

(Model.)

G. BEADLE.

CHANGE GATE FOR PUBLIC CONVEYANCES.

No. 273,337.

Patented Mar. 6, 1883.

FIG. 1.

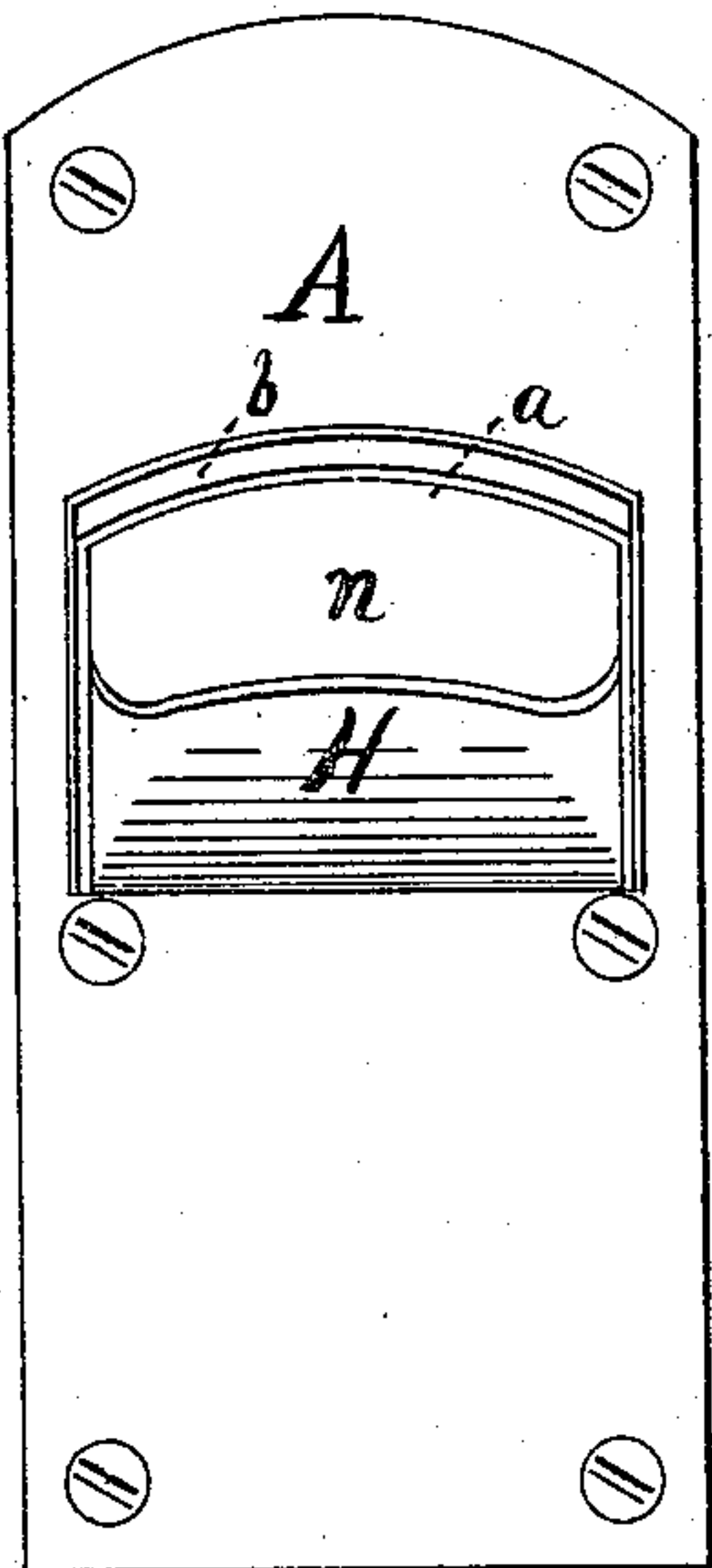


FIG. 2.

