

W. M. MOLONEY.
MAIL CATCHING AND DELIVERING DEVICE FOR RAILWAYS.
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940,180.

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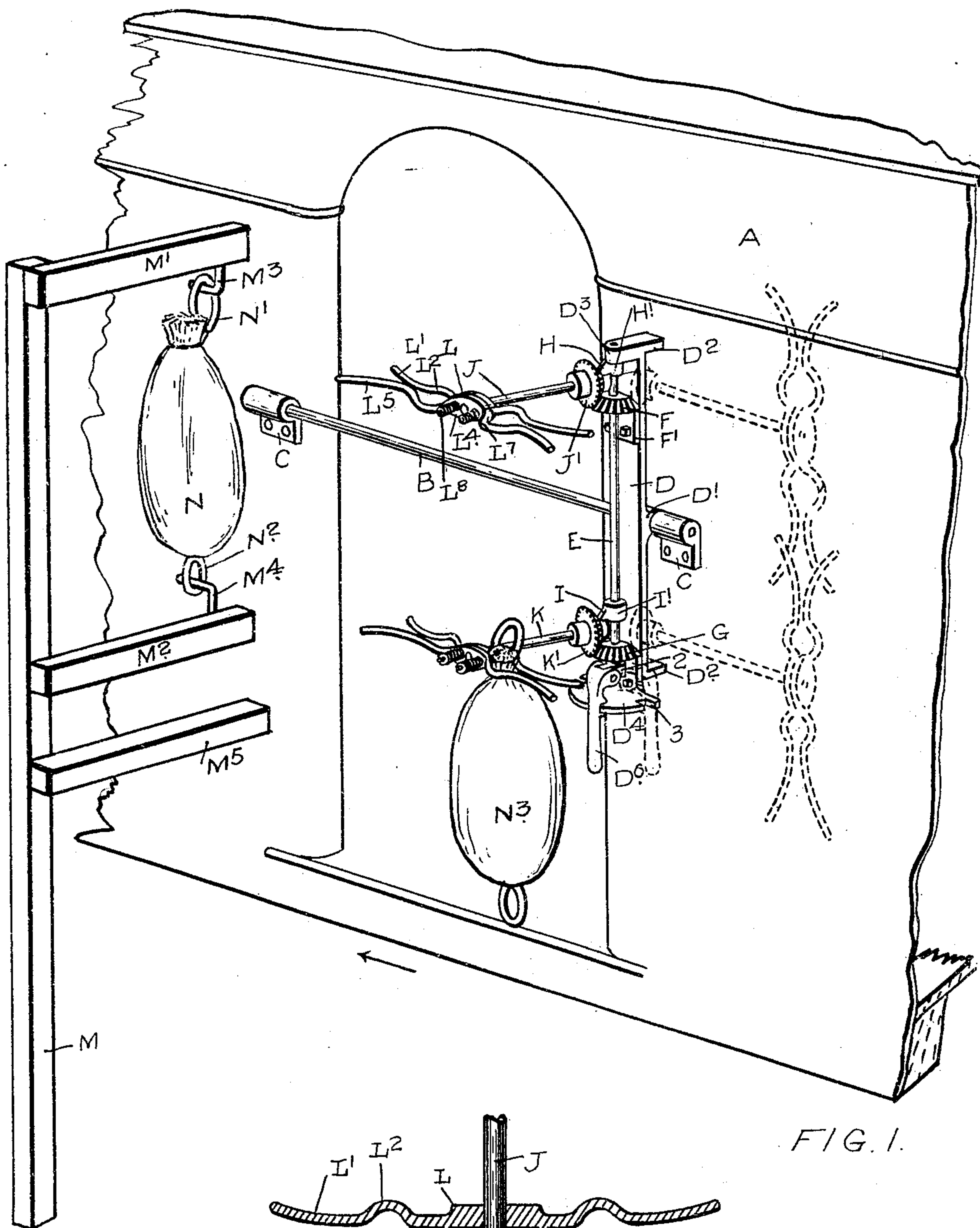


FIG. 1.

