

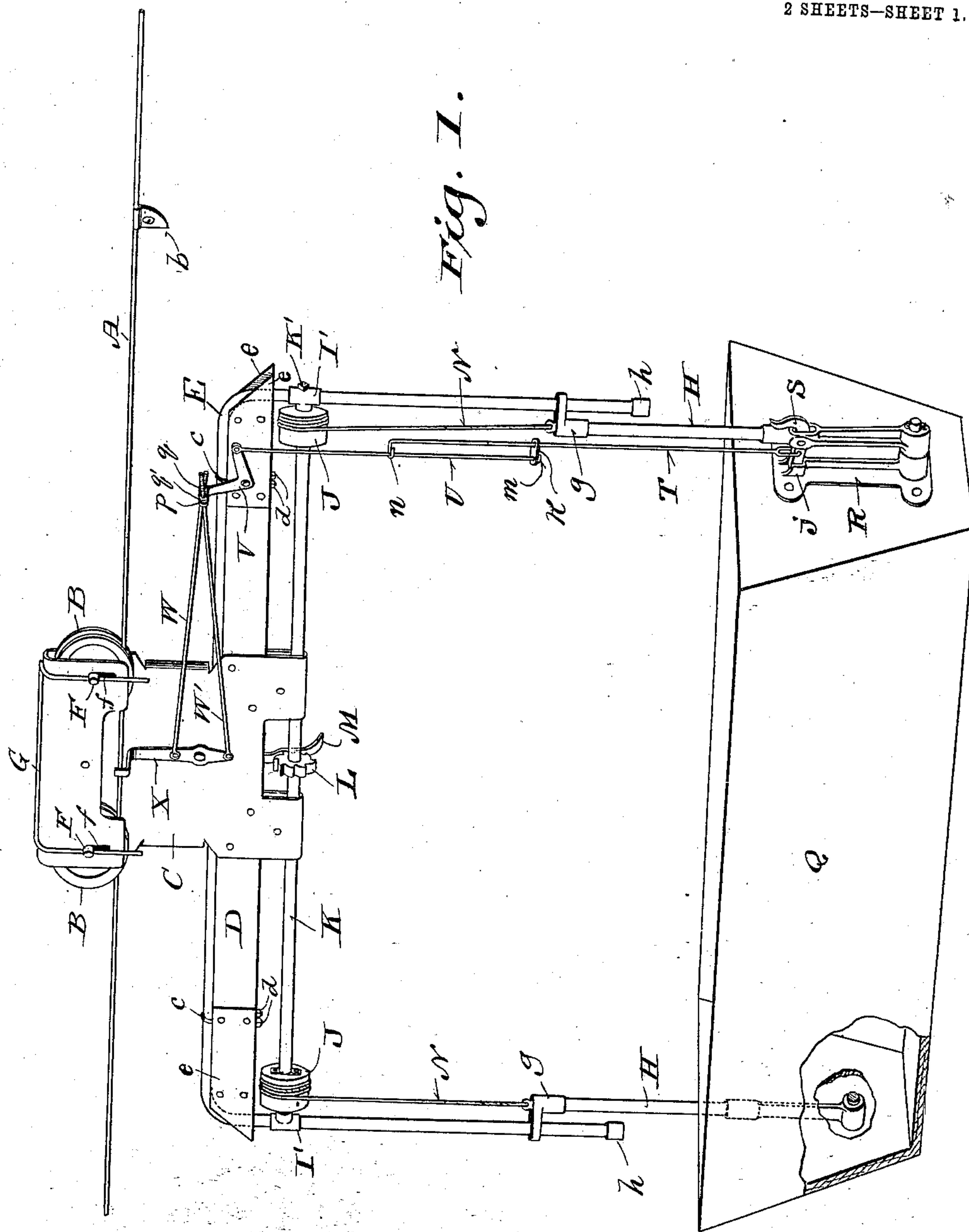
No. 741,236.

