

No. 759,113.

PATENTED MAY 3, 1904.

G. H. KIMBALL.
RAILWAY BUMPER.

APPLICATION FILED JUNE 20, 1903.

NO MODEL.

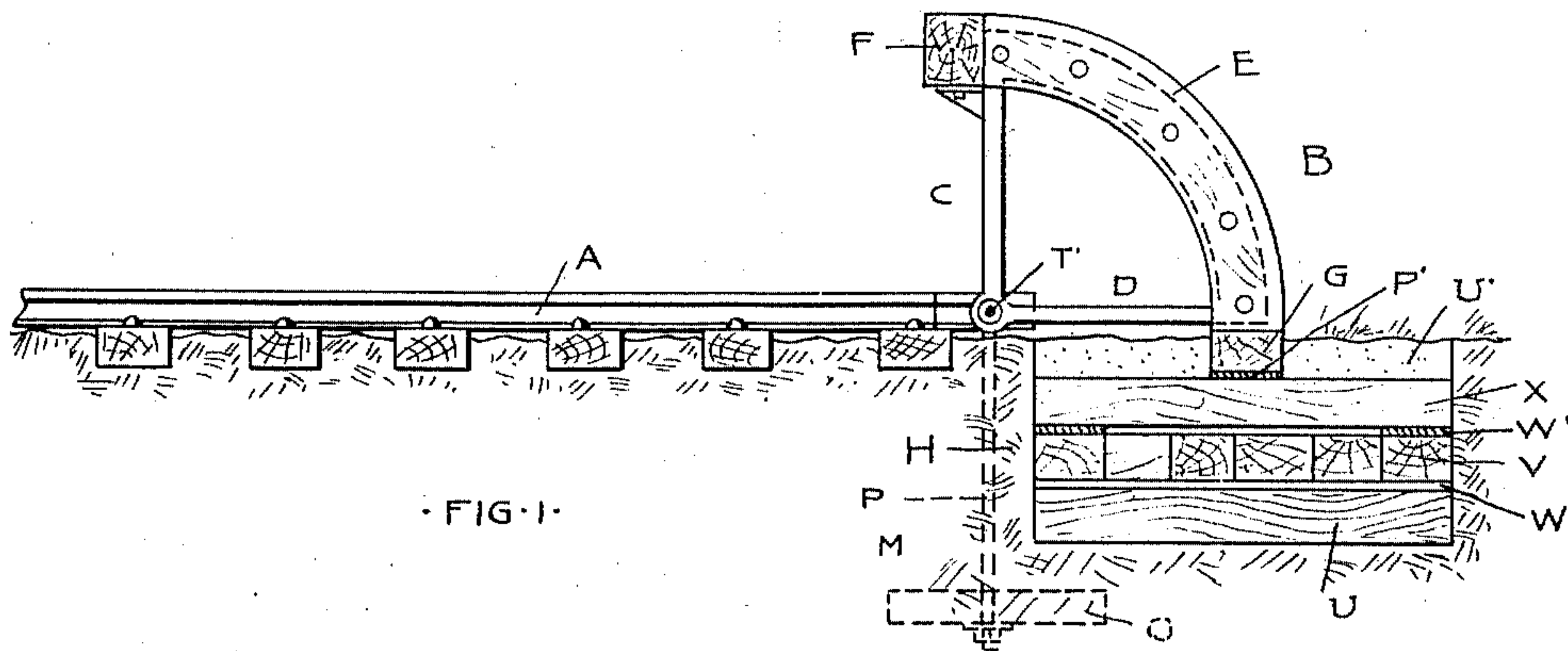


FIG. 1.