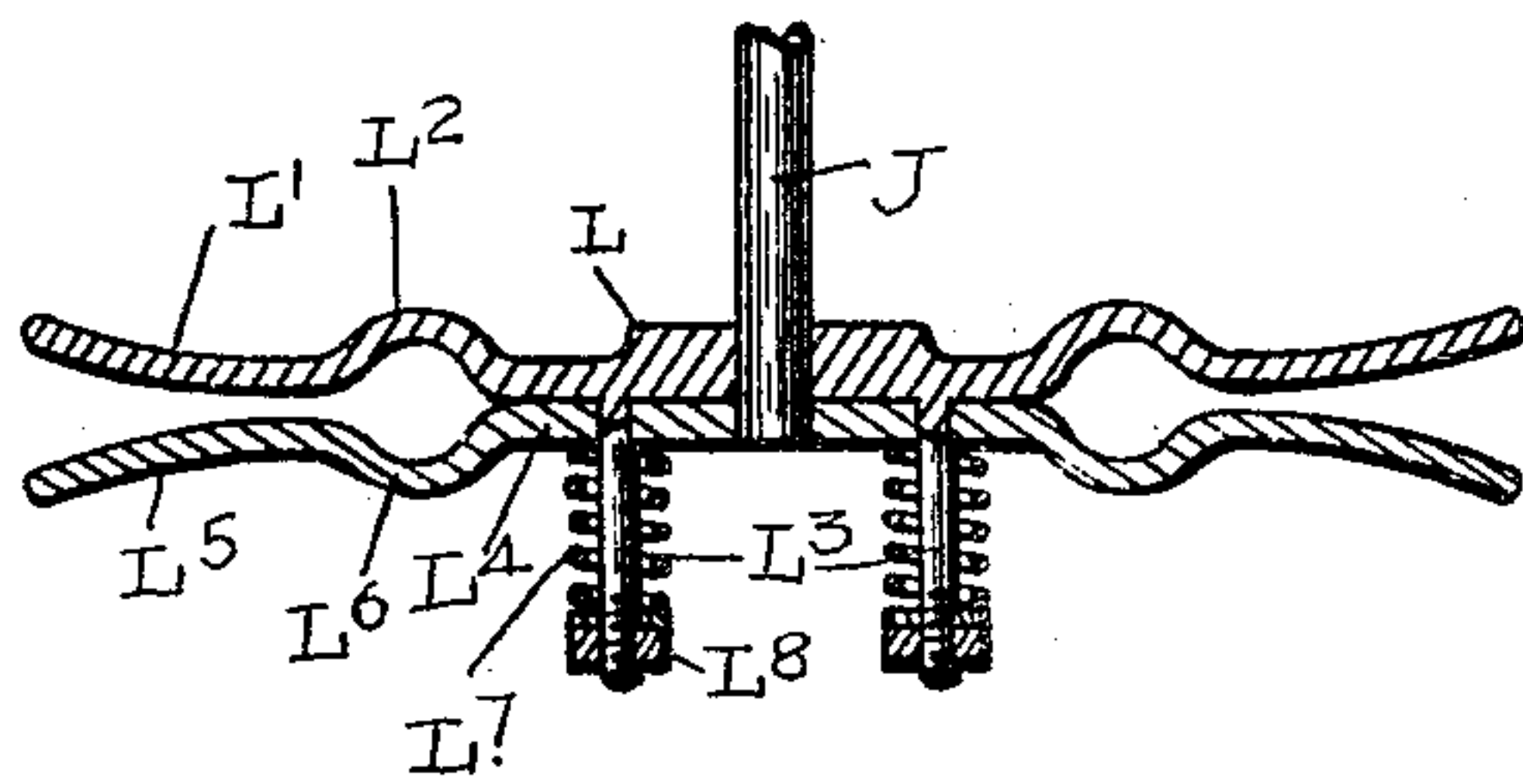


FIG. 2

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MAIL CATCHING AND DELIVERING DEVICE FOR RAILWAYS.