PATENTED OCT. 13, 1903.

H. H. DREW.
ELEVATED CARRIER.
APPLICATION FILED JUNE 1, 1903.

NO MODEL.

2 SHEETS—SHEET 1.



Witness:

Geo W. Young

N. E. Oliphant

Fig. 1.^a P

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2 SHEETS—SHEET 2.

Fig. 3.

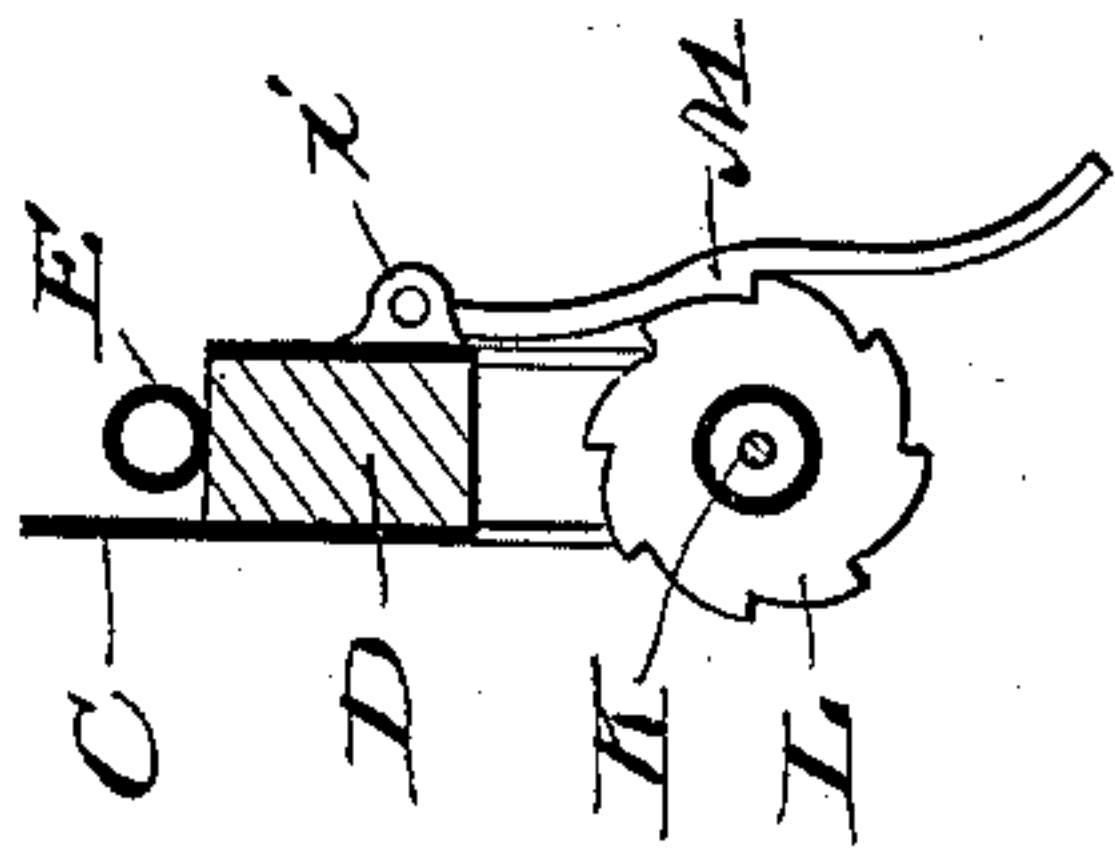


Fig. 2.

