To all whom it may concern:

Be it known that we, IRA B. CLAYTON and NEALY MOORE, citizens of the United States, residing at Cooper, in the county of Delta and State of Texas, have invented new and useful Improvements in Rural-Mail-Delivery Systems, of which the following is a specification.

This invention relates to improvements in rural mail delivery systems, proposing an apparatus which is designed to furnish service for two or more families residing at different points along a road, for instance, a private way, extending at an angle from the road which is traveled by the mail carrier, and which is operable to make separate collections from the stations along the branch road and to convey the mail to the station upon the main road at which said mail will be taken by the carrier, and to make separate deposits of the mail left by the carrier at the respective stations along the branch road.

The principal object of the invention is to provide a simply constructed, inexpensive, durable and reliable apparatus for furnishing mail delivery service of the character indicated.

An embodiment of the invention is illustrated in the accompanying drawings, wherein:

Figure 1 is a diagram showing a system in accordance with the invention, and which includes three mail deposit and delivery stations on the branch road; Fig. 2 is a detail sectional view taken longitudinally of the mail receptacles; Fig. 3 is a detail sectional view taken transversely of said receptacles; and Fig. 4 is a detail perspective view of the box or cradle for each detachable receptacle of the apparatus.

Similar characters of reference designate corresponding parts throughout the several views.

In the embodiment disclosed, there are three stations along the branch road served by the apparatus for the deposit of mail to be conveyed to the main station at the main road or for the reception of mail conveyed from said main station.

The invention includes within its scope a system which is constructed to serve only two families on the branch road as well as systems which are constructed to serve more than three families, the number of stations which can be served by the apparatus being, however, limited by practical conditions.

Each station of the branch road includes in its equipment a box in which the mail is deposited. Thus, in the embodiment shown, there are three stations A, B and C, and the respective boxes for these stations are shown at a, b and c. The station A is most distant from the main road whereas is located the main station indicated generally as D. The mail box a included in the equipment of the station most distant from the main station, in this case the station A, is permanently mounted upon a suspended truck 1 provided with grooved wheels whereby it travels upon an over-head rail 2 supported by brackets 3 from posts 4 arranged at proper intervals.

The mail box a is propelled in either direction along the rail 2 by mechanism which may conveniently consist of a cable 5 operated by a windlass 6 located at the station A, the ends of said cable being fastened to opposite ends of the truck 1 and the cable being trained over sheaves 7 at the station A and over a sheave 8 at the main station D. Obviously, by operating the windlass in either direction, the cable will move the box a in a corresponding direction along the road 2.

The support for the box a consists of the truck 1, as above explained. The boxes b and c are, however, not provided with trucks and they are not permanently suspended from the rod 2, as is the box a. Included in the equipment of the stations B and C are chute-like cradles 9 which are open and somewhat flared at their front ends and which have a slight forward and downward inclination. The cradles 9 are each suitably supported upon a skeleton tower or other appropriate form of support 10 and the boxes b and c normally rest in said cradles.

The boxes b and c are each provided with upwardly projecting alining eyes or rings 11. The rings 11 on the box b are engaged by a hook 12 carried by the box a and the 100
rings 11 of the box c are engaged by a hook 12 carried by the box b. The hooks 12 and 13 are of similar construction, in each instance being of approximate L-shape and having an engaging portion which extends under and parallel to the bottom of the box by which the hook is carried and is formed with notches or depressions 14. The cradle 9 for the box b has its bottom formed with a longitudinal slot extending from end to end thereof through which the hook 13 projects when the box b occupies or is moving into or from said cradle. The boxes b and c are never taken from the cradles, except during and as a part of the operation of the system.

The operation is as follows: At some agreed time, all the boxes are to be carried to the main station D in order that such mail as has been put in said boxes from time to time may be collected by the carrier. The delivery of the boxes to the station D is effected by an operator at the station A who turns the windlass in a direction to cause the movement of the box a toward the station D. In the course of the movement of the box a, the hook 12 thereof engages through the rings 11 of the box b and lifts said box b from the cradle 9 which it normally occupies. Thereafter, the box b travels with the box a. The box b, in turn, picks up the box c, the hook 13 of the box b engaging through the eyes 11 of the box c and removing the box c from the cradle which it normally occupies in the same manner that the box c previously removed the box b. At the completion of these operations, it will be seen that the box b hangs from the box a and the box c hangs from the box b. The three boxes then move as a unit toward the station D where they are accessible to the carrier. When the mail carrier reaches the station D he collects the out-going mail from the boxes a, b and c and deposits in said boxes any mail which he may have for the respective stations which said boxes serve. At an agreed time, the boxes are restored to their normal positions in order that the parties may receive their mail. This is accomplished by an operator at the station A who operates the windlass to cause a movement of the box a from the station D to the station A. During the first portion of this movement, the boxes a, b and c move together. The box c, however, ultimately enters its cradle 9, its entry being facilitated by the flaring outline of the mouth of said cradle. The base of the cradle 9 being inclined, acts as a cam, and as the movement of the box c along said base continues raises said box whereby to free it from the hook 13 of the box b, as is clearly shown in Fig. 2. Thereafter the boxes a and b move together along the rail 2 until the box b encounters its cradle 9, at which time it comes to rest in said cradle and by said cradle is disconnected from the box a in the same manner that the box c was previously disconnected from the box b. Thereafter, the box a continues its movement until it reaches the station A. The rings 11 of the box b and c during the periods when said boxes are suspended, the former from the hook 12 and the latter from the hook 13, engage in the notches 14 of said hooks, and by virtue of such engagement accidental displacement of the boxes b and c from the respective hooks 12 and 13 is prevented.

Having fully described our invention, we claim:

1. In a rural mail delivery system, a mail box, means for moving the box along an elevated path and between two end stations, a fixed cradle located at a third station intermediate said end stations and having an open end, a second mail box normally resting on said cradle and movable with and from the open end thereof and means for including cooperating elements provided on said mail boxes for causing the suspension of the second mail box from the first mail box during the movement of the latter between said intermediate stations and one of said end stations.

2. In a rural mail delivery system, a mail box, means for moving the box along an elevated path and between two end stations, a fixed cradle located at a third station intermediate said first-named stations and having an open front end, a second mail box normally resting on said cradle and movable into and from the open end thereof, a forwardly projecting hook carried by the first mail box and eyes provided on the second mail box for engagement by said hook in the course of the forward travel of said first mail box.

3. In a rural mail delivery system, a mail box, means for moving the box along an elevated path and between two end stations, fixed cradles located at other stations intermediate said end stations and having open front ends, other mail boxes normally resting on said respective cradles and movable into and from the open ends thereof, forwardly projecting hooks carried by said first-named mail box and by all except the last of said other mail boxes, and eyes provided on all of said mail boxes except said first-named mail box for engagement by the hooks of the immediately preceding mail boxes, all of the cradles except the last one having their bottoms slotted to receive the hooks of the mail boxes which said cradles normally support.

4. In a rural mail delivery system, a mail box, means for moving the box along an
elevated path and between two end stations, a fixed cradle located at a third station intermediate said first-named stations and having an open front end, a second mail box normally resting on said cradle and movable into and from the open end thereof, a forwardly projecting hook carried by the first mail box and eyes provided on the second mail box for engagement by said hook in the course of the forward travel of said first mail box, said cradle having its open end flared and having its bottom inclined at a slight angle forwardly and downwardly.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

IRA B. CLAYTON.
NEALY MOORE.

Witnesses:
T. L. GILBERT,
W. E. PRATT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents.
Washington, D.C."