

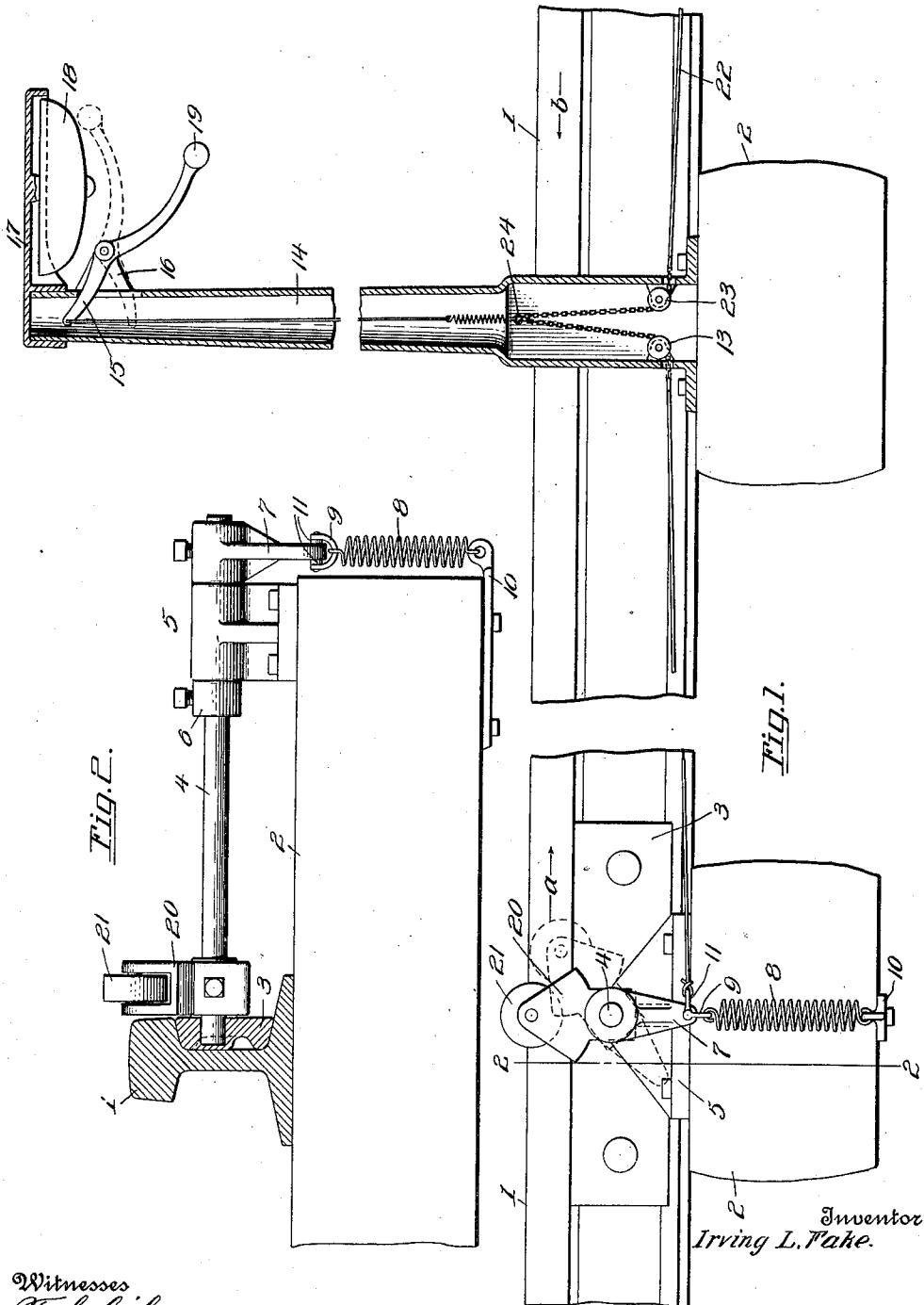
I. L. FAKE.

SIGNAL.

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Patented June 11, 1912.



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SIGNAL.

1,029,432.

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To all whom it may concern:

Be it known that I, IRVING L. FAKE, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented new and useful Improvements in Signals, of which the following is a specification.

This invention relates to signals and more particularly to crossing signals for railroads.

The object of the invention is the provision of a signal of this type which is simple and efficient and which is adapted to take the place of the more expensive electric signals now commonly employed.

Another object of the invention is the provision of a simple and efficient device of this character which will not get out of order and which will sound a signal for every pair of wheels passing over the track.

A further object of the invention is the provision of a novel wheel contact device which substantially eliminates friction in the mechanism and which absolutely prevents jamming or direct thrusts.

