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TRANSFER FLOAT FOR RAILROAD CARS.

No. 359,077. Patented Mar. 8, 1887.

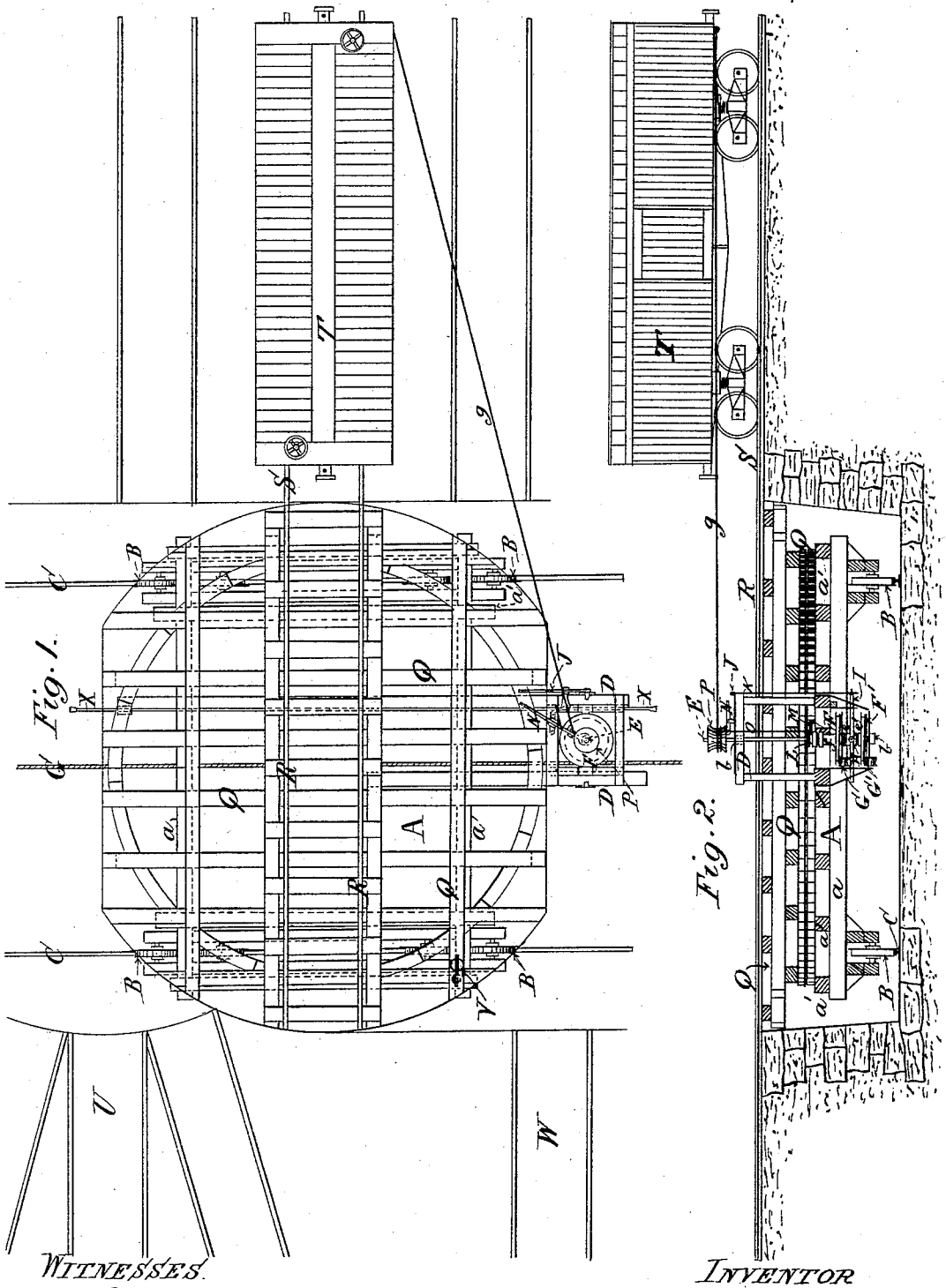


Fig. 1.

