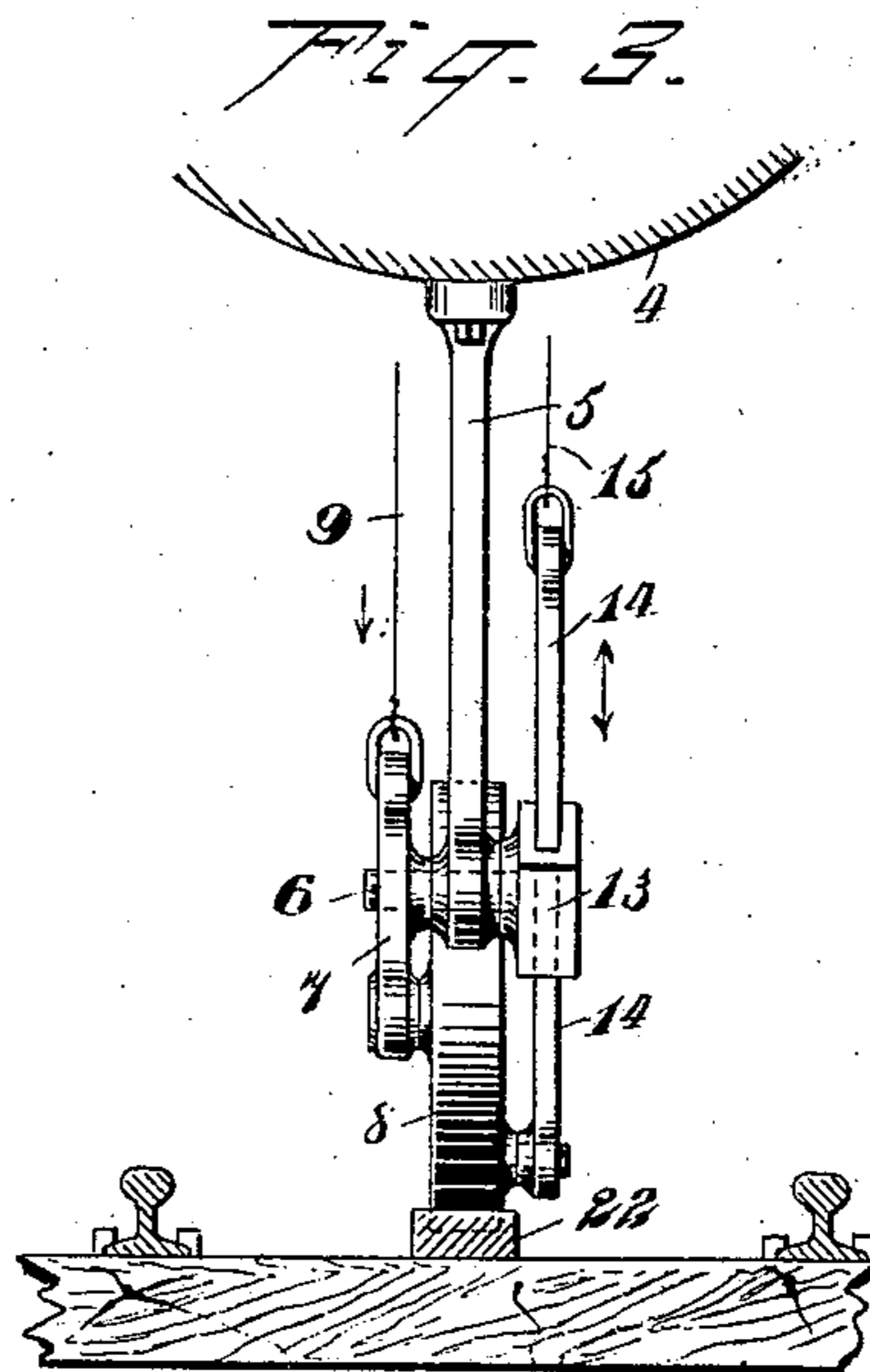