940,180.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, WILLIAM MICHAEL MOLONEY, of the city of Toronto, in the county of York, in the Province of Ontario, Canada, have invented certain new and useful Improvements in Mail Catching and Delivering Devices for Railways, of which the following is the specification.

My invention relates to improvements in mail catching and delivering devices for railways, and the object of the invention is to devise a simple, convenient and effectual means of catching and delivering mail attached to the mail car itself, and whereby the mail may be delivered when the train is passing and without stopping the train.

My invention consists of a rod extending across the mail car door and supported in suitable brackets, an upright bar carrying a vertical spindle and bevel pinions, an operating arm attached to the spindle and a quadrant attached to the bar co-acting with the arm, outwardly projecting horizontally disposed spindles having bearings secured on the aforesaid spindle and each having a bevel gear at the inner end meshing with the bevel gear on the vertical spindle and a double gripping spring jaw located on the outer end of the horizontally disposed spindle, the parts being otherwise constructed and arranged in detail as hereinafter more particularly explained.

Figure 1, is a perspective view showing portion of a side of a car and arms at the side of the track showing the parts involved in my invention. Fig. 2, is a sectional plan detail of the gripping jaws.

In the drawings like characters of reference indicate corresponding parts in each figure.

A is the side of a mail car having the usual doorway and B is a rod extending crosswise of the doorway and supported at the end in brackets C.

D is a bar having a central boss D' through which the rod B extends.

D² are inwardly extending projections at the top and bottom of the bar D.

D³ is an upper bearing and D⁴ is a quadrantal plate secured to the front of the bottom bar D.

E is a spindle journaled at the top in the bearing D³ and at the bottom in the plate D⁴.

F is a segmental bevel gear having a depending portion F' by which it is secured to the bar D.

G is a segmental gear attached to or forming part of the gear plate D⁴.

The spindle E extends freely through the segmental gears F and G and is provided at the bottom with a block 2 on which is secured the pivoted handle D⁶, which normally engages with one of the notches 3 in the plate D⁴.

H is a bearing having a portion H', which is swung on the spindle E above the gear F.

I is a bearing having a vertical portion I', which is swung on the spindle E above the gear G.

J and K are spindles journaled at the inner end in the bearings H and I secured to the spindle E and provided with bevel pinions J' and K'.

L is a plate having the outwardly curved fingers L', which at the inner end are provided with a recessed outer bend L². The plate L has outwardly extending pins L³, which extend through holes in the plate L⁴. The plate L⁴ is secured on the end of the spindle J or K and is provided with outwardly curved fingers L⁵ and the bend L⁶, which with the bend L² forms a substantial ring catch.

L⁷ are springs encircling the pins L³ and L⁸ are nuts on the end of the pins L³.

It will be seen that the plate L is capable of moving inwardly on the rod J or K, so that the jaws formed by the fingers L' and L⁵ at either end will open, so as to receive the neck of the mail bag and hold the same fast, the flaring top of the mail bag serving to support the mail bag in position when it is received within the ring L² L⁶ as will hereinafter appear.

M is a post, which extends into the ground in proximity to the railway track and M¹ M² are arms projecting therefrom and carrying the L-shaped supporting rods M³ and M⁴, which carry the upper and lower rings N¹ and N² of the mail bag N. Both of the L-shaped arms are turned in the same way.

M⁵ is the lowermost arm on the post N.

The operation of my invention is as follows. The train is supposed to be going in the direction indicated by arrow when the upper jaw $L' L^5$ passes the neck of the bag and enters the jaw, the sides of the jaw springing apart as hereinbefore premised and the bag passes into the ring $L^2 L^6$ and is carried off the hooks $M^3 M^4$ and retained by the jaw $L' L^5$ until removed. At the same time the lower mail bag N^3 strikes the bar M^5 and is knocked rearwardly through the spring jaw $L' L^5$ and deposited on the ground. The handle D^6 is then removed from one of the notches of the quadrantal plate D^4 and swung inwardly, so as to swing the spindles J and K inwardly when the mail bag may be taken from the upper arm and another mail bag inserted in position on the lower arm ready for delivery. The arms may be then swung out again by the handle D^6 . This operation may be repeated continuously as the train passes station after station. It will thus be seen that the mail may be collected and delivered simultaneously with but little trouble.

