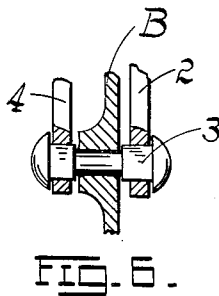
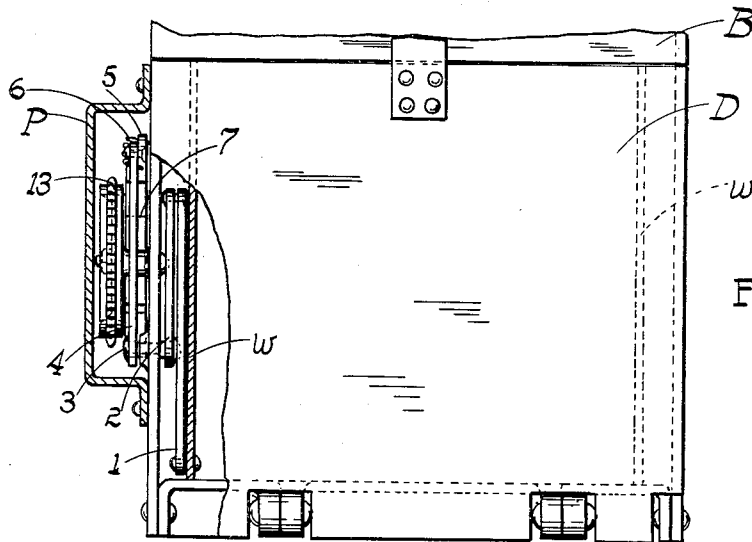
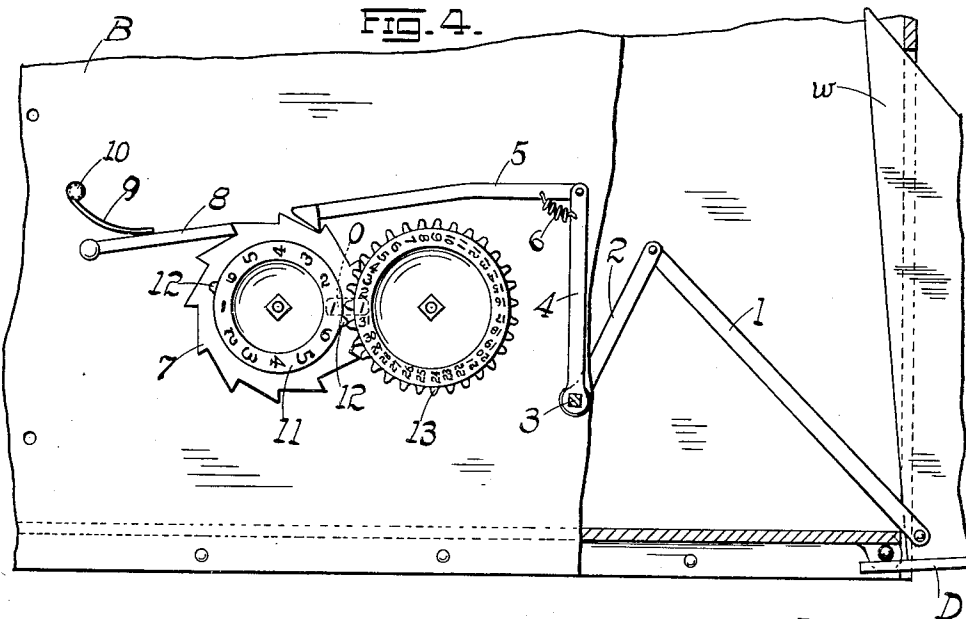


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MAIL BOX REGISTER.
APPLICATION FILED DEC. 10, 1909.

973,156.

Patented Oct. 18, 1910.

2 SHEETS-SHEET 2.



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JOSEPH BAUMGARTNER, OF ST. LOUIS, MISSOURI.

MAIL-BOX REGISTER.

973,156.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, JOSEPH BAUMGARTNER, a citizen of the United States, residing at St. Louis, State of Missouri, have invented certain new and useful Improvements in Mail-Box Registers, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming a part hereof.

