

(No Model.)

J. W. DOWDEN.  
RAILWAY TRACK.

No. 593,520.

Patented Nov. 9, 1897.

FIG. 1.

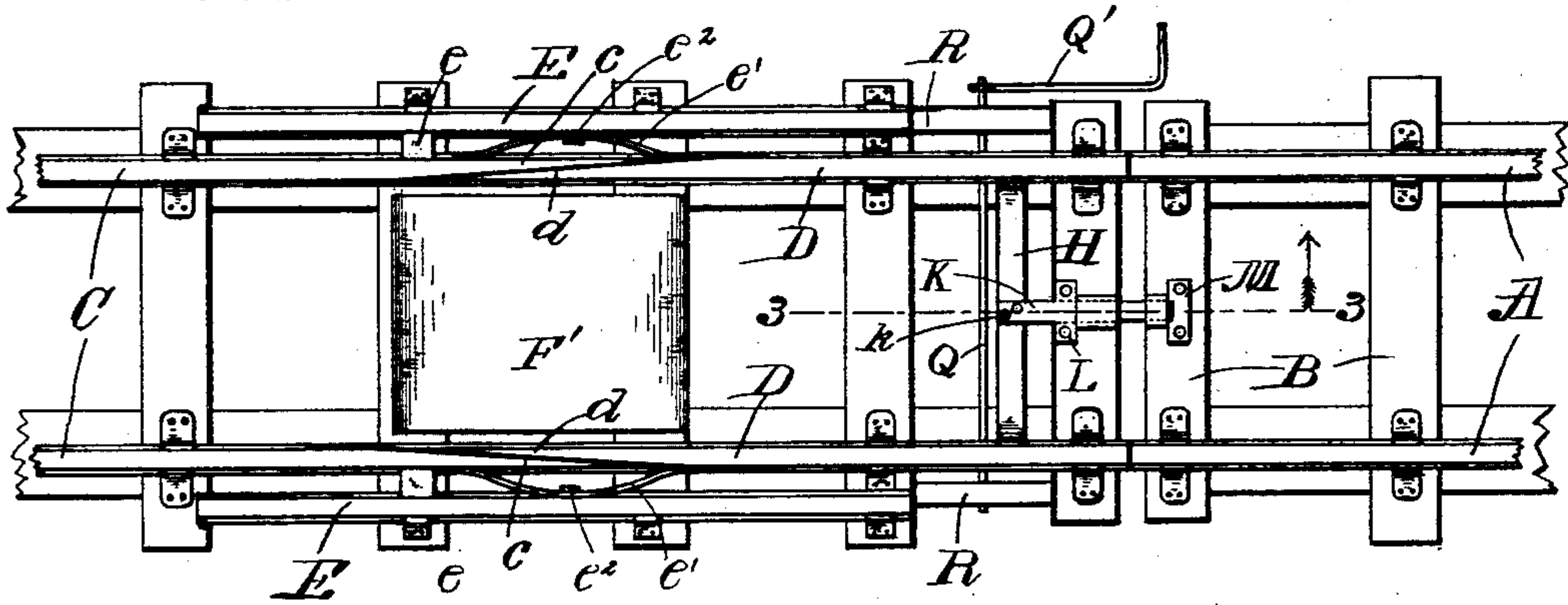


FIG. 2.