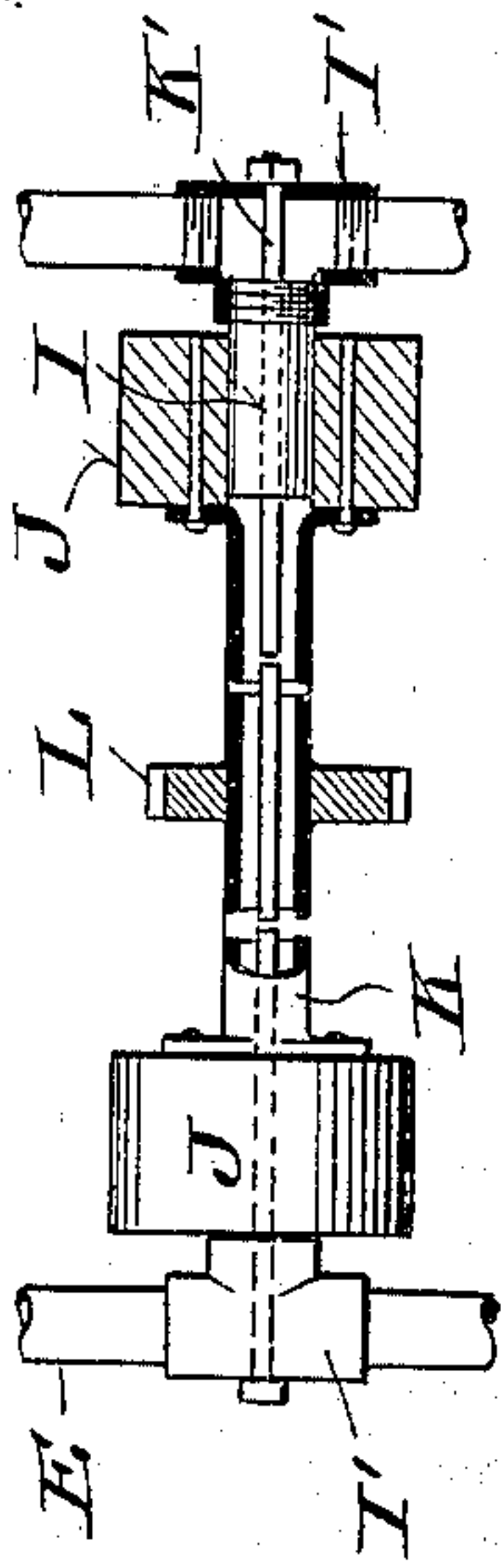


Fig. 5.