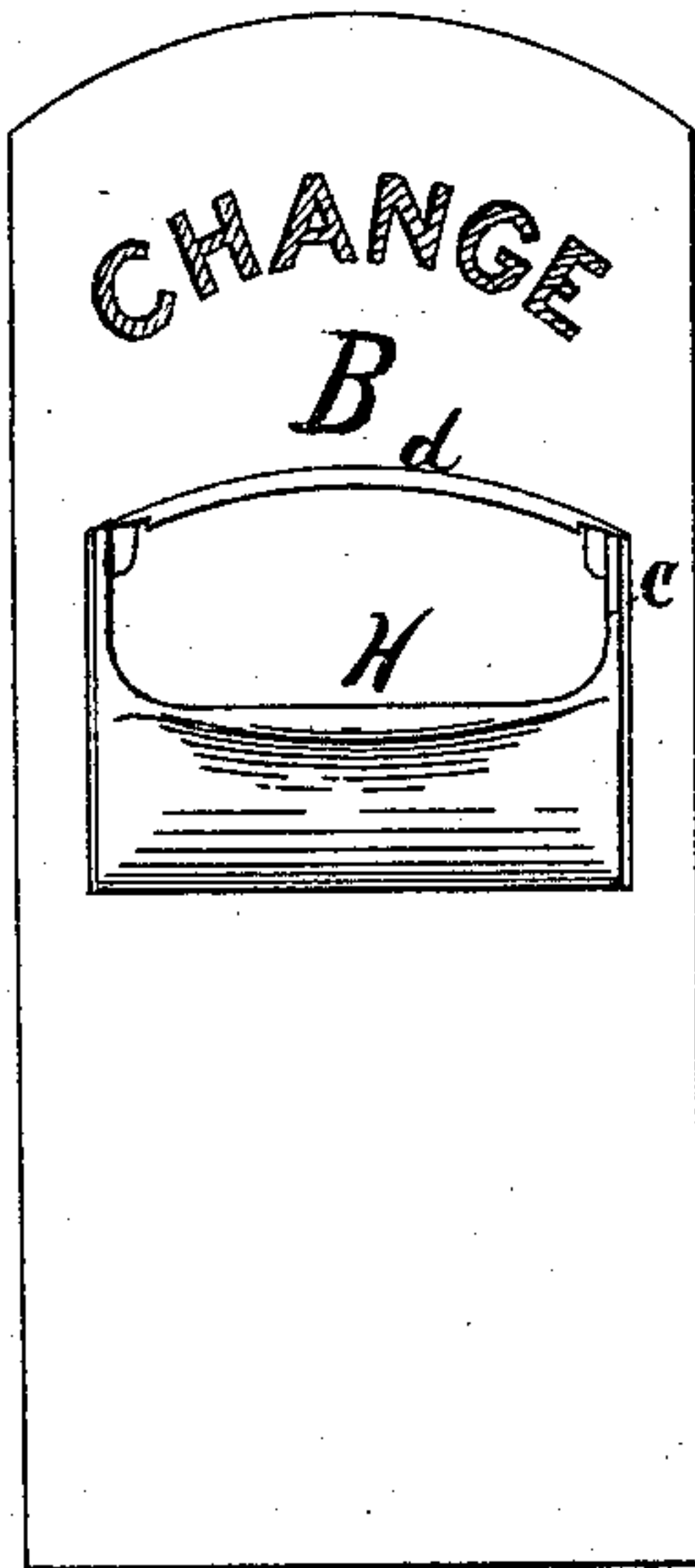


FIG. 3.

