

Sept. 18, 1928.

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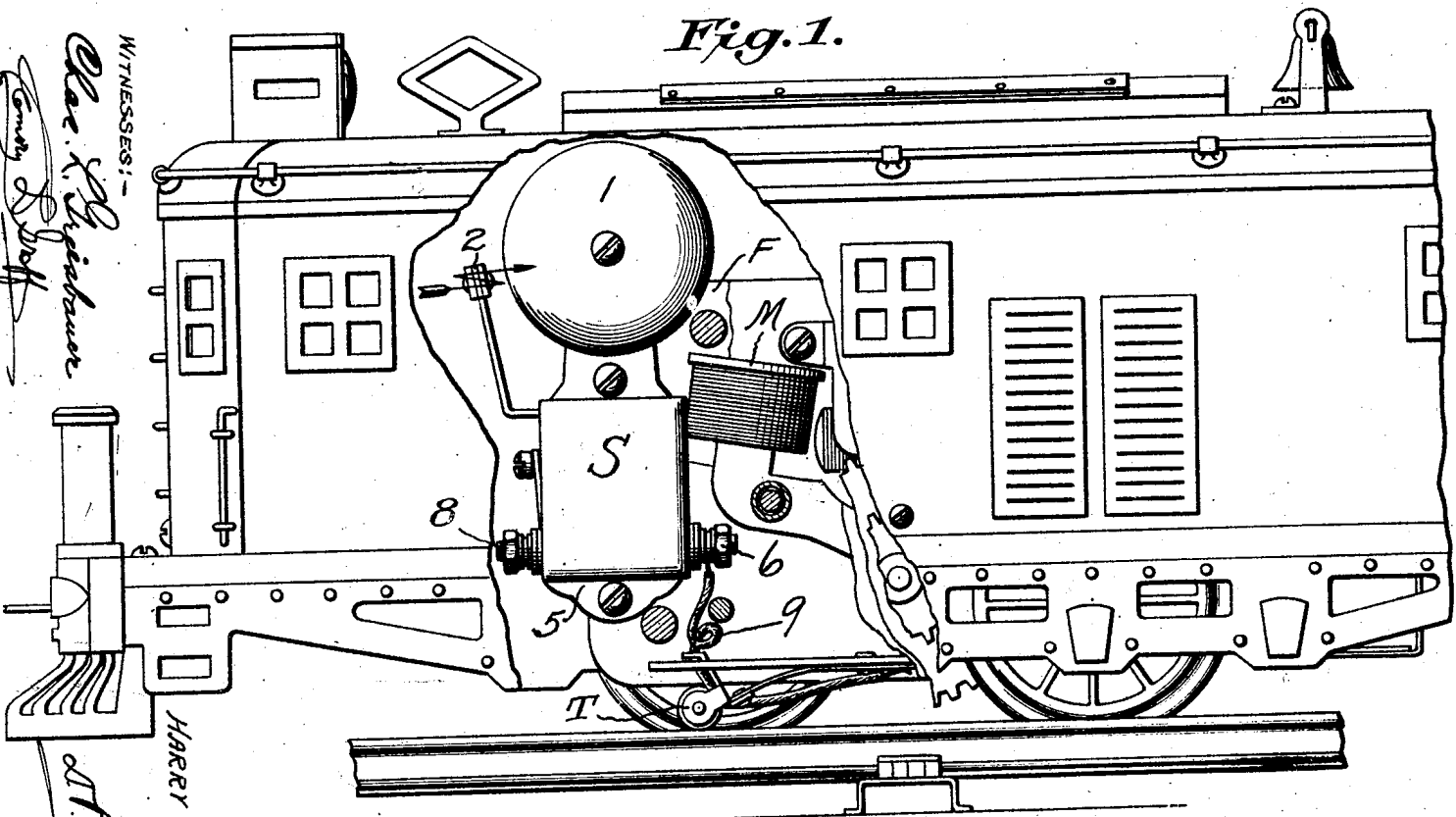
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BELL RINGING TOY LOCOMOTIVE

Filed Jan. 31, 1928

2 Sheets-Sheet 1

Fig. 1.