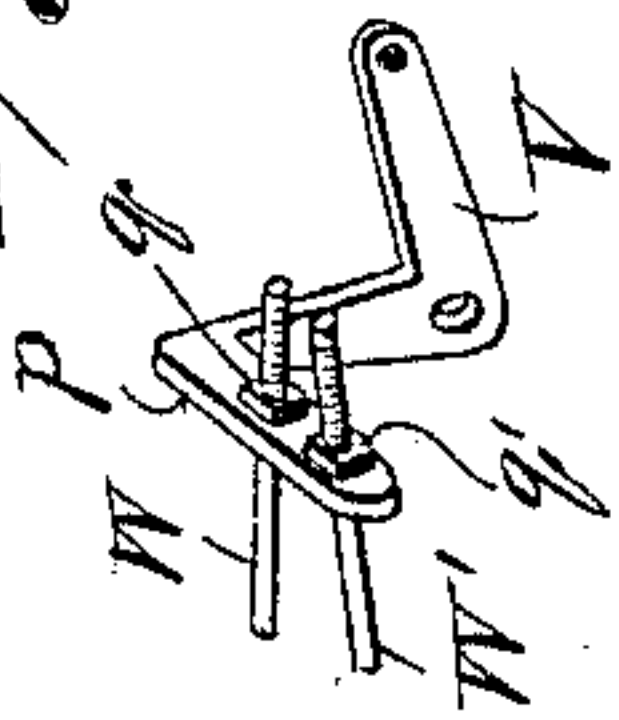
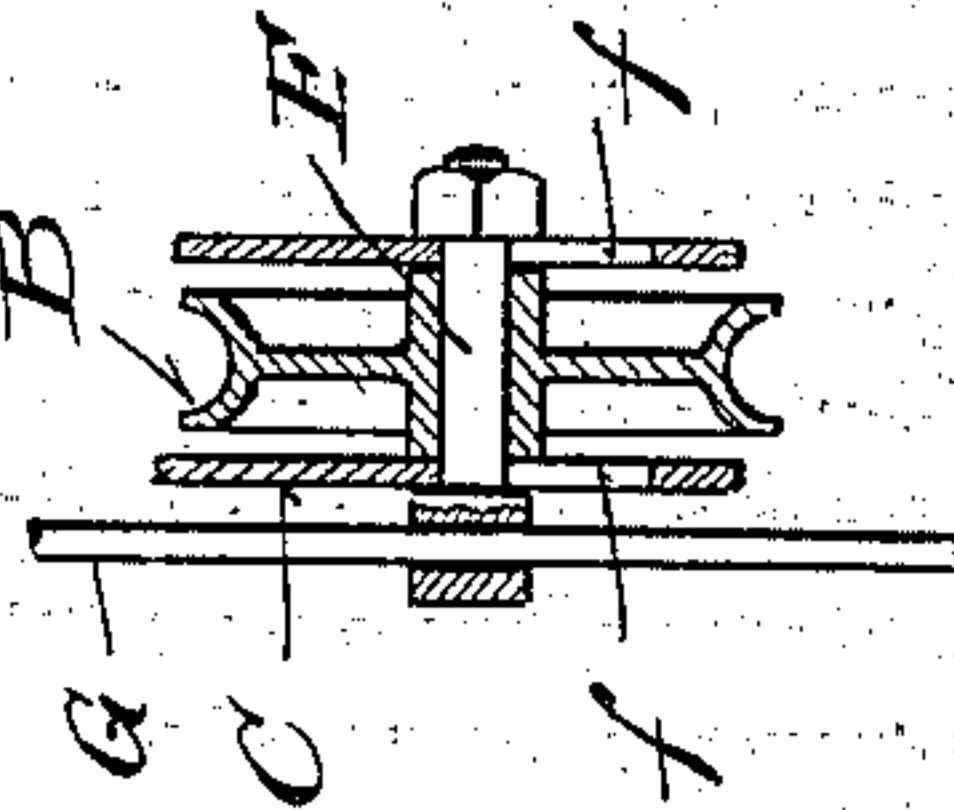


Fig. 4.



Witnesses:
Geo W. Lundy.
N. E. Oliphant

Inventor:
Herbert H. Drew

By H. G. Underwood

©Worwey

UNITED STATES PATENT OFFICE.

HERBERT H. DREW, OF WATERLOO, WISCONSIN.

ELEVATED CARRIER.

SPECIFICATION forming part of Letters Patent No. 741,236, dated October 13, 1903.

Application filed June 1, 1903. Serial No. 159,419. (No model.)

To all whom it may concern:

Be it known that I, HERBERT H. DREW, a citizen of the United States, and a resident of Waterloo, in the county of Jefferson and State of Wisconsin, have invented certain new and useful Improvements in Elevated Carriers; and I do hereby declare that the following is a full, clear, and exact description thereof.

My invention has for its object to provide simple economical elevated carriers each comprising a traveler, a dump-box in vertically-adjustable connection with the traveler, latch mechanism for holding the box open side upward, and latch-trip mechanism operative by contact with an obstruction provided on the track for said traveler, all as hereinafter more particularly set forth with reference to the accompanying drawings and subsequently claimed.

Figure 1 of the drawings represents a perspective view of an elevated carrier in accordance with my invention suspended from a track provided with an obstruction in the path of the latch-tripping mechanism pertaining to said carrier; Fig. 1^a, a similar view of a hand-pawl for detachable connection with a ratchet-wheel constituting a detail of the carrier; Figs. 2, 3, and 4, details of the carrier partly in section, and Fig. 5 a perspective view of another detail of the carrier.