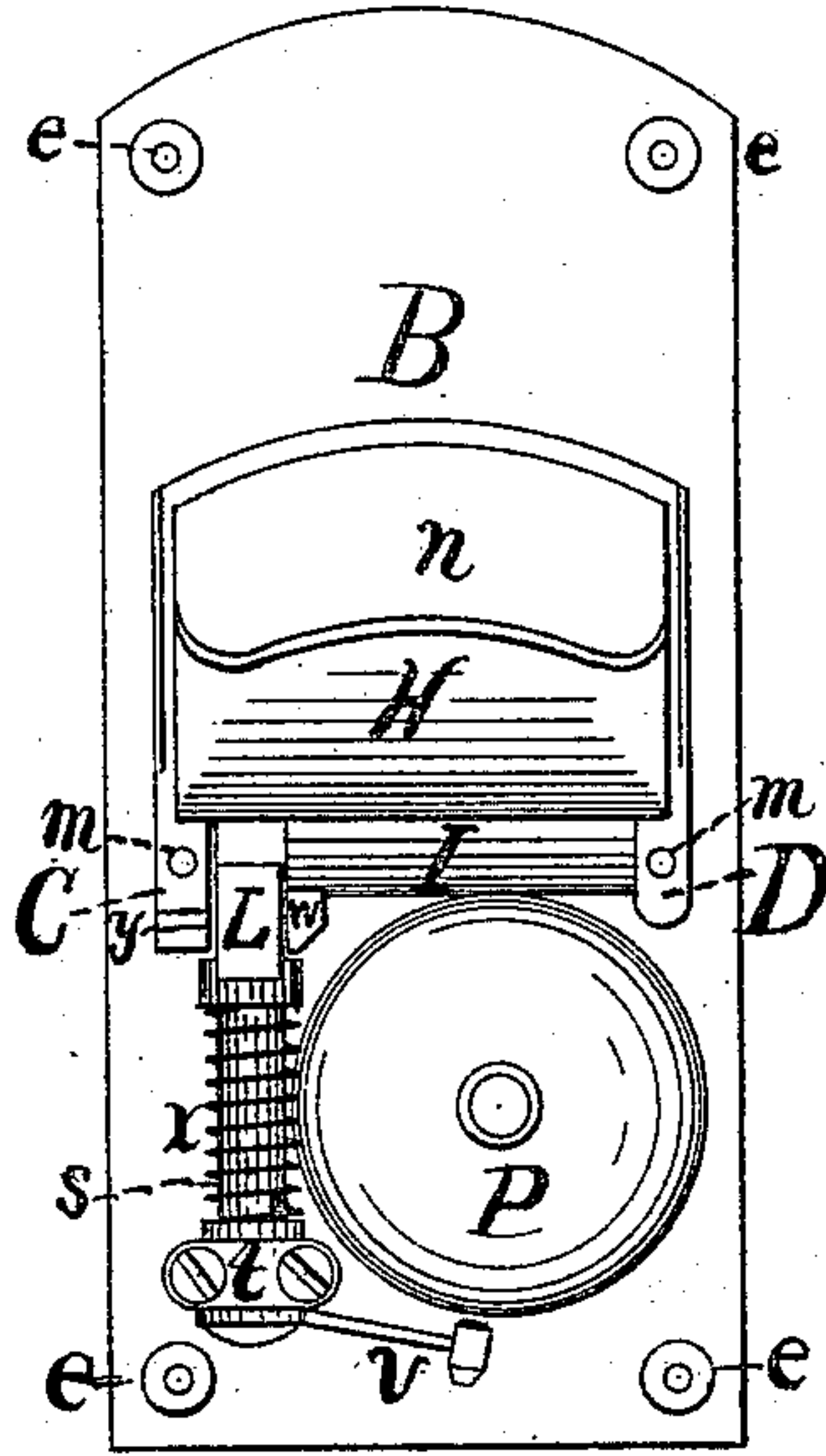


FIG. 4.

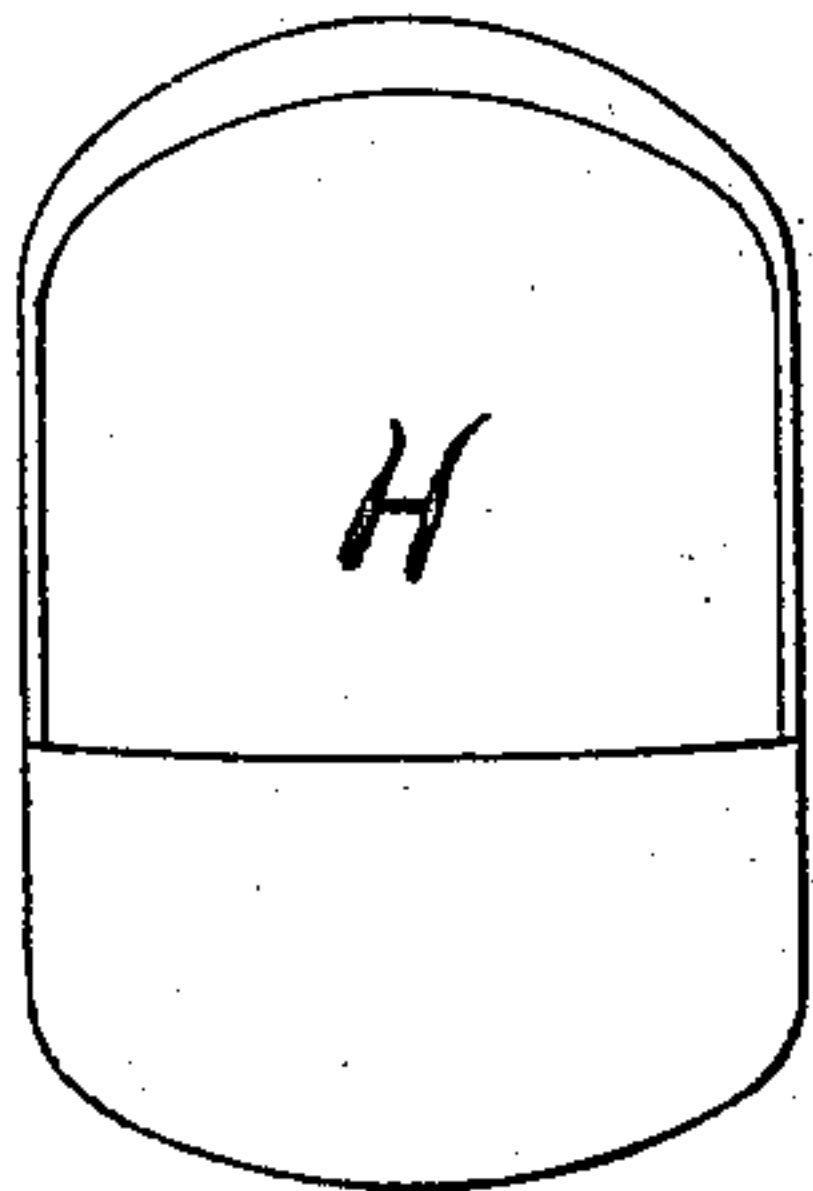


FIG. 5.

