(No Model.) 2 Sheets—Sheet 1.

R. P. GARSED.

ANNUNCIATOR RESTORING DEVICE.

No. 458,160. Patented Aug. 25, 1891.

FIG. 1.

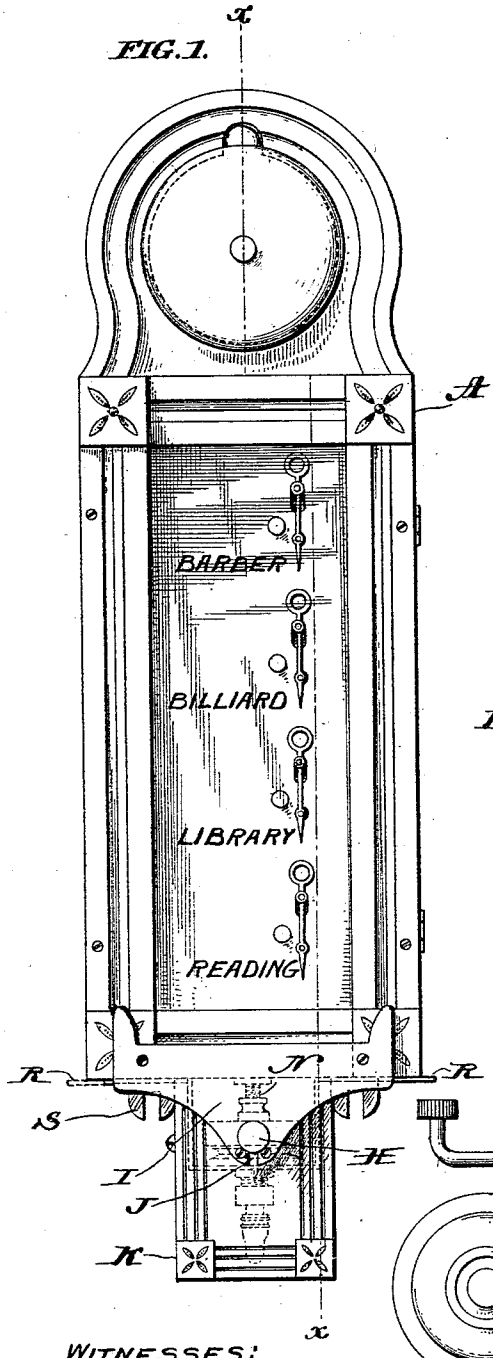


FIG. 2.

