S. P. STALLARD.

MAIL BAG CATCHER AND DELIVERER.

APPLICATION FILED SEPT. 23, 1912.

1,047,848.

Patented Dec. 17, 1912.

3 SHEETS—SHEET 1.

Fig. 1.

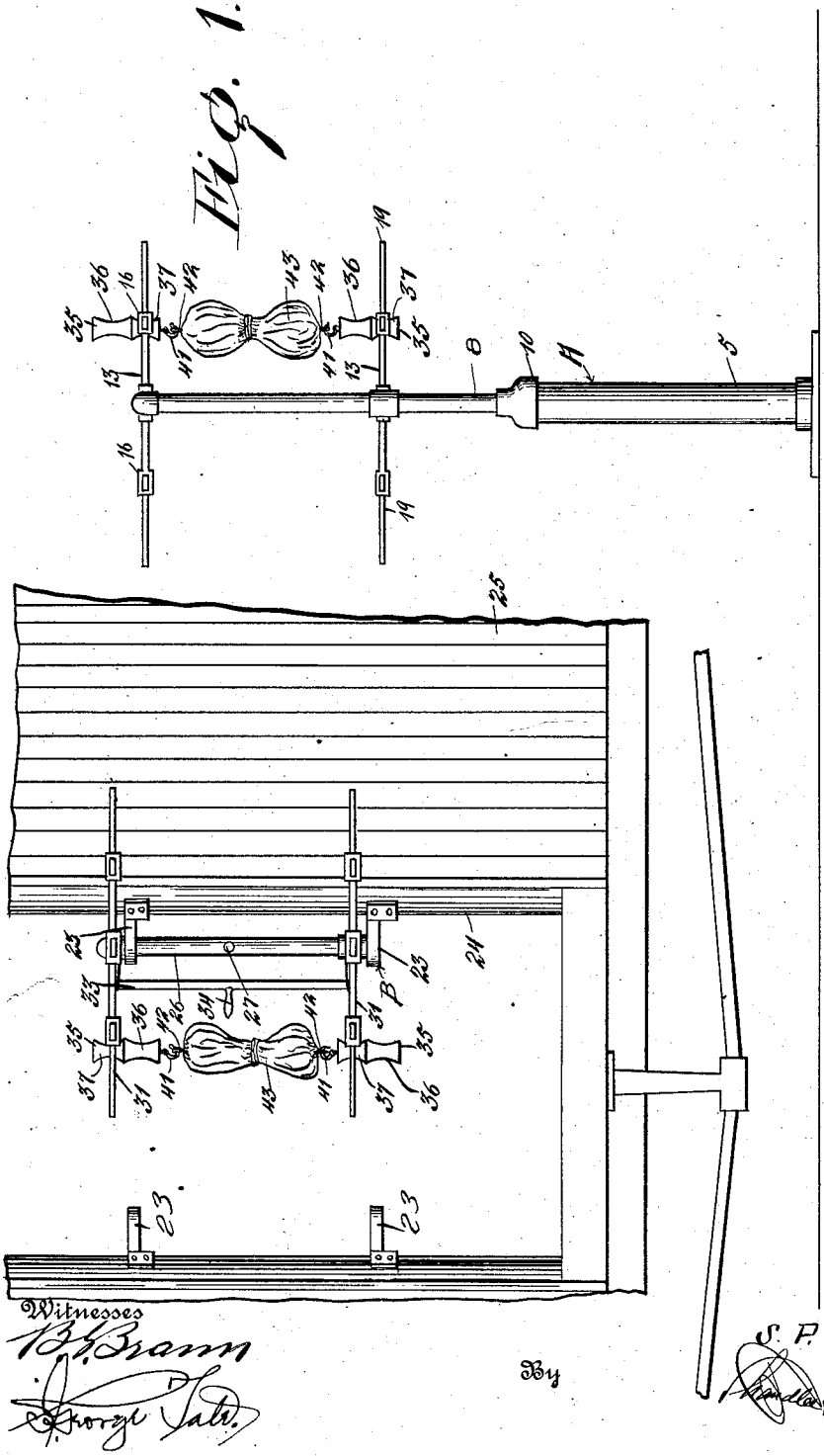
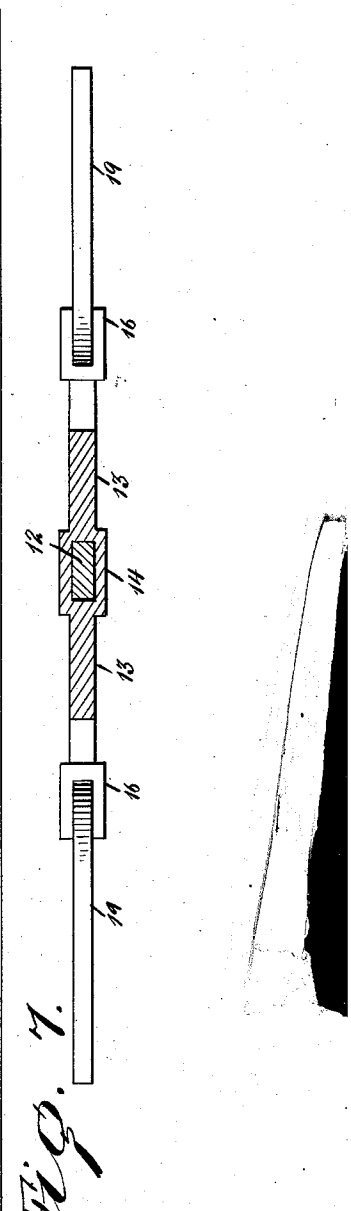


