

J. H. MAHLE.
 MAIL DELIVERING APPARATUS.
 APPLICATION FILED MAY 17, 1911.

1,000,829.

Patented Aug. 15, 1911.

4 SHEETS—SHEET 1.

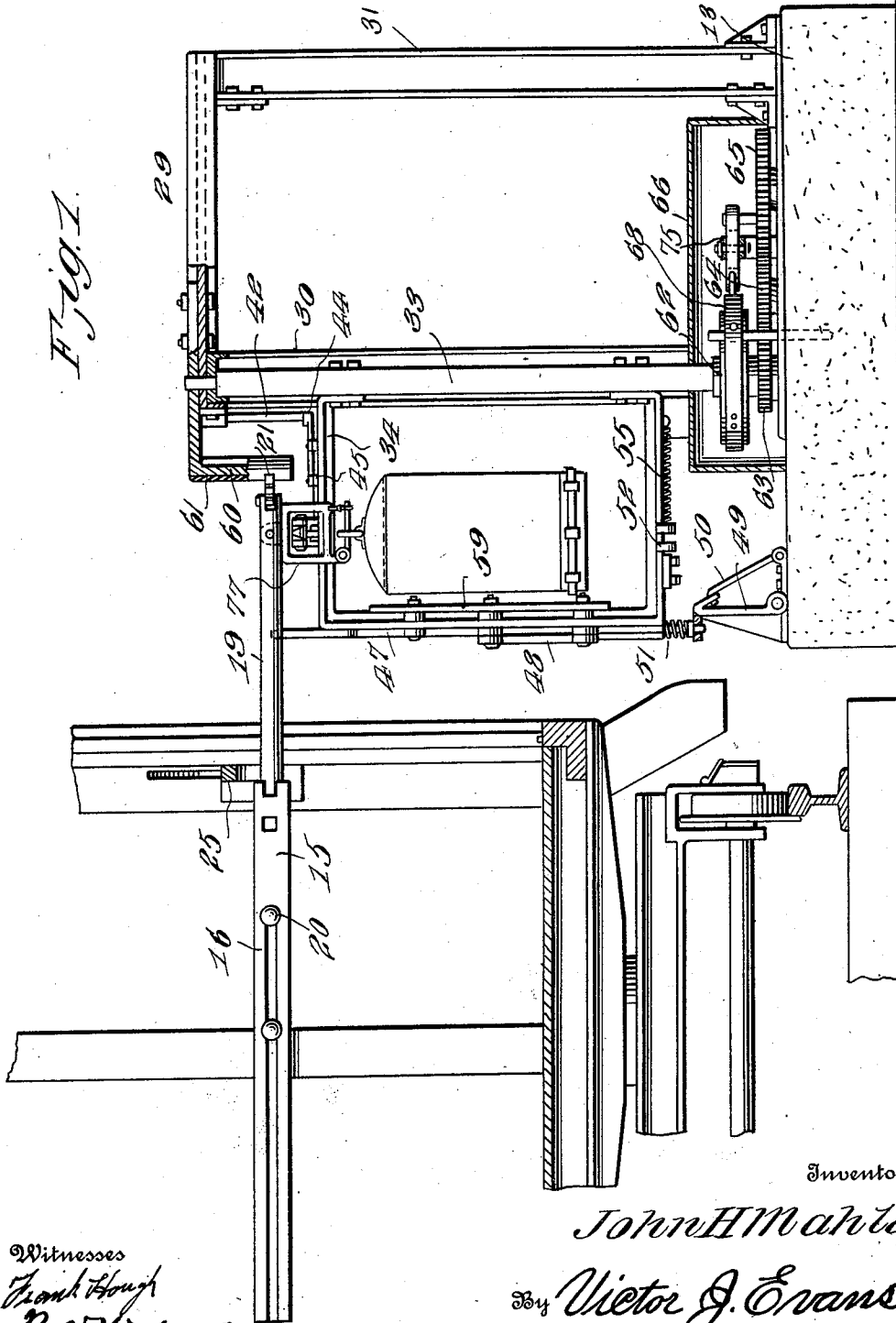


Fig. 1.

