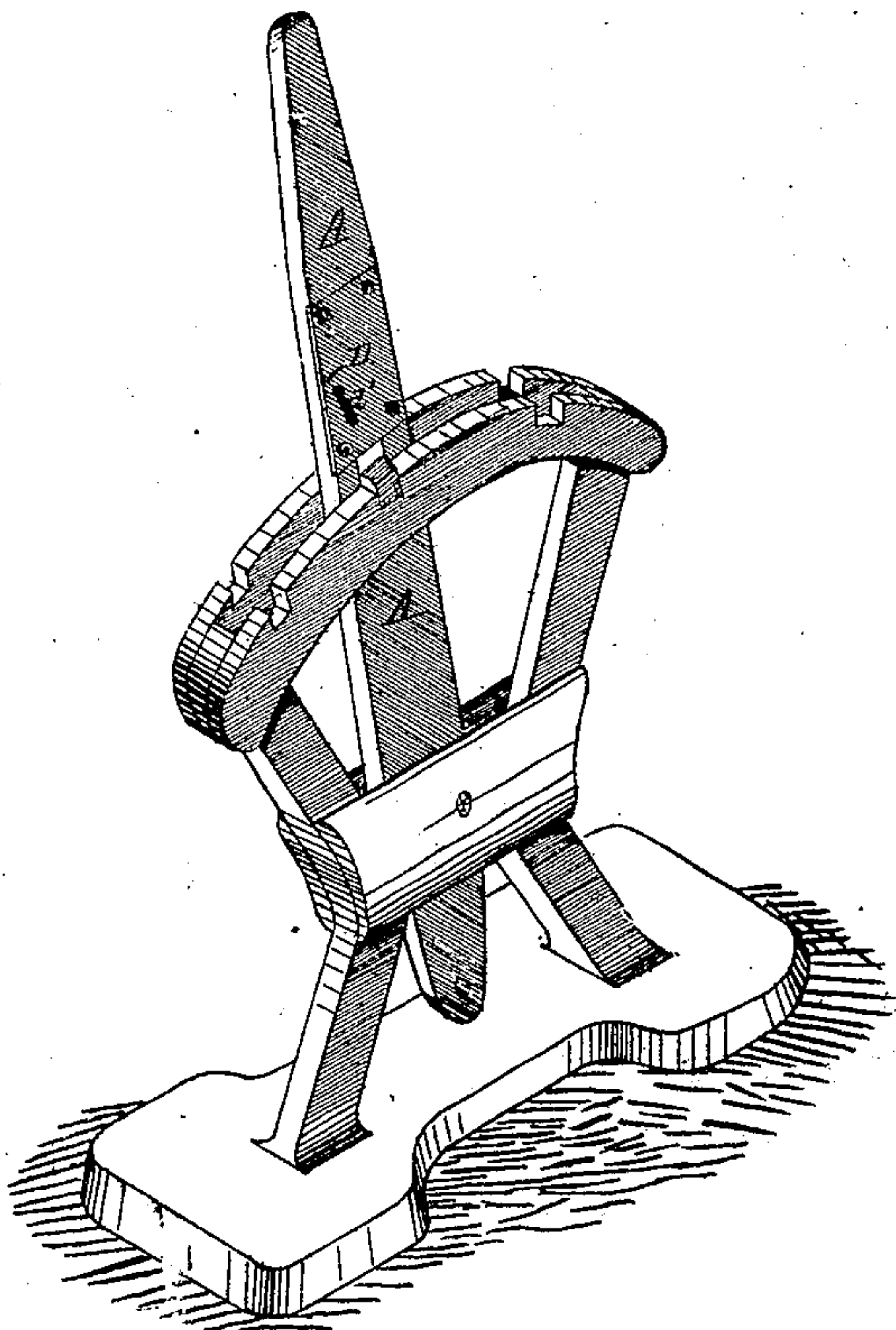


Figure 1.

