J. S. LANIER.

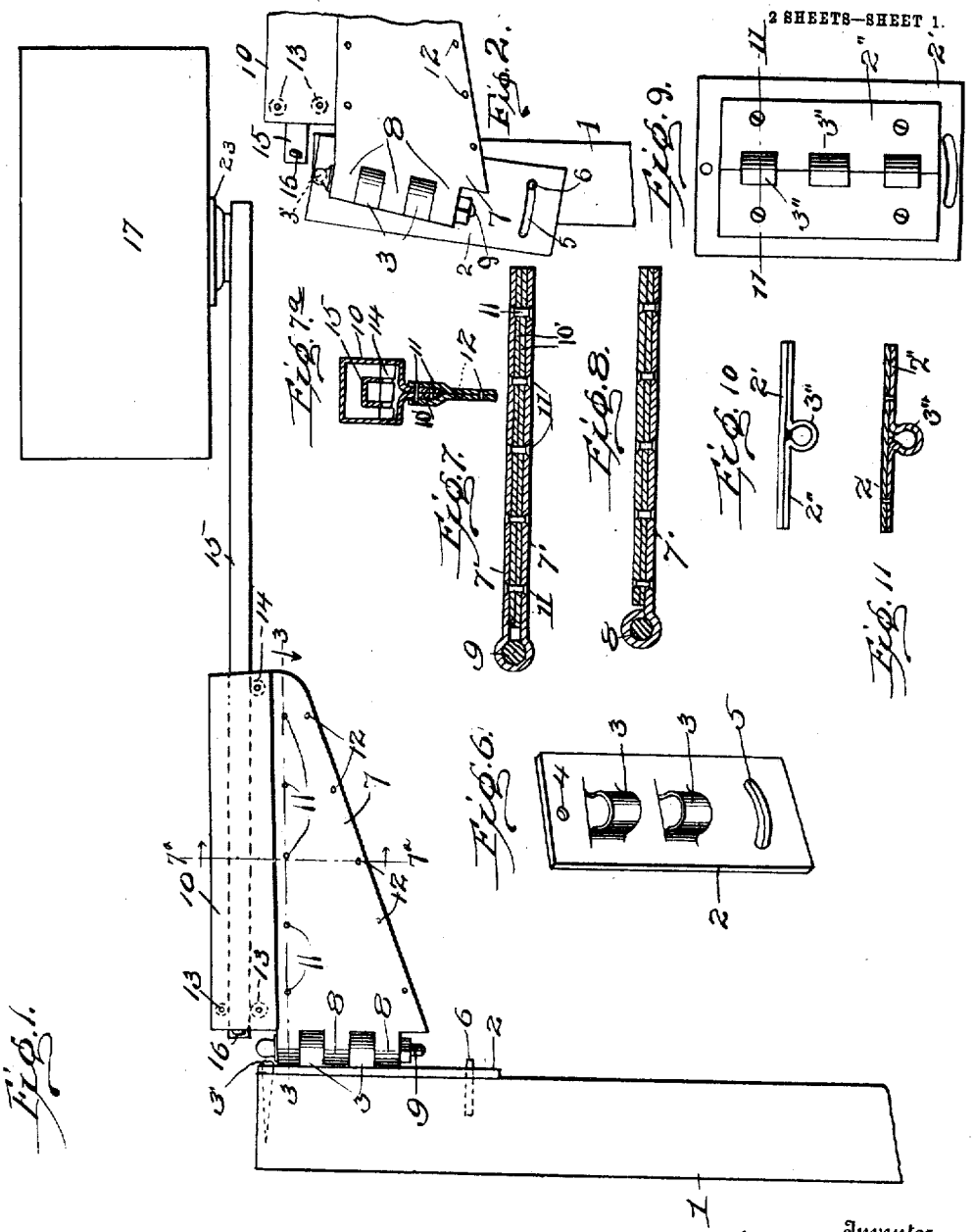
MAIL RECEIVING AND DELIVERING APPARATUS.

APPLICATION FILED OCT. 31, 1907.

905,718.

Patented Dec. 1, 1908.