Fig. 2.

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Fig. 3.

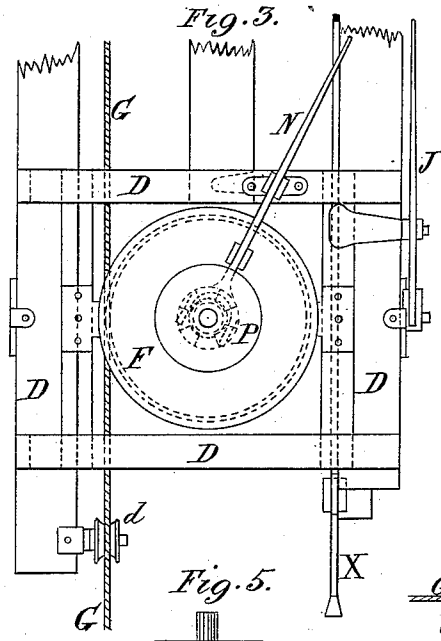


Fig. 4.

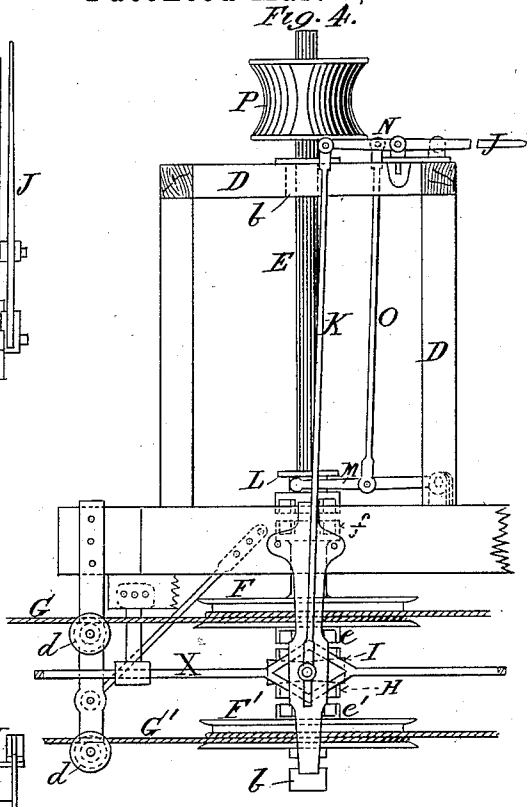


Fig. 5.

