Jan. 14, 1958 J. J. NOHR 2,819,684

RURAL MAIL DELIVERY AND COLLECTION DEVICE

Filed Feb. 23, 1954

Fig. 1.

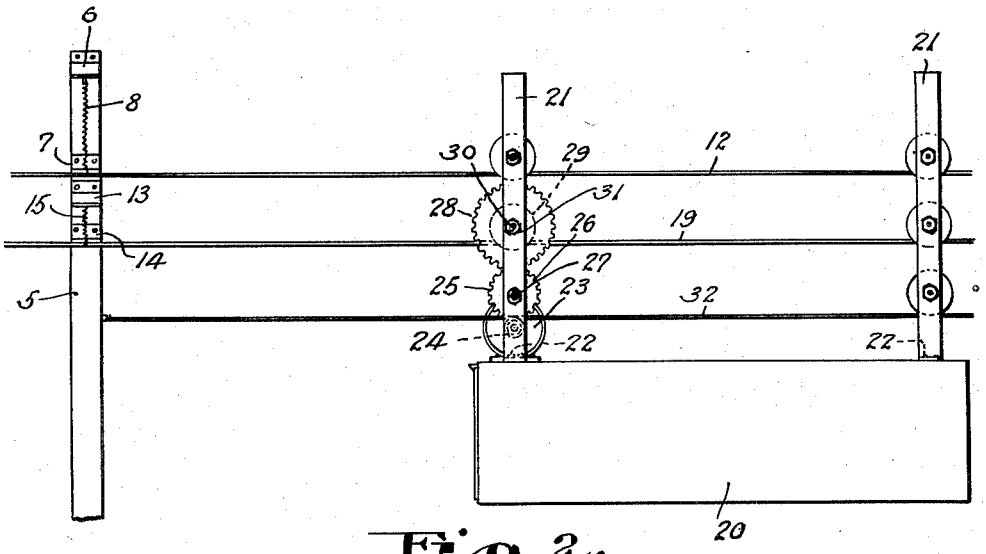


Fig. 2.

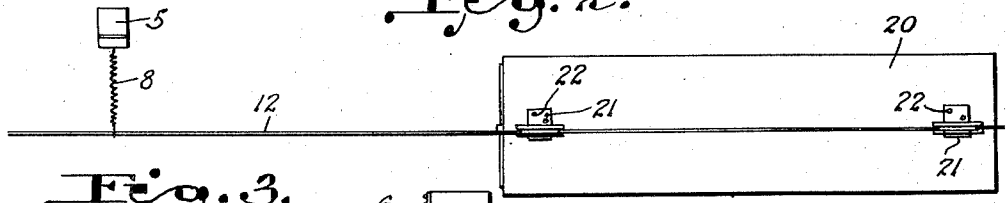
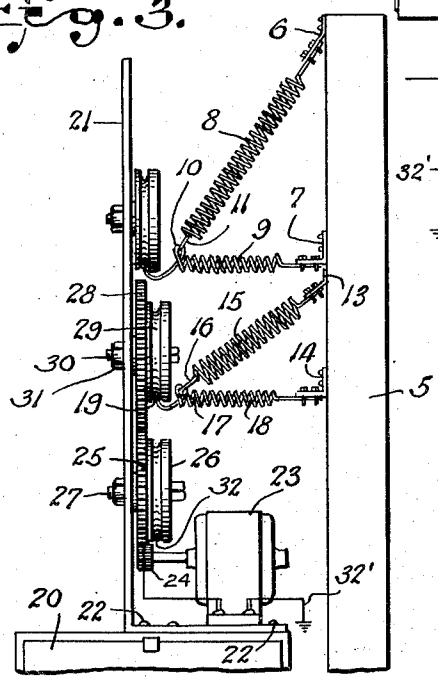


Fig. 3.



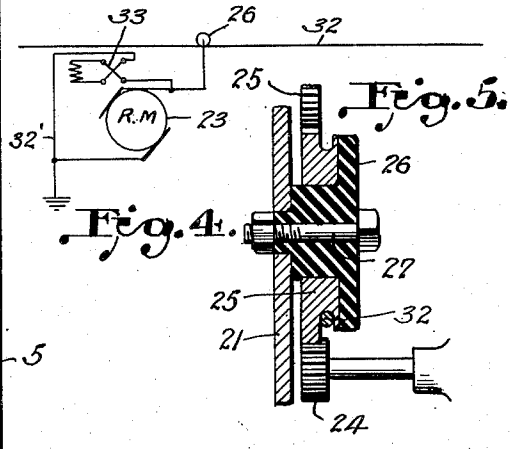


Fig. 5.

Fig. 4.

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RURAL MAIL DELIVERY AND COLLECTION DEVICE

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1 Claim. (Cl. 104—149)

This invention relates to a mail collection and delivery device designed primarily for handling rural mail, the primary object of the invention being to provide a suspension track on which a wheeled carrier operates, for delivery and collection of mail between two remote points.

