W. T. BUCK & G. C. WILLIS.

MAIL CARRIER.

APPLICATION FILED FEB. 13, 1909.

943,136.

Patented Dec. 14, 1909.

3 SHEETS—SHEET 1.

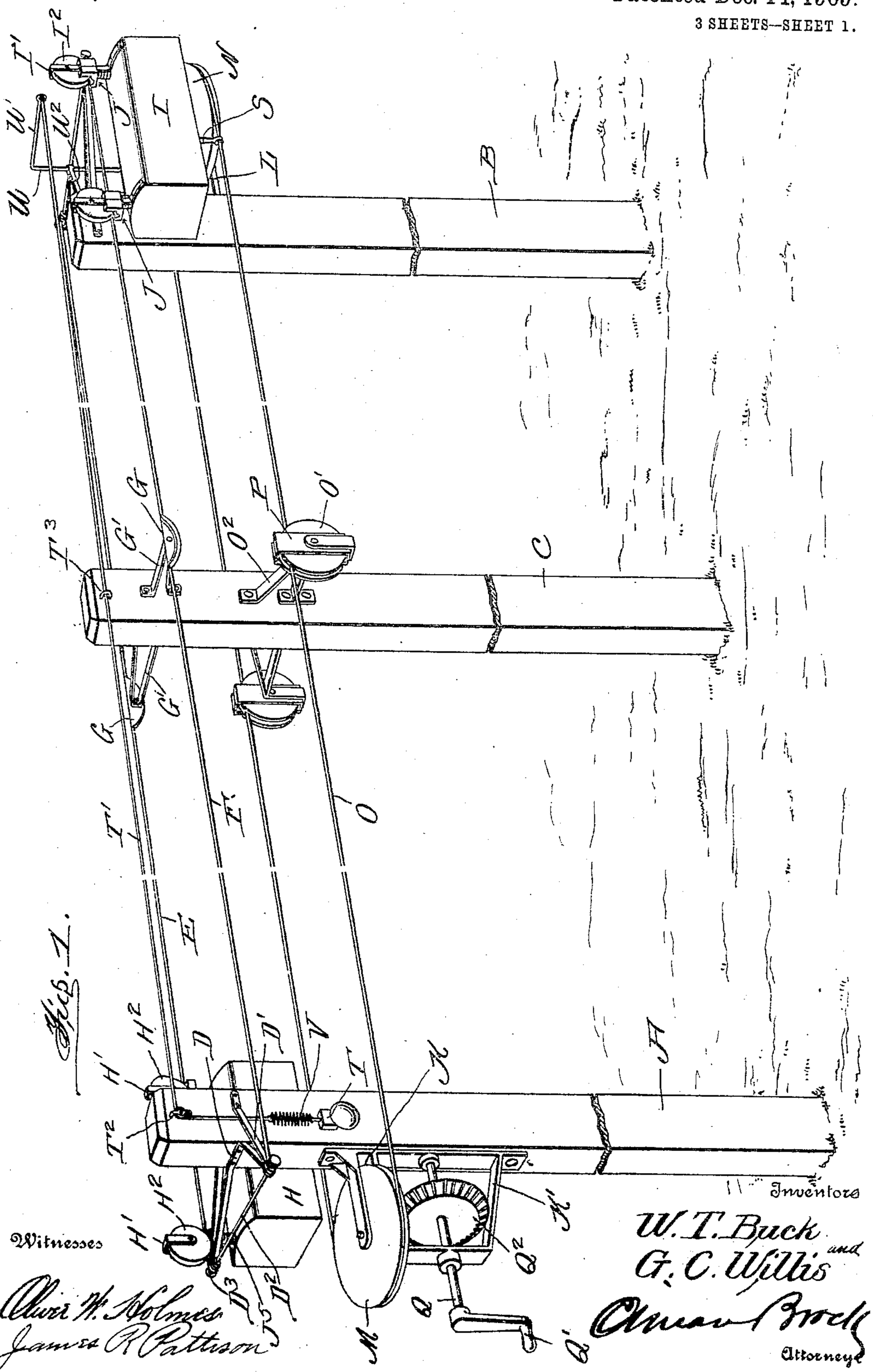

Fig. 1.

