No. 796,412. PATENTED AUG. 8, 1905.

N. A. BUTLER.

ALARM BELL FOR STREET CARS.

APPLICATION FILED APR. 21, 1905.

2 SHEETS—SHEET 1.

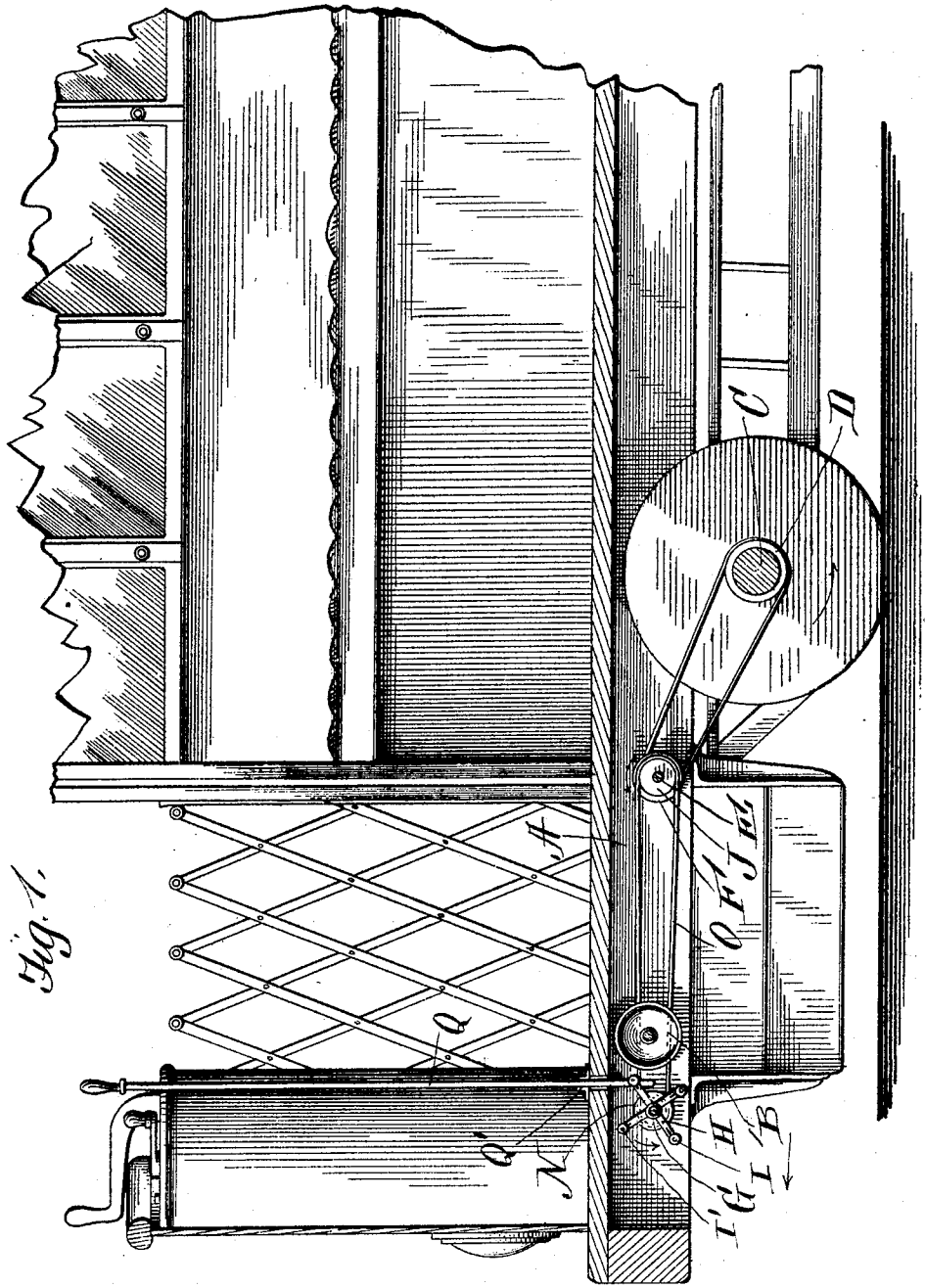


Fig. 1.

Witnesses

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2 SHEETS—SHEET 2.

Fig. 2.

