

(No Model.)

C. DRAKE.

BELL RINGING ATTACHMENT FOR LOCOMOTIVES.

No. 304,626.

Patented Sept. 2, 1884.

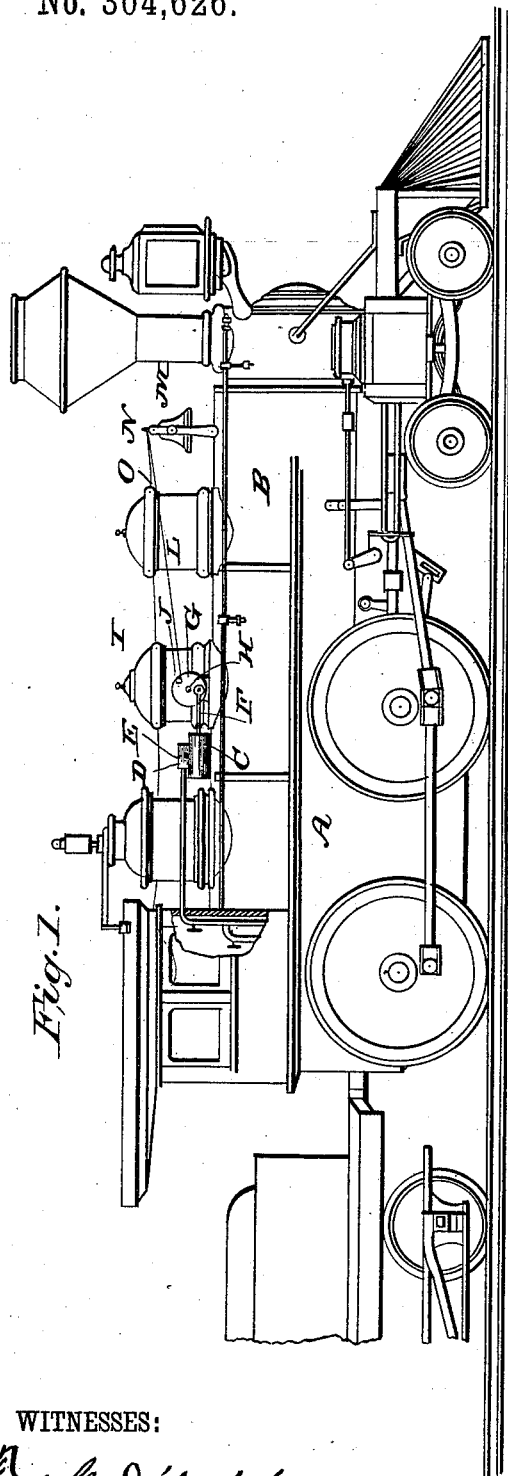


Fig. 1.

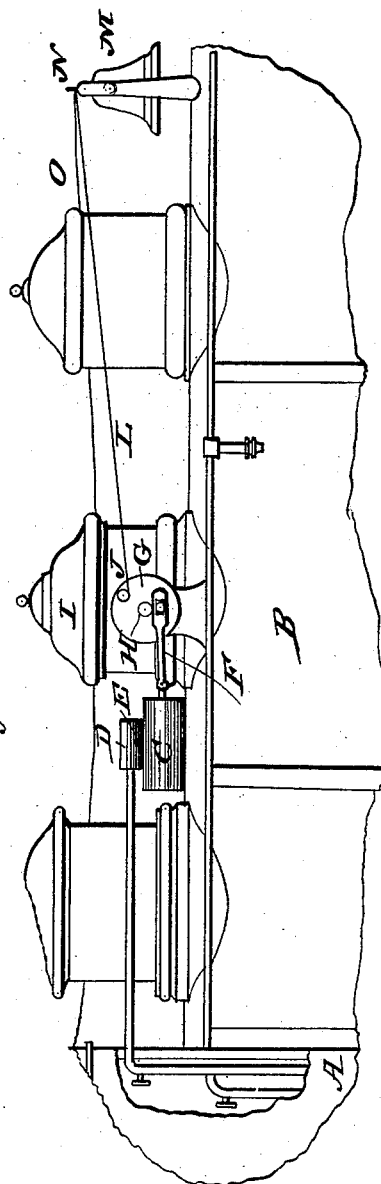


Fig. 2.

WITNESSES:

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UNITED STATES PATENT OFFICE.

CUNINGHAM DRAKE, OF PHILADELPHIA, PENNSYLVANIA.

BELL-RINGING ATTACHMENT FOR LOCOMOTIVES.

SPECIFICATION forming part of Letters Patent No. 304,626, dated September 2, 1884.

Application filed May 12, 1884. (No model.)

To all whom it may concern:

Be it known that I, CUNINGHAM DRAKE, a citizen of the United States, and a resident of Philadelphia, in the county of Philadelphia and State of Pennsylvania, have invented certain new and useful Improvements in Bell-Ringing Attachments for Locomotives; and I do hereby declare that the following is a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, which form a part of this specification, and in which—

Figure 1 is a side view of a locomotive equipped with my improved device for automatically ringing the bell, and Fig. 2 is a detail side view on a larger scale.

The same letters refer to the same parts in all the figures.

This invention relates to an improved attachment to railway-locomotives, the object of which is to ring the warning-bell automatically, in order to save the engineer from this duty and enable him to devote his entire time and attention to the working of the engine. In some cities objection is made to the whistle-signals, while at the same time the engineers are required to warn persons passing across the track by means of the bell-signal. This is a fatiguing duty, and is apt to detract the attention of the engineer from his other and more important duties. By my invention the bell-signal may be automatically operated by the engine for any desired length of time.

My invention for this purpose consists in the improved construction and arrangement of parts which I shall now proceed more fully to describe.

A designates an ordinarily-constructed locomotive, of which B is the boiler. C is a small steam-cylinder arranged above the boiler at one side thereof, and having a valve-chest, D, receiving steam from the boiler through a suitably-arranged pipe, and provided with a suitable exhaust, E. The cylinder C has a piston, (not shown in the drawings,) the rod of which, F, is pivotally connected with a wheel

or disk, G, mounted upon one end of the shaft H, which is journaled in one side of the sand-box I. The cylinder C may be pivoted or oscillating, in which case the steam and exhaust pipes should be made flexible; or, when it is made stationary, a suitable pitman should be introduced between the piston-rod and the crank-pin of the disk G. The disk G is provided with an eccentrically-located pin, J, which is connected by means of a rope or chain, L, with the bell M, to which an oscillating or swinging motion may thus be imparted. The bail N, in which the bell is pivoted, is also connected by means of a rope or other device, O, with the engineer's cab, so that the bell may be operated by hand as well as by the steam mechanism herein described. When in operation it is desired to ring the warning-bell for any considerable length of time, it is only necessary for the engineer to turn steam into the valve-chest of the cylinder C. The piston of the latter is thus operated, and will serve to impart through its connecting mechanism an oscillating motion to the bell M, which said motion may be kept up for any length of time, while the engineer may give his entire attention to other duties.

Having thus described my invention, I claim and desire to secure by Letters Patent of the United States—

The combination, with a railway-locomotive, of a supplemental cylinder located at one side of and above the boiler, and having a suitable valve-chest, a steam-pipe connecting the same with the main boiler, suitable exhaust mechanism, a disk mounted upon a shaft journaled transversely in the sand-box, and devices connecting the said disk respectively with the piston-rod of the supplemental cylinder and with the warning-bell, substantially as set forth.

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

CUNINGHAM DRAKE.

Witnesses:

LOUIS BAGGER,
AUGUST PETERSON.