Fig. 1.



Witnesses

B. B. Brann

George Sale.

Inventor

S. P. Stallard.

By Munn & Co

Attorneys.

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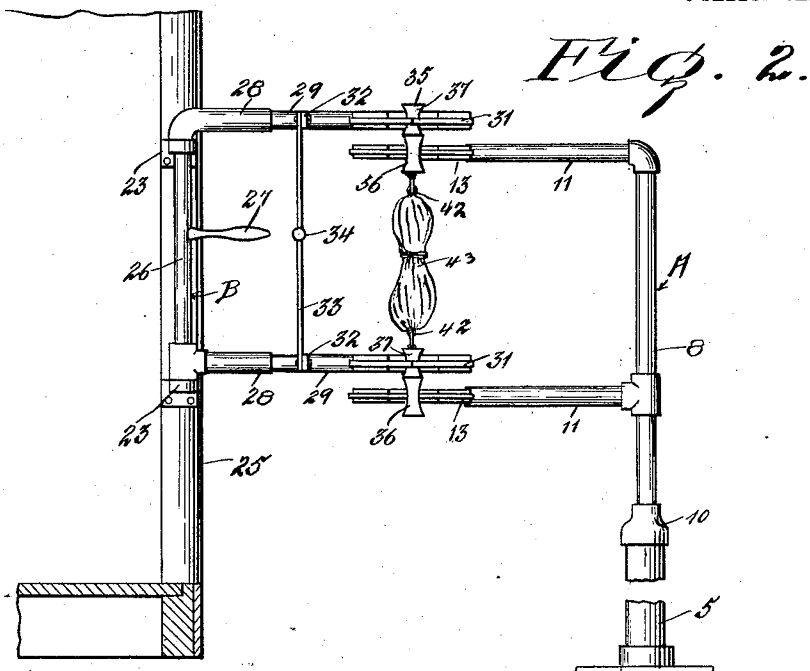
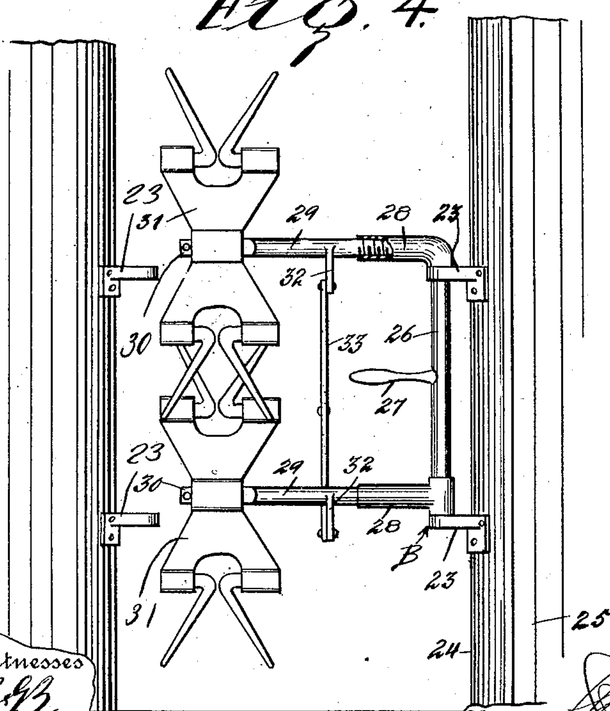


Fig. 2.

