April 14, 1925. 1,533,837

E. J. DOUGLAS

MAIL DELIVERY VEHICLE

Filed March 12, 1923

Fig. 1.

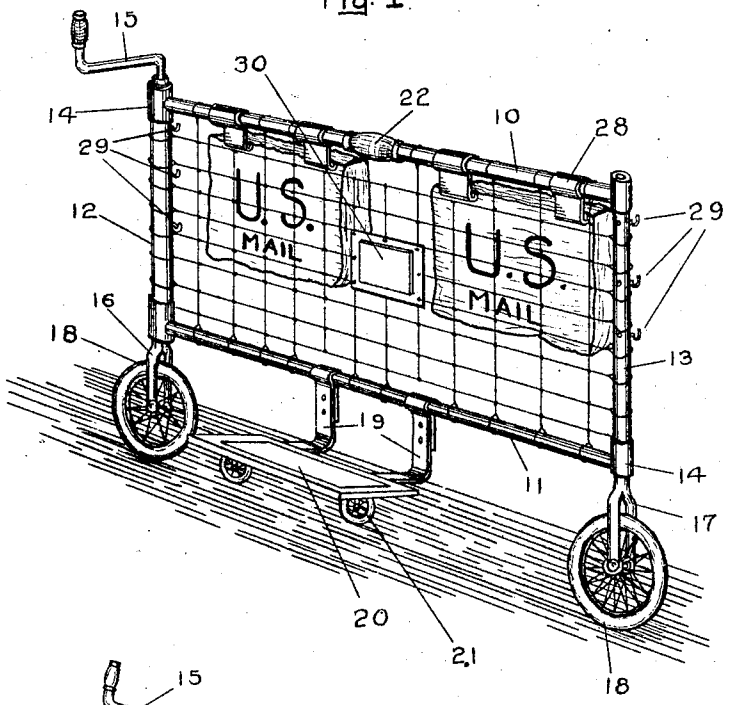


Fig. 2.

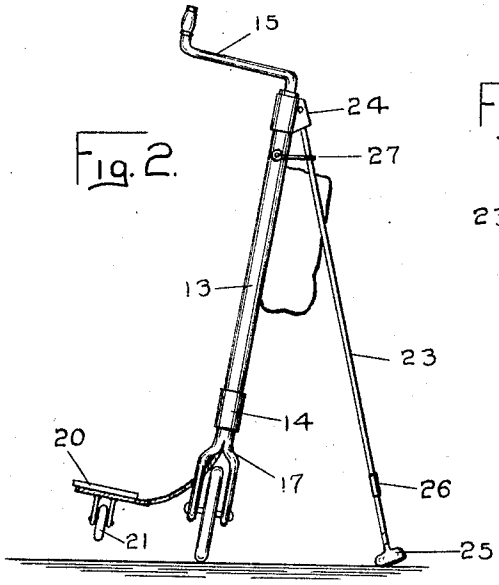


Fig 3

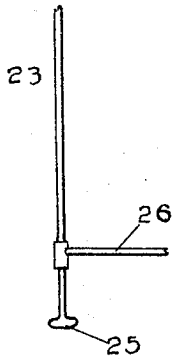
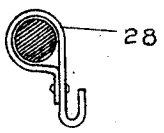


Fig. 4.



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BY

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UNITED STATES PATENT OFFICE.

ELIZABETH J. DOUGLAS, OF CRETE, NEBRASKA.

MAIL-DELIVERY VEHICLE.

Application filed March 12, 1923. Serial No. 624,469.

To all whom it may concern:

Be it known that I, ELIZABETH J. DOUGLAS, a citizen of the United States, residing at Crete, in the county of Saline and State of Nebraska, have invented certain new and useful Improvements in Mail-Delivery Vehicles, of which the following is a specification.

