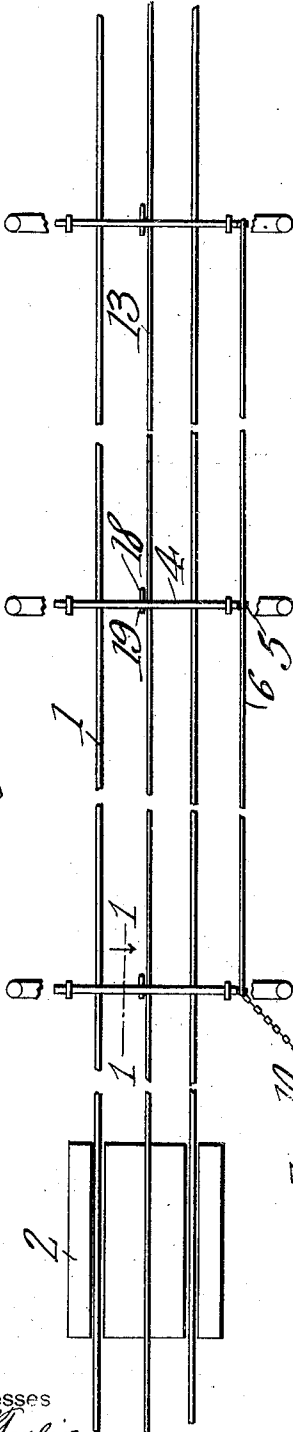


J. MERRYWEATHER.
CROSSING SIGNAL.
APPLICATION FILED SEPT. 20, 1909.

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Patented Dec. 20, 1910.

Fig. 1.



Witnesses
J. Chas. B. Gannell

Fig. 2.

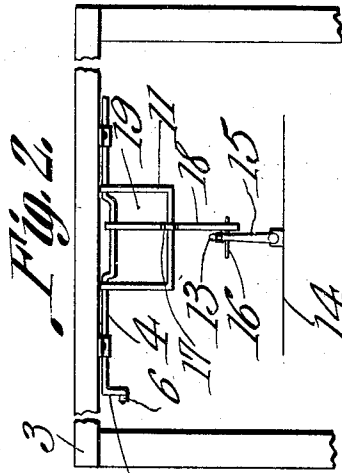


Fig. 3.

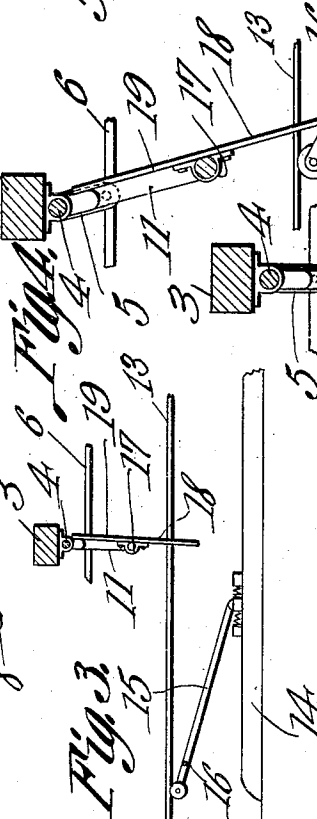


Fig. 4.

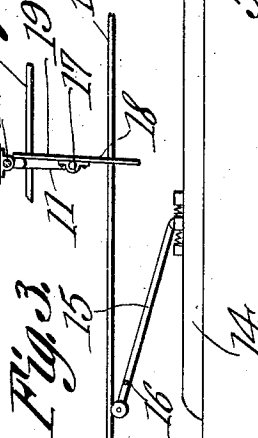
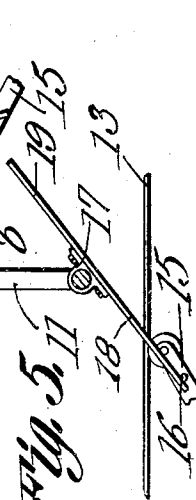


Fig. 5.



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UNITED STATES PATENT OFFICE.

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THOMAS BROTHERS, OF GREENCASTLE, INDIANA.

CROSSING-SIGNAL.

978,921.

Specification of Letters Patent.

Patented Dec. 20, 1910.

Application filed September 20, 1909. Serial No. 518,546.

To all whom it may concern:

Be it known that I, JAMES MERRYWEATHER, a citizen of the United States, residing at Greencastle, in the county of Putnam and State of Indiana, have invented a new and useful Crossing-Signal, of which the following is a specification.

This invention has relation to crossing signals and consists in the novel construction and arrangement of its parts as hereinafter shown, described and claimed.

The object of the invention is to provide a simple and effective signal adapted to be used at a railway or similar crossing and having its parts so arranged as to automatically herald the approach of a car or train upon the railway toward the crossing. Furthermore the arrangement of the parts of the apparatus is such that the signal remains inactive after the car or train has passed the crossing and is moving away from the same.

