J. F. ERICKSON & M. M. WOODWARD.

MAIL CARRYING DEVICE.

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989,492.

Patented Apr. 11, 1911.

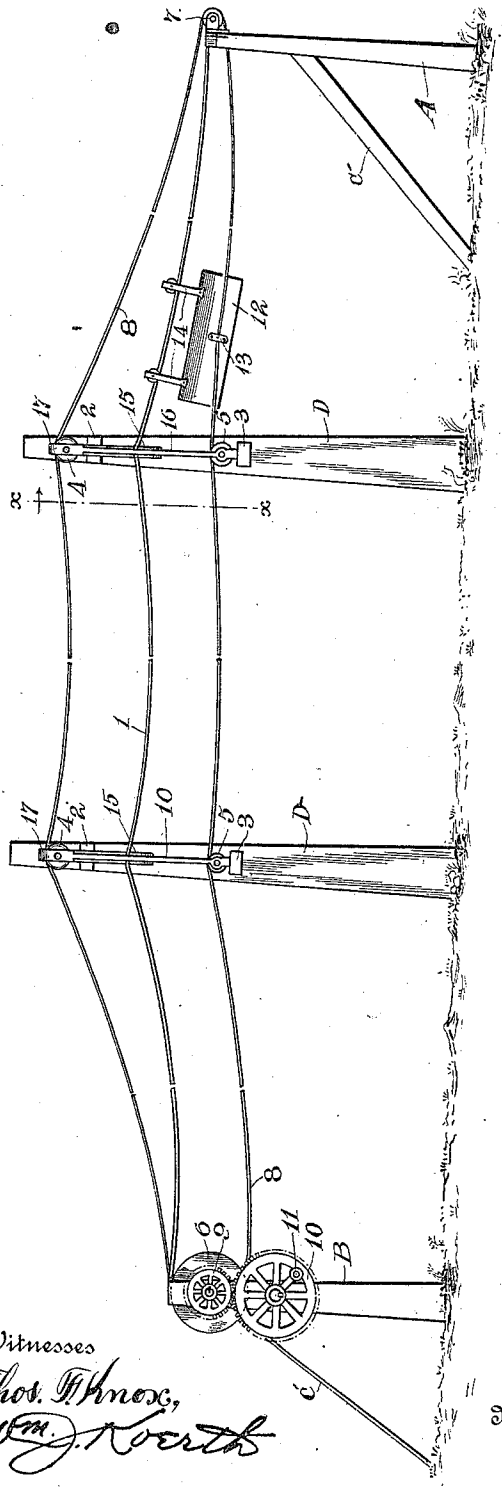

Fig. 1.

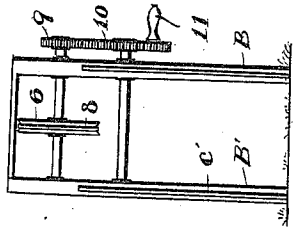

Fig. 4.

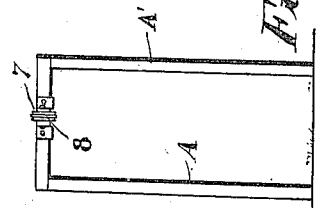

Fig. 3.

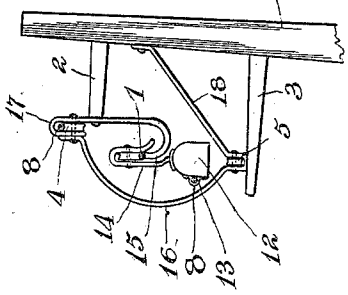

Fig. 2

Witnesses

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UNITED STATES PATENT OFFICE.

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MAIL-CARRYING DEVICE.

989,492. Specification of Letters Patent. Patented Apr. 11, 1911.

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To all whom it may concern:

Be it known that we, JOHN F. ERICKSON and MILTON M. WOODWARD, citizens of the United States, residing at Wild Rose, in the county of Waushara and State of Wisconsin, have invented new and useful Improvements in Mail-Carrying Devices, of which the following is a specification.

This invention relates to a delivery box service, and is especially adapted to convey mail boxes to and from a dwelling to the road over which the mail carrier or messenger on a rural delivery route passes.

One of the objects of the invention is to provide a device of the character described which will be economical, effective, simple and durable and which may be erected over fields without offering any undue impediment to the working of the field and absolutely no impediment to the working of the device.

A still further object of the invention is to provide a conveyer of this class wherein the device may be raised as it reaches each post over which the trolley and traveling wires of the box pass to allow the box to descend by gravity at least half of the length of the trolley between two of the posts.

With the above, and other objects in view, which will appear as the description progresses, the invention resides in the novel construction and combination of parts hereinafter fully described and claimed.

In the accompanying drawings there has been illustrated a simple and preferred form of the device, and in which drawings,

Figure 1 is a perspective view of the improved device. Fig. 2 is a detail view of the mechanism provided for upon one of the posts D. Fig. 3 is an elevation of the posts forming the delivery end of the device. Fig. 4 is a similar view of the receiving end of the device.