My invention relates to vehicles which are used for the transportation and delivery of mail, and the primary object of the invention is to provide a device which will relieve the mail carrier of much of the burden of carrying the mail and which at the same time will greatly expedite the work. These and other objects will be more fully dwelt upon in the description.

In the present methods of delivering mail, the carrier is provided with one or more pouches of heavy leather, these pouches being intended and used mainly for mail of the first class. The newspapers and other printed matter, and in some cases also the parcels post packages, are held together by leather straps and are thus carried. These latter bundles especially are insecure, and because of their irregular shapes and the difficulty of holding them and of keeping their weight properly distributed, they cause the carrier a great deal of trouble and annoyance. The carrier is compelled to shift the burdens frequently to restore the balance of the load which is constantly being disturbed both by the shifting of the bundles and by the deliveries which are being made on the route. All of this is particularly true of mail delivery during the holidays and other rush seasons. The net result is that the mail carrier each day becomes unnecessarily fatigued, and unless he takes great precautions, he in time becomes deformed from carrying the heavy, unbalanced loads.

Referring now to the drawings which are part of my application, and in which like numerals designate like parts in the description,

Figure 1 is a perspective view of my invention.

Figure 2 is a rear elevation of my invention as it appears when at rest.

Figure 3 is a detail showing one of the legs and a portion of the rod connecting the two legs.

Figure 4 is a detail illustrating the manner in which the hooks may be attached to the upper part of the frame.

The frame of my mail carrying vehicle is rectangular in form, and is made up of a top member 10, a bottom member 11, a front member 12, and a rear member 13. These members are secured together at their corners by T-joints or couplings 14. I prefer the use of steel tubing similar to that of which bicycle frames are made, but I do not desire to restrict myself to this or any other specific material.

Suitably journalled in the front tubular member 12 is a shaft which terminates at its upper end in a crank handle 15 and at its lower end in a fork 16. To the lower rear coupling I secure a similar fork 17, this fork being preferably secured against swivelling. In both of the forks I secure wheels of relatively small diameter. The wheels are preferably light in weight and strong, and they are rubber tired. In order to make them as easy running as possible, I provide roller or ball bearings or other friction reducing devices at the places where the axles are journalled in the fork arms. I also secure a strong, light-weight metal fabric or cross wires to the four members of the frame, this fabric having the double purpose of reinforcing the frame and of serving as a support for various small pouches and parcels.

To the lower horizontal member 11 of the frame I secure two straps 19 which are more or less L-shaped, the straps being designed for the support of the platform 20. The platform is covered with a mat of rubber, sheet cork, or other suitable material, and is preferably dished. It is of a size to comfortably support one of the mail carrier's feet. Secured to the under side of the platform are two small wheels 21 arranged in tandem. On the upper member 10 of the frame I secure a hand grip 22. It will be readily apparent that when the mail carrier supports himself with one foot on the platform 20, at the same time grasping the grip 22 with his hand, he can readily propel the vehicle with the foot which is not

on the platform in the same manner in which children's "scooters" are propelled. In order to turn corners and to avoid collisions, the carrier simply grasps the crank handle 15 with his free hand to steer the vehicle in any direction which he chooses.

It is desirable that the vehicle be self supporting in upright position while the mail carrier is making deliveries and at other times. If the vehicle carries no unbalanced load, the platform and its supports will tend to hold the vehicle upright when at rest, but it will usually be unbalanced with the load of mail, the greater weight being on the side opposite the carrier. I have therefore added to the structure a pair of swinging props or legs 23. To each of the upper couplings 14 I secure a pair of spaced ears 24, and I pivot the upper end of each leg 23 between one pair of ears. The foot 25 of each leg is padded to prevent slippage, and the legs of the pair are connected near their bottoms by means of a rod 26. It is apparent that when the vehicle is in upright position, the legs 23 will rest against the frame of the vehicle, but when the vehicle tilts on its weighted side the legs will swing into supporting position. To limit the outward swinging of the legs, I provide bails or hooks 27 on the upright members 12 and 13.

