T. KELLY. ACTUATING DEVICE FOR STREET CAR GONGS.

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## UNITED STATES PATENT OFFICE.

THOMAS KELLY, OF NEW ORLEANS, LOUISIANA.

## ACTUATING DEVICE FOR STREET-CAR GONGS.

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To all whom it may concern:

Be it known that I, THOMAS KELLY, of New Orleans, in the parish of Orleans and State of Louisiana, have invented a new and 5 Improved Actuating Device for Street-Car Gongs, of which the following is a full, clear,

and exact description.

The object of the invention is to provide a new and improved actuating device dero signed for sounding street-car gongs automatically while the car is in motion, the device being also arranged to permit the motorman or other attendant in charge of the car to sound the gong when the car is at a stand-15 still.

The invention consists principally of a lever adapted to receive a vibrating motion from a projection on the car-axle, a striker connected with the said lever, a foot-piece 20 under the control of the motorman and connected with the said striker, and a spring for yieldingly connecting the said several parts and responsive to the vibrating action of the said lever to cause the striker to sound the

The invention also consists of certain parts and details and combinations of the same, as will be hereinafter described and then point-

ed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the views.

Figure 1 is a sectional side elevation of the 35 improvement as applied. Fig. 2 is a like view of the same with the parts in a different position, and Fig. 3 is a like view of a modi-

fied form of the improvement.

On the axle A of a street-car B are secured 40 one or more lugs C, adapted to engage the arm D' of a bell-crank lever D to impart a vibrating motion to the said lever during the time the car is moving, and the said arm D' is directly in the path of the lugs or projec-The bell-crank lever D is fulcrumed on a pivot E, held in a bracket E', secured to the under side of the platform of the car, as plainly shown in the drawings. The other arm, D<sup>2</sup>, of the bell-crank lever D is pivotally connected by a link F with a striker G, adapted to sound a bell or gong H, supported on the under side of the car-platform, as is, the striker G moves from the wall of the

plainly shown in the drawings. The striker G is secured on a transversely-extending pivot I, held in a bracket I', secured to the 55 car-platform, and on the said lever I is secured an arm G', extending forwardly and connected at its free end by a spring J with a foot-piece K in the form of a rod fitted to slide vertically in a suitable bearing L, at- 60 tached to the car-platform.

The upper end of the foot-piece K is provided with a head K', adapted to be engaged by the foot of the motorman or other attendant in charge of the car, and on the said head 65 presses a spring N, coiled on the foot-piece and set in the bearing L to hold the said footpiece normally in an uppermost position until it is pressed on by the foot of the motor-The foot-piece K has a loose connec- 70 tion with the arm O' of the second striker O, adapted to strike and sound the gong H whenever the operator presses and releases quickly the foot-piece K.

When the several parts are in the position 75 as shown in Fig. 1 and the car B is moving and it is desired to automatically sound the gong II, then the motorman presses the footpiece K downward and holds it in this position for such a length of time as it is desired 80 to sound the gong automatically. When the foot-piece K is thus pushed downward to the position shown in Fig. 2, the spring J will act on the arm G' to cause the striker G to move with its free end into engagement with the 85 wall of the gong or bell H, the said striker G, however, having a yielding motion, owing to the spring J. The moving of the striker G to the position described causes a pull on the link F, so that the bell-crank lever D is caused to swing to bring the arm D' into the path of the projection C. Now as the axle A revolves the said projections C act on the arm D' to vibrate the bell-crank lever D, whereby the striker G is caused to sound the 95 bell or gong H.

By reference to Fig. 2 it will be seen that the second striker O is held out of engagement with the bell H during the time the foot-piece K is in a lowermost position. As 100 soon as the operator releases the pressure on the foot-piece K the several parts return to their normal position, (shown in Fig. 1,) that

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bell H and the arm D' of the bell-crank lever D moves out of the path of the projections C. Thus the spring J serves to bring the striker G into an active position when the foot-piece 5 K is pressed, and the said spring J responds to the vibrating action of the bell-crank lever D to cause the said striker G to sound the bell whenever the foot-piece K is depressed.

In the modified form shown in Fig. 3 the 10 foot-piece K2 is connected with the arm G2 of a bell-crank lever fulcrumed on the pivot I<sup>2</sup>, secured on a bracket I3, the said bell-crank lever having its other arm,  $G^4$ , connected by a chain F' with a spring J', formed integrally 15 on the free end of the arm D3 of a bell-crank lever D4, fulcrumed on a pivot E2, held in a bracket E3. The arm D5 of the bell-crank lever  $\mathrm{D}^4$  is adapted to be engaged by the projections  $\mathrm{C}'$  on the axle  $\mathrm{B}'$  whenever the foot-20 piece K<sup>2</sup> is moved into a lowermost position by the attendant of the car.

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The striker G<sup>3</sup> moves with the bell-crank lever, composed of the arms G<sup>2</sup> G<sup>4</sup>, to sound the bell H'when the operator quickly presses 25 and releases the foot-piece K<sup>2</sup>, and when the foot-piece K<sup>2</sup> is held in a lowermost position for a certain length of time then the bellcrank lever D4 is vibrated from the projections C' during the movement of the car. In 30 the latter case the action is the same as above described in reference to Figs. 1 and 2, so

that further description of the same is not

deemed necessary.

Having thus described my invention, I claim as new and desire to secure by Letters Patent-

1. A device of the class described, comprising a bell-crank lever adapted to receive a vibratory motion from a projection on a car-40 axle, a bell or gong, a pivoted striker, means for connecting the said striker with one arm of the said bell-crank lever, an arm connected with the striker, a foot-piece under the control of the motorman and connected with the said arm, and a spring for yieldingly con- 45 necting the said parts and responding to the vibrating action of the said lever to cause the striker to sound the bell, substantially as shown and described.

2. A device of the class described, compris- 50 ing a spring-pressed foot-piece under the control of the motorman, a pivoted striker adapted to sound a bell and provided with an arm connected with the said foot-piece, a bellcrank lever, means for connecting the said 55 striker with one arm of the said bell-crank lever, projections on the revolving part of the car adapted to engage the other arm of the said bell-crank lever whenever the said spring-pressed foot-piece is held in a lower- 60most position and the said arm is thereby drawn into the path of the said projections, and a spring for yieldingly connecting the said parts and producing responsive vibra-

ting action of the said lever to cause the said 65

striker to sound the bell, substantially as shown and described.

3. A device of the class described, comprising a spring-pressed foot-piece, a striker connected with the said foot-piece and adapted 70 to sound a bell whenever the said foot-piece is quickly pushed and released, a spring connected with the said foot-piece, a second striker connected with the said spring and likewise adapted to sound the said bell, a bell-75 crank lever connected with the said second striker, and projections held on a revolving part of the car, and adapted to engage the said bell-crank lever, to vibrate the same and cause the second striker to sound the said 80 bell, substantially as shown and described.

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Witnesses:

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