Witnesses

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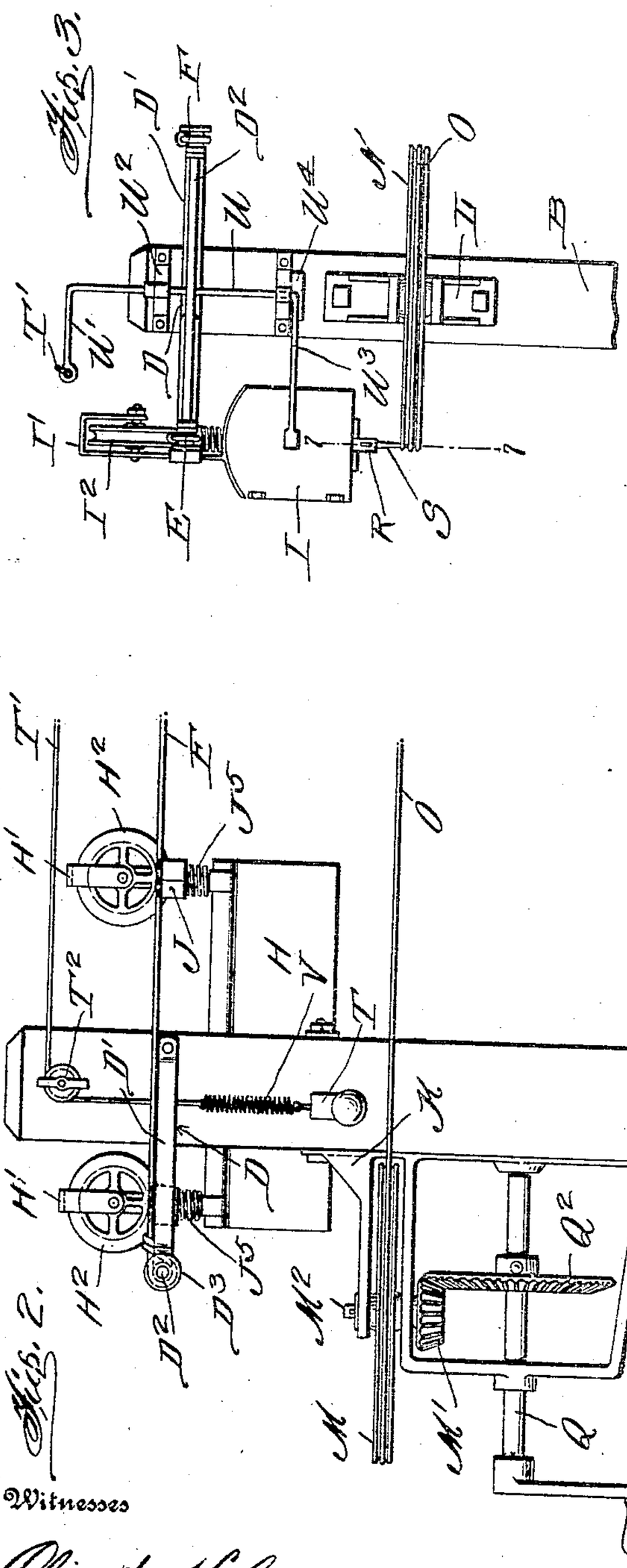

Fig. 3.