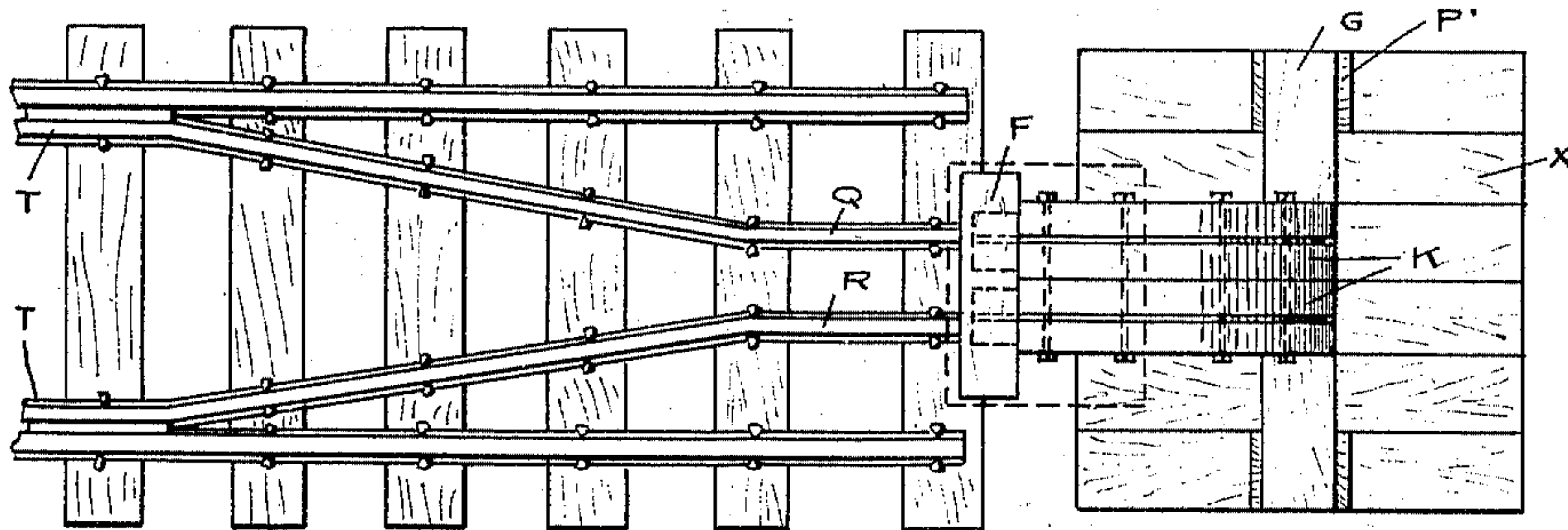


FIG. 2.