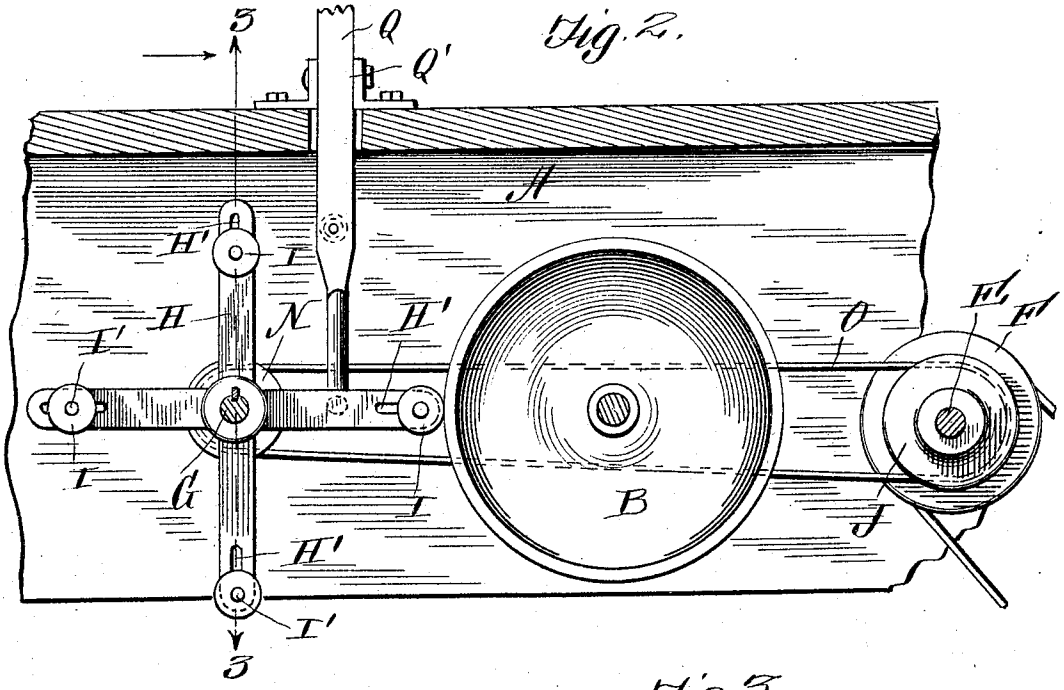
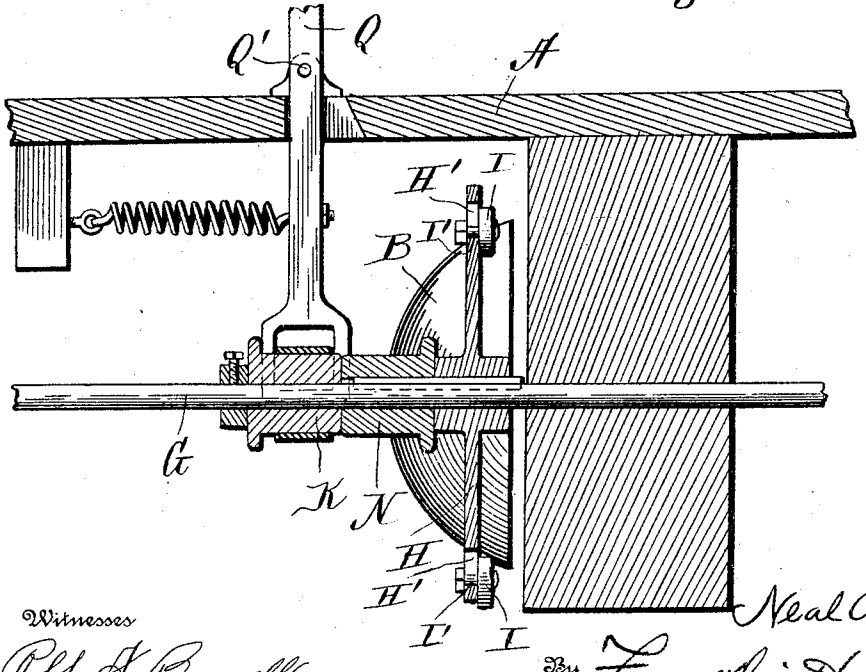


Fig. 3.



Witnesses

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UNITED STATES PATENT OFFICE.

