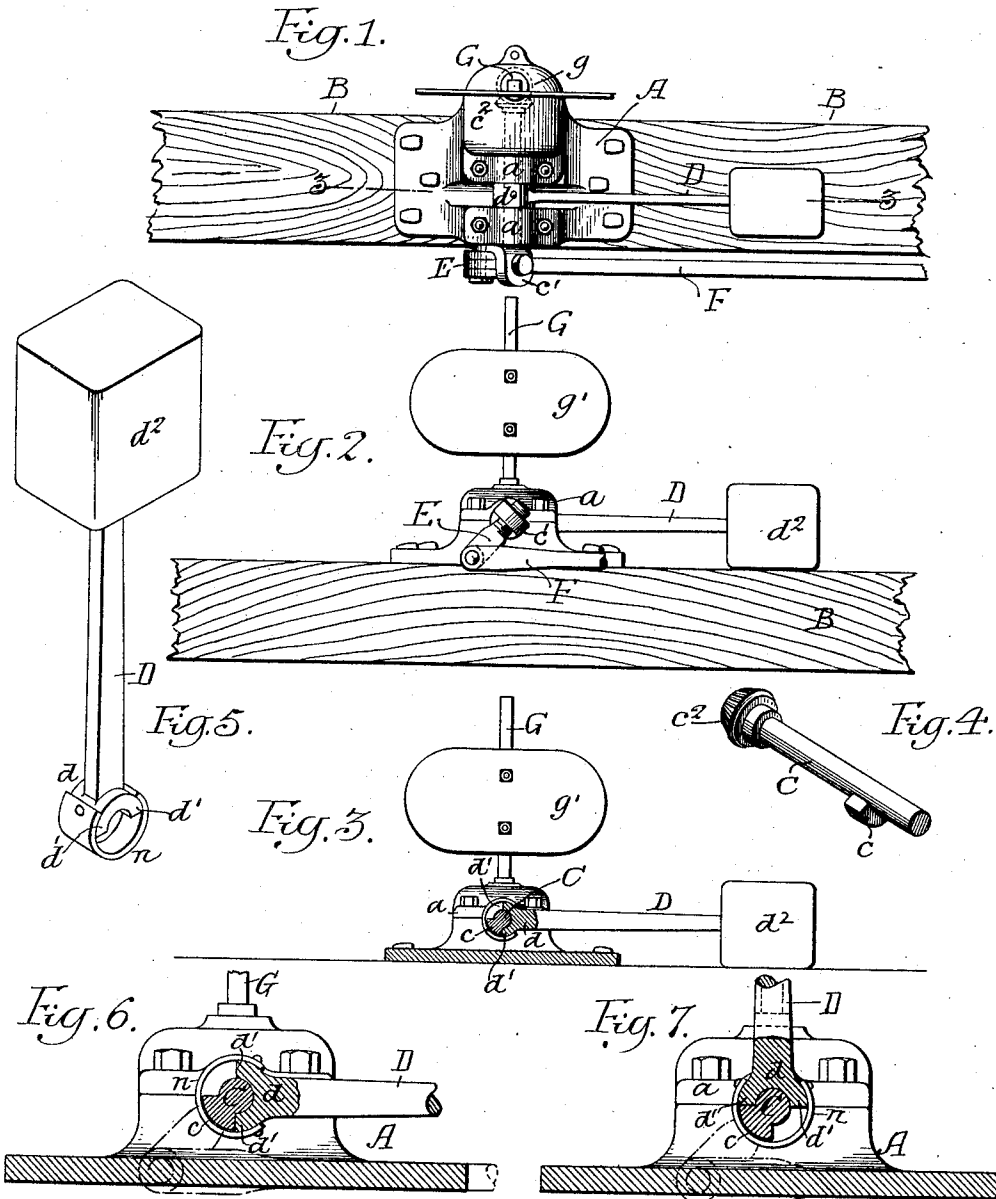


W. B. COOKE.
SWITCH STAND.
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1,059,119.

Patented Apr. 15, 1913.



Witnesses:-
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UNITED STATES PATENT OFFICE.