Fig. 4.



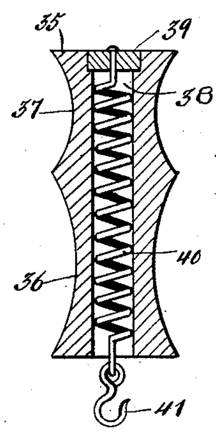


Fig. 8.

Inventor

S. P. Stallard.

Witnesses

B. G. Braun

George Wald.

By

Chandlee & Chandlee

Attorneys

COLUMBIA PLANOGRAPH CO., WASHINGTON, D. C.

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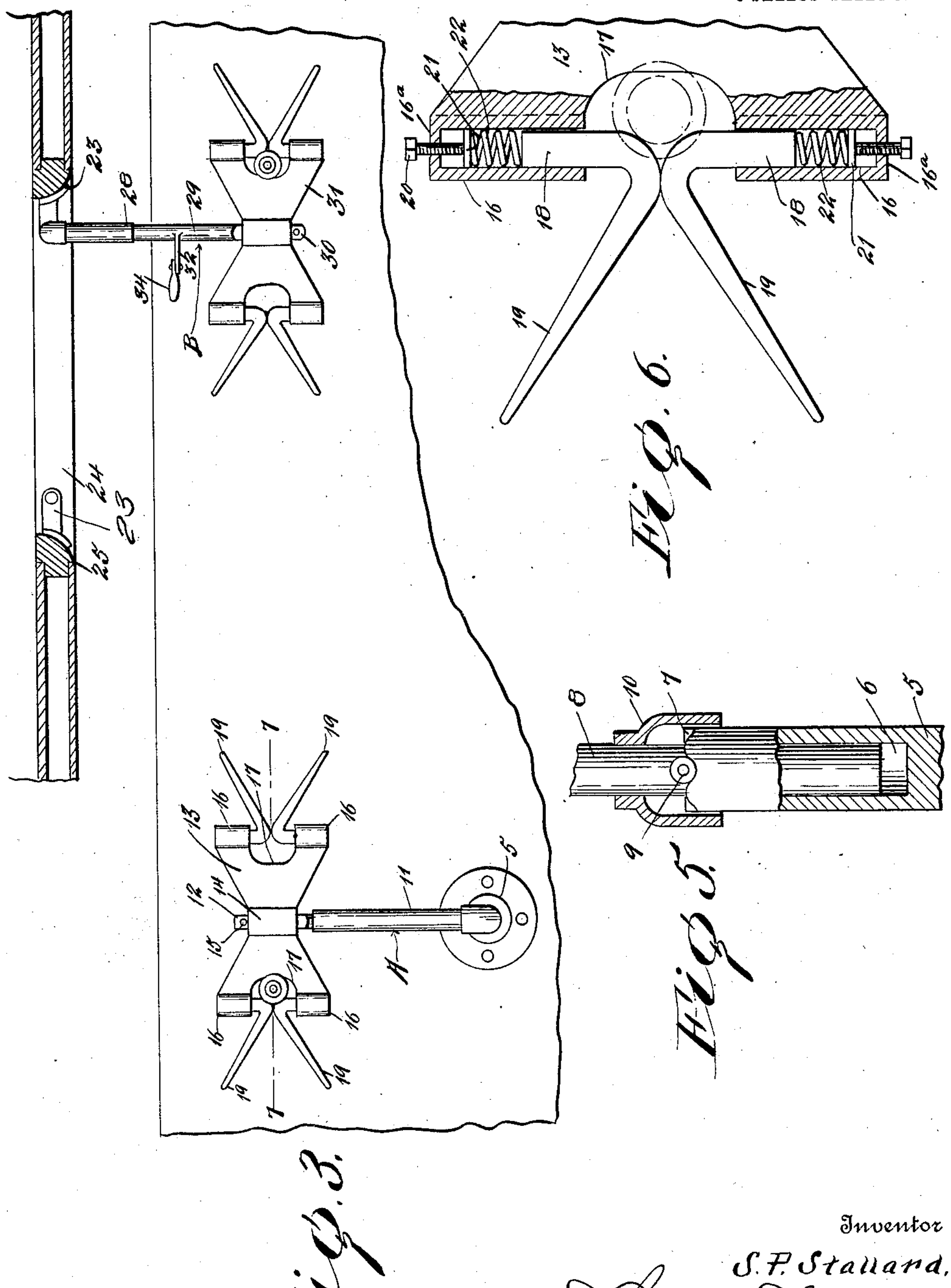
3 SHEETS—SHEET 3.



