W. E. STEWART.

MAIL BOX TRANSMITTING APPARATUS.

APPLICATION FILED APR. 16, 1910.

982,894.

Patented Jan. 31, 1911.

2 SHEETS—SHEET 1.

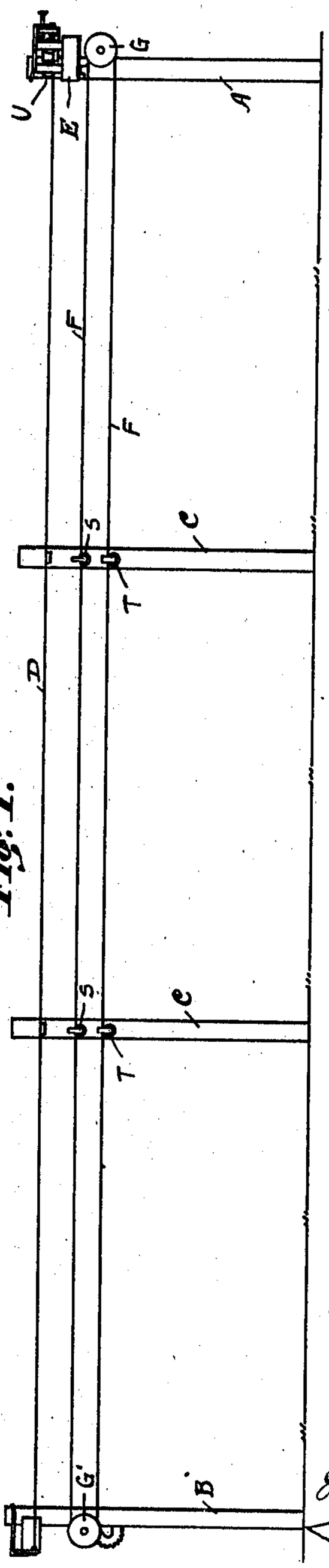

Fig: 1.

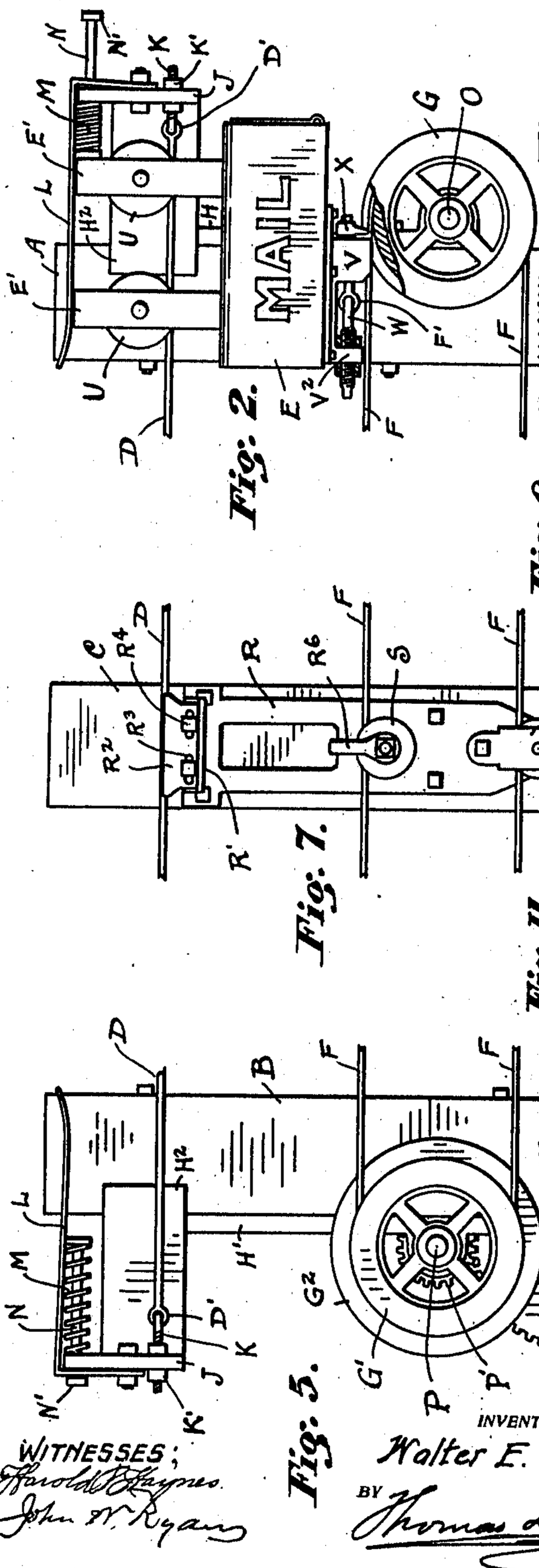

Fig: 2.