2 SHEETS—SHEET 1.



Witnesses

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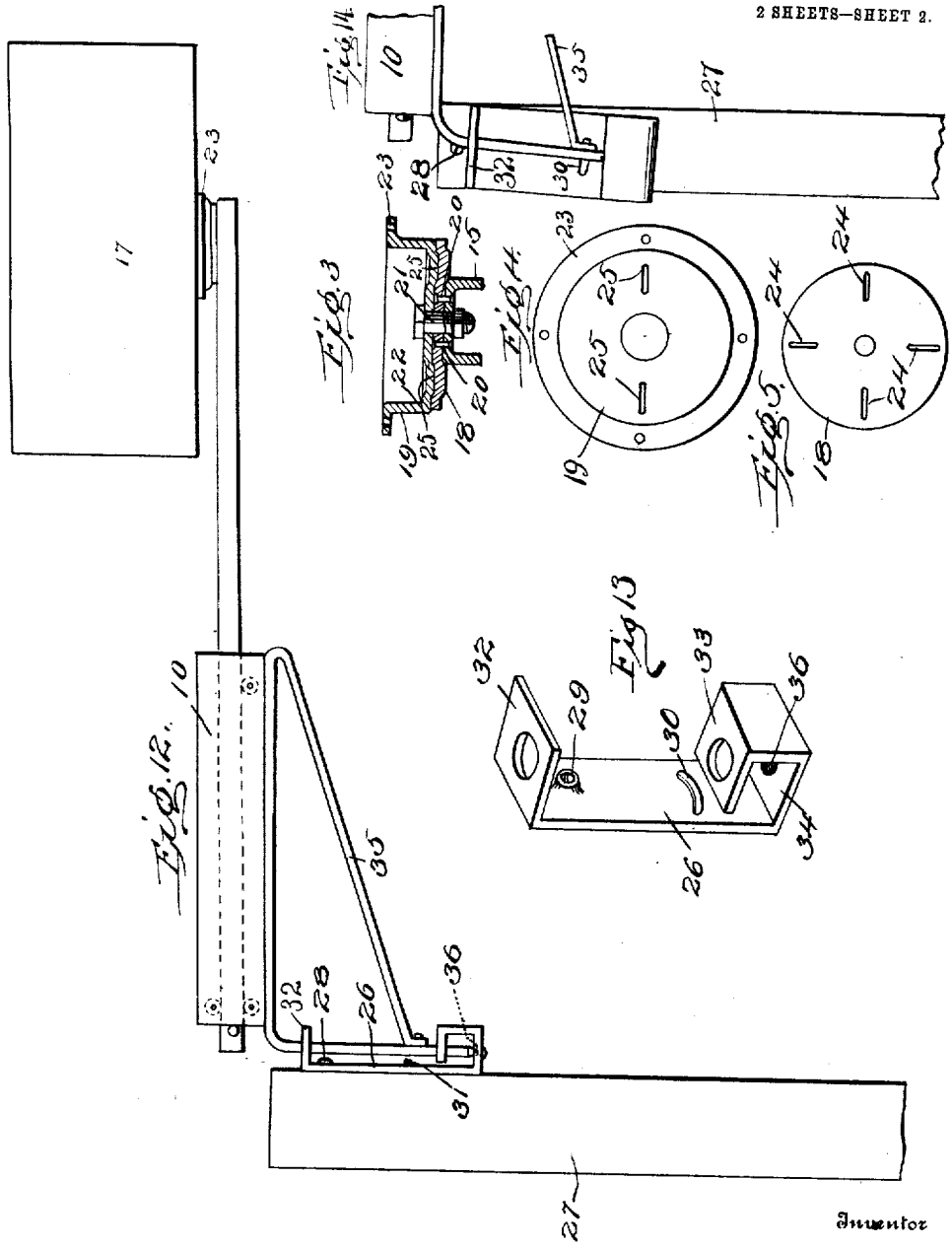
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UNITED STATES PATENT OFFICE.

JAMES SMITH LANIER, OF WEST POINT, GEORGIA, ASSIGNOR TO RURAL AUTOMATIC MAIL BOX COMPANY, OF COLUMBUS, GEORGIA, A CORPORATION OF GEORGIA.

MAIL RECEIVING AND DELIVERING APPARATUS.

No. 905,718. Specification of Letters Patent. Patented Dec. 1, 1908.

Application filed October 31, 1907. Serial No. 400,091.

To all whom it may concern:

Be it known that I, JAMES SMITH LANIER, a citizen of the United States, residing at West Point, in the county of Troup and State of Georgia, have invented certain new and useful Improvements in Mail Receiving and Delivering Apparatus; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in mail receptacle supports, and particularly to the type adapted to facilitate depositing mail into and removing the same from receptacles without requiring the dismounting of the operator.