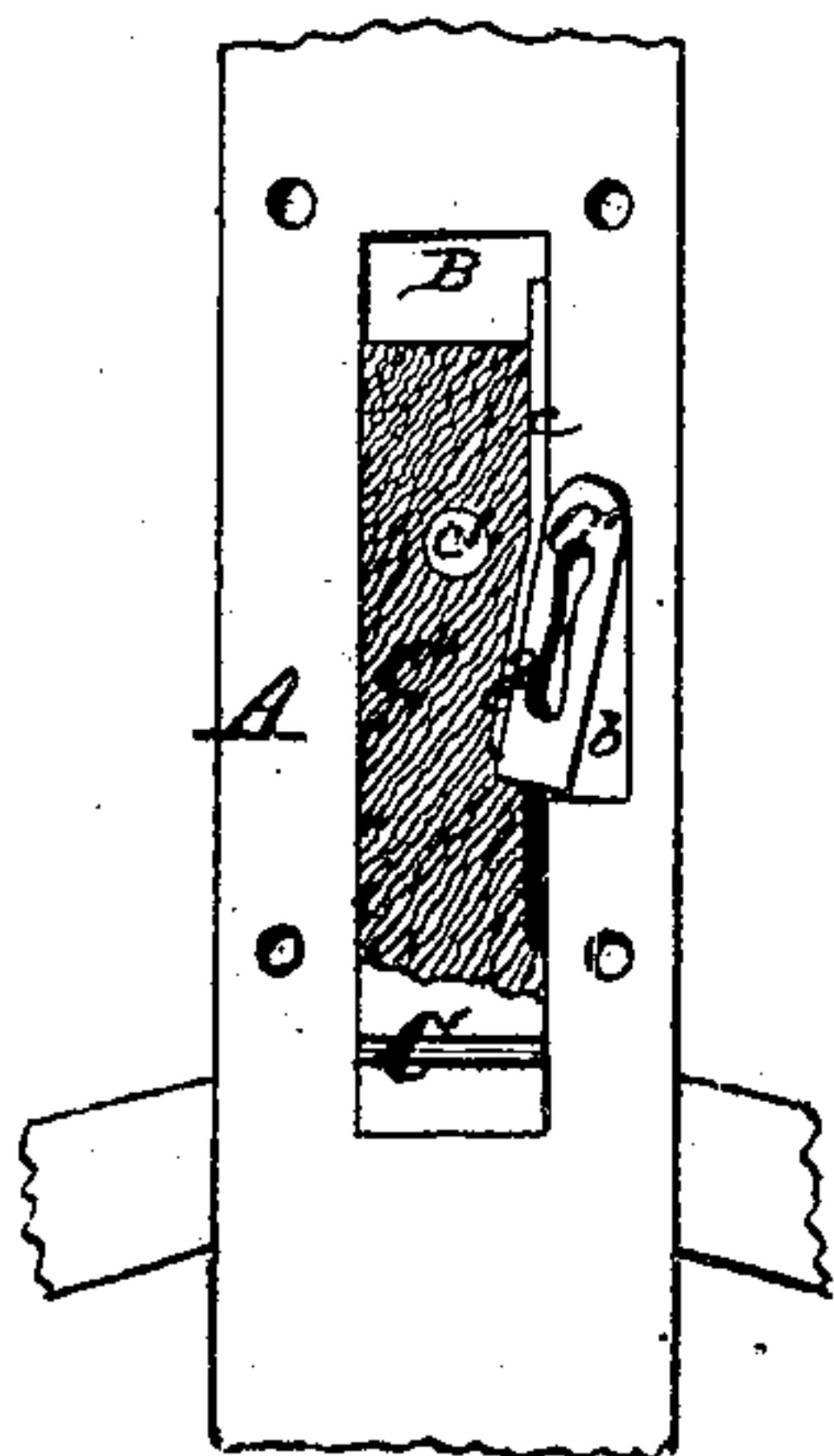


Fig. 2.

