

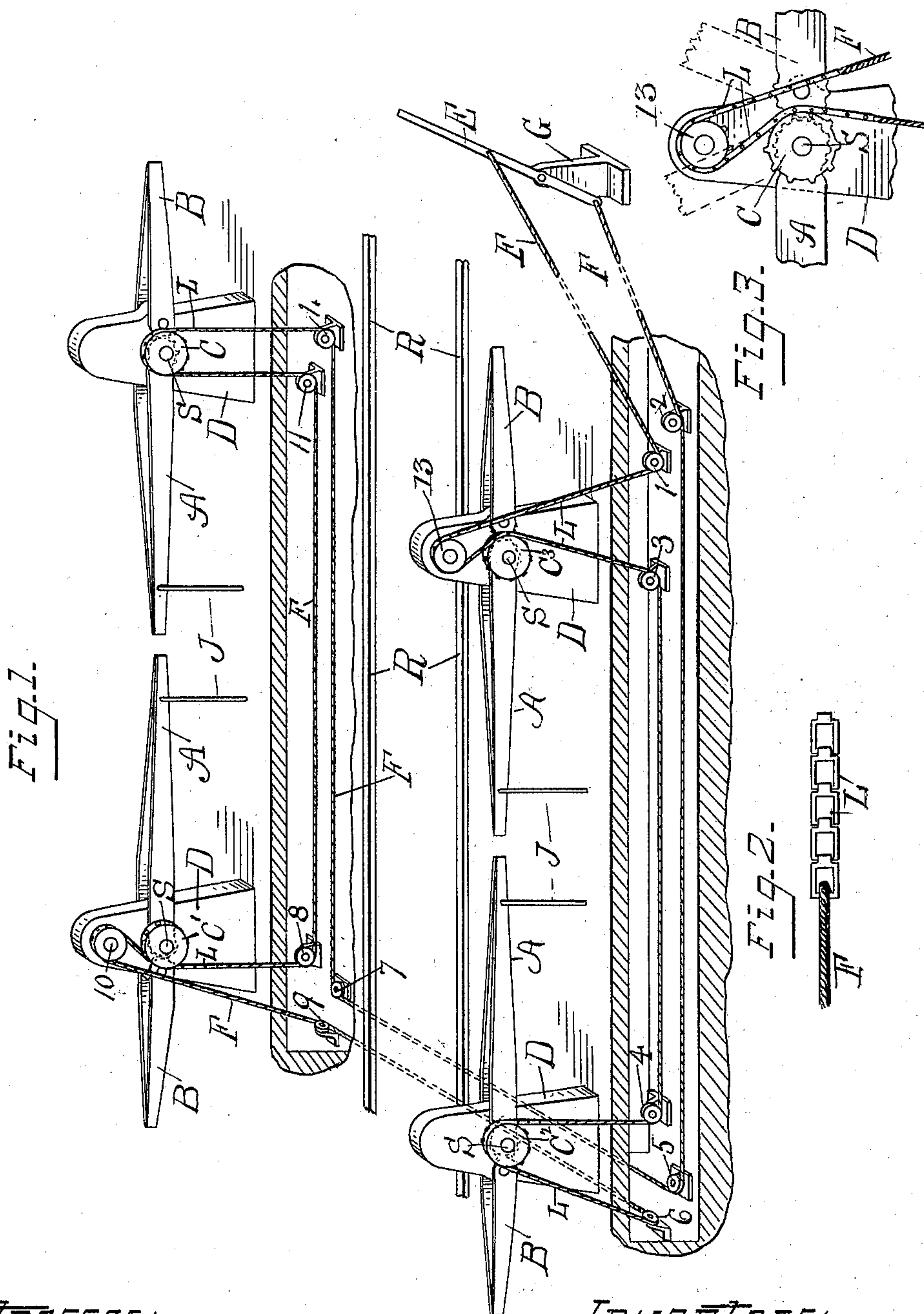
No. 625,740.

Patented May 30, 1899.

L. CARRIER & E. Z. CLOW.  
RAILWAY GATE.

(Application filed Dec. 30, 1898.)

(No Model.)



WITNESSES:

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# UNITED STATES PATENT OFFICE.

LYMAN CARRIER AND ESIC Z. CLOW, OF JOLIET, ILLINOIS.

