

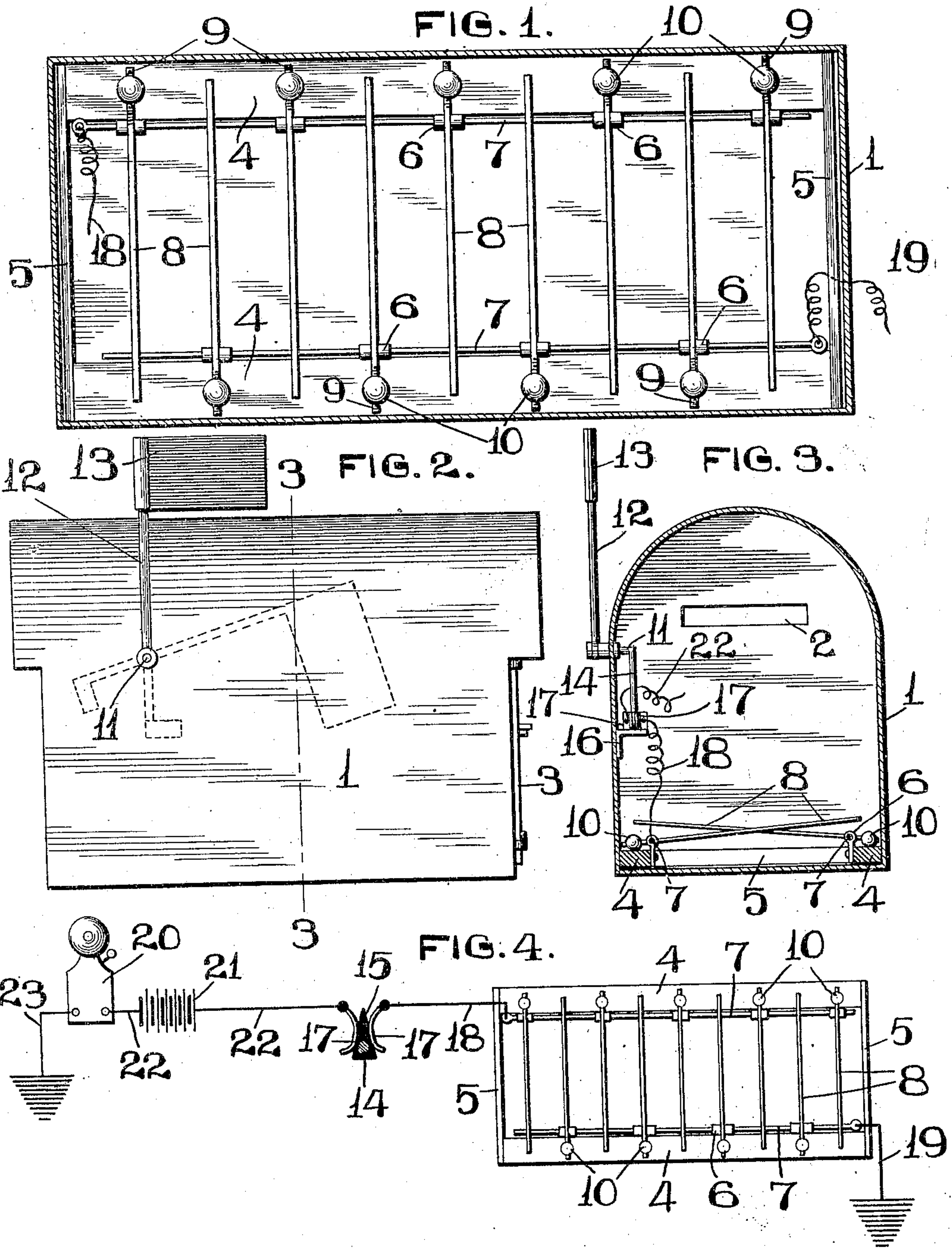
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W. B. ALLEN.

ANNUNCIATOR ATTACHMENT FOR MAIL BOXES.

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ATTEST.

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Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WAYNE B. ALLEN, a citizen of the United States, and a resident of Columbia, Boone county, Missouri, have invented certain new and useful Improvements in Annunciator Attachments for Mail-Boxes, of which the following is a specification containing a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

My invention relates to an annunciator attachment for mail-boxes; and the object of my invention is to arrange an attachment on the interior of a mail-box which will be acted upon by the weight of the mail-matter deposited in the mail-box to close an electrical circuit, and thus sound an audible signal or actuate a semaphore or similar signal located at a distance from the mail-box.

A further object of my invention is to provide a mail-box with a semaphore or flag that indicates to the postman or mail-collector that there is mail-matter within the box to be collected, and which semaphore or flag when in an indicating position breaks the electrical circuit from the mail-box to the house-signal.

A further object of my invention is to provide an annunciator attachment for mail-boxes with a series of contact fingers or needles and to arrange adjustable counterbalances upon said fingers.

To the above purposes my invention consists in certain novel features of construction and arrangement of parts, which will be hereinafter more clearly set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a horizontal section taken through the lower portion of a mail-box and showing my attachment positioned in the bottom of said mail-box. Fig. 2 is a side elevation of the mail-box and showing the signal-flag thereon. Fig. 3 is a vertical section taken on the line 3 3 of Fig. 2. Fig. 4 is a diagrammatic view illustrating the electrical connections to and from the annunciator attachment.