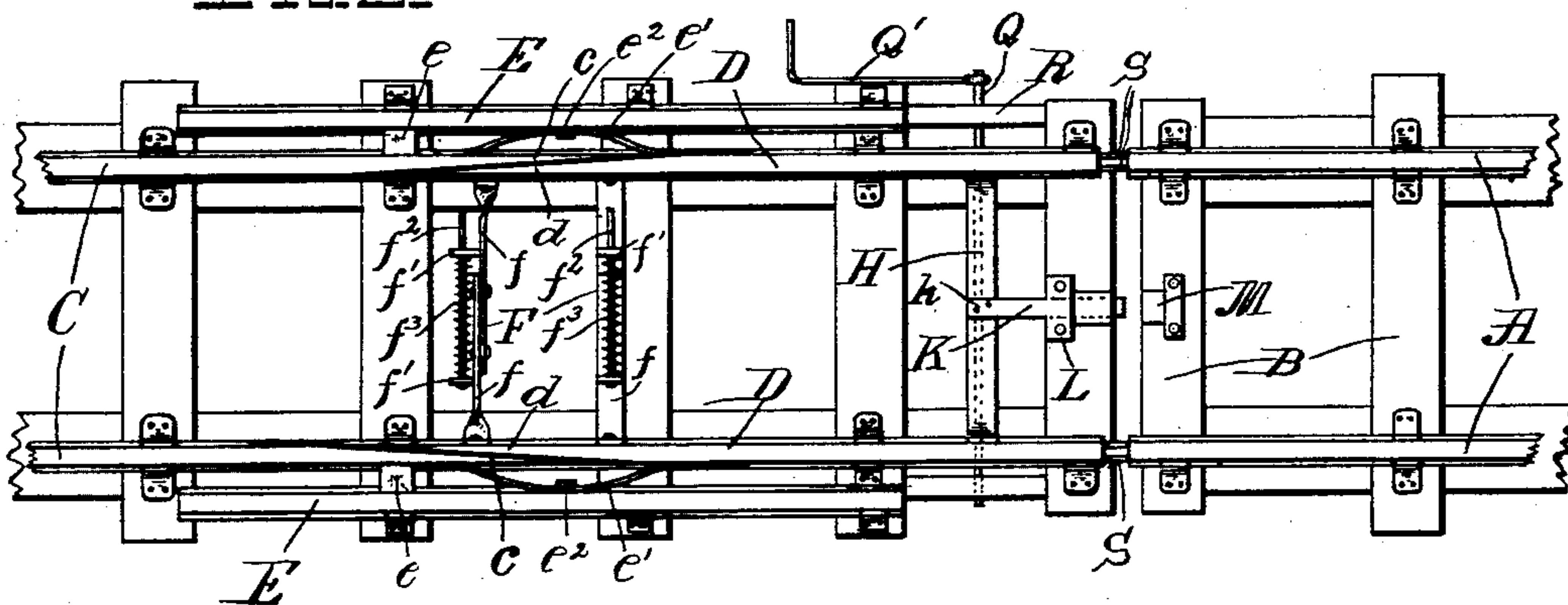
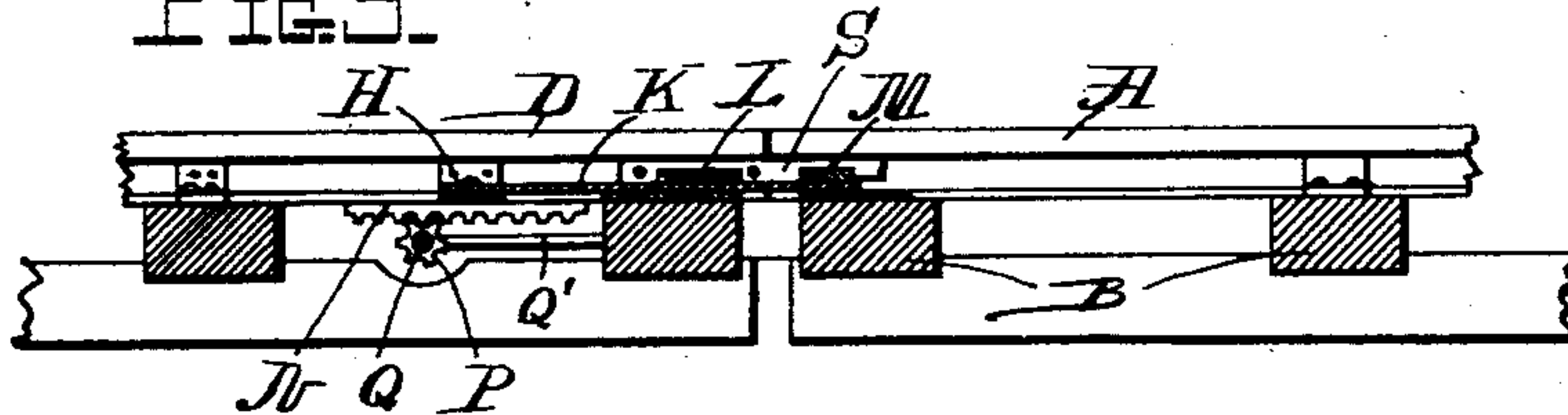


FIG. 3.



Witnesses

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# UNITED STATES PATENT OFFICE.

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## RAILWAY-TRACK.

SPECIFICATION forming part of Letters Patent No. 593,520, dated November 9, 1897.

Application filed July 28, 1897. Serial No. 646,242. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN WESLEY DOWDEN, a citizen of the United States, residing at Lake Charles, in the parish of Calcasieu and State of Louisiana, have invented certain new and useful Improvements in Railway-Tracks; 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.

My invention relates to improvements in railway-tracks, and more particularly to a novel means of compensating for the expansion and contraction of the rails of a track connecting with a drawbridge, turn-table, and the like. Besides the means for overcoming the expansion and contraction of the rails, my invention also embodies a novel means of locking the movable track in position.

To more fully describe my invention, reference will be had to the accompanying drawings, in which similar parts are represented by similar letters throughout the several views.

Figure 1 represents a plan view of a portion of a main track and drawbridge or turntable track equipped with my improved device and showing the track in the locked position. Fig. 2 represents a similar view of the same device, showing the same in the unlocked position with the protecting cover removed. Fig. 3 represents a section taken along the line 3 3 of Fig. 1 and looking in the direction of the arrow.

A represents ordinary railway-track rails carried by the cross-ties B of a drawbridge, turn-table, or other movable track-support.

C represents the main-track rails, which are dressed off to a point, as at *c*. Engaging these main-track rails C are the short movable rails D, which are similarly dressed to a point, as at *d*, which portion faces the portion *c* of the rails C.

E represents guard-rails placed alongside and just outside of the main-track rails.

