F. HOMAN.

SWITCH.

APPLICATION FILED NOV. 4, 1908.

959,344. Patented May 24, 1910.

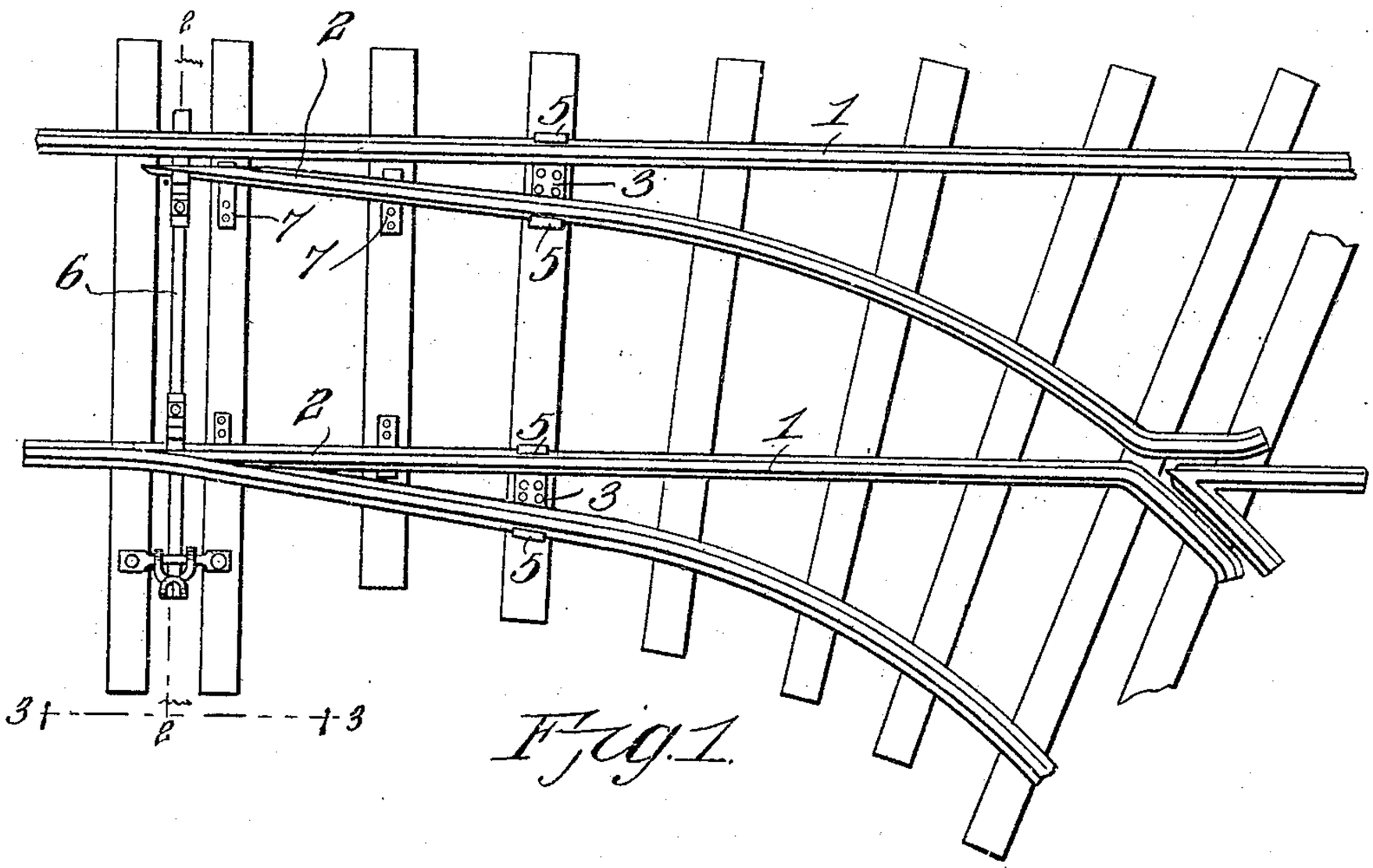


Fig. 1.

