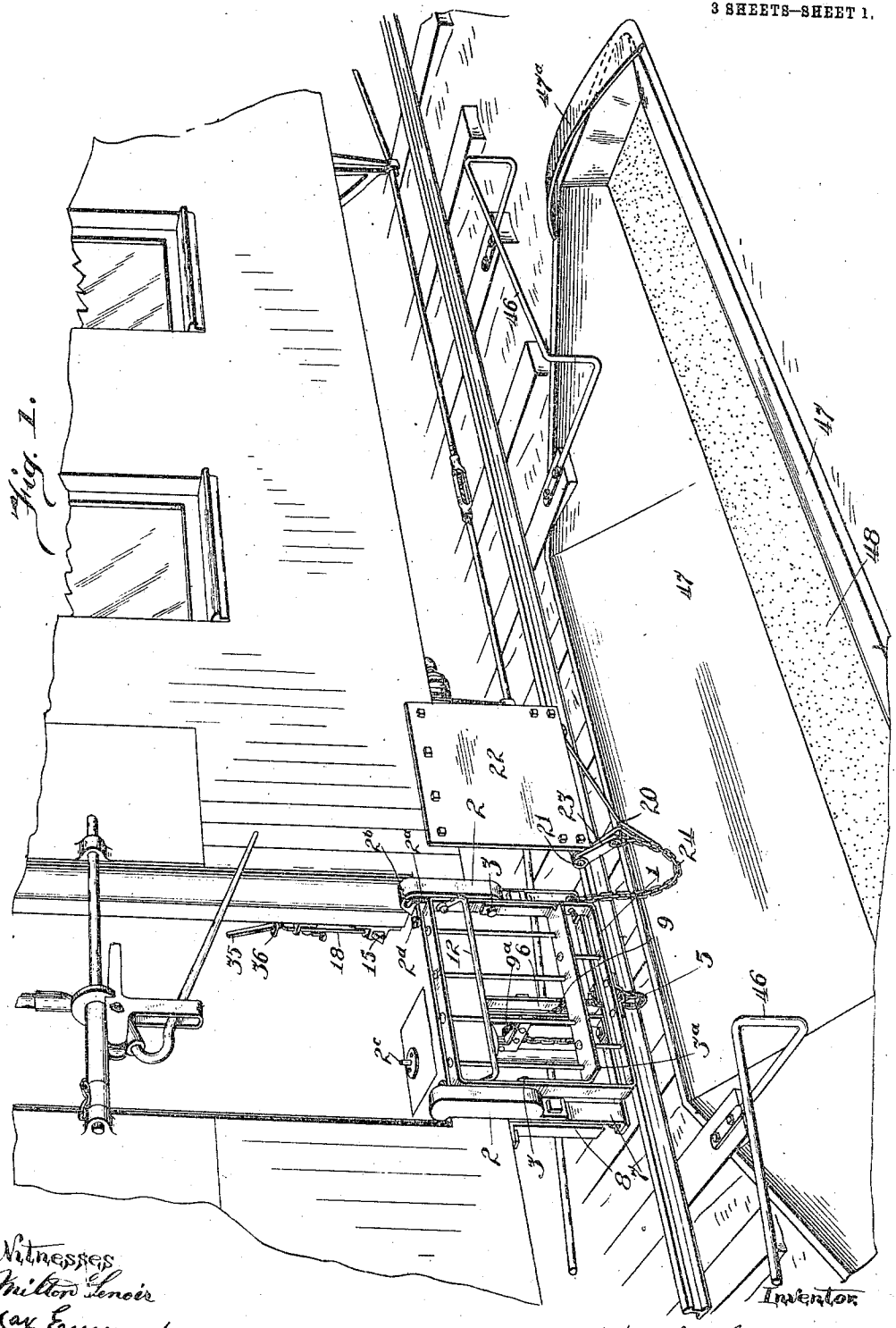


F. H. BURR.
 MAIL DELIVERING MECHANISM FOR RAILWAY CARS.
 APPLICATION FILED MAR. 13, 1911.
 1,054,634.
 Patented Feb. 25, 1913.
 3 SHEETS—SHEET 1.