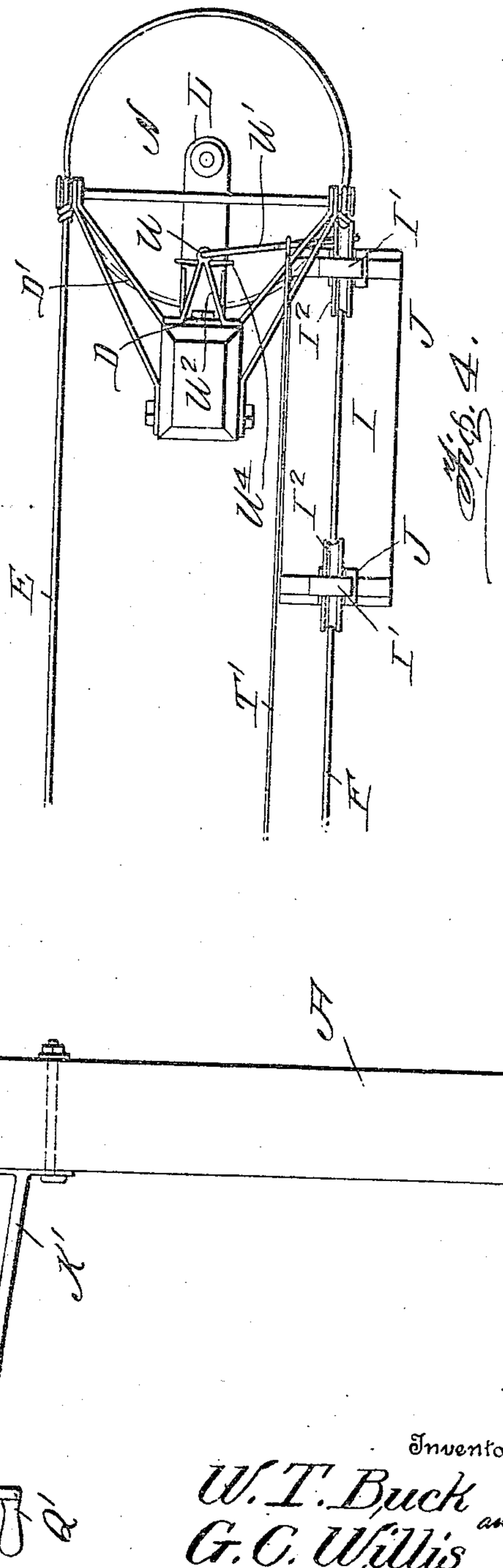

Fig. 4.

Fig. 2.

Witnesses

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3 SHEETS—SHEET 3.

Fig. 4.

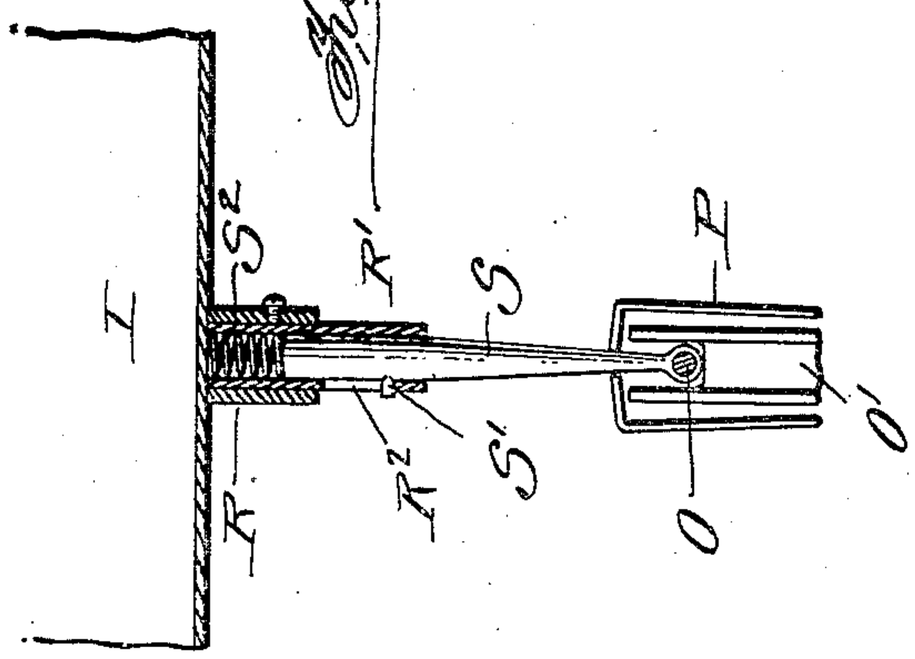

Fig. 5.

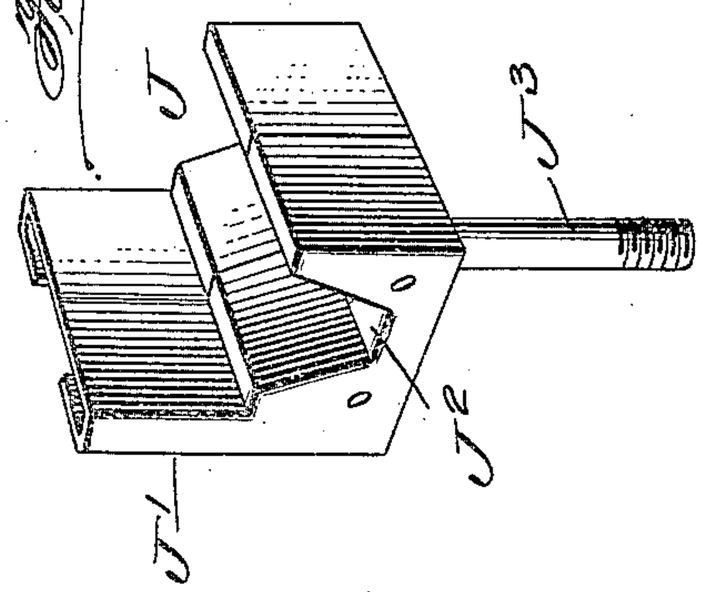

Fig. 6.