Fig: 7.

Fig: 5.

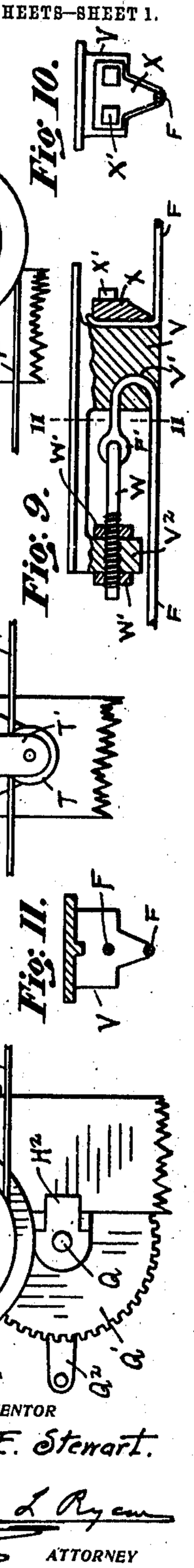

Fig: 9.

Fig: 11.

WITNESSES;

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2 SHEETS—SHEET 2.

Fig: 3.

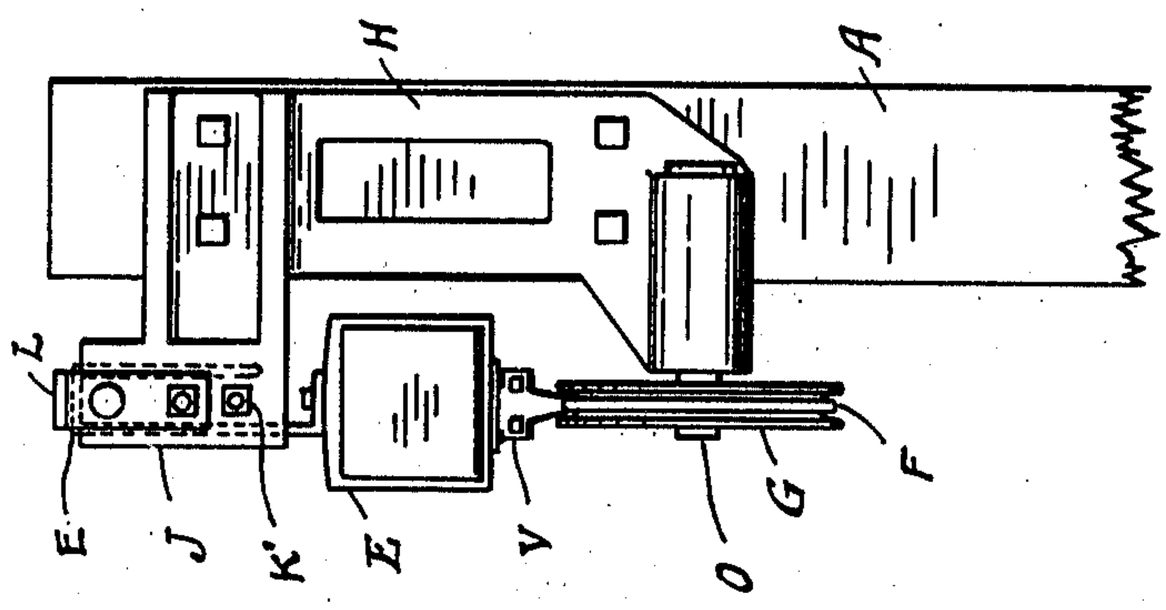


Fig: 8.

