

J. T. FARRELL.
SWITCH STAND.

APPLICATION FILED APR. 30, 1908.

935,005.

Patented Sept. 28, 1909.

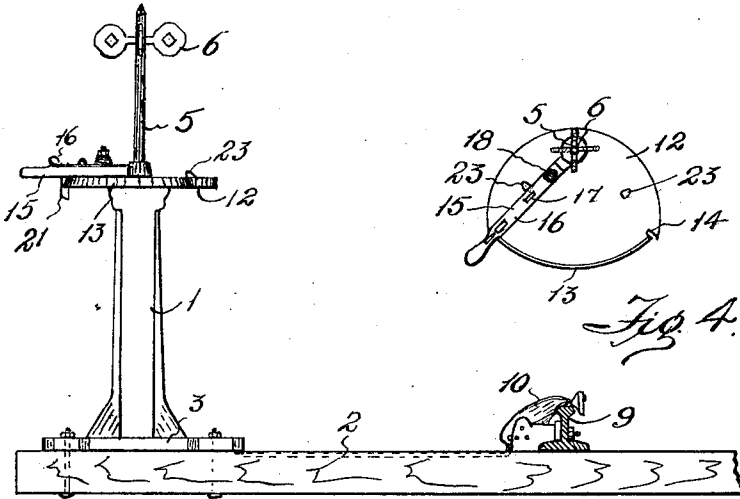


Fig. 1.

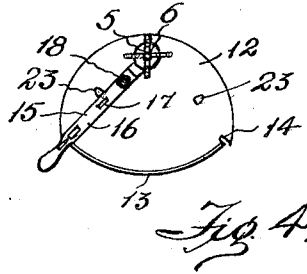


Fig. 4.

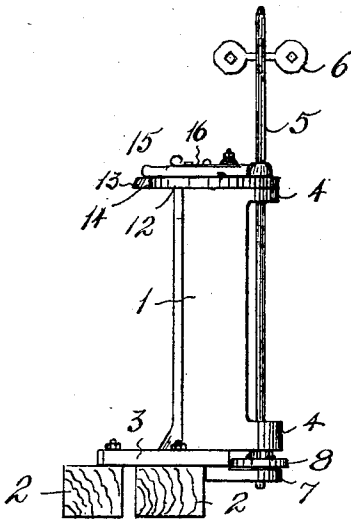


Fig. 3.

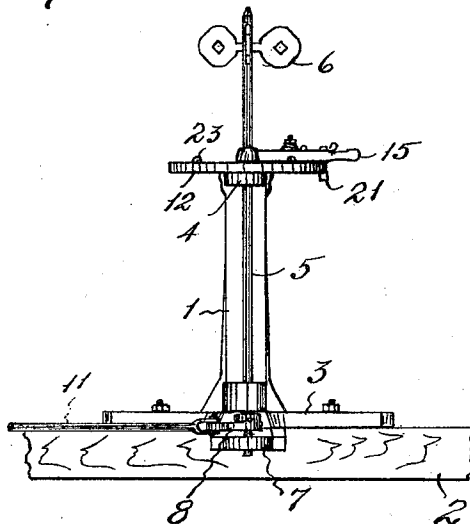


Fig. 2.

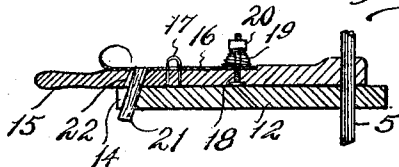


Fig. 5.

WITNESSES:

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UNITED STATES PATENT OFFICE.

JOHN T. FARRELL, OF HOUSTON, TEXAS.

SWITCH-STAND.

935,005.

Specification of Letters Patent. Patented Sept. 28, 1909.

Application filed April 30, 1908. Serial No. 430,051.

To all whom it may concern:

Be it known that I, JOHN T. FARRELL, a citizen of the United States, residing at Houston, in the county of Harris and State of Texas, have invented certain new and useful Improvements in Switch-Stands, of which the following is a specification.

My invention relates to new and useful improvements in switch stands.

The object of the invention is to provide a switch stand in which the switch lever is arranged to swing in a horizontal plane at the side of the cross tie and obviate the necessity of the operator standing next to the rail and also affording him a greater leverage in throwing the switch.

Another object of the invention is to provide a device of the character described that will be strong, durable and efficient, simple and comparatively inexpensive to construct, and also one in which the several parts will not be liable to get out of working order.

With the above and other objects in view, the invention has relation to certain novel features of construction and operation, an example of which is described in the following specification and accompanying drawings, wherein:

Figure 1 is a side elevation of my improved switch stand mounted in connection with a derailer, Fig. 2 is an elevation of the opposite side of the switch stand, Fig. 3 is an end elevation, Fig. 4 is a plan view of the switch table, switch lever and target, and Fig. 5 is a detail showing the switch lever and the portion of the switch table in section.