Further objects of the invention will appear as the following specific description is read in connection with the accompanying drawing, which forms a part of this application, and in which:—

Figure 1 is a detail side elevation. Fig. 2 is a section on the line 2—2 of Fig. 1.

Referring more particularly to the drawing, 1 represents a track rail which is supported upon the usual ties 2. Bolted to the rail and lying between the head and base thereof, flush with the outer surface of the rail, is a bearing plate 3 in which one end of a trip shaft 4 is journaled. The opposite end of the shaft is journaled in a bearing 5 mounted upon the outer end of the tie and is held against longitudinal movement in said bearing and in the bearing plate 3 by means of a collar 6 and a cable lever 7. This cable lever depends vertically from the shaft and is held in such position by a spring 8 connected at one end to clevis 9 on the end of the lever and at its opposite end to an arm 10 secured to the bottom of the tie. A clevis 11 is connected to the lower end of the lever 7 and to the clevis is secured a cable which extends alongside of the track for a considerable distance and passes over a pulley 13 mounted on the inside of the tubular post 14. After passing over the pulley the cable is extended upwardly and is connected at its end to a clapper lever 15 which is pivoted

upon the ears 16 formed upon the post beneath the bell platform 17. A suitable gong is shown at 18 in position to be contacted by the clapper 19 when the cable is operated, as will now be described.

Keyed to the shaft 4 immediately adjacent the plate 3 and extending vertically above the shaft is a bifurcated tripping lever 20, in the bifurcation of which is journaled a friction wheel or roller 21 adapted to be engaged by the car wheels so as to rotate the shaft in the bearings and pull down upon the clapper lever to cause the clapper to strike the gong. As the tripping lever 21 is returned to normal position instantaneously after the car wheel passes over the same this operation is repeated as many times as there are pairs of wheels in the train.

The mechanism illustrated and just described operates only when the train is traveling in the direction of the arrow *a* in Fig. 1. In order to provide for trains going in the opposite direction upon the same track a similar mechanism is provided on the opposite side of the crossing and is connected to the clapper lever 15 through a cable 22 which passes over the pulley 23 and is connected at a point 24 to the cable 12. The cable 22 is not operated when the train is going in the direction of the arrow *a* nor is the cable 12 operated when the train is going in the direction of the arrow *b*, the trip lever 20 being operated idly as each pair of wheels pass thereover.

Having thus described the invention, what I claim as new is:—

1. In a device of the class described, the combination with rails and supporting ties therefor, of a signal mechanism, a transverse shaft supported upon one of the ties and rails and projecting beyond the end of said tie, means secured to the bottom of said tie and projecting beyond the end thereof, a trip lever carried by said shaft and positioned to be engaged by the wheels of the train, a cable lever connected to the projecting end of the shaft, a cable interconnecting said last-named lever and the signal mechanism, and means connected to said last-named lever and to the projecting end of said means secured to the bottom of the tie for returning the trip lever to normal operative position.

2. In a device of the class described, the combination with rails and supporting ties

therefor, of a signal mechanism, a transverse shaft supported upon one of the ties and rails and projecting beyond the end of said tie, means secured to the bottom of said tie and projecting beyond the end thereof, a trip lever carried by said shaft and positioned to be engaged by the wheels of the train, a cable lever connected to the projecting portion of the shaft, a cable interconnecting said last-named lever and the signal mechanism, means connected to the last-named lever and to the projecting end of said means secured to the bottom of the tie for returning the trip lever to normal operative position, said means being disposed in spaced parallel relation with the end portion of said tie.

3. In a device of the class described, the combination with a rail and supporting tie therefor, of a signal mechanism, a transverse shaft supported upon the tie and rail and projecting beyond the end of said tie, a plate secured to the bottom of said tie and projecting beyond the end thereof, a trip lever carried by said shaft and positioned to be engaged by the wheels of the train, a cable lever connected to the projecting shaft, a cable interconnecting said last-named lever and the signal mechanism,

and a spring connected to the last-named lever and to the said plate secured to the bottom of the tie for returning the trip lever to normal operative position.

4. In a device of the class described, the combination with rails and supporting ties therefor, of a signal mechanism, a transverse shaft supported upon one of the ties and rails and projecting beyond the end of said tie, a plate secured to the bottom of said tie formed with a projecting apertured arm portion, a trip lever carried by said shaft and positioned to be engaged by the wheels of the train, a cable lever connected to the projecting portion of the shaft, clevises carried by said lever, a cable connected to one of said clevises for interconnecting said last-named lever and the signal mechanism, and means connected to the other of said clevises and the said apertured arm portion of the bottom plate for returning the trip lever to normal operative position.

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

IRVING L. FAKE.

Witnesses:

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L. E. WALTERS.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."