Witnesses
 Milton Lenoir
 Max Emmert

Inventor
 Franklin H. Burr

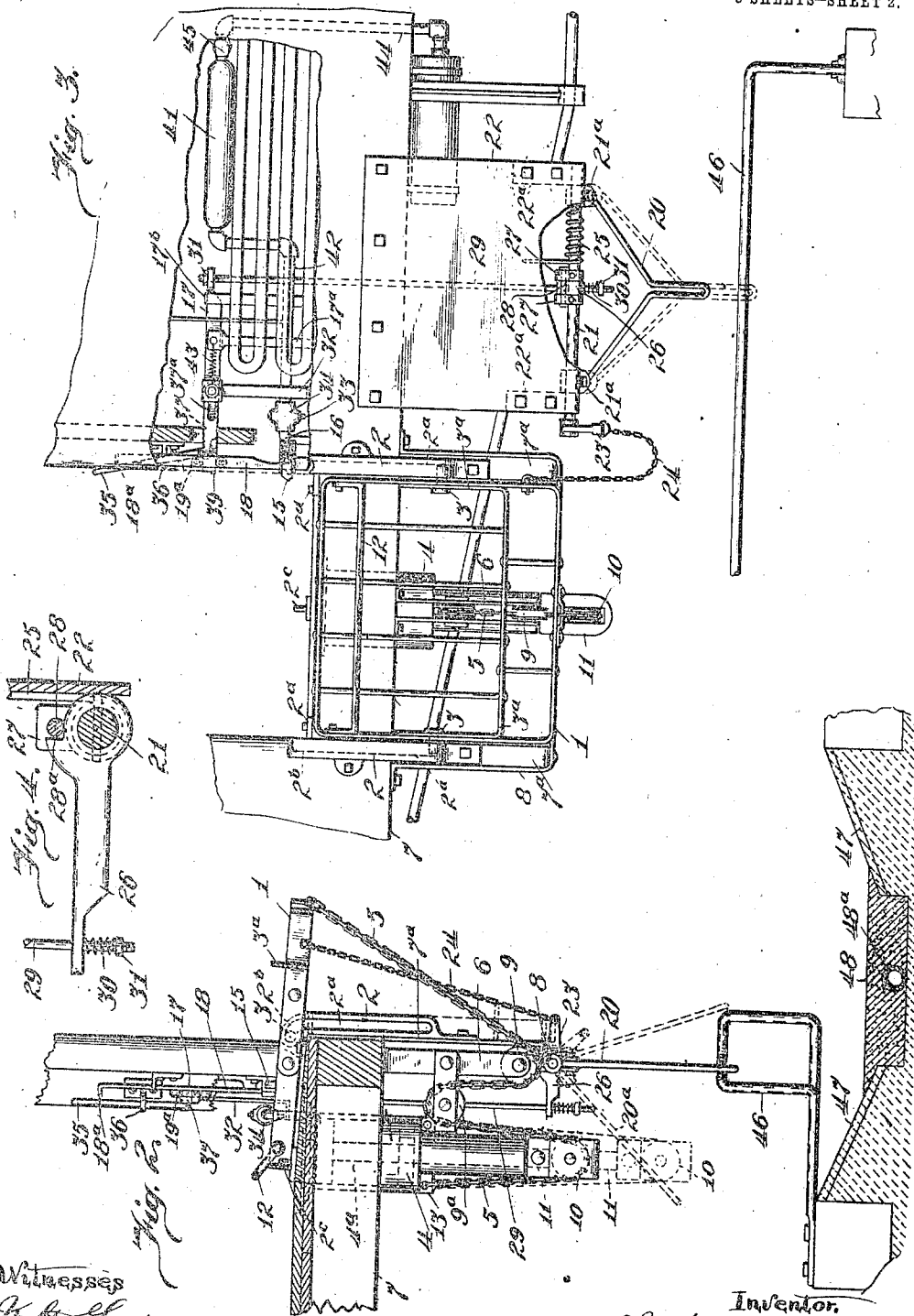
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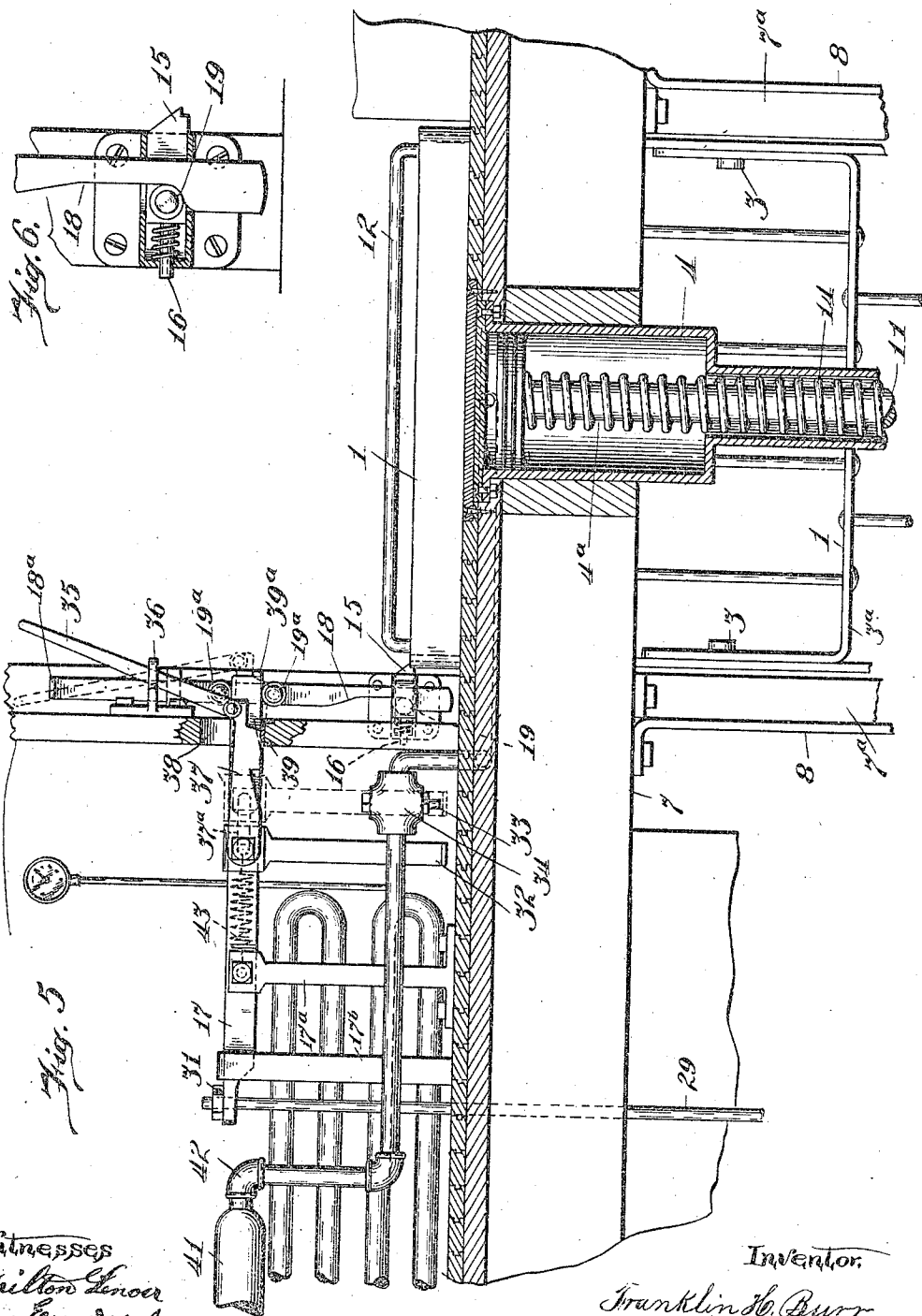
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3 SHEETS—SHEET 3.