Referring by numerals to the accompanying drawings, 1 indicates a mail-box which is of the usual form and construction, provided at one end with a mail-receiving slot 2 and at the opposite end with a door 3, by means of which access is had to the interior of the box for removing the mail-matter deposited therein. A rectangular frame, of wood or

analogous material, is located in the bottom of the box; which frame comprises the side bars 4, framed together at the ends by the cross-pieces 5. Secured to the inner face of each bar 4 and extending upwardly therefrom are the two rows of bearings 6, and arranged in each row is a rod 7. The upper end of each bearing 6 is bifurcated, and arranged therein and pivotally mounted upon the rods 7 are the transversely-arranged fingers or needles 8. All of the fingers or needles 8 that are pivoted to the rod 7 on one side of the frame extend transversely and overlie the rod 7 on the opposite side of the frame, and said fingers or needles are alternately arranged relative their pivot-points—that is, the pivot-point of each finger or needle is adjacent the free end of the next adjacent finger or needle. The rear ends of all the fingers are screw-threaded, as indicated by 9, and located upon said screw-threaded ends are counterbalancing-weights in the form of spherical nuts 10, and these weights maintain the free ends of the fingers normally out of contact with the rods 7.

Located in the side of the mail-box 1 is a horizontally-arranged shaft 11, on the outer end of which is fixed an arm 12, that carries a plate 13 on its upper end, which may be termed a "flag," that is utilized as a signal to indicate the presence of mail-matter within the box. The inner end of the shaft 11 is provided with an integral arm 14, that extends in an opposite direction from the arm 12, and the lower end of said arm 14 is provided with a wedge 15.

Located upon a bracket 16, fixed to the under side of the box 1, is a pair of contact-springs 17, which are normally in contact with one another, and between which springs the wedge 15 is adapted to engage when the arm 12 is swung into a vertical position. The contact-springs 17 are insulated from the bracket 16, and the wedge 15 is formed of suitable insulating material.

Leading from one of the rods 7 to one of the contact-springs 17 is a suitable conductor 18. A conductor 19, leading from the opposite rod 7, is grounded.

Located at any convenient point in the house is a suitable signal, which may be in the form of an ordinary electric bell 20, and leading from one of the binding-posts of said bell to a suitable battery 21 is a conductor 22. This conductor is extended from the opposite side of the battery to the contact-spring

17 opposite the spring to which the conductor 18 is connected. A conductor 23 leads from the binding-post on the opposite side of the bell to the ground.

- 5 When my improved annunciator attachment is in operative condition for actuating the signal 20 to indicate that the carrier has delivered mail into the box, the arm 12, carrying the flag 13, is swung downwardly onto the side of the box, as shown by dotted lines in Fig. 2, thus withdrawing the wedge 15 from between the contact-springs 17, and thus the circuit is established from the annunciator-frame to the signal in the house.
- 10 When mail-matter is deposited in the box 1, said mail-matter will fall onto one or more of the fingers or needles 8, and as a result said fingers will be depressed and the outer ends thereof will contact with the rods 7. This will close the circuit through the attachment in the mail-box, and as a result the signal in the house will be sounded or thrown, thus indicating that mail-matter has been delivered to the box. When mail-matter is deposited
- 25 in the box to be taken up by the postman, the person placing the mail within the box elevates the arm 12 and flag 13, thus moving the wedge 15 into position between the contact-springs 17. This operation opens the circuit to the bell or other signal and also throws the flag into position so as to indicate to the postman that there is mail-matter in the box to be collected. After removing the mail-matter from the box the postman
- 30 moves the arm 12 downwardly, thus closing the circuit between the signal and the frame in the mail-box, and the parts are thus reset, so as to sound or display the signal when mail-matter is again delivered to the box.
- 40 My improved annunciator attachment is especially applicable for rural mail-delivery boxes or where said boxes are separated

some distance from the houses, although the attachment may be advantageously used in apartment-houses occupied by a large number of families or in office buildings and the like.

The attachment is very simple, inexpensive, may be easily adjusted, and is readily positioned in mail-boxes of the present construction.

I claim—

1. In an annunciator attachment for mail-boxes, a frame arranged in the bottom of the box, rods supported on each side of said frame, a series of contact-fingers pivotally mounted on each rod and overlying the opposite rod, counterbalancing-weights adjustably mounted on the rear ends of each rod, an electrical circuit in which the contact-fingers and rods are arranged, and a signal in the circuit to be actuated when the circuit is closed; substantially as specified.

2. In an annunciator attachment for mail-boxes, a frame arranged in the bottom of the box, rods supported on each side of said frame, a series of contact-fingers pivotally mounted on each rod and overlying the opposite rod, counterbalancing-weights adjustably mounted on the rear ends of each rod, an electrical circuit in which the contact-fingers and rods are arranged, a signal in the circuit to be actuated when the circuit is closed, a switch in said circuit, and means arranged on the box for opening and closing said switch; substantially as specified.

In testimony whereof I have signed my name to this specification in presence of two subscribing witnesses.

WAYNE B. ALLEN.

Witnesses:

C. W. DAVIS,

H. HADEN BRIGHT.