Witnesses
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 Attorney

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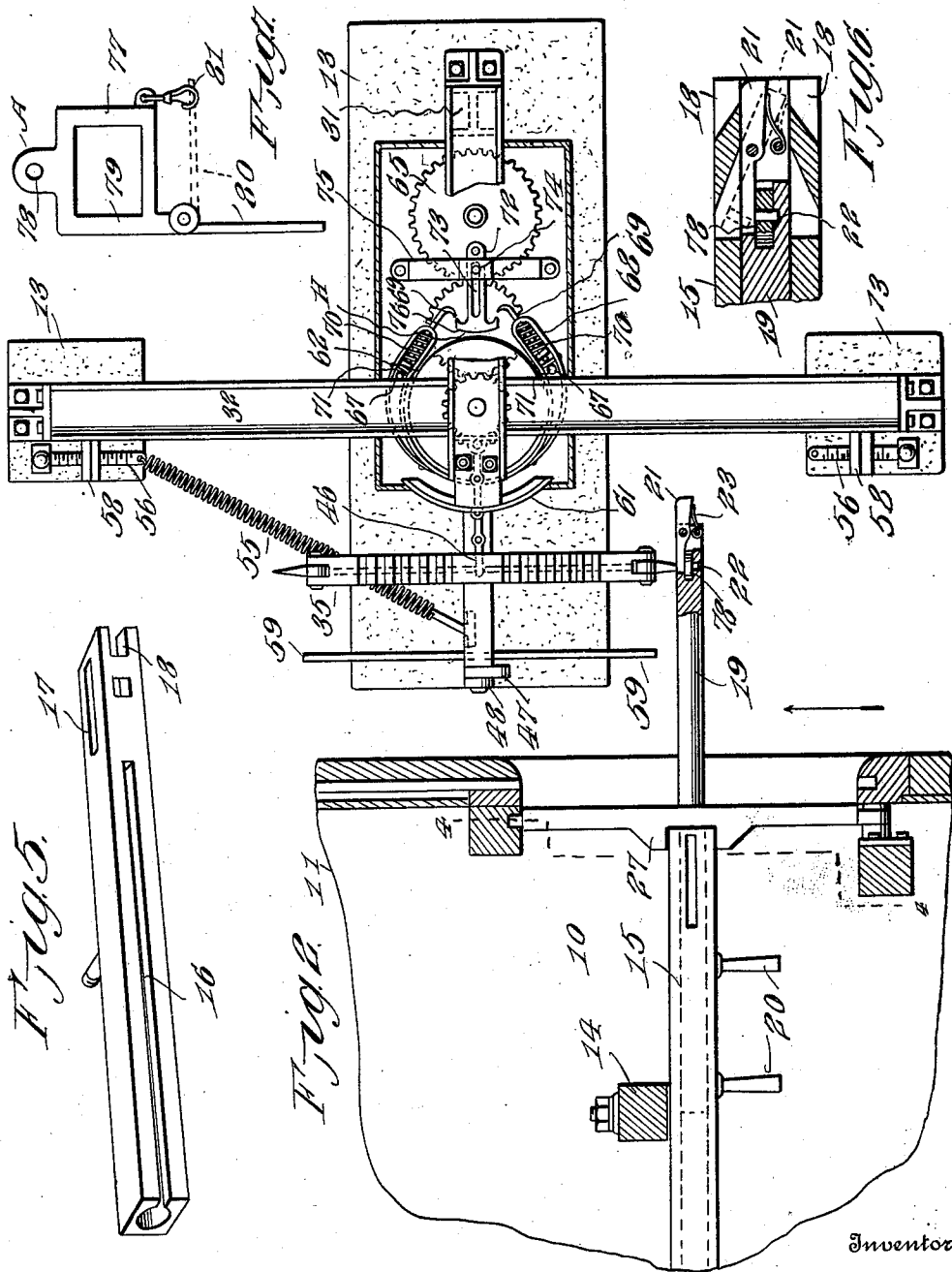


Fig. 3.
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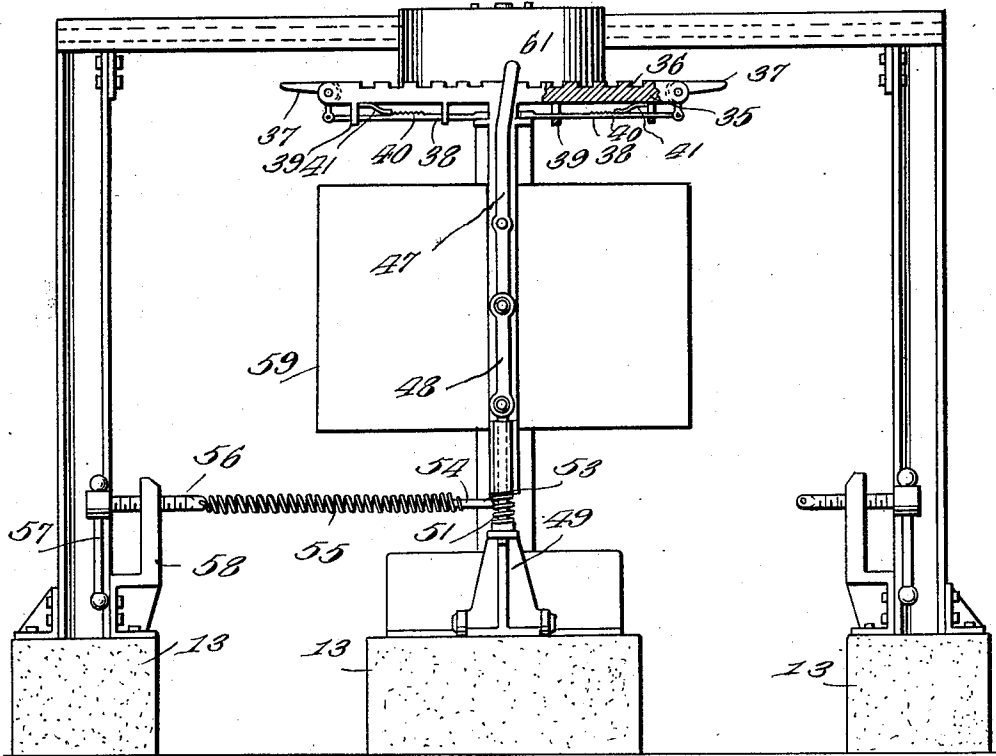


Fig. 3.

