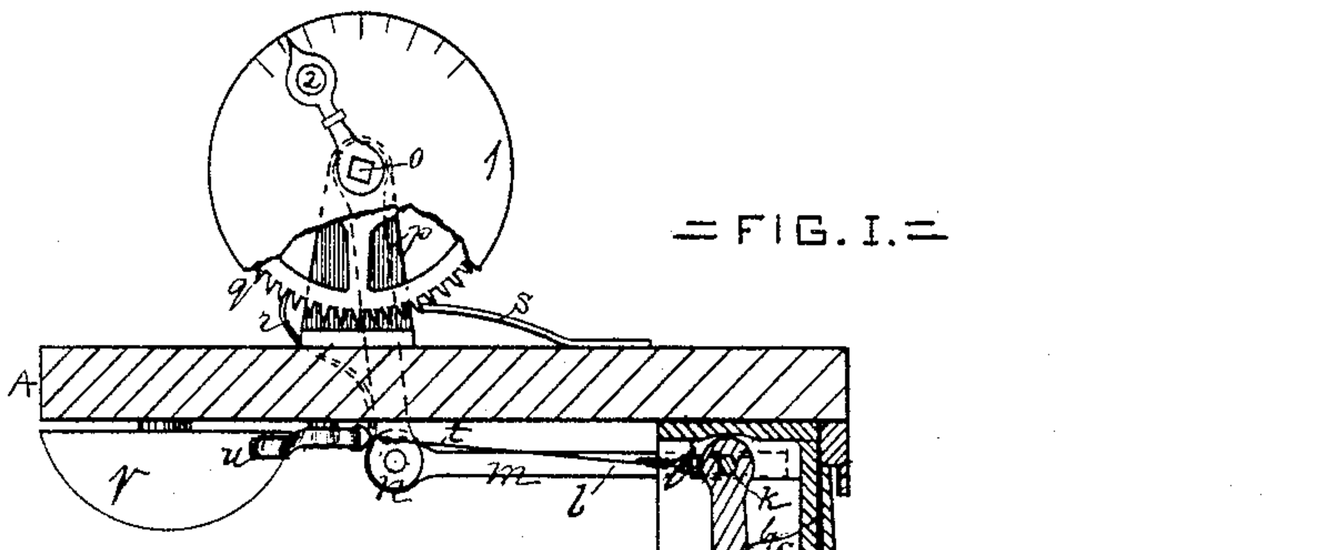
C. MARTENS & F. KRUPP.

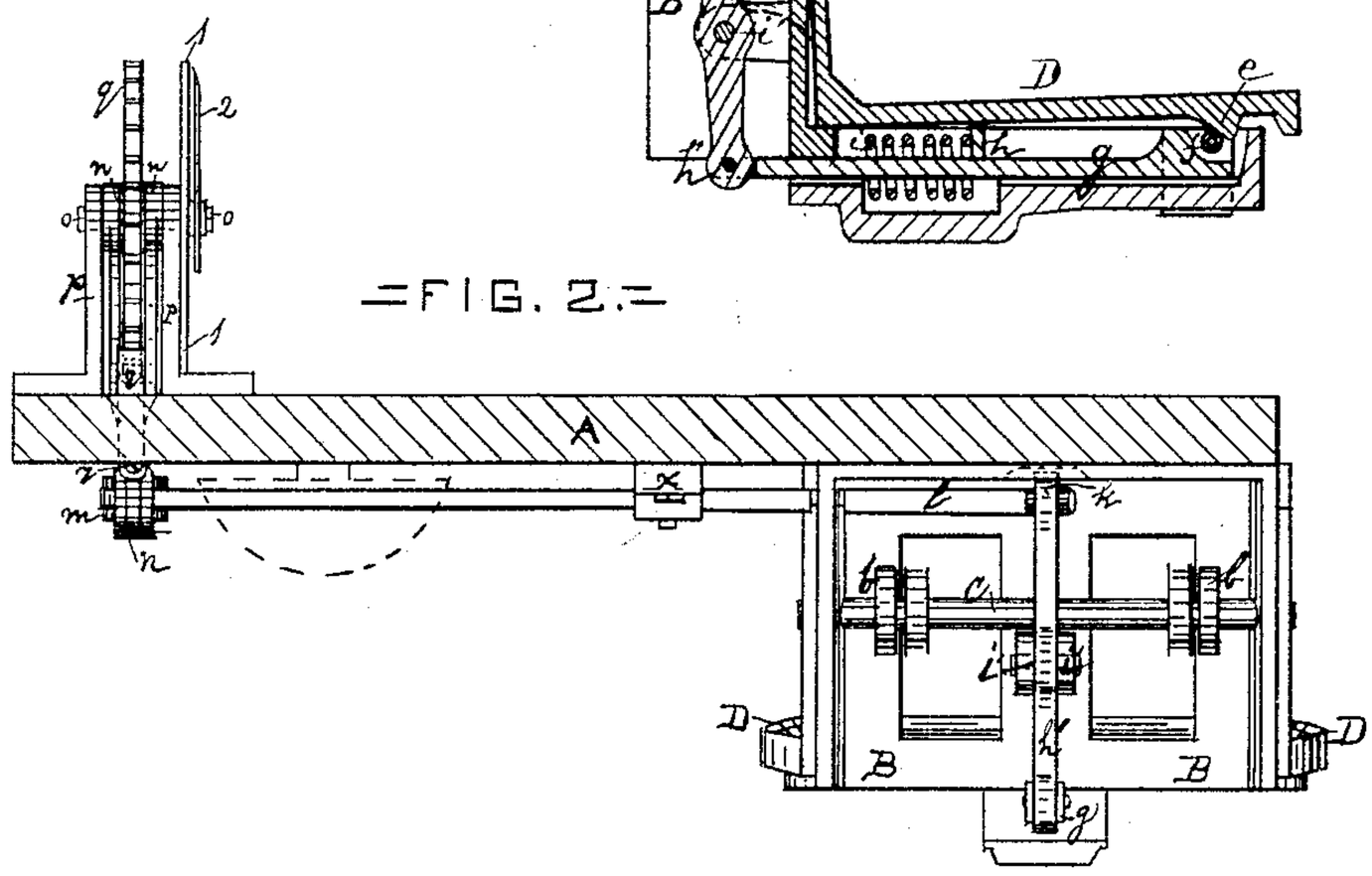
Passenger Step-Register.