In the accompanying drawing: Figure 1 is a plan view of a track and crossing with the signal arranged along the track adjacent the crossing. Fig. 2 is a side view of one of the stands forming a part of the signal. Fig. 3 is a sectional view, slightly enlarged, of the upper portion of one of the stands cut on the line 1—1 of Fig. 1 and illustrating the relative positions of the parts when a car is approaching the crossing. Fig. 4 is a sectional view, still further enlarged, of the upper portion of one of the stands also cut on the line 1—1 of Fig. 1, and illustrating the relative positions of the parts when a car is passing under the stand in a direction toward the crossing and about to operate the signal. Fig. 5 is a sectional view, also enlarged, of the upper portion of one of the stands cut on the line 1—1 of Fig. 1 and illustrating the relative positions of the parts when a car is passing under the stand in a direction away from the crossing.

As illustrated in Fig. 1 of the drawing the reference numeral 1 designates the track and the numeral 2 the crossing. Stands 3 are arranged at intervals apart along the track and adjacent to the crossing and the said stands bridge the said track 1. A crank shaft 4 is journaled to each of the stands 3, and extend transversely over the track 1. The cranks 5 of the shafts 4 are connected

together by a rod 6, which extends approximately parallel with the track 1. A gong 7 is mounted upon a post or support 8 adjacent the crossing 2, and a chain or flexible member 9 operatively connects one end of the rod 6 with the clapper 10 of the said gong 7. Each shaft 4 is provided with a depending bracket 11 which hangs above the track. The brackets 11 are fixed to their respective supporting shafts 4. A line or current wire 13 is used as means for transmitting power to the cars running upon the track 1. The car (indicated at 14) is provided with a trolley arm 15 of usual pattern and the said arm 15 is provided with a transversely disposed yard-arm 16. A collar 17, is journaled upon the intermediate portion of each of the brackets 11, and to which are attached the inner ends of flexible, not limp, strips 18 and 19. The strip 18 is heavier than the strip 19 and consequently normally hangs in a downward direction while the strip 19 is upwardly disposed. The upper portion of the strip 19 normally bears against the side of the intermediate portion of the shaft 4, to which the bracket is attached, and the lower portion of the strip 18 lies in the path of movement of the yard-arm 16 and is adapted to be engaged by the same when the car 14 passes under the stand.

The parts of the apparatus are so arranged that when the car 14 is approaching the crossing 2 upon the track 1, and the yard-arm 16 of its trolley arm engages the strip 18, the strip 19 bears against the side of the shaft 4 so that the bracket 11 is caused to swing upon the axis of the said shaft. This partially rotates the crank 5 of the said shaft and through the rod 6 all of the shafts of the series are partially rotated. Thus the rod 6 is moved longitudinally and through the connecting chain 9 the clapper 10, of the gong 7 is operated which sounds the said gong. Thus as the car 14 approaches the crossing 2 and as it passes each succeeding stand 3 the gong 7 is sounded. When, however, the car is moving in a direction along the track 1 away from the crossing 2 the yard-arm 16 engages the strip 18 and the collar 17 will turn upon the intermediate portion of the bracket 11 so that the strip 19 will be swung away from the shaft 4, (as illustrated in Fig. 5) and consequently

the said shaft will not be partially turned or rotated as above described and the gong 7 will not be operated.

By reason of the fact that the strips 18 and 19 are formed from flexible material (such for instance as spring steel) the said strips have sufficient resiliency to break the force of impact when engaged by the yard-arm 16 so that the apparatus is relieved of sudden jar and may be operated without sustaining injury.

Having described the invention, what I claim as new and desire to secure by Letters Patent is:

- 15 1. In combination with a track a signal comprising a stand, a shaft journaled upon the stand and having a depending bracket, a tappet pivotally mounted upon the bracket and having an end portion adapted to en-
20 gage the shaft, and an end portion adapted to hang pendently above the track, a sounding device suitably supported and means operatively connecting the sounding device with the shaft.
- 25 2. In combination with a track a signal comprising a stand, a shaft journaled upon the stand and having a depending bracket,

a tappet pivotally mounted upon the bracket and having resilient end portions, one of which is adapted to engage the side of the 30 shaft and the other adapted to hang pendent above the track, a sounding device suitably supported and means operatively connecting the shaft with the sounding device.

3. In combination with a track a signal 35 comprising a series of spaced stands, shafts journaled upon the stands and having crank arms, a rod connecting the crank arms of the series together, a sounding device suitably supported, means operatively connecting the 40 sounding device with said rods, each shaft having a depending bracket, tappets pivotally mounted upon the brackets and having end portions adapted to engage the shafts and the end portions hanging pendent over 45 the track.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

JAMES MERRYWEATHER.

Witnesses:

Mrs. GARTH JOB,
JAMES L. HAMILTON.