

No Model.)

E. DE HAAS.
AUTOMATIC CAR SIGNAL.

No. 575,710.

Patented Jan. 26, 1897.

Fig. 1.

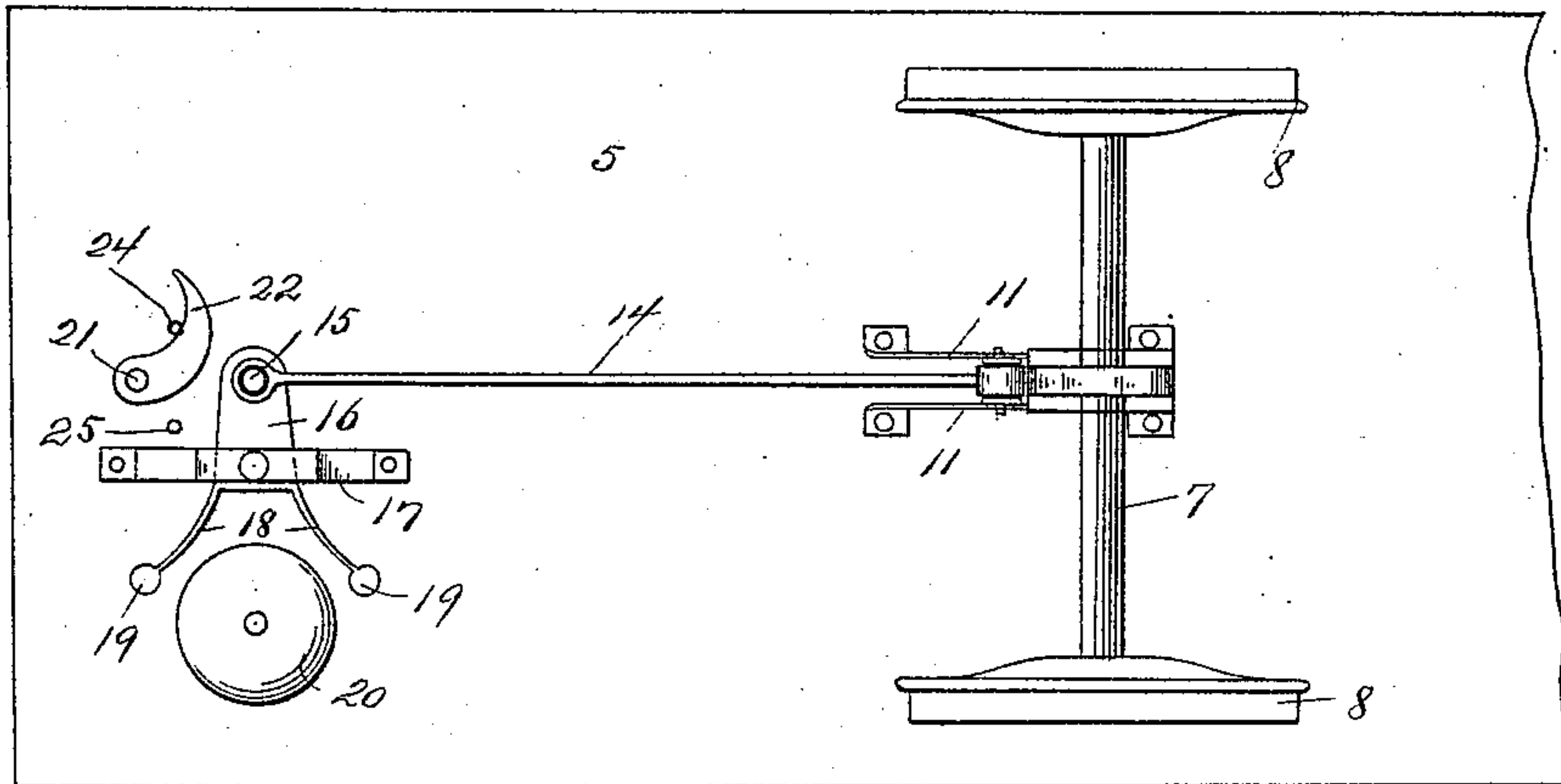
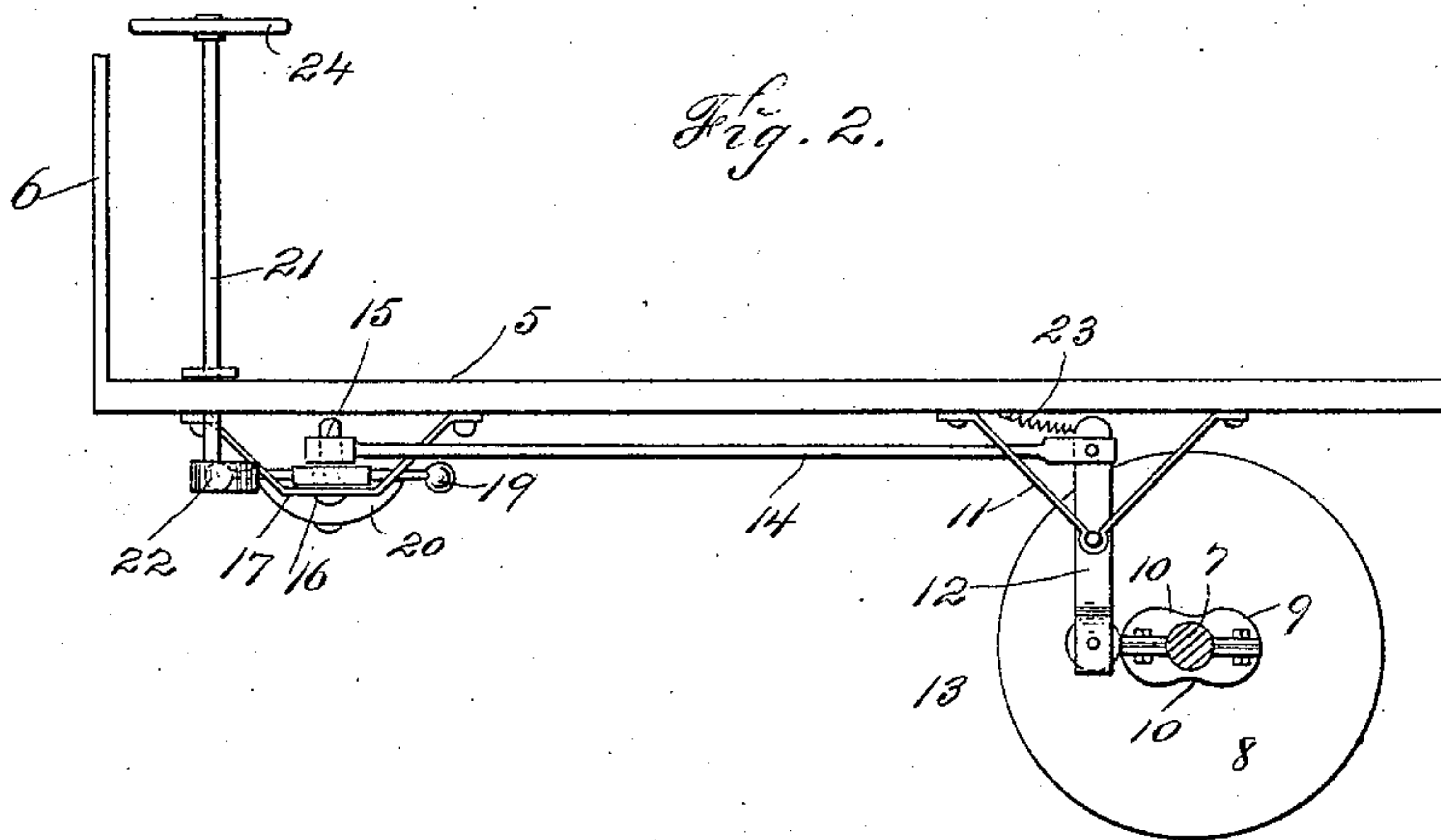