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Fig. 2.

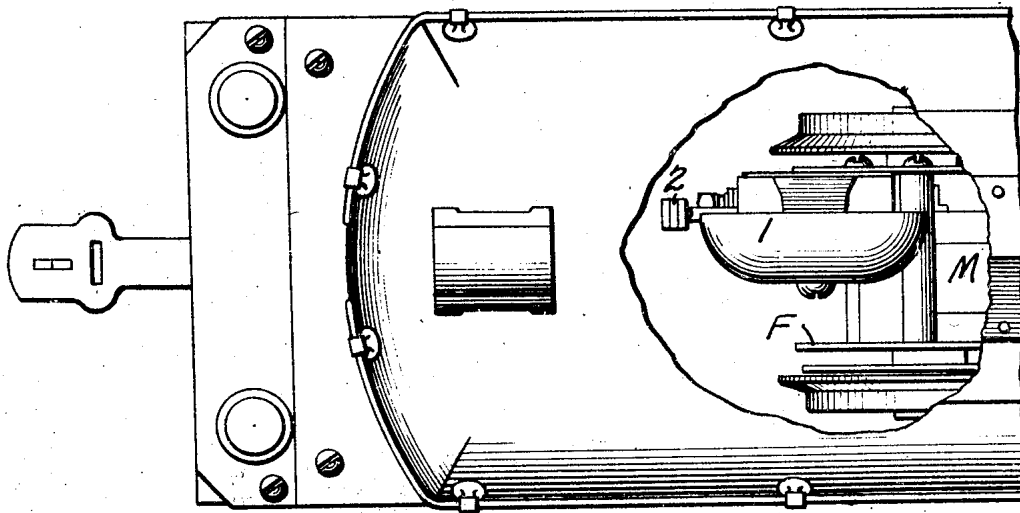
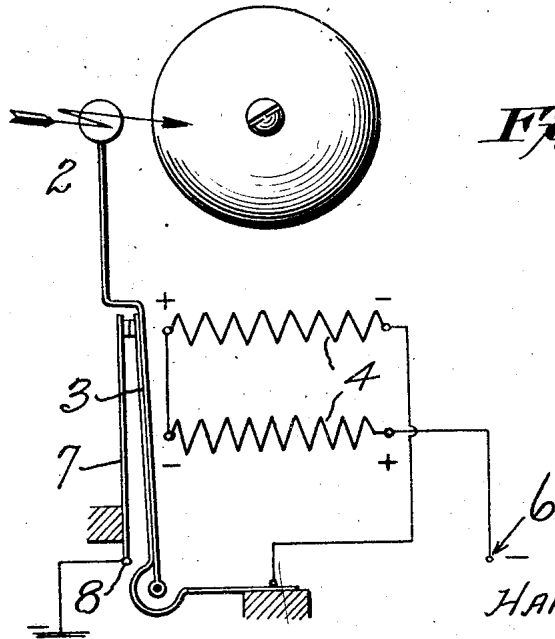


Fig. 3.



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UNITED STATES PATENT OFFICE.

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BELL-RINGING TOY LOCOMOTIVE.

Application filed January 31, 1928. Serial No. 250,935.

This invention relates to toy electric rail-ways, and more particularly to a toy locomotive carrying therewith a bell or equivalent audible signaling device.

5 Heretofore it has been customary to accomplish all forms of toy signaling by various accessories attached to special track layouts and the like, and no automatic signaling devices have been carried by the locomotive
10 aside from the headlight, which however, is not regarded as a signaling unit. Therefore, it is the object of the present invention to provide a toy locomotive having a self contained signaling unit preferably in the form
15 of an electrical bell controlled and operated from the source of current which supplies the motor of the locomotive, and which is usually taken from the third rail or trolley which forms part of the track.