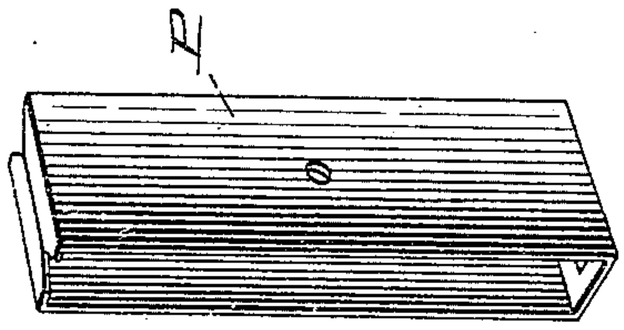

Fig. 8.

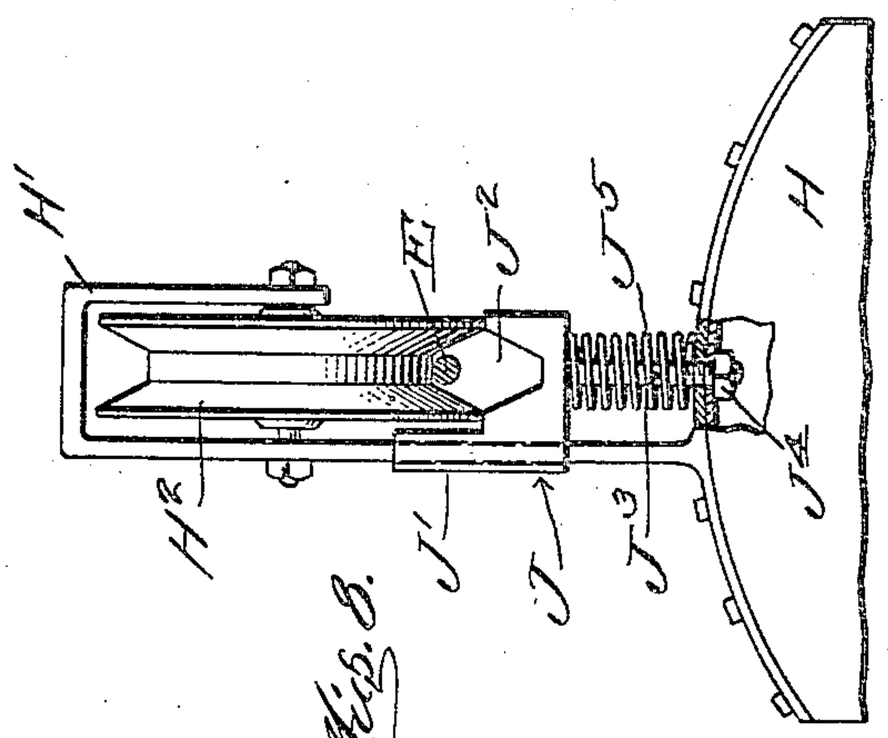

Fig. 7.