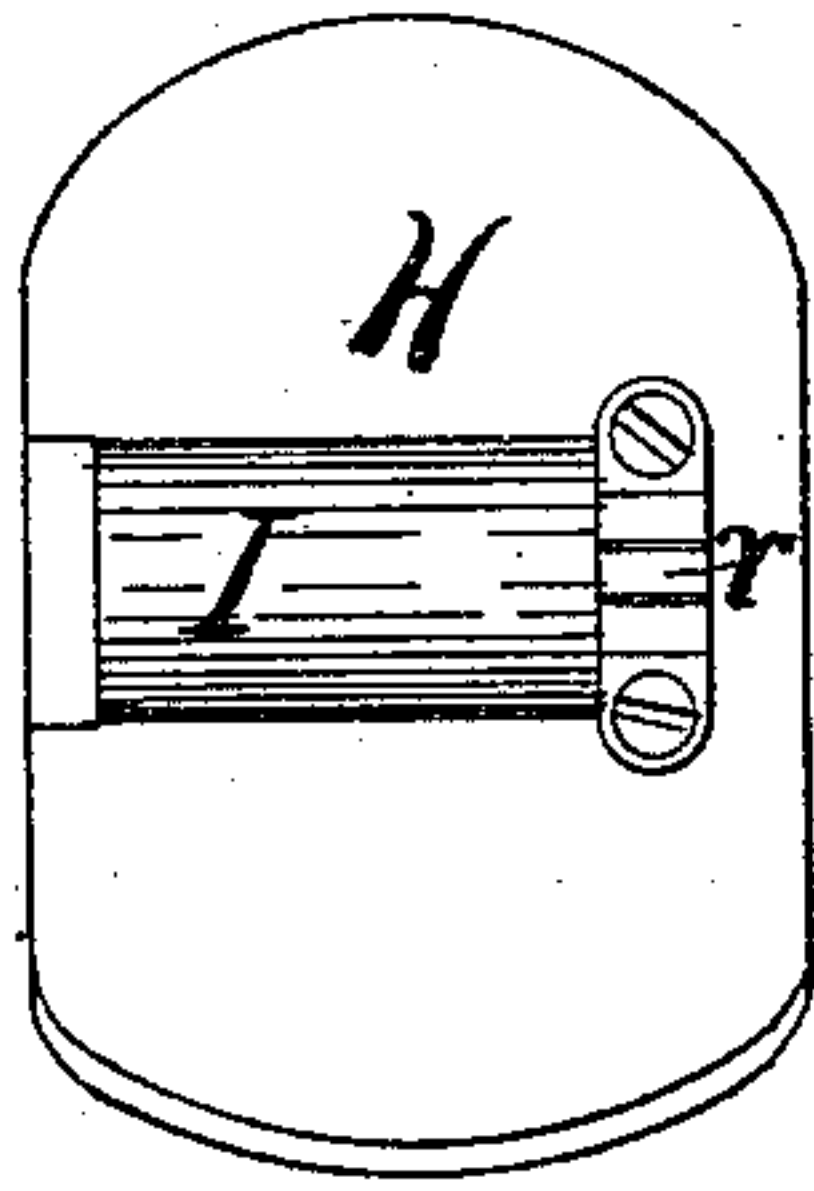


FIG. 6.

