No. 889,747. PATENTED JUNE 2, 1908.

G. L. BELL.

RAILWAY FROG.

APPLICATION FILED JAN. 13, 1908.

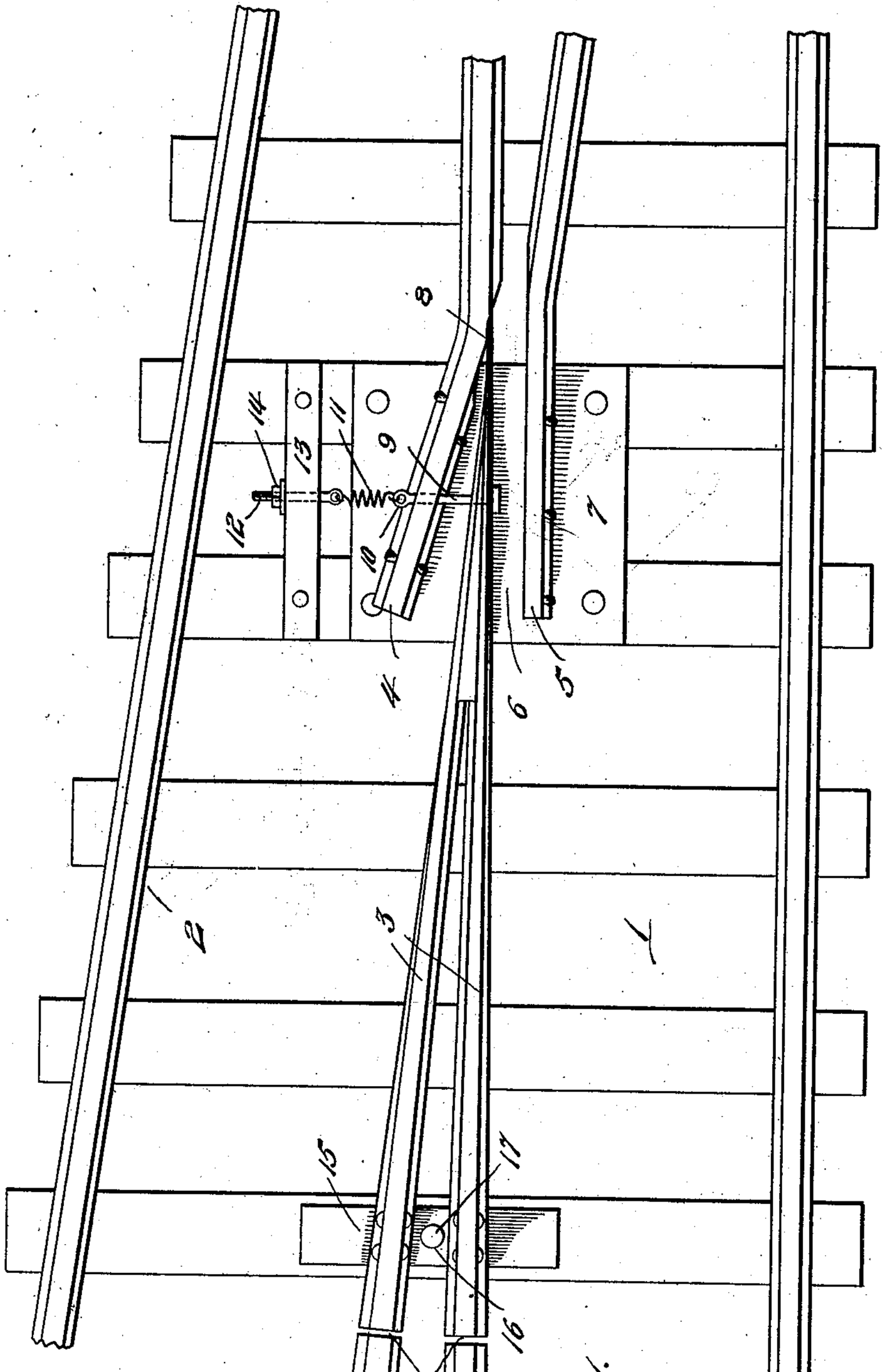

Fig. 1.

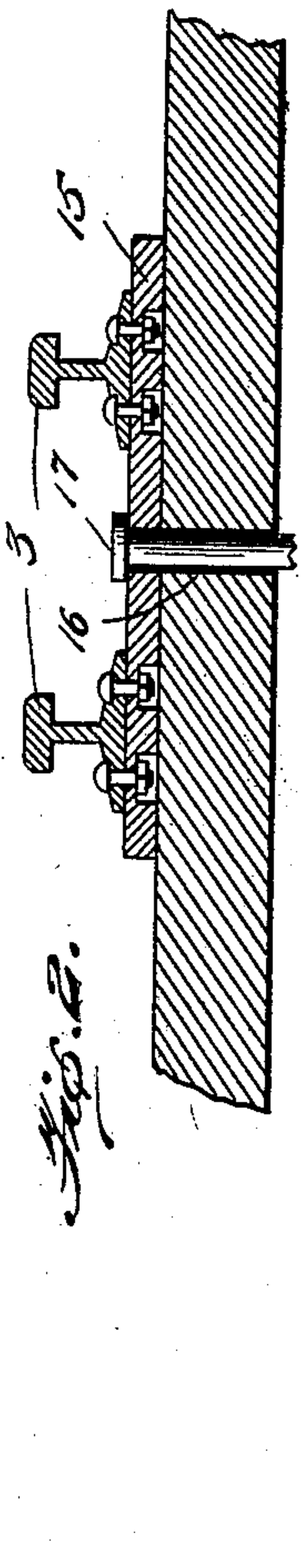

Fig. 2.

