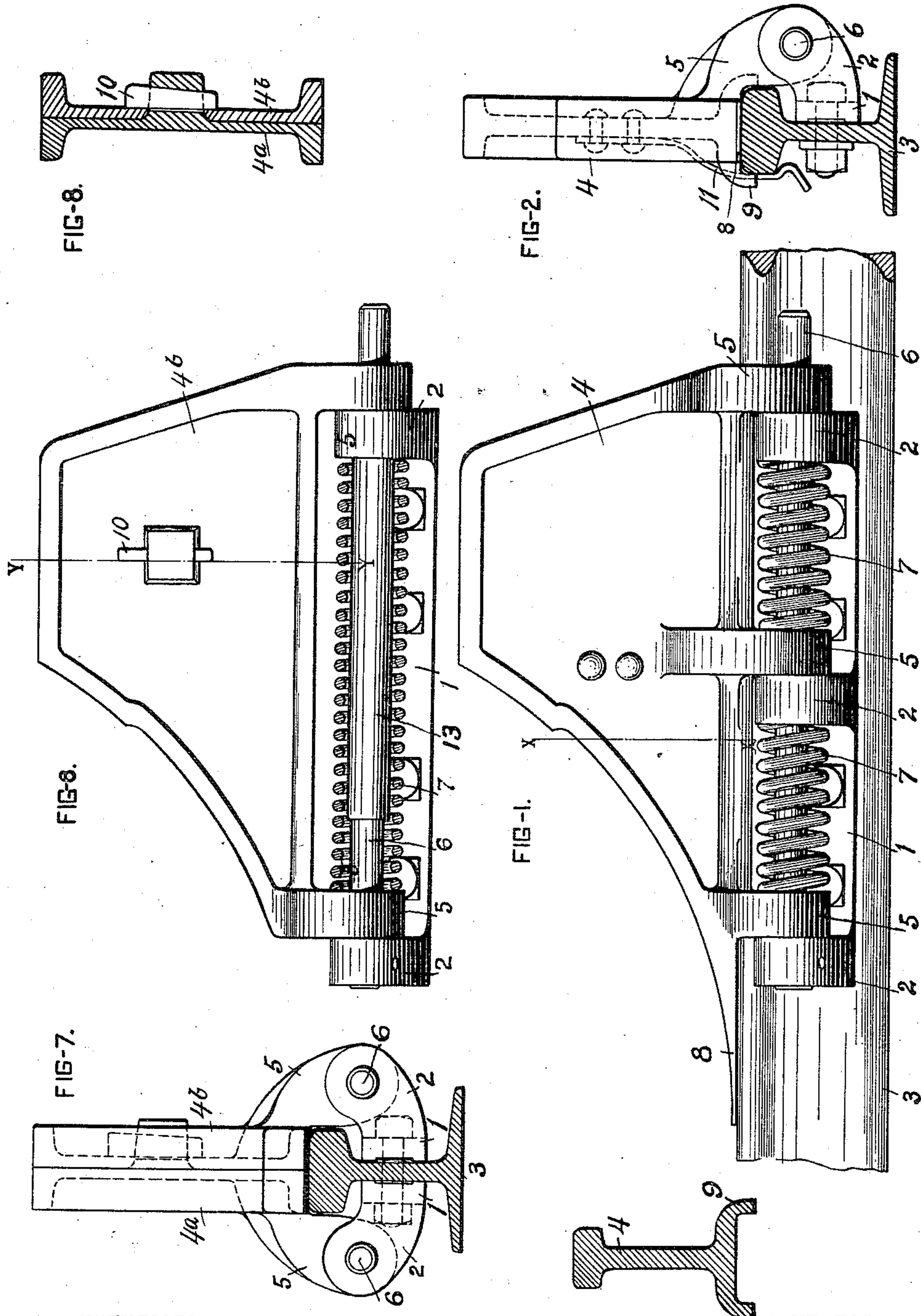


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G. W. RINK.
RAIL STOP.
APPLICATION FILED JAN. 18, 1911.