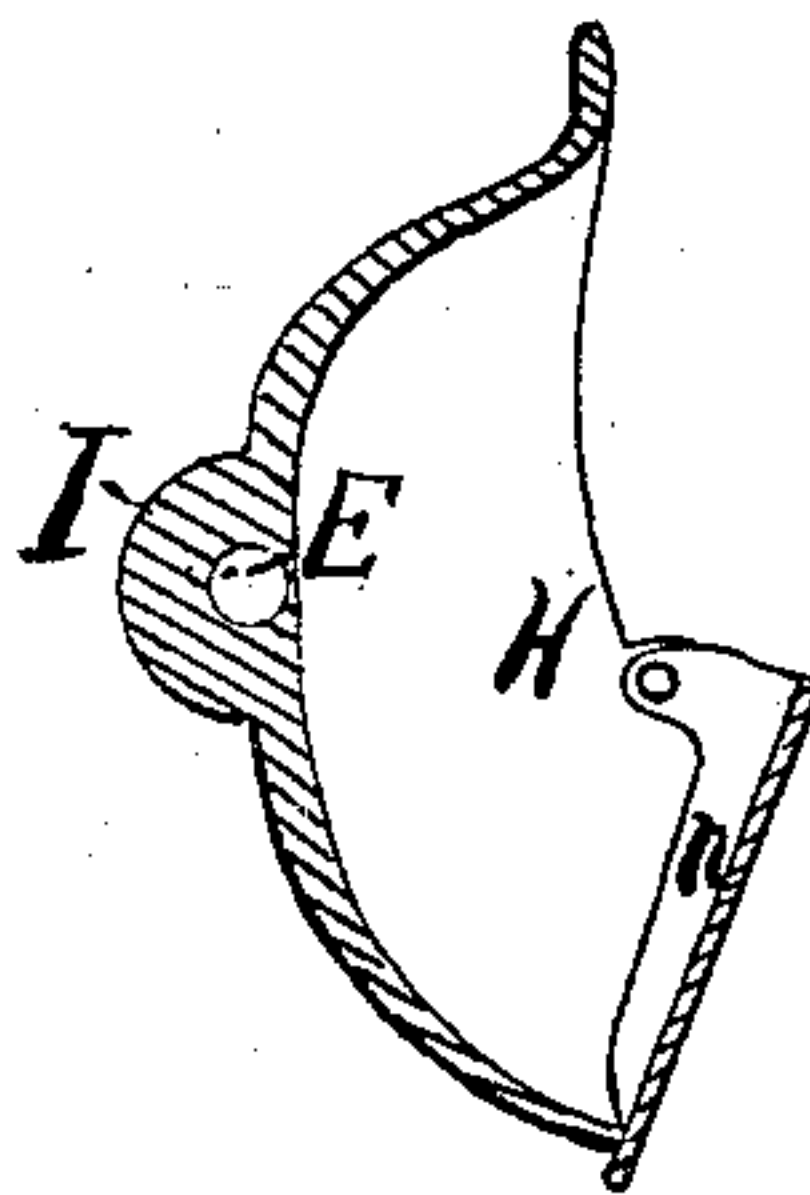


FIG. 7.

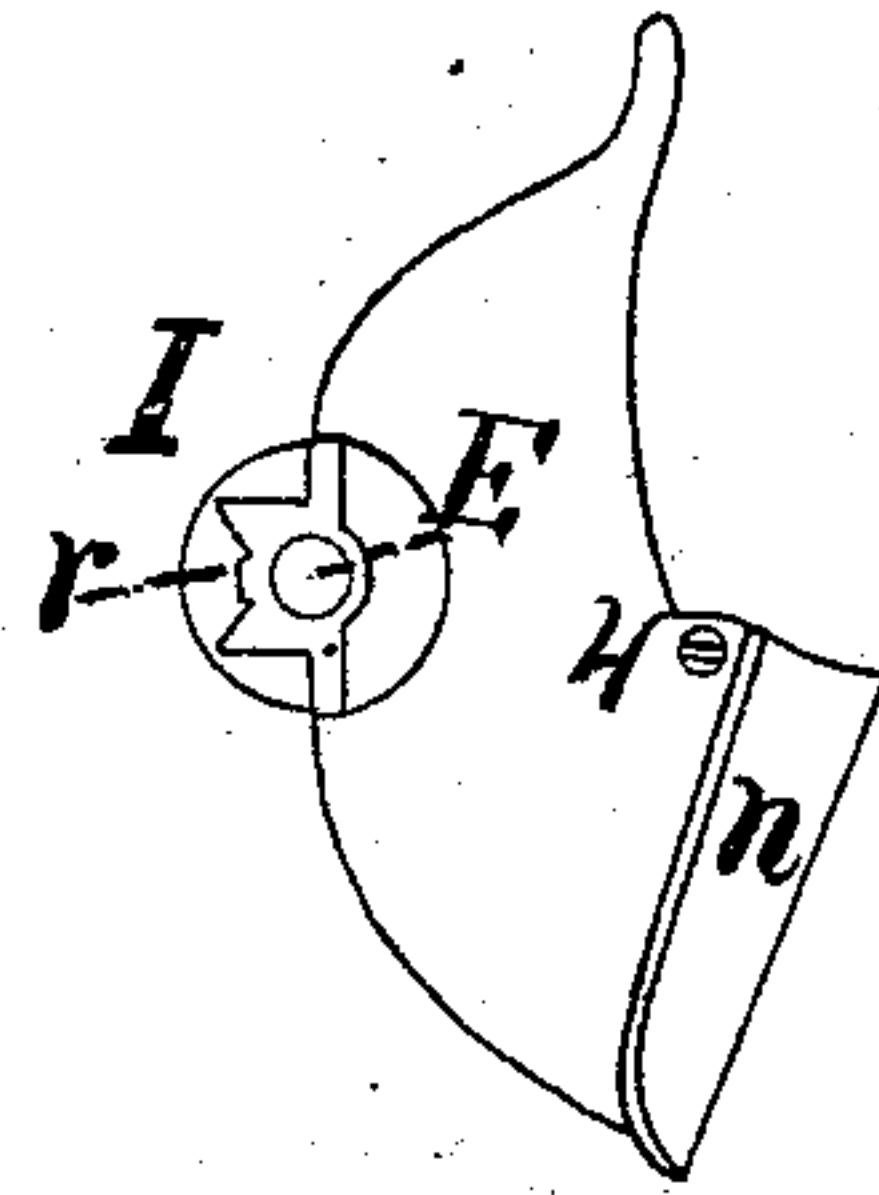


Fig. 10.