When the train is going in the opposite direction all it is necessary to do is to remove the bar D , which carries all the operating parts to the opposite side of the doorway. When the arms J and K are thrown inwardly by manipulating the handle D^6 it will be seen that the jaws L' and L^5 will be thrown into the vertical position in the entrance of the door, so as to deliver the mail on account of the pinions turning the shaft J . It will also be seen that by throwing the handle D^6 in the opposite direction, the gripping jaws L' and L^5 may be thrown into vertical position out of the way when the mail collecting and delivering device is not in use.

What I claim as my invention is.

1. A mail catching and delivering device for railways comprising a rod extending across the mail car door and suitably supported at each side thereof, a bar adjustable from one end of the rod to the other and a grip at each end of said bar as and for the purpose specified.

2. A mail catching and delivering device for railways comprising a rod extending across the mail car door and suitably supported at each side thereof and a bar provided with an outwardly extending grip and provided with a boss through which the rod extends, a bevel quadrant secured to the bar, a spindle extending through the bevel quadrant, a shaft journaled in suitable bearings and swung on the vertical spindle, a pinion on the rod meshing with the bevel quadrant on the bar and a suitable grip secured on the outer end of the rod as and for the purpose specified.

3. A mail catching and delivering device

for railways comprising a rod extending across the mail car door and suitably supported at each side thereof and a bar provided with an outwardly extending grip and provided with a boss through which the rod extends, a bevel quadrant secured to the bar, a spindle extending through the bevel quadrant, a shaft journaled in suitable bearings and swung on the vertical spindle, a pinion on the rod meshing with the bevel quadrant on the bar, a suitable grip secured on the outer end of the rod, a post located on the side of the track in proximity to the path of the car and provided with arms having hooks to receive the rings at the top and bottom of the mail bag as and for the purpose specified.

4. The combination with a vertical bar suitably held in the side of a car, of a vertical spindle journaled therein, the horizontally disposed spindles suitably connected to the vertical bar and swinging therewith, gripping jaws at the end of the horizontal spindles and means connected to the vertical spindle for swinging the jaws to the vertical when the horizontal rods are swung inwardly as and for the purpose specified.

5. The combination with a vertical bar suitably held in the side of a car, of a vertical spindle journaled therein, the horizontally disposed spindles suitably connected to the vertical spindle and swinging therewith, gripping jaws at the end of the horizontal spindles, a handle secured in the end of the vertical spindle, and a notched quadrant with which the same co-acts secured on the end of the bar carrying the vertical spindle as and for the purpose specified.

6. The combination with the vertical bar and horizontal rod connected thereto, and carrying spring jaws adapted to receive the neck of the mail bag, said jaws being directed substantially parallel with the direction of movement of the car, of the post on the side of the track provided with an arm extending in a direction transversely to the spring jaws and to the movement of the bag and with which the mail bag is designed to impact, so as to throw it out of the spring jaws in which it is held as and for the purpose specified.

7. The combination with the horizontal rod suitably supported on the side of the car, of a plate provided with an outwardly extending flaring finger having an intermediate outward bend and a co-acting plate loosely held on the bar and provided with a correspondingly flaring finger provided with an intermediate outward bend, and spring means for holding the plates together as and for the purpose specified.

8. The combination with the horizontal rod suitably supported on the side of the car, of a plate provided with an outwardly

extending flaring finger having an intermediate outward bend and a co-acting plate loosely held on the bar and provided with a correspondingly flaring finger provided with
5 an intermediate outward bend, a rod extending outwardly from the inner plate through the outer plate and provided with a nut at the end and a spiral spring interposed between the nut and the face of the outer plate as and for the purpose specified. 10

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Witnesses:

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