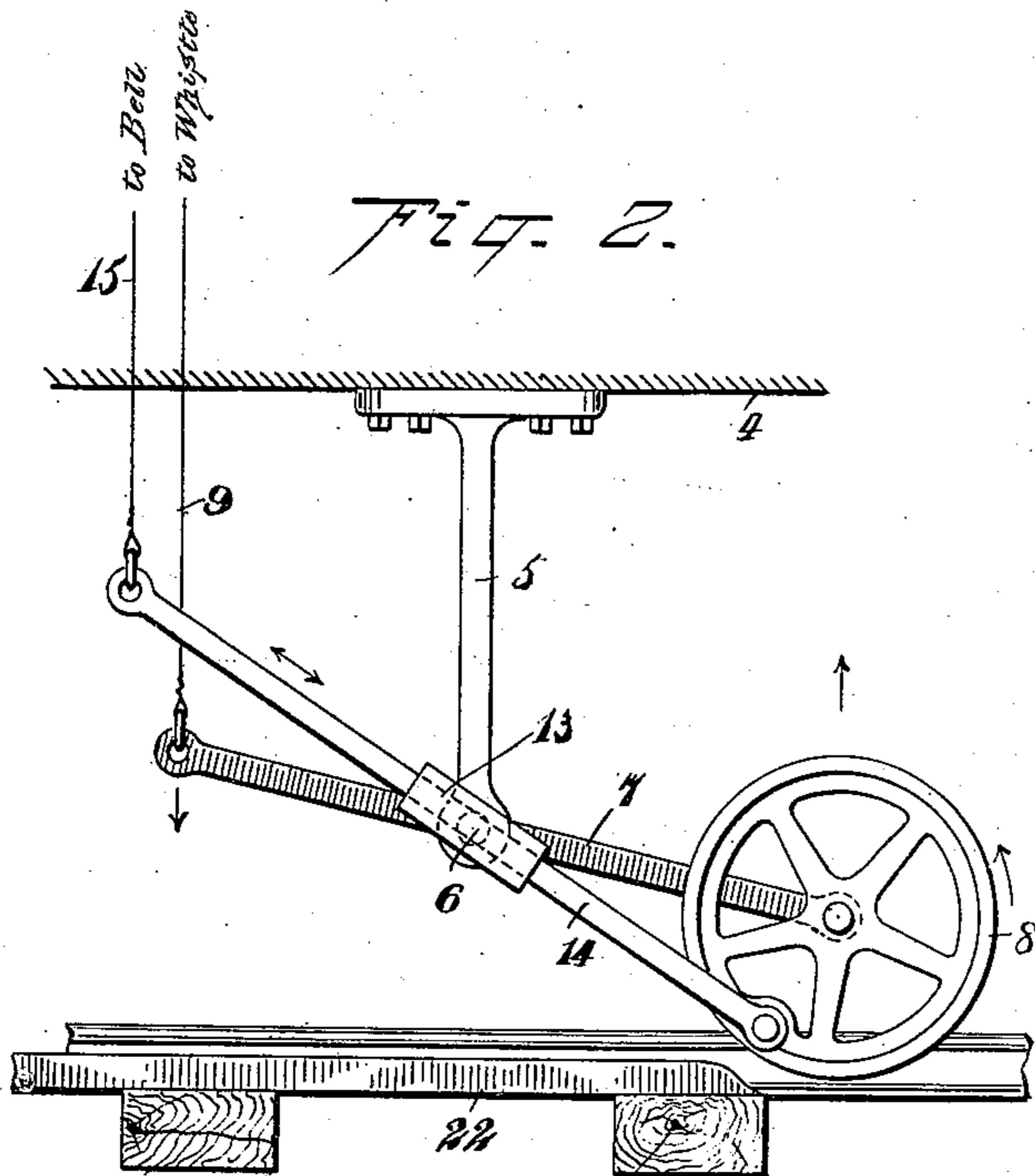