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Max Emmert

Inventor,
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UNITED STATES PATENT OFFICE

FRANKLIN H. BURR, OF ATLANTIC, IOWA.

MAIL-DELIVERING MECHANISM FOR RAILWAY-CARS.

1,054,634.

Specification of Letters Patent.

Patented Feb. 25, 1913.

Application filed March 13, 1911. Serial No. 614,122.

To all whom it may concern:

Be it known that I, FRANKLIN H. BURR, a citizen of the United States, residing at Atlantic, in the county of Cass and State of Iowa, have invented certain new and useful Improvements in Mail-Delivering Mechanism for Railway-Cars; and I do declare the following to be a full, exact, and clear 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 a mail delivering mechanism for railway-cars, and has for its object the automatic delivery of mail from a moving train, in a safe and regular manner into a receiver that is placed in a proper position at stations where mails are to be delivered from the train while moving, using compressed-air in an automatic manner, to be taken from the air-brake system, as a motive power to make the deliveries.

It consists in combination with a car, of a delivering frame pivotally attached to the car underneath the doorway of the car, and adapted to be lifted partially into the car, in being placed in position to receive the mail matter to be delivered, and means for automatically tilting and upsetting the delivering frame in such a manner as to deliver the mails placed thereon for delivery into the station roadside receiver, placed in proper position to receive the deliveries.

It also consists in combination with a car and the station equipment, of a car trip that is pivotally connected to the car underframe underneath the car, and adapted to engage with a station trip placed in its line of travel in such a manner as to vibrate the car trip from right to left, and from left to right, at right angles with the car, in such a manner that the compressed-air that is used as a motive power is automatically released into a compressed air operating cylinder, in such manner as to make the automatic delivery of mails placed in position for delivery, into the station roadside receiver.

It also consists of station equipment placed in proper position at places where mails are to be delivered from trains while moving, and adapted to receive the deliveries with safety and regularity.

It also consists of certain other novel construction, combinations and arrangements,

as will be hereafter fully described and claimed.

It is further intended to provide a simple, durable, and efficient construction, adapted to the mail-cars now in use, that will take up no room inside a car that could be used for mail purposes, and a mechanism that will form no obstruction in the use of the doorway of the car.

In the drawings Figure 1 is a perspective view of a car and station equipped with this mechanism; Fig. 2 is an end view of a car and station equipped with this mechanism; with the mechanism in position for the automatic delivery of mail; Fig. 3 is a side view of a car equipped with this mechanism in its rest or carry position; Fig. 4 is an enlarged view of the loose crank portion of the automatic car trip; Fig. 5 is an enlarged view of the equipment as it is installed on the inside of the car, and Fig. 6 is an enlarged view of the frame latch.

In the drawings the reference numbers refer to the different parts that go together to make up the car and station equipment as represented by the different figures, that as a whole make the car and station equipment that form this delivering mechanism, and the following is a description of the different parts referred to by numerals and their uses.

To carry out the mail delivering operation for which this mechanism is intended; I provide in each doorway of a car from which mails are to be delivered a delivery frame 1 which is pivotally attached to the underframe 7 of the car, on the outside and underneath the doorway of the car, with the slotted hangers 2, 2, and is adapted to slide downward in the slotted hangers 2, 2, on its pivotal points 3, 3, which are studs rigidly attached to the delivering frame 1 for that purpose, in operation to its rest or carry position as is shown in Fig. 3.