Witnesses
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UNITED STATES PATENT OFFICE.

GEORGE L. BELL, OF ELK VALLEY, TENNESSEE.

RAILWAY-FROG.

No. 889,747. Specification of Letters Patent. Patented June 2, 1908.

Application filed January 13, 1908. Serial No. 410,610.

To all whom it may concern:

Be it known that I, GEORGE L. BELL, a British subject, residing at Elk Valley, in the county of Campbell and State of Tennessee, have invented certain new and useful Improvements in Railway-Frogs, of which the following is a specification.

My invention relates to improvements in railway frogs, and has for its object the provision of a simple, inexpensive and practical device of this character which will provide a continuous rail for the main line track and will permit of cars coming in on the main line from the side track, the frog point automatically returning to the original position after the passage of the cars.

My invention also has for its object the provision of an automatic railway frog which may be readily applied for use without necessitating any alterations or additions to the track and which will entirely dispense with the use of guard rails.

With the above and other objects in view, my invention comprises in combination with the frog wings, a frog point mounted therebetween, the heel of the frog being pivoted to the trackway, and spring mechanism for normally holding the frog point against one of the frog wings to provide a continuous track.

My invention further consists of a railway frog or switch embodying certain other novel features of construction, combination and arrangement of parts substantially as disclosed herein and as illustrated in the accompanying drawings, in which:

Figure 1, is a plan view of my invention with the parts in normal position, the angle at which the side track leaves the main line being exaggerated for the sake of clearness. Fig. 2, is a detail view of the pivotal mounting for the heel of the frog point.

In the drawings: the numeral 1, designates the main line track and 2, the siding or side track leading into the main line. The frog 3, is located at the head of the converging inner rails of the main and side track, and frog wings 4 and 5, are spaced on each side of the frog point, the wing 4 shown to the left in the figure, forming a continuation of the main line track, and the opposite wing 5 forming a continuation of the inner rail of the siding and leading to the outer rail of the main track. These wings or formation rails terminate just short of the main line rails so as to provide sufficient space for the passage of the wheel flanges as indicated at 6. A supporting plate 7, is mounted upon the ties beneath the frog point and wings so as to support the same and to allow lateral sliding movement of the frog point. The wing 4 of the main line is formed with a seat or recess 8, therein located just in rear of its angular bend to receive the point of the frog. When the frog is thus in its normal position in engagement with the main line wing a continuous main track rail is provided. In order to hold the frog in this normal position, a headed bolt 9, is passed through the point of the frog and the main line wing, there being an eye 10, formed in the free end of the bolt in which is secured one end of the coil spring 11, the opposite end of the spring being connected to the bolt 12, which in turn is passed through the anchor block 13, and has a nut 14, mounted upon its extended end for adjusting the tension of the spring. The anchor block is preferably mounted in the center of the track and secured directly to the ties.

A pivot plate 15, is bolted or otherwise secured to the heel of the frog and through a pivot opening 16, in the center of the plate between the two rails of the frog, is passed the pin or pintle 17, which is engaged in the tie or like support to pivotally secure the frog in place. This pivot connection provides a wide lateral support for the heel of the frog and provides for the proper freedom of movement of the parts. A slight clearance as shown at 18, is provided between the butt end of the frog rails and the ends of the converging rails so as to allow the frog point to swing in either direction.

The invention is particularly adaptable for use on inclined railways as in use in mines and in like places where a through main line is provided for the descending loaded cars, the empty ascending cars on the siding entering the main track by forcing the frog point over against the tension of the spring and going in on the main line, the spring returning the frog point back to its original position to provide a normally unbroken main line track. By providing a wide support for the heel of the frog point and a universal support for the frog wings and point, proper working of the device is always insured and the coil spring may be adjusted to properly return and hold the frog point in normal position. My improved railway frog is also in the nature of a safety device since a contin-

uous unbroken main trackway is always insured and there is no danger of cars accidentally running from the main track onto the siding.

From the foregoing description taken in connection with the drawings, the operation and advantages of my railway frog will be readily understood and appreciated, and it will be evident that I have produced a device of the character set forth which fully and satisfactorily accomplishes all the results herein stated as the objects of the invention.

I claim:

The railway frog herein shown and described consisting of a bed plate, a pair of frog wings resting thereon, one of said wings having a longitudinal recess at the bend therein, a frog point consisting of two rails converging to a point, said point resting on the bed plate between the frog wings, a pivot plate secured to the heel of the two rails forming the point to provide a broad supporting base for the heel of the point, a pintle passed through said pivot plate and engaged in the tie to pivot the point in place, an anchor block secured to one of the ties adjacent one of the wings, a bolt adjustably held in said anchor block and having an eye at the inner end, a headed bolt engaged in the point with its shank projecting through the adjoining wing, said last named bolt also having an eye, and a spring having its ends engaged in the eyes of the two bolts and exerting its tension to draw the point over seated in the recess in the frog wing.

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

GEO. L. BELL.

Witnesses:
EWEL BAIRD,
JESSE BAIRD.