

No. 755,478.

PATENTED MAR. 22, 1904.

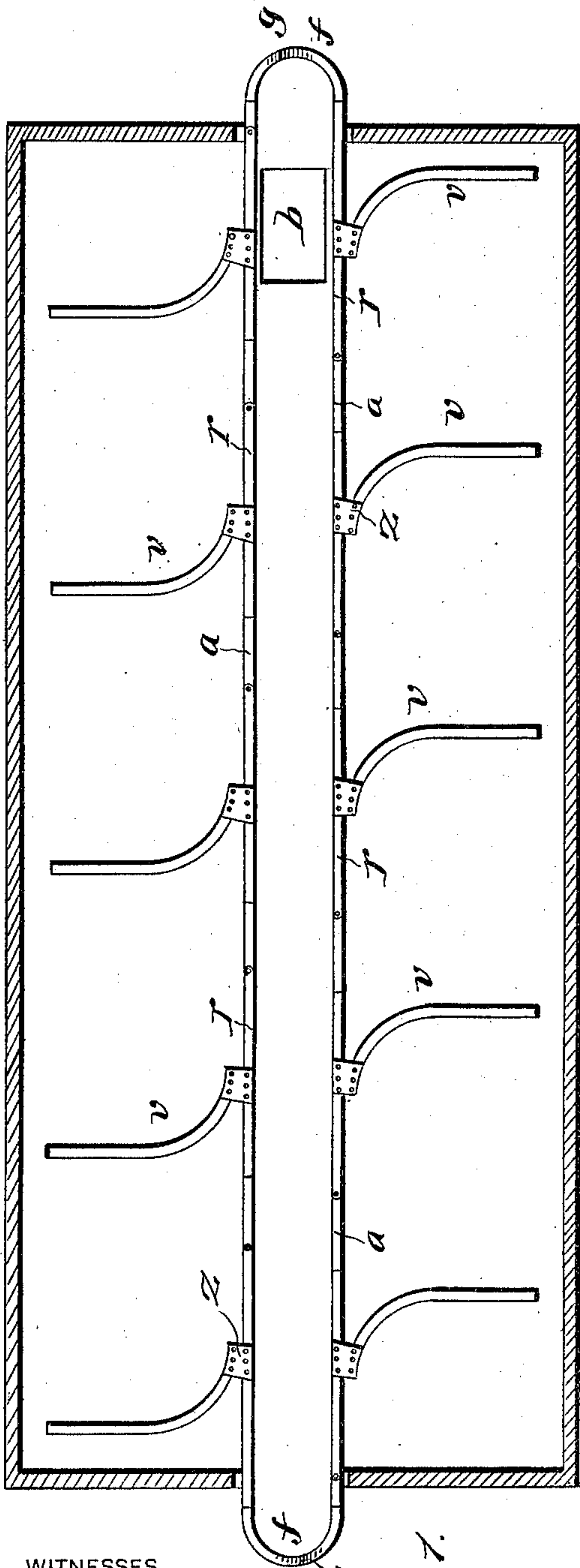
J. GILMOUR.

FREIGHT TRANSFER FOR WAREHOUSES OR FACTORIES.

APPLICATION FILED MAY 22, 1903.

NO MODEL.