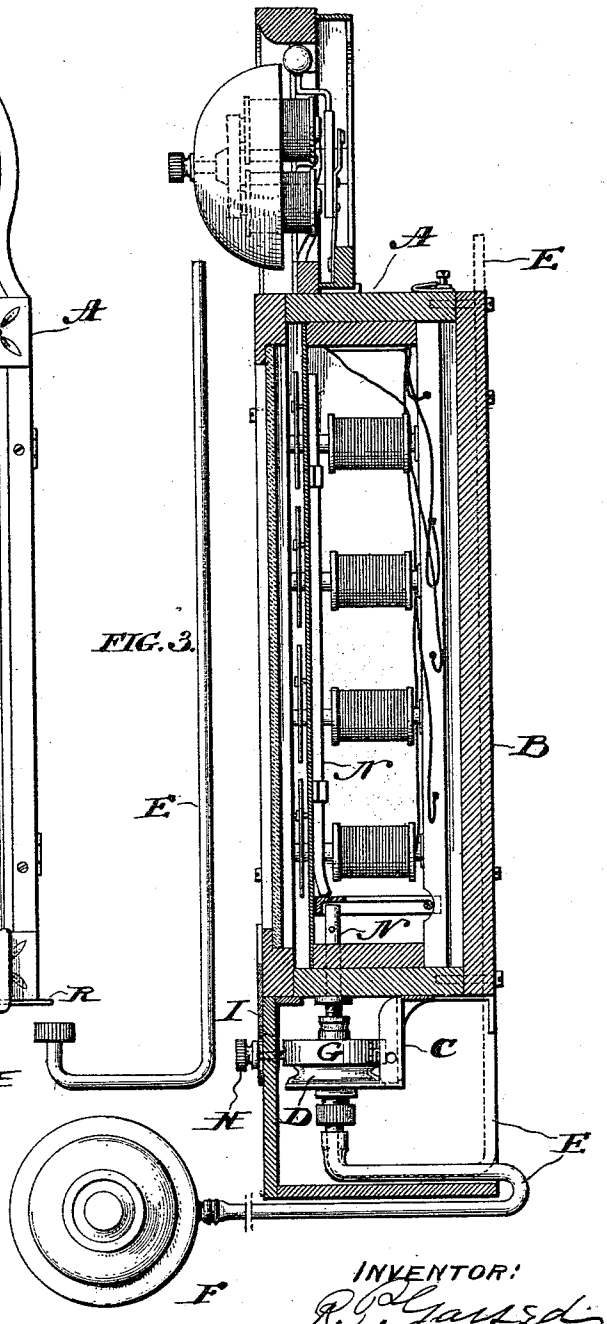


FIG. 3.

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(No Model.) 2 Sheets—Sheet 2.

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FIG. 4.

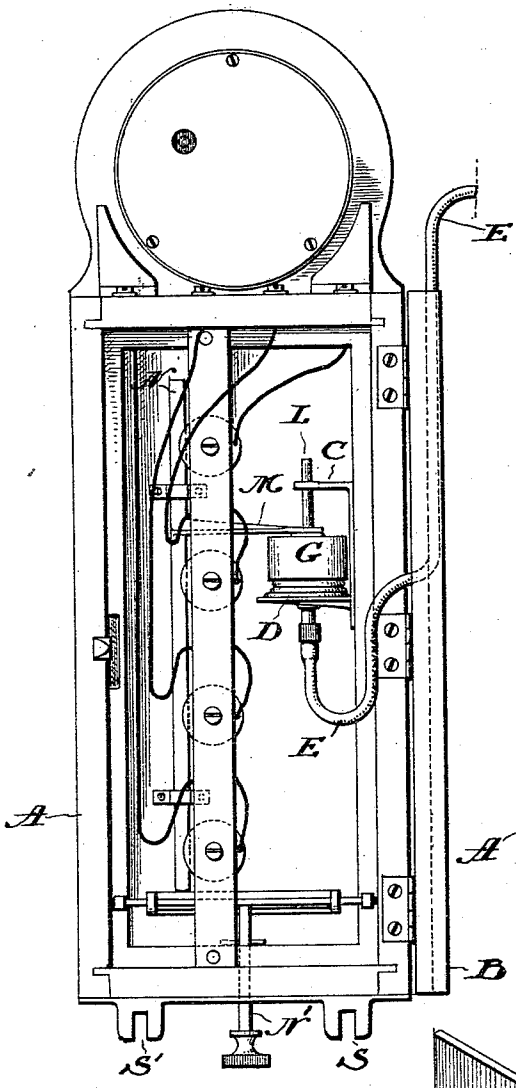


FIG. 6.

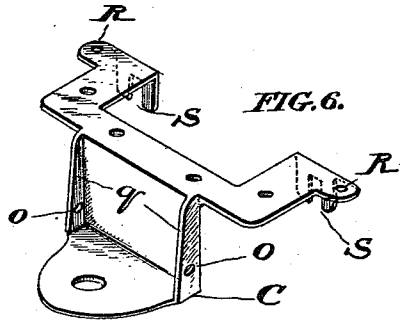


FIG. 5.