The delivering frame 1 is in a rectangular form and is made of steel or other suitable material and is provided with a bail which is pivotally attached to the vertical parts of the rim, and is adapted to fold down close to the delivering frame 1 when in its rest or carry position, and is used as a means or handle by which to raise the delivering frame 1 into its operating position,

as is shown in Fig. 2. The bail 12 is adapted to turn on its pivotal points forward and down, or out of the car, backward and up into the car; in turning backward and up, it is adapted to contact with the horizontal portion of the rim of the delivering frame 1 in such a manner that it stands relatively to the delivering frame at an angle of 45 degrees, when in this position it forms a back wall for the delivering frame 1 to keep the mail placed on the frame for delivery in its place, and in the operation of the delivering frame 1 in a manner directs the angle of the descent of the mail that is being delivered. The delivering frame 1 is also provided with the lateral brace 3^a with its lateral portion wider than the vertical rim of the delivering frame for the purpose of forming a step to get in and out of a car, and vertical brace rods.

The slotted hangers 2, 2, are rigidly attached to the underframe of the car, vertically at the door sill of the car, and horizontally to the underframe, and to the stirrups 7^a, 7^a, which are rigidly attached to the steps of the car 8. The slots 2^a, 2^a, are partly in a vertical and partly in a horizontal position. The horizontal portion of the slots forms a support for the delivering frame 1 in its operating position by means of the studs 3, 3, being adapted to slide with the frame to its upward and operating position, and resting in the horizontal portions of the slotted hangers 2, 2.

To keep the delivering frame 1 from sliding forward, in such a manner as to cause it to tilt, or upset, or prematurely operate I provide the floor stud 2^c and the frame latch 15. The stud 2^c is rigidly attached to the floor of the car in such a manner as to keep the delivering frame from sliding forward until it is released from contact with this stud in regular automatic operation. The frame latch 15 is rigidly attached to the inside of the car in such a manner that when the delivering frame 1 is lifted and turned back into the car, into its operating position the rim of the frame strikes the beveled portion of the latch in such a manner as to force the latch back and allow the delivering frame 1 to rest in its operating position; in this position the rim of the delivering frame has passed below the latch 15 in such a manner as to allow the latch to resume its normal or latch position as is shown in Fig. 2, in which position it keeps the delivering frame 1 from tilting, in such a manner as to release it from safety stud 2^c and upsetting prematurely. In carrying out this delivering operation, I provide a compressed-air operating cylinder 4, which is rigidly attached to the car underframe 7, as shown in Figs. 2 and 3, and is connected by suitable pipes to valves and reservoirs necessary, to the regular auxiliary reservoir of

the car, the said reservoir being a part of the air-brake system with which all mail-cars are equipped, and to the delivering frame 1, by means of cable chain 5. There is also provided the pulley frame 6, to which is pivotally attached the pulley frames 9 and 9^a, as shown in Fig. 2.

The compressed air-operating cylinder 4, is of the usual air-brake cylinder construction, and is provided with a piston 4^a and return spring 14, and with a piston pulley frame 11, to which is pivotally attached the pulley 10, and with lugs 13. There being no operating or swinging lever attached to the cylinder here shown, the piston pulley frame 11, and pulley 10, with lugs 13 and chain 5, being used in place of an operating lever. I provide for the operation of this compressed-air operating cylinder 4, and the delivering frame 1, by connecting the delivering frame at or near its lateral center with the cable chain 5 running it under pulley frame 9 and over pulley frame 9^a, and under pulley 10, and fasten the same in a stationary manner to the lug 13, which forms a part of the superstructure of the compressed-air operating cylinder 4, without slack in the chain 5, when the delivering frame 1, and the piston of the operating cylinder 4, are in their operating positions as is shown in Fig. 2. To operate this mail-delivering mechanism automatically, the delivering frame is raised into the car as has been described, and placed in its latched and safety position, the mail or other matter for delivery is placed on the frame without any special preparation of the mail or other matter to be delivered; the compressed-air is automatically released into the compressed-air operating cylinder 4, (as will be hereafter described) in such a manner as to force the piston with pulley 10 attached to the position shown of the piston with the pulley frame 11, attached in the dotted lines to the same. In this position the distance is contracted between the stationary end of chain 5, and the place where attached to the delivering frame 1, twice the distance of the stroke of the piston with its attached pulley frame, and correspondingly tilts and upsets the delivering frame 1, by means of this contraction, thereby dumping and delivering the mail or other matter placed on the frame for delivery, and changing the position of the delivering frame from its operating to its rest or carry position. The compressed-air operating cylinder is vented of its back air-pressure automatically through the operating valve 34. The coil return spring 14, returns the piston with its pulley frame attached to its normal or operating position.