2 SHEETS—SHEET 1.

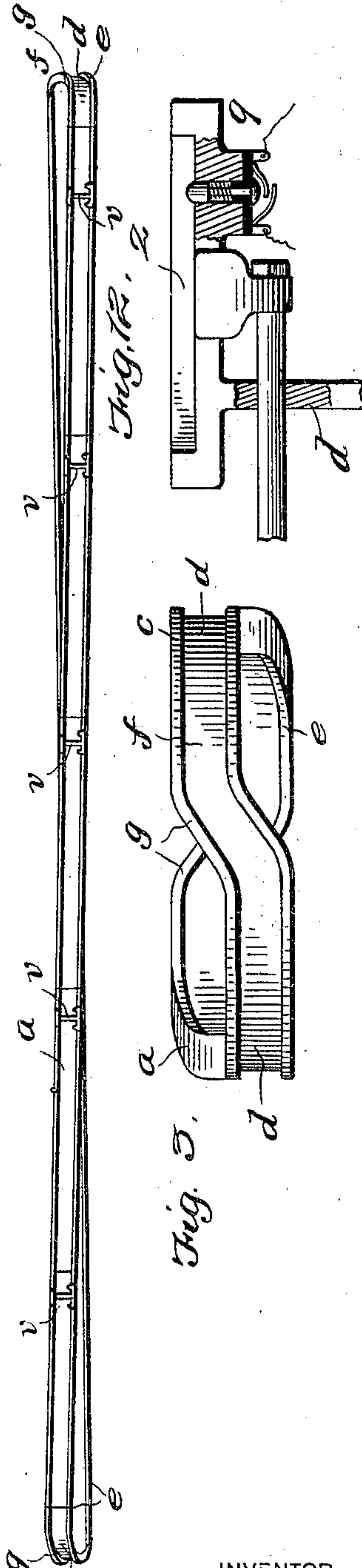


WITNESSES

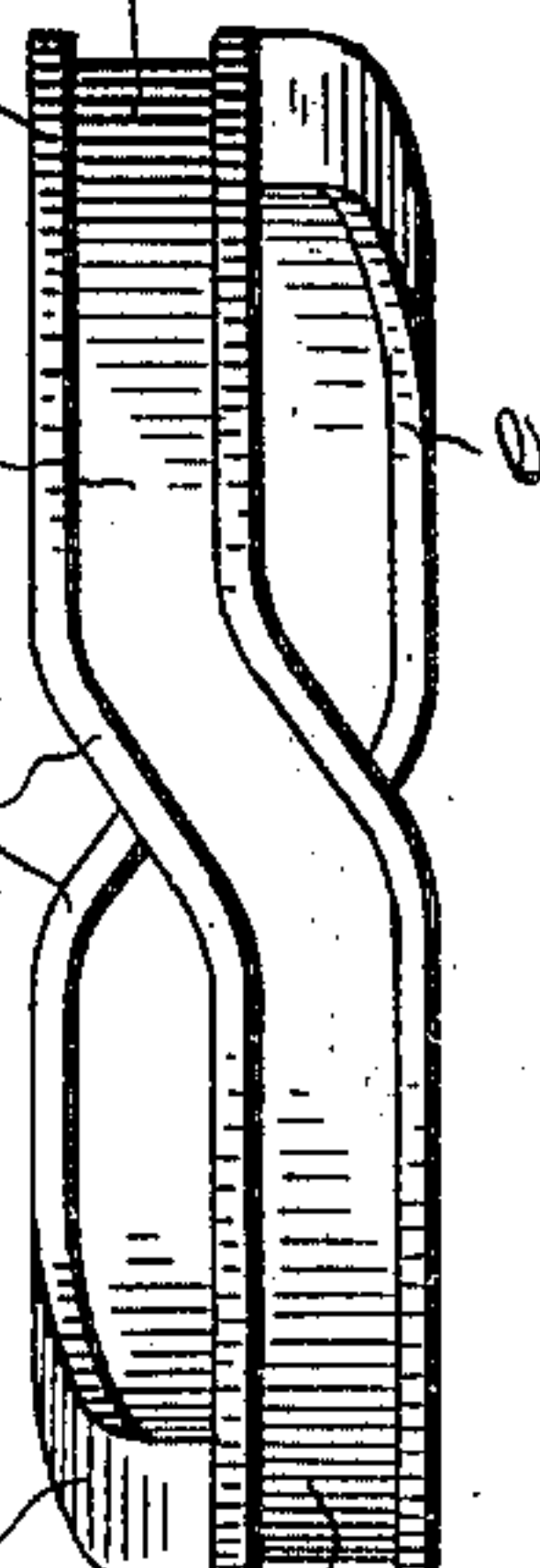