Among the objects in view are the facilitating of adjustment of the receptacle relative to the position of the operator, and the insuring of the return movement of the receptacle automatically to an out-of-the-way position by the use of elements which may be produced at minimum expense and are of simple and durable construction.

With these and other objects in view, the invention comprises certain novel constructions, combinations and arrangements of parts, as will be hereinafter fully described and claimed.

In the accompanying drawings:—Figure 1 is a view in side elevation of an apparatus embodying the features of the present invention. Fig. 2 is a front view thereof, the hinged bracket being illustrated in its out-of-the-way position, and a fragment only being shown. Fig. 3 is a transverse, vertical, central section through the pivotal mounting for the receptacle. Fig. 4 is an inverted, plan view of the upper or receptacle engaging portion thereof. Fig. 5 is a similar view of the lower portion thereof. Fig. 6 is a perspective view of the post engaging leaf of the hinge. Fig. 7 is a horizontal section taken approximately on the planes indicated by line 3—3 of Fig. 1 and looking downwardly. Fig. 7ª is a transverse, vertical section taken on the plane indicated by line 7ª—7ª of Fig. 1 and looking in the direction indicated by the arrow. Fig. 8 is a view similar to Fig. 7 of a slight modification thereof. Fig. 9 is a front view of a modified form of post engaging leaf. Fig. 10 is a top plan view thereof. Fig. 11 is a horizontal, transverse section taken on the plane indicated by line 11—11 of Fig. 9. Fig. 12 is a view similar to Fig. 1 of a slightly modified construction. Fig. 13 is a perspective view of the post engaging leaf of the construction seen in Fig. 12. Fig. 14 is a front view thereof, parts being broken away.

Referring to the drawings by numerals 1 indicates a post supporting a swinging leaf 2, said leaf being sustained in position by any suitable form of pin 3′ passing through an aperture 4 in the leaf 2 near the upper end thereof, and into the post. The pin 3′ is formed with a head for preventing lateral displacement of the leaf while permitting the leaf to swing freely edgewise. A segmental slot 5 is formed in the leaf 2 near the lower end thereof and a pin 6 extends into the post 1 through said slot and serves as a guide and stop for the edgewise movement of the leaf. Preferably stamped from the body of the leaf 2 are laterally projecting eyes 3—3. Obviously the eyes 3 may be formed on the leaf in any preferred manner, and while I have illustrated two of said eyes a greater or less number may be employed as found desirable according to the strength and rigidity of the structure required.

A swinging leaf 7 is provided with eyes 8—8 interposed between above and below the eyes 3 and pivotally connected therewith by any suitable pintle 9. The eyes 8 may be formed on the leaf 7 in any desired manner but are preferably constructed by folding a suitably stamped plate centrally of its length so that its two sides 7′—7′ lie parallel and constitute the body of the leaf 7, while the bent edge constitutes the eyes 8, intermediate portions being stamped out for accommodating the eyes 3, and spacing the eyes 8. A guiding sleeve or housing 10 is arranged above the leaf 7 and is preferably formed of stamped material which is brought together beneath the bottom of the housing 10 in the form of a plate or pair of plates 10′, which extend between the section 7′ of leaf 7 and are rigidly retained thereby by suitable rivets or other securing means 11—11. The lower edges of the section 7, as indicated in Fig. 7ª, are brought together and securely connected as by suitable rivets 12, 12. The lower edge of the leaf 7 is preferably extended at an angle to the upper edge so that the leaf presents substantially a triangle and in practice, in fact, constitutes a triangular swinging supporting bracket. Obviously, the angularity

of the leaf may be varied to any degree desired without in the least deviating from the invention.

In Fig. 8 I have indicated a modified form of the leaf 7 in which one of the sections 7′ is omitted which lightens and reduces the expense of the structure and is very desirable for comparatively small devices not subjected to heavy strain.

