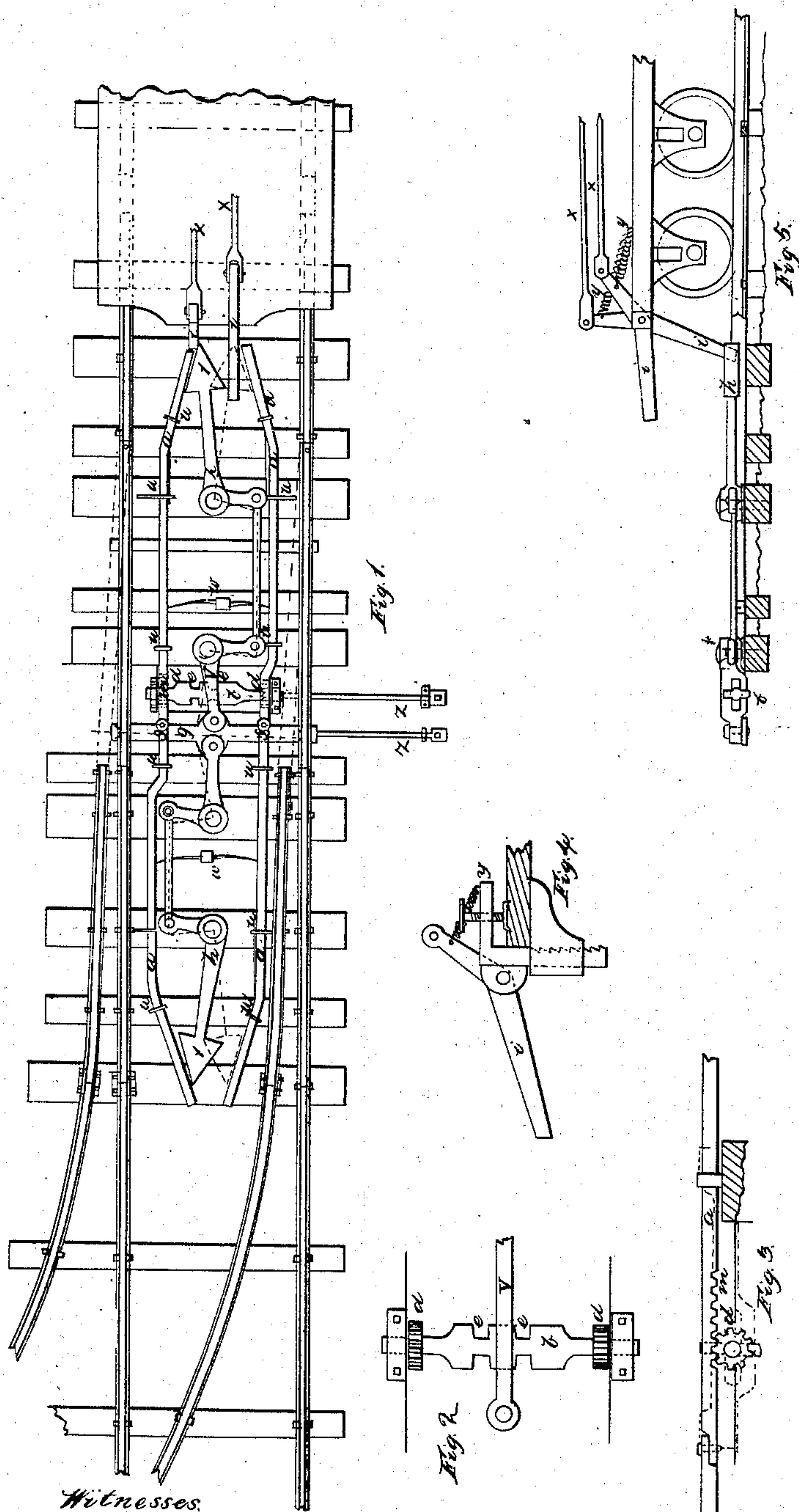


C. H. Sawyer.

Railroad Switch.

Nº 55,913.

Patented Jun. 26, 1866.



Witnesses.

William H. Chapin
Henry C. Houston

Inventor.