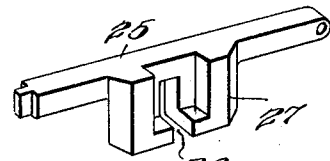
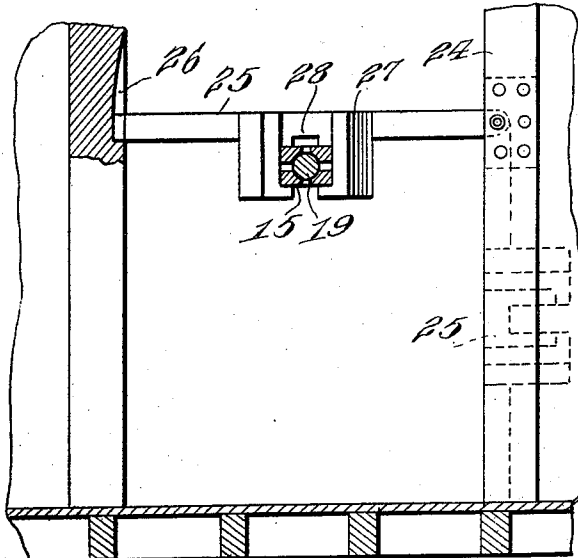


Fig. 8.

Fig. 4.

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Witnesses
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 R. A. [Signature]

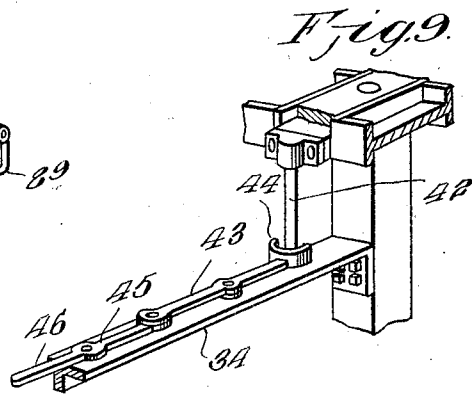
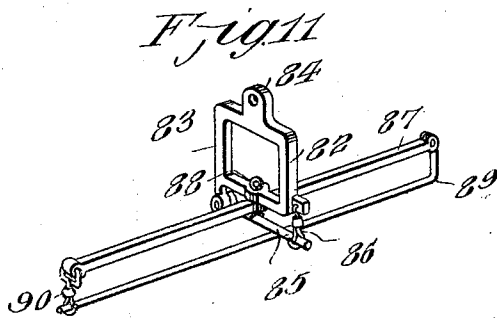
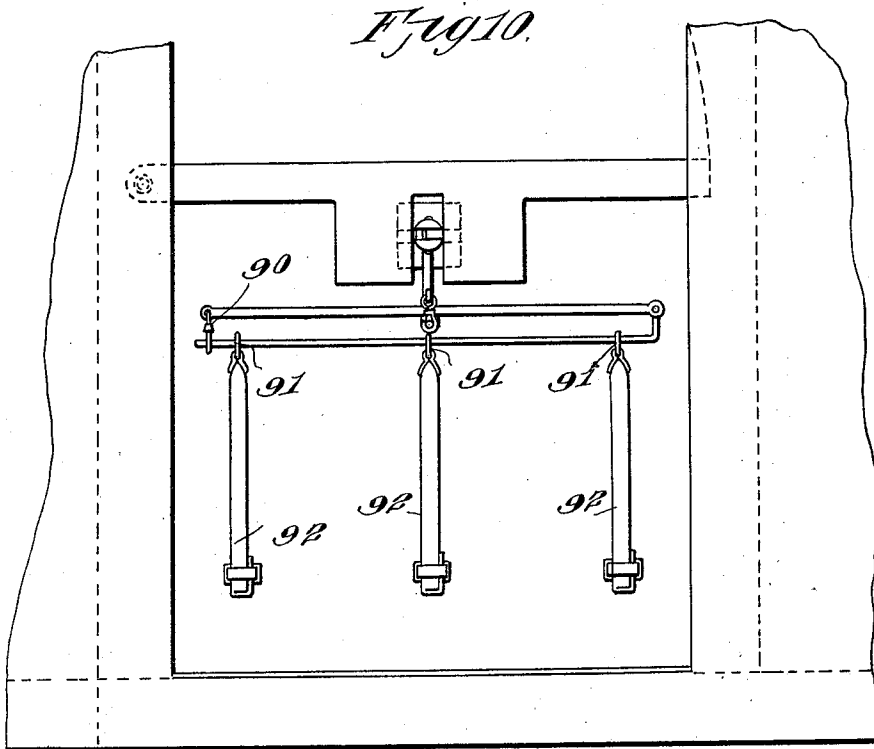
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4 SHEETS-SHEET 4.



Witnesses

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UNITED STATES PATENT OFFICE.

JOHN H. MAHLE, OF BLUE ISLAND, ILLINOIS.

MAIL-DELIVERING APPARATUS.

1,000,829.

Specification of Letters Patent. Patented Aug. 15, 1911.

Application filed May 17, 1911. Serial No. 627,708.

To all whom it may concern:

Be it known that I, JOHN H. MAHLE, a citizen of the United States, residing at Blue Island, in the county of Cook and State of Illinois, have invented new and useful Improvements in Mail-Delivering Apparatus, of which the following is a specification.

The invention relates to mail bag delivering apparatus and has for an object to provide a device for delivering mail from a vehicle moving at a high rate of speed.