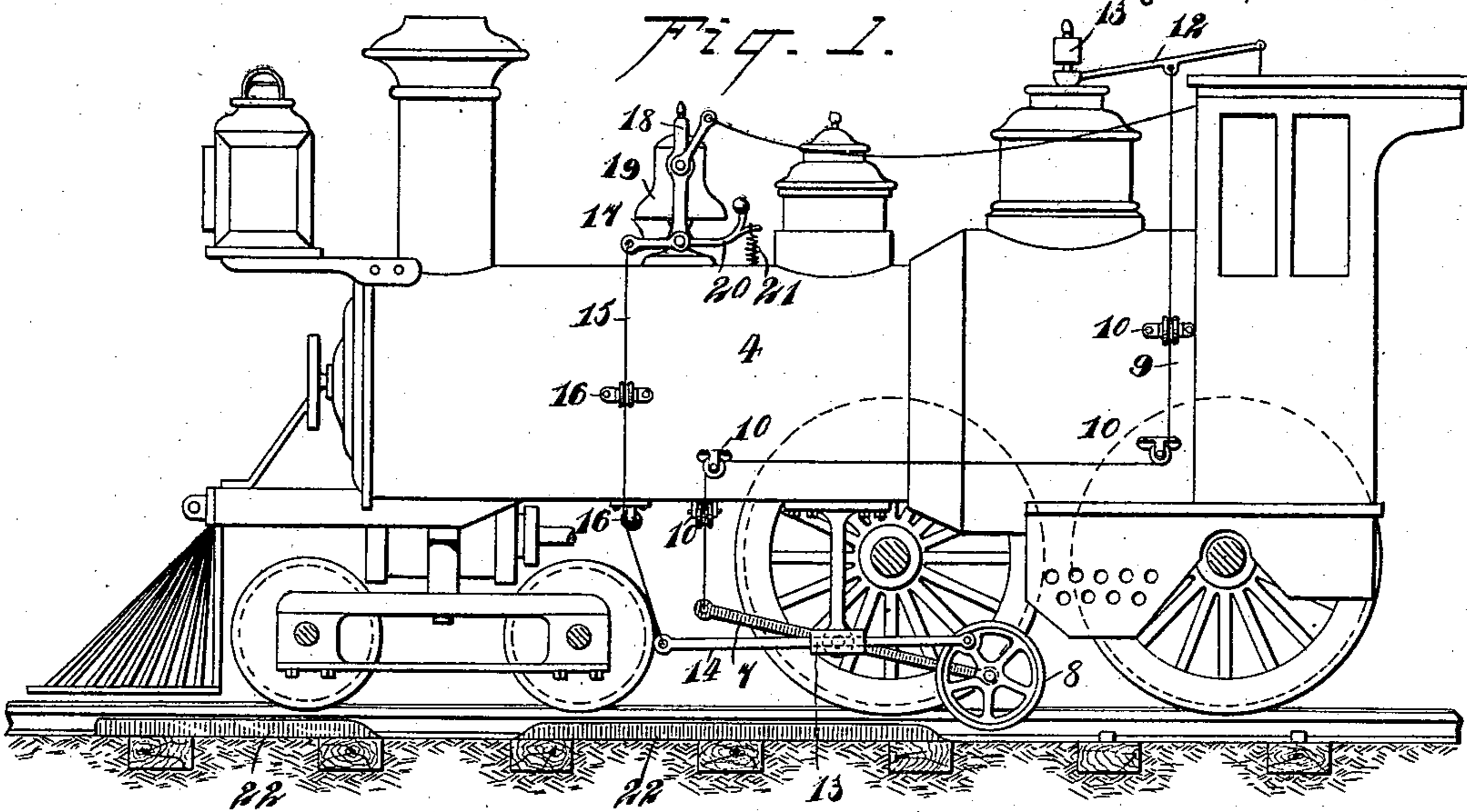