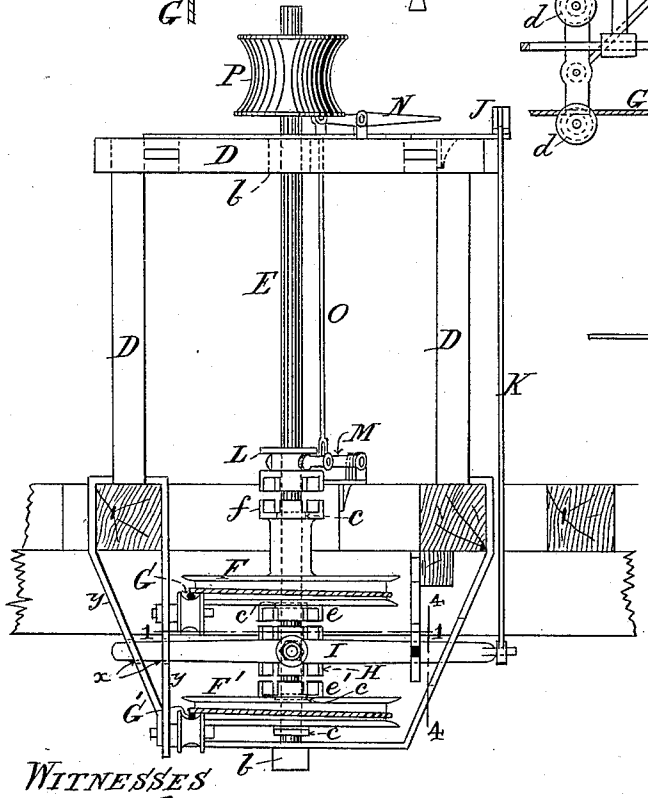


Fig. 6

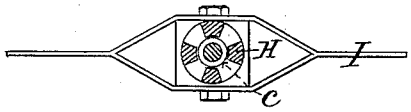
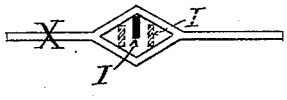


Fig. 6A.



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Fig. 7.

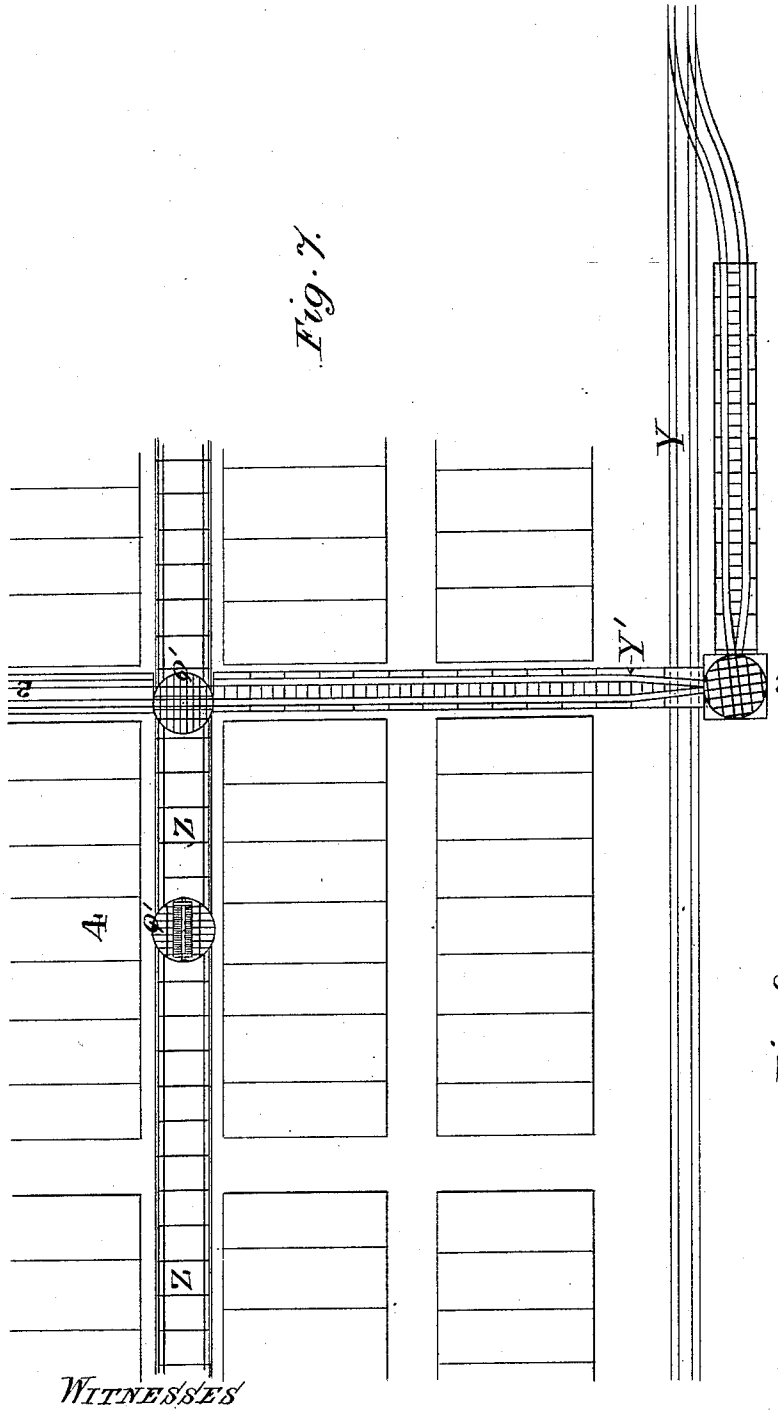
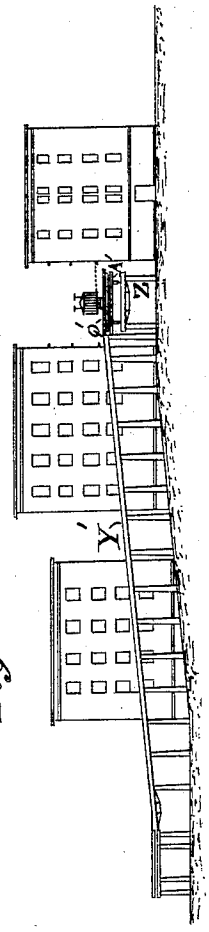