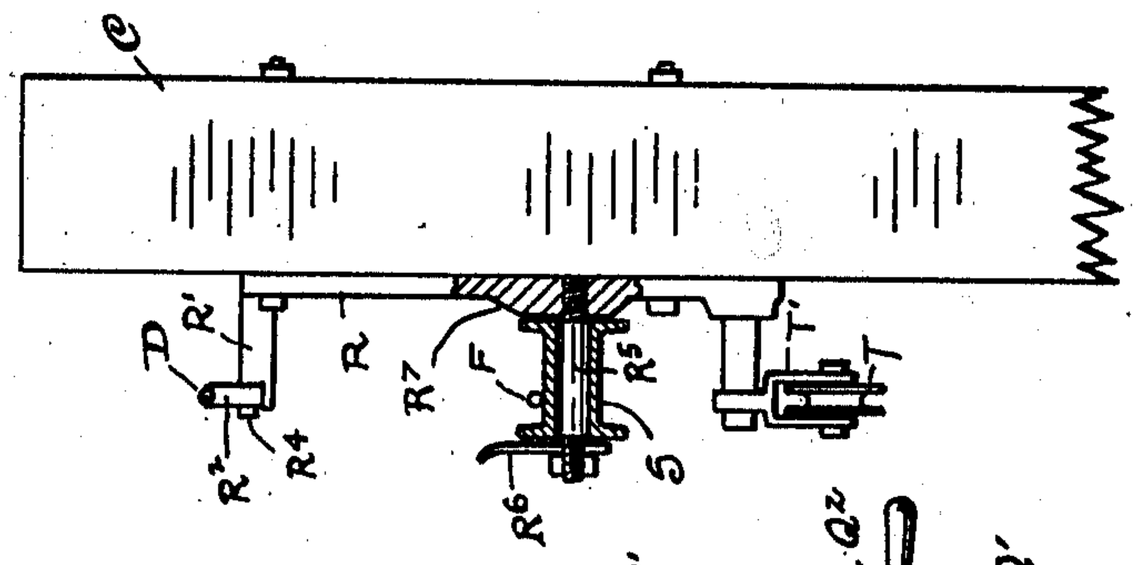


Fig: 6.

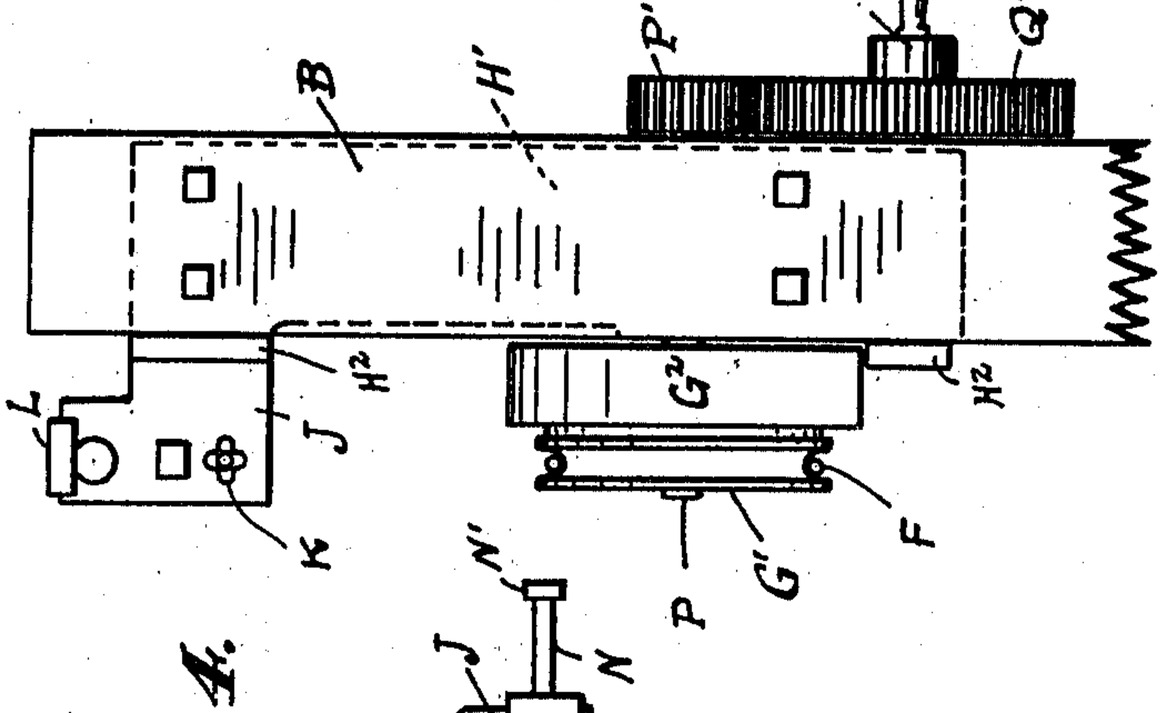
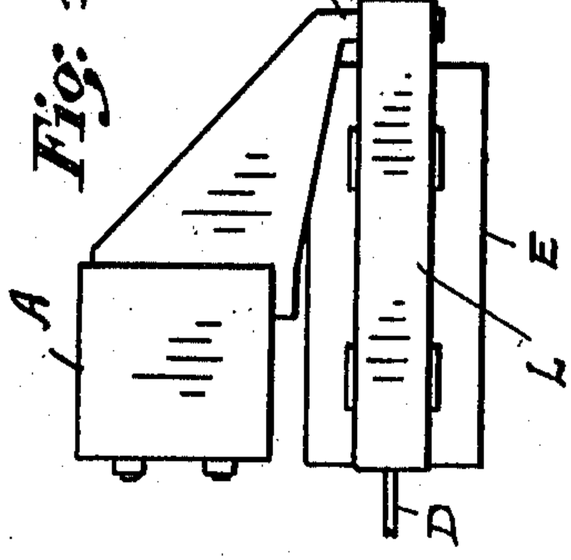