(No Model.)

H. M. BAKER.
AUTOMATIC LOCOMOTIVE SIGNALING DEVICE.

No. 564,138.

Patented July 14, 1896.



WITNESSES:

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HORACE M. BAKER, OF CARTHAGE, MISSOURI.

AUTOMATIC LOCOMOTIVE SIGNALING DEVICE.

SPECIFICATION forming part of Letters Patent No. 564,138, dated July 14, 1896.

Application filed March 31, 1896. Serial No. 585,572. (No model.)

To all whom it may concern:

Be it known that I, HORACE M. BAKER, of Carthage, in the county of Jasper and State of Missouri, have invented a new and Improved Automatic Locomotive Signaling Device, of which the following is a full, clear, and exact description.

The object of this invention is to provide a superior apparatus for automatically ringing the bell and sounding the whistle of a locomotive-engine. I attain this end by means of certain mechanism attached to the boiler of the locomotive for transmitting movement from the under side of the same to the bell and whistle and by means of a rail run along the track, by which said movement transmitting means on the boiler are made to operate.

The invention will be fully described hereinafter and finally embodied in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation, partly in section, of a locomotive, showing my improvement applied thereto. Fig. 2 is a detail side elevation of the invention, and Fig. 3 is a detail end elevation.

To the under side of the boiler 4 of the usual locomotive a downwardly-extending bracket 5 is affixed, said bracket carrying a shaft 6, the shaft being rigidly secured to the bracket and extending beyond each side thereof. Fulcrumed to the right-hand end of the shaft 6 is a lever 7, on the rear end of which a wheel 8 is revolubly mounted, while the forward end of said lever 7 is attached to a flexible connection 9, passing over pulleys 10 on the locomotive-boiler to the lever 12 of the steam-whistle 13. Pivotally mounted on the remaining or left-hand end of the shaft 6 is an angular sleeve 13, in which a rod 14 is longitudinally slidable, said rod having its rear end pivotally connected with the wheel 8 and having its forward end attached to a flexible connection 15, which proceeds over pulleys 16 to a lever 17, fulcrumed on the support 18 of the locomotive-bell 19. The lever 17 actuates a supplemental clapper-arm 20, and by this means the bell is sounded, a spring 21 being provided

by which the clapper of the arm 20 is normally held in the position shown in Fig. 1.

Arranged longitudinally along the track are a series of third rails 22, said rails having beveled ends and being so relatively disposed that as the locomotive passes over them the wheel 8 will ride on the rails and be raised thereby. At the same time the frictional contact between the rails 22 and the wheel 8 will cause the wheel to revolve during its contact with the rails. Therefore it will be seen that as soon as the locomotive moves over a rail 22 the flexible connection 9 will be drawn on and the lever 13 depressed to sound the whistle. As long as the wheel engages the rail 22 the whistle will be sounded. Simultaneously with this operation the rotation of the wheel 8 slides the rod 14 in the sleeve 13, and at the same time the said rod is rocked with the sleeve 13 on the shaft 6, which operation draws on the connection 15 to swing the lever 17, and by this means the bell is sounded.

In using the invention the rails 22 are placed along the track before a crossing or other point where it is desired to give warning of the approach of the locomotive. The rails may either be one continuous rail producing a continuous blast of the whistle, or a series of broken rails, as shown in Fig. 1, producing an intermittent blast of the whistle. The ends of the rails are beveled to permit an easy engagement of the wheel 8 with the rails, and it is obvious that the degree of this incline at the ends of the rail 22 may be variously changed. It will also be seen that the wheel 8, when not engaged with a rail 22, is inactively suspended above the bed of the railway.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination with a support, of a shaft, a lever fulcrumed on said shaft, a wheel revolubly mounted at one end of the lever, a sleeve pivotally mounted on the shaft, and a rod slidable in the sleeve and pivotally connected to the wheel, substantially as described.

2. The combination with a support, of a shaft carried thereby, a lever fulcrumed on the shaft, a wheel carried by the lever, and

a rod having sliding and pivotal movement on the shaft, the rod being pivotally connected with the wheel, substantially as described.

5 3. The combination with a locomotive having a bell and whistle, of a bracket depending from the locomotive, a shaft fixedly carried by the bracket, a lever fulcrumed on the shaft, a wheel pivotally mounted on the lever, a sleeve pivotally carried by the shaft, 10 a rod slidable within the sleeve and pivotally connected with the wheel, and connections passing from the lever and rod respectively to the bell and whistle, substantially as described. 15

4. The combination with a locomotive hav-

ing a bell and whistle, of a bracket depending from the locomotive, a shaft fixedly carried by the bracket, a lever fulcrumed on the shaft, a wheel pivotally carried by the lever, 20 a sleeve pivotally mounted on the shaft, a rod slidable within the sleeve and connected with the wheel, a spring-pressed clapper-lever, a connection between the clapper-lever and the rod, and a connection between the 25 lever and the whistle, substantially as described.

HORACE M. BAKER.

Witnesses:

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ROBT. T. STICKNEY.