

W. WHARTON, JR.

MEANS FOR SECURING AND ADJUSTING GUARD RAILS.

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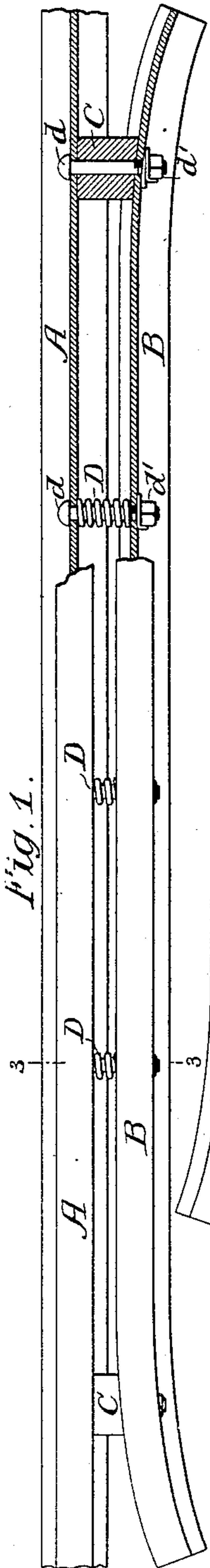


Fig. 1.

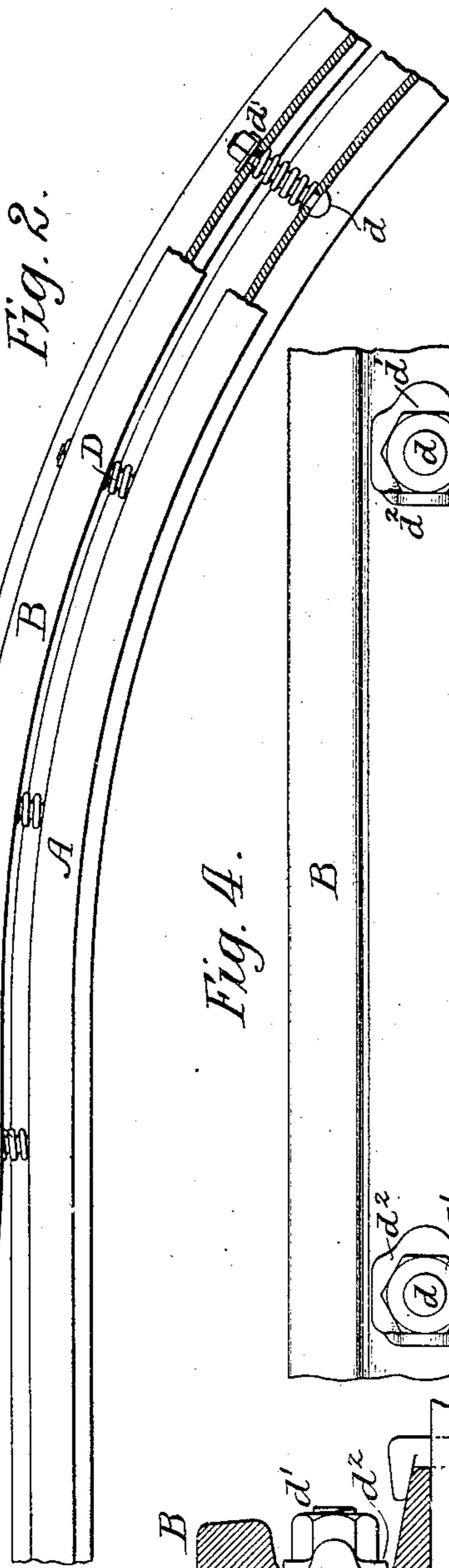


Fig. 2.