Witnesses

V. B. Brann

George Yates

Inventor

S. P. Stallard,

By Chandlee & Chandlee

Attorneys.

UNITED STATES PATENT OFFICE.

SYLVESTER P. STALLARD, OF ELKHORN, WEST VIRGINIA, ASSIGNOR OF ONE-FOURTH TO CHRISTOPHER KERSHAW AND ONE-FOURTH TO EDWARD LYONS, BOTH OF ELKHORN, WEST VIRGINIA.

MAIL-BAG CATCHER AND DELIVERER.

1,047,848. Specification of Letters Patent. Patented Dec. 17, 1912.

Application filed September 23, 1912. Serial No. 721,843.

To all whom it may concern:

Be it known that I, SYLVESTER P. STALLARD, a citizen of the United States, residing at Elkhorn, in the county of McDowell, State of West Virginia, have invented certain new and useful Improvements in Mail-Bag Catchers and Deliverers; 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 new and useful improvements in mail bag catchers and deliverers.

The principal object of the invention is to provide an apparatus that will simultaneously deliver a mail bag from a track structure to a moving car and deliver a mail bag from the car structure to the track structure.

Another object of the invention is to provide a track structure which is mounted for swinging movements whereby when a mail bag has been exchanged the structure will be swung outwardly away from the track.

A further object of the invention is to provide a car structure which is swingingly supported on the car and which is adapted after a mail bag has been collected from the track structure to be swung inwardly within the door opening, thereby permitting the operator to readily remove the mail bag therefrom.

A further object of the invention is to provide a car structure in which the catcher and deliverer is swingingly mounted so that after the structure has been swung inwardly within the car door, said catcher and deliverer may be simultaneously swung in a vertical plane, thereby positioning the structure entirely within the door casing.

A still further object of the invention is to provide a mail bag catcher and deliverer which is composed of a minimum number of parts, is therefore extremely simple in construction and is cheap to manufacture.

With these and other objects in view, the invention consists in the construction and novel combination of parts hereinafter fully described, illustrated in the accompanying drawings and pointed out in the claims hereto appended; it being understood that various changes in the form, proportion, size and minor details of construction within the scope of the claims may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

In the drawings: Figure 1 is a side elevation showing a mail bag catching and delivering apparatus constructed in accordance with my invention, the view showing mail bags on the tracks and car structures in readiness to be exchanged, the car structure being shown in its initial position, Fig. 2 is an end elevation thereof, Fig. 3 is a top plan view showing the mail bags in their exchanged positions, Fig. 4 is a side elevation looking from the inside of the car showing the car structure swung inwardly within the door casing, Fig. 5 is a detail sectional view of the swivel connection between the base and post of the track structure, parts thereof being shown in section, Fig. 6 is a detail horizontal sectional view through one of the catchers, Fig. 7 is an enlarged sectional view taken on the line 7—7 of Fig. 3, the mail bag being removed, and Fig. 8 is a longitudinal sectional view through one of the mail bag supporting spools.

Like reference numerals designate corresponding parts in all the figures of the drawings.

