

No. 842,767.

PATENTED JAN. 29, 1907.

D. F. CLARK.
MAIL BOX SIGNAL.
APPLICATION FILED JULY 9, 1906.

2 SHEETS—SHEET 1.

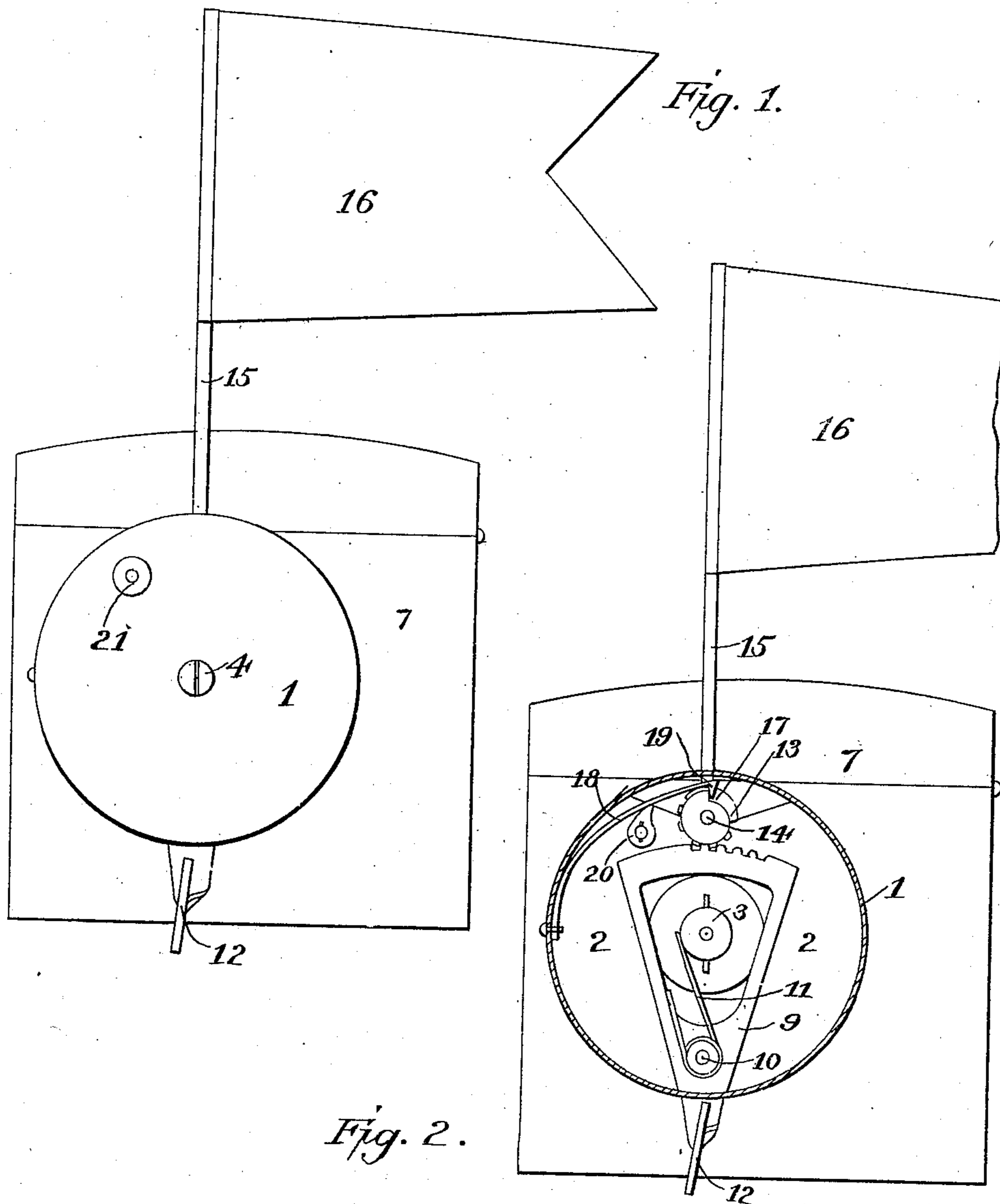


Fig. 2.

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2 SHEETS—SHEET 2.

Fig. 3.