The mail pouches and parcels are supported on the frame of my vehicle in any desired manner, but my preferred forms of attaching means are shown in my drawings. To the upper member 10 and side members 12 and 13 I attach hooks 28 and 29 respectively. The hooks 28 ordinarily support the usual mail pouches, but when there are unusual amounts of mail, as during the holidays, all of the supporting hooks come into play. The smaller pouches and bundles may be hung from the fabric on the carrier's side of the vehicle, as shown at 30.

The size of my vehicle is governed largely by convenience. The platform is placed where it will be only a few inches above the sidewalk or pavement, thus making it possible for the carrier to step on and off without difficulty. The height of the frame is such that the hand grip can be grasped and held without inconvenience or strain. In length I prefer to make the frame so that it will carry two of the standard mail pouches on either side of the hand grip and spaced sufficiently from the hand grip to avoid chafing the carrier's hand.

The mail carrier using my vehicle can travel on sidewalks and pavements with great speed even when carrying heavy loads; and he can do this with the minimum of fatigue. He is not subjected to any deforming strains as when carrying a load which is supported on his body.

My invention while designed mainly and primarily for the delivery of mail, is capable of other uses. For the delivery of parcels from stores it will be found to be invaluable. Messengers who travel on foot will find their work greatly expedited by using my vehicle.

Having thus fully described my invention and its uses, what I believe to be new and desire to secure by Letters Patent of the United States is:—

1. In a mail delivery vehicle, a rectangular frame consisting of a top rail, a bottom rail, and a pair of end rails, a pair of supporting wheels positioned beneath said bottom rail, one at each end of the rectangular frame, the wheel at the forward end of the frame being pivoted to a steering post which extends above the level of the top rail and terminates in a steering handle, a hand grip on said top rail at its middle point, each of said end rails having pivoted thereto at its upper extremity a supporting leg, said supporting legs having limited swinging movement outwardly to support the vehicle in inclined position when at rest but swinging into parallel relation with the end rails when the vehicle is in motion, a pair of L-shaped arms secured to said bottom rail and projecting on the side opposite the supporting legs, a platform secured to the horizontal portions of said L-shaped arms, and a pair of supporting wheels underneath the said platform.

2. In a mail delivery vehicle, a rectangular frame consisting of a top rail, a bottom rail, and front and rear rails, the said front rail being tubular, a steering post pivoted in said tubular front rail, a fork at the lower extremity of said steering post, a supporting and steering wheel journalled in said fork, a steering arm at the upper extremity of said steering post, a fork rigidly secured to said rear rail at its lower extremity, a supporting wheel journalled in said last named fork, a hand grip on said top rail at its middle point, said front and rear rails being each provided with a pair of ears projecting laterally at the upper extremity thereof, a supporting leg pivotally secured in each of said pairs of ears, abutments limiting the outward swinging movement of said supporting legs whereby said legs will support the vehicle in inclined position when the vehicle is at rest, a pair of L-shaped arms secured to said bottom rail and projecting on the side opposite the supporting legs, a platform secured to the horizontal portions of said L-shaped arms, and a pair of supporting wheels underneath the said platform.

3. In a mail delivery vehicle, a rectangular frame consisting of a top rail, a bottom rail, and front and rear end rails, a rectangular piece of metal fabric secured at its edges to said rails, a pair of support-

ing wheels positioned beneath said bottom rail, said wheels being secured to said front and rear rails, the forward one of said wheels being provided with means for steering the vehicle, a pair of swinging supporting legs pivoted to said frame at its upper edge and at one side thereof, a platform secured to said bottom rail and projecting laterally from the frame on the side opposite the supporting legs, and hooks for suspending parcels and the like on the frame, said hooks being secured to both of said end rails and to said top rail and to said metal fabric.

In testimony whereof I affix my signature.

ELIZABETH J. DOUGLAS.