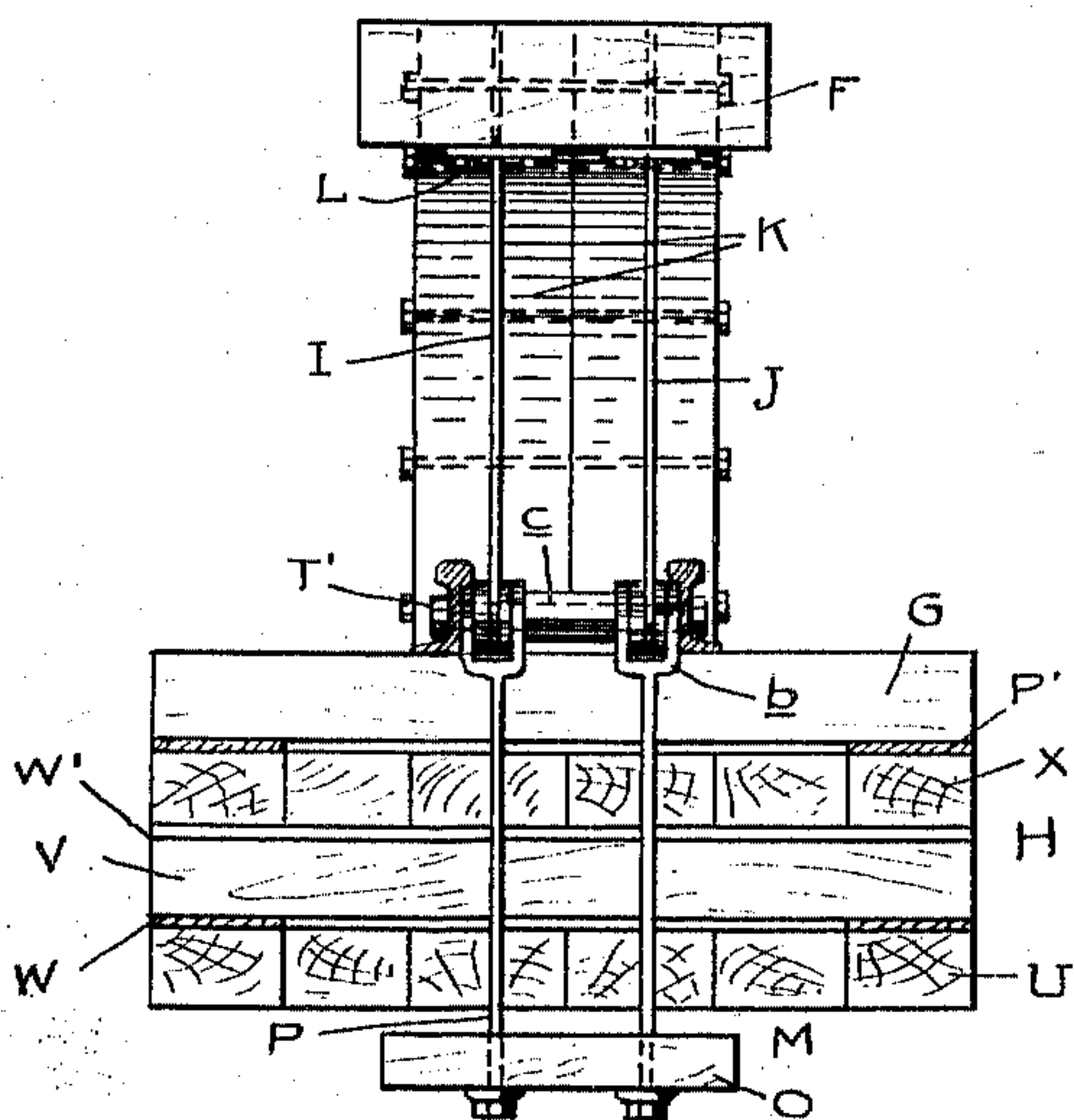


FIG. 3.