Fig: 4.



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UNITED STATES PATENT OFFICE.

WALTER E. STEWART, OF HARTFORD CITY, INDIANA.

MAIL-BOX-TRANSMITTING APPARATUS.

982,894. Specification of Letters Patent. Patented Jan. 31, 1911.

Application filed April 16, 1910. Serial No. 555,846.

To all whom it may concern:

Be it known that I, WALTER E. STEWART, a citizen of the United States, residing at Hartford City, in the county of Blackford and State of Indiana, have invented certain new and useful Improvements in Mail-Box-Transmitting Apparatus, of which the following is a specification.

This invention relates to improvements in apparatus for carrying or transporting light articles and has especial reference to apparatus for mail box transmission.

In rural districts it is essential that the farmer may have a carrying or conveying means whereby the mail box may be delivered to a location to receive the mail, and may afterward be returned to the starting point. I am aware that various forms of carriers of this general character have been heretofore devised and the object of my invention is to provide an apparatus of this kind which will be economical of construction and manufacture, easy to install and operate, and which will be durable and not liable to get out of repair or adjustment.

The purposes of my invention are accomplished by and my invention consists of the new construction, combination and arrangement of parts and the improved features and details of construction illustrated in the accompanying drawings, described in this specification and defined in the appended claims.

Corresponding parts of the invention are identified by similar characters of reference throughout the several views, in which—

Figure 1 represents a side view of my improved mail-box transmitting apparatus complete. Fig. 2 is a side view, and Fig. 3 is an end view, and Fig. 4 is a top plan view of the outer frame and its connected parts. Fig. 5 is a side view, and Fig. 6 is an end view of the inner frame and its connected parts. Fig. 7 is a side view, and Fig. 8 is an end view of one of the intermediate frames. Fig. 9 is a detached enlarged side view, and Fig. 10 is an end view of the carrier standard and cable splice. Fig. 11 is a transverse sectional view taken on the line 11—11 in Fig. 9.

The more especial purposes of my invention are to provide such improvements in the general features and details of construction that the carrier will be easy of access and the apparatus may be easily installed and successfully operated and maintained in adjusted condition, over long distance as well as over shorter distances.

My invention complete and in form to perform the above functions is shown in Fig. 1.

The outer post A will be positioned at the edge of the road within easy reach of the rural mail deliverer, and the inner post B will be located at the point in the yard and near the house where the user may desire to send or receive the article or articles to be carried. These posts and the intermediate posts C may be made of wood and are six to eight inches square in cross section. Their height will be such that sufficient head room between the cable-belt and the surface of the ground, will be afforded. Supported by these posts is the cable D upon which a carrier is swung and is capable of being moved. This carrier which in this embodiment of my invention includes a mail-box E, has connections with the cable-belt F which will be operated over the grooved pulleys G and G′. One of the essential features of my invention is the combination connector block and cable splice, by the use of which it is possible to deliver the carrier to the extreme ends of the travel of the cable-belt between the said grooved pulleys. A further advantage is that the cable-belt may be maintained at all times at the proper tension, the necessity of a turnbuckle being dispensed with.