Referring to the drawings, my invention comprises a track structure which is designated as a whole by the reference letter A and a car structure which is designated as a whole by the reference letter B. The track structure A consists of a base 5 which is suitably supported on the ground in spaced relation to the track. The upper end of the base is formed with a socket 6 and the upper edge of said base is formed with a track 7 having a plurality of depressions formed on its surface. Rotatably mounted within the socket 6 is the lower end of a post 8 and this post carries one or more rollers 9 for engagement with the depressions in the track 7 and serves to hold said post in any position. A cap 10 is carried by the lower end of the post 8 and this cap incloses the upper end of the base 6, thereby preventing water and other elements from gaining access to the socket 6 and roller 9.

Carried by the post 8 is a pair of spaced upper and lower arms 11—11. These arms are arranged parallel to each other and extend inwardly toward the track (not

shown). Each arm 11 terminates in an angular free end 12.

A pair of horizontal plates 13—13 are each centrally formed with an angular socket 14 for receiving the angular end 12 of a respective arm 11. A pin 15 is secured to the extreme end of an angular end 12 of each arm beyond the plate 13, and serves to limit the longitudinal movement of said plate along the arm. The front and rear edges of each plate 13 is formed with a pair of alined angular sockets 16—16, each pair of sockets being spaced apart and the plate intermediate each pair of sockets being inwardly recessed to form a pocket 17.

Slidably mounted in each alined pair of sockets 16 are the annular shanks 18—18 of a pair of diverging forks 19—19. The outer end of each socket 16 is closed by a head 16^a, and extending through a suitable opening in this head is an adjusting screw 20 which bears against a washer 21. Disposed between the washer 21 and the adjacent shank 18 is a coil spring 22, said spring serving to yieldably hold the inner ends of the forks 19 against each other. It will thus be observed that the adjacent ends of the shanks 18 coöperate to close the pocket 17.

The car structure B includes a pair of spaced upper and lower bearings 23—23 which are secured to one side of the door 24 of a car 25. Rotatably supported in the bearings 23 is a vertical post 26. Extending from this post is a handle 27 by means of which said post may be turned. Extending laterally from the opposite ends of the post 26 are upper and lower arms 28—28, said arms being internally threaded for engagement with arms 29—29, said arms 29—29 each terminating in an angular outer end 30. Mounted upon each angular end 30 is a plate 31 which is identical in construction to the plates 13, and therefore, it is not deemed necessary to specifically describe the same. The upper and lower arms 29 are spaced a sufficient distance apart and are so positioned as to respectively pass above the upper and lower arms 11 of the track structure A. Extending outwardly in the same direction from the arms 29 are rocker arms 32, and a link 33 is pivotally connected at its ends to the outer end of the rocker arm. Connected to the link 33 is a handle 34 by means of which the arms 29 and consequently the plates 31 may be simultaneously turned.

My invention further comprises a plurality of spools 35, each spool being formed with a wide peripheral groove 36 and a narrow peripheral groove 37. Each spool is formed with a longitudinal bore 38, and this bore is closed at one end by a countersunk washer 39. A coil spring 40 is disposed within the bore 38, and has one end fixedly connected to the washer 39. A hook 41 is connected to the free end of this spring. The hooks 41 of a pair of spools 35 are connected to rings 42—42 carried by the ends of the mail bag 43.

In practice, a mail bag 43 is attached to the track structure A by means of the spools 35, the smaller peripheral groove 37 of said spools being yieldably held within the pocket 17 of the upper and lower plates 13. It will thus be observed that the larger peripheral grooves 36 are respectively disposed above the plates 13. The spools 35 of another mail bag 43 are attached to the car structure so that the smaller grooves 37 are arranged within the pockets 17 of the plates 31. These spools are so arranged that the larger grooves 36 are disposed below the plates 31 and are in register with the nearest fingers 19 of the track structure, whereby the largest grooves 36 of the spools 35 which are carried by the track structure are arranged in alinement with the fingers 19 of the car structure. As the car 25 moves past the car structure A, the front fingers 19 will receive the spools 35 of the mail bag which is carried by the car structure and thereby support said spools within the pockets 17 of the plates 31, thereby catching the mail bag which has been previously carried by the track structure A. Simultaneously with this movement, the fingers 19 of the plates 13 of the track structure will engage the spools 35 of the mail bag which is carried by the car structure B, and these spools will of course be secured in position within the pockets 17 of the plates 13. It will be observed that as the fingers 19 contact with the spools, said fingers will be yieldably urged outwardly so as to permit said spools to readily pass into the pocket, and inasmuch as the area of this pocket is smaller than the largest diameter of the spools, the mail bags will be held against accidental displacement.