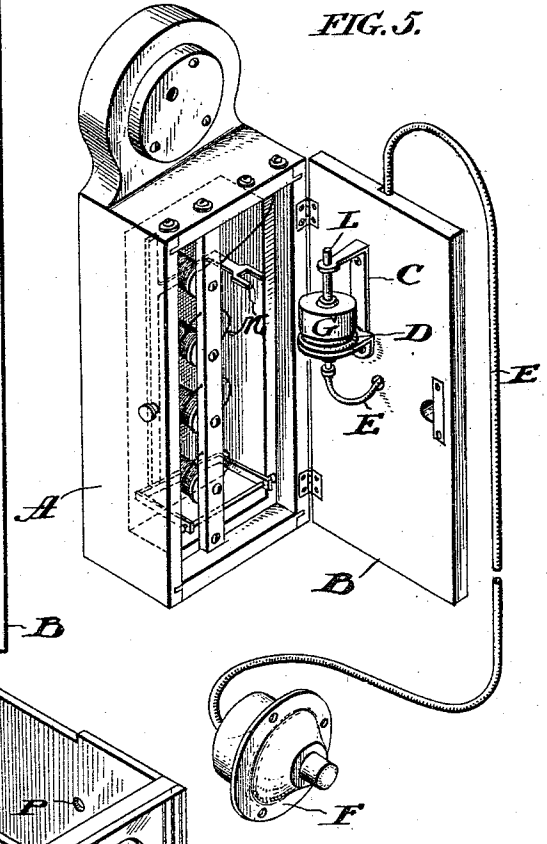
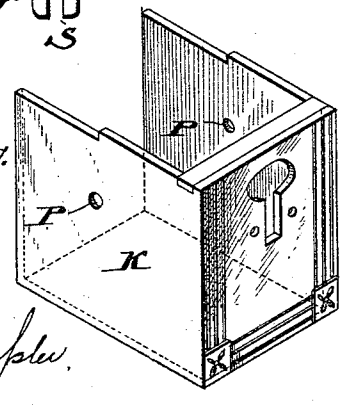


FIG. 7.



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UNITED STATES PATENT OFFICE.

ROBERT P. GARSED, OF NORRISTOWN, PENNSYLVANIA.

ANNUNCIATOR-RESTORING DEVICE.

SPECIFICATION forming part of Letters Patent No. 458,160, dated August 25, 1891.

Application filed March 28, 1891. Serial No. 386,789. (No model.)

To all whom it may concern:

Be it known that I, ROBERT P. GARSED, a citizen of the United States, residing at Norristown, county of Montgomery, and State of Pennsylvania, have invented a new and useful Improvement in Annunciator-Restoring Devices, of which the following is a specification, reference being had to the accompanying drawings to more fully illustrate the device.

The object of my invention is to produce a pneumatic restoring device that can be applied to annunciators, whether electric or pneumatic or other kinds. The invention relates also to improvements on my patent, No. 242,297, May 31, 1881.

Referring to the drawings, Figure 1 is a front view of an annunciator, showing the device applied to the bottom end of the restoring-rod beneath such annunciator. Fig. 2 is a part sectional view of Fig. 1 through the line *x*, and also shows a pneumatic push-lever for operating said restoring device. Fig. 3 is a connecting-tube suited for placing in a groove in the rear of annunciator when connection is made beneath the annunciator. Fig. 4 is a rear view of an annunciator, showing a preferable form of my device within the annunciator. Fig. 5 is a modification showing the bellows and bracket placed upon the rear part of annunciator-case. Fig. 6 is the form of bellows-bracket best suited for placing beneath the annunciator, and Fig. 7 shows a covering-box best used for the apparatus when placed beneath an annunciator.

A represents an annunciator-case, preferably having a back B attached thereto.

C is a bellows-bracket, and is suited to support an operating-bellows either outside or within the annunciator.

D is an inflatable body or bellows, and is supported upon the bracket C and connected with the pipe E.

F is an air-lever adapted to force air through pipe E to bellows D.

G is a bellows-weight, and serves to collapse the bellows after the same has been inflated in the operation of the device.

H is a restoring-rod handle, and when the restoring device is placed beneath the annunciator it is of use when desirable in operating the restoring-rod by hand.

I is a plate suited to fasten on the bottom face of annunciator, and with its slot J guides said handle H in its motions, and when fastened to the covering-box K serves, as well as to cover the opening in said box, to retain said box in place.

L is a guide-pin, and when used on the weight G guides it in its motions upon bellows D.

M is a lifting-arm or projecting part, and when the restoring device is placed within the annunciator-case its one end is fastened to the restoring-rod N of the annunciator, and its other or outer end engages the top of bellows, as shown.