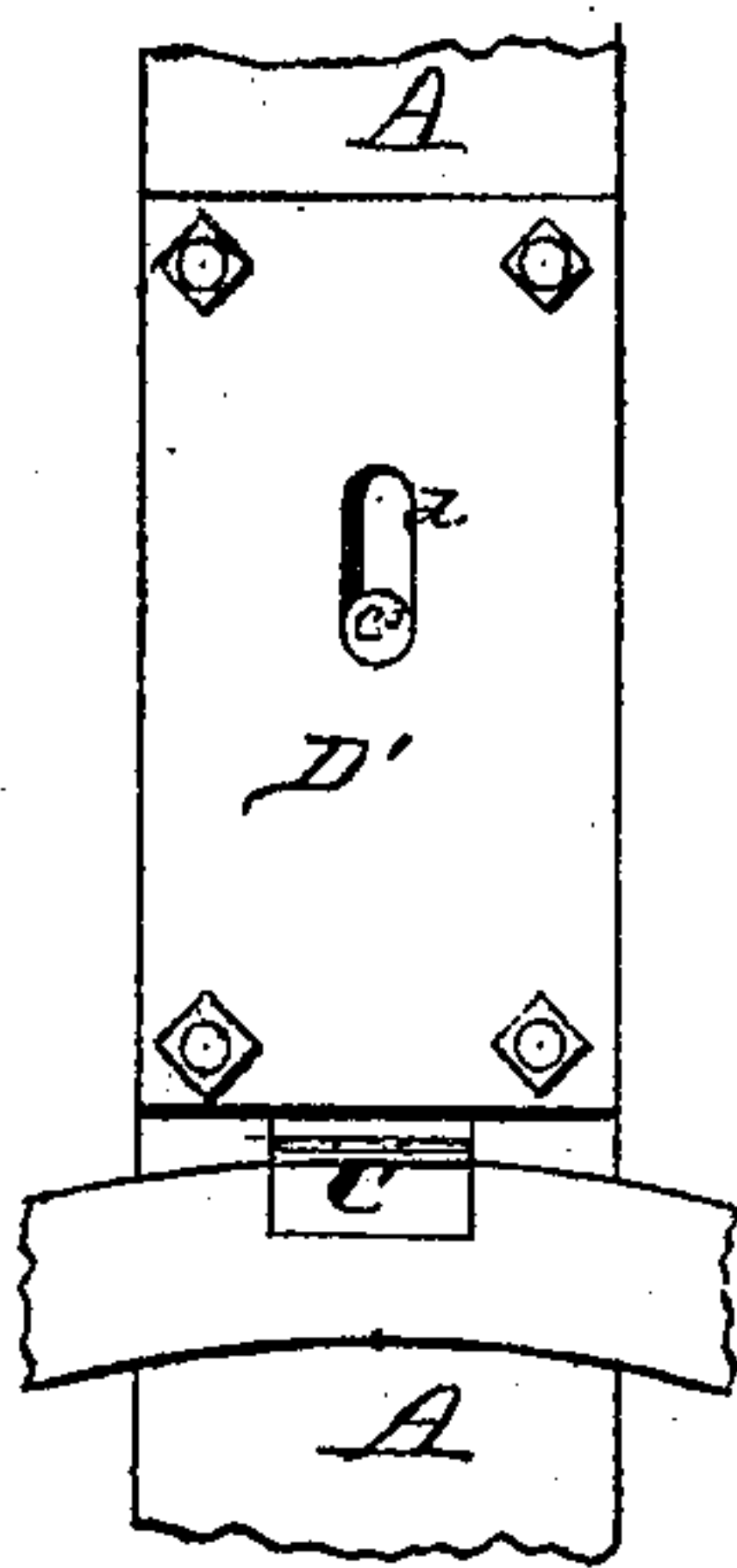


Fig. 3.

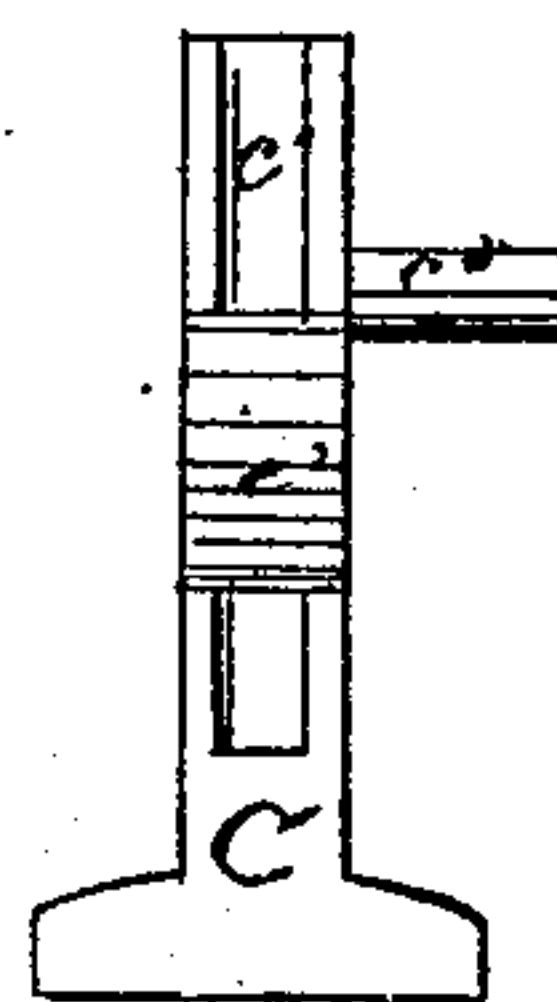


Fig. 4.