What is claimed is:

1. In a mail bag catcher and deliverer, the combination with a post, of a pair of spaced upper and lower arms extending from said post, plates respectively connected to the arms, each plate being formed with front and rear pairs of spaced sockets, a pair of diverging fingers respectively terminating at their inner ends in outwardly directed shanks slidably mounted in a respective pair of sockets, and means for yieldably urging the shanks of each pair toward each other.

2. In a mail bag catcher and deliverer, the combination with a post, of a pair of spaced upper and lower arms extending from said post, plates respectively connected to the arms, each plate being formed with front and rear pairs of spaced sockets, a pair of diverging fingers respectively terminating at their inner ends in outwardly directed

shanks slidably mounted in a respective pair of sockets, means for yieldably urging the shanks of each pair toward each other, and means for adjusting the tension of said yieldable means.

3. In a mail bag catcher and deliverer, the combination with a post, of a pair of spaced upper and lower arms extending from said post, said arms respectively terminating in angular outer ends, a pair of plates each formed with a centrally disposed angular socket for receiving the angular end of a respective arm, and mail bag catching and delivering means carried by each plate.

4. In a mail bag catcher and deliverer, the combination with a post, of a pair of spaced upper and lower arms extending from said post, plates respectively connected to the arms, each plate being formed with front and rear pairs of spaced angular sockets, a pair of diverging fingers respectively terminating at their inner ends in outwardly directed angular shanks slidably mounted in a respective pair of sockets, and means for yieldably urging the shanks of each pair toward each other.

5. In a mail bag catcher and deliverer, the combination with a post, of a pair of spaced upper and lower arms extending from said post, said arms respectively terminating in angular outer ends, a pair of plates each formed with a centrally disposed angular socket for receiving the angular end of a respective arm, each plate being formed with front and rear pairs of spaced angular sockets, a pair of diverging fingers respectively terminating at their inner ends in outwardly directed angular shanks slidably mounted in a respective pair of sockets, means for yieldably urging the shanks of each pair toward each other, and means for adjusting the tension of said yieldable means.

6. In a mail bag catcher and deliverer, the combination with a post, of a pair of spaced upper and lower arms extending from said post, plates respectively connected to the arms, each plate being formed with front and rear pairs of spaced sockets, the plates being each formed with inwardly extending pockets respectively arranged intermediate each pair of sockets, a pair of diverging fingers respectively terminating at their inner ends in outwardly directed shanks slidably mounted in a respective pair of sockets, and means for yieldably urging the shanks of each pair toward each other.

7. In a mail bag catcher and deliverer, a plate formed at one end with an alined pair of spaced sockets, a pair of diverging fingers respectively terminating at their inner ends in outwardly directed shanks slidably mounted in said sockets, and means for yieldably urging the shanks toward each other.

8. In a mail bag catcher and deliverer, a plate formed at one end with an alined pair of spaced angular sockets, a pair of diverging fingers respectively terminating at their inner ends in outwardly directed angular shanks slidably mounted in said sockets, and means for yieldably urging the shanks toward each other.

9. In a mail bag catcher and deliverer, a plate formed at one end with an alined pair of spaced sockets respectively having their outer ends closed by a head, a pair of diverging fingers respectively terminating at their inner ends in outwardly directed shanks slidably mounted in said sockets, a washer disposed in each socket intermediate the shank and head, a coil spring disposed in each socket intermediate the shank and washer for yieldably urging said shanks toward each other, and a tensioning screw carried by each head and engageable with the washer for adjusting the tension of the spring.

10. In a mail bag catcher and deliverer, a mail bag supporting element consisting of a spool formed with a bore and having a plurality of peripheral grooves formed thereon, a spring disposed within the bore and having its inner end fixed to the spool, and a mail bag attaching means carried by the other end of said spring.

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

SYLVESTER P. STALLARD.

Witnesses:

R. E. DOYLE,

EDWARD LYONS.