J. D. HUGHSON.

RAILWAY-SIGNAL.

No. 173,008. Patented Feb. 1, 1876.

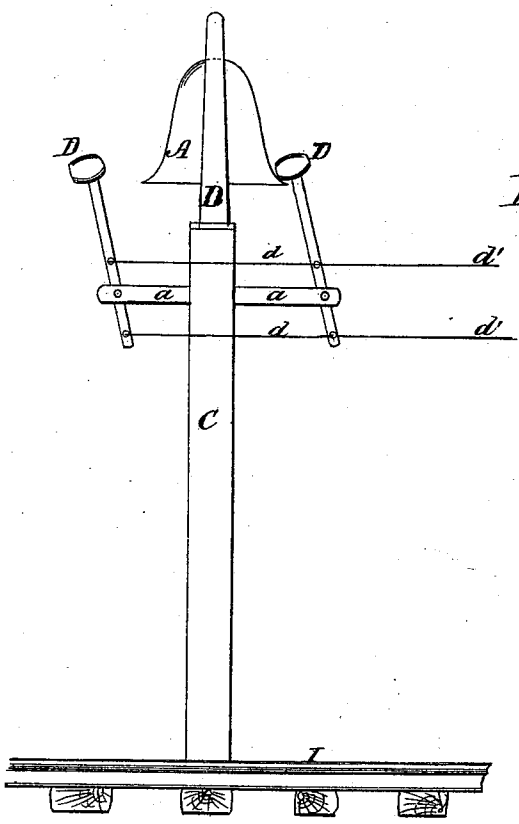

Fig. 1.

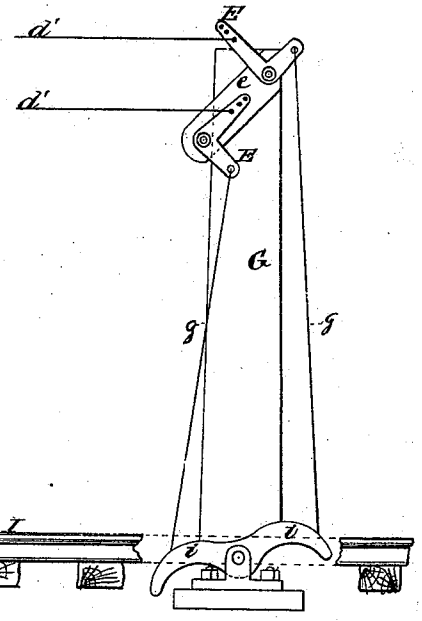

Fig. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

JACOB D. HUGHSON, OF PRAIRIE CITY, ILLINOIS.

IMPROVEMENT IN RAILWAY-SIGNALS.

Specification forming part of Letters Patent No. **173,008**, dated February 1, 1876; application filed January 8, 1876.

To all whom it may concern:

Be it known that I, JACOB D. HUGHSON, of Prairie City, in the county of McDonough and State of Illinois, have invented a new and Improved Automatic Railway-Signal; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification.

The invention relates to a signal apparatus in which springs or other analogous means of retracting the bell-clapper or hammer are dispensed with, and two clappers or hammers are so arranged and connected with other parts that they counterbalance each other to a certain extent, and the rebound of either aids in producing the striking movement of the other; also, whereby the signal is always repeated, and the sound thus made practically continuous so long as a train is passing.

In Figure 1 of the accompanying drawing I have represented a side elevation of my improved apparatus, and in Fig. 2 a plan view, showing the arrangement of the rock-shaft with relation to the track.

The bell A of the signal apparatus is supported rigidly in a suitable yoke or frame, B, upon the top of a post, C, and two lever-hammers, D, are pivoted in arms *a a* of said frame B, on opposite sides of the bell. These levers are connected both above and below their fulcra by means of wires *d*, from which wires *d'* extend to elbow-levers E E, pivoted at their angle to a frame or bar, *e*, attached to a post, G, located contiguous to the track. One of these elbow-levers E is connected, by wires *g*, with one radial arm, *h*, and the other with the corresponding arm *h* of a rock-shaft, H, which is supported in suitable bearings in a position at right angles to the track or rails I. Curved arms *i i* are attached to the inner end of said shaft, and project in opposite directions parallel with the rail I, and close alongside thereof. It results from this construction and arrangement of parts that when a train passes over the track each wheel of the locomotive and car or cars on the side contiguous to the signal apparatus causes the shaft H to rock by successive depressions of the curved arms *i*, thus imparting corresponding and simultaneous oscillation to the elbow-levers E E; which being connected with the hammers D by wires *d*, the hammers are vibrated also, and caused to strike the bell in quick succession. This operation is repeated for every wheel, and the bell is, hence, sounded almost continuously during the time the train is passing. It will also be seen that as each hammer rebounds from the bell it aids in causing the other to swing forward and impart its stroke.

I do not claim operating a signal by means of a rock-shaft having arms which are acted on by a passing train; but

What I claim is—

The combination of the oppositely-pivoted parallel vibrating lever hammers D D, their connecting-wires *d d'*, elbow-levers E, wires *g g*, and rock-shaft H, provided with radial and curved arms *h h'* and *i i* on its respective ends, all constructed and arranged as shown and described, to operate as specified.

JACOB D. HUGHSON.

Witnesses:

G. W. HAMILTON,

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