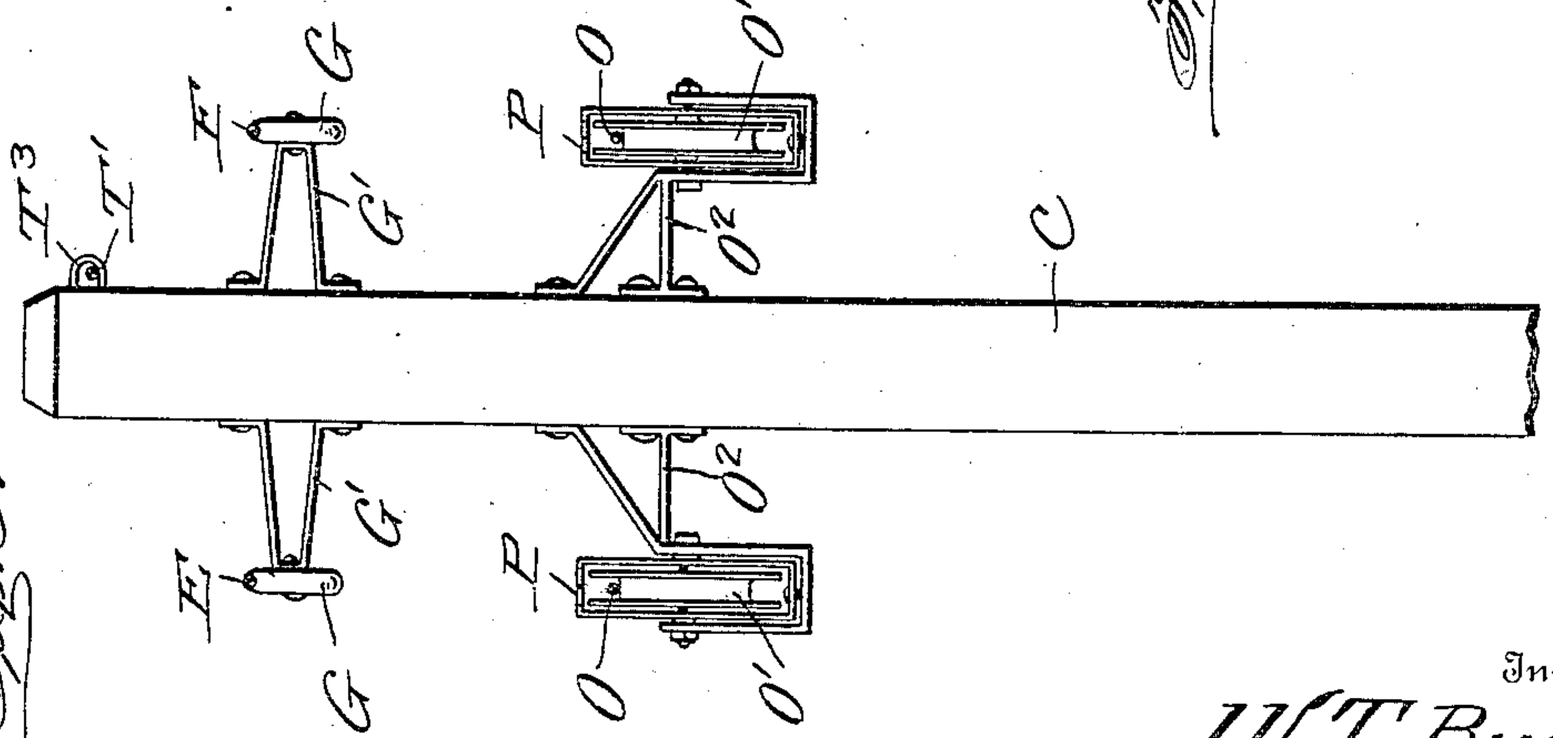

Fig. 5.

Witnesses

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UNITED STATES PATENT OFFICE.

WILLIAM T. BUCK AND GROVER C. WILLIS, OF VLIETS, KANSAS; SAID WILLIS ASSIGNOR TO SAID BUCK.

MAIL-CARRIER.

943,136. Specification of Letters Patent. Patented Dec. 14, 1909.

Application filed February 13, 1909. Serial No. 477,703.

To all whom it may concern:

Be it known that we, WILLIAM T. BUCK and GROVER C. WILLIS, citizens of the United States, residing at Vliets, county of Marshall, and State of Kansas, have invented a new and useful Improvement in Mail-Carriers, of which the following is a specification.

This invention relates to mail carriers especially adapted for use in connection for rural delivery routes where the point of delivery is located at a distance from the residences. The object being to provide a mail carrier which is so constructed that the mail can be carried from the house to the point of collection or be brought from the point of collection to the house by simply operating the crank.

A further object of the invention is to provide an apparatus in which a pair of mail carriers are used, one of the carriers being normally retained at the point of delivery and the other at a point adjacent the house whereby mail can be carried to the point of delivery and collection and at the same time mail can be carried from this point to the house.

A still further object of the invention is to provide a double cable track-way for supporting the mail carriers whereby all danger of the carriers becoming entangled with one another is prevented.

A still further object of the invention is to provide an operating cable which is mounted on pulleys carried by the end posts and is supported by pulleys arranged on the intermediate posts.

A further object of the invention is to provide the carriers with novel means for preventing the wheels from jumping off of the cable track.

A further object of the invention is to provide novel means for connecting the carriers with the operating cable.

A still further object of the invention is to provide the supporting pulleys with yielding spring covers which are so constructed that they will give and allow the arm carried by the carrier to pass between the same.

A further object of the invention is to provide a signal in connection with the apparatus which is operated by a crank arm mounted on the post, at the point of delivery and collection, said crank arm extending outwardly in the path of the carrier so as to be normally held over the door of the same whereby it will be necessary for the person delivering the mail or collecting the same to operate the crank arm in order to open the door of the carrier whereby the signal will be operated so as to notify the occupants of the house that mail has been placed in the carrier or removed from the same.