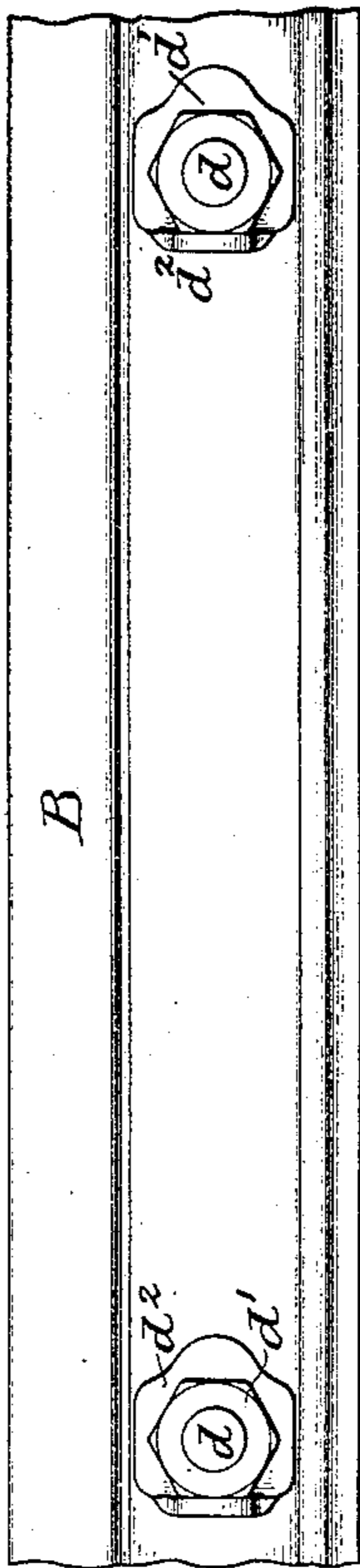


Fig. 4.