Patented July 25, 1911.
2 SHEETS—SHEET 1.



WITNESSES
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2 SHEETS—SHEET 2.

FIG-5.

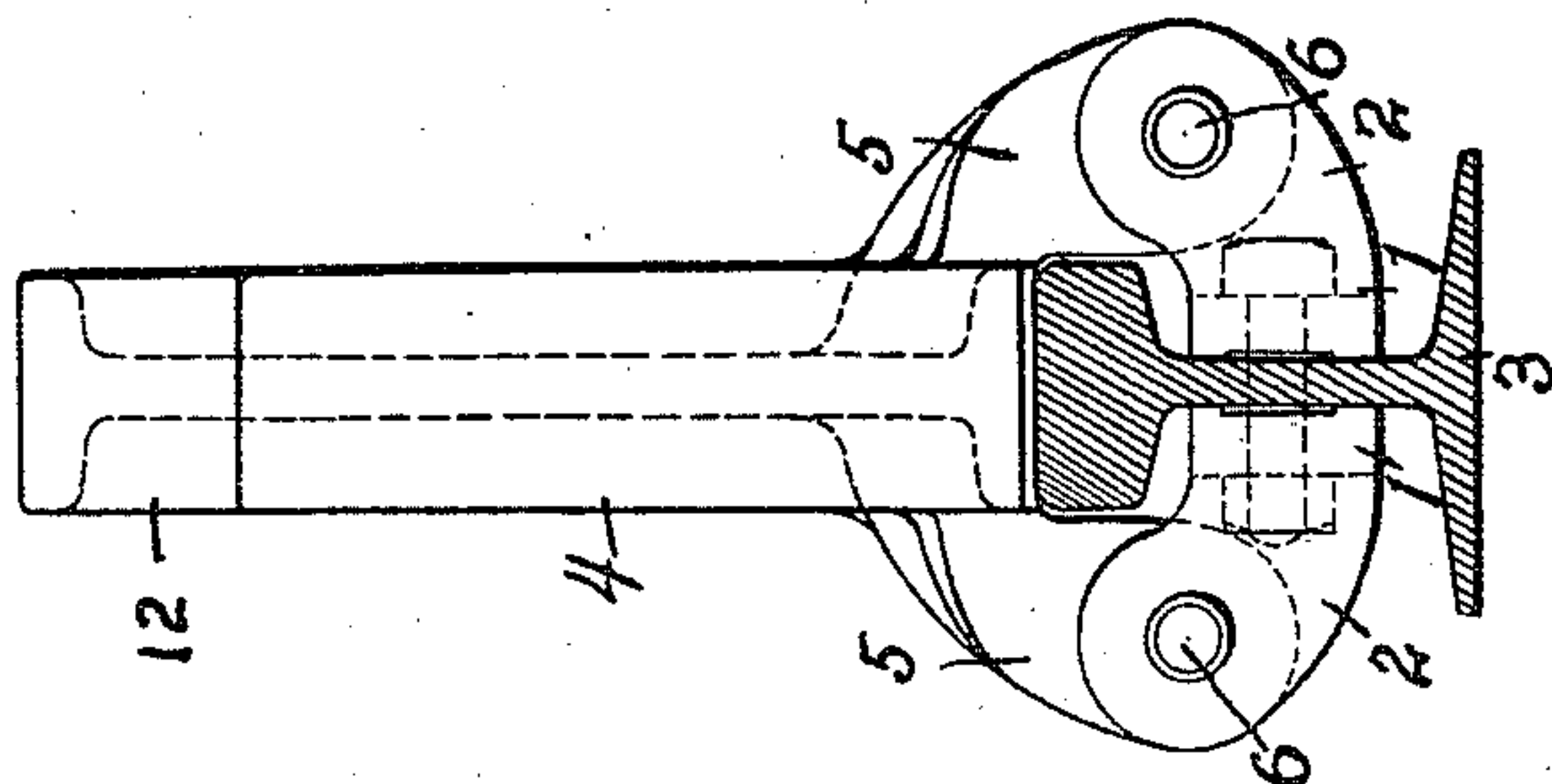
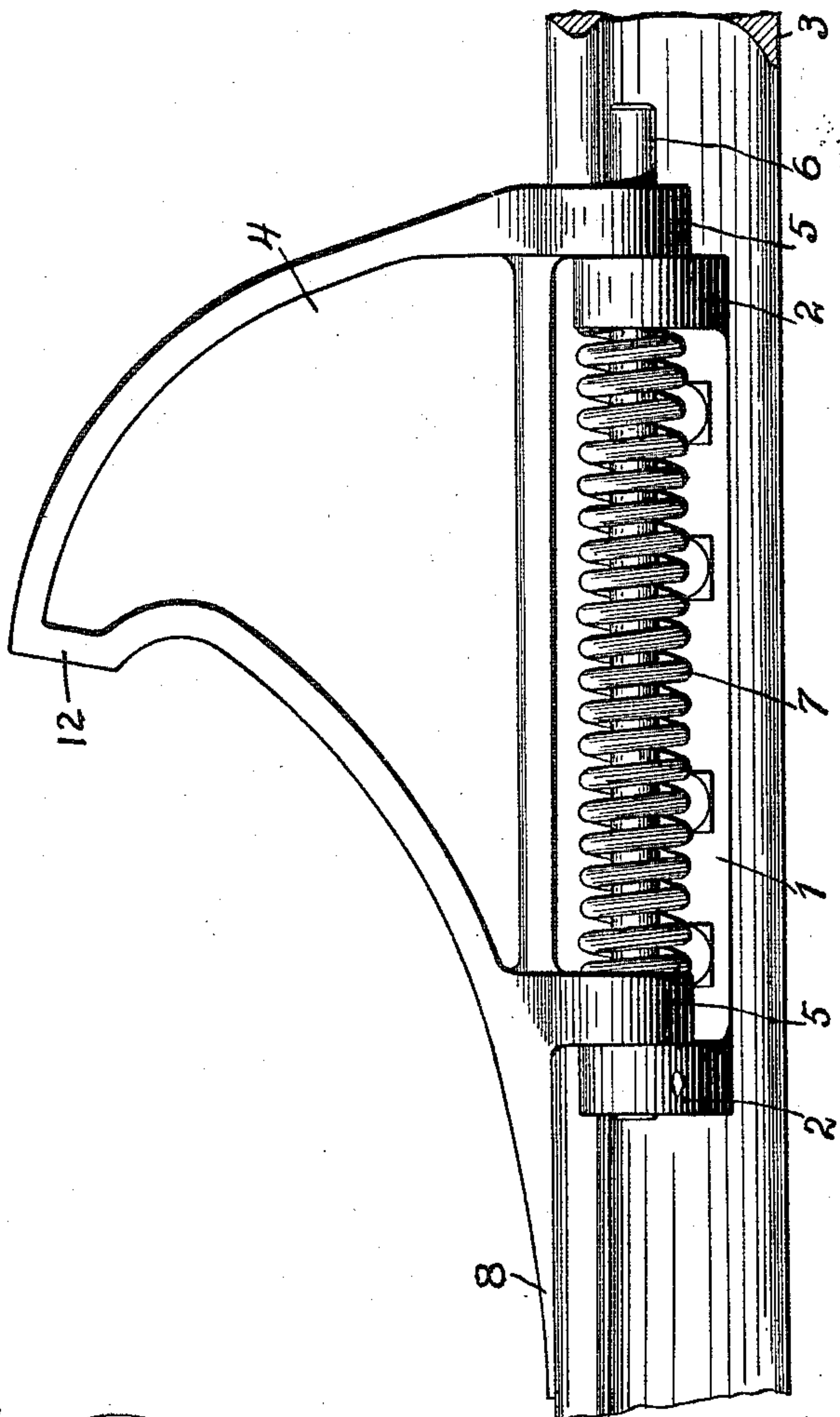


FIG-4.