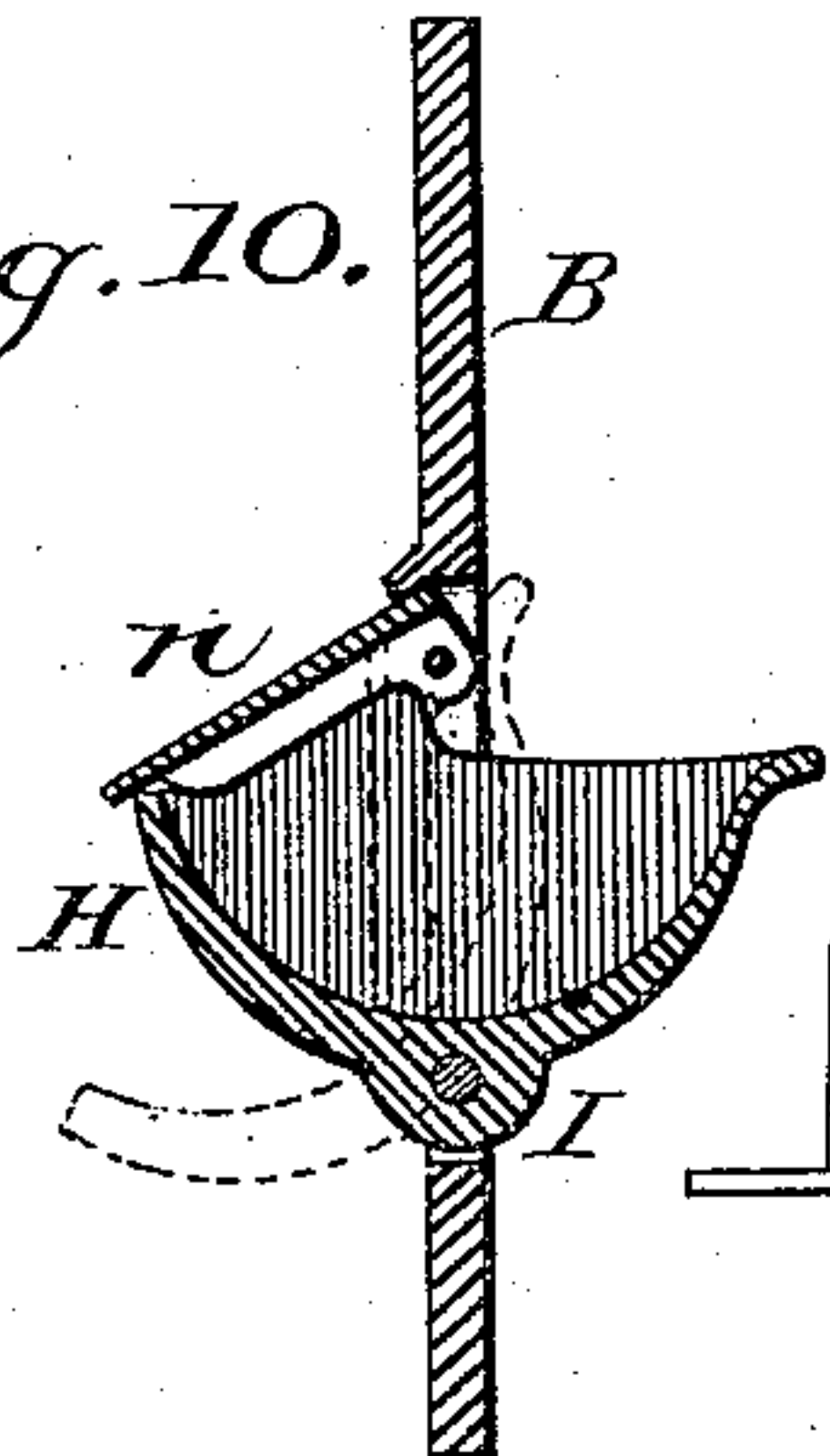


FIG. 8.