The pointed portions of the rails D are held in engagement with the corresponding portions of the rails C by the spring-braces F. (Shown most clearly in Fig. 2.) These braces F consist of two bars *f*, secured to the rails and each adapted to slide on the other and each carrying a lug *f'*, through which lugs

passes the rod *f*<sup>2</sup>, carrying the spring *f*<sup>3</sup>, which tends to force the lugs *f'* apart and will obviously press the rails D against the rails C, thus obviating the danger of the rails separating. The spring-braces are protected from injury by a covering F', which may be removed at pleasure. The ends of the rails D opposite the sharpened ends are braced by the tie-bar H. The ends *c* of the rails C are prevented from spreading by the blocks *e* and the bow-springs *e'*, both between the guard-rail and the rails C, the springs being secured to the guard-rails, as at *e*<sup>2</sup>.

S S are guide-bars secured to the ends of the rails D and engaging the sides of the rails A to maintain the alinement between the ends of the rails.

The tie-bar H carries a bolt K, secured thereto, as at *k*, which bolt passes through a chair or bracket L, secured to the cross-ties, and is adapted, when the track is in the locked position, to engage the bracket M, secured to the cross-tie B of the bridge or turntable. Secured to the rails D are the racks N, which are adapted to engage the pinions P, carried upon the shaft Q. This shaft Q is secured at each end in a support R and is provided with a crank Q'. The expansion or elongation and the contraction of the rails in such structures as I have alluded to have been a source of great annoyance, inasmuch as when the bridge or other device is closed the rails, becoming elongated owing to expansion caused by heat, tend to bind so tightly against the rails of the fixed portion that it becomes difficult to separate the fixed and the movable structures, and when the bridge is left open the rails, becoming elongated, sometimes prevent proper closure. The contraction of the rails also produces obvious disadvantages, as under the influence of great cold the rails so contract as to create a gap between the two sets of rails, such as will cause an injurious jar when cars or locomotives pass over it. All of this my invention is designed to overcome. In Fig. 1 the tracks are shown locked together by the bolt K. Any expansion in the rails will cause the rails D to be moved, which will compensate for the expansion and prevent the two sets of rails from becoming tightly bound together. Similarly any contraction will be compensated for



by the rails D moving to the right either by operating the crank Q' or allowing the weight of the crank to keep the ends of the rails always together as long as the crank occupies

5 a position on the right of the shaft Q. If it is desired to unlock the track on the movable support from the main track, the crank Q is turned over in the position as shown in Fig. 2. This slides the rails D back to the left by  
10 the rack-and-pinion device and causes the bolt K to be disengaged from the bracket M. When the tracks are thus unlocked, the one on the movable support—such as a drawbridge, turn-table, &c.—may be turned to its proper  
15 position without difficulty. When the rails of the movable support are again placed in line with the main track, they may be locked by turning the crank Q back to the right.

I do not confine myself to the precise structure shown in the drawings, as my said invention is capable of many modifications, nor to the application of the same to drawbridges and turn-tables alone; but

25 What I do claim, and desire to secure by Letters Patent of the United States, is—

1. In a railway-track, the combination with the fixed rails, of a pair of sliding rails, means for keeping said sliding rails in engagement with said fixed rails, racks carried by said  
30 sliding rails, pinions engaging said rails, and means for rotating said pinions, substantially as described.

2. In a railway-track, the combination with the fixed rails, of a pair of sliding rails, spring-braces for keeping said sliding rails in engagement with said fixed rails, racks carried by  
35 said sliding rails, pinions engaging said racks, a shaft carrying said pinions and a crank for rotating said shaft, substantially as described.

40 3. In a device of the character described, the combination with a fixed track and a track adapted to be carried by a movable support, of a pair of sliding rails, means for keeping

said sliding rails in engagement with said fixed rails, racks carried by said sliding rails, 45 pinions engaging said racks, means for rotating said pinions and a locking device, whereby the said track upon the movable support may be locked in line with the sliding rails, substantially as described. 50

4. In a device of the character described, the combination with a fixed track and a track adapted to be carried by a movable support, of a pair of sliding rails, spring-braces adapted to keep said sliding rails in engagement 55 with said fixed rails, racks carried by said sliding rails, pinions engaging said racks, a shaft carrying said pinions, a crank for rotating said shaft and a locking device operated by the said rack-and-pinion mechanism, 60 whereby the track upon the movable support may be locked in line with the sliding rails, substantially as described.

5. In a railway-track of the character described, the combination with a fixed track 65 and a track adapted to be carried by a movable support, of a pair of sliding rails, spring-braces adapted to keep said sliding rails in engagement with said fixed rails, racks carried by sliding rails, pinions engaging said 70 racks, a shaft carrying said pinions and means for rotating the same, a tie-bar carried by said sliding rails, a lock-bolt carried by said tie-bar, a bracket carried by the track on the movable support and adapted to engage said 75 lock-bolt, and guard-rails alongside the fixed and sliding rails, substantially as described.

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

JOHN WESLEY <sup>his</sup> × DOWDEN.  
mark

Witnesses:

A. O. LYONS,  
I. K. PERKINS.