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RAIL-STOP.

998,638.

Specification of Letters Patent.

Patented July 25, 1911.

Application filed January 18, 1911. Serial No. 603,263.

To all whom it may concern:

Be it known that I, GEORGE W. RINK, a citizen of the United States, residing at Jersey City, in the county of Hudson and State of New Jersey, have invented new and useful Improvements in Rail-Stops, of which the following is a specification.

This invention relates to rail stops or bumping posts adapted to be attached to the rails and be engaged by the wheels to prevent the movement of the cars or other rolling stock beyond a certain point along the track, one of the objects being to provide an improved rail stop device having a yielding resistance exerted through a limited movement to assist in absorbing the momentum and bring the car to a stop without sudden shock or jar.

Another object is to provide a movable rail stop which may be pivoted or otherwise mounted so as to be readily turned out of the path of the wheel to permit the passing of the car when desired.

These and other objects will more fully appear hereinafter from the following description, and the particular features of my improvement will be set forth in the claims.

This improvement is particularly adapted for use upon car floats, ferry boats, docks, terminal tracks, turn tables, and the like, where it is desired to stop the cars or other vehicles, at a certain place on the track.

In the accompanying drawings: Figure 1 is a side elevation of one form of my improved stop mounted on the rail; Fig. 2, an end view of the same; Fig. 3, a transverse section taken on the line $x x$ of Fig. 1; Fig. 4, a side elevation showing a modification; Fig. 5, an end view of same; Fig. 6, a side view of a further modification; Fig. 7, an end view of same, showing the rail in section; and, Fig. 8, a transverse section taken on the line $y y$ of Fig. 6.

According to the construction shown in Figs. 1, 2, and 3, my improvement is formed of two principal parts, the bracket portion or casting, 1, having projecting lugs, 2, and adapted to be fastened to the web of the rail, 3, and the body portion or casting, 4, which is normally adapted to rest upon the head of the rail and is also provided with lugs, 5, corresponding to those of the lower bracket. The body portion is preferably hinged or pivotally connected to the bracket, as by a rod, 6, extending through openings in the lugs, 2, and 5, of the respective parts,

the rod being held in the lugs, 2, of the bracket by a pin or other fastening means, and passing freely through the openings in the lugs, 5, so as to allow a longitudinal sliding movement of the body portion, 4, upon the rail. A yielding resistance, such as a spring or springs, 7, mounted on the rod, 6, between the respective lugs of the two parts, opposes the longitudinal movement of the body casting, 4, along the rail, and serves to assist in absorbing the momentum and ease the shock when the wheel of the car or other vehicle comes in contact with the stop.

The top casting may be provided with a wedge extension, 8, and the edge face of the stop toward the car wheel may be curved upward, as indicated, so that the wheel will run up on the wedge portion and have a tendency to climb farther up the curved face of the body portion. This top casting may also be provided with flanges, 9, projecting over the edges of the head of the rail to assist in guiding the body portion and increasing its functional resistance upon the top of the rail. For normally holding the stop in its elevated position on the rail, a flat spring, 11, may be employed, the same being riveted to the top casting and bearing against the head of the rail. When not in use the top casting or body may be turned over on its pivot or hinge to a horizontal position in which it does not obstruct the wheels and the cars may then proceed without interruption.

The bracket or lower casting, 1, is preferably bolted to the web of the rail, and as shown in Figs. 4 and 5, I have provided two such castings, one outside and one inside the rail, while the top casting, 4, has two sets of corresponding lugs, 5, connected by rods, 6, with the lugs, 2, of the respective brackets. Springs, 7, are also mounted on the rods, as before described, although in this case only one spring is shown upon each side. Double springs may, however, be used if desired. The wedge extension is also shown in this view, but it will be understood that the same may be employed or not, as desired, in any of the modifications.

