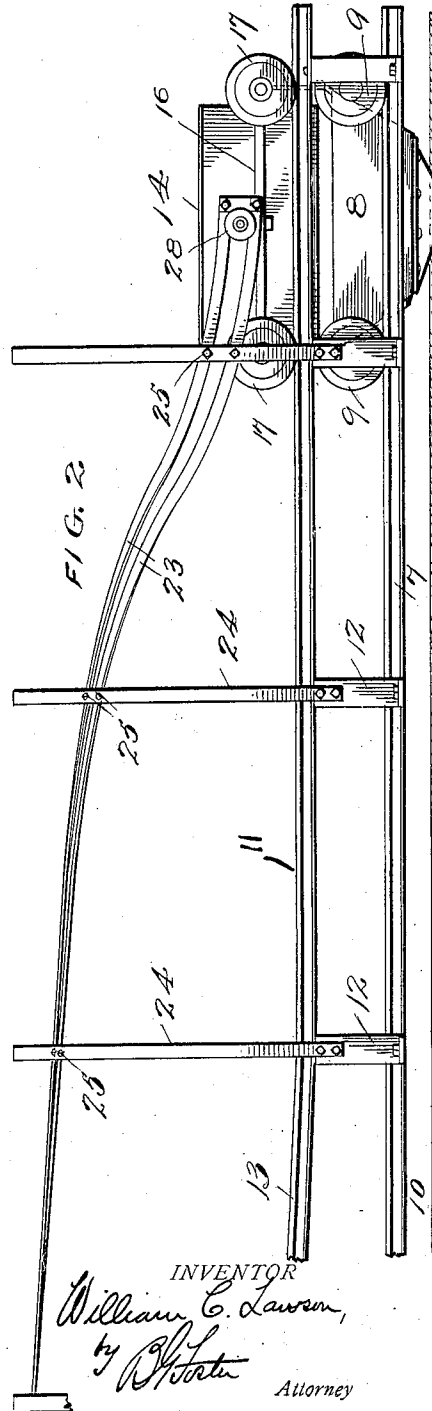
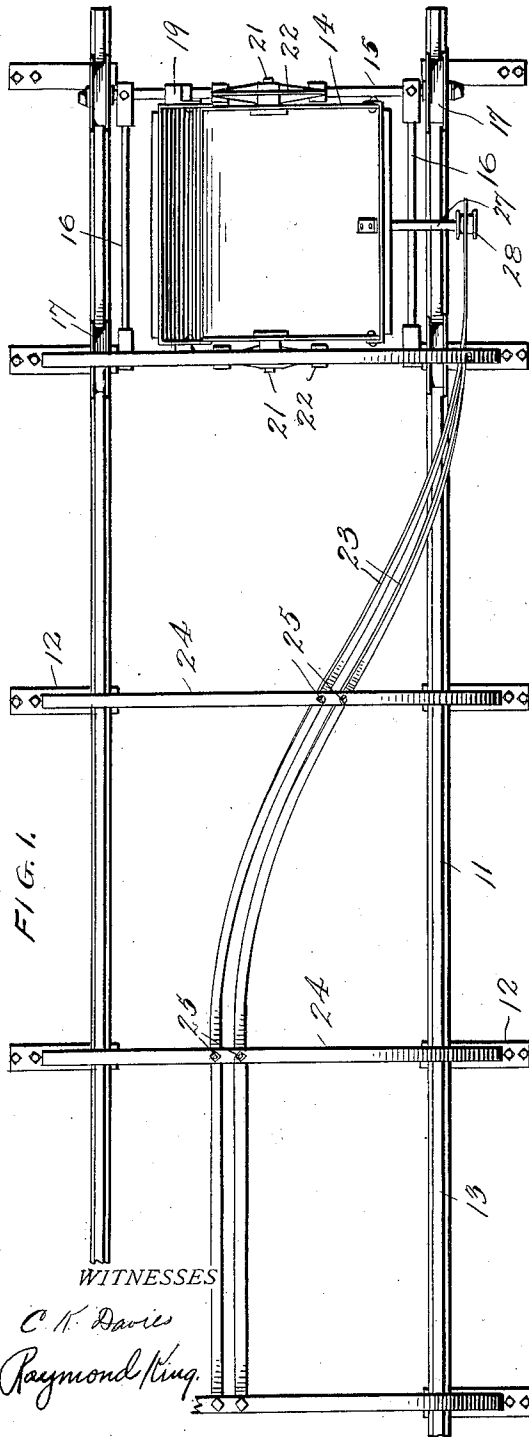


W. C. LAWSON.
CONVEYER LOADING APPARATUS.
APPLICATION FILED FEB. 1, 1911.

1,047,252.