With these objects in view, the invention consists of the novel features of construction, combination and arrangement of parts hereinafter fully described, pointed out in the claims and shown in the accompanying drawings, in which,

Figure 1 is a perspective view of our improved apparatus embodying our invention. Fig. 2 is a side elevation of the end post arranged adjacent the house showing the carrier in its normal position. Fig. 3 is an end elevation of the end post arranged at the point of delivery and collection showing the carrier and the crank arm for operating the signal in its normal position. Fig. 4 is a top plan view of Fig. 3. Fig. 5 is an end view of one of the intermediate supporting posts, the operating cable and cable track-way being shown in section. Fig. 6 is a perspective of the spring cover for inclosing the supporting pulley. Fig. 7 is an enlarged section taken on the line 7—7 of Fig. 3. Fig. 8 is an end view of the hanger and a portion of the carrier showing the carrier partly broken away. Fig. 9 is a perspective view of the member for preventing the grooved supporting wheel from jumping the cable track.

In carrying out our improved invention we employ end posts A and B and a number of intermediate posts C which vary in number in accordance with the distance to be covered. The post A is arranged close to the farm house and the post B is arranged on the main road at the point of delivery and collection of the rural routes.

Secured on the ends of the posts A and B adjacent their upper ends are brackets D formed with diverging arms D′ connected together by rods D^2 over the ends of which are arranged thimbles D^3. The respective

thimbles of the rods being connected together by cable tracks E and F which are supported by blocks G carried by brackets G′ extending outwardly from the opposite sides of the intermediate posts C, said blocks being substantially semi-circular in shape having a curved groove formed in their outer faces in which the cable tracks E and F are adapted to fit said groove extending into the upper edges adjacent their ends whereby an even track-way will be formed by said blocks so as to allow the supporting wheels of the carriers to pass over the same smoothly as will be hereinafter fully described.

Arranged on each cable track on grooved wheels H^2 and I^2 carried by hangers H′ and I′ are supported the carriers H and I which are rectangular in shape and are provided with hinged doors at one end through which the mail is placed within the same or removed as the case may be. It will be seen that by this arrangement each carrier is provided with a separate track which extends out beyond the end posts so as to allow the carrier to pass the post in order to facilitate the mail being placed within the same or taken out and it will also be seen that by having the hangers arranged at each end of the carriers all danger of the carriers tilting is prevented.

For preventing the grooved wheels from jumping the cable track in case of snow or ice clinging to the same we employ retaining members J which are provided with guide ways J′ which work over the vertical portions of the hangers and are provided with grooved portions J^2 so as to allow the track way a certain amount of play, said members being provided with a depending stem J^3 which works within an opening formed in the top of the carrier and is secured therein by a nut J^4 working on the threaded end of the stem. The retaining members are held against the flanges of the grooved wheel by coil springs J^5 surrounding the stems of the retaining members which allows the same to work up and down so that when the member strikes the supporting blocks G they will give and it will be seen that by this arrangement all danger of the grooved wheels jumping the track is prevented.

Arranged on the ends of the posts A and B under the brackets D are brackets K and L carrying horizontal grooved pulleys O for operating the carriers, said cable being supported by grooved wheels O′ carried by brackets O^2 extending outwardly from the sides of the intermediate posts C so as to prevent the same from sagging. The brackets O^2 are provided with spring frames P which surrounds the grooved pulleys O′. The top of the frames P being divided centrally and having oblique edges so as to allow the sides of the frame to be spread apart when the member passes between the same for securing the cable to the carrier as will be hereinafter fully described.

The bracket K is provided with the frame portion K′ in which is mounted a horizontal shaft Q provided with a crank Q′ at its outer end for operating the same and with a bevel gear Q^2 which meshes with a bevel gear M′ carried by a shaft M^2 on which the grooved pulley M is mounted whereby the endless cable will be operated when the crank is turned.

The carriers have castings R secured to the bottoms centrally in which are secured sleeves R′ by screws said sleeves being provided with longitudinal slots R^2 in which extend laterally projecting pins S′ of arms S which are slidably mounted within the sleeves and are provided with eyes at their ends which are secured to the operating cable at the desired points, said arms being normally held in an extended position by coil springs S^2 arranged within the sleeves at the ends of the arms so as to allow the arms to move upwardly in order to ride over the grooved pulleys O′. These arms are secured to the endless cable at such points that one of the carriers will be held at the end of one of the tracks and the other carrier at the opposite end of the other track or vice versa whereby one of the carriers will be always at the point of delivery or collection and the other at the post adjacent the house.