NEAL AVERY BUTLER, OF HAMPTON, VIRGINIA, ASSIGNOR OF ONE-THIRD TO W. H. BORGENTON, OF HAMPTON, VIRGINIA.

ALARM-BELL FOR STREET-CARS.

No. 796,412. Specification of Letters Patent. Patented Aug. 8, 1905.

Application filed April 21, 1905. Serial No. 256,780.

To all whom it may concern:

Be it known that I, NEAL AVERY BUTLER, a citizen of the United States, residing at Hampton, in the county of Elizabeth City and State of Virginia, have invented certain new and useful improvements in Alarm-Bells for Street-Cars; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same, reference being had to the accompanying drawings, and to the letters of reference marked thereon, which form a part of this specification.

This invention relates to new and useful improvements in alarm apparatus for street-railway and other cars; and the object of the invention is to produce a simple and efficient alarm which may be controlled by a lever conveniently located adjacent to the controller of an electric car and so arranged that when the apparatus is thrown into operation a continuous ringing of the bell may be caused by belted connection with the axle of the car.

The invention consists in various details of construction and in combinations and arrangements of parts, as will be hereinafter fully described and then specifically defined in the appended claim.

My invention is illustrated in the accompanying drawings, in which—

Figure 1 is a sectional view vertically through a part of a car, showing the manner of application of my alarm apparatus; and Fig. 2 is an enlarged detail in side elevation of the apparatus detached from the car. Fig. 3 is a section on line 3 3 of Fig. 2.

Reference now being had to the details of the drawings by letter, A designates the bottom of a car to which a gong or bell B is secured to the side of one of the projecting beams which support the platform of a car, and C designates the axle, upon which is mounted a pulley D.

E designates a counter-shaft which is journaled, preferably, in suitable bearings in the beams which support the platform, and F designates a pulley fixed to the shaft E and which has belted connection with the pulley D on the axle. G designates a second shaft which is journaled also in the beams supporting the platform and has a pulley K loosely journaled thereon and also a pulley N, which is fixed to said shaft G.

O designates a belt which is driven by means of a pulley J, which is fixed to the counter-shaft E, said belt adapted to turn either about the idler K or the pulley N, accordingly as the belt may be thrown, so as to run upon the idler or said pulley by means of the lever Q, which is pivoted at Q′ to the floor of the platform, the upper end of said lever being at a convenient location to the motorman of the car.

Fixed to the shaft G are the radial arms H, each of which has an elongated slot H′ near the free end thereof, and I I designate wheels which are mounted upon stub-axles I′, which are mounted one in each of said slots and so arranged that said stub-axles may have a play in said slots as the small wheels carried thereby come in contact with the gong.

The operation of my device is simple and is as follows: When it is desired for any purpose to cause the alarm to be sounded, the motorman by simply throwing the lever may cause the shaft G to rotate by throwing the belt from the idler upon the pulley N, which will cause the radial arms fixed to the shaft G to turn, throwing the small wheels mounted upon the stub-axles and carried by the arms forcibly against the gong. As said wheels I come forcibly against the gong they will be forced by the latter away from the gong to allow the arms to swing without interference.

By the provision of an apparatus embodying the features herein shown and described it will be observed that a simple and efficient alarm apparatus is provided which is at all times within the control of the motorman and which may be thrown into or out of operative relation by the simple manipulation of the hand-lever in the manner described.

While I have shown a particular form of apparatus illustrating my invention, it will be understood that I do not confine myself to the exact details of construction, but may vary the details of the same, if desired, in various ways without in any way departing from the spirit of the invention.

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

In combination with a car and axle thereof, a pulley fixed to said axle, a gong carried by the frame of the car, a counter-shaft, pulleys fixed upon said counter-shaft and belted connections between one of said pulleys and the pulley upon the axle, a second shaft journaled

in suitable bearings, a fixed pulley and a loose pulley mounted upon said second shaft, belted connections between the pulleys of said second shaft and one of the pulleys of said counter-shaft, radial slotted arms fixed to said second shaft, stub-shafts having a play in the slots of said arms, wheels journaled upon said stub-shafts and adapted to contact with said gong as the arms turn in the shaft carrying the same, and means for throwing the apparatus into and out of operation, as set forth.

In testimony whereof I hereunto affix my signature in presence of two witnesses.

NEAL AVERY BUTLER.

Witnesses:
FRANKLIN H. HOUGH,
A. L. HOUGH.