10 My invention has relation to improvements in mail-box registers; and it consists in the novel details of construction more fully set forth in the specification and pointed out in the claims.

15 In the drawings, Figure 1 is a perspective of a mail-box showing my invention applied thereto; Fig. 2 is a face view of the operating mechanism, the outer casing therefor, with part of the adjacent wall of the mail-box being removed; Fig. 3 is a horizontal section on the line 3—3 of Fig. 2; Fig. 4 is an enlarged view on the order of Fig. 2, but with door of the box dropped to open position, and registering mechanism advanced one notch; Fig. 5 is a front view of Fig. 2 with wall of the box and casing removed to expose the operating parts; and Fig. 6 is a sectional detail on the line 6—6 of Fig. 2.

30 The object of my invention is to provide an attachment to existing mail-boxes whereby an accurate register may be kept and indicated of the daily mail collections over a given route, the readings on the register indicating at a glance to the postman in charge of the route whether there has been any tampering with a box, or any unauthorized collection made therefrom during the interval between any two successive regular and official collections. In this way, a watch may be kept on the box thus tampered with, thereby leading to the detection and arrest of the person or persons making such unauthorized collections, or robbing the mails.

45 In detail the invention may be described as follows:—

Referring to the drawings, B represents a prevailing type of mail-box and D the hinged drop-door thereof as usual, the door being provided at each end with inwardly projecting triangular wings *w* which are of sufficient length to engage the upper edge of the opening covered by the door, when the latter is swung open, the wings engaging such edge so as to arrest the door at sub-

stantially a horizontal position (dotted position Fig. 2, Fig. 4). The parts referred to are old and well known, and form no part of the invention now to be described.

The wings *w* are slightly spaced from the adjacent walls of the mail-box, such space being sufficient to permit the pivoting to the wing adjacent to the front wall, of one end of a link 1, the opposite end of said link being pivotally coupled to the adjacent end of an oscillating arm 2 carried at the inner end of a rock-shaft 3 mounted in the wall of the mail-box, the outer end of the rock-shaft (or spindle) having secured thereto a corresponding but somewhat longer arm 4 making an angle with the line of disposition of the arm 2. Obviously the ends of the rock-spindle or shaft 3 are preferably made square or polygonal so as to rigidly secure the arms (2, 4) thereto, the body of the spindle being cylindrical so as to readily rock in its bearing. Hinged to the upper end of the arm 4 adjacent to the box wall is an advancing pawl 5 normally drawn downwardly by a spring 6, the free end of the pawl engaging the ratchet disk 7 mounted on the box wall, an adjacent tooth of the ratchet being permanently engaged by a locking pawl 8 controlled by a flexed spring 9, the fixed end of which is rigidly secured to a pin 10 projecting from the box wall. Formed with the ratchet-disk 7 and disposed on the outer face thereof is a circular or annular boss 11 about the face of which are disposed two similar series of numbers running from 1 to 6, such numbers being indicative of the number of official collections per day for the particular box. The periphery of the boss 11 is provided with two diametrically disposed teeth 12, 12 each of which, after the sixth collection mesh with the teeth of the pinion or toothed day-disk 13 rotatably mounted on the box wall between the boss 11 and arm 4. The outer face of the day-disk is provided with an annular row of numbers from 1 to 31 corresponding to the number of days of the longest month. The parts thus exposed are protected by a flanged cover-plate P in which is formed a glass-covered sight opening O of a size and at a point to enable the simultaneous reading of two juxtaposed figures on the boss 11 and day-disk 13 respectively.