Referring by letter to the drawings, A indicates an overhead wire track for the traveler of my improved elevated carrier, and shown in rigid connection with this track is a partly depending clip *b*, that constitutes an obstruction in the path of a striker involved in latch-trip mechanism hereinafter specified. The near edge of the depending portion of the clip is straight and its far edge is preferably a segment of a circle.

Supported on the track is a traveler comprising a pair of trolley-wheels B; a suitably-bent plate C, having its ends recurved in opposite directions; a beam D, bolted in the lower loop of the housing-plate, and a bail E, held by clips *c* and nuts *d* on the beam between end plates *e*, that are bolted to said beam in pairs and extend therefrom to limit possible sway of said bail in either direction. The trolley-wheels are loose on axles F and these axles engage vertical slots *f* in the housing end of the plate aforesaid. The slots permit

limited vertical play of the housing-plate independent of the trolley-wheels. To prevent turning of the axles and a cutting of same by the edges of the slots with which they engage, a yoke G is supported on the housing end of plate C and engaged with apertures provided in said axles, the engagement being sufficiently loose as not to interfere with vertical play of the wheels aforesaid.

The bail E is preferably tubular and engaged with right-angle arms of caps *g*, rigid on the upper ends of hangers H, that are also for the most part preferably tubular, stop-caps or ferrules *h* on the ends of the bail serving to limit descent of the hangers.

Coupled to the bail parallel to the traveler-beam under the same are preferably tubular bearing-arms I for rollers J in connection with an intermediate preferably tubular shaft K, that rests in the loop end of plate C and has a ratchet-wheel L made fast thereon, this ratchet-wheel being normally engaged by a detent M in pivotal connection with ears *i* of the housing-plate aforesaid. A stay-rod K' is preferably extended through the tubular shaft K, bearing-arms I, and couplings I', by which these arms are connected to the hangers H, nuts being run on screw-threaded ends of the stay-rod against said couplings. Cables N are connected at their ends to the rollers J and cap-eyes of the hangers aforesaid, and said rollers are turned to wind said cables by means of a hand-pawl P, that is engaged with the aforesaid ratchet-wheel.

In pivotal connection with the hangers H to be top-heavy is a dump-box Q, a trunnion-plate R at one end of the box being provided with a seat *j* for a latch S, pivotally suspended in an eye of the adjacent hanger. A vertical rod T, connected to the latch, extends through a plate *k*, loose on another vertical rod, U, against a stop *m* at the lower end of same, and the upper end of rod T is bent to form a hook *n*, engaging the other rod parallel therewith. The upper end of rod U is connected to an arm of a bell-crank lever V, and an offset *p* of the other arm of said lever is provided with apertures engaged by rods W W', that connect with a striker X, pivoted to the bent middle portion of the housing-plate. Stops in the form of nuts *q q'* are run on the outer ends of the rods W W', and the pivot of

the striker X is between the inner ends of said rods, the upper extremity of said striker being offset to come into contact with the obstruction *b*, with which the track A is provided.

5 At the point of loading the dump-box Q is lowered by its own weight when the detent M is lifted, and said box being set open side up the seat in the trunnion-plate R thereon is engaged by latch S, in pivotal connection with
10 one of the box-hangers. The box being loaded it is elevated a suitable distance by means of the hand-pawl P, put into engagement with the ratchet-wheel L, the latch-rod T slipping through the plate *k* and on the rod U when
15 this operation takes place. By means of the traveler on track A the loaded and elevated box is run to the place of discharge, where the obstruction *b* is provided in connection with said track, and the striker X coming into con-
20 tact with the straight edge of said obstruction there is swing of said arm to cause a lift of rod U, whereby there is bind of plate *k* on rod T to lift the same and unseat latch S, thus permitting the top-heavy box to automatic-
25 ally dump its contents.