In the operation of delivering mail from a vehicle moving at a high rate of speed it has been found that the mail bags have oftentimes been seriously damaged and torn in view of the fact that the mail bag when leaving the fast moving vehicle travels at a rate of speed corresponding to the speed of the vehicle and in striking the ground or a stationary object the concussion of the mail bags with the stationary object tends to mutilate the mail contained in the bag. Other devices for delivering mail oftentimes become inoperative while in operation and are very inefficient in securing the mail delivered from a fast moving vehicle.

In my device I aim to provide a means whereby the receiving apparatus is operated at a rate of speed proportional to the speed of the moving vehicle so that the mail bag, traveling at a high rate of speed is received by an apparatus, also traveling at a high rate of speed and arranged to gradually assume a stationary position, thus reducing, to a great extent, the shock occasioned when the mail bag strikes the receiving apparatus.

To accomplish the desired result I employ a supporting device mounted on a vehicle moving at a high rate of speed and a receiving device mounted on the ground and adapted to receive the mail supported on the supporting device, the said supporting device and said receiving device being coincident in the operation so that the mail will not be subjected to a shock when the same contacts with the receiving device, suitable brake means being provided to gradually reduce the motion of the receiving device after the mail has been connected thereto.

Reference is to be had to the accompanying drawings constituting a part of this specification, in which similar characters of

reference denote corresponding parts in all the views, and in which—

Figure 1 is a side elevation of my device, parts being broken away to disclose the underlying structure. Fig. 2 is a plan view, parts being broken away to disclose the underlying structure. Fig. 3 is a front elevation of the receiving device. Fig. 4 is a vertical sectional view taken substantially on the line 4—4 in Fig. 2, looking in the direction of the arrow. Fig. 5 is a perspective view of the slotted bar of the supporting device. Fig. 6 is a fragmentary vertical section of the releasing hook on the supporting device. Fig. 7 is a front elevation of a mail bag hook used in connection with my device. Fig. 8 is a perspective view of the supporting bar, arranged on the vehicle for operatively positioning the supporting device. Fig. 9 is a fragmentary perspective view of the mechanism for operating the retaining lugs on the receiving device. Fig. 10 is a fragmentary front elevation showing a modified form of mail bag hook. Fig. 11 is a perspective view of the mail bag hook shown in Fig. 10.

Referring more particularly to the various views I provide a supporting device 10 for erection in a baggage car 11 and a receiving device 12 for erection on a base 13 mounted on the ground. The supporting device 10 embodies an upright 14 secured in the car 11 opposite the doors thereof and mounted to swing on the upright 14 is a bar 15 provided with a longitudinally extending slot 16 and having apertures 17, 18 therein. Mounted to slide in the bar 15 is a rod 19 telescopic within the bar 15 and extending through the slot 16 and connected to the rod 19 are a plurality of handles 20, the said handles being in threaded engagement with the rod and removable therefrom. Pivotaly mounted at the outer end of the rod 19 is a releasing hook 21 provided with a laterally extending lug 22 and adapted to be engaged by a spring 23 secured to the rod 19. Mounted to swing on one side of a door casing 24 of the car 11 is a supporting bar 25, the outer end of the supporting bar being adapted to seat in a grooved out portion 26 in the other side of the door casing 24 to retain the bar 25 in supporting position. Formed centrally on the bar 25 is an indented flanged portion 27 provided with a slot 28, the outer end of

the bar 15 being adapted to repose in the flanged portion 27 with the rod 19 adapted to extend outwardly through the groove 28. By referring to the dotted lines in Fig. 4 it will be seen that the bar 25 can be swung upwardly and out of the grooved out portion 26 to assume an inoperative or depending position adjacent one side of the door casing 24.

10 The receiving device 12 embodies a framework 29 consisting of a series of uprights 30 connected by cross pieces 31 and 32 and supported on the base 13. Journalled to swing on the framework is a shaft 33 having secured thereto an auxiliary frame 34 revolvable with the shaft 33, relatively to the framework 29. Secured to the auxiliary frame 34 is a receiving bar 35 provided with a series of serrations 36 and pivotally mounted at both ends of the receiving bar 35 are retaining lugs 37, each pivotally connected to rods 38 journalled on lugs 39 and provided with serrations 40 adapted to be engaged by springs 41 secured to the retaining bar 35, the inner ends of the rods being spaced apart for a purpose that will be hereinafter more fully disclosed. Secured to the framework 29 and depending therefrom is a pin 42 having its lower end free and pivotally mounted on the auxiliary frame 34 is a lever 43 having one end thereof provided with a flange 44 adapted to partially encircle the pin 42, the other end of the lever 43 being hinged to a second lever 45 pivotally mounted on the auxiliary frame 34 and having its outer end 46 extending between the inner ends of the rods 38.

Pivotally mounted on the auxiliary frame 34 is a releasing lever 47 having its upper end extending upwardly a distance beyond the bar 35 and the lower end thereof hingedly connected to a lever 48 pivoted on the auxiliary frame 34 with the lower end of the lever 48 in removable engagement with an apertured locking lug 49 mounted to swing on the base 13 and retained in locking position by a rod 50, a spring 51 being provided to encircle the lower end of the lever 48 to normally retain the same in engagement with the locking lug 49. A plurality of slotted lugs 52 are formed on the under side of the auxiliary frame 34 and in removable engagement therewith is a T-shaped member 53 having a shank 54 to which is secured one end of a contractile spring 55, the other end of the said spring being connected to a screw 56 engaging the frame 29 and provided with a handle 57. An upwardly extending knife flange 58 is positioned on the framework 29 and acts as a gage for the screw 56 which can be graduated proportional to the tension of the spring 55 so that by turning the handle 57 any desired tension of the spring 55 can be secured by operating the screw 56 so that

one of the graduations thereon will aline with the knife flange 58. Secured to the inner side of the auxiliary frame 34 is a plate 59 arranged to extend outwardly from both sides of the frame to prevent the mail bags delivered to the receiving device from swaying and striking the framework 29. The frame 29 is provided with a laterally depending flange 60, having the outer surface thereof concave and covered with a rubber pad 61, the said rubber pad being adapted to be engaged by the releasing hook 21 of the supporting device 10 as will be hereinafter more fully brought out in the specification.

