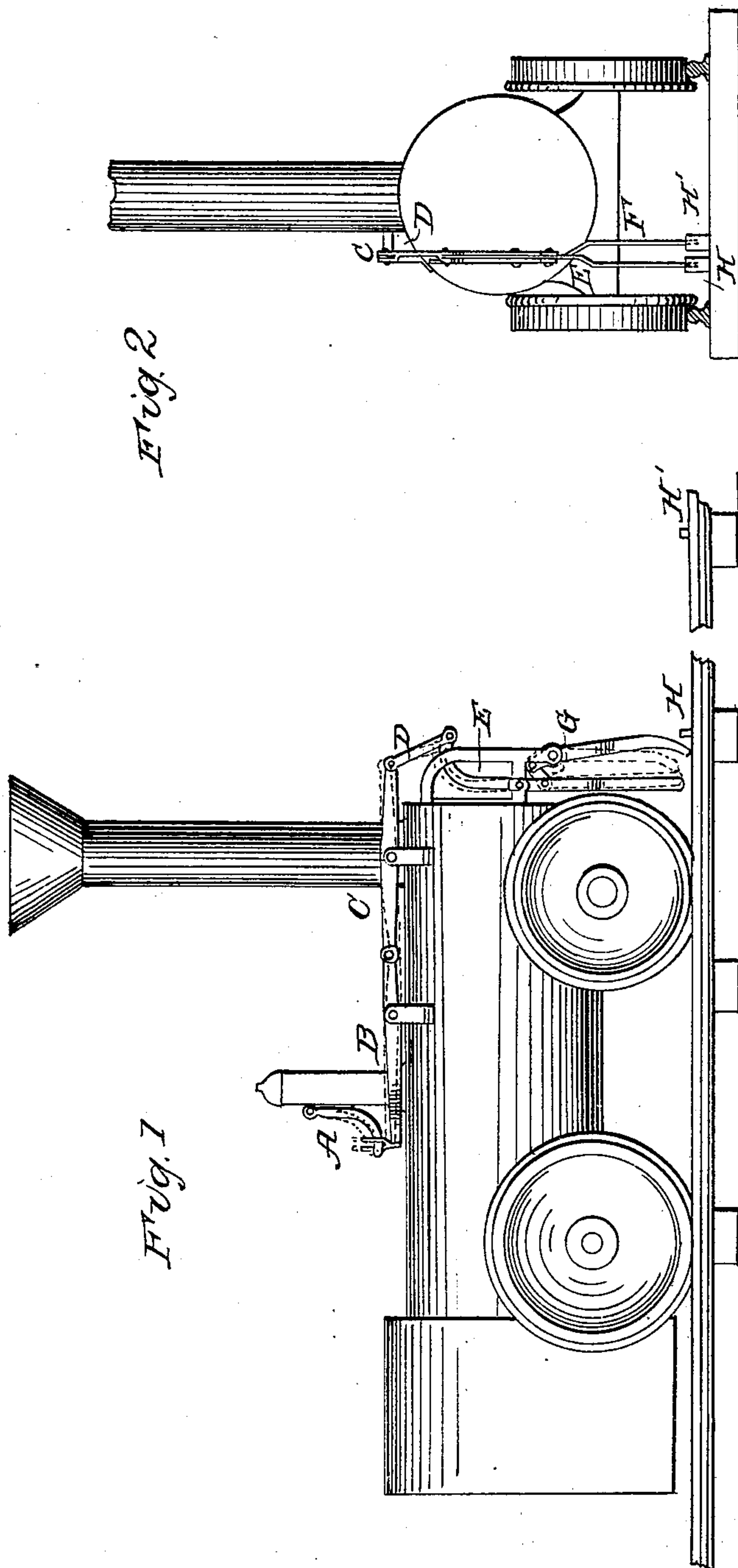


A. E. TURNBULL.

Car Signal.

No. 20,596.

Patented June 15, 1858.



UNITED STATES PATENT OFFICE.

A. E. TURNBULL, OF SPRINGFIELD, OHIO.

LOCOMOTIVE-SIGNAL.

Specification of Letters Patent No. 20,596, dated June 15, 1858.

To all whom it may concern:

Be it known that I, ALONZO E. TURNBULL, of Springfield, in the county of Clark and State of Ohio, have invented a new and useful Improvement in the Method of Sounding Whistle-Signals on Locomotives at Specified Portions of Railroads; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making part of this specification.

Figure 1, is a side elevation of a locomotive showing the parts for opening the orifice to admit the steam to the whistle and shutting it from the same. Fig. 2, is a front elevation of ditto.

Similar letters in the figures refer to corresponding parts.

The nature of this invention consists in arranging and combining two levers in front of the locomotive, and connecting them together, and terminating their lower ends in such relation to uprights, fixed between the rails where it is designed to blow the alarm whistle, as to cause one lever to open the orifice from the boiler to the said whistle, and the other one to close the same.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

The whistle is formed and arranged in the same relation to the orifice for the issue of the steam, as the ordinary steam whistle, and the lever A, for operating it is attached to the end of a bent lever B, turning on a fulcrum secured to the top of the boiler and jointed at its opposite end to the end of another lever C, turning on a fulcrum at its center and attached by a pin to a connecting rod D, whose lower end is jointed to an upright lever E, whose upper end is bent or curved nearly at right angles with its upright portion. This lever is suspended on a fulcrum, fixed permanently to the front of the smoke box, a short distance below the curved portion, and its lower end is curved slightly backward so as to enable it to readily slip over the top of the stake or obstruction for moving it. In front of this

lever E, and a little one side of the direct line on which its lower end oscillates, is arranged a shorter lever F, curved at its lower end in a corresponding manner to the curved end of the lever E, and suspended on a fulcrum, fixed to the smoke box, a short distance below its upper end, and attached at this part by a connecting rod G, to the lever E, below the fulcrum of the same. The stakes or obstructions H, H', for operating these levers are permanently fixed in the ground, or to the sleepers of the railroad, at the required distance from the rails of the same, and from each other, and in such relative positions with the lines on which the lower curved ends of the levers E, F, as to operate on said levers as they pass over the same, and respectively let on and shut off the jet of steam upon the whistle. By thus arranging and combining the levers E, F, and the stakes or obstructions H, H', for operating them, the said stakes or obstacles can be stationed at any desired distance apart, and the first one (H) can be made to sound the alarm signal whistle, and its duration can be continued until the lower end of the lever F, strikes the second one (H').

I am aware that a combination of levers, and other devices, have been arranged on locomotives, in such a manner as to cause obstructions or cams on the track to operate upon them as the locomotive passes the same, and ring a bell and thus give a signal. I do not therefore lay claim to the parts for accomplishing this object, but

What I claim as new and desire to secure by Letters Patent, is,

The combination of the additional lever F, upon which the second stake or obstruction H', operates, with the lever E, for sounding the whistle, whereby the duration of the blowing of the whistle can be continued to any required extent, and stopped, substantially in the manner herein set forth.

A. E. TURNBULL.

Witnesses:

WM. G. BOGGS,
T. H. HOUGHTON.