Witnesses:

J. W. Herthel

Robert Burns

Inventor:

Archibald Thomson

by his Atty

Herthel & Co

United States Patent Office.

ARCHIBALD THOMSON, OF ST. LOUIS, MISSOURI.

Letters Patent No. 113,112, dated March 28, 1871.

IMPROVEMENT IN RAILWAY-SWITCH LOCKS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, ARCHIBALD THOMSON, of St. Louis, in the county of St. Louis and State of Missouri, have made certain new and useful Improvements in Railroad-Switch Locks; and I do hereby declare that the following is a full and true description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon.

In the use of the ordinary padlock for locking railroad-switches it is known that said locks, from exposure to the weather, are rendered difficult for unlocking, time consuming; also, said locks are easily broken and lost from their chain attachment, and otherwise are ineffective in insuring perfect safety in the handling and adjustment of the switch, as required.

This to avoid, and to form and improved switch-lock, the nature of my invention consists in providing within a slot of the lever or "target" a tumbler, spring, and bolt, said devices being so constructed and arranged that, by means of a turn-bolt, the switch-bolt can readily be locked or unlocked preparatory to adjusting the switch, all of which will now more fully appear.

To enable those herein skilled to make and use my said invention, I will now more fully describe the same, referring to the accompanying—

Figure 1, as a perspective view of my lock;

Figure 2, as a detail sectional elevation enlarged;

Figure 3, as a detail side or rear view; and

Figure 4, as a side view of the switch-bolt.

The switch-stand has the target-lever A, and otherwise is constructed in manner usual to operate the main and side railroad-tracks.

In said lever I provide a rectangular-shaped slot, B, communicating with a side slot, b; in said slots I arrange, respectively, the switch-bolt C, tumbler C', and spring devices c, as clearly shown in fig. 2.

The switch-bolt C is constructed to engage in the notches of the switch-stand in manner usual, and should have sufficient play to unlock from the switch-stand when fitted in the slotted lever A.

Furthermore, said bolt I provide with a side groove, c', (in which the spring c pivoted to the tumbler C' is

fitted,) and inclined notch c², in which the tumbler C may engage, as illustrated in figs. 2 and 4.

When, therefore, the tumbler C' is turned to engage in said notched bolt, the same is locked; a reverse motion unlocking said bolt, and the switch can then be operated as required.

To adjust the bolt C in and out of lock, said bolt carries a projecting-pin, c³.

To operate my lock a suitable turn-bolt is used, the tumbler C' being for this purpose suitably mortised or slotted.

The bolt C, tumbler C', and spring c, when thus constructed and arranged within the slotted target A, are held in operative position by face-plates D D', properly secured by screw-bolts to said target-lever.

The plate D, to allow for the free movements of the pin c³ in the adjustment of the bolt C, is provided with an elongated slot, d, as shown in fig. 3; similarly the face-plate D' has a suitable slot, d', slightly inclined, and arranged in position to allow for the insertion of the turn-bolt or key, as indicated in fig. 1.

It will be observed that in the use of my said lock that, as the key or turn-bolt cannot be removed until the switch has been safely and properly locked, the inconvenience and accidents frequently arising from a misapplication of the switch are thus, in a great measure, overcome.

My improved lock is also simple, cheap, and durable in its construction and use, readily applied, and readily operated.

Having thus fully described my said invention,

What I claim, and desire to secure by Letters Patent, is—

An improved switch-lock, consisting of the tumbler C', spring c, switch-bolt C, having groove c' and inclined notch c², face-plates D D', when all said parts are arranged and combined to operate within slots B b of the lever A, in the manner and for the purpose described.

In testimony of said invention I have hereunto set my hand in presence of witnesses.

Witnesses: ARCHIBALD THOMSON.

WILLIAM W. HERTHEL,
ROBERT BURNS.