E. F. BUBB.

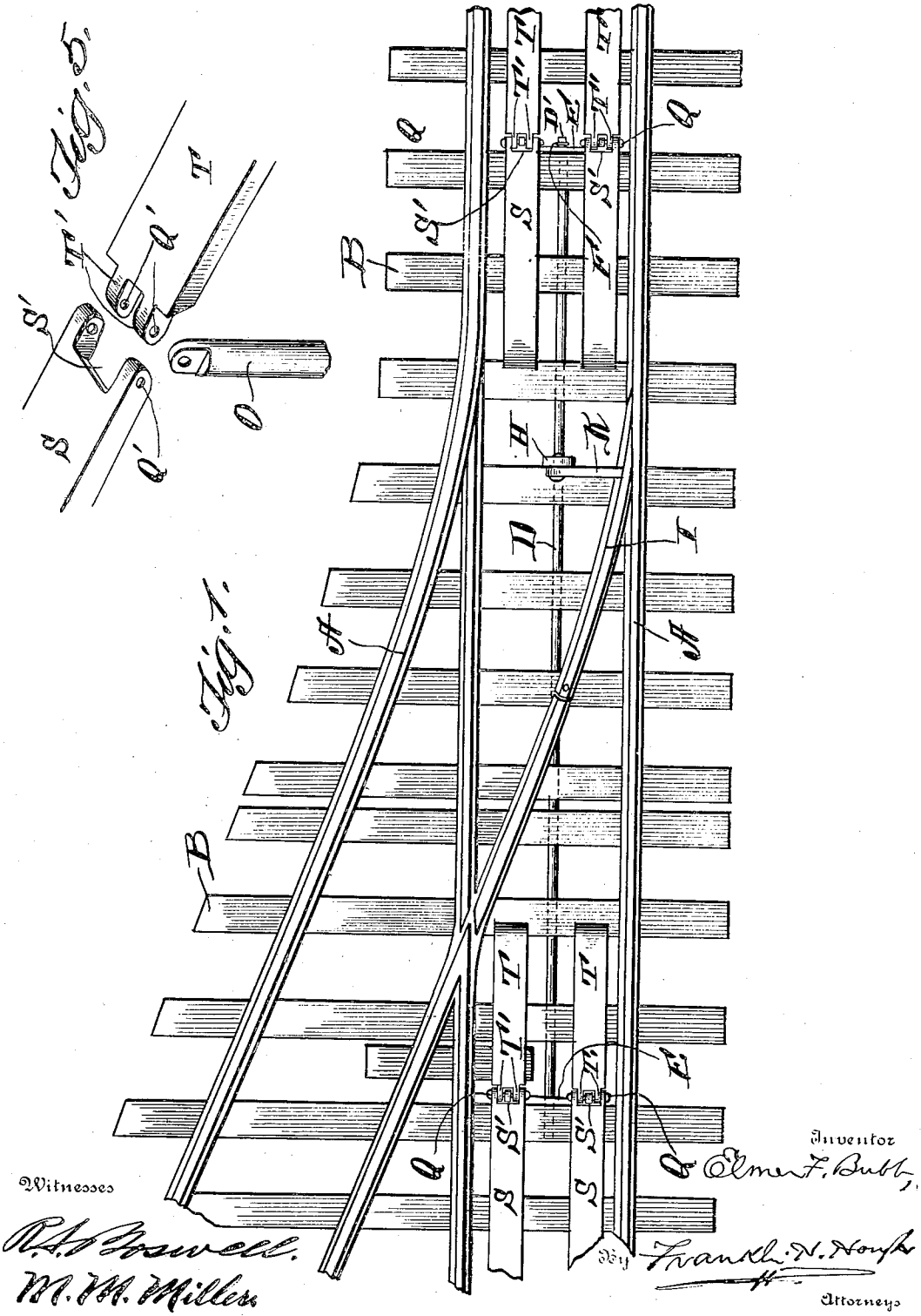
AUTOMATIC SWITCH.

APPLICATION FILED JULY 29, 1909.

941,227.

Patented Nov. 23, 1909.