To make an automatic delivery of mails from a moving train and use compressed-air as a motive power, I provide a car trip

20, which in connection with the station trip 46, when a train is moving, vibrates the car trip 20 in such a manner as to release the compressed-air stored in the mail-auxiliary reservoir 41, in an automatic manner into the compressed-air operating cylinder. The car trip 20 is a Y shaped rod that is rigidly attached to the rock-shaft 21 by means of hangers 21^a 21^a, which in turn are pivotally attached to a piece of sheet metal 22, with hangers 22^a, 22^a, in such a manner as to contact with the station trip 46, which vibrates the car trip from right to left and from left to right in such a manner as to open the air-operating valve 34, and releasing the compressed-air into the operating cylinder 4. To further provide for the automatic delivery of mail from a moving train, I provide the loose crank 26, which is loosely attached to the car trip rock-shaft 21, between the brackets 27, 27, which are rigidly attached to the car trip rock-shaft 21, and are provided with the connecting and crank pin 28, in such a manner that in the vibration of the car trip, loose crank 26, turns on the car trip rock-shaft 21, until pin 28, is brought against the right angled portion of the loose crank 28^a, which forms a rigid connection of the loose crank 26, to the rock-shaft 21, and causes the loose crank to turn correspondingly downward, and being connected to the emergency lever 17, by means of the rod 29, causes a corresponding downward movement of the emergency lever 17, which is pivotally connected to fulcrum bracket 17^a, (which is rigidly attached to the floor of the car) which causes a corresponding upward movement of the end of the emergency lever to which is slidably and pivotally attached the valve lift 32, the L portion of which extends under the valve stem 33, forcing the valve stem by this upward movement into an operating position, that releases the compressed-air into the compressed-air operating cylinder 4, and forces the piston with its connections into the position heretofore described, and causing the automatic delivery of mail as has been described. To further provide for the automatic operation of this mail delivering mechanism, and to provide against the premature delivery of mail placed in position for delivery, by reason of the operating car-trip 20 coming in contact with anything that would cause it to vibrate other than the regular station trip, I provide a valve lift 32, which is manually slid on the emergency lever 17, to its operating position as is shown by the dotted lines of the valve lift 32 in Fig. 5. To provide for the sliding of the valve lift and securing it in operative position, I provide the valve latch 37 which is of latch construction, as is shown in Fig. 5, and is slidably and pivotally attached to the valve lift 32, and is

adapted to be manually slid into operating position, by means of its attachment to the lever 35 which is slidably fulcrumed to the rack stanchions or to a bracket rigidly attached to the side of the car for that purpose and which is adapted to slide up and down and work forward and backward as is required, in the bracket as described, and is pivotally and correspondingly attached to the valve lift 37. The valve latch is adapted to slide the valve lift 32, forward on the free end of the emergency lever 17, to which it is slidably attached, and securely latch the valve lift 32 in its operating position, by means of the latch with the valve lift attached being drawn forward by means of the lever 35, in such a manner that the latch portion will latch on the catch 39, which is rigidly attached to the rack stanchion for that purpose. The free end of the latch is adapted to rest on the stud 39^a, which is attached to the emergency lever for that purpose bringing the latch 37 and the lever 35, into the position as shown by the dotted lines of the valve latch and lever to which it is attached. In this position it is obvious that the raising of the emergency lever either in its automatic or manual operation, that the valve latch 37 will be released automatically from its latched position, and the valve lift 32 and the valve latch will be drawn out of their operating position automatically by means of the coil return spring 43, which is properly attached to the emergency lever 17 and to the valve lift for that purpose, into their safe and carry positions. To further provide for the automatic operation of this mechanism I provide the frame latch 15, which is rigidly attached to the frame work of the door on the inside of the car, in such a manner that when the delivering frame 1, is placed in its operating position, the latch portion will be above the rim of the delivering frame as is shown in Fig. 5, in this position it securely fastens the delivering frame from sliding forward, tilting or upsetting until it is released from its latched position either in the automatic or manual operation of the device. To provide for the automatic release of the delivering frame 1, when in latched position, I provide the cam latch 18, to which is pivotally attached the pinions 19^a, 19^a, and is provided with the handle 18^a for its manual operation. The frame latch is also provided with pinion 19, and compression spring 16 for the purpose of automatically forcing the latch out of its latched position and to return it to its operating position.

With the parts heretofore described in their respective operating positions, it is obvious that any means whether automatic or manual that raises the latch cam, will release the frame latch, the valve latch, raise

the emergency lever 17, raise the valve lift 32 raise the valve stem 33 in such a manner as to allow the compressed-air stored in the mail auxiliary reservoir to flow into the operating cylinder 4, through the pipe connections in such a manner as to force the piston and its connections into operation. To provide for the adjustment of the stroke of the car trip 20, and its connections with the operating valve 34, I provide the connecting rod 29 with the tension spring 30 and the nut 31, for the purpose of cushioning the stroke of the car-trip with the tension spring, and the adjustment of the stroke by the manipulation of nut 31. To further provide for the automatic operation of this mechanism I provide the car-trip mechanism with the handle 23, which is connected to the rim of the delivering frame with chain 24 in such a manner that when the delivering frame 1 is placed in operating position that by means of the handle 23 being attached to the delivering frame 1, it correspondingly draws the car trip from its safety and carry position as is shown in the position of the car trip 20 in the dotted lines 20^a in Fig. 2, to its operating position as is shown in Fig. 2 of the car trip 20. To return and carry the car trip 20 in its safety position, I provide the coil return spring 25 which is rigidly attached to the rock-shaft of the car trip and to the sheet metal piece 22. The sheet metal piece 22 to which is attached the car trip with its connections takes the place of brackets and braces that would be necessary to properly anchor the car trip 20 in its place, and also serves as a protection from the weather and other conditions of the working parts of the car-trip 20 and its connections.

