(No Model.)

M. GAGE.

AUTOMATIC WHISTLE ATTACHMENT.

No. 379,641. Patented Mar. 20, 1888.

Fig. 1.

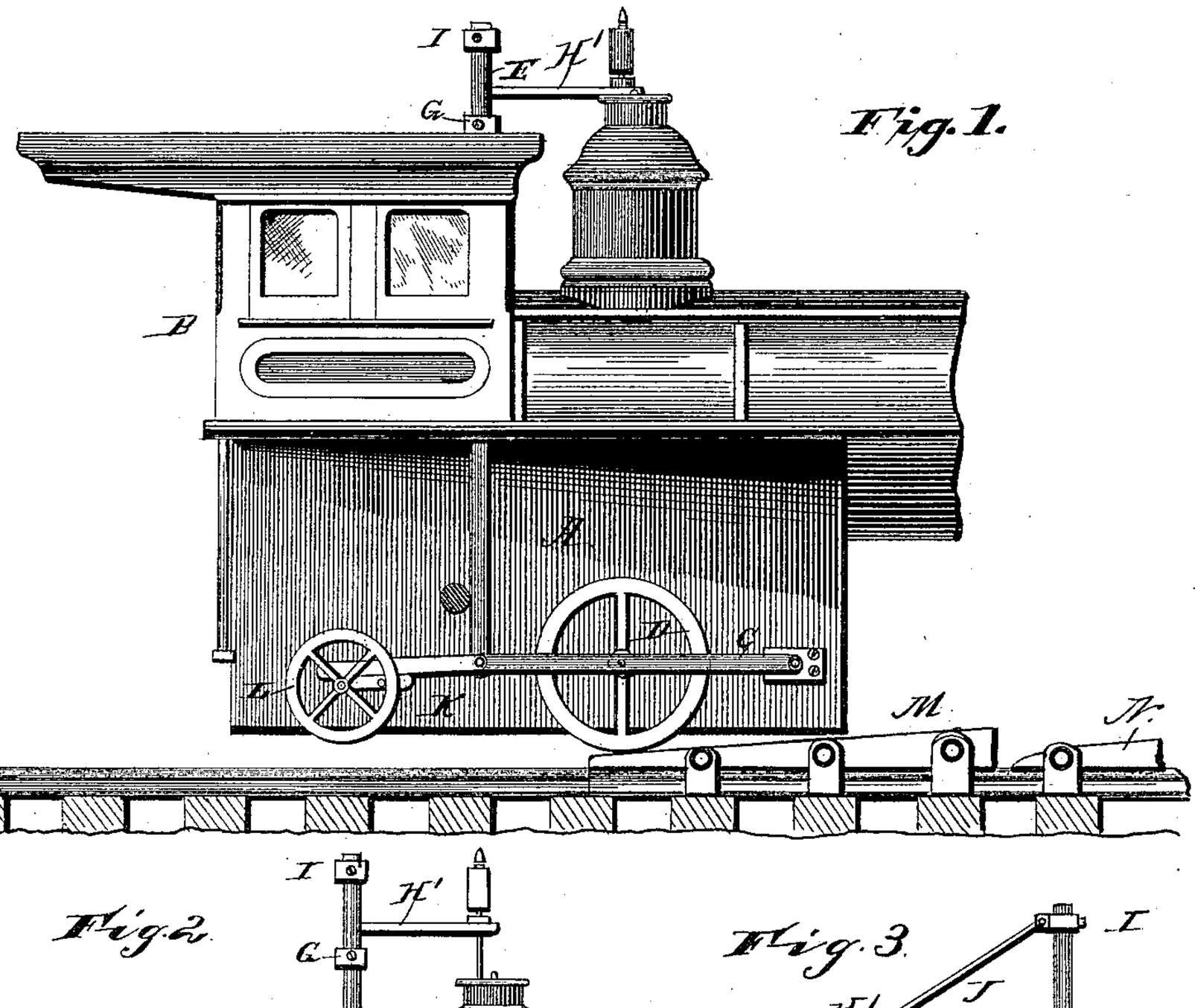


Fig. 2.