No. 210,264. Patented Nov. 26, 1878.

=FIG. I.=



=FIG. 2.=



WITNESSES.

S. C. Hubbell

E. R. Brown

INVENTORS.

Chas. Martens

Frank Krupp

By H. N. Jenkins

ATTORNEY.

UNITED STATES PATENT OFFICE.

CHARLES MARTENS AND FRANK KRUPP, OF NEW ORLEANS, LOUISIANA.

IMPROVEMENT IN PASSENGER STEP-REGISTERS.

Specification forming part of Letters Patent No. **210,264,** dated November 26, 1878; application filed December 10, 1877.

To all whom it may concern:

Be it known that we, CHARLES MARTENS and FRANK KRUPP, residents of the city of New Orleans, parish of Orleans, and State of Louisiana, have invented a certain new and useful Improvement in Passenger-Registers for Street-Cars, &c.; and we do hereby declare the following to be a full, clear, and correct description of the same, reference being had to the annexed drawing, making a part of this specification.

This invention relates to a perfectly reliable and inexpensive apparatus for automatically registering the number of passengers entering a street-car or other vehicle.

The nature of our invention is clearly indicated in the accompanying drawing, whereon Figure 1 represents a side elevation, part of which is shown in section, and Fig. 2 a horizontal cross-section of the same.

A represents the floor of a car, to the rear of which is secured a metal frame, B, provided with lugs *b b* for holding in a horizontal position a rod, *c*, on which is pivoted a step, D, that is furnished on its under side with an angularly-shaped lug, *e*, for operating on a friction-roller, *f*, the latter fitted in the rear of a sliding rod, *g*, which is provided with a pin, *h*, and spring *i*, whereby it is kept, when not in operation, in a backward position.

Connected with the forward end of the aforesaid rod *g* is the lower end of a lever, *h'*, the center of which is pivoted to the lugs *i' i'*, so that its upper end, *k*, may operate a horizontal lever, *l*, that is pivoted to the under side of the floor, as at *x*, in order that any movement thereof may be communicated through a link, *m*, to the lower end of a forked lever, *n*, which is suspended on the indicator-shaft *o*, the journals of which operate in the upright bearings *p p'*, the latter provided with a marked dial, 1, around which the index-finger 2 is operated by a wheel, *q*, that is keyed or otherwise secured to the shaft *o*, so that its teeth may be engaged by a spring-pawl, *r*, and check *s*, as shown.

To the horizontal lever *l* is connected, by means of a wire or cord, *t*, a hammer, *u*, for striking a gong, *v*, the instant each registration takes place.

The operation of our invention is as follows: The moment a person's weight is thrown on the step the rod *g* is, by the wedge *e*, driven forward to such an extent as to change the position of the levers *h'* and *l*, the movement being communicated by the link *m* to the lever *n*, the pawl of which causes the toothed wheel to move forward until the check *s* springs over one tooth, in which position the wheel is securely held until the apparatus is again operated. The instant the step is released of the weight of the passenger by his entering the car the mechanism flies back to its normal position, thus causing the pawl *r* to engage a second tooth, and hence be ready for another operation.

This apparatus, it will be perceived, is operated by the passenger, both as he enters and leaves the car; and hence, to ascertain the exact number of passengers carried it is necessary to divide the number indicated on the dial by two.

The gong, as a matter of course, may be placed in any desired position by simply shortening or lengthening the link or wire, as the case may be, which connects with the hammer thereof.

Having described our invention, what we claim as new, and desire to secure by Letters Patent, is—

In an automatic passenger-register, a pivoted step, D, provided with wedge *e*, for operating on a friction-roller, *f*, that is fitted in the rear end of a sliding rod, *g*, as described, and for the purpose set forth.

In testimony whereof we have hereunto signed our names.

CHAS. MARTENS.
FRANK KRUPP.

In presence of—
J. C. HUBBELL,
P. FINNEY.