## RAILWAY-GATE.

SPECIFICATION forming part of Letters Patent No. 625,740, dated May 30, 1899.

Application filed December 30, 1898. Serial No. 700,685. (No model.)

*To all whom it may concern:*

Be it known that we, LYMAN CARRIER and ESIC Z. CLOW, citizens of the United States of America, residing at Joliet, in the county of Will and State of Illinois, have invented certain new and useful Improvements in Railway-Gates, of which the following is a specification, reference being had therein to the accompanying drawings.

10 This invention relates to certain improvements in railway-gates for use in closing a street and sidewalk to travel while a railway-train is crossing them, and relates more particularly to the class of gates wherein a gate-arm is used to be elevated and lowered across the street and sidewalk, which improvements are fully set forth and explained in the following specification and claim, reference being had to the accompanying drawings, and  
15 the letters and figures of reference thereon, in which—

Figure 1 is a perspective view of the gates as they would appear let down across the roadway and sidewalk to close them to travel. Fig. 2 is a plan view of a short section of a link belt, having a section of a cable attached thereto; and Fig. 3 is a side view of the upper end of one of the posts and of the inner ends of a gate-bar and sidewalk-gate bar pivotally connected to said post and with each other and of a link belt for operating said gates, the broken lines showing the position of said gate-bars as they would appear raised to open the roadway and sidewalk to travel.

35 Referring to the drawings, A represents the four gate-arms, having their inner ends pivotally connected to the posts D near their upper ends by means of a short shaft S, having a sprocket-wheel C secured on its outer end, and provided near their outer ends with depending rod-supports J for maintaining them in a horizontal position when let down. B are sidewalk-gate arms having their inner ends pivotally connected to said posts near  
40 their upper end adjacent to the inner ends of the gate-arms A and connected therewith through the medium of segment-gears arranged, respectively, one on each inner end of said gate-arms A and B and in mesh with each other, as shown more particularly in

Fig. 3, so that when the gate-arms A are elevated and lowered they will simultaneously elevate and lower the sidewalk-gate arms B, as shown in broken lines in Fig. 3. F is a steel-wire cable for operating said gate-arms 55 by engaging the sprocket-wheels C of the gate-arms A, said cable having sections of a link belt L inserted where it engages said sprocket-wheels. Said cable is one continuous length and engages and operates all four 60 of the gate-arms simultaneously. The two ends of the cable attach to the lever E, one at either side of its fulcrum G, so that movement of said lever in either direction will turn the gate-arms either up or down. 65

Fig. 1 shows a pair of gate-arms placed one at either side of the railroad-track R and connected by the cable F, which is arranged to pass underneath said track, as shown in the broken lines. Said cable F has one end attached to the lower end of lever E and passes 70 from thence under pulleys 2 and 5, around pulley 7, under pulley 12, up over sprocket-wheel C, under pulleys 11 and 8, up over pulley 10, and in contact with sprocket-wheel C', 75 under pulleys 9 and 6, up over sprocket-wheel C<sup>2</sup>, under pulleys 4 and 3, up over pulley 13, and in contact with sprocket-wheel C<sup>3</sup>, under pulley 1 to lever E, to which it is attached between its fulcrum and outer end, 80 by means of which arrangement and connection with the gate-arms they may all be simultaneously turned either up or down by operating said lever forward and backward. The reverse position of said lever E from that 85 shown in Fig. 1 would raise all the gate-arms up, as shown in broken lines in Fig. 3.

The cable F, it will be observed, is arranged to pass under the roadway and railway, so as to be out of the way and be protected from 90 injury or interference of anything passing along the roadway or railway, as is shown in Fig. 1, the broken lines showing how the cable passes under the railway, so as to connect the gate-bars at either side of the railway, 95 the whole forming a very effective and durable system of gate-bars for such purpose.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is as follows, to wit:

The combination of the posts, D, gate-arms A, pivoted to said posts, sprocket-wheels C, C', C<sup>2</sup>, C<sup>3</sup> secured respectively on the shaft of gate-bars A, guide-pulleys 1 to 13, lever  
5 E, and single cable F passing about said sprocket-wheels and guide-pulleys, the extremities of said cable being secured to lever

E at opposite sides of its fulcrum substantially as described.

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Witnesses:

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