O are holes in the ribs *q* of the bracket C and serve with corresponding holes P in the box K to retain said box to said bracket by suitable screws, said ribs *q* serving as well to strengthen the parts of brackets C when so made. The holes R in the outwardly-projecting ends of the brackets C serve, with ordinary hooks that may be placed on the sides of the annunciator, to keep said sides in position, as may be desired, and the downwardly-projecting bifurcated ends S, integral with said bracket, serve to fasten the annunciator in a suitable position when said bracket is fastened to said annunciator, as will be understood.

When the restoring device is placed within the case A and there is a hinged back to such case, the part of the pipe E extending within said case is best flexible, so that said back or case may swing upon its hinges. The groove shown in said back permits the pipe to be placed within it.

The operation of the device is as follows: After any of the indicating mechanism of an annunciator has been operated in any of the well-known ways by electricity, air, or otherwise, and it is desired for any reason to restore the indicating mechanism, the same may be done by compressing the lever F, which may be any air-compressing device suited to force air to the bellows D, and by inflating said bellows the restoring-rod N is made to rise through the medium of the arm M or the equivalent, the projecting part N engaging the bellows, as before stated, with the result that the indicators or arrows that may have been operated in any of the well-known ways

to indicate the point from whence such operation comes are restored in this instance by the arrows being raised through attached mechanism.

In Fig. 5 the arm M engages or disengages the top of the bellows respectively, as the back of the case may be shut or open.

In Fig. 4 the restoring mechanism is placed within the annunciator-case and is preferably so used in electrical annunciators, as there is room for the pneumatic apparatus, it being understood there is difficulty in restoring by electrical means, as the attraction of magnets is not sufficient, unless by complicated mechanism, to give a sufficient rise to said restoring-rod, and hence the advantage of pneumatic restoring means will be apparent, it being further understood that in many places, for various reasons, annunciators are set at such a distance from the attending person that it is very inconvenient, if not impossible, to restore by hand.

The covering-box shown in Fig. 7 should be made with an opening in its front face in form as shown, that the handle H may be operated.

When the device is placed beneath the annunciator, the guide-pin L (shown in Figs. 4 and 5) has its equivalent in the projecting part N′, (shown beneath the annunciator in Fig. 4;) also the part of the bracket C receiving this guide-pin through it has its equivalent with this change of position of actuating bellows in the part of annunciator holding the part N′ and allowing it to work up and down.

I do not deem it necessary to show other forms of an annunciator to which my invention can be applied, and hence leave out my own patents.

The weight G may be the equivalent of a collapsing spring; but it is preferably used instead of such spring.

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

1. The combination, in an annunciator-restoring device, of an annunciator having operative indicators attached thereto and a suitably-supported bracket C, holding an inflatable body D, the restoring-rod N, with a projecting part suited to bear upon said inflatable body, and means for operating the same, substantially as and for the purposes set forth.

2. The combination, in an annunciator-restoring device, of an annunciator having operative indicators attached thereto, the bracket C, suited to support the bellows D and having a part to receive the pin L and guide said bellows in its motions, the restoring-rod N, with its projecting arm M, and operative means, substantially as and for the purposes set forth.

3. The combination, in an annunciator-restoring device, of an annunciator with operative indicators and a restoring-rod N, with a projecting or engaging part, a bellows D for such engagement, a supporting-bracket C, with ribs *q* integral therewith, said bracket also having parts S, adapted to fasten the same to a desired place, and the box K, made substantially as described and suited to be held to said bracket, substantially as and for the purposes set forth.

4. The combination, in an annunciator-restoring device, of an annunciator with indicating mechanism, a restoring-rod N, with a projecting or engaging part, a bellows D for such engagement, a supporting-bracket C, with parts S, adapted to fasten the same to a desired place, the handle H at right angles to and adapted to move the rod N, the box K, formed substantially as described, and the plate I, with the slot J, suited to support said box and guide the handle H in its motions, substantially as and for the purposes set forth.

5. The combination, in an annunciator-restoring device, of a vertically-moving lifting-rod adapted to engage movable indicators, said lifting-rod having a part suited to bear upon an inflatable body and be actuated by the same and having a handle projecting outside the annunciator-case, whereby said lifting-rod may be operated by hand, substantially as and for the purposes set forth.

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Witnesses:
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JAMES P. EWELL.