Patented Dec. 17, 1912.

3 SHEETS-SHEET 1.

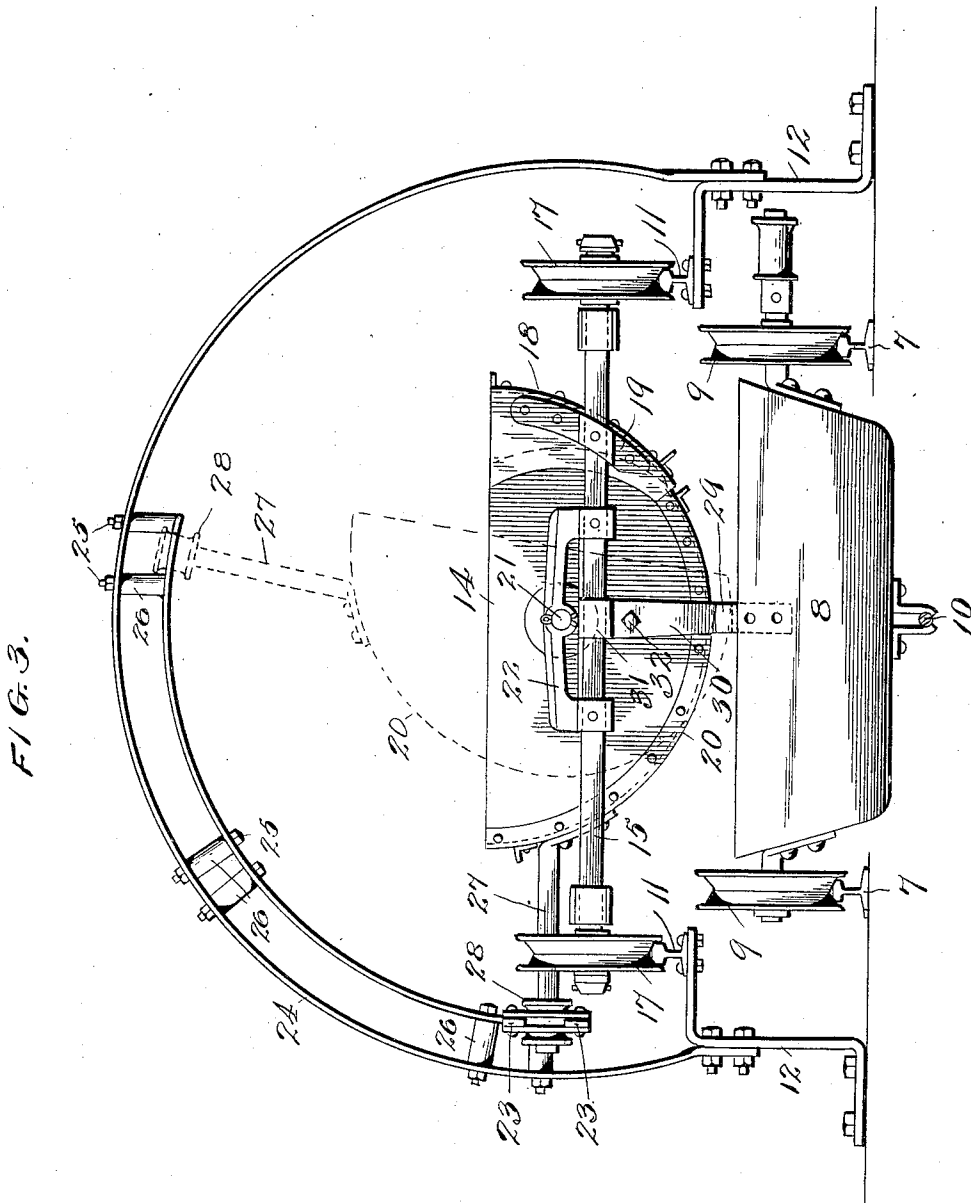


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WITNESSES
C. A. Davies
Raymond King

