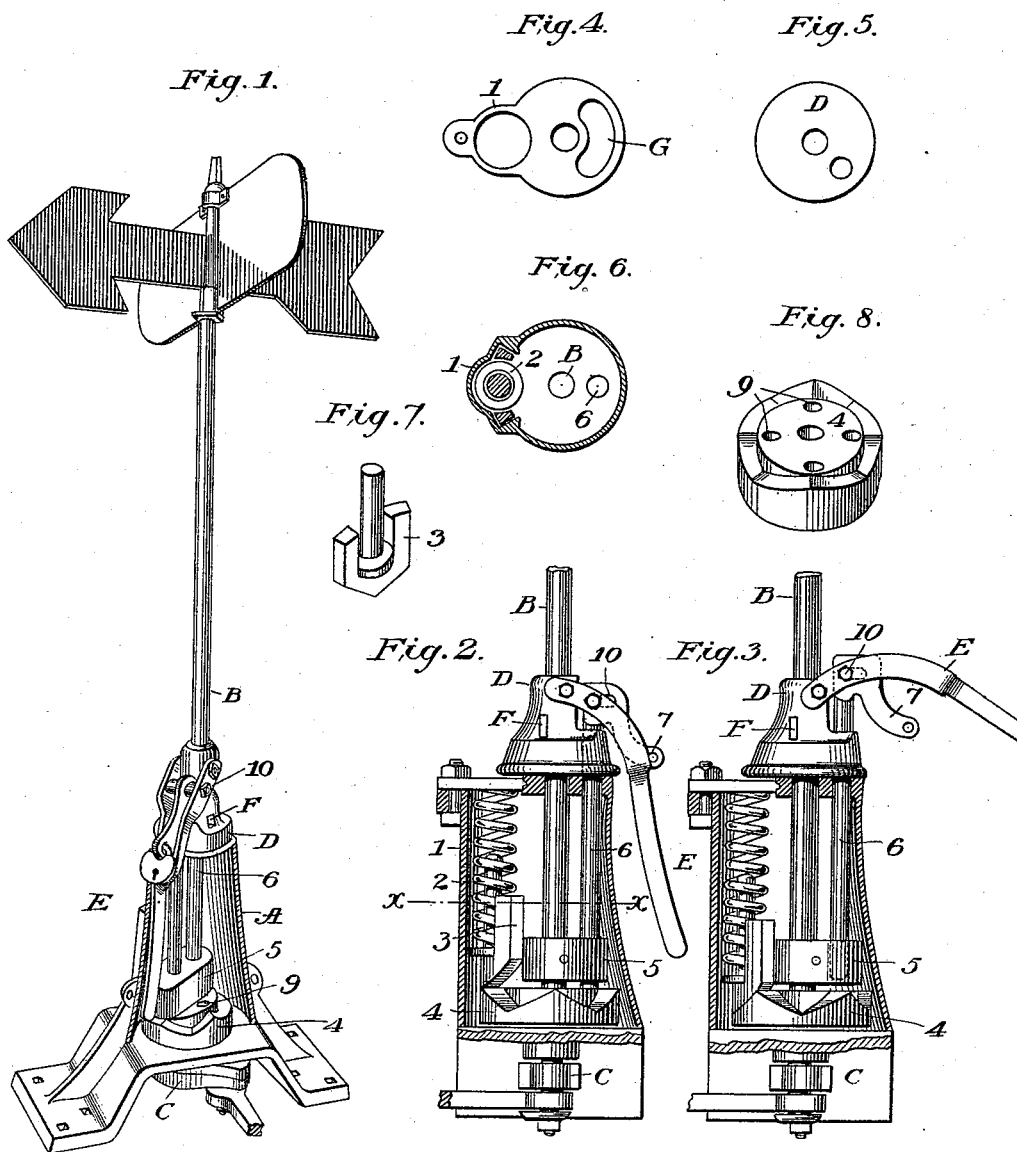


(No Model.)

W. C. MEEKER.
SWITCH STAND.

No. 490,576.

Patented Jan. 24, 1893.



Witnesses:
W. C. Meeker
E. D. Voorhis

Inventor:
W. C. Meeker

UNITED STATES PATENT OFFICE.

WALTER C. MEEKER, OF JERSEY CITY, NEW JERSEY.

SWITCH-STAND.

SPECIFICATION forming part of Letters Patent No. 490,576, dated January 24, 1893.

Application filed August 1, 1890. Serial No. 360,725. (No model.)