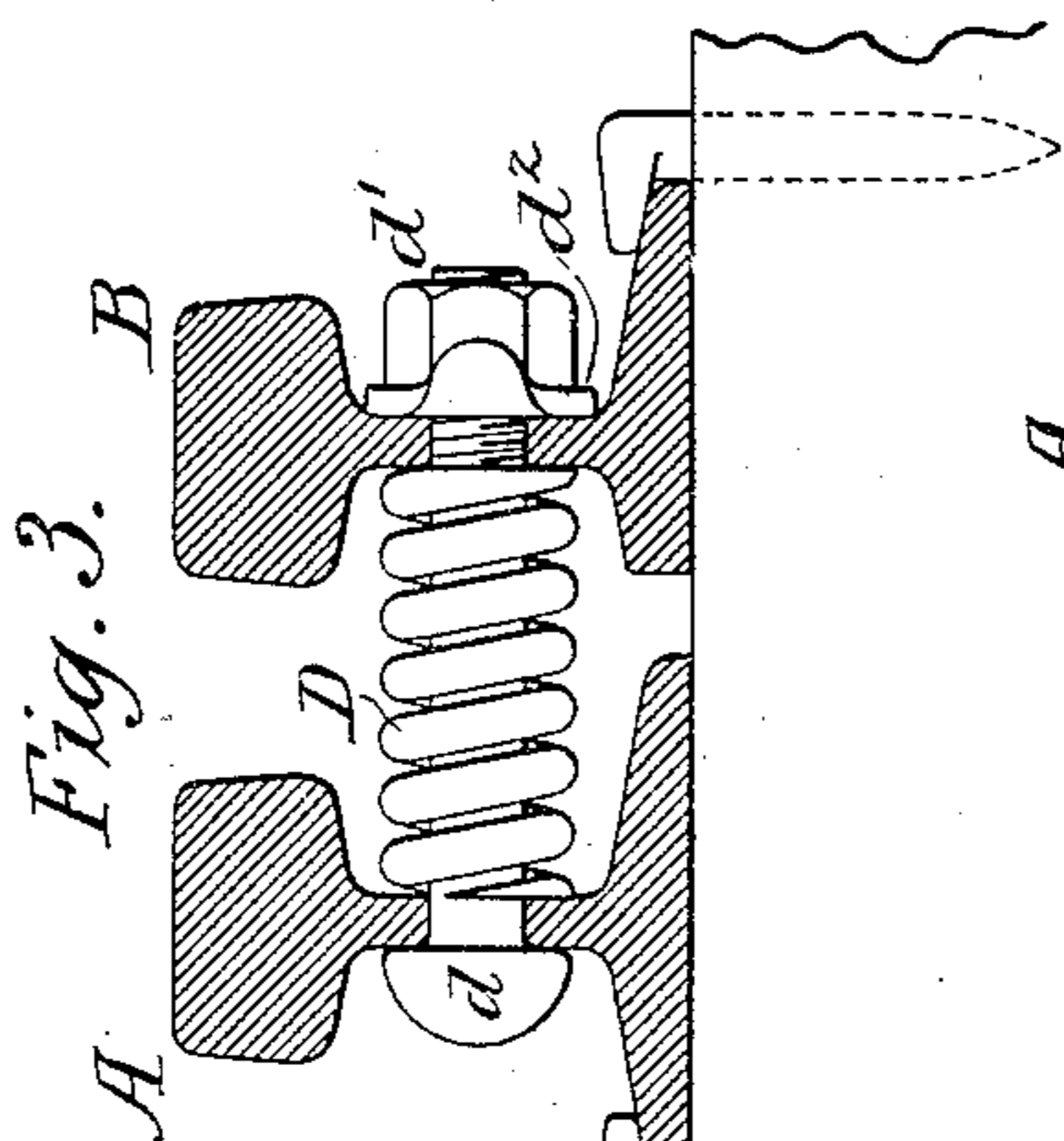


Fig. 3.

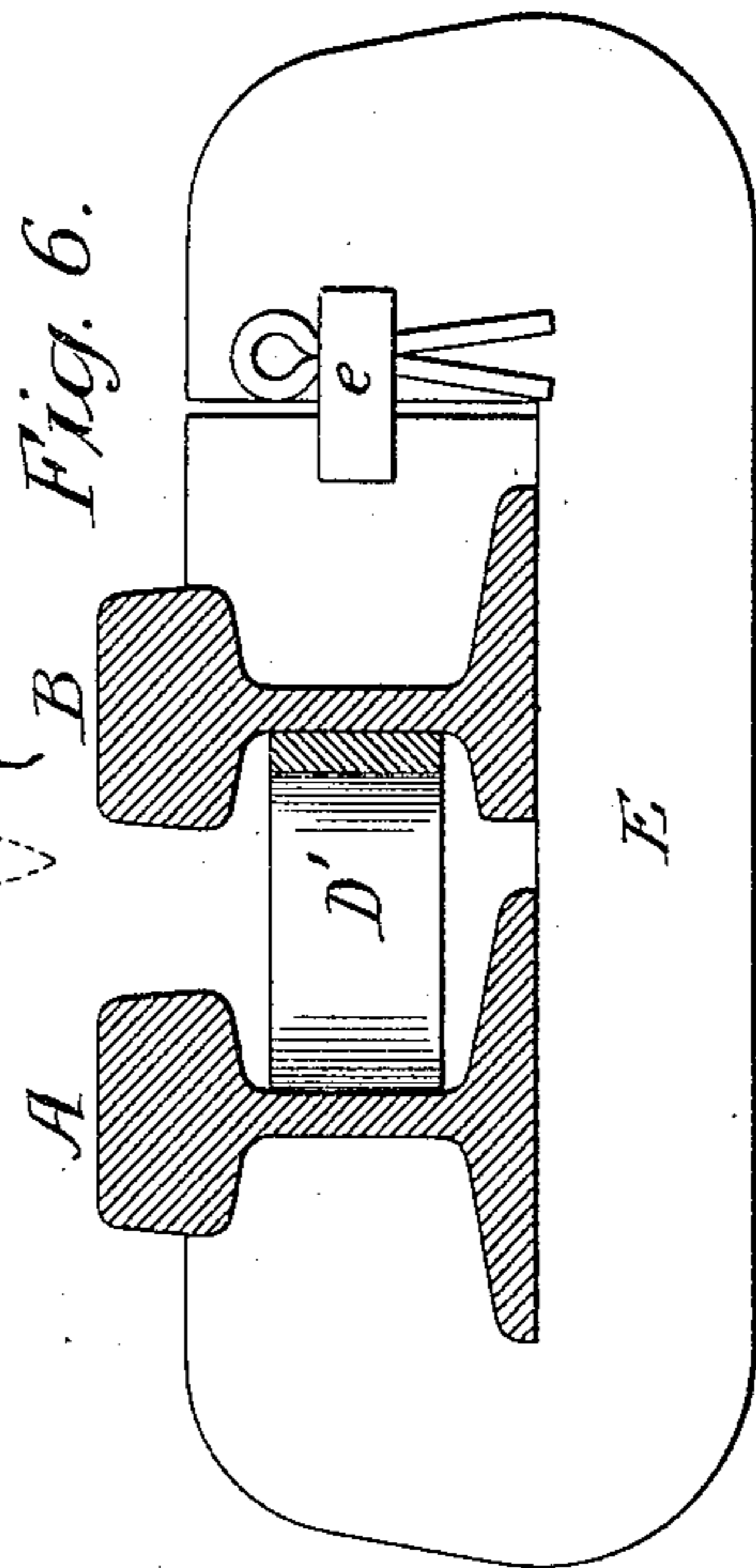


Fig. 6.