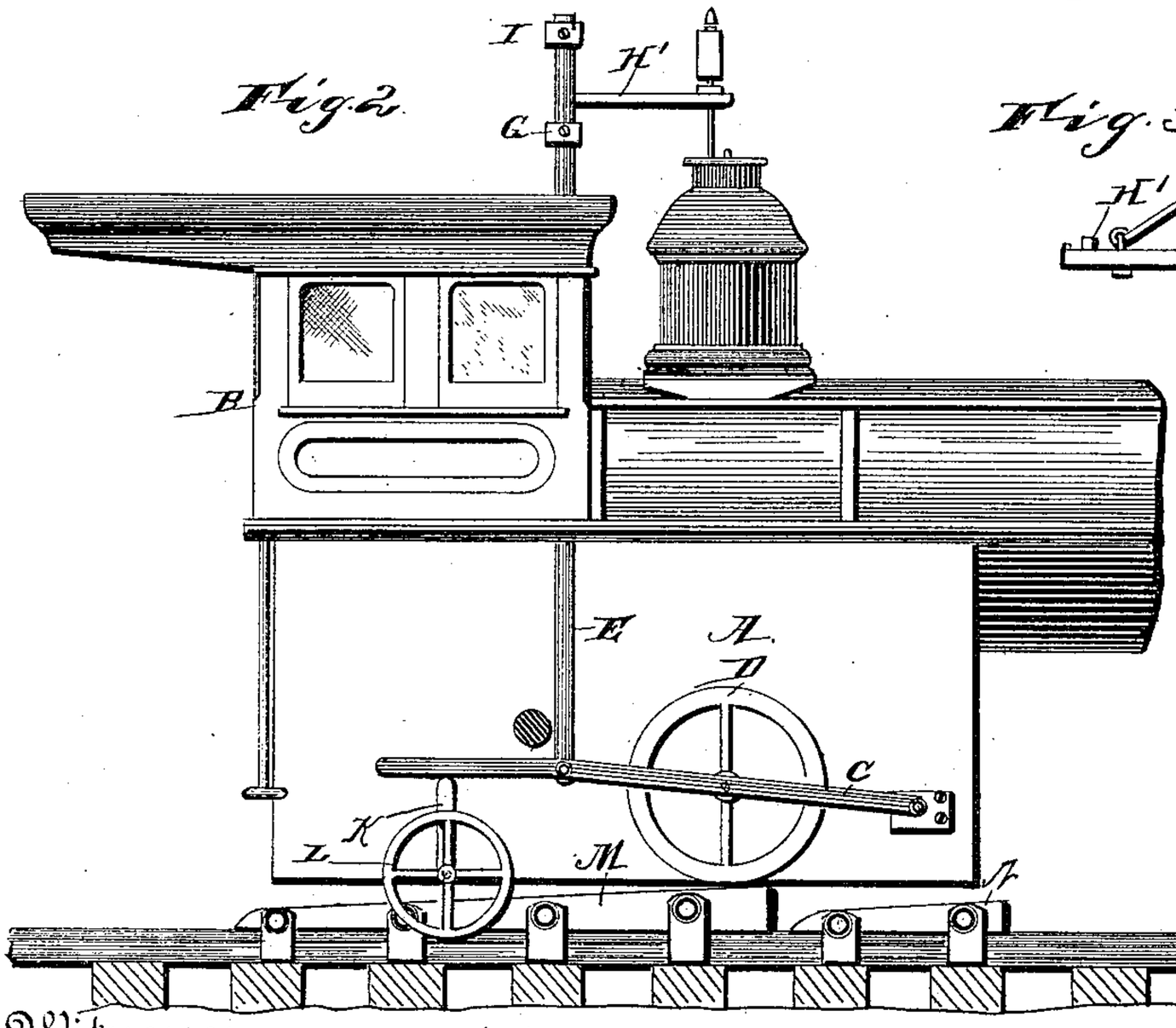
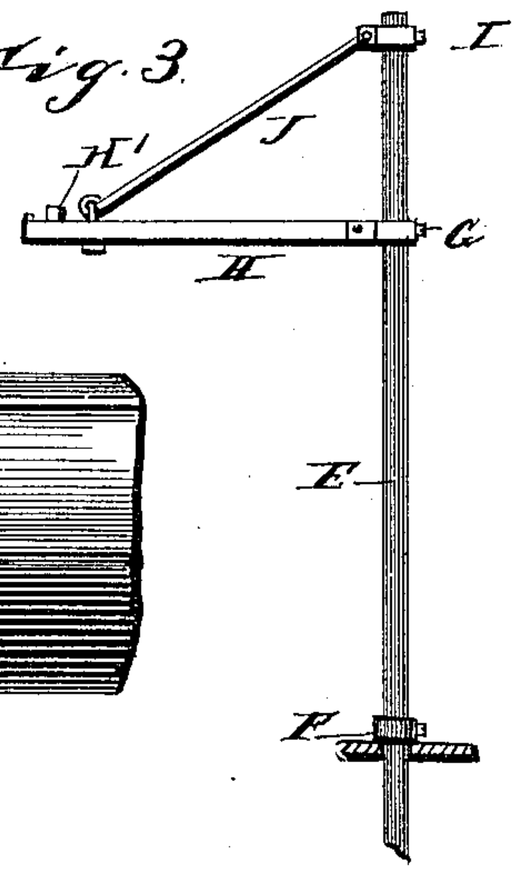


Fig. 3.



Witnesses.

Geo. Thorpe.

R. H. Bishop.

Inventor.

Marine Gage

by C. A. Snow & Co.,

Attorneys

UNITED STATES PATENT OFFICE.

MARINE GAGE, OF GALT, CALIFORNIA.

AUTOMATIC WHISTLE ATTACHMENT.

SPECIFICATION forming part of Letters Patent No. 379,641, dated March 20, 1888.

Application filed August 31, 1887. Serial No. 248,391. (No model.)