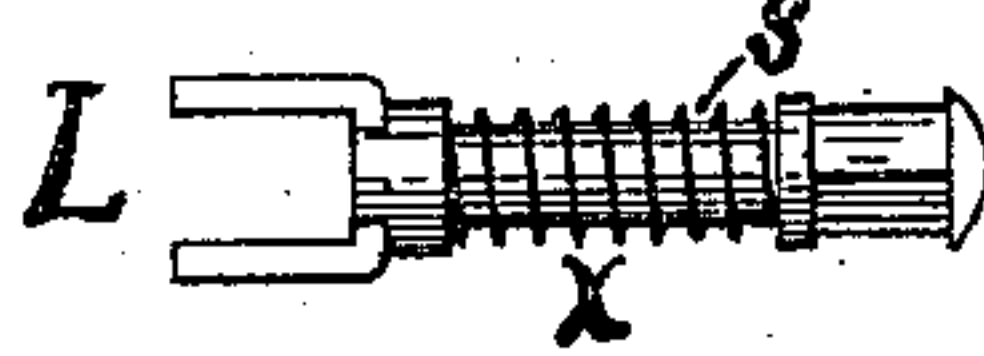


FIG. 9.



WITNESSES.

*Geo. H. Bolton*  
*Chas. Smith*

INVENTOR.

*George Beadle*



# UNITED STATES PATENT OFFICE.

GEORGE BEADLE, OF SYRACUSE, NEW YORK, ASSIGNOR TO THE WALES MANUFACTURING COMPANY.

## CHANGE-GATE FOR PUBLIC CONVEYANCES.

SPECIFICATION forming part of Letters Patent No. 273,337, dated March 6, 1883.

Application filed June 26, 1880. (Model.)

*To all whom it may concern:*

Be it known that J. GEORGE BEADLE, of Syracuse, in the county of Onondaga and State of New York, have invented a new and useful Improved Change-Receiver for Public Conveyances, of which the following is a specification, reference being had to the accompanying drawings, in which—

Figure 1 represents a front elevation of the front face; Fig. 2, a like view of the back face; Fig. 3, a view of the internal mechanism of the gate; Fig. 4, a top view of the receiver; Fig. 5, a bottom view of it; Fig. 6, a longitudinal section of it; Fig. 7, a side view of one side; Fig. 8, a view of the yoke turned flatwise with rod and spring; Fig. 9, a side view of the back plate. Fig. 10 is a transverse vertical section of the back plate and the change-box.

Like letters of reference indicate like parts everywhere.

The object of my invention is to provide an improved tilting receiver, in which a passenger on a public conveyance desiring change, or to pay his fare to a driver, can deposit his money, the driver remove it, put in the change, and the passenger remove it without opening the door, and at the same time sound an alarm every time the receiver is tilted to warn the driver or passenger of the deposit of the money or change in it.

My invention consists in the hereinafter described and claimed means for accomplishing said object.

It is constructed as follows:

A is the front plate, calling the driver's side the front, which is made of the shape and with an opening, *a*, of the form shown in the drawings. A little above the top of this opening is a flange, *b*, projecting outwardly about one-half of an inch, and inclining downward a little, extending clear across the opening and down the sides, tapering off as it goes downward.

B is the back plate, which is constructed of the same size as plate A, and with an opening, *c*, of equal size to the opening *a*. This opening *c* is provided with an inwardly-projecting flange, *d*, extending across the top or center, and nearly down to the sides of the opening.

The outer face of the plate B is made plain, except that across the the top the word "change" can be cut or cast. On its inner face, at the four corners, are the posts *e*, which are bored out and threaded.

C and D are central lugs, made of about the shape shown in the drawings and of the same height as the corner-posts *e*. In their upper faces are the screw-holes *m m*, and in their sides the screw-holes *kk*, through which a pivot-bolt passes, screwing into one of them. The front upper part of each of these lugs C and D are rounded off on a circle, as shown in the drawings, and a thin tapering flange extends from their respective outer edges along the sides of the opening *c*.

H is the tilting receiver, made of about the shape shown in the drawings, wide enough to fit loosely in the openings *a* and *c* in the front and back plates, and having a lid, *n*, hinged or pivoted, so as to drop and cover or close up the front end of the receiver. The lower side of this receiver H is constructed with the central semi-cylindrical hub or barrel I, extending nearly across the bottom, through which is a hole to receive the pivot-bolt E, which holds the receiver, and upon which it is pivoted. Each end of this hub I is cut off and a part of the body of the receiver cut out on the same circle as the hub, so as to fit upon the rounded front ends or corners of the lugs C and D. One end of the hub I is also cut off flat to allow the rack *r* to be attached, as shown in the drawings.

L is a yoke with two arms, open at its upper end, and to its lower end the rod *s* is fastened in any ordinary way. This rod *s* is of the shape of an ordinary round-headed square-shouldered bolt, and is so adjusted that the square shoulder lies and fits in the box *t* mounted upon the plate B. The coiled spring *x* fits over and around the rod *s*, between the yoke L and the box *t*. The hammer-rod *v* is made with hole in one end fitting over the square shoulder on the rod *s* and with a hammer at the other.