2 SHEETS—SHEET 1.




Witnesses

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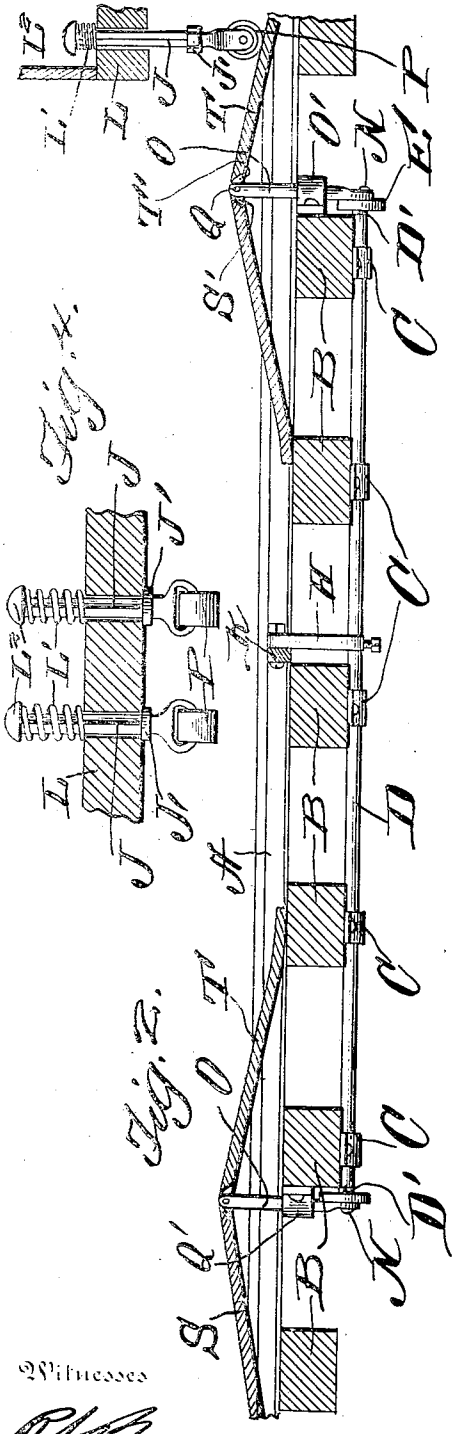

Fig. 2.



Fig. 4.

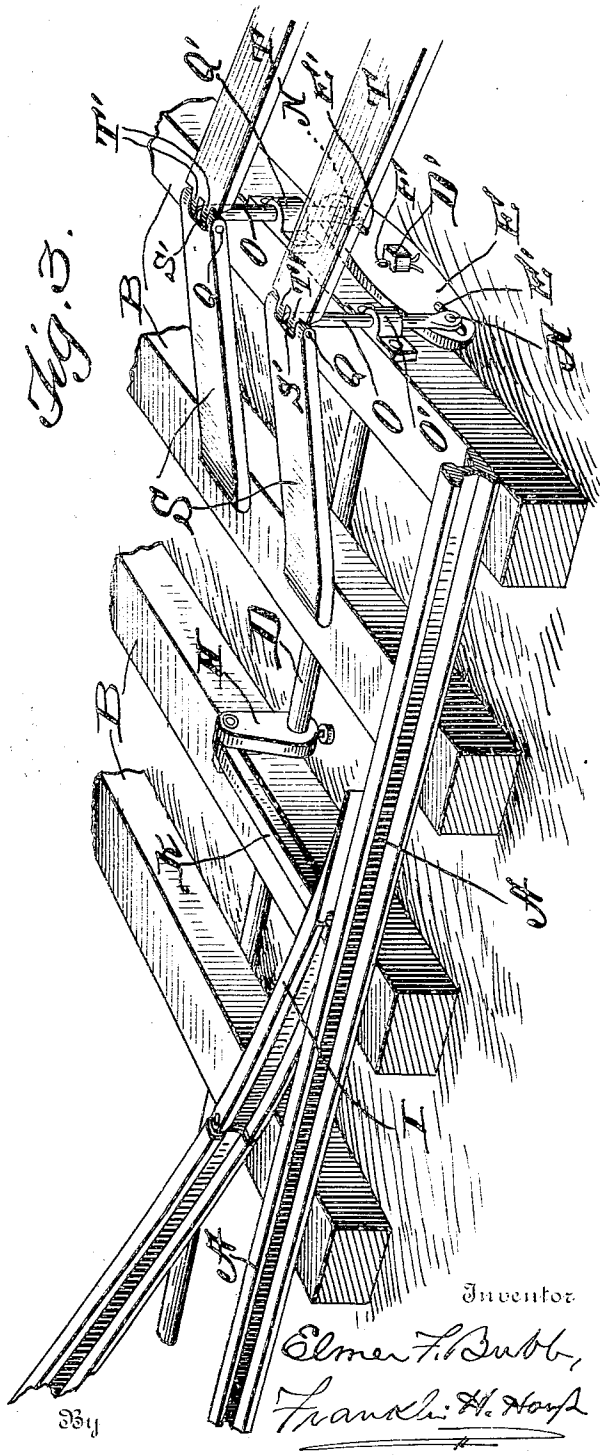

Fig. 3.