The operation of the invention is as fol-

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lows: It will be seen from the link and arm connections as shown, that every time the door D is opened and dropped to its horizontal position, the lower pivotal point of the link 1 will describe an arc sufficient to cause the link to draw on the arm 2 and rock the shaft 3 and oscillate the arm 4 the required distance to cause the pawl 5 to advance or rotate the ratchet disk 7 through a space of one tooth, or in other words a space of one figure on the boss 11 (the number of teeth and figures corresponding). Every figure thus advanced is successively exposed through the sight opening O, so that the figures 1, 2, 3, 4, 5 and 6 successively appear through such sight opening indicating that for a given day, the door D has been dropped or opened six times, and six mail collections made. With the sixth collection however, or with the sixth advance of the ratchet 7 (which may be termed the collections disk) the tooth 12 will engage a tooth on the day-disk 13 and advance it one tooth or figure, each figure thus advanced being likewise exposed through the sight opening O. It thus follows that after each six collections (that being the number made each day in the case under illustration, though such number may be varied) the disk 13 will be advanced one figure or one day, the day exposed corresponding to the day (of the month) on which the collections are being made. If a month has less than thirty-one days the postman can readily operate the door D on the last day of a shorter month, a sufficient number of times to exhaust the remaining days on the day-disk, thereby enabling him to start a fresh month with the figure 1. Since the majority of months not having 31 days have 30 days, a drop of the door six times will be sufficient to set the device for any following month. At the end of February of course, two or three days would be advanced depending on whether it was leap year or not.

The postman in charge of any given route of course, knows how many collections he has made, and should the last reading for example be 3 on the collections disk, and 1 on the day-disk, it shows that three collections were made on the 1st day of the month. If on the next trip he finds the reading to be 4 on the collections disk, and 1 on the day-disk, he instantly knows that some one has tampered with the box and opened the door D. The fact may then be reported to headquarters and the thief caught or watched for. So too, should the last reading be 6, on the collections disk, and 1 on the day disk, and the next morning he finds that the reading is 1 on the collections disk, and 2 on the day disk, he knows that some one opened the box during the night, or after the last collection of the previous day.

Where the number of daily collections are

some other number than six, say three, then obviously the number of teeth 12 must be increased, there being one tooth for each total series of collections for the day. In the example illustrated, the disk 7 provides for a total of twelve collections, or twice six collections, so that there are two teeth 12. If there were four collections per day, we should have three teeth, so that at the end of each day's collections a tooth may be in position to engage the toothed day-disk 13. In other words the number of collections marked on the collections disk is a multiple of the number of teeth with which the disk is provided. With the closing of the door D, a fresh tooth is engaged by the pawls 5 and 8 respectively, when the operation is repeated with a subsequent opening of the door. Having described my invention, what I claim is:—

1. A mail-box having a hinged drop-door operating in a vertical plane, a link pivoted to the door a suitable distance from the hinge axis thereof and disposed on the inside of the box adjacent the box wall at one end of the door, a rock-shaft mounted in said box-wall, an oscillating arm at the inner end of the shaft pivotally coupled to the adjacent end of the link, an oscillating arm on the rock-shaft on the outside of the box-wall, an advancing pawl pivotally coupled to the last-named arm, a ratchet disk mounted on the box-wall and engaged by the pawl, said disk being provided with an outer circular row of figures exposed through the box-wall, indicating the number of collections per day, a coöperating disk-pinion mounted between the ratchet-disk and the rock-shaft and provided with a circular row of figures exposed through the box-wall indicating the days of the month, said pinion being advanced one number with an advance of the ratchet disk corresponding to the total number of collections for the day, the parts operating substantially as, and for the purpose set forth.

2. A mail-box having a hinged drop door operating in a vertical plane, a link pivoted to the door a suitable distance from the hinge axis thereof, and disposed on the inside of the box adjacent the box wall at one end of the door, a rock-shaft mounted in said box-wall, an oscillating arm at the inner end of the shaft pivotally coupled to the adjacent end of the link, an oscillating arm on the rock-shaft on the outside of the box-wall, an advancing pawl pivotally coupled to the last-named arm, a ratchet disk mounted on the box-wall and engaged by the pawl, a boss on the disk provided with a circular row of figures indicating the number of collections per day, a disk-pinion mounted between the ratchet disk and the rock shaft and provided with a circular row of figures indicating the days of the month, teeth on

the periphery of the boss of the ratchet disk
engaging the teeth of the pinion and serving
to advance the latter one number for an ad-
vance of the ratchet disk corresponding to
5 the total number of collections for the day,
the parts operating substantially as and for
the purpose set forth.

In testimony whereof I affix my signature,
in presence of two witnesses.

JOSEPH BAUMGARTNER.

Witnesses:

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JOS. A. MICHEL.