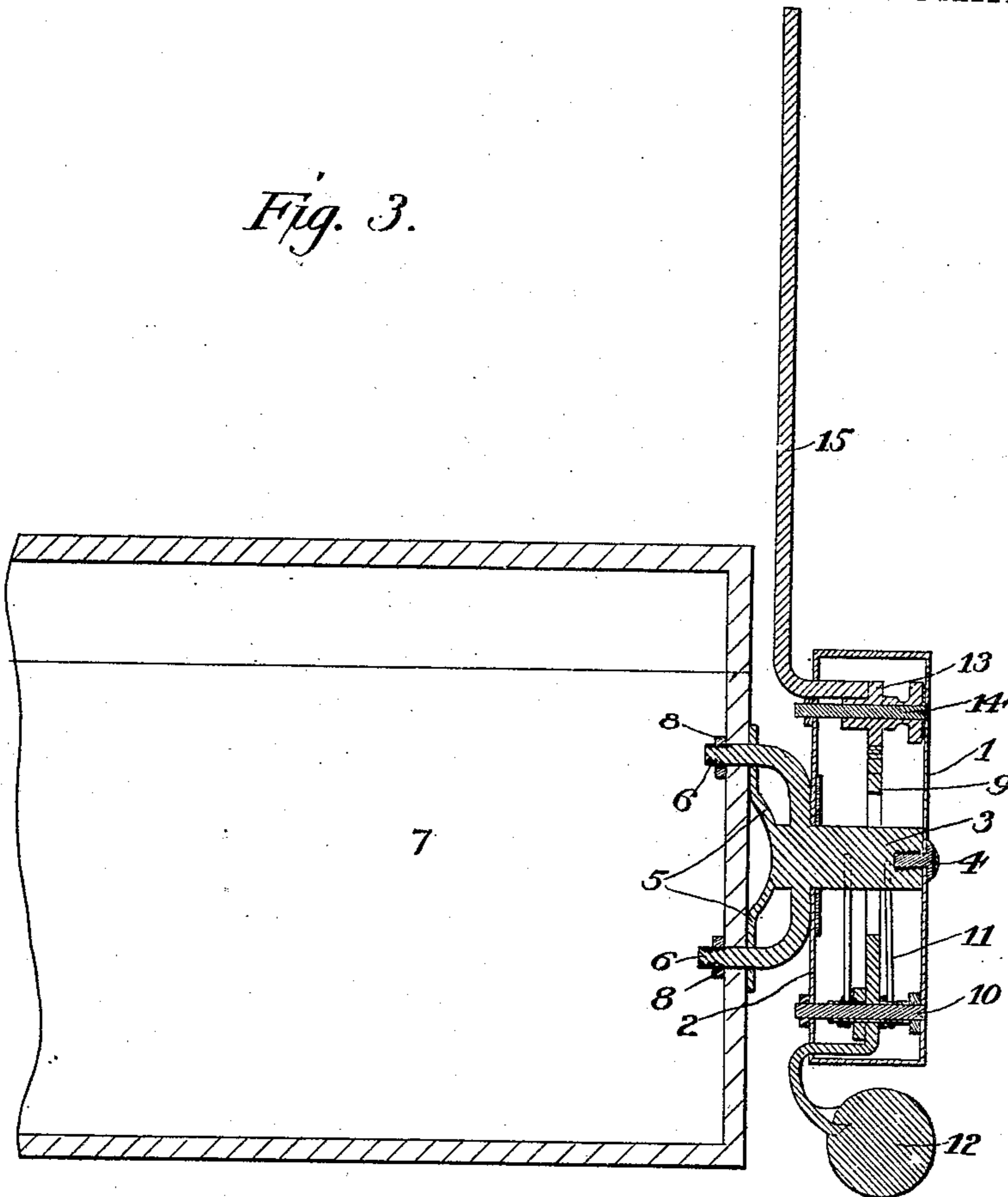


Fig. 4.