Keyed to the lower end of the shaft 33 is a brake wheel 62 and keyed to the shaft beneath the brake wheel is a toothed wheel 63 in mesh with an idler 64 mounted on the base 13, the said idler being in mesh with a toothed wheel 65 also mounted on the base 13, the mentioned toothed wheels and brake wheel being inclosed in a housing 66. Extended upwardly from the base 13 are a plurality of pins 67 and mounted to frictionally engage the brake wheel 62 is a brake band 68, the said brake band consisting of an integral strip of material having looped ends through which the pins 67 extend. Hooks 69 are slidably extended through the ends of the brake bands 68 and are engaged by springs 70, transversely extending pins 71 being secured to the brake bands 68 between the springs 70 and the pins 67. Mounted to swing on the toothed wheel 65 is a T-shaped bar 72 provided with a slot 73 through which is extended a pin 74 secured to a guide 75 mounted on the base 13 and the outer end of the bar 72 terminates in hooks 76, adapted to be engaged by the hooks 69.

A mail bag clamp 77, provided with an apertured lug 78 has an opening 79 therein and pivotally mounted on the clamp 77 is a bar 80 having its outer end adapted for engagement with a snaffle hook 81 mounted on the clamp 77.

Assuming that a train having connected thereto the baggage car 11, is approaching a station provided with the receiving device 12 and that the car 11 is provided with the supporting device 10, when it is desired to deliver mail from the baggage car to the station the operation will be as follows. The supporting bar 25 is adjusted in supporting position as shown in Fig. 4 and the bar 15 is swung on the upright 14 to repose in the flanged portion 27 of the supporting bar 25. The usual ring secured to a mail bag then receives the bar 80, after which the end of the bar is engaged with the snaffle hook 81 and by inserting the finger in the aperture 18 of the bar 15, the releasing hook 21 can be moved into open position, thus permitting the lug 78 to be extended through the aper-

ture 17 of the supporting bar 15 after which the hook 21 is released to assume its normal position with the lug 22 of the hook 21 extended through the aperture in the lug 78 of the mail bag clamp 77, thus retaining the mail bag in depending position on the rod 19. The door on one side of the baggage car is now opened and by grasping the handles 20 the rod 19 can be slid outwardly from the bar 15 so that the mail bag will be spaced a distance from the side of the car and in alinement with the receiving bar 36 of the receiving device 12. Now assuming that a train rushing along at a high rate of speed passes the receiving device at the station, the apertures 79 of the mail bag clamp 77 will receive therethrough one end of the bar 35 as shown in Fig. 1 and as the clamp 77 advances onto the bar 35, the outer end of the releasing hook 21 will engage the rubber pad 61 on the concave plate 60, thus moving the releasing hook into open position and permitting the clamp 77, with the mail bag attached thereto, to fall onto the bar 35 and into one of the serrations 36 thereof. At the moment that the mail bag clamp is released from engagement with the rod 19, the said rod will engage the upper end of the releasing lever 47, thus operating the lever to disengage the same from the locking lug 49. When the lever 47 is disengaged from the locking lug 49, thus releasing the auxiliary frame 34, the tension in the spring 55 will cause the auxiliary frame to swing and as the tension of the spring has been previously adjusted to exert a pull on the auxiliary frame, proportionate to the speed of the train, the auxiliary frame will tend to revolve at a high rate of speed relatively to the frame 29. At the moment that the tension in the spring 55 operates the auxiliary frame 34, the T-shaped member 54 will be gravitationally disengaged from the lugs 52, thus preventing the spring 55 from impeding the revolving movement of the auxiliary frame 34 and at the same moment that the auxiliary frame begins to revolve, one end of the flange 44 of the lever 43 will engage the free end of the pin 42, thus moving the lever 45 so that the end 46 thereof will engage one of the rods 38 and actuate the same to move one of the lugs 37 upwardly relatively to the bar 36, the said lug in its vertical position being adapted to prevent the mail bag and clamp from sliding out of engagement with the bar 36, the said lug 37 being retained in its vertical position by one of the springs 41 engaging the serrations 40 on the mentioned rod 38.

