

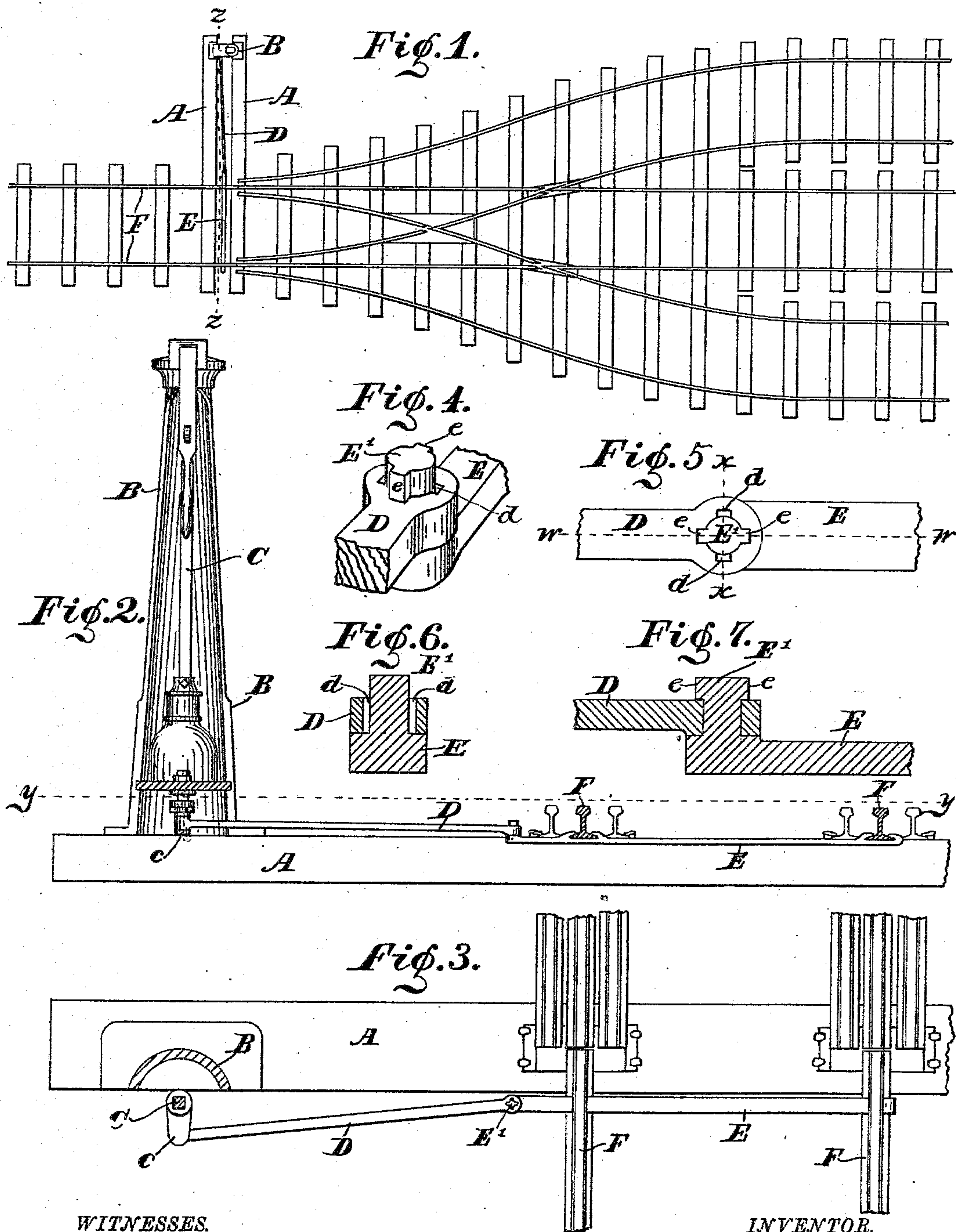
(No Model.)

J. B. WITTY.

CONNECTION OF RAILWAY SWITCH RODS.

No. 296,808.

Patented Apr. 15, 1884.



WITNESSES.

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# UNITED STATES PATENT OFFICE.

JOHN B. WITTY, OF INDIANAPOLIS, INDIANA.

## CONNECTION OF RAILWAY-SWITCH RODS.

SPECIFICATION forming part of Letters Patent No. 296,808, dated April 15, 1884.

Application filed October 20, 1883. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN B. WITTY, of the city of Indianapolis, county of Marion, and State of Indiana, have invented certain new and useful Improvements in Means of Connecting the Connecting-Rods and Rail-Couplings of Railway-Switches, of which the following is a specification.

The object of my said invention is to provide a safety coupling or lock for connecting the end of the rod which runs from the switch-stand to the rails to the end of the rail-coupling or bar which connects the rails together, whereby any person is prevented from uncoupling this connection and rendering the switch inoperative, as can be readily done when they are connected in the ordinary manner. This object is accomplished by providing a stud on the end of one of the before-mentioned parts, on the end of which are formed wings or projections, and providing in the end of the other a hole, in the sides of which are formed corresponding notches, which permit said stud to be inserted through said hole. When the wings are entirely through, one part is turned upon the other until the wings are at an angle or out of registering position with the notches, and thus extend out over the face of the engaging part and secure the two parts together, as will be hereinafter more fully described.