WARNER B. COOKE, OF JENKINTOWN, PENNSYLVANIA, ASSIGNOR TO WILLIAM WHARTON, JR., & COMPANY, INCORPORATED, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

SWITCH-STAND.

1,059,119.

Specification of Letters Patent.

Patented Apr. 15, 1913.

Application filed April 30, 1910. Serial No. 558,666.

To all whom it may concern:

Be it known that I, WARNER B. COOKE, a citizen of the United States, residing in Jenkintown, county of Montgomery, State of Pennsylvania, have invented certain Improvements in Switch-Stands, of which the following is a specification.

The object of this invention is to construct a simple and effective switch stand, in which the weighted lever will make a quarter turn before throwing the switch and when it passes over the center it will complete the half movement, throwing the switch; the weight holding the shaft in either of its extreme positions. If a train trails through the switch when the switch is set wrong, the shaft will be rotated and the lever lifted to a nearly vertical position, the momentum throwing the weight over to the other side, thus completing the throw of the switch.

In the accompanying drawing:—Figure 1, is a plan view of my improved switch stand; Fig. 2, is a side view; Fig. 3, is a sectional view on the line 3—3, Fig. 1; Fig. 4, is a perspective view of the shaft; Fig. 5, is a perspective view of the weighted lever; and Figs. 6, 7 and 8, are sectional diagram views illustrating the switch lever in its different positions.

A is the base of the switch stand secured to a tie B in the present instance, in the ordinary manner, and mounted in this base is a shaft C adapted to bearings *a, a*, as shown in the drawings. The bearings *a, a* are spaced apart and mounted on the shaft between the bearings is the hub *d* of the lever D. The hub of this lever is partly cut away, forming two shoulders *d'*, one on each side of the shaft, and on the shaft is a segmental projection *c*. This segment is a quarter of the full circumference so that a blank space is left between the shoulders of the hub and the segment, and there will be lost motion equal to a quarter of a revolution. On one end of the shaft is an arm *e'* having a screw threaded opening, and adapted to this screw threaded opening is a short bar E to which the rod F is attached. The bar is in such position that it will aline with the segment *c*. On the opposite end of the

shaft, in the present instance, is a bevel gear wheel *c*², which meshes with a bevel wheel *g* on the vertically arranged target shaft G having its bearings in the base A and provided with a target *g'*. The target may be of any form desired. In the present instance I have shown it as a rotating target, although it may be of the semaphore type without departing from the essential features of the invention. The weight *d*² of the lever D is so proportioned that it will rest upon the tie when the lever is thrown into either of its extreme positions. Inclosing the segment is a guard band *n* which is attached to the lever by bolts, as shown, in order to keep the contacting surface free from dust.

The operation is clearly shown in the diagrams, Figs. 6, 7 and 8. In Fig. 6, the lever is in its extreme right position and the switch rail will be resting against the left hand rail. If the lever is raised and thrown over it will move a quarter turn before acting upon the segment, and, as it passes the center and falls by its own weight, it will move the shaft a quarter turn, from the position shown in Fig. 7 to that shown in Fig. 8, and shift the switch rail accordingly. As before remarked, if a train trails through the switch when it is set as in Fig. 8, the switch rod will be forced in the direction of the arrow, Fig. 8, and the segment will bear against one of the heels of the lever D and will lift the lever to the mid-position, shown in Fig. 7. The momentum will throw the weight over the center and it will fall to the position illustrated in Fig. 6, holding the shaft and the switch rail in position against the left hand main rail of the track.

I claim:—

The combination in a switch stand, of a base having two bearings spaced a given distance apart; a horizontal shaft mounted in the bearings; a weighted lever having a hub mounted on the shaft between the bearings, said hub being partly cut away so as to form shoulders; a segment on the horizontal shaft located between one of the bearings and the hub and resting in the cut away portion of

the hub, the shoulders of the hub being spaced a greater distance apart than the width of the segment; a guard secured to the hub and closing the space occupied by the
5 lug; and a bar on one end of the shaft forming an arm to which the switch rod is connected.

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

WARNER B. COOKE.

Witnesses:

WM. E. SHUPE,

WM. A. BARR.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