Within the sleeve or housing 10 are arranged rollers 13—13 and 14, a receptacle supporting bar 15 being passed through the housing between the rollers 13, said bar 15 being preferably formed of channel iron and having its edges resting in annular grooves in the roller 14. The inner end of the bar 15 is preferably provided with a suitable cotter 16 for preventing the bar from accidental escape from the sleeve 10 and the opposite end of the bar carries the mail receptacle 17. The pivotal support for the receptacle 17 is indicated on an enlarged scale in Figs. 3, 4 and 5 from which it will be seen that said support consists of a bearing plate 18 and a rotary plate 19. The bearing plate 18 is riveted or otherwise fixedly secured to the bar 15 as at 20—20, and the plate 19 is rotatably supported on plate 18 and retained in place by a pivot bolt 21 preferably passed through both of said plates and through the horizontal web of the bar 15. Obviously, other suitable forms of pivot pins might be employed. The plate 19 consists of a flat disk resting upon the plate 18 and provided with an upstanding annular flange 22 having at its upper edge an annular, outwardly extending flange 23, upon which latter flange rests the receptacle 17. The flange 23 is bolted, riveted or otherwise suitably secured to the receptacle 17 so that the said receptacle may be readily turned upon the pivot 21, but in order to prevent undesirable rotation of the receptacle 17, the plate 18 is formed with depressions, 24 preferably 4 in number, which may be formed in any suitable manner as, for instance, by stamping the material of the plate downwardly, as clearly indicated in Fig. 3.

The plate 19 is formed with a pair of lugs 25 or a single lug may be employed, if preferred, each of the lugs 25 being of the size and shape adapted to fit snugly within any one of the recesses 24 and being rounded off so as to be capable of being sprung out of the respective recess and to ride upon the plate 18 when the receptacle 17 is revolved. Thus, when the receptacle 17 is moved for one-fourth of a revolution it will move from one locked position to another locked position, whereby, in practice, the receptacle may be positioned in parallelism to the bar 15 or transversely thereof as signals to the postman.

The upper edge of the leaf 7 is disposed to lie in a horizontal plane when the leaf 2 is in its inclined position, as indicated in Fig. 2, so that when the leaf 2 is moved to a vertical position the upper edge of the leaf 7 will be inclined upwardly in an outward direction as indicated clearly in Fig. 1, whereby the receptacle 17 is in a raised position when at the outer limit of its movement and in position for access of the operator. Thus, the weight of the receptacle 17 and connected parts will tend to cause the leaf 7 to swing downwardly to the horizontal position and consequently insure a return of the receptacle 17 to an out-of-the-way position at the side of the road, as indicated in Fig. 2. In operation, the operator, of course, will draw the receptacle 17 outwardly to remove or insert mail and then move the receptacle back to position contiguous to the sleeves 10 as indicated in dotted lines in Fig. 1, but should the operator omit returning the receptacle the swinging of the leaf 7 and its connected parts to a position parallel with and at the side of the road will obviate the possibility of the receptacle remaining out in the path of travel. Furthermore, the swinging of the leaf 7 and its connected parts to the out-of-the-way position will, during such movement, cause the leaf 2 to swing to the inclined position as indicated in Fig. 2 and there will, therefore, be no tendency toward accidental swinging of the receptacle 17 and connected parts out again into the path of travel, although, of course, when the receptacle or some part connected thereto is grasped by the operator the same may be readily swung to the outer position and the leaf 2 moved edgewise correspondingly.

In Figs. 9 to 11 inclusive is illustrated a modified construction of the leaf 2 in which construction the leaf consists of a back plate 2′ and a front plate 2″, the plate 2″ having been stamped intermediate its length into straps which were then bent into eyes 3″ and the respective sections of the plate at the same time drawn together, as indicated in Fig. 9. The plate 2′ is, of course, riveted or otherwise suitably secured to the plate 2″, and the plate 2″ is provided with a segmental slot and pivot receiving aperture.

In Figs. 12, 13, and 14 I have illustrated a slight modification of the construction above described which consists of a leaf 26, corresponding to the leaf 2 and pivotally supported on the post 27 by a pivot pin 28 passing through an aperture 29 in the leaf. The material of the leaf 26 at the point of the aperture 29 is preferably drawn outwardly, as indicated in Fig. 13 for forming a bearing for the pin 28. The leaf 26 is provided with a retaining and guiding segmental slot 30, corresponding to the slot 5.