Fig. 8.



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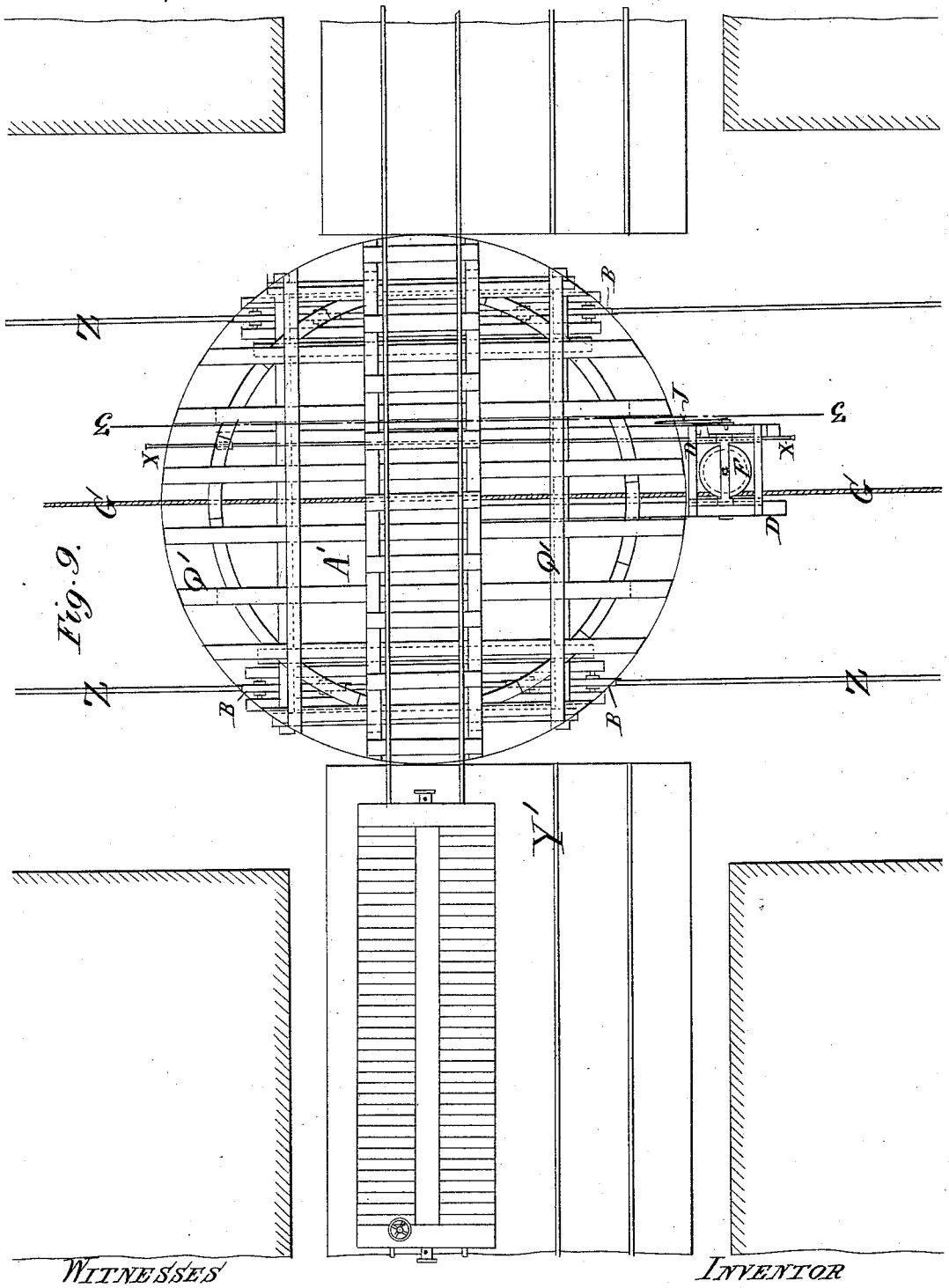