As the auxiliary frame 34 starts to revolve, the toothed wheel 63 will revolve with the shaft 33 thus in turn operating the toothed wheels 64, 65 and as the toothed wheel 65 revolves, the bar 72 guided by the

pin 74 and pivotally mounted on the toothed wheel 65 will be moved so that one of the hooks 76 will engage one of the hooks 69 and retain the engaged hook 69 against the action of one of the springs 70 as will be readily understood. As the auxiliary frame 70 revolves still farther the actuated spring 70 will exert a pull on the brake band 68, thus frictionally engaging the brake band with the brake wheel 62 and the frictional engagement of the brake band with the brake wheel will increase as the toothed wheel 65 continues to revolve owing to the revoluble movement of the auxiliary frame 34, thus acting as a brake to gradually retard the revoluble movement of the auxiliary frame 34, thus it will be readily seen that the frictional engagement of the band 68 with the brake wheel 62 will increase proportionately to the number of revolutions made by the auxiliary frame 34 and when the frictional braking action of the brake band and brake wheel overcomes the revoluble speed of the auxiliary frame 34 the said auxiliary frame will assume a stationary position so that the station agent or other operator can remove the mail bag from the bar 35 and it will be further seen that by permitting the auxiliary frame 34 to revolve at a speed proportional to the speed of the train and then gradually retarding the speed of the frame 34, the usual shock subjected to a mail bag when the same is delivered from a moving vehicle to a stationary object is entirely dispensed with and the mail bag will be delivered from the car 11 to the bar 35 without any undue concussion which very often tends to tear the mail bag and mutilate the mail contained in the bag. By providing the plate 59 the tendency of the mail bag when received on the bar 35, to swing outwardly is prevented, thus also preventing the mail bag from striking the frame work 29 and by permitting the spring 55 to become disengaged from the auxiliary frame 34 when the same begins to revolve, the path of the frame 34 will be clear and the spring will not act as an impediment to the revoluble movement of the frame. When the mail bag has been released from the rod 19, the said rod is telescopically returned within the bar 15 by moving the handles 20 and the bar 15 can then be swung into a vertical position against the upright 14 so that the same will not take up any unnecessary space in the car 11 and the supporting bar 25 is then swung to assume a depending position adjacent one side of the door casing 24 as shown in dotted lines in Fig. 4. Should the train be operating in an opposite direction, the handles 20 can be disengaged from the rod 19, the rod can be revolved within the bar 15 so that the releasing hook 21 will be in position to operate in conjunction with the receiving device

at the station and the handles 20 can then be reconnected with the rod 19 so that the mail supporting device in the car 11 can be used to deliver mail from either side of the car, the upright 14 being preferably positioned between the two middle doors of the car.

In Figs. 10 and 11 I disclose a modified form of mail bag clamp and with which a number of bags can be employed when a large quantity of mail is to be delivered at one station. I provide a clamp 82 provided with an aperture 83, an aperture lug 84, a hingedly connected bar 85 and a snapper hook 86, all of the mentioned parts being similar in construction to the parts embodied in the mail bag clamp 77 described heretofore. A main member 87 connected to the clamp 82 by a cotter pin 88 has a rod 89 hinged at one end thereof with the other end of the said rod engaging a snaffle hook 90 mounted to swing at the other end of the main bar 87. Referring to Fig. 10, it will be seen that in order to mount a plurality of mail bags upon the rod 89, the same is first disengaged from the snaffle hook 90, the bags are then placed upon the rod by passing the rod through rings 91 on bags 92 and the rod is then reengaged with the snaffle hook 90. The lug 84 is then inserted in one of the apertures 17 of the bar 15 so that the lug 22 of the releasing hook 21 will pass through the aperture in the lug 84 thus positioning the clamp 82 on the rod 19. The manner of transferring the clamp 82 having several mail bags 92 connected therewith, to the bar 35 of the receiving device embodies a procedure precisely similar to the method employed in the use of the mail bag clamp 77, described heretofore.

From the foregoing description it will be seen that I have provided a device for efficiently transferring mail from a vehicle moving at a high rate of speed to a receiving device operable automatically upon receiving the mail to prevent any injury to the mail bag and although for the purpose of describing my mail delivering apparatus I have shown a particular construction thereof and have described the same in connection with definite methods of procedure, it will be understood that I do not limit myself to the precise construction shown and that the scope of the invention is defined in the appended claims.

Having thus fully described the invention, what I claim as new, is:—

1. In a mail delivering apparatus the combination of a supporting frame for pivotal attachment on a vehicle and adapted to releasably support mail, a receiving frame, a shaft journaled on the receiving frame, an auxiliary frame connected with the said shaft, locking means mounted on the auxiliary frame and adapted to normally retain

the same in rigid position relatively to the receiving frame, springs releasably connected with the said auxiliary frame to revolve the same when the said auxiliary frame is released from locked position, a bar rigidly mounted on the auxiliary frame and adapted to receive the mail when the same is released from the said supporting frame, means mounted on the receiving frame and adapted to be engaged by the supporting frame to release the mail therefrom, lugs pivotally mounted on the said bar for retaining the mail thereon, a brake wheel secured to the said shaft, means for releasing the said auxiliary frame from rigid engagement with the said receiving frame so that the said auxiliary frame will revolve and brake means mounted to engage the said brake wheel to limit the revoluble movement of the said auxiliary frame.

2. In a mail delivering apparatus, the combination of a supporting frame for pivotal attachment to a vehicle and adapted to releasably support mail thereon, a receiving frame, an auxiliary frame revolubly mounted on the receiving frame, means for normally retaining the auxiliary frame in rigid position relatively to the receiving frame, springs for connection with the auxiliary frame to impart a revoluble movement thereto when the said auxiliary frame is released from rigid engagement with the receiving frame, means mounted on the auxiliary frame and adapted to be engaged by the said supporting frame to release the auxiliary frame from rigid engagement with the receiving frame, a bar mounted on the auxiliary frame and adapted to receive the mail when the same is released from the said supporting frame, and a plate mounted on the receiving frame and adapted to be engaged by the supporting frame to release the mail therefrom.