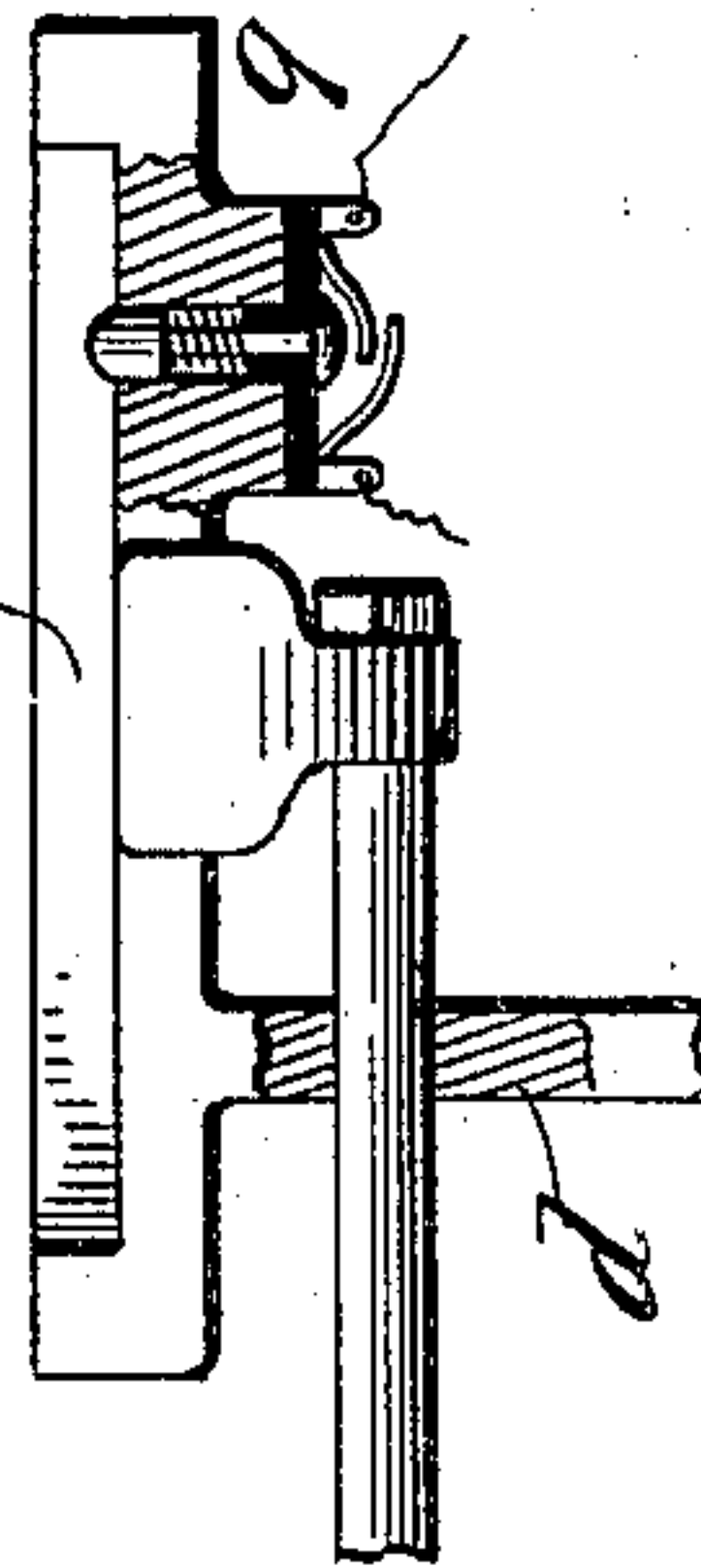
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*Fig. 1.*