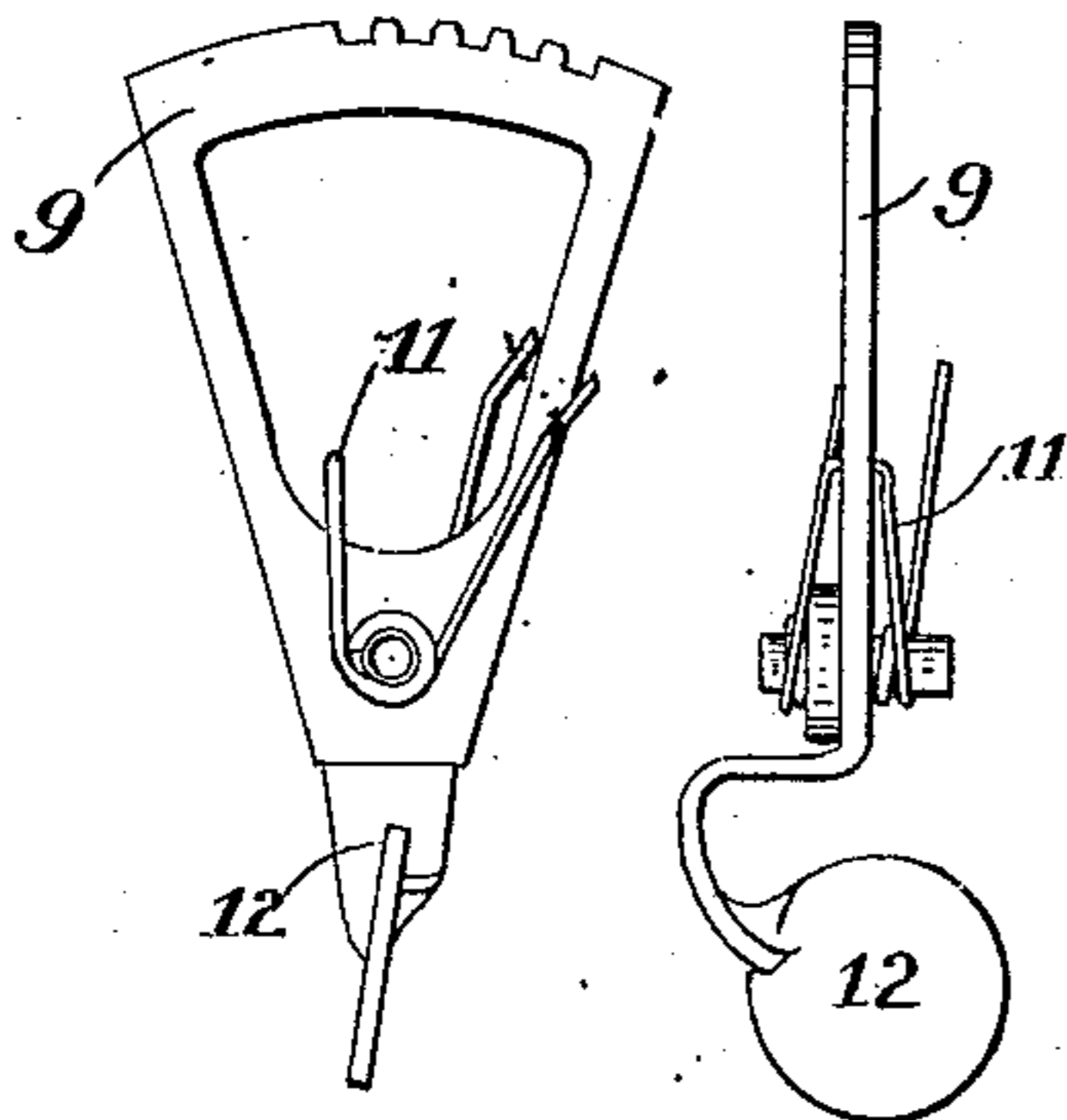
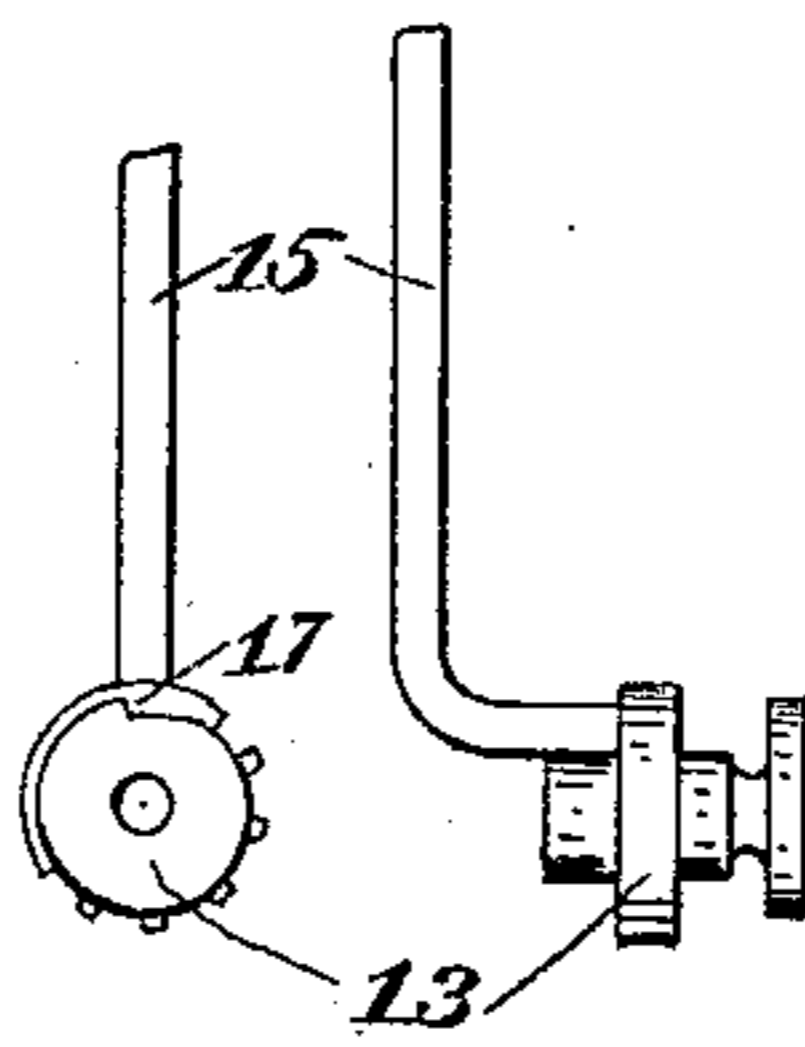