The guiding and limiting pin 31 extends through the slot 30 into the post 27. The eyes of the leaf 26 consist simply of an apertured flange 32 and a folded portion having

a return flange 33 likewise apertured, a portion of the fold producing an imperforate horizontal flange 34 beneath the flange 33. A bracket leaf 35 is preferably constructed of strap iron having the vertical portion of the strap extending through the apertures of the flanges 32 and 33, and stepped at its lower end into a recessed bearing 36. The upper portion of the bracket leaf 35 carries the usual sleeve or housing 10 and connected parts.

The modified structure seen in Figs. 12, 13 and 14 operates, of course, exactly as above set forth.

What I claim is:—

1. In article receiving and delivering apparatus, a pivotally supported leaf, means for limiting the pivotal movement of the leaf, a leaf hinged to said pivotal leaf, and a receptacle carried by said second-mentioned leaf.

2. In article receiving and delivering apparatus, a pivoted leaf, means limiting the pivotal movement of the leaf, and a receptacle support pivotally connected to said leaf and positioned for sustaining the receptacle in a horizontal plane when the leaf is at an extreme of its pivotal movement.

3. In combination, a pivotally mounted leaf, means for limiting the pivotal movement of the leaf, and a receptacle support hinged to said leaf, and having its upper edge disposed to lie in a horizontal plane when the leaf is at an extreme of its pivotal movement.

4. In combination, a pivotally mounted leaf, means for limiting the pivotal movement thereof, a bracket leaf pivotally connected with the first-mentioned leaf, and a receptacle support carried by said bracket leaf and adapted to assume a horizontal position when the first-mentioned leaf is at an extreme of its pivotal movement.

5. In article receiving and delivering apparatus, the combination with a support, of a leaf pivotally connected thereto, a bracket leaf hinged to the first-mentioned leaf, a guiding sleeve carried by said bracket leaf, a bar slidingly extending through said sleeve, a receptacle mounted on said bar, and means for limiting the pivotal movement of said first-mentioned leaf, the said bar being disposed for assuming a horizontal position when the first-mentioned leaf is at an extreme of its pivotal movement.

6. In article receiving and delivering apparatus, the combination with a support, of a leaf pivotally connected thereto, and formed with a slot, a pin projecting from said support through said slot for limiting the pivotal movement of the leaf.

7. In article receiving and delivering apparatus, the combination with a support, of a leaf formed with an aperture and having portions of the material of the leaf drawn out at the point of the aperture for producing a bearing, a pivot pin passed through said aperture engaging said bearing and extending into said support for pivotally supporting the leaf, means for limiting the pivotal mounting of the leaf, and a receptacle support pivotally carried by said leaf in position for sustaining the receptacle substantially horizontally when the leaf is at one extreme of its pivotal movement.

8. In article receiving and delivering apparatus, the combination of a pivotally mounted leaf having eyes projecting laterally therefrom, and formed with eyes interlaced with respect to the eyes of the first-mentioned leaf, a pintle connecting all of said eyes, and a receptacle support carried by the second-mentioned leaf.

9. In a receptacle receiving and delivering apparatus, the combination with a support, of a leaf pivotally connected thereto, and depending from its pivot, means for limiting the pivotal movement of the leaf, and a receptacle supporting means pivotally connected to said leaf and positioned for swinging in substantially horizontal planes and adapted to assume a horizontal position when the leaf is at an extreme of its pivotal movement.

10. In article receiving and delivering apparatus, the combination with a supporting bar, of a plate fixed thereto and formed with depressions, a second plate pivotally connected with the first-mentioned plate and bar, and formed with a projection adapted to engage said depressions, and shaped to be sprung into and out of said depressions for permitting the second-mentioned plate to be rotated and to lock the same at intervals of its movement, and a receptacle carried by the second-mentioned plate.

11. In article receiving and delivering apparatus, the combination with a supporting bar, of a plate fixed thereto, a rotatably mounted plate carried by the first-mentioned plate, the rotatably mounted plate being formed with an upstanding annular flange, and an outwardly projecting flange at the outer edge of the upstanding flange, a receptacle sustained on the outwardly extending flange, and a detent for locking the receptacle at various points in its movement.

12. In article receiving and delivering apparatus, a pivoted leaf, means limiting the pivotal movement of the leaf, and a receptacle support pivotally connected to said leaf and positioned for sustaining a receptacle in an outwardly and upwardly inclined plane when the receptacle support extends outwardly from the leaf.

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

JAMES SMITH LANIER.

Witnesses:

JOHN L. FLETCHER,

EDGAR M. KITCHIN.