The device contemplates the employment of end supports or stations and intermediate posts. The end supports are positioned adjacent what may be termed the delivering station or the point where the mail is placed within or collected from a suitable traveling box or receptacle and forwarded to the opposite post, which is located at the receiving station. The posts adjacent the delivering station comprise a pair of upright members designated by the letters A and A′. These posts are connected through the medium of a suitable bar as clearly illustrated in Fig. 3 of the drawings. The posts are each further provided with angularly arranged braces C. The receiving station also comprises a pair of vertical posts B and B′, the same being arranged in spaced relation to each other and being suitably connected at their tops. The said posts are also provided with brace members C′ so that both the delivery and receiving stations are sustained effectively rigid.

The letter D designates the intermediate posts. Any number of the said posts D may be employed, and each of these posts is of a greater height than that of the receiving or delivery stations. The posts D are arranged a suitable distance away from each other and away from the stations. The posts D are each provided with upper and lower right angularly arranged arms 2 and 3. The arms 2 are adapted to support a substantially J-shaped bracket 15. The straight arm of the said bracket projects a suitable distance above the offset or arm 2 and is bent upon itself as at 17 to provide a housing or support for a pulley 4. Secured to the said housing and to the lower arm 3 of the post D is an outwardly curved member 16, the lower portion of which being straight to provide for the pivotal connection therewith of a pulley 5, the opposite end of the said pulley being supported in the vertically disposed portion of an angularly arranged member 18, the same having its upper extremity connected with the post D.

The numeral 1 designates a trolley wire. This wire is secured to both the receiving and delivery stations and is connected with the lower or offset portion of the J-shaped brackets 15. The members comprising the receiving post have rotatably mounted therebetween a sheave wheel 6 and the delivery station is also provided with a similar pivoted sheave wheel 7.

The numeral 8 designates an endless cable, the same adapted to be received within the sheave wheels 6 and 7 and to also engage with the pulleys 4 and 5 upon the posts D. Connected with the shaft of the sheave wheel 6 is a toothed wheel 9, the latter adapted to coöperate with a larger toothed wheel 10. This toothed wheel 10 is pivotally connected to one of the posts of the receiving station and the said wheel is provided with a handle 11.

The numeral 12 designates the traveling box or conveyer. The box is provided with

a suitable door whereby mail or other matter may be positioned therein or removed therefrom. It is to be understood, of course, that the door is provided with a suitable lock and that access to the box cannot be obtained by other than those holding the proper key. The box 12 has its outer side connected in any desired manner to the lower flight 13 of the endless cable 8. Connected to the top of the box adjacent the opposite ends thereof is a pair of upstanding members 14, the same having their upper extremities bent in the form of a gooseneck, and between the said members 18 and the gooseneck thereof are pivotally connected suitable guide wheels 20, the latter being adapted to travel upon the trolley wire 1 when the endless cable is operated.

From the above description taken in connection with the accompanying drawings, it will be noted that the goosenecks of the members 14 effectively sustain the guide wheels 20 upon the trolley wire 1. It will be further noted by reference to Fig. 1 of the drawings, that the trolley wire 1 between the posts D as well as the lower flight 13 of the endless cable are sufficiently slack to allow both of the said elements to be of a substantially bow shape and it will be noted that when the toothed wheel 10 is rotated, the box or conveyer 12 will be lifted from, say the receiving station, to the first post D. When the said conveyer passes the post D it will, owing to its weight, travel by gravity a distance substantially equaling half of the length of the cable and trolley wire between the first and second posts D, and this operation is continued until the box reaches the last intermediate post D. The trolley wire as well as the flights of the endless cable are inclined over the posts D toward both the delivery and receiving station and by this arrangement the box 12 will travel farther by gravity upon the inclined trolley wire toward either the delivery or receiving stations. It is, of course, obvious that the handle 11 is at all times operated, but it will be apparent that the exertion of the operator is reduced to a minimum.

Having thus fully described the invention, what we claim as new is:—

1. In a device for the purpose set forth, a delivery post and a receiving post, a plurality of intermediate posts of a greater height than the delivery and receiving posts, offset arms upon each of the intermediate posts, pulleys upon said arms, an endless conveyer connected with the receiving and delivery posts and inclined upwardly toward the adjacent intermediate posts, the said conveyer engaging the pulleys upon the intermediate posts and having their lower flights sagging toward their centers between the intermediate posts, a trolley wire connecting all of the posts, said trolley wire being arranged at an angle from the delivery and receiving posts to the intermediate posts and having its central portion between the intermediate posts sagging, a carrier, rollers upon the carrier mounted upon the trolley wire, said carrier having a connection with the lower flight of the endless conveyer, and means for moving the conveyer.

2. In a device for the purpose set forth, a delivery post, a pulley upon the post, a handle for rotating the pulley, a delivery post, a pulley for the delivery post, an endless cable connecting the pulleys of both of these posts, intermediate posts of greater height than the first named posts, offset spaced arms upon the intermediate posts, pulleys upon these offset arms adapted to be engaged by the endless conveyer, J-shaped members connected with the upper arms of each of the intermediate posts, a cable connected with the end posts and with the J-shaped members of the intermediate posts, said cable being taut between the end intermediate posts and the end posts, a yoke member connecting the pulleys upon the arms, a yoke continuation between the pulleys and the posts and arranged at an inclination thereto, a carrier having its top provided with spaced pulleys adapted to be positioned upon the cable, and a connection between the lower flight of the endless conveyer and the carrier.

In testimony whereof we affix our signatures in presence of two witnesses.

JOHN F. ERICKSON.
MILTON M. WOODWARD.

Witnesses:
JOHN V. BERENS,
CLYDE DIGGLES.