Fig. 5.



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UNITED STATES PATENT OFFICE.

DAVID F. CLARK, OF PEEBLES, OHIO.

MAIL-BOX SIGNAL.

No. 842,767.

Specification of Letters Patent.

Patented Jan. 29, 1907.

Application filed July 9, 1906. Serial No. 325,387.

To all whom it may concern:

Be it known that I, DAVID F. CLARK, a citizen of the United States, residing at Peebles, in the county of Adams and State of Ohio, have invented certain new and useful Improvements in Mail-Box Signals, of which the following is a specification.

My invention relates to improvements in mail or letter boxes generally, more especially what may be termed "rural" mail-boxes. Its object is to provide for enabling the depositor to signal to the collector the fact that the box contains mail and to provide for the collector dismantling or lowering the signal to indicate that no mail is within the box; also, to effect the suitable housing of the actuating mechanism for guarding or protecting the same from the weather, as snow or other form of moisture, &c.

It consists of certain features or instrumentalities substantially as hereinafter fully disclosed, and particularly pointed out by the claims.

In the accompanying drawings, illustrating the preferred embodiment of my invention, Figure 1 is a front elevation thereof. Fig. 2 is a vertical section of the same produced at right angles to its axis. Fig. 3 is a like section taken in the line of its axis. Fig. 4 is a disassembled view of the sector or quadrant member, and Fig. 5 is a like view of the mutilated pinion member having direct connection with the signal and geared to said quadrant or sector member.

In carrying out my invention I employ a casing or inclosure 1 for suitably housing the operative or effective mechanism and which casing or inclosure has concentrically arranged therein at its rear or inner edge a plate or back 2. This back plate has formed with it about centrally a hub or tubular portion 3, into which is inserted a screw 4, introduced from the outer side of and passing through an aperture in the front portion of the casing 1 and whereby these parts are rigidly assembled in relative position. Said hub or tubular portion has integral therewith at one end and outside of the casing a bracket 5, in turn equipped with opposite screw-threaded extensions or stems 6, which pass through openings in the end of the letter or mail box 7, to which it may be applied and upon which screw-threaded stems or extensions are inserted nuts 8, screwing thereon up against the inner side of the box, thus

providing for securing the device to the latter.

