

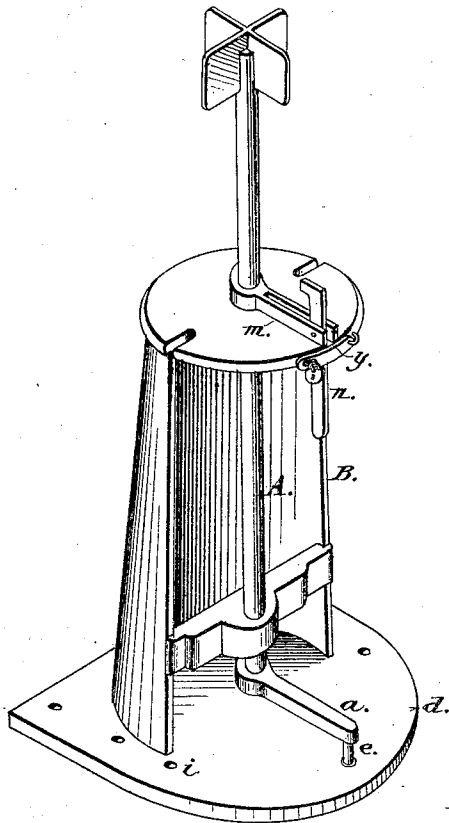
J. WOOD.

Means for Operating Railway-Switches.

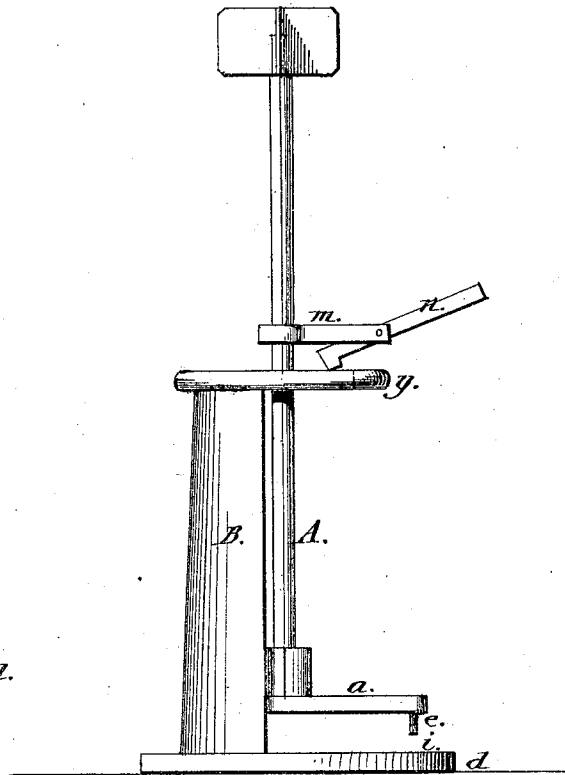
No. 144,880.

Patented Nov. 25, 1873.

*Fig. 1.*



*Fig. 2.*



*Witnesses.*

*W. Gardner,*  
*W. B. Cusick.*

*Inventor.*

*Joseph Wood*  
*by Cochran & Malcomson*  
*his Attorneys*

# UNITED STATES PATENT OFFICE.

JOSEPH WOOD, OF RED BANK, NEW JERSEY.

## IMPROVEMENT IN THE MEANS FOR OPERATING RAILWAY-SWITCHES.

Specification forming part of Letters Patent No. **144,880**, dated November 25, 1873; application filed November 4, 1872.

*To all whom it may concern:*

Be it known that I, JOSEPH WOOD, of Red Bank, Monmouth county, New Jersey, have invented an Improvement in Mechanism for Operating Switches, of which the following is a specification:

Figure 1 is a perspective view of my improved switch-stand, showing the jointed lever *m* as it appears when its handle *n* is resting vertically in the notch *y*. Fig. 2 is a side view of the same, showing the lever *m* elevated for the purpose of turning the shaft A.

The object of my invention is to operate and lock the switch-rails of railroads by devices simple in construction and positive in their action. I attain this object by a vertical rod, A, which can be elevated and turned in a stand, B, by means of a lever, *n*, and which has at its lower end an arm, *a*, the pin *e* of the latter being connected to the said switch-rails and adapted to holes in the base of the stand, so that the strains and shocks to which the switch-rails are subjected are resisted by the said base instead of being communicated to the operating machinery.

When the switch has to be moved from one position to another the rod A is elevated, so that the pin *e* of the arm *a* may be withdrawn from one hole, *i*, in the base *d*, when the rod can be turned, and the switch consequently moved to the desired position, on reaching which the rod is permitted to fall and the pin

*e* to enter another another hole, *i*, in the base, thereby locking the switch.

As a means of operating the rod, I employ a lever, *n*, hinged to the outer end of an arm, *m*, secured to the rod A above the stand B. When the switch-rails have been adjusted and locked, and the rod A depressed, as described above, the arm *m* is in contact with the top of the stand B, and the lever *n* hangs down in one of the slots *y*, where it can be secured by any locking device; but when the switch-rails have to be moved the lever is raised from the slot, and, with the projection at its end bearing on the top of the stand, is used as a lever, first for elevating the rod A, as shown in Fig. 2, and then for turning it laterally.

I claim as my invention—

In a switch-stand, the combination of the vertical shaft A, having right-angled arm *a* and bolt *e*, with the top plate having notches *y*, and the lever *m* having jointed and fulcrumed handle *n*, adapted to fall vertically into the notches *y*, and thus secure the shaft from accidental shifting, and also to form a means for elevating and turning the shaft, substantially as specified.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

Witnesses:

JOSEPH WOOD.

JOHN K. RUPERTUS,  
HUBERT HOWSON.