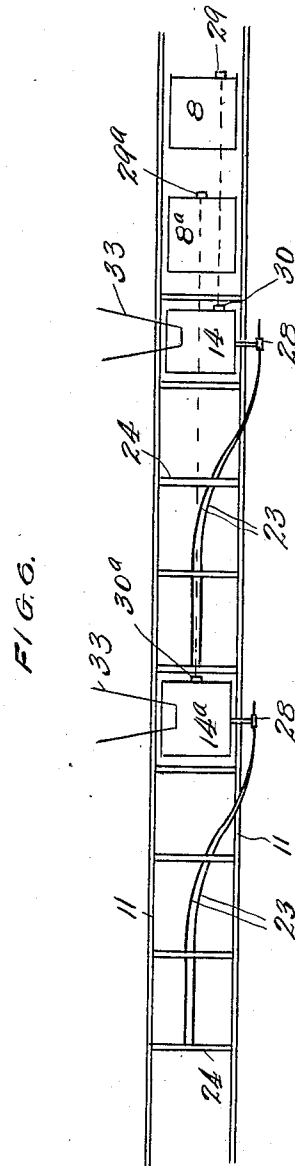
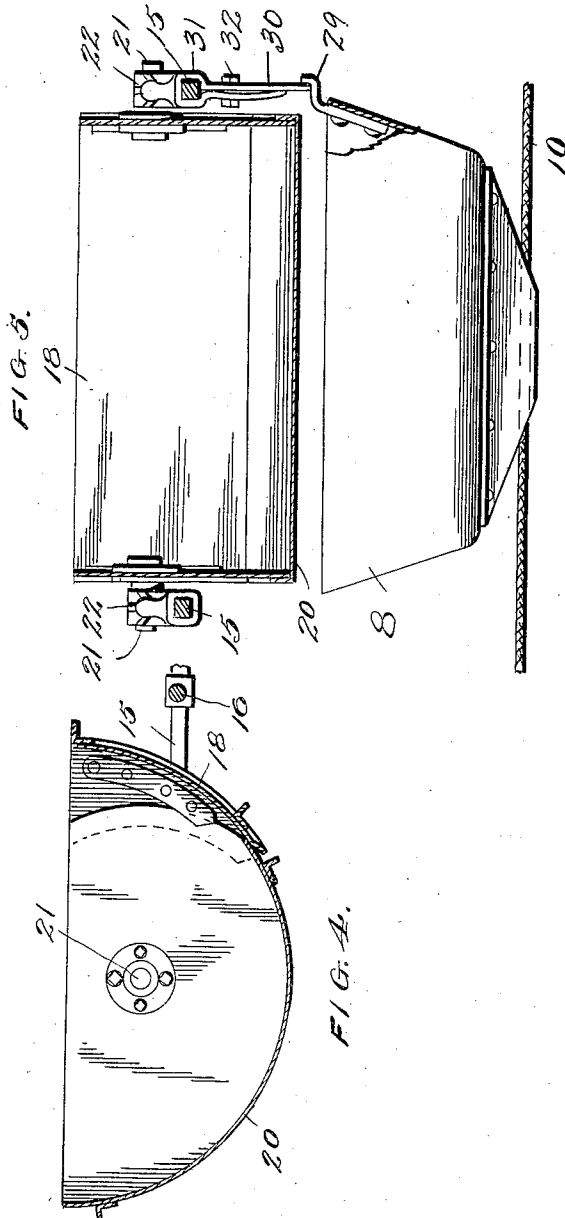
INVENTOR
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Attorney

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3 SHEETS—SHEET 3.



WITNESSES

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UNITED STATES PATENT OFFICE.

WILLIAM C. LAWSON, OF ROANOKE, VIRGINIA.

CONVEYER-LOADING APPARATUS.

1,047,252.

Specification of Letters Patent.

Patented Dec. 17, 1912.

Application filed February 1, 1911. Serial No. 606,066.

To all whom it may concern:

Be it known that I, WILLIAM C. LAWSON, a citizen of the United States, residing at Roanoke, in the county of Roanoke and State of Virginia, have invented new and useful Improvements in Conveyer-Loading Apparatus, of which the following is a specification.