*Fig. 2.*



*Fig. 2.*



*Fig. 3.*

INVENTOR

*John Gilmour*  
*by E. W. Anderson*  
*his attorney*

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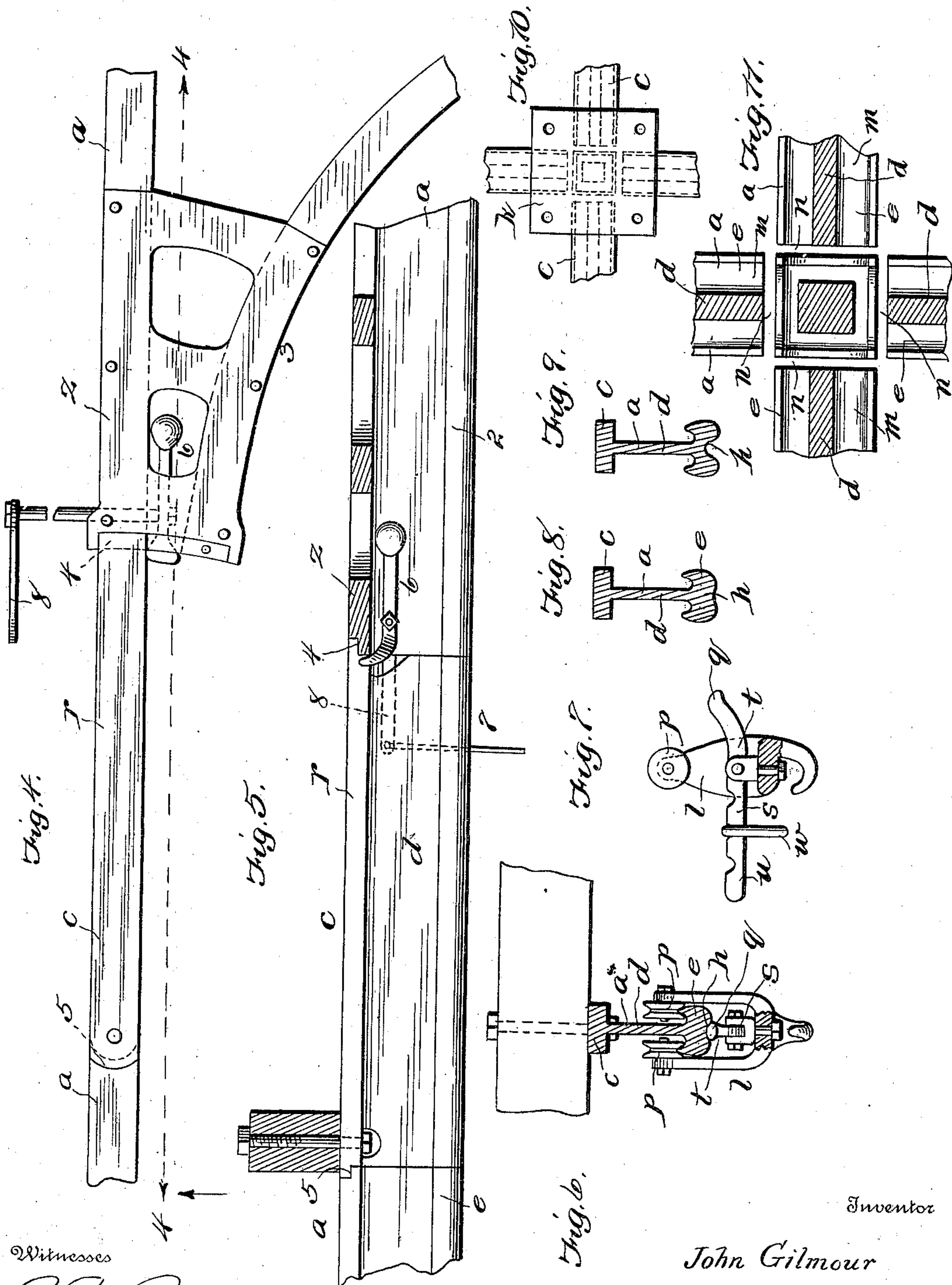
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Witnesses

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A. G. Hedney

Inventor

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# UNITED STATES PATENT OFFICE.

JOHN GILMOUR, OF OWENSBORO, KENTUCKY.

## FREIGHT-TRANSFER FOR WAREHOUSES OR FACTORIES.

SPECIFICATION forming part of Letters Patent No. 755,478, dated March 22, 1904.

Application filed May 22, 1903. Serial No. 158,256. (No model.)

*To all whom it may concern:*

Be it known that I, JOHN GILMOUR, a citizen of the United States, and a resident of Owensboro, in the county of Daviess and State of Kentucky, have made a certain new and useful Invention in Freight-Transfers for Warehouses or Factories; and I declare the following to be a full, clear, and exact description of the same, such as will enable others skilled in the art to which it appertains to make and use the invention, reference being had to the accompanying drawings, and to letters and figures of reference marked thereon, which form a part of this specification.

Figure 1 is a general plan view of main and side tracks. Fig. 2 is a side view of the same. Fig. 3 is an end view of the track. Fig. 4 is a top view of the switch portion. Fig. 5 is a side view of the same, partly in section. Fig. 6 is a sectional view showing the carrier. Fig. 7 is a sectional view showing the carrier and brake. Figs. 8 and 9 are sections of the track-rail. Fig. 10 is a top view of the crossing rail-plate. Fig. 11 is a horizontal section of the same. Fig. 12 is a detail view of the end of the switch-plate, showing the electric switch-button.

The invention relates to devices for loading, unloading, and moving from place to place such articles and packages as are required to be handled in factories and warehouses; and the invention consists in the novel construction and combinations of parts, as hereinafter set forth.