In the drawings, the numeral 1 designates the switch stand and 2 the cross ties on which it is mounted. The stand is formed with an outwardly directed base flange 3 which is securely bolted or secured on the ties so as to cause the switch stand to project over the side of one of the ties as clearly shown in Fig. 3. The projecting side of the switch stand is formed at its upper and lower ends with bearing lugs 4 through which a vertical target staff 5 is passed, carrying on its upper projecting ends, a suitable target 6. Below the lower lug 4, a bearing bracket 7 projects horizontally from the base flange 3 and receives the lower end of the staff.

On the staff between the bracket and the lug a horizontal crank arm 8 is fixed and projected inwardly toward the rail 9. I have shown connected to the rail, a derailer constructed in accordance with my im-

proved derailer explained and shown in my application for Letters Patent filed April 30, 1908, Serial No. 430,050. The movable block of this derailer is connected with the crank arm 8 by a rod 11, which rod it will be understood, may if desired, be connected to the usual switch operating parts, as this stand is designed either for operating a derailer or a switch. It is obvious that by turning or revolving the staff 5, the arm 8 is swung and the connecting rod 11 moved to operate the derailer or the switch. For carrying out this operation I mount on the switch stand 1, a horizontal switch table 12, the staff passing through the same near one side as shown in Fig. 4. The opposite side 13 of the table is formed in the arc of a circle having its center concentric with the staff and suitably beveled upward and inward, while at the ends of this curved portion notches 14 are provided. A switch lever 15 secured to the staff projects horizontally over the table and extends some distance therefrom so as to be grasped by the operator and swung to revolve the staff 5.

It is obvious that some means for locking the lever 15 must be provided and therefore on the upper side of the lever a spring hasp 16 adapted to receive a staple 17 projecting from the lever is mounted on an inverted bolt 18. This hasp is held in close contact with the top of the lever by a coiled spring mounted on the upwardly projecting end of the bolt 18 and placed under tension by nut 20 threaded on the bolt. The hasp carries nearer its outer end a downwardly and outwardly inclined dog 21 projecting through an elongated slot 22 in the lever. This dog is disposed at such an angle as to engage in the notches 14 and to ride on the beveled side 13 when the lever is swung.

The sides of the table adjacent the notches 14 project to limit the swing of the lever and as an additional means therefor, stop lugs 23 are mounted on the table to be engaged by the lever. A suitable lock may be engaged directly with the staple 17 to fasten the hasp against upward movement and thus lock the switch lever in position.

When it is desired to swing the lever, the hasp 16 is swung upward which raises the dog out of the notch 14 and permits it to ride along the side 13 as the lever is swung until it drops into the notch 14 at the end thereof. The dog being inclined outwardly, it is obvious that when the hasp is raised,

the dog will swing outward from the notch as it swings upward, and that only a limited upward movement will have to be given to the hasp.

5 I wish to call attention to the fact that by swinging the lever horizontally, the operator is afforded a greater leverage than where he is required to lift or swing the switch lever upward and further that he may operate the
10 switch lever from the outer ends of the ties, not being compelled to pass or stand between the rail and the switch stand which removes him out of the danger line as will be obvious.

15 What I claim, is:

1. A switch stand of the character described comprising a support 1, a horizontal plate 12 fixed to said support and provided with stop portions, and switch throwing
20 mechanism including a lever pivoted to swing over the face of said plate, and a catch on the lever adapted to engage the stop portions on the plate, said catch comprising a spring arm secured to the lever
25 and a dog depending therefrom.

2. A switch stand of the character described comprising a support 1, a horizontal plate 12 fixed to said support and provided with stop portions, and switch throwing
30 mechanism including a lever pivoted to swing over the face of said plate, and a catch on the lever adapted to engage the stop portions on the plate, said catch comprising

an arm secured to said lever and a dog depending therefrom, in combination with a
35 staple passing through said arm, for the purpose described.

3. A switch stand of the character described comprising a support 1, a horizontally disposed plate 12 fixed to said support having stop portions connected by a
40 beveled edge portion, and switch throwing mechanism including a lever pivoted to swing over the face of said plate, and a catch on said lever including a dog projecting
45 therefrom adapted to ride over the beveled edge of the plate and engage the stop portions of the latter.

4. A switch stand of the character described comprising a support 1, a horizontally disposed plate 12 fixed to said support having stop portions connected by a beveled
50 edge portion, and switch throwing mechanism including a lever pivoted to swing over the face of said plate, and an auto-
55 matically seating catch on said lever including a dog projecting therefrom adapted to ride over the beveled edge of the plate and engage the stop portions of the latter.

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

JOHN T. FARRELL.

Witnesses:

WM. A. CATHEY,

ERMA B. TINKLER.