The present invention relates to loading mechanism for conveyer cars and the like, and one of the primary objects is to provide simple and effective mechanism for delivering material to conveyer cars or members without the necessity of in any manner stopping the latter.

A further and important object is to provide means, whereby the conveyer cars may be passed by the loading or delivery means in rapid succession, and each conveyer car will receive a proper load.

A still further object is to provide mechanism which will permit the conveyer cars to be loaded with different kinds of materials.

The preferred embodiment of the invention is illustrated in the accompanying drawings, wherein:—

Figure 1 is a top plan view of one of the loading units. Fig. 2 is a side elevation of the same, showing one of the conveyer cars in position to receive a load. Fig. 3 is an end elevation thereof on an enlarged scale. Fig. 4 is a cross sectional view through one of the delivery cars. Fig. 5 is a longitudinal sectional view therethrough. Fig. 6 is a plan view of a diagrammatic character, illustrating a plurality of the loading devices.

Similar reference numerals designate corresponding parts in all the figures of the drawings.

In the embodiment disclosed, a lower trackway of spaced rails 7 is shown, and on the same operates a series of successive conveyer cars or members 8 provided with wheels 9 that run on said rails. These cars are moved by a cable 10 or other suitable means. Located at the point of loading, is an upper trackway, comprising spaced rails 11 suitably supported on a frame 12 and having a rear upwardly inclined portion 13. A delivery car 14 operates on this trackway. This car comprises an angular frame composed of transverse axles 15 connected by coupling rods 16, the axles having journaled thereon, wheels 17 that operate on the

rails 11. The body of the car is semi-cylindrical and comprises a stationary section 18 fixed by clips 19 to the axles and a dumping section 20 having pintles 21 that are journaled in brackets 22 secured to the axles. A guideway is arranged in a curve over the upper trackway, and this guideway consists of spaced curved strips 23 that are secured to arch bars 24 located over said trackway. The strips 23 are preferably secured to the arch bars by bolts 25 that pass through spacing sleeves 26 interposed between said strips and the arch bars. The pivotal member of the car body has secured thereto, an outstanding arm 27 that extends between the guide strips, and preferably has journaled thereon, a roller 28 that bears against the same. It will thus be evident that if the car 14 is propelled along its trackway, the arm 27, riding in the guideway, will cause the said car to open to a dumping position, as indicated in dotted lines in Fig. 3. To effect this dumping movement of the car, the conveyer cars 8 are provided with upstanding fingers 29, and in like manner, the delivery car has a depending finger 30 preferably attached to one of the axles, as shown more especially in Fig. 5. The finger 30 is preferably formed by doubling a strap on bar of metal to provide an angular eye 31 that receives the axle, the ends of the strap or bar being bolted together, as shown at 32 and producing a clamp that will hold the finger in place on the axle.

In practice, the normal position of the delivery car 14 is at one end of the upper trackway, and the material is fed thereinto by any suitable means, as for instance, a chute 33 shown in Fig. 6. When a conveyer car moves to a position beneath the delivery car, it will be evident by reference to Fig. 5 that its upstanding finger 29 will engage the depending finger 30, and consequently said delivery car will move along over the conveyer car. During this movement, the arm 27 will ride in the guideway 23, and the bottom therefore will move to open or dumping position, so that the material in the delivery car will discharge into the conveyer car. The delivery car 14 will then move up the inclined portion 13 of its trackway, so that the finger 30 will be disengaged from the finger 29, and consequently the car 14 will be released. The inclined portion 13 of the trackway thereupon consti-

tutes means for returning the delivery car to its original position, for said car will gravitate down said inclined portion, and the momentum will carry it to its original position.