To all whom it may concern:

Be it known that I, MARINE GAGE, a citizen of the United States, residing at Galt, in the county of Sacramento and State of California, have invented a new and useful Improvement in Automatic Whistle Attachments, of which the following is a specification.

My invention is an attachment for locomotives, and its object is to provide a device which will automatically sound the whistle of the locomotive when a train is approaching a crossing or station. This object I accomplish by the mechanism illustrated in the accompanying drawings and hereinafter fully described; and the invention consists in certain features of the same particularly pointed out in the claims.

In the drawings referred to, Figure 1 is a side elevation of a portion of a locomotive having my whistle-sounding attachment applied thereto. Fig. 2 is a similar view showing the attachment as it appears while the whistle is being sounded, and Fig. 3 is a detail view of the upper end of the lifting-rod.

Referring to the drawings by letter, A designates the fire-box, and B the cab, of a locomotive. A lever, C, is pivoted at one end to the side of the fire-box, near the bottom of the same, and a lifting wheel or roller, D, is mounted on the said lever, on its inner side.

Between the lifting-wheel and the free end of the lever C, I pivotally secure to the said lever the lower end of the lifting-rod E, which extends up through the floor and roof of the cab, as shown. This lifting-rod is provided with an adjustable nut or stop, F, which impinges against the floor of the cab, and thereby prevents the rod dropping too far for the successful operation of the device.

Near the upper end of the lifting-rod I provide the nut G, to which an arm, H, is secured, the free end of the said arm projecting under the lever H′ of the whistle. Above the nut G, I secure upon the lifting-rod a similar nut, I, to which I attach the upper end of a brace, J, the lower end of said brace being secured to the arm H near the free end of the same.

Below the free end of the lever C, I pivotally secure to the side of the fire-box an arm, K, in the longer end of which I journal a small wheel or roller, L, the other end of the said arm K bearing against the under side of the lever C near the free end of the same. The wheel L is arranged farther from the side of the cab than the lifting-wheel D, and both of said wheels are arranged to hang inside of the track, above the ties. At proper points along the track—that is, at the approaches to crossings and stations—I provide in the roadbed a wedge-shaped rail, M, upon which the lifting-wheel rides in the operation of the device, and nearer to the station or crossing than said rail I provide a similar shorter rail, N, upon which the wheel L rides. The rail N is arranged between the track and the rail M, so that neither of said rails interferes with the action of the other.

The operation of my device will, it is thought, be readily understood. When the train nears a crossing or a station, the lifting-wheel rides upon the rail M, and the lever C is thereby raised, and the lifting-rod, being consequently elevated, causes the arm H to strike against the whistle-lever H′, having its end overlapping and engaging the end of the said arm H and raise the same, thereby sounding the whistle. The lever C bears on the arm K and normally holds it in the position shown in Fig. 1. When the said lever is raised, as just described, the weight of the wheel or roller L will cause the said arm K to swing around into the vertical position shown in Fig. 2, maintaining the operating-lever and lifting-rod in their raised positions and preventing the stoppage of the whistling. When the wheel L strikes the rail N as the train advances, it will be swung around or forced backward, allowing the operating-lever and lifting-rod to drop and thus stopping the whistling. The downward motion of the lever C will force the several parts into the position shown in Fig. 1, when the said downward motion will be arrested by the nut F contacting with the floor of the cab.

It will be seen that I have provided a very simple and effective device for automatically sounding the whistle of a locomotive when nearing stations and crossings while the engineer's attention may be drawn in some other direction.

My device does not interfere with the sounding of the whistle by hand, and may be readily

fitted to locomotives of different heights by means of the adjustable stops and nuts on the lifting-rod.

It may sometimes be necessary to vary the shape or construction of some of the parts of my device in order to apply it to locomotives of different makes; but such changes, it is obvious, involve no departure from my invention. The wheel L and arm K may be dispensed with by making the rail M of sufficient length to maintain the lifting-wheel in a raised position as long as it is desired to sound the whistle, and it may sometimes be found desirable to employ such arrangement.

The utility and advantages of my device being obviously appreciable, I need not further enlarge thereon herein.

Having thus described my invention, what I claim, and desire to secure by Letters Patent, is—

1. A whistling attachment for locomotives, comprising a lifting-rod, an arm, as H, adjustably secured to said rod near its upper end, and means for automatically raising said rod, as set forth.

2. The combination, with the locomotive, of a lever pivoted to the fire-box thereof, the lifting-rod pivotally attached to said lever and extending vertically upward, and the arm H, adjustably secured to the lifting rod near the upper end of the same, as set forth.

3. The combination of the operating-lever, the lifting-wheel journaled therein, the lifting-rod pivotally attached thereto, and the arm H, adjustably secured to the upper end of the lifting-rod, substantially as specified.

4. The combination of the operating-lever, the lifting-rod pivotally attached thereto, the arm H, secured to the lifting-rod, and the swinging arm K, arranged below the operating-lever and bearing against the under side of the same, substantially as described and shown.

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

MARINE GAGE.

Witnesses:
O. HARVEY,
J. W. ILER.