20 Another object of the invention is to provide a bell unit which may be readily attached to the motor frame in a convenient and expeditious manner and which will serve the purpose of adding extra weight to the
25 motor unit which is a desirable feature since it increases the tractive effort of the locomotive and also assists in keeping it on the tracks.

30 A further object of the invention is to provide a simple, practical, durable and reliable construction that may be incorporated in the locomotive structure with economy and convenience and which requires but very little voltage to operate.

35 With the above and other objects in view which will more readily appear as the nature of the invention is better understood, the same consists in the novel construction, combination and arrangement of parts herein-
40 after more fully described, illustrated and claimed.

A preferred and practical embodiment of the invention is shown in the accompanying drawings in which

45 Fig. 1 is a side elevation of a portion of a locomotive, a part of the side being broken away to show the manner of mounting the bell on the motor frame.

Fig. 2 is a top plan view of the construction and arrangement shown in Fig. 1.

50 Fig. 3 is a diagrammatic view illustrating the circuits involved.

Similar reference characters designate corresponding parts throughout the several figures of the drawings.

55 In carrying the invention into effect it is proposed to employ a signaling device designated generally as S in the locomotive structure in such a way that it is mounted in a
60 concealed position, preferably on one of the side plates of the motor frame F as shown in Figs. 1 and 2. However, in that connection it will be understood that it is within the
65 scope of the invention to mount the signaling unit at any desired and convenient location within the shell or casing of the locomotive.

70 In the present embodiment the signaling unit is preferably in the form of a vibrating bell comprising the usual gong 1, clapper 2 carried by a vibrating armature 3 which is
75 actuated by the coils 4. The coils 4 are mounted on frame 5 in the usual manner and are provided with a binding terminal 6. The interrupter 7 of the bell unit is also provided
80 with a terminal or binding post 8 which may be connected to a part of the locomotive frame since it forms a part of the ground circuit. In toy locomotives the frame of the car is
85 grounded to the two outside wheel rails while the intermediate or third insulated rail is the electrically energized part which supplies current to the trolley T. This
90 trolley is the means for supplying electric current to the motor, a part of which is shown in Fig. 1 and designated as M, and it is the purpose of the present invention to
95 connect the binding terminal 6 of the bell directly with the trolley bridge through a wire or equivalent electrical connection 9 so that the current for operating the bell is received
100 directly from the third rail of the track system through the trolley T.

From the foregoing it will be apparent that the gong 1 of the signaling unit will be sounded by the clapper 2 striking the same, as the
95 result of the coils 4 being energized by current received from the third rail. The bell or gong 1 will ring continuously while the train is running to produce an audible signal carried by the locomotive. Obviously, any
100 form of sounding element may be used instead of the gong 1. For example, a member may be substituted for the gong which will give a note or tone similar to a whistle. The

object of the invention is primarily to provide an audible signaling unit carried by the locomotive and operated from the same source of electrical energy which supplies the motor.

Without further description it is thought that the features and advantages of the invention will be readily apparent to those skilled in the art, and it will of course be understood that changes in the form, proportion and minor details of construction may be resorted to, without departing from the spirit of the invention and scope of the appended claims.

I claim:—

1. In a toy electric locomotive, the combination with the motor and motor frame and a trolley for supplying current to said motor, of an electrical sounding device attached to said motor frame and having one terminal thereof grounded to said frame, and the other

terminal of the bell being electrically connected with the said trolley.

2. In a toy electric locomotive, the combination with the motor and motor frame and a trolley for supplying current to the motor, of an electrical sounding device carried by the motor frame and electrically connected with said trolley.

3. In a toy locomotive, the combination with a motor and motor frame and a housing surrounding the same, of an electrical bell unit mounded on the motor frame, a trolley for supplying current to the motor, an electrical connection between the bell and the trolley, and a ground connection between the frame and the bell.

In testimony whereof I hereunto affix my signature.

HARRY S. BECKER.