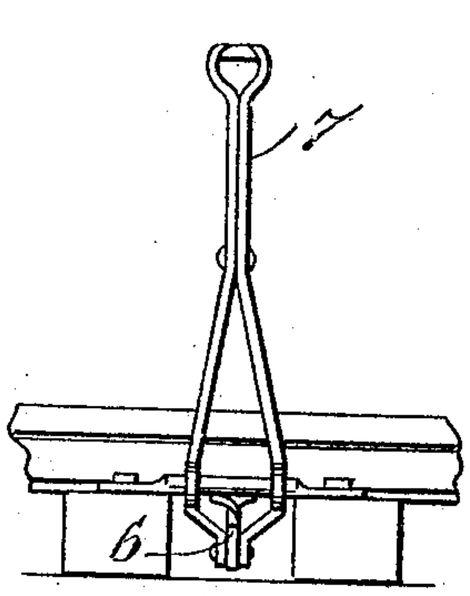


Fig. 3.

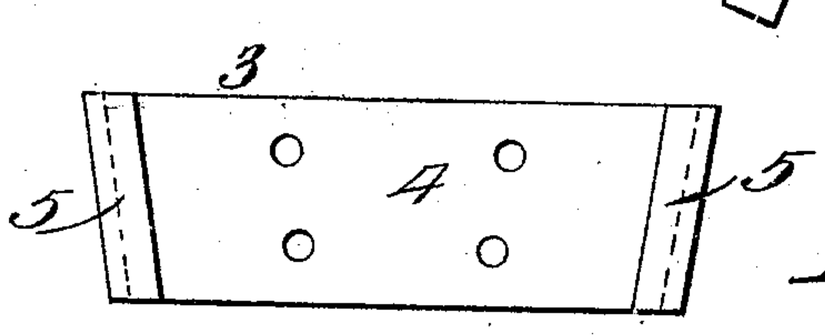
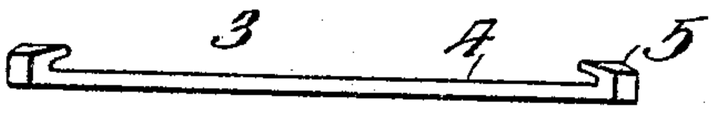


Fig. 4.

Fig. 5.



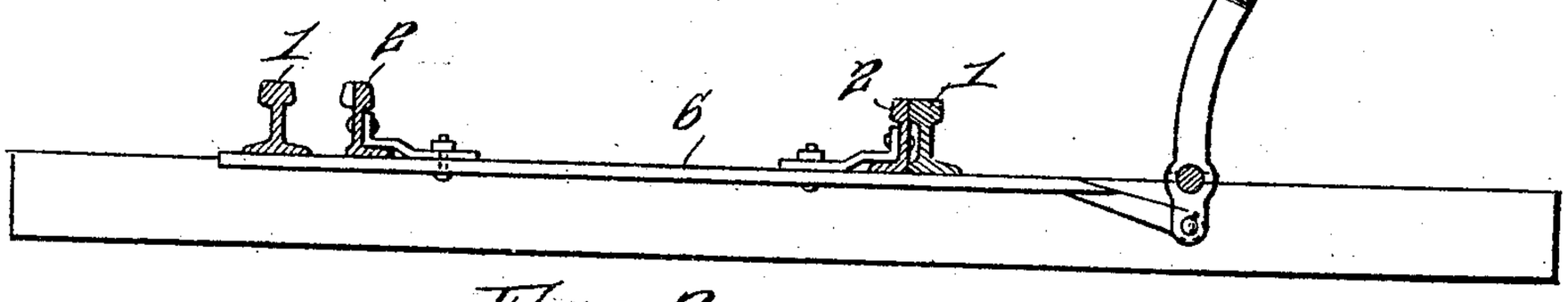


Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

FRANK HOMAN, OF CARBON, WEST VIRGINIA.

SWITCH.

959,344. Specification of Letters Patent. Patented May 24, 1910.

Application filed November 4, 1908. Serial No. 461,037.

To all whom it may concern:

Be it known that I, FRANK HOMAN, a citizen of the United States, residing at Carbon, in the county of Kanawha and State of West Virginia, have invented new and useful Improvements in Switches, of which the following is a specification.

This invention relates to switches primarily adapted for use in coal or other mines, and the object of the invention is to provide a spring actuated switch whereby the main line will be normally open and the switch points spring automatically into their normal open position after the switch has been sprung.