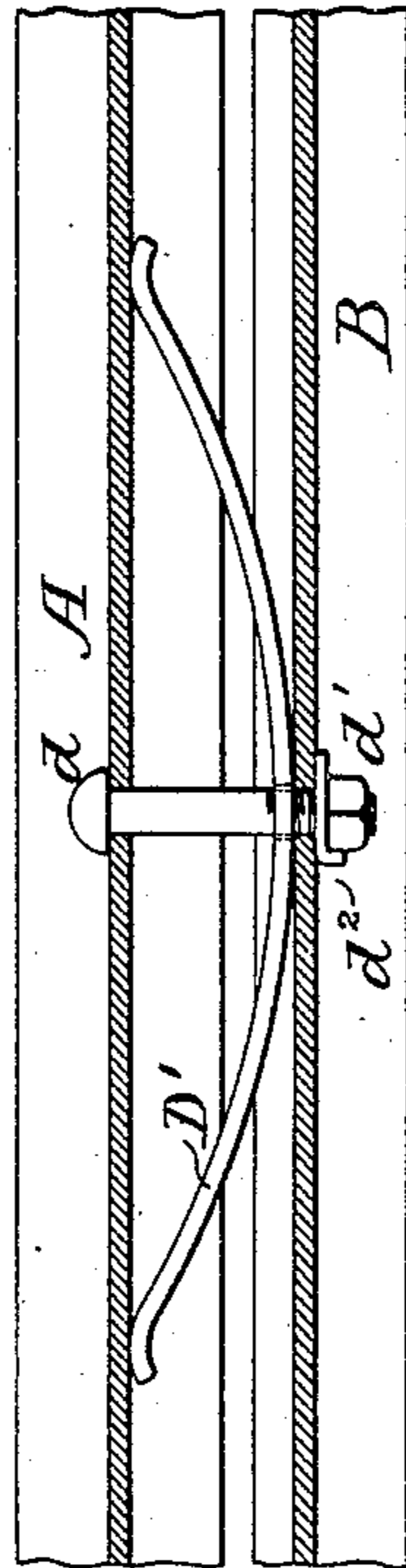


Fig. 5.

Witnesses:
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UNITED STATES PATENT OFFICE.

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MEANS FOR SECURING AND ADJUSTING GUARD-RAILS.

SPECIFICATION forming part of Letters Patent No. 791,965, dated June 6, 1905.

Application filed April 3, 1905. Serial No. 253,694.

To all whom it may concern:

Be it known that I, WILLIAM WHARTON, JR., a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain
5 Improvements in Means for Securing and Adjusting Guard-Rails, of which the following is a specification.

The object of my invention is to provide means for securing a guard-rail and for quickly
10 and readily adjusting it toward or from the main rail of a railway-track whenever it is desirable to do so. This object I attain in the following manner, reference being had to the accompanying drawings, in which—

15 Figure 1 is a plan view of a main or track rail and a guard-rail, illustrating my invention where the track is straight. Fig. 2 is a plan view showing my invention as applied to a guard-rail and a main rail upon a curve.
20 Fig. 3 is an enlarged sectional view on the line 3 3, Fig. 1. Fig. 4 is a side view of Fig. 3. Figs. 5 and 6 are views of modifications of the invention.

A is a main or track rail of the railway-track, and B is the guard-rail. This guard-rail is bent at each end, so as to form a flaring throat for the easy entrance and passage of the flange of a car-wheel. The guard-rail is spaced at such a distance from the main rail
30 as to limit the lateral movement of the wheels upon the main rail, and it is essential as the side of the guard-rail becomes worn away to adjust it from time to time in respect to the main rail in order to maintain its efficiency.
35 As shown in Fig. 1, I mount between the main rail and the guard-rail, near each end of the latter, where there is practically no wear on account of the flaring throat, a rigid spacing-block C. These rigid spacing-blocks
40 are not adjustable, and transverse bolts d are passed through the webs of the main rail and guard-rail, as well as through openings in the blocks, and are held in place by nuts provided with suitable locks.