To provide a supply of compressed-air at all times for the purpose of supplying motive power to the mail delivering mechanism I provide the supply pipe 44 which is properly connected to the train pipe that supplies the regular auxiliary train reservoir with its supply of compressed-air, and to the mail auxiliary reservoir 41, also providing the check valve 45 for the purpose of retaining the supply of compressed-air in the mail auxiliary under proper pressure, when the supply and pressure of the compressed-air in the regular train auxiliary reservoir is reduced in the operation of the train air-brake system. To further provide for the automatic operation of the car mechanism, I provide at the stations where deliveries of mail are to be made, a trip station rail 46 which is placed in position parallel with the track, at the proper height to be in the path of travel in the direction which the car is going that is equipped with this delivering mechanism, of the car trip 20, and diagonally sufficient to vibrate the

car trip from right to left, and from left to right, sufficiently for the purpose of actuating the necessary mechanism to make the automatic delivery of the mail at or near the point where the trip rail 46 is placed.

To provide for the automatic delivery of the mails from a train on which this mail delivering mechanism is used, moving at any rate of speed, and to receive as many deliveries of mail or other matter from as many doors of the car or succeeding cars, as may be equipped with the delivering mechanism, I provide a station roadside receiver which is an excavation placed in length parallel with the track and of sufficient depth to receive the deliveries at places where deliveries are to be made, of sufficient length that a train at the highest speed cannot pass the receiver before the delivery is made, with sloping sides 47 and ends to avoid a direct impact of the mails to be delivered, with the sides 47 reinforced against lateral pressure and to retain the sides and ends in their operating condition, with concrete or other suitable material, with drain tile 48^a and cinders or other like material suitable for draining purposes, with a bottom covered with sand 48 of sufficient depth to form a cushion for the mails delivered into it, and as a retarder against the momentum of the deliveries in the direction in which the train is going, with the trip station rails 46 and a hood 47^a over the sloping ends to at all times keep the delivered mails within the roadside receiver.

From the foregoing description, taken in connection with the accompanying drawings, the construction, mode of operation, and advantages of my invention will be readily understood, and various changes in the form, proportion and minor details of my invention may be resorted to without departing from the spirit of my invention or sacrificing any of the principles or advantages thereof.

What I claim as new is—

1. In a mail delivering mechanism for railway-cars, a delivering-frame having pivotal connections with its supporting frames, rectangular in form, with brace rods vertically disposed, a lateral brace bar adapted to be used for a step, with outwardly disposed pivotal studs centrally located in the superstructure of the said delivering-frame, and adapted in its delivering operation to tilt and upset from a horizontal to a vertical position, substantially as described.

2. In a mail delivering mechanism for railway-cars, in combination with a car and its supporting frames, a delivering-frame rectangular in form, with its outwardly disposed pivotal studs centrally located in the superstructure of the said delivering-frame, pivotally connected to said car and support-

ing frames, and adapted to be raised from its vertical or carry position on the outside and underneath the car door, to a horizontal or operating position, to be tilted and upset in operation, and returning said delivering-frame to its vertical or carry position, in its operation, substantially as described.

3. In a mail delivering mechanism for railway-cars, the combination of a delivering frame, having pivotal connection with said car, hangers rigidly connected to said car and supporting frames, and provided with horizontal and vertically disposed slots that are adapted to receive the said delivering-frame with its pivotal studs outwardly disposed, and form a pivotal, and sliding connection of the said delivering-frame to the said car, substantially as described.

4. In a mail delivering mechanism for railway-cars, in combination with a car and supporting frames, a delivering-frame pivotally attached to said car, by means of the pivotal outwardly disposed studs centrally affixed to the said delivering-frame, and the slotted hangers which are rigidly attached to said car and supporting frames, the said delivery-frame adapted to be raised upward in the vertically disposed slots of the said slotted hangers and be turned back in a horizontal position, and partially slid back into the car door in operating position, and resting on the horizontal portion of the slotted hangers, a frame latch rigidly attached to frame of the door inside, and a stud rigidly attached to the floor for the purposes named and as described.

5. In a mail delivering mechanism for railway-cars, in combination with the car, a delivering-frame pivotally and slidingly attached to the said car, and adapted to be raised upward and partially back into the car in a horizontal operating position, a compressed-air operating cylinder, vertically and rigidly disposed through the floor of said car, with a piston to which is attached a piston rod, to which is attached a pulley frame with a pulley pivotally attached, and means for connecting the said delivering frame with the said operating cylinder in an actuating manner, substantially as described.