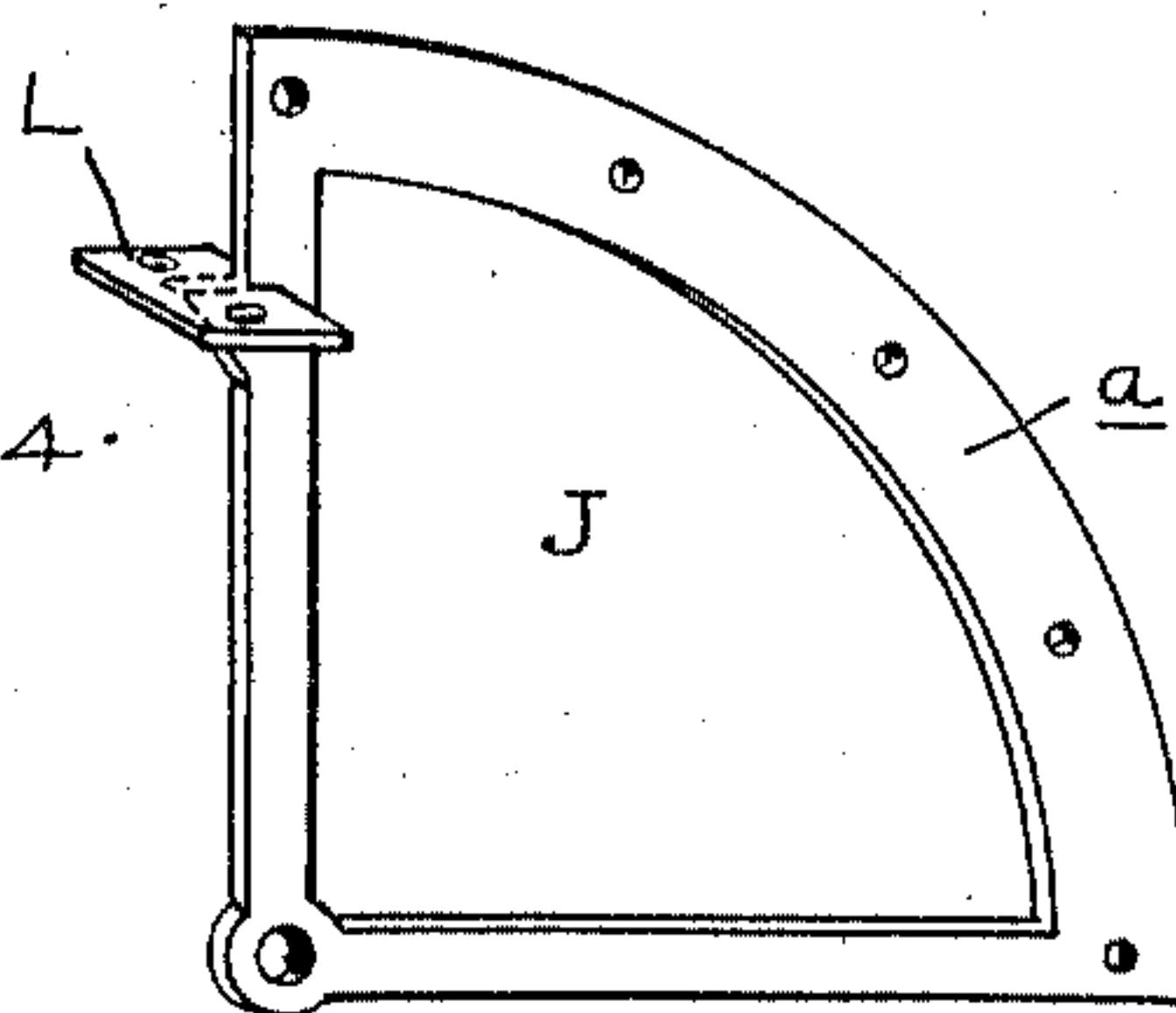


FIG. 4.

WITNESSES

Geo. H. Enver
James D. Barry

BY

INVENTOR

GEORGE H. KIMBALL.

James Whittmore
ATTY.

UNITED STATES PATENT OFFICE.

GEORGE H. KIMBALL, OF DETROIT, MICHIGAN.

RAILWAY-BUMPER.

SPECIFICATION forming part of Letters Patent No. 759,113, dated May 3, 1904.

Application filed June 20, 1903. Serial No. 162,325. (No model.)

To all whom it may concern:

Be it known that I, GEORGE H. KIMBALL, a citizen of the United States, residing at Detroit, in the county of Wayne and State of Michigan, have invented certain new and useful Improvements in Railway-Bumpers, of which the following is a specification, reference being had therein to the accompanying drawings.

The invention relates particularly to a bumping-post adapted to be arranged at the end of a track on the main line of a railway; and it consists in the novel construction of the post and in the peculiar arrangement and combination of its parts, as will be hereinafter described, and particularly pointed out in the claims.

In the drawings illustrating my invention, Figure 1 is a view in elevation of the post. Fig. 2 is a plan view, Fig. 3 is a sectional front elevation, and Fig. 4 is a detached perspective view, of a section of the post.