An important object of the invention is to provide an elevated or suspended track which is yieldably supported to eliminate noise caused by vibrations, as the carrier is moving over the track.

Another object of the invention is to provide a carrier which is self propelled by an electric reversible motor mounted on the carrier the carrier being provided with gearing operated by said motor for transmitting power from the motor to the power wheels of the carrier in the selected direction.

With the foregoing and other objects in view which will appear as the description proceeds, the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claim, it being understood that changes may be made in the construction and arrangement of parts without departing from the spirit of the invention as claimed.

Referring to the drawing:

Figure 1 is a fragmental elevational view illustrating a section of the suspended or elevated track with a carrier constructed in accordance with the invention, as mounted thereon.

Fig. 2 is a plan view thereof.

Fig. 3 is an enlarged elevational view illustrating a portion of the track and the upper section of the carrier, operating over the track.

Fig. 4 is a diagrammatic view illustrating the motor and track section.

Fig. 5 is a fragmental sectional view illustrating the means for transmitting power from the motor to the power gear of the propelling means.

Referring to the drawing in detail, the reference character **5** indicates one of the supporting posts of the elevated or suspended track. It will of course be understood that these supporting posts are arranged along the track in predetermined spaced relation with respect to each other. Secured to each post are upper and lower brackets **6** and **7** respectively, to which the coiled springs **8** and **9** respectively have one of their respective ends connected.

As clearly shown by Fig. 3 of the drawing, the coiled spring **9** is formed with a loop **10** through which the hook **11** at the lower end of the spring **8** extends, connecting the springs **8** and **9**. The loop **10** has its end connected with the upper track **12** yieldably supporting the upper track.

Directly below the brackets **6** and **7** are brackets **13** and **14**. One end of the coiled spring **15** is connected to the bracket **13**, while the opposite end thereof which is formed into the hook **16**, extends through the loop

17 of the coiled spring **18** which is horizontally disposed and connected with the bracket **14**. One end of the spring **18** beyond the loop **17** extends laterally and connects with the track or cable **19** disposed under the track or cable **12**. Thus it will be seen that due to this construction, the tracks **12** and **19** are yieldably supported to not only provide a silent operating carrier, but at the same time will compensate for slight movements of the suspended cables or tracks due to wind pressure and prevent the wheels of the carrier, to be hereinafter more fully described, from running over the track to become displaced.

The carrier is indicated by the reference character **20** and to the top of said carrier is secured the upstanding bracket **21** which is bolted to the top of the carrier by means of the bolts **22**.

The right angled lower end of the bracket provides a support for the electric motor **23** to the shaft of which is secured pinion **24**. The pinion **24** meshes with the pinion **25** secured to roller **26** pivotally mounted on the shaft **27** that is secured to the bracket **21**. The pinion **25** meshes with the pinion **28** on which the grooved wheel **29** is secured the insulation being similar to that described in connection with gear **25**, the grooved wheel operating over the suspended track or cable **19**. The grooved wheel **29** constitutes the power wheel of the carrier, and is rotated by the movement of the pinion **28**, as better shown by Fig. 3 of the drawing.

Directly above the grooved wheel **29** is the idle wheel, which moves over the suspended track or cable **12**. This grooved wheel **29** is supported on the bracket **21** by means of the shaft **30** which is held in place by means of the nut **31**.

Electric energy is supplied to the motor **23**, through the wire **32** that has connection with a suitable source of electricity supply, the electric current passing through the grooved wheel **29** which is in direct contact with the wire **24** which passes through motor **23** to ground of the system through wire **32'**. A suitable two-way switch **33** is in the circuit and provides the means for controlling the electric energy to the motor for moving the motor in either its reverse or normal drive position to move the conveyor longitudinally of the track for collecting or delivering mail between two remote points.

From the foregoing it will be seen that due to the construction shown and described, I have provided a carrier designed for collecting and delivering mail between two remote points, the operation of the carrier being controlled by a switch which in turn controls the electric circuit to the motor.

Having thus described the invention, what is claimed is:

In a mail collection and delivering apparatus, a plurality of supporting posts, a pair of horizontal vertically spaced track members, pairs of coiled spring connected between each of said posts and track sections, each pair of springs embodying a substantially heavy inclined spring and a weaker horizontal spring, yieldably supporting said track members spaced from said post, a carrier, an upstanding bracket secured to said carrier, in the form of a vertical bar, a pair of superposed grooved wheels mounted on one surface of said bar, operating over said track members, the uppermost grooved wheel embodying an idle wheel, the lowermost grooved wheel constituting the power wheel of the carrier, a pinion secured to said power wheel between the power wheel and bracket, a third grooved wheel mounted on said bracket below said power wheel, a pinion secured to said third grooved wheel between said third grooved wheel and bracket and mesh-

ing with the pinion of said power wheel, an electric motor, a power line for said motor, an operative circuit between said motor and a source of electricity supply, said motor having a shaft and pinion, mounted on said carrier, the pinion of said motor meshing with the pinion of said third grooved wheel for transmitting motion to said pinions and moving said carrier along said track members.

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