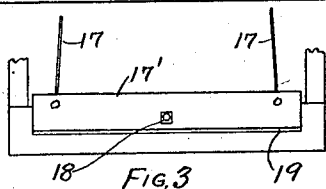
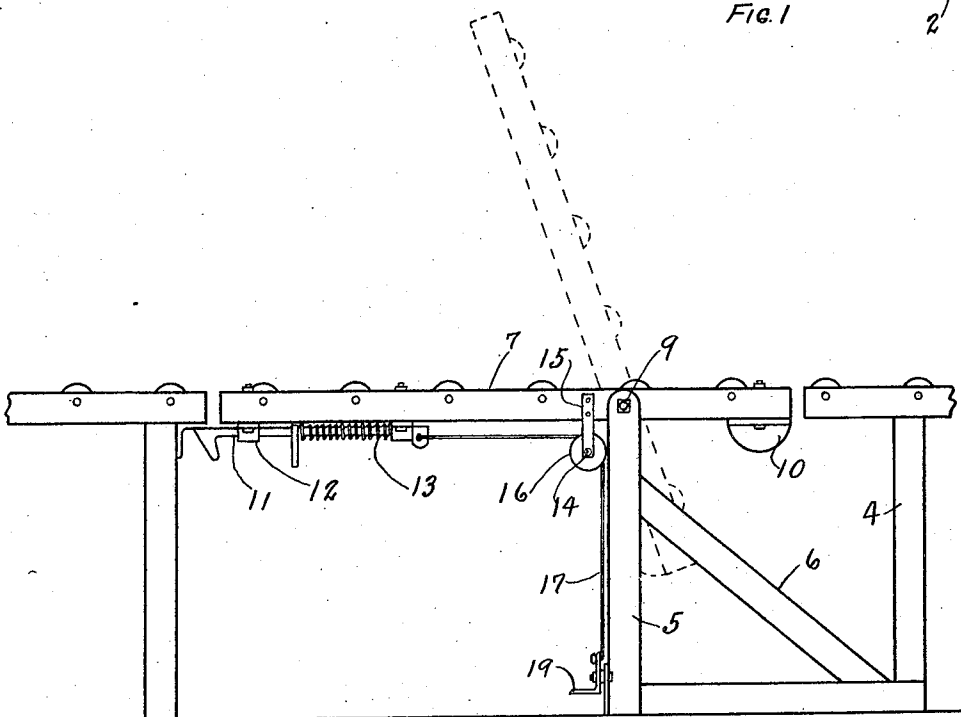
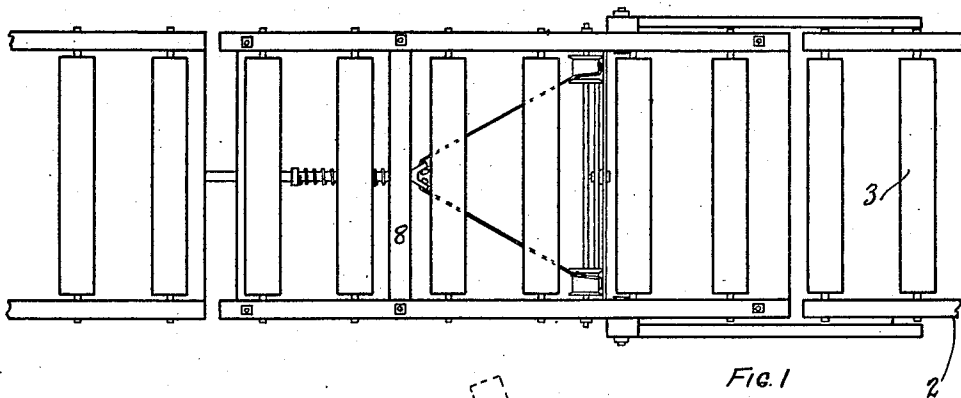


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GATE FOR GRAVITY CARRIERS.

APPLICATION FILED OCT. 29, 1918. RENEWED NOV. 30, 1921.

1,418,024.

Patented May 30, 1922.



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GATE FOR GRAVITY CARRIERS.

1,418,024.

Specification of Letters Patent. Patented May 30, 1922.

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To all whom it may concern:

Be it known that I, FRED A. RIDER, a citizen of the United States, resident of Endicott, county of Broome, State of New York, have invented certain new and useful Improvements in Gates for Gravity Carriers, of which the following is a specification.