By the peculiar arrangement of the rods W W' and stops thereon with respect to the pivotal striker X and bell-crank V it will be under-
30 stood that when one of said rods is pulling on said bell-crank the other is sliding free in the same. Hence the carrier can be run in either of two directions from the place of load-
ing to a place of discharge and its box automatically dumped, provided there is a suit-
35 able obstruction on the track at the latter place in the path of the aforesaid pivoted striker.

Having thus described my invention, what I claim as new, and desire to secure by Let-
40 ters Patent, is—

1. An elevated carrier comprising a traveler consisting of a suitably-bent plate having its ends recurved in opposite directions, trolley-
45 wheels housed by the upper end of the plate, axles loose in the wheels and vertical plate-slots, a yoke supported by said plate and engaging apertures with which the axles are provided, a beam fast in the lower loop end of the aforesaid plate, and a bail suspended on
50 the beam; a dump-box in vertically-adjustable connection with the bail, latch mechanism for holding the box open side upward, and latch-trip mechanism in connection with the traveler operative by contact with an ob-
55 struction in connection with an overhead track for said traveler.

2. An elevated carrier comprising a traveler consisting of a suitably-bent plate having its ends recurved in opposite directions, trolley-
60 wheels housed by the upper end of the plate, axles loose in the wheels and vertical plate-slots, a yoke supported by said plate and engaging apertures with which the axles are provided, a beam fast in the lower loop end of the aforesaid plate, side plates extending
65 from the ends of the beam, and a bail sus-

ended on the beam; a dump-box in verti-
cally-adjustable connection with the bail, latch mechanism for holding the box open
side upward, and latch-trip mechanism in
70 connection with the traveler operative by contact with an obstruction in connection with an overhead track for said traveler.

3. An elevated carrier comprising a traveler, a bail suspended in connection with the trav-
75 eler, rollers having bearings on arms coupled to the bail, a shaft connecting the rollers, means for turning the shaft-connected rollers and holding the same against reverse motion, hangers guided in connection with said bail, 80
cables connecting said rollers and the hangers, a dump-box in pivotal connection with said hangers, latch mechanism for holding the box open side upward, and latch-trip mech-
anism in connection with the traveler oper- 81
ative by contact with an obstruction in connection with an overhead track for said trav-
eler.

4. An elevated carrier comprising a traveler, a bail suspended in connection with the trav-
90 eler, rollers having bearings on arms coupled to the bail, a shaft connecting the rollers, a ratchet-wheel fast on the shaft to be actuated by a detachable hand-pawl, a ratchet-wheel detent suspended from the traveler, hangers 95
guided in connection with said bail, cables connecting said rollers and the hangers, a dump-box in pivotal connection with said hangers, latch mechanism for holding the box open side upward, and latch-trip mechanism 100
in connection with the traveler operative by contact with an obstruction in connection with an overhead track for said traveler.

5. An elevated carrier comprising a traveler, a dump-box in vertically-adjustable connec- 105
tion with the traveler, a pivotal latch for holding the box open side upward, a rod connect-
ed at its lower end to the latch, and having its upper end in sliding connection with an-
other rod depending from an arm of a bell- 110
crank lever connected to the traveler, a plate engaged by both rods and supported on a stop with which the one depending from the bell-
crank lever is provided, other rods engaging apertures in an offset of the other arm of said 115
bell-crank lever, a striker pivoted to said traveler to come against an obstruction provided in connection with an overhead traveler-track, rods that being in connection at their inner
ends with the striker in opposite directions 120
from its pivot extend through the offset of the aforesaid bell-crank lever, and stops on the outer ends of these latter rods.

In testimony that I claim the foregoing I have hereunto set my hand, at Waterloo, in 125
the county of Jefferson and State of Wisconsin, in the presence of two witnesses.

HERBERT H. DREW.

Witnesses:

L. H. GINGLES,
T. A. WILLIAMS.