6. In a mail delivering mechanism for railway-cars, in combination with a car a delivering frame pivotally and slidingly attached to the car underframe, outside and underneath the doorway of the car, with stirrups that are rigidly attached to the car and adapted to partially support the slotted hangers in their rigid position, and supporting the delivering frame in its vertical carry position, and adapted to carry pulleys that are pivotally attached in such a manner as to adjust and carry the connecting means between the delivering frame and the vertically disposed compressed-air operating

means for the delivering frame, substantially as described.

7. In a mail delivering mechanism for railway-cars, the combination of a delivering-frame pivotally attached to a car with slotted hangers, 2. 2. a safety latch for said delivering-frame rigidly attached to the door frame of the car, inside the car, and adapted to latch the said delivering-frame securely in its operating position, a stud rigidly attached to the floor of the car to prevent the said delivering-frame from sliding except automatically in operation, an L shaped pulley frame with pulleys pivotally attached and rigidly connected to the underframe of the car, a compressed-air operating cylinder with a piston and piston rod to which is rigidly attached a pulley frame with a pulley pivotally attached to said pulley frame, a lug 13 which is a part of the supporting frame of the compressed-air operating cylinder, a chain 5 connected to the rim of the lever part of the said delivering frame, and adapted to go under pulley 9, over pulley 9^a, under the pulley frame 11, and be stationarily attached to the lug 13 placed on the compressed-air operating cylinder for that purpose, and means for automatically releasing the compressed-air into the said compressed-air operating cylinder thereby causing by the downward stroke of the piston with a pulley pivotally attached to a pulley frame that is rigidly attached to the connecting end of the piston rod, of said piston, the contraction of the distance between the said delivering-frame and the said lug 13 in such a manner as to cause the delivering-frame to which the free end of the said chain is connected, to tilt and upset, from its horizontal and operating position to its rest and carry position, when released from its frame latch position, for the purposes named and substantially as described.

8. In a mail delivering mechanism for railway-cars, in combination with a car a car trip, Y shaped in form, thus forming its own lateral braces, pivotally attached to a piece of sheet metal, which is rigidly and vertically attached to the car underframe, in combination with a delivering frame, and compressed-air means for actuating it, adapted to vibrate outwardly and upwardly in the direction in which a car is moving, and means for automatically vibrating the same in the manner described.

9. In a mail delivering-mechanism for railway-cars, in combination with a car, a car trip adapted when in operation to be at times loosely attached, and at times rigidly attached to the underframe of the car with a piece of sheet metal rectangular in form, a coil tension spring rigidly attached to the said rocking bar and to the said sheet metal, for the purposes set forth and as described.

10. In a mail-delivering mechanism for

railway-cars, in combination with a car, a delivering-frame pivotally and slidably attached to said car, a car trip adapted at times, when in operation to be rigidly and
 5 at times loosely attached to a piece of sheet metal which is rigidly attached to the under-frame of said car, a lever rigidly attached to said rocking bar disposed at right angles with said car trip, and pivotally connected
 10 with a chain at the free end of said lever to the rim of the said delivering-frame substantially as described.

11. In a mail-delivering mechanism for railway-cars, in combination with a car, a
 15 car trip, adapted at times to be pivotally attached to said car, a rocking bar to which is pivotally attached the crank lever 26 which is kept in its crank position by means of brackets 27, 27, which are connected to
 20 gether with crank pin 28, which is adapted to contact with the latched portion of the crank thereby making a rigid connection of the crank to the rocking bar 21 and causing the said loose crank to turn cor-
 25 respondingly with the said rocking bar for the purposes named and as described.

12. In a mail-delivering mechanism for railway-cars, in combination with a car, a car trip adapted when in operation at times
 30 to be rigidly attached, and at times loosely attached to a rocking bar, the said rocking bar pivotally attached to a piece of sheet metal of a rectangular form and adapted to be rigidly attached to the car under-frame,
 35 forming a supporting frame for the car trip in its pivotal position, as well as its own lateral braces and brackets, substantially as described.

13. In a mail delivering mechanism for
 40 railway-cars, in combination with a car, a car trip pivotally connected to said car, a loose crank lever when in operation, adapted at times to be rigidly attached, and at times loosely attached to the rock-bar that
 45 supports the said car trip, a rod supporting a tension spring and nut, and adapted at times to pivotally and at times to rigidly connect the said rock-shaft with the car trip rigidly attached thereto, to the emer-
 50 gency operating lever, and cause the said emergency operating lever to move in the same direction the loose-crank lever moves when the said loose-crank lever is brought into rigid connection with the rock-shaft,
 55 by means of the vibration of the said car trip, substantially as described.

14. In a mail-delivering mechanism for railway-cars, in combination with a car, a car trip pivotally connected to said car, a
 60 loose-crank lever at times pivotally and at times rigidly connected to the rock-bar of the said car trip, a rod supporting a tension spring that is adapted to cushion the excess movement of the said car trip, a
 65 nut on said rod adapted by manipulation

to adjust the stroke of the emergency lever, connecting the said loose-crank-lever to the said emergency lever, which is pivotally fulcrumed to a bracket that is rigidly attached to the floor of the car, that is adapted to tilt in its automatic operation, supporting an L shaped valve lift in its automatic functions, by means of the upward tilt of the said emergency lever substantially as described.