3. In a mail delivering apparatus, the combination of a supporting frame for pivotal attachment to a vehicle and adapted to releasably support mail thereon, a receiving frame, an auxiliary frame revolubly mounted on the receiving frame, means for normally retaining the auxiliary frame in rigid position relatively to the receiving frame, springs for connection with the auxiliary frame to impart a revoluble movement thereto when the said auxiliary frame is released from rigid engagement with the receiving frame, means mounted on the auxiliary frame and adapted to be engaged by the said supporting frame to release the auxiliary frame from rigid engagement with the receiving frame, a bar mounted on the auxiliary frame and adapted to receive the mail when the same is released from the said supporting frame, a plate mounted on the receiving frame and adapted to be engaged by the supporting frame to release the mail therefrom and brake means mounted on the

receiving frame and adapted to limit the revoluble movement of the said auxiliary frame.

4. In a mail delivering apparatus, the combination of a supporting frame for releasably supporting mail on a vehicle, a receiving frame, an auxiliary frame mounted on the receiving frame, means on the receiving frame for detaching the mail from the said supporting frame and a serrated bar mounted on the said auxiliary frame and adapted to receive the mail when the same is released from the said supporting frame.

5. In a mail delivering apparatus, the combination of a supporting frame for releasably supporting mail on a vehicle, a receiving frame, an auxiliary frame mounted on the receiving frame, means on the receiving frame for detaching the mail from the said supporting frame, a serrated bar mounted on the said auxiliary frame and adapted to receive the mail when the same is released from the said supporting frame and means mounted on the said bar for retaining the mail thereon.

6. In a mail delivering apparatus, the combination of a supporting frame for releasably supporting mail on a vehicle, a receiving frame, an auxiliary frame mounted on the receiving frame, means on the receiving frame for detaching the mail from the said supporting frame, a serrated bar mounted on the said auxiliary frame and adapted to receive the mail when the same is released from the said supporting frame, and lugs pivotally mounted on the said bar for retaining the mail thereon.

7. In a mail delivering apparatus, the combination of a supporting frame for releasably supporting mail on a vehicle, a receiving frame, an auxiliary frame mounted on the receiving frame, means on the receiving frame for detaching the mail from the said supporting frame, a serrated bar mounted on the said auxiliary frame and adapted to receive the mail when the same is released from the said supporting frame, lugs pivotally mounted on the said bar for retaining the mail thereon and means for operating the said lugs.

8. In a mail delivering apparatus, the combination of a slotted bar for pivotal attachment to a vehicle, a rod telescopically mounted in the said bar, handles extended through the slot in the said bar and secured to the said rod, means for releasably retaining mail at one end of the said rod, a receiving frame and means mounted on the receiving frame and adapted to be engaged by the said rod to disconnect the mail from the said rod, the said mail being received by the said receiving frame.

9. In a mail delivering apparatus, the combination of a slotted bar for pivotal attachment to a vehicle, a rod telescopically mount-

ed in the said slotted bar, handles extended through the slots in the said bar and secured to the said rod, a supporting bar mounted to swing on the vehicle and adapted to normally support the said slotted bar, means mounted on the said rod for detachably supporting mail thereon, a receiving frame, and means on the receiving frame for detaching the mail from the said rod.

10. In a mail delivering apparatus, the combination of a supporting frame, a hook mounted on the supporting frame, a clamp for releasable engagement with the said hook and adapted to have mail secured thereto, a receiving frame, an auxiliary frame mounted to swing on the receiving frame, means on the receiving frame for detaching the said clamp from the said hook and means on the said auxiliary frame for receiving the said clamp thereon.

11. In a mail delivering apparatus, the combination of a supporting frame, a hook mounted on the supporting frame, a clamp for releasable engagement with the said hook and adapted to have mail secured thereto, a receiving frame, an auxiliary frame mounted to swing on the receiving frame, means on the receiving frame for detaching the said clamp from the said hook and means on the said auxiliary frame for receiving and retaining the said clamp thereon.

12. In a mail delivering apparatus, the combination of a supporting frame, a hook mounted on the supporting frame, a clamp for releasable engagement with the said hook and adapted to have mail secured thereto, a receiving frame and a plate mounted on the receiving frame and adapted to be engaged by the said hook to release the said clamp from engagement therewith.

13. In a mail delivering apparatus, the combination of a supporting frame, a hook mounted on the supporting frame, a clamp for releasable engagement with the said hook and adapted to have mail secured thereto, a receiving frame, a plate mounted on the receiving frame and adapted to be engaged by the said hook to release the said clamp from engagement therewith and a horizontally disposed serrated bar mounted on the receiving frame and adapted to receive the clamp released from the said hook.

14. In a mail delivering apparatus, the combination of a supporting frame, means for detachably supporting mail thereon, a receiving frame, an auxiliary frame revolvably mounted on the receiving frame and normally held in rigid position, means on the receiving frame for detaching the mail from the said supporting frame, means on the auxiliary frame for receiving the mail detached from the supporting frame and means for imparting a revoluble movement to the said auxiliary frame when the said mail is received thereon.