In the accompanying drawings the letter *a* designates an elevated track consisting of rail-sections which are secured to the rafters of the ceiling of the warehouse. These tracks extend to all portions of the floor of the warehouse in which they are designed to be used, and all the floors of the warehouse may be similarly fitted up, communication being had between the upper and lower tracks by means of elevators operating through hatchways, as at *b*. Each rail-section consists of the top plate or holding-flange *c*, the web *d*, and the bearing or track flange *e*. Usually it is preferred to employ two of these track-flanges, one on each side of the web, in order to guard

against the carrier leaving the track. There are two or more tracks ordinarily employed extending from end to end of the warehouse-ceiling, and these may be supplemented by cross-tracks for wings of the warehouse when desired. The tracks are designed each to have a slight inclination downward in the direction of passage of its carriers in order to utilize gravity in moving the articles, and it is apparent that the carriers may be in this way run from one end to the other of the warehouse and back again, the tracks having reverse inclination and being connected at their ends by the bends or loops *f*, having the raising inclines *g* for changing the position of the carrier from one track to the other. Each track is provided along its bottom with a gradually-increasing friction-bearing, (indicated at *h*,) which is designed to be engaged by the brake of the carrier and to operate with more power as the speed of the carrier tends to increase on account of the momentum of its load.

Where the cross-track is designed to be used, it must traverse the main track, and for this purpose a crossing-head *k* is employed, from which depends the rectangular track-flange *m*, having its bearings for the rollers of the carriers on all four sides and separated from the ends of the crossing-tracks by the slots *n*, which allow the arms of the hangers of the carriers to pass.

Each carrier consists of a hanger *l*, having its arms provided with track-rollers *p*, which engage the track-bearing and in connection therewith the automatic friction-brake *t*. This friction-brake consists of a lever *s*, having one arm provided with a friction head or boss *q*, adapted to engage the friction-bearing of the track, and the other arm *u* provided with a spring or weight *w*. The brake head or boss *q* having increasing engagement with the brake-bearing *h* of the track serves to exert a gradually-increasing braking action, thereby counteracting the increased momentum and preventing undue speed at the lower portion or further end of the track.

Sometimes the article to be carried is connected to the arm *u*, its position thereon be-



ing regulated by the weight. Suitable tongs or hooks of attachment may be used to make the connection.

In order to operate along the lateral portions of the warehouse-floor, the branch tracks *v* may be provided, these connecting with the main tracks by means of the switch-rails *r* and the switch-plates *z*. The switch-plate is secured to the girder or rafter of the ceiling and is provided with the main-track flange 2 and the side-track flange 3, either of which may be engaged by the pivoted switch-rail *r*. The switch-rail is braced at its ends by suitable rabbeted bearings 4 and 5 on the main-track rail and on the switch-plate.

In order to lock the switch-rail to position, either for the main track or for the side track, an automatic latch 6 is provided, which can be disengaged from shifting by pulling a cord or chain 7, attached to its arm 8.

Sometimes it may be advisable in large warehouses to use an electric switch, as at 9, to indicate to a directing clerk the number of any side track that is in connection with the main line, as this leaves the main line open at that point.

This device is designed to serve an important purpose in warehouses and factories, especially when heavy and bulky articles are to be shifted from place to place, as it is strong, durable, safe, and easily operated for the objects in view.

Having described this invention, what I claim, and desire to secure by Letters Patent, is—

1. In a warehouse freight-transfer, the combination with the uniformly-inclined elevated suspended bearing-track, of the suspended carrier and the automatic gradual-increase friction-brake, substantially as specified.

2. In a warehouse freight-transfer, the combination with the elevated main suspended

bearing-track rail and the elevated suspended bearing side-track rail of the rabbeted switch-rail plate, the pivoted switch-rail and the holding-latch, substantially as specified.

3. In a warehouse-transfer, the combination with the elevated main suspended bearing-track, the elevated cross-track, and the suspended carrier, of the crossing-plate having the rectangular roller-bearing and the intervals or ways for the passage of the arms of the carrier, substantially as specified.

4. In a warehouse-transfer, the inclined direct main elevated suspended bearing-track, the reversely-inclined elevated return suspended bearing-track, and the shifting-loop tracks at the ends of said direct and reverse tracks connecting the same, substantially as specified.

5. In a warehouse-transfer, the combination with the elevated uniformly-inclined and increase friction-brake bearings track-rails having the suspended track-bearings of the suspended roller-carrier, and the friction-brake lever pivoted to said roller-carrier, substantially as specified.

6. In a warehouse-transfer, the combination with the reversely and uniformly inclined elevated suspended bearing-tracks, the suspended carrier, and the automatic gradual-increase friction-brake, substantially as specified.

7. In a warehouse-transfer, the combination with the suspended bearing elevated track, and the pivoted switch-rail, of the switch-plate, the holding-latch and the electric switch-button, substantially as specified.

In testimony whereof I have affixed my signature in presence of two witnesses.

JOHN GILMOUR.

Witnesses:

HERBERT C. EMERY,  
A. G. GEDNEY.