In connection with this apparatus we use a signaling device which comprises a bell T arranged on the post A having a wire T′ connected thereto which passes over a pulley T^2 arranged on the post A and through guides T^3 arranged upon the intermediate post C and the free end is connected to an arm U′ on a shaft U which is mounted in brackets U^2 extending outwardly from the post B, said shaft being provided with a crank arm U^3 at its lower end which is normally held outwardly as shown in Figs. 3 and 4, in the path of the carrier so that it will be engaged by the same when the carrier reaches the end of its travel. The lower bracket U^2 is provided with a flat portion U^4 forming a stop for the crank arm U^3 and it will be seen that the crank arm U^3 will be held from turning all the way around and as the carrier strikes the same the door of the carrier will be held closed so that it will be impossible to remove the mail from the same or place any therein without swinging the crank and it will be seen that as the crank is swung the wire will be drawn so as to cause the bell to ring and notify the occupants of the house that mail has been placed within the carrier. As the crank arm is swung over it is thrown into position on the opposite side so that it will be engaged by the other carrier when it is brought to the end of the track and it will be seen

that by operating the crank arm Q′ of the shaft Q first in one direction and then in the other the carriers will be moved up and down along their respective tracks. We employ a spring V for holding the bell wire taut and at the same time it allows the same to give to a certain extent in order that the crank U′ may be passed over the dead center.

It will be seen that by this arrangement the crank arm U³ forms a stop for the carrier to a certain extent so as to prevent the same from passing over the end of the track and it will be seen that by employing the spring V the arm will be held at a tension so as to form a substantially spring buffer.

From the foregoing description it will be seen that we have provided a mail carrier which is exceedingly simple and cheap in construction and one which can be readily installed by the ordinary form and it is especially adapted to be used by those who are located at a considerable distance from the rural delivery route which will enable the same to have their mail delivered at their houses by simply operating a crank thereby saving a great deal of trouble and time of having to walk perhaps a half mile to the main road to remove their mail from the box as is the case with farmers now in the country.

What we claim is:—

1. An apparatus of the kind described comprising supporting posts horizontal parallel tracks carried by said posts, carriers provided with wheels mounted on said tracks, an endless cable mounted on pulleys supported by said posts and spring actuated arms carried by the respective carriers connected to said endless cable and means for operating said cable.

2. An apparatus of the kind described comprising supporting posts parallel cable tracks supported by said posts, brackets secured to said posts for carrying grooved pulleys, an endless cable mounted on said grooved pulleys in vertical alinement with said cable tracks, carriers provided with grooved wheels mounted on said cable tracks, and spring actuated arms carried by said carriers connected to the respective lead ways of said endless cable whereby said carriers will move in opposite directions when said cable is operated.

3. An apparatus of the kind described comprising spaced cable tracks, an endless cable arranged under said cable tracks in vertical alinement therewith, carriers provided with wheels mounted on said tracks, spring actuated arms carried by said carriers connected to said endless cable, and means for operating said endless cable whereby said carriers will be moved in opposite directions upon the respective tracks.

4. An apparatus of the kind described comprising posts having parallel cable tracks arranged upon opposite sides, carriers provided with wheels mounted on said tracks, said carriers being provided with doors and a shaft provided with a crank arm mounted on one of the posts adapted to be normally held in the path of said carriers, said shaft being provided with a crank and a bell connected to said crank by the cable whereby said bell will be sounded when the crank arm is operated for the purpose set forth.

5. An apparatus of the kind described comprising terminal and intermediate supporting posts, cable tracks carried by said posts upon opposite sides, carriers having hangers provided with wheels mounted on said tracks, an endless cable supported by said posts under said cable tracks, arms carried by the carriers connected to said cable and means for operating said endless cable so as to cause the carriers to travel in opposite directions upon the respective tracks.

6. An apparatus of the kind described comprising terminal and intermediate posts, brackets carried by the terminal posts, cable tracks supported by said brackets, brackets carried by the intermediate posts provided with cable supporting blocks, carriers provided with wheels mounted on said tracks and an endless cable supported by pulleys carried by said posts connected to said carriers by a spring actuated arm whereby said carriers can be moved in opposite directions.