P is a gong-bell, mounted in any ordinary manner upon the inner face of the plate B.

The screw-bolt *y*, screwing into the stud *w* and passing between the arms of the yoke near



the bottom, holds the yoke L in place loosely, and allows its double motion downward and rocking, as hereinafter described.

The back plate, B, being constructed as described, the gong P mounted thereon, the yoke L having the rod s attached, and the spring x thereon mounted in the box t, and the screw y inserted through the lug C into the stud w, between the arms of the yoke, the receiver H, with rack r attached passed partly through the opening e, the pivot-bolt E inserted through the lug C, hub I, and into the lug D, all in about the positions shown in the drawings, the front plate, A, is put on, the receiver passing partly through the opening a, and is secured in place by screws into the corner-posts e and holes m in the lug C D, the rack r fitting against and upon the arms of the yoke L.

I operate my device as follows: Starting with the receiver tilted down backward, the passenger, desiring to have change furnished him, or, in some instances, to pay his fare, places the money in the receiver H, where it projects beyond the back plate, tips up that end, thereby tilting the receiver upon the pivot-bolt E, the rack r, or the back edge or point of it, engages with the front arm of the yoke L, springing it down by the rocking motion of the bottom of the receiver, compressing the spring x by the downward movement of the rod s with the yoke L, the square shoulder on the rod sliding through the box t and carrying the hammer-rod v and hammer with it, until the point of the rack slips off from the arm of the yoke L, when the spring x throws the rod s and yoke upward quickly and causes the hammer to strike a single quick blow upon the gong P, causing it to ring once. The upward movement of the yoke L is checked and stopped by the end of the back arm striking against the inner face of the back point of the rack, which then lies flat, and the end of the front point of the rack lies between the arms of the yoke. This forward tilting throws the back end of the receiver forward, so that the passenger cannot remove the money, while the front end is thrown out and downward, so that the lid is released from the top of the aperture a, and the driver can take out the money, and, if desired, can put the change in, and, tilting it back, the mechanism operates as before, sounds the alarm, and the passenger can remove the change. It will be readily seen that from the circular or oval shape of the bottom of the receiver, when it is tilted the change or money slides down to the lowest end of the receiver, and accordingly it is much easier to take it out. It will also be observed that when the receiver is tilted back the lid n is thrown back through the opening a, so that it is locked, cannot be raised, and the driver cannot get into the receiver or abstract any money from it until the receiver is tilted forward and the lid released. The flange b on the front plate

also serves to prevent rain from running down into the receiver, and the lid n also keeps the water out of it. The tilting of the receiver at the outset acts upon the yoke L, rod s, and spring x until rack and yoke become disengaged, when the yoke flies up by the action of the spring. One arm of it strikes against the inner face of one of the points of the rack, and thereby assists or aids the tilting, and when the receiver stops holds it in place until again tilted. When the receiver stops after being tilted either way the inner face of one of the rack-teeth lies horizontal, and the upper end of one of the yoke-arms comes up square against this horizontal face. At the same time the point of the other rack-tooth lies between the yoke-arms, the inner face of the arm bearing against the outer face of one of the rack-teeth; and when the tilting begins the circular sweep of the rack causes the yoke to rock forward or back, whichever way the receiver is tilted, the flat or horizontal face of the rack-tooth gradually becoming more and more angular as to the face of its yoke-arm, and at the same time forcing the yoke and rod downward, compressing the spring and throwing the hammer-rod away from the gong, while with the same movement the other rack-tooth, starting inside of the other yoke-arm acting on a wedging principle against the inner face of this yoke-arm, throws the yoke outward or sidewise, drawing the other yoke-arm across and from beneath the rack-tooth until they pass clear of each other, when the spring throws the yoke upward, and the other yoke-arm strikes squarely against the inner face of the other rack-tooth, which is then horizontal. In this manner the rack and yoke act together as a stop to the tilting of the receiver.

The receiver can be hung upon side supports, if desired, swinging upon them.

What I claim as my invention, and desire to secure by Letters Patent, is—

1. The combination, with the tilting receiver provided with toothed rack r and the alarm-bell, of the yoke L, rod s, spring x, box t, and hammer v, substantially as and for the purposes described.

2. The above-described change-receiver consisting of plates A and B, having apertures a and c, and flanges b and d, tilting receiver H, with lid n, mounted upon pivot-bolt E, and provided with rack r, actuating the alarm mechanism consisting of yoke L, rod s, spring x, box t, hammer-rod v, and gong P, constructed and operated substantially as above described.

In witness whereof I have hereunto set my hand this 17th day of May, 1880.

GEORGE BEADLE.

Witnesses:

GEO. A. COLTON,  
C. W. SMITH.