Fig. 2.



WITNESSES

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AUTOMATIC CAR-SIGNAL.

SPECIFICATION forming part of Letters Patent No. 575,710, dated January 26, 1897.

Application filed September 29, 1896. Serial No. 607,283. (No model.)

To all whom it may concern:

Be it known that I, EDWARD DE HAAS, a citizen of the United States, and a resident of St. Paul, in the county of Ramsey, State of Minnesota, have invented certain new and useful Improvements in Automatic Alarm-Bells for Cars, of which the following is a specification, reference being had to the accompanying drawings, forming a part thereof, in which
10 similar numerals of reference indicate corresponding parts in both views.

This invention relates to automatic alarm-bells for tramway-cars; and the object thereof is to provide an improved device of this
15 class which is adapted to be operated by one of the axles of the car, and which is provided with a locking device under the control of the motorman or driver.

The invention is fully disclosed in the following specification, of which the accompanying drawings form a part, in which—

Figure 1 is a bottom plan view of the platform of a car, showing my improved automatic alarm connected therewith and showing also
25 one of the axles of the car; and Fig. 2, a side view thereof.

In the drawings forming part of this specification I have shown at 5 the platform of a car, which is provided with the usual dashboard 6, and I have also shown one of the
30 axles at 7, which is provided with the usual wheels 8, and in the practice of my invention I mount upon the axle 7 an alarm-operator 9, which is oblong in form and provided with
35 semicircular or rounded ends and with semicircular cavities or depressions 10 in the sides thereof. This device is secured to the axle in any desired manner, and suspended from the platform in front of said axle are hangers
40 11, in which is pivoted a lever 12, in the lower end of which is mounted a roller 13, and pivotally connected with the upper end of the lever 12 is a rod 14, which projects forwardly and is pivotally connected at 15 with a lever
45 16, which is pivotally supported in a hanger 17, and said lever is provided at the end thereof, opposite this pivotal connection with the rod 14, with two outwardly-curved arms
50 18, each of which is provided at its end with a knocker 19, and suspended from the platform 5 between said knockers 19, as shown in Fig. 1, is a gong or bell 20.

Passing vertically through the front end of the platform is a shaft 21, on the lower end of which is secured a segmental or crescent-shaped dog 22, and the lower end of the shaft
55 21 is directly in front of the pivotal connection of the rod 14 with the lever 16, and secured to the upper end of the lever 12 is a spring 23, one end of which is secured to the
60 platform 5 in front of said lever.

The operation of the spring 23 is to hold the roller 13, which is mounted in the lever 12, in operative connection with the alarm-operator 9 on the shaft 7, and the operation will be
65 readily understood from the foregoing description when taken in connection with the accompanying drawings and the following statement thereof. By turning the shaft 21, by means of the ring or handle 24, the dog 22
70 is thrown against the end of the lever 16, with which the rod 14 is connected, and said rod 14 is forced backwardly, thus throwing the lower end of the lever 12 forwardly, so that the alarm-operator 9 will not come in contact
75 with the roller 13 as the shaft 7 revolves, and whenever it is desired to sound the alarm the shaft 21 is turned so that the dog 22 will be in the position shown in Fig. 1, or out of contact with the lever 16, and in this position of
80 the parts the roller 13 will press upon the alarm-operator 9 and the lower end of the lever 12 will be operated to sound the alarm, the rod 14 being given a succession of quick forward and back movements by means of the
85 operator 9 and the spring 23, and in this operation of the rod 14 the knockers 19 on the arms 18 of the lever 16 will be brought in contact with the gong or bell 20 and the alarm will be continued until the dog 22 is again
90 turned, so as to force the rod 14 backwardly against the operation of the spring 23. The bottom of the platform 5 is also provided with two depending pins 24 and 25, which limit the movement of the dog 22, and my invention is
95 not limited to the means described for operating the shaft 21, and devices may be connected therewith whereby the same may be operated by the feet, if desired.

It will also be apparent that changes in the
100 form of the alarm-operator 9 on the shaft 7 may be made, the only object in this connection being to provide a device of irregular form, which as the shaft revolves, will, in

connection with the spring 23, give the lower end of the lever 12 a succession of forward and backward movements.

5 This device is simple in construction and operation and well adapted to accomplish the result for which it is intended, and is also comparatively inexpensive and may be applied to any of the cars now in use without alterations in the construction thereof.

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

1. The herein-described alarm device for tramway-cars, which consists of a gong or bell
15 supported beneath the platform of the car, a lever pivotally supported adjacent thereto, and provided with knockers, a rod pivotally connected with said lever, and projecting backwardly, devices connected with one of
20 the axles of the car, and with the rear end of said rod for moving said rod backwardly and forwardly, as the axle revolves, and means for locking the rod in its rearmost position, consisting of a shaft which passes through the
25 platform of the car, adjacent to the forward end of the rod, and which is provided with a dog at its lower end, substantially as shown and described.

2. The combination with the bottom of the platform of a car, of an alarm device, which
30 consists of a gong or bell supported beneath the platform of the car near the front end thereof, a lever pivotally supported adjacent thereto, and provided at one end with knockers, a longitudinal rod pivotally connected
35 with the opposite end of said lever, and projecting backwardly, and devices connected with one of the axles of the car and with the rear end of said rod for moving said rod backwardly and forwardly as the axle revolves,
40 and means for locking said rod in its rearmost position, consisting of a rod which passes upwardly through the platform of the car, and which is provided at its lower end with a dog
45 which is adapted to bear on the end of the lever with which said longitudinal rod is connected, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 23d
50 day of September, 1896.

EDWARD DE HAAS.

Witnesses:

ERNEST PETERSON,
GEO. W. RODENBERG.