In the operation of a long line gravity carrier in a warehouse or yard, it is often desirable to cross the line in moving articles from place to place and such crossing is found to be inconvenient, particularly where the carrier is raised above the ground or floor line. The object, therefore, of my present invention is to provide a gate section in the line so mounted that it can be easily moved to provide an unobstructed passage across the line through which trucks and packages of various kinds may be moved.

The invention consists generally in various constructions and combinations, all as hereinafter described and particularly pointed out in the claims.

In the accompanying drawings forming part of this specification,

Figure 1 is a plan view of a portion of a line gravity carrier with my invention applied thereto,

Figure 2 is a side elevation of the same,

Figure 3 is a detail view of the treadle device by means of which the locking latch of the gate is operated.

In the drawing, 2 represents the side rails of a gravity carrier of any particular or preferred construction, having anti-friction rollers 3 mounted therein. I have shown the carrier divided transversely to provide a gap or opening between the sections in which the gate which forms the subject matter of my invention is mounted. The standards 4 support the carrier rails and rollers and similar standards 5 are mounted on each side of the carrier and held by suitable braces 6 in an upright position. 7 represents the side rails of the gate, held in parallel relation by cross bars 8 and having bearings for rollers corresponding to those described with reference to the carrier sections. The gate is pivoted on the standards 5 by means of bolts 9 at one side of the transverse center of the gate, so that when it is raised to its upright position an unobstructed space will be formed between the standards 5 and the carrier section at the other end of the gate. The shorter section of the gate is provided with a counter-balance 10 of sufficient weight to

balance the longer section, which bridges the space between the standards 5 and the carrier section and normally this counter-balance tends to raise the gate to the dotted line position shown in Figure 2. A latch 11 is slidable in guides 12 on the underside of the gate and is normally projected beyond the end of the gate by a spring 13 and the end of said latch is beveled, so that when it strikes the cross bar of the carrier section when the gate descends it will be pressed back against the tension of said spring until it clears the carrier section, when the spring will again project it to engage the underside of the section and thereby lock the gate against upward movement. A shaft 14 is mounted in hangers 15 on said gate near the standards 5 and provided with pulleys 16 over which cables 17 pass to the latch 11. A treadle 17' is centrally pivoted at 18 near the base of the standards 5 and has its ends connected to the cables 17 and is provided with a horizontally projecting flange 19 in position to receive the foot of the operator to rock the treadle and disengage the latch from the carrier section. This treadle may be operated from either side of the carrier and when the latch is released the counter-balance will raise the gate to its open position. I prefer to mount the latch centrally on the gate and arrange the pulleys 16 at each end of the shaft 14, said pulleys having preferably comparatively wide faces to allow the angularly arranged cables to slide thereon and accommodate themselves to the different positions of the latch.

To close the passage and resume the use of the carrier, it is only necessary to swing the gate down until the latch engages the underside of the adjacent section, when the gate will be locked in alignment with the carrier sections and form a continuous carrier therewith.

I claim as my invention:

1. The combination, with a gravity carrier comprising sections having a transverse gap forming a passageway between them, of a carrier section pivotally supported intermediate to its ends between said sections, one end of said pivoted section having a counter-balance for tilting the other end of the section upwardly when the section is released, and means for normally locking said pivoted section in alignment with the other sections of the carrier.

2. The combination, with a gravity car-

rier sections having a transverse gap forming a passageway between them, of a pivoted section normally bridging the gap between said carrier sections, the pivot of said section being intermediate to one end and the middle portion thereof, the shorter end of said section having a counter-balance thereon and the opposite end thereof having means for locking said pivoted section against upward movement.

3. The combination, with a gravity carrier comprising fixed carrier sections having a transverse gap forming a passage-way between them, of a carrier section pivotally supported in said gap and normally bridging the same to form a continuation of the carrier, a counter-balance normally tending to tilt said pivoted section to an upright position and expose the opening across the carrier, a spring actuated latch device for normally locking said pivoted section in its horizontal position, and a treadle connected

with said latch device for tripping it to release said pivoted section.

4. The combination, with a gravity carrier having a transverse gap or opening therein, of a carrier section pivotally supported near one end in said gap and normally forming a horizontal continuation of the carrier, a weight normally tending to swing said pivoted section to an upright position, a spring-actuated latch for locking said pivoted section in its horizontal position, a treadle bar centrally pivoted near the ground line and adapted to be rocked from either side of the carrier, cables connecting said treadle bar with said spring-actuated latch, and sheaves supporting said cables.

In witness whereof, I have hereunto set my hand this 9 day of October, 1918.

FRED A. RIDER

Witness:

CHARLES P. KNIGHT.