C. H. Sawyer

UNITED STATES PATENT OFFICE.

CHARLES H. SAWYER, OF HOLLIS, MAINE.

IMPROVED RAILWAY-SWITCH.

Specification forming part of Letters Patent No. 55,913, dated June 26, 1866.

To all whom it may concern:

Be it known that I, CHARLES H. SAWYER, of Hollis, in the county of York and State of Maine, have invented certain new and useful Improvements in Switches; and I hereby declare the following to be a full, clear, and exact description thereof, which will enable others to make and use my invention, reference being made to the accompanying drawings, forming part of this specification, in which—

Figure 1 is a plan of a railway with my improvements shown therein; Fig. 2, a top view of the device for locking and unlocking the switch; Fig. 3, a side view of the same; Fig. 4, a portion of a car with a lever by which the device for locking is operated attached thereto. Fig. 5 illustrates the method of operating the levers and withdrawing the same from their contact with the devices shown in Fig. 1.

The same letters indicate like parts in each of the figures.

My invention consists of an arrangement and combination of devices, hereinafter fully described, by which a certain portion of the track of a railway can be moved and retained or locked and unlocked in any position to which it is thus moved for the purpose of turning a train from one track to the other, the change in the position of the moving track being effected by levers attached to the train.

a a a a show curved arms lying upon the sleepers and held in position by staples. *b* shows a cross-bar or plate having the notches *e e* cut therein. Upon the under sides of the curved arms *a* are constructed cogs working into gearing on the trucks *d d*, on either end of the cross-bar *b*. The ends of the curved arms are united at the joints *s s*. Between the curved arms, on either side, are the jointed levers *h h*, constructed in the manner and form illustrated in the drawings.

In Figs. 4 and 5 are seen arms attached to a car to operate the devices before described, which are placed between the tracks. When by the motion of the car or engine these levers *i* are brought in contact with the jointed levers *h* they at the same time strike the curved arms *a*.

By the collision with the curved arms the switch is unlocked, and by the motion of the jointed levers *h* the track is moved to the one or the other side. These jointed levers are attached to the sliding bar *g*, which being secured to the track moves the track as the levers move the sliding bar.

When the switch is locked the bar *b* is turned up edgewise, as seen in Fig. 5. When unlocked it lies flatwise, as seen in Fig. 1. The change in its position is effected by means of the cogs on the under side of the curved arms and the trucks on the bar *b*. When the curved arms are moved by contact with the levers *i* the bar *b* is turned down flatwise, and thus the jointed levers are released from their confinement in the notches *e* on the bar *b* and permitted to move as impelled by the levers on the car.

I do not contemplate the use and attachment of the device for locking and unlocking, except between the section of the track that is moved, as shown and illustrated in Fig. 1.

When the curved arms have been pressed forward by the levers *i* and the levers withdrawn, the arms are immediately restored to position by the springs *w*. The part *v* of the jointed levers *h* fits, when the switch is locked, into one of the notches *e* on the bar *b*, as well when the track is straight, as seen in the drawing, or matched with the turnout, as indicated by the dotted lines. The levers *i*, attached to engine or car, are worked by arms *x*, Fig. 5, and are retained in the position seen in Fig. 4, when not pressed down by the arms *x*, by the spiral springs *y*.

z z show two arms, by means of which the device for locking and unlocking and the sliding bar *g* may be operated by an ordinary hand-switch, if desired. When either of the curved arms is moved by the lever on the car the corresponding arm with which it is connected by the joint *s* is also moved in the same degree, and both restored to position by the springs *w*.

I do not claim any particular or specified form to the ends of the jointed levers, as at 1.

What I do claim, and desire to secure by Letters Patent, is—

1. The combination of the jointed levers *h* and the sliding bar *g* and curved arms *a* with the cross-bar *b*, all constructed, arranged, and operating as herein set forth and described.

2. The arrangement of the springs *y* to lift the levers *i*, as described.

3. The arrangement of the arms *z z*, for the purpose of locking and unlocking the switch by hand, as described.

CH. H. SAWYER.

Witnesses:

WILLIAM H. CLIFFORD,
HENRY C. HOUSTON.