Where the top casting is formed in one integral piece, and connected to brackets on both sides of the rail, as shown in Figs. 4 and 5, it is not hinged so as to be turned down to a horizontal position, but remains permanently upon the rail to serve as a bumping post. If preferred, however, the

- top casting may be divided longitudinally into two parts or halves, 4^a and 4^b, which may be keyed or otherwise fastened together, as shown in Figs. 6, 7, and 8. The key, 10, may then be removed and the two half sections, 4^a and 4^b, turned down to a horizontal position, one inside and one outside the rail, to permit the cars to proceed along the track.
- Where the wedge extension is not used the truck wheel contacts directly with the curved face of the top casting, thus tending to force the same down upon the rail at the same time that it is moved longitudinally. This movement is opposed by the frictional resistance exerted by the casting on the rail and by the resistance springs, thereby absorbing the momentum and preventing a sudden shock in stopping the car. Where the wedge extension is employed, the truck wheel rides up on the same so that the weight of a portion of the car is carried directly upon the sliding casting and greatly increases the frictional resistance to movement on the rail. The resistance springs are also compressed by the further limited movement of the stop and the car is thus brought to an easy stop without injurious shock.
- According to the form shown in Figs. 4 and 5, the stop is provided with a projection 12, for engaging the tread of the wheel and prevent any tendency of the wheel to ride over the stop.
- For the purpose of relieving the springs and preventing injury to same when violently compressed, a sleeve 13, may be mounted on the rod 6, to serve as a stop and limit the movement along the rail.
- Having now described my improvement, what I claim as new, and desire to secure by Letters Patent, is:
1. A rail stop comprising a bracket portion adapted to be fastened to the rail, a body portion connected to the bracket with the capacity of longitudinal movement relative thereto, and a resistance spring for opposing such longitudinal movement.
 2. In a rail stop, the combination of a bracket portion adapted to be fastened to the rail, a body portion mounted on said bracket with the capacity of longitudinal movement and adapted to rest upon the top of the rail, and a resistance spring opposing such longitudinal movement.

3. In a rail stop, the combination of a bracket portion adapted to be fastened to the side of the rail, a body portion having a wedge extension adapted to rest upon the top of the rail and connected to the bracket with the capacity of relative longitudinal movement, and a resistance spring for opposing such longitudinal movement.

4. In a rail stop, the combination of a bracket portion adapted to be secured to the side of the rail, and a body portion pivotally mounted on said bracket with the capacity of relative longitudinal movement, and a spring for opposing such longitudinal movement.

5. In a rail stop, the combination of a bracket portion adapted to be secured to the rail and having projecting lugs, a body portion having corresponding lugs, a rod extending through and connecting said lugs, and a resistance spring located between said lugs so as to oppose longitudinal movement of the body portion relative to the rail.

6. In a rail stop, the combination of a pair of brackets adapted to be secured to the rail, one inside and the other outside, a body portion formed in two parts, each connected to one of the brackets, detachable means for fastening said parts of the body together, and a resistance spring for opposing longitudinal movement of the body portion along the rail.

7. In a rail stop, the combination of a pair of brackets adapted to be secured to the rail, one inside and the other outside, a body portion adapted to rest on the top of the rail and connected to both brackets with the capacity of a limited longitudinal movement, and resistance springs for opposing such movement.

8. In a rail stop, the combination of a pair of brackets adapted to be secured to the rail, one on each side, a body portion formed in two parts, adapted to rest on the top of the rail, and each pivotally connected to one of the brackets, and a detachable means for fastening the two parts together.

In testimony whereof I have hereunto set my hand.

GEO. W. RINK.

Witnesses:

E. D. MOON,
SAMUEL E. HALDEMAN.