Referring to the accompanying drawings, which are made a part hereof, and on which similar letters of reference indicate similar parts, Figure 1 is a plan view of a portion of a railway-track embodying a switch to which my invention is applied; Fig. 2, a sectional view looking to the right from the dotted line *z z*, Fig. 1, showing the rear side of the switch-stand and the parts to which my invention is applied in elevation; Fig. 3, a horizontal sectional view looking downwardly from the dotted line *y y*, Fig. 2; Fig. 4, a detail perspective view of the parts embodying my invention on an enlarged scale; Fig. 5, a top or plan view of the same; Fig. 6, a cross-section on the dotted line *x x*; and Fig. 7, a longitudinal section on the dotted line *w w*, Fig. 5.

In said drawings, the portions marked A represent the head-blocks on which the stand is mounted; B, the stand-frame; C, the operat-

ing-rod of the stand; D, the connecting-rod connecting the operating-rod with the rail-coupling; E, said rail-coupling securing the switch-rails together, and F said rails.

As my present invention relates, principally, to the manner of connecting the connecting-rod D and rail-coupling E, the other parts shown need no special description, and may be of any ordinary or approved construction. Therefore the several parts marked A, B, C, and F will not be further described, except incidentally, in the description of my invention.

The connecting-rod D connects the rail-coupling to the crank *c* on the lower end of the operating-rod C, and is of any suitable construction. In the end which is connected to the rail-coupling is formed an eye, in two sides of which are formed notches *d d*, preferably opposite to each other.

The rail-coupling E is the ordinary rail-coupling used in switches to connect and operate the rails. The end nearest the switch-stand extends out a short distance from the rail, and is provided with an upwardly-projecting stud, *E'*. On the sides of this stud, at its top, are wings *e e*, preferably opposite to each other, and on those sides which bring them at right angles with the notches in the sides of the eye in the connecting rod when said connecting-rod and said rail-coupling are in line with each other. The stud is of sufficient length to allow for the thickness of the connecting-rod between the underside of these wings and the face of the rail-coupling, as shown. In the construction shown the wings on the stud extend parallel with the rail-coupling, and the notches in the eye extend transversely of the connecting-rod; but, as will be readily understood, this position may be reversed with equally good result; or they may be constructed at any angle, provided the notches are not directly underneath the wings, or even one wing and notch may be omitted and yet fulfill the object of my invention. I do not, therefore, desire to limit myself to the construction shown, but regard as my invention the use of a stud having a wing or wings at its top, and an eye provided with a corresponding notch or notches, the connecting-rod being provided with one and the rail-coupling being provided



with the other, as a means for locking said connecting-rod and said rail-coupling together and rendering them substantially "burglar-proof."

5 The operation of my said invention is as follows: The connecting-rod D is placed at such an angle with the rail-coupling E as will allow the wings *e* on the stud *E'* to slide up through the notches *d*. The stud is then inserted  
10 through the eye until the wings *e* project above to the top face of the connecting-rod. Said connecting-rod is then turned around to the proper position and attached to the crank upon the lower end of the operating-rod C. Thus  
15 the wings *e* are swung out of connection with the notches *d* and project out over the top of the connecting-rod, thereby securely locking the connecting-rod and rail-coupling together, and preventing any person from disconnecting  
20 them without first tearing down the switch or detaching the other end of the connecting-rod from the crank on the lower end of the operating-rod C, or else breaking the stud, the rail-coupling, or the connecting-rod.

25 Having thus fully described my said invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a railway-switch, the combination, with the rails, of a rail-coupling having a stud provided with wings, and a connecting-rod con-

necting said rail-coupling to the switch-stand, having an eye, in the sides of which are notches adapted to receive said wings, the parts being so arranged, when in operative position, that the wings and notches do not register, substantially as described, and for the purposes specified. 35

2. In a railway-switch, the combination of the switch-rails F, rail-coupling E, said rail-coupling being provided with a stud, *E'*, which is provided with wings *e* at its end, and the connecting-rod D, connecting said rail-coupling to the switch-stand, said connecting-rod being provided with an eye in one end, having recesses *dd* in its sides to receive the wings  
40 *ee* on the end of the stud *E'* on the rail-coupling, the wings of said stud and the recesses in said eye being placed at an angle with each other when the device is in operative position, whereby said rail-coupling and said connecting-rod are securely locked together, substantially as set forth. 45 50

In witness whereof I have hereunto set my hand and seal, at Indianapolis, Indiana, this 16th day of October, A. D. 1883.

JOHN B. WITTY. [L. S.]

In presence of—

E. W. BRADFORD,  
CHAS. L. THURBER.