R. W. SHECKELLS.

Railroad Switch.

No. 1,833. Patented Oct. 22, 1840.

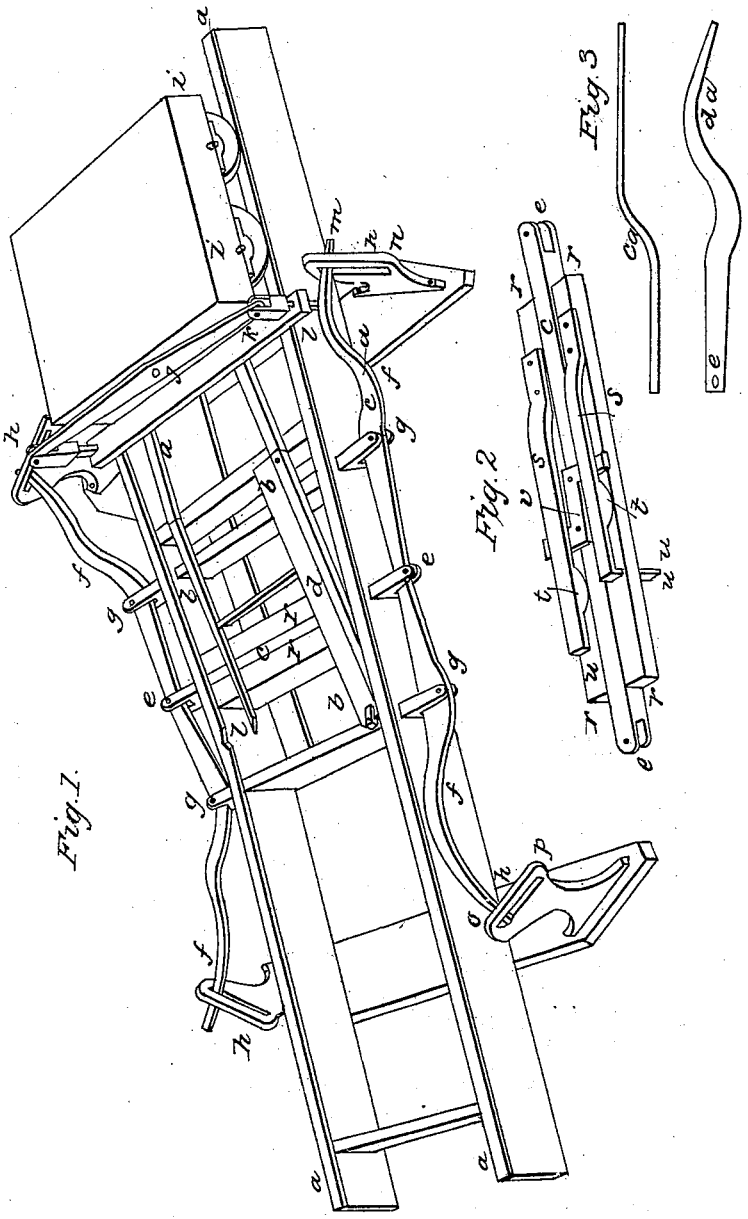

Fig. 1.

Fig. 2

Fig. 3

UNITED STATES PATENT OFFICE.

RICHARD W. SHECKELLS, OF BALTIMORE, MARYLAND.

METHOD OF SHIFTING SWITCHES ON RAILROADS.

Specification of Letters Patent No. 1,833, dated October 22, 1840.

To all whom it may concern:

Be it known that I, RICHARD W. SHECKELLS, of the city of Baltimore and State of Maryland, have invented a new and useful Improvement on the Switch for Railroads, which I term the "Self-Acting Levers for Moving the Switches of Railroads;" and I do hereby declare that the following specification, with the accompanying drawings, is a full and exact description.

My invention consists in the manner of moving the switch by means of levers, and locking or retaining it in place.

In the accompanying drawing *a*, *a*, *a*, *a*, represents the usual form of the truck, *b*, *b*, *b*, the switch.

c, is a cross rod to which the switch is connected by a free bolt at *d*,—at each end of this rod, as at *e*, *e*, are joined the levers *f*, *f*, *f*, *f* by a free bolt the holes for the bolts in the levers are oblong, as seen at *e*, Figure 3 corresponding with the letter *e*, Fig. 1, so as to allow the levers to play in and out horizontally; *g*, *g*, *g*, *g*, are the fulcrums of the levers.

h, *h*, *h*, *h*, are the guides to keep the ends of the levers in place.

c a, Fig. 3 represents an upward curve in the lever so as to raise the key *l*, Fig. 1 above the level of the rails; this being a side view of one lever, and the bend as at *c a*, Fig. 1.

d a, Fig. 3 represents the bend, as at *l*, Fig. 1, where the key strikes the lever, this being a downward view of the lever marked *c a*, Fig. 1.

i, *i*, *i*, represents the car, to the front of which is attached a beam working on a bolt or center as at *j*. To each end of the beam there is connected by a free bolt a vertical rod or key passing through the piece *k*, as a guide; the key which is down, as at *l*, as the car advances strikes the lever and throws it out as from *m*, to *n*; at the same time the other lever is thrown from *o*, to *p*, —the levers on the other side are both thrown inward and the switch with the rod *c*, is thrown from its present position to the side rail, as at *q*. It may be seen that, by means of this beam with the keys at each end, the switch may be thrown from one side to the other as particularly required, by the engineer on the car, depressing the requisite key.

Fig. 2 represents an enlarged view of the cross piece *c*, (as *c*, Fig. 1) being upside down.

e, *e* are the ends which receive the inner ends of the levers.

r, *r*, *r*, *r*, are the same as *r*, *r*, Fig. 1, to which are attached the springs *s*, *s*, on which springs are the cams *t*, *t*, and bent points or catches *u*, *u*, which pass through the pieces *r*, *r*, and into the piece *d*, (Fig. 1,) to hold or retain the switch firmly in place, after it has been moved.

By means of the bent piece V, on the bar *c*, and the cams the points or catches are withdrawn from the switch at *d*, Fig. 1, and the switch is allowed to move from side to side, so that when the switch is fully up to either side or main rail, the cams being passed, by the bent piece V, the points or catches retain or secure the switch in place.

The usual plate on which the switch plays, I propose to construct in form of a grate to suffer the dirt and gravel to fall through, and not prevent the switch from moving freely and fully up to the main rail. This method of using the levers may be adapted to all the usual forms of switches.

It will be seen that this switch becomes as nearly as practicable a secure and self acting instrument; and has at least this advantage over the usual apparatus; that it gives the engineer a control over the switch, though it may have been neglected by an attendant on the track who had been specially entrusted with it.

Instead of the four levers (*i. e.* two on each side) I can effect the same object by one lever on each side, and I will here merely suggest that I can effect the same object by the use of vertical levers; in which case the connection will be adapted, as also the form of the keys.

What I claim as my invention and desire to secure by Letters Patent, is not the principle of shifting the switch by means of a projection from the car acting against a lever connected with the switch, as this has long since been done, but

What I do claim is—

1. The method of connecting the switches with two sets of levers, one set on each side of the track; or one lever on each side of the track, in combination with the keys on the beam, in the manner and for the purpose described.

2. And also I claim the mode herein described of locking the switches by means of the apparatus represented in Fig. 2 of the drawings.

RICHARD W. SHECKELLS.

Witnesses:
THOS. S. WIDERMAN,
CHARLES H. SMITH.