With these and other objects in view, which will be more apparent as the description progresses, the invention resides in the novel construction and arrangement of parts hereinafter fully described and claimed.

In the accompanying drawing there has been shown a simple and preferred form of the invention, it being understood, however, that no limitation is made to the precise structural details therein exhibited, but that further changes alterations and modifications within the scope of the invention may be resorted to when desired.

In the drawing, Figure 1 is a top plan view of a switch constructed in accordance with the present invention. Fig. 2 is a sectional view upon the line 2—2 of Fig. 1. Fig. 3 is a detail view upon the line 3—3 of Fig. 1 and looking in the direction of the arrows. Fig. 4 is a top plan view of one of the switch point retaining plates. Fig. 5 is a front elevation of the same.

The improved switch point is especially adapted for use in connection with "gathering" motors in coal mines. The "gathering" or traction motors are employed to distribute the empty cars to the rooms for the main hauling motor, which has heretofore been done by mules or horses, the "gathering" motors being also employed for gathering the loaded cars and to take them to the parting and for the main hauling motor. The tracks in the rooms are usually laid with a starting of steel and from thereon with wood which is commonly called the room road. The partings are usually made with stationary points and the car must be slued or "cut over" by the driver into the parting. The main object of the invention is to supply a spring switch whereby the helper on the motor has simply to hold the switch as the motor is turned into the room to distribute empty cars for loading. When the motor gathers the loads on the empty tracks, the switch is so constructed that the motor may come out to the main line without further attention.

I have provided a plate positioned upon the ties a suitable distance away from the switch points, say four feet back from each point, which retains the switch rails rigid and removes the possibility of their skewing or turning over when the motor carrying the loaded cars strikes the curve in making the main line. Switches, made for mule haulage, which have been commonly employed for motor hauling are found to be insufficiently rigid for "gathering" coal with light motors. The plates employed with the present invention are connected with the main rails and are provided with upturned lips adapted to engage with the flanges of the switch rails so as to retain these rails in an effectively rigid position when the main line is in its normal open position, as well as affording ample spring to the switch points when thrown. A lever is also employed for opening the switch, and the switch points have a sufficient resiliency to spring back in their normal position when the lever is thrown rearward.

In the accompanying drawing the numeral 1 designates the main rails of an ordinary track employed in connection with coal mines, and the numeral 2 designates the switch rails connected with the main rails.

The numeral 3 designates the switch point retaining plates. This plate 3 is provided with a body portion 4, having a plurality of perforations or openings adapted for the reception of securing elements by which the device is retained upon the ties of the track. The plates 4 have both of their edges upturned to provide overlying fingers or projections 5, one of which being adapted to engage with the main rail 1, while the opposite finger engages with the switch point 2. The switch points are provided near their outer free extremities with a suitable connecting rod 6 adapted to be operated by a suitable lever 7. The ties between the connecting rods 6 and the plates 3 are provided with suitable wear plates 7, upon which the switch points 2 are adapted to slide when the switch is thrown and upon which the switch points are adapted to rest when in normal position.

From the above description, taken in connection with the accompanying drawing it will be noted that I have provided an extremely simple and effective device for the purpose set forth, one wherein the main line is normally retained in open position, one in which the switch points may be readily operated to guide the motor or cars into a siding or room, and one wherein the switch points are of a sufficient resiliency to allow the points to open so that a motor or car coming from the room may be readily guided upon the main track without the necessity of opening the switch.

Having thus fully described the invention what is claimed as new is:

In a switch for coal mines, the combination with a main track and a switch constructed of resilient points, one of said points adapted to spring toward and contact with one of the rails of the main track, the outer point adapted to spring away from the main track, a connecting bar for the points, a lever for the connecting bar, retaining plates for the switch points and main rails, said retaining plates being each provided with inclined edges having overlying lips, the lips upon one of the edges of the plates adapted to engage the outer base flanges of the main rails, the lips upon the opposite ends of the plates adapted to contact the inner base flanges of the switch points, the lip of one of the plates adapted to limit the movement of one of the resilient points in relation to the rail, the lip upon the opposite plate adapted to serve as a point from which the switch point is swung when the lever is operated.

In testimony whereof I affix my signature in presence of two witnesses.

FRANK HOMAN.

Witnesses:

J. O. GROVES,

T. W. DEW.