A quadrant or sector 9, arranged within the casing or inclosure 1, is suitably pivoted near its lower tapered end upon a pivot-stud 10, fixed to the back plate 2 and projecting within said casing, and upon said pivot-stud are arranged or held two, preferably, duplicate springs 11, with the upper ends of their straight portions resting upon the tubular portion 3 of the back plate 2, one upon each side thereof, and are effective to deliver their tension or stress upon said quadrant or sector, the purpose of which will presently be apparent. Said quadrant or sector has a thumb or finger piece 12, curved or bent outward laterally and extending downward therefrom and in under the casing 1 for convenient grasping and the actuation of said quadrant or sector.

A mutilated pinion or cog 13, suitably meshed with the quadrant or sector 9, is journaled upon a shaft or bearing 14, suitably held in place upon and projecting from the back plate 2. Said pinion or cog has suitably fixed thereto the lower laterally-extending end of a rod or staff 15, bearing a flag or any suitable emblem 16, which may be used as a convenient means of weighting the upper end of said staff or for signaling purposes. Said pinion or cog has its extended tubular hub or sleeve provided with a notch or recess 17, which when the flag or signal staff is in upright or vertical position, is adapted to receive the tooth 19 of a spring-pawl 18, fastened to the casing 1 for the retention of said pinion or cog in position against rotation under the predominant action of said signal or flag and its staff.

A cam 20, suitably pivoted in position to provide for its engagement with the spring-pawl 18 when suitably actuated, has its carrying-pivot provided with a manually-operated knob 21 outside of the casing or inclosure 1 to provide for the convenient grasping thereof, and accordingly so manipulating said cam as to bring it forcibly into engagement with said spring-pawl for the disengagement of the last noted from the notched sleeve or hub of the pinion or cog, as in tripping or throwing the signal.

A person or depositor in placing mail in the box, at the same time assuming the flag to be depressed or down, presses or forces the finger or thumb piece 12 to the right, thus

moving the quadrant or sector 9, so that it will actuate the pinion or cog 13, which will result in elevating the flag, the spring of the quadrant simultaneously being stressed, thus setting the signal to indicate to the subsequently-calling collector that there is mail in the box, while should there have been no mail deposited therein he would be saved the trouble of opening the box to determine that fact. Upon the collector removing the mail from the box he of course suitably turns the knob 21 of the spring-detent-elevating cam 20, disengaging the detent or pawl from the pinion-sleeve, thus allowing the quadrant under the impelling or recoil action of its spring to impart initial or starting movement to the pinion, consequently resulting in the lowering the signal or flag, giving notice to the collector calling thereafter that no mail is in the box and obviating his opening the box to ascertain that fact, provided, as a matter of course, no mail should have been in the intervening time been placed in such box.

I claim—

1. A mail-box having a signaling device employing a quadrant effective for manual actuation, a pinion meshed therewith and carrying a signaling contrivance and retaining means for said pinion.

2. A mail-box having a signaling device comprising a quadrant provided with a thumb or finger actuating piece and a spring applied

to said quadrant and having a recoiling action when said quadrant may be tripped, and a pinion meshed with said quadrant and carrying a signaling contrivance, and a retaining means for said pinion.

3. A mail-box having a signaling device comprising a quadrant, means for its actuation, a pinion or cog meshed with said quadrant and carrying a signaling contrivance, a spring detent or pawl effective for the retention of said pinion against rotation and a cam adapted to engage or trip said detent and having means for its manipulation.

4. A mail-box having a signaling device comprising a casing having a bracket embracing a tubular member secured to the back plate of said casing, said bracket also being provided with nut-equipped screws for the attachment thereof to the mail-box, a spring-equipped quadrant pivoted upon said back, a mutilated pinion geared to said quadrant and carrying a signaling contrivance and a notched sleeve, a spring pawl or detent engaging the notch of said sleeve, and a cam effective for convenient actuation and engagement with said spring-detent.

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

DAVID F. CLARK.

Witnesses:

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F. D. GOWDY.