If different materials are to be fed to different conveyer cars, or if such conveyer cars pass the loading car in such rapid succession, that one car would be unable to properly discharge into each, a plurality of said delivery cars may be employed, and two are shown diagrammatically in Fig. 6. With this arrangement, in order that each conveyer car will receive a load, and yet will not operate all the delivery cars, the coacting fingers of certain of the delivery cars and of the conveyer cars are disposed in different planes. Thus in the illustration, the conveyer car 8 and the delivery car 14 have their respective fingers 29 and 30 arranged in intersecting paths so that the car 8 will move and receive its load from the car 14. The delivery car 14^a has its finger 30^a disposed in the path of movement of the finger 29^a of the conveyer car 8^a, but out of the path of movement of the conveyer 29 of the car 8, so that said car 8^a will pass the car 14 without moving it, but will receive its load from the car 14^a. It will be evident that any number of delivery cars may be employed, as desired, and that the conveyer cars may be properly equipped to receive loads from certain of the same, whether these loads be of the same kind of material or material of different characters. Thus if there are but two delivery cars, each alternate conveyer car would engage one of the same. If there are three, every third car would engage the same delivery car, and furthermore by having the fingers 30 adjustable along the axles, the arrangement can be easily altered whenever it is found desirable or necessary.

From the foregoing, it is thought that the construction, operation and many advantages of the herein described invention will be apparent to those skilled in the art, without further description, and it will be understood that various changes in the size, shape, proportion and minor details of construction may be resorted to without departing from the spirit or sacrificing any of the advantages of the invention.

What I claim as new, and desire to secure by Letters Patent, is:—

1. In apparatus of the character set forth, the combination with upper and lower trackways, of conveying means movable along the lower trackway, a delivery car movable on the upper trackway and having a dumping bottom, a guideway associated with the upper trackway, and a device connected to the dumping bottom and moving on the guideway to effect the dumping action of the bottom.

2. In apparatus of the character set forth, the combination with upper and lower trackways, of conveying means movable along the lower, a delivery car movable on the upper and having a fixed side and a pivoted side, a bottom coacting therewith, a guideway that curves over the upper trackway, and an arm carried by the pivoted side and bottom and operating in the guideway.

3. In apparatus of the character set forth, the combination with upper and lower trackways, of conveying means movable along the lower, a delivery car movable on the upper and having a body formed of curved sides and bottom, said curved sides and bottom being formed of sections, one of which is stationary, the other being pivotally mounted, a guideway that curves over the upper trackway and comprises spaced strips, and an arm fixed to the pivotal section and operating between the guideway strips.

4. In apparatus of the character set forth, the combination with a lower trackway, of a conveyer car movable along the same and having an upstanding finger, an upper trackway having an upwardly inclined portion, a delivery car movable upon the upper trackway and having a depending finger that is detachably engaged by the finger of the conveyer car, said fingers disengaging when the delivery car moves on the inclined portion of its trackway, said delivery car having a pivoted bottom, a guideway fixed to the upper trackway and extending in a curve over the same, and an arm pivoted to the bottom and operating in the guideway.

5. In apparatus of the character set forth, the combination with conveying mechanism, of a plurality of movable delivery cars located above the same, an individual means for effecting the discharge movement of each delivery car on its movement, and selecting devices having different paths of movement for causing predetermined portions of the conveying mechanism to automatically select and move predetermined delivery cars.

6. In apparatus of the character set forth, the combination with conveying mechanism, of a plurality of movable delivery cars located above the same, an individual means for effecting the discharge movement of each delivery car on its movement, and selecting devices having different paths of movement for causing predetermined portions of the conveying mechanism to automatically select and move predetermined delivery cars, said devices being relatively adjustable to change the cars moved thereby.

7. In apparatus of the character set forth, the combination of a lower trackway and a plurality of conveying cars successively operating thereover, of upper trackways, delivery cars operating on the upper track-

ways, means for effecting the dumping of the cars upon their movements, and fingers carried by the conveyer and delivery cars, said fingers being disposed in different paths of movement so that a predetermined conveyer car will move a predetermined delivery car along the trackway of the latter and cause its discharge into said predetermined conveyer car.

10 8. In apparatus of the character set forth, the combination with a lower trackway, of a plurality of conveyer cars successively operating thereover, a plurality of upper trackways, each having upwardly inclined portions, a plurality of delivery cars operating in the upper trackways, and having

pivotally mounted bottoms, curved guides located over the upper trackways, arms carried by the bottoms and operating in the guides, and fingers carried by the conveyer and delivery cars and engaging as the former pass the latter, said fingers being disposed in different paths of movement, so that each conveyer car operates one only of the delivery cars.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

WILLIAM C. LAWSON.

Witnesses:

CHAS. W. BISHOP,
A. V. SPEED.

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