To all whom it may concern:

Be it known that I, WALTER C. MEEKER, a citizen of the United States, and a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Railroad-Switch Stands, of which the following is a specification.

My invention relates to improvements in railroad switch stands and particularly to that class known as automatic switch stands—or such as allow a car or train of cars to pass through a switch when set wrong without causing injury to the switch or derailing the car.

The main object of my invention is to simplify the construction and reduce the cost of such stands without impairing their efficiency or durability.

My invention consists in the novel construction and combination of parts hereinafter described and shown in the accompanying drawings in which,

Figure 1. is a perspective view of the completed stand, with part of body removed so as to show also in perspective some of the internal parts. Fig. 2. shows the upper part of body, in section and position of the movable parts, when being operated automatically by train. Fig. 3. also shows upper part of body in section and the position of movable parts when operating lever is lifted, in order to operate the stand by hand. Fig. 4. is a plan of top of body of stand—showing passage way for the locking rod or pin 6. Fig. 5. is a view of under side of cap—showing opening for the locking rod. Fig. 6. cross section of Fig. 2 on line *x. x.* Fig. 7. is a perspective view of plunger. Fig. 8. is a perspective view of cam. 4.

Referring to the accompanying drawings. "A." is the main body of the stand in which is journaled the shaft "B." the head or upper end of the stand being provided with a passage way "G." for the locking rod 6. To the lower end of said shaft is secured the crank "C" to which is connected the rod to the switch. The cap "D" is secured to shaft "B." by the key F. or other suitable means. In one side of the stand is formed the spring barrel 1. containing the spring 2. and the plunger 3. the latter bearing against the cam. 4. through which the shaft B. passes and turns freely when operated by hand. On the shaft.

B. just above cam. 4. is secured the guide 5. for the locking rod or pin 6. The cam. 4. is provided with holes 9 for the reception of locking rod. 6.—To the cap "D" is secured the operating lever or handle. E. by means of a bolt, and a bolt 10 passes through said lever and the oblong hole 11 in the locking rod 6. The upper end of the locking rod is provided with an arm 7. in the outer end of which is a hole to receive a padlock. so that the operating lever may be locked down.

The automatic operation of the stand is as follows:—The several parts being in positions as shown in Fig. 1, the wheel flanges, passing between the main rail and closed switch point forces the latter over, causing the movement of the switch connecting rod; said rod being connected with the crank "C" rotates the shaft "B." thus causing a rotating movement of the cam. 4. through the agency of the cap. "D." and locking rod C. It is then obvious that the rotation of said cam 4. causes a compression of the spring until the point of plunger 3. reaches the apex of cam. As soon as the point of plunger 3 passes the apex of cam, the spring rebounds forcing the plunger down the opposite incline of cam. 4.—completing the throw of the switch and holding same in position.

The hand operation of the stand is as follows,—After removing the padlock from arm. 7, the operating lever or handle. "E." being lifted pulls the locking rod 6. out of hole. 9, in cam 4. thus severing the connection between the spring and the hand, operating mechanism. The shaft may then be freely rotated until locking rod 6 is lowered into holes 9 of cam. 4. Thus I have produced a stand simple in construction yet effective and durable.

What I claim as being new is:—

1. In a rail road switch stand a cam with its actuating surfaces arranged to operate in the direction in which the shaft passes through it, in combination with a plunger with two inclined surfaces bearing against two corresponding inclined surfaces of said cam, said plunger being actuated by a spring and independent of the shaft, a crank shaft, and a mechanism for connecting and disconnecting said cam with the crank shaft, substantially as shown and described.

2. In a railroad switch stand, a rod or pin connected directly to the hand operating lever for engaging and disengaging the crank shaft with the spring actuated mechanism, 5 substantially as shown and described.

3. In a railroad switch stand, a rod or pin connected directly to the hand operating lever for engaging and disengaging the crank shaft with the spring actuated mechanism, 10 and provided with an arm for locking the hand operating lever substantially as shown and described.

4. In a railroad switch stand a cam with actuating surfaces operating in the direction

in which the shaft passes through it, in com- 15
bination with a crank shaft and cap, a hand
operating lever, a locking rod or pin con-
nected directly to the said hand operating le-
ver, and a spring arranged to partially resist
the rotary movement of said cam, all substan- 20
tially as shown and described.

Signed at Jersey City, in the county of Hud-
son and State of New Jersey, this 30th day of
July, A. D. 1890.

WALT. C. MEEKER.

Witnesses:

R. E. PARK,
A. A. FRANCK.