For the end post and the inner post A and B respectively I provide a frame H and H^1. The upper portions of these frames are right and left and are identical in construction, each having arms which terminate in the transverse plates J, and lugs H^2 which will engage the corner of the post when the frame is placed in position to be secured thereon. These frames are capable of being rigidly secured to the posts either by lag screws or bolts, the latter means being preferable. The ends of the cable D have the eyes D^1 which are engaged by the threaded hook eye bolts K. The cable D may be drawn taut by these hook eye bolts which are then locked by the nuts K^1. A flat buffer-spring bar L having its free end slightly

curved upwardly is carried by each of the transverse plates J and will occupy the normal position as shown in Fig. 5.

M designates a coil spring mounted loosely on the rod N which has the head N^1. This rod may move freely through the holes therefor in the transverse plate J and the buffer-spring bar.

The lower portions of the frames H and H^1 are provided with suitable bearings in which are journaled the shafts O and P which carry the grooved pulleys G and G^1. The extended lower portion of the frame H^1 embodies a bearing in which is journaled the shaft Q. Formed integral with the grooved pulley G^1 is the balance wheel G^2. The large gear wheel Q^1 carried by the shaft Q will mesh with the smaller gear wheel P^1, and will be operated by a hand lever Q^2. The cable-belt F which will be carried by these grooved pulleys G and G^1 will be supported at the intermediate posts C. To accomplish the supporting of this cable-belt F and the cable D at points intermediate the outer and inner posts, in such a manner that the ultimate objects of my invention may be accomplished I have designed the frame R which may be bolted to the post and will appear as shown in Figs. 7 and 8. In the angular offset of the arm R^1 will be retained the metallic ear R^2 to which the cable D is secured. This ear is flat in form and of decreased thickness at its top and has a groove in which the cable D will fit. To secure the cable therein, the lips which form the walls of said groove are hammered into contact with the cable and it may then be soldered in the usual way. The ear is provided with the oblong holes R^3 through which are passed the bolts R^4 that are secured in the arm R^1. Thus the ear may be adjusted to varied positions to accord to the adjustment of the tension of the cable D. Journaled on the stud R^5 is a spool S of such form that the cable may play over same transversely. Displacement of the cable at this spool is prevented by the arm R^6 and the beveled shoulder R^7. The lower portion of the cable will be carried by the grooved wheel T that is journaled in the housing T^1 supported by a stud secured to the frame R.

By the above described construction, an apparatus is afforded which will at once be easy to install and which will render possible the maintenance of a taut supporting cable, and will permit the free movement of the cable-belt F. At the same time there will be sufficient flexibility throughout the apparatus to avoid abnormal strains.

To afford a carrier which will properly retain its engagement with the supporting cable D, and will be capable of movement by the said cable-belt to the extreme distance between the pulleys G and G^1, and to afford means in combination with the carrier whereby the tension of the cable belt may be adjusted, are the objects of the improvements shown in Fig. 2. The hanger-bars which rise from the top of the mail box have their ends bent upon themselves in such manner that while forming a housing for the grooved wheels U, there are formed the head portions E^1 which will be engaged by the buffer-spring bar L and by the head of the spring-pressed rod N when the carrier has reached its destination at the outer or the inner post. The carrier supported by its grooved wheels U on the supporting cable D will have connection with the cable-belt D by means of the block V. This block is secured to the underside of the mail box and its bottom is of suitable shape in cross section to pass between the edges of the grooved wheels G and G^1. It is of increased width in its body portion which has the curved opening V^1. At the rear of this opening a suitable distance, and formed integral with the block is a lug V^2 through which is passed a threaded hook-eye bolt W. The cable-belt having the eye F^1, is passed through the opening V^1 thence it is passed over the spools S and around the grooved wheel G^1; thence over the grooved wheels T and T, and around the grooved wheel G, and its end brought up between the front edge of the block V and the clip X and is held securely by the tightening of the nuts X^1. The hook-eye bolt W will be held in different adjusted positions by the lock nuts W^1. The door of the mail box may be either at the end or the side thereof.