45 At proper intervening distances between the rigid end spacing-blocks C C, I mount springs D, which are sufficiently heavy and strong to force the guard-rail away from the

main rail, and, as shown in Figs. 1, 2, and 3, the springs may be of the coiled type. A
50 bolt d is passed through holes in the webs of the main rail and guard-rail as well as through the center of the spring. This bolt has a head at one end and is threaded at the opposite end for a nut d' , which in the present instance is
55 locked by means of a lock-washer d'' . It will be understood that any suitable nut-lock may be used without departing from my invention. It will be seen that the spring keeps the guard-rail apart from the main rail; but when it is
60 desired to reduce the width of the throat between the two rails all that is necessary is to screw up the nut, causing the bolt to draw the guard-rail toward the main rail against the
65 pressure of the spring until the throat is narrowed to the desired width. Guard-rails are of sufficient length to use a construction similar to Fig. 1, as the wear upon the guard-rail is not at the flaring ends, but at points inter-
70 mediate of the ends. Consequently the ends can be fixed and the central portion of the guard-rail can be flexed by drawing upon the bolts, the necessary adjustment being comparatively slight.

My invention is especially applicable for use
75 on curved tracks, where a guard-rail is used, as shown in Fig. 2. Some of the curves upon which guard-rails are required are very long; but by my invention I am enabled quickly
80 and cheaply to take up the wear at any point or throughout the length of the guard-rail.

In Fig. 5 I have shown a flat spring D' instead of a coiled spring. In this instance the bolt passes through the webs of the rails and
85 through the flat spring.

In Fig. 6 I have shown a flat spring mounted between the guard-rail and the main rail, with a clamp E extending under the two rails and holding them together, the clamp being adjusted by means of a wedge e . A coiled
90 spring may be used in this case in place of a flat spring, if desired, and in some instances in place of a metallic spring a rubber block may be used. In fact, any spring may be
95 used which will tend to keep the guard-rail apart from the main rail and will allow for

the adjustment of the guard-rail toward the main rail.

I claim as my invention—

5 1. The combination of a main rail, a guard-rail, a spring interposed between the main rail and the guard-rail, and means for drawing the guard-rail toward the main rail, substantially as described.

10 2. The combination of a main rail, a guard-rail, a spring interposed between the main rail and the guard-rail, a bolt extending through the two rails, and means for adjusting the bolt to move the guard-rail toward the main rail against the pressure of the spring, substan-
15 tially as described.

3. The combination of a main rail, a guard-rail, a spring interposed between the two rails, and means for preventing the guard-rail from moving away from the main rail, substantially
20 as described.

4. The combination of a main rail, a guard-rail, a coiled spring interposed between the two rails, a headed bolt extending through the webs of the two rails and through the cen-
25 ter of the coiled spring, and a nut on the bolt, substantially as described.

5. The combination of a main rail, a guard-rail, a fixed spacing-block between the main rail and the guard-rail near the end of the lat-
30 ter, one or more springs mounted between the

body of the guard-rail and the main rail, and means for adjusting the guard-rail toward the main rail at the springs, substantially as described.

6. The combination of a main rail, a guard- 35 rail, a fixed spacing-block mounted between the main rail and the guard-rail near each end of the latter, one or more springs mounted between the guard-rail and the main rail in-
intermediate of the fixed spacing-blocks, and 40 means for adjusting the guard-rail toward the main rail and locking it in its adjusted position, substantially as described.

7. The combination of a main rail, a guard- 45 rail, a fixed spacing-block between the main rail and the guard-rail near each end of the latter, bolts securing the guard-rail and the fixed spacing-blocks to the main rail, a coiled spring or springs mounted between the main rail and guard-rail intermediate of the blocks, 50 and a bolt extending through the webs of the rails and through the coiled spring, substantially as described.

In testimony whereof I have signed my name to this specification in the presence of two sub- 55 scribing witnesses.

WILLIAM WHARTON, JR.

Witnesses:

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