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# UNITED STATES PATENT OFFICE.

ELMER FRANKLIN BUBB, OF CHICAGO, ILLINOIS.

## AUTOMATIC SWITCH.

941,227. Specification of Letters Patent. Patented Nov. 23, 1909.

Application filed July 29, 1909. Serial No. 510,193.

*To all whom it may concern:*

Be it known that I, ELMER F. BUBB, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Automatic Switches; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in automatically operated switches adapted to be actuated by mechanism upon a moving car and comprises various details of construction, combinations and arrangements of parts which will be hereinafter fully described and then specifically defined in the appended claim.

I illustrate my invention in the accompanying drawings, in which:—

Figure 1 is a top plan view of my improved switch system. Fig. 2 is a vertical longitudinal section showing parts of the invention in elevation. Fig. 3 is an enlarged detail perspective view. Fig. 4 is a sectional view through the floor of a car showing means for actuating the switch mechanism, and Fig. 5 is an enlarged detail perspective view of a part of the invention.

Reference now being had to the details of the drawings by letter, A designates the rails of a railway and B the ties upon which the rails are fastened. Mounted in the bearings C which are secured to the under sides of the ties is a rock shaft D having angled ends D′, shown clearly in Fig. 3 of the drawings, and E, E designate plates having each an angular opening conforming to the angled end of the rock shaft D.

F is a cotter pin or key passing through an aperture in the angled end of the shaft adapted to hold the plate E thereon. In the drawings I have shown a plate E fastened in a similar manner to each end of the shaft. Keyed to the shaft D is an arm H having pivotally connected thereto a link K which in turn is connected to the switch point I, shown clearly in Fig. 3 of the drawings.

Each of the plates E is provided with elongated slots E′, one near each end, and N is a pin fastened to a rod O which latter is mounted to have a longitudinal movement in the vertical bearing members O′. The pins N are adapted to pass through and be guided in the slots E′ and, as the plate is rocked with the shaft, said rods O are moved longitudinally. Pivotally connected to the upper end of each rod O is a pin Q passing through registering apertures Q′ in the ends of the two plates S and T, shown clearly in Figs. 2 and 5 of the drawings. In said views, it will be noted that the end of the plate S has a recess S′ therein adapted to receive the two lugs T′ which are apertured, the fastening pin extending through registering apertures in the two plates and rod O. The outer ends of the plates T are left preferably free and are adapted to rest upon the ties in the manner shown in the drawings. It will be understood that one pair of plates S and T is adapted to throw the switch point toward the main rail while the other pair adjacent thereto is designed to cause the plate E to tilt in an opposite direction for throwing the point away from the main rail.

In order to throw the switch, any kind of mechanism carried by a moving car passing over the tracks may be employed, such as is shown in Figs. 2 and 4 of the drawings, in which I have shown the two spring posts J having collars J′ thereon to bear against the under surface of the floor L of a car and coiled springs L′ interposed between the upper surface of the platform and the head $L^2$ and at the lower end of each post is journaled a wheel P adapted to be moved so as to contact with the upper faces of the plates S and T as the car moves in one direction or the other, the contact between the rollers P and the plates S and T causing the latter to be depressed for the purpose of rocking the shaft D which, through its connection with the switch point, will operate the latter toward or away from the main line rail.

What I claim to be new is:—

An automatically operated switch comprising, in combination with the ties and main rails of a railway and the pivotal switch point, a horizontally disposed rock shaft mounted in suitable bearings underneath the ties, connections between the rock shaft and switch point, a plate fixed to said rock shaft and having slots therein, verti-

cally disposed rods having sliding pivotal connections with said slots and mounted in suitable bearings upon the ties, depressing plates pivotally connected to the upper ends of said rods and normally inclined with their free ends slightly curved and resting upon the ties, as shown and described.

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

ELMER FRANKLIN BUBB.

Witnesses:
OSCAR HESSLER,
ALBERT HEIN.