The utility of apparatus containing my invention is obvious. The frames H and H^1 and the frame R and operating parts all complete are very easy to place in position on the posts and the supporting cable may be easily installed and tightened. With the placement of the carrier in position on the supporting cable and the connecting up of the cable belt in the manner as herein described, the apparatus is in readiness for use. The apparatus constructed in accordance with my invention is capable of being operated over a long distance or extent, and the distance between the intermediate posts C may be varied to accord with the topography of the land that is traversed; forty to sixty feet being a practicable distance apart ordinarily. By virtue of the arrangement of the gearing and balance wheel as shown in Fig. 5 the carrier may be propelled with ease, steadiness and speed. When the carrier nears the terminal point of its travel its speed is broken by the buffer-spring bar L which engages one after the other of the heads E^1 of the hangers. The shock is absorbed by the coil spring M and the carrier comes to a stop and will be retained at the position shown in Fig. 2. The carrier is presented at a position to the front or clear

of the post and there will be no parts in the way to prevent easy access to the mail box. To return the carrier to the starting point the operation of the gearing by the hand lever Q^2 at the post B is simply reversed.

What I claim as my invention and desire to secure by Letters Patent, is—

1. In a transporting apparatus of the kind described, the combination of a carrier, a member secured thereto and having a recess in its underside in which the cable-belt may lie, means to secure one end of the cable-belt therein, means to detachably connect the other end of the cable-belt to said member.

2. In a transporting apparatus of the kind described, the combination of a carrier, a member secured thereto and having a recess in its underside in which the cable-belt may lie, there being an opening leading from the said recess and through the wall of said member, means to secure one end of the cable-belt to said member, means carried by said member to draw the other end of the cable-belt through the said opening and to hold it in varied adjusted positions therein.

3. In a transporting apparatus of the kind described the combination of a carrier, a cable-belt, a block secured to the carrier comprising a body portion provided with a lug disposed adjacent thereto, there being a longitudinal recess in the underside of said body portion in which the cable-belt may lie and there being an opening leading longitudinally from the said recess and through the wall of the block, a threaded member carried by said lug to engage the end of said cable-belt whereby the tension of the cable-belt may be adjusted, substantially as described.

4. A transporting apparatus, comprising end posts, a frame carried by each of the end posts and having arms which support a transverse plate, connections carried by the said transverse plate, a supporting cable engaged at its ends by said connections, grooved pulleys carried by said frames, a cable-belt to run over said pulleys, a portable carrier swung on said supporting cable, a connection between said carrier and said cable-belt.

5. A transporting apparatus, comprising end posts, intermediate posts, a frame carried by each of the end posts, and having an arm which supports a transverse plate, a supporting cable having its ends connected to said transverse plate, grooved pulleys carried by said frames, a cable-belt to run over said pulleys, a frame secured to each of the intermediate posts having ears to engage the supporting cable and carrying means to support the cable-belt substantially as described, a portable carrier swung on said supporting cable and having connection with the cable-belt.

6. A transporting apparatus, comprising end posts, a frame carried by each of the end posts and having arms which support a transverse plate, a supporting cable having its ends connected to said transverse plates, grooved pulleys carried by said frames, a cable belt to run over said pulleys, a carrier, standards secured to the top of the carrier and having grooved wheels journaled therein and to run on the supporting cable, the tops of said standards being extended above the said grooved wheels, connections between the cable belt and the carrier, a buffer spring bar carried by the transverse plate to engage the standards and slacken the speed of the carrier and to hold it at the end of its travel, a coil spring carried by said transverse plate to absorb the shock of the carrier as it reaches the end of its travel.

7. An apparatus of the kind described, comprising end posts, a frame carried by each of the end posts, grooved pulleys carried by said frames, a cable belt to run over said pulleys, a supporting cable connected at its ends to said frames, a carrier, connections between the carrier and the cable belt, standards secured to the top of the carrier, grooved wheels carried by the standards to run on the supporting cable, a horizontal buffer spring bar carried by the frame and having its free end curved upwardly and disposed at a level slightly below the tops of the standards, a coil spring carried by the frame at a point underneath the buffer spring bar, substantially as described.

8. A transporting apparatus, comprising end posts, intermediate posts, a frame carried by each of the end posts and having an arm which supports a transverse plate, a supporting cable having its ends connected to said transverse plate, grooved pulleys carried by said frames, a cable-belt to run over said pulleys, a frame secured to each of the intermediate posts having ears to engage the supporting cable, a pulley carried by said frame, a spool carried by said frame at a location above the said pulley, and upon which spool the cable will run, a portable carrier swung on the supporting cable and having connections with the cable belt, substantially as described.

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

WALTER E. STEWART.

Witnesses:
MINNIE CONNORS,
JOHN H. STEWART.