In the drawings thus briefly described, A represents the usual rails, and B the post, arranged in connection with the rails in a manner to be presently described. The post, as shown, is preferably, though not necessarily, sectoral in configuration, comprising vertical and base sections C and D, respectively forming the post sides and a curved connecting-section E. The latter section or arc portion of the post carries at its upper end a transverse beam F, constituting a buffer, and at its lower end a similar beam G, of greater length than the buffer, adapted to rest normally upon the yielding support or base H. In practice the post is preferably composed of two spaced triangular metal frames I and J and a series of curved wooden sections, as K, bolted, as shown, to and between the curved portions *a* of the frames forming the arc. Each of the frames carries a bracket L, which form a support for and to which is bolted the buffer F. The post described is pivoted or hinged at the juncture of its sides, so as to rock in a vertical plane, and its rocking movement is yieldingly opposed by the base H, the peculiar construction of which will be hereinafter set forth. In pivoting the post for the rocking movement referred to I preferably employ an

anchor M, consisting of an anchor-plate O, embedded in the ground, and the anchor-rods P, projecting vertically therefrom and each terminating at its upper end in a fork *b*. Transverse anchor members Q and R are also used, said members being formed of rails or bars riveted at two of their ends, as at T, to the track-rails and terminating at their opposite ends at points opposite the forks *b*. The metallic frames I and J extend at the juncture of their sides within the forks *b*, and the post-pivot is formed by a bolt T', which engages the metallic frames, the transverse anchor members, and the forks. A spacing-collar *c* is interposed between the forks, so that a rigid structure will be produced.

The yielding base previously referred to may be formed in various ways, the preferable construction consisting of beams arranged in such relation to each other that they will be capable of springing or flexing, so as to produce the desired opposition to the rocking movement of the post. In the drawings I have shown the base comprising a series of beams U, arranged in a suitable pit or well U', and a similar series V, arranged crosswise of the first series and spaced therefrom at their ends by planks W. X represents a third series of beams extending in parallelism with the beams U and separated at their ends from the series V by planks W'. Upon this last series referred to the transverse beam member G of the post is adapted to rest, the post member being spaced at its ends from the third series by planks or suitable boards P'.

It will be obvious from the construction of the device that upon the rocking of the post its foot G will flex, and if a severe blow is imparted to the bumper the several series of planks beneath the foot will successively flex, and thus serve to yieldingly oppose the post's movement.

I have shown and described a preferable form of rocking post wherein an arc-shaped section is employed as the connection between the post sides, as an arc for well-known reasons is best adapted to transmit to the yielding base the blows that the post receives. I do not wish, however, to be limited to the exact structure shown, as the mechanism is sus-

ceptible of various modifications without in any manner departing from the spirit of my invention.

What I claim as my invention is—

- 5 1. In a railway-bumper, the combination with a sectoral bumping-post fulcrumed at the juncture of its sides independent of the rails for vertical rocking movement, and means for yieldingly opposing said rocking movement.
- 10 2. In a railway-bumper, the combination of a yielding base or support, and a sectoral bumping-post fulcrumed at the juncture of its sides for rocking movement and having an end opposite the fulcrum contacting with the
15 base.
3. In a railway-bumper, the combination with a bumping-post comprising vertical and base sections fulcrumed at their juncture independent of the rails for rocking movement,
20 a bumper carried by the vertical section, and a yielding support for the base end opposite the fulcrum.
4. In a railway-bumper, the combination with a bumping-post having vertical and base
25 sections connected at their meeting ends, and a bumper carried by the vertical section, of vertical and transverse anchor members pivoted to the post sides at their juncture, and a

yielding support for the end of the base-section opposite the pivot. 30

5. In a railway-bumper, the combination with a sectoral bumping-post fulcrumed at the juncture of its sides, for rocking movement, and carrying transverse beams at the opposite ends of its arc, and a yielding support upon
35 which one of the beams is adapted to rest.

6. In a railway-bumper, the combination of a vertical member fulcrumed independent of the rails for rocking movement, an arc-shaped section secured at one of its ends to
40 said member, and means in operative relation to the opposite end of the arc for yieldingly opposing its rocking movement.

7. In a railway-bumper, the combination of a yielding base, a vertical member ful-
45 crumed in advance of the base for rocking movement, and an arc-shaped section rigidly secured at one end to the upper portion of the vertical member and having its opposite end supported upon the base. 50

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

GEORGE H. KIMBALL.

Witnesses:

H. C. SMITH,
JAS. P. BARRY.