15. In a mail delivering mechanism for railway-cars, in combination with a car, a car trip pivotally connected to said car loosely at times and rigidly at times supporting a loose-crank-lever to its supporting rock-shaft that pivotally connects with an emergency operating lever that supports an L shaped valve lift, that is adapted to slide and latch into and out of its operating position by means of a valve latch which is pivotally connected to the said valve lift and a "setting" lever which is pivotally and slidably fulcrumed with a bracket attached to the mail rack stanchion which allows the said lever to slide upward and downward forward and backward in its latching or "setting" of the valve lift, in position for its automatic functions, substantially as described.

16. In a mail-delivering mechanism for
 95 railway-cars, in combination with a car, a delivering-frame pivotally attached to the said car, a car trip adapted in operation at times to be pivotally and at times to be rigidly attached to the said car, a lever rigidly
 100 connected to the said car trip in a right angular manner with the free end of said lever pivotally connected to the rim of the delivering-frame in such position that in raising the said delivering-frame into its oper-
 105 ating position the same movement also brings the said car trip into its operating position, a crank lever adapted at times when in operation to be pivotally and at times to be rigidly attached to the said
 110 trigger, a connecting rod supporting a tension spring for the purpose of cushioning the excess movement of the said crank lever, and a nut adapted to regulate the stroke of the operating lever, an operating and
 115 emergency lever, adapted to balance up and down in its automatic or manual operation, with an L shaped valve lift slidably attached to the said emergency and operating lever to which is pivotally attached a valve latch adapted to latch the said valve lift in its operating functions, to which is pivotally and slidably attached a "setting" or gear lever slidably and pivotally attached to the mail rack stanchion, a mail auxiliary
 120 reservoir rigidly attached to the said car and adapted to store the compressed-air, and a check valve to retain the compressed-air in the mail auxiliary reservoir, that is used to operate the mechanism
 125
 130

used in the operation of the mail-delivering mechanism for railway-cars, and means to automatically or manually release the same in such a manner as to cause the said delivering frame to tilt, slide forward and upset, changing the said delivering frame from its operating to its rest or carry position, thereby delivering the mail placed on the said delivering frame, substantially as described.

17. In a mail delivering-mechanism for railway-cars, in combination with a car and railroad track, an automatic car trip pivotally connected to the car, a station trip, rigidly attached to the ties of the railroad track, in the line of travel of the said automatic car trip, said station trip adapted to transversely vibrate the said car trip, outwardly and upwardly in its automatic operation.

18. In a mail delivering mechanism for railway-cars, in combination with a car and railroad track, a station trip rigidly attached to the said railroad track in a diagonal outward and upward position for the purpose of deflecting from its line of travel, a car trip vertically disposed in line with the outward perpendicular line of the car to which it is pivotally attached, which when moving vibrates a car trip and its connections sufficiently to set in motion a compressed-air actuating means used for the purpose of delivering mails from a car while moving, substantially as described.

19. In a mail delivering mechanism for railway cars, in combination with a car railroad track, a partially excavated roadside station receiver, with sloping sides and ends, placed parallel in length with the railroad track, with hood covered ends, and means for draining it of water, with a bottom covered with sand or other like cushion and retarding material, with rigidly attached station trips, that are adapted to set in motion a mechanism that when the car is moving, delivers the mails from the car into a station roadside receiver, substantially as described.

20. In a mail delivering mechanism for railway-cars, in combination with a car and railroad track, a car trip, pivotally connected to a piece of sheet metal that is rigidly attached to the outward vertical portion of the car underframe, and adapted in its operation to vibrate outwardly and upwardly in the direction in which the car is moving, a station trip rigidly attached to the ties of the railroad track in the line of travel of the pivotally connected car trip, in a diagonal upward and outward position, to intercept the car trip and cause it to vibrate outwardly and upwardly, corresponding to the plane of the station trip, a station roadside receiver, lengthwise disposed parallel to the track, partially excavated, with sloping sides and ends, to avoid the direct impact of mails to be received, and adapted to be placed between the tracks of a railroad, and means for automatically delivering mails into the said receiver, substantially as described.

21. In a mail delivering mechanism for railway cars, in combination with a car and railroad track, a partially excavated roadside mail receiver with sloping sides and ends, adapted to be placed between the tracks of a railroad, and receive packages from cars moving on either track, with trips to set in motion in a compressed-air actuating means carried by the passing car, with the sloping sides and ends reinforced to keep the said receiver in proper form and condition, with the bottom prepared with cinders, coarse gravel, drain tile, or other material used for drainage purposes, with a top dressing of sand sufficient to form a cushion and momentum retarder for the delivered mails, and with hoods at the ends of the receiver to keep the delivered mails within its boundaries, substantially as described.

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

FRANKLIN H. BURR.

Witnesses:

THOS. P. BREHENY,
H. C. JONES.