7. An apparatus of the kind described comprising terminal and intermediate posts, brackets extending outwardly from the terminal posts, cable tracks supported by said brackets, cable supporting blocks carried by the intermediate posts, brackets secured to the terminal posts carrying grooved pulleys, an endless cable mounted on said pulleys, pulleys carried by brackets extending outwardly from the intermediate posts for supporting said endless cable, the last mentioned pulleys being provided with supporting frames and a spring actuated arm extending outwardly from said carriers connected to said endless cable whereby said carriers can be operated in opposite directions.

8. An apparatus of the kind described comprising terminal and intermediate posts parallel tracks carried by said posts, an endless cable mounted on pulleys carried by said posts in vertical alinement with the tracks, a carrier provided with wheels mounted upon the respective tracks, and a bell carried by one of said terminal posts connected to a crank carried by the other terminal post whereby said bell will be sounded when said crank is operated so as to throw the same out of the path of the carrier.

9. An apparatus of the kind described comprising terminal and intermediate posts parallel track ways carried by the posts, carriers provided with hangers carrying

grooved wheels mounted on said track ways, spring actuated retaining blocks carried by said hangers, and an endless cable carried by the posts for operating said carriers in opposite directions.

10. An apparatus of the kind described comprising a supporting post having cable track-ways arranged upon opposite sides, a carrier provided with wheels mounted on each of said tracks, retaining members carried by the carriers and an endless cable supported by said posts connected to said carriers whereby said carriers can be operated in opposite directions.

11. An apparatus of the kind described comprising terminal and intermediate posts of parallel cable tracks supported by said posts, a carrier provided with hangers carrying grooved wheels mounted on each of said tracks, said carriers being provided with doors, a bell carried by one of said terminal posts, a shaft mounted on the other terminal post, provided with a crank arm adapted to be normally held in the path of said carriers, a wire connected to said bell having its free end connected to a crank formed on the upper end of said shaft and an endless cable supported by said posts and connected to said carriers whereby said carriers can be moved in opposite directions.

12. An apparatus of the kind described comprising terminal and intermediate posts parallel tracks supported by said posts, brackets carried by the terminal posts horizontal pulleys arranged in said brackets, an endless cable mounted on said pulleys, means for operating one of said pulleys and carriers mounted on the respective tracks connected to the respective lead ways of said endless cable.

13. An apparatus of the kind described comprising parallel cable tracks, carriers provided with a grooved wheel mounted on said tracks, means for operating said carriers in opposite directions, a vertical shaft mounted in brackets on one of the terminal posts, provided with a crank arm normally held in the path of the said carriers, a crank formed on the upper end of said shaft, a wire connected to said crank, and a bell arranged on the other terminal post connected to said wire whereby said bell will be sounded when said crank is thrown out of the path of said carriers.

14. An apparatus of the kind described comprising terminal and intermediate posts, of brackets arranged on the ends of said terminal posts connected together by rods cable tracks connecting the ends of the respective rods, brackets arranged on the intermediate posts carrying semi-circular blocks for supporting said tracks, a carrier arranged on each of said tracks, spring actuated retaining members carried by each of said carriers, co-acting with said supporting blocks and an endless cable connected to said carriers whereby said carriers can be moved upon the respective tracks in the opposite directions.

15. An apparatus of the kind described comprising terminal and intermediate posts, supporting parallel tracks, an endless cable mounted on pulleys carried by said posts in vertical alinement with said tracks, carriers provided with hangers having grooved wheels mounted on said tracks, each of said carriers being provided with hinged doors, spring actuated depending arms carried by said carriers connected to said endless cable and a crank for operating a bell carried by one of the terminal posts adapted to be normally held in the path of one of the carriers whereby it will be impossible to open the door of the carrier without operating the bell.

16. An apparatus of the kind described comprising terminal and intermediate posts supporting parallel tracks, brackets carried by said posts having horizontal grooved pulleys mounted therein, an endless cable mounted on said grooved pulleys a bevel gear carried by the shaft of one of said pulleys, a crank shaft provided with a bevel gear meshing with said bevel gear and carriers provided with hangers having grooved wheels mounted on the respective tracks, said hangers having depending spring actuated arms connected to the endless cable whereby said carriers can be moved up and down said tracks for operating said crank shaft.

17. An apparatus of the kind described comprising supporting posts carrying parallel cable tracks extending outwardly beyond the ends of said terminal posts, an endless cable carried by pulleys supported by said posts, the lead ways of said cable being in vertical alinement with said tracks, provided with grooved wheels mounted on the respective tracks, retaining blocks carried by said carriers, and depending spring actuated arms carried by the carriers connected to the respective lead ways of said endless cable whereby said carriers can be moved up and down said tracks by operating said cable.

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