15. In a mail delivering apparatus, the combination of a supporting frame, means for detachably supporting mail thereon, a receiving frame, an auxiliary frame revolvably mounted on the receiving frame and normally held in rigid position, means on the receiving frame for detaching the mail from the said supporting frame, means on the auxiliary frame for receiving the mail detached from the supporting frame, means for imparting a revoluble movement to the said auxiliary frame when the said mail is received thereon and brake means mounted on the receiving frame for limiting the revoluble movement of the said auxiliary frame.

16. In a mail delivering apparatus, the combination of a supporting frame, means for detachably supporting mail thereon, a receiving frame, an auxiliary frame revolvably mounted on the receiving frame and normally held in rigid position, means on the receiving frame for detaching the mail from the said supporting frame, means on the auxiliary frame for receiving the mail detached from the supporting frame, means for imparting a revoluble movement to the said auxiliary frame when the said mail is received thereon and springs for imparting a revoluble movement to the said auxiliary frame when the said mail is received thereon.

17. In a mail delivering apparatus, the combination of a supporting frame, means for detachably supporting mail thereon, a receiving frame, an auxiliary frame revolvably mounted on the receiving frame and normally held in rigid position, means on the receiving frame for detaching the mail from the said supporting frame, means on the auxiliary frame for receiving the mail detached from the supporting frame, springs for revolving the said auxiliary frame when the said mail is received thereon and brake means for limiting the rotative movement of the said auxiliary frame.

18. In a mail delivering apparatus, the combination of a supporting frame, means for detachably supporting mail thereon, a receiving frame, an auxiliary frame revolvably mounted on the receiving frame and normally held in rigid position, means on the receiving frame for detaching the mail from the said supporting frame, means on the auxiliary frame for receiving the mail detached from the supporting frame, springs for revolving the said auxiliary frame when the said mail is received thereon and a brake band mounted on the said receiving frame for limiting the revoluble movement of the said auxiliary frame.

19. In a mail delivering apparatus, the combination of a supporting frame, means for detachably supporting mail thereon, a receiving frame, an auxiliary frame mounted to swing on the said receiving frame and

normally held in rigid position, means mounted on the receiving frame for detaching the mail from the said supporting frame, means on the auxiliary frame for receiving the mail detached from the said supporting frame, springs for imparting a revoluble movement to the said auxiliary frame when the said mail is received thereon, and means for adjusting the tension of the springs.

20. In a mail delivering apparatus, the combination of a supporting frame, means for detachably supporting mail thereon, a receiving frame, an auxiliary frame mounted to swing on the said receiving frame and normally held in rigid position, means mounted on the receiving frame for detaching the mail from the said supporting frame, means on the auxiliary frame for receiving the mail detached from the said supporting frame, springs for imparting a revoluble movement to the said auxiliary frame when the said mail is received thereon, means for adjusting the tension of the springs and a brake band mounted on the said receiving frame for limiting the revoluble movement of the said auxiliary frame.

21. In a mail delivering apparatus, the combination of a supporting frame and a receiving frame, a clamp for releasable attachment to the said supporting frame, a bar pivotally mounted on the said clamp and adapted to receive mail bags thereon and a snaffle hook for locking the said bar on the said clamp, the said clamp being adapted to be detached from the said supporting frame and received by the said receiving frame when the said supporting frame engages the said receiving frame.

22. In a mail delivering apparatus, the combination of a supporting frame adapted for supporting mail, a receiving frame, a shaft journaled on the receiving frame, an auxiliary frame secured to the said shaft and revoluble therewith the said auxiliary frame being adapted to receive the mail from the said supporting frame, a brake wheel keyed to one end of the said shaft and means for engagement with the said brake wheel to limit the rotative movement of the said auxiliary frame.

23. In a mail delivering apparatus, the combination of a supporting frame adapted to normally support mail, a receiving frame, a shaft journaled on the receiving frame, an auxiliary frame rigidly mounted on the said shaft and revoluble therewith, means for revolving the said auxiliary frame when the mail is delivered from the said supporting frame to the auxiliary frame and means for engagement with the said shaft to limit the rotative movement of the said auxiliary frame.

24. In a mail delivering apparatus, the combination of a supporting frame for releasably supporting mail, a receiving frame,

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an auxiliary frame revolubly mounted on the receiving frame and adapted to receive the mail from the said supporting frame, means for revolving the said auxiliary frame
 5 when the mail on the supporting frame is delivered thereto and a spring actuated brake mounted on the said receiving frame for limiting the rotative movement of the said auxiliary frame.

10 25. In combination, a supporting frame for attachment to a vehicle, a receiving frame, an auxiliary frame revolubly mounted on the receiving frame and adapted to receive mail supported on the said support-
 15 ing frame and means for revolving the said auxiliary frame at a speed proportional to the speed of the vehicle having the supporting frame thereon.

26. In combination, a supporting frame

mounted on a stationary platform, an aux- 20
 iliary frame revolubly mounted on the re-
 ceiving frame, means on the supporting
 frame for releasably attaching mail thereto,
 means on the auxiliary frame for receiving 25
 the mail supported on the supporting frame,
 means for rotating the auxiliary frame at a
 speed proportional to the speed of the ve-
 hicle having the supporting frame thereon
 when the mail is detached from the said
 supporting frame and brake means for 30
 limiting the rotative movement of the said
 auxiliary frame.

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

JOHN H. MAHLE.

Witnesses:

FRANK E. HORNE,
 L. B. LEIGHNINGER.

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