Fig. 9.

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TRANSFER FLOAT FOR RAILROAD CARS.

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Fig. 10.

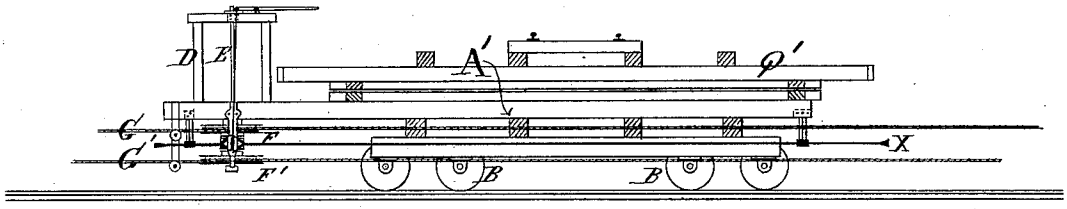
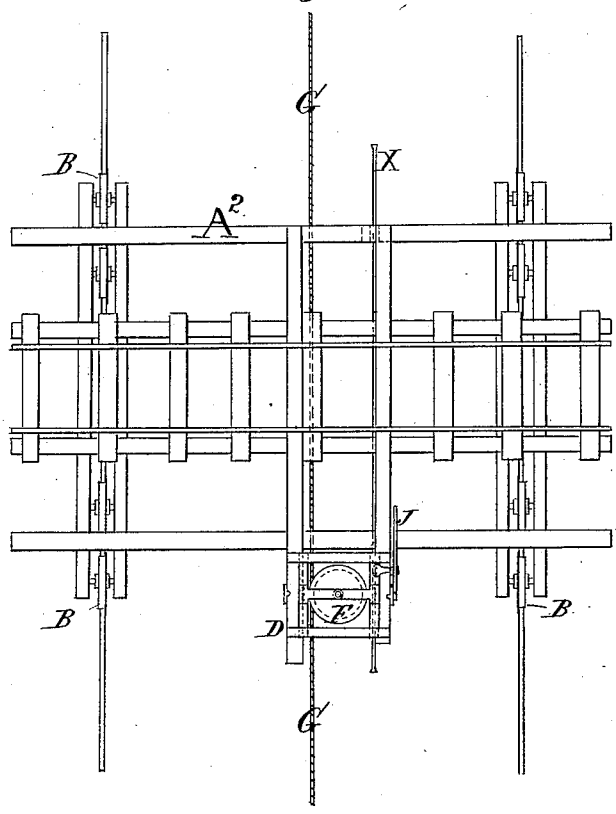


Fig. 11.



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UNITED STATES PATENT OFFICE.

WILLIS HORD, OF WOODLAND, MISSOURI.

TRANSFER-FLOAT FOR RAILROAD-CARS.

SPECIFICATION forming part of Letters Patent No. 359,077, dated March 8, 1887.

Application filed December 14, 1886. Serial No. 221,517. (No model.)

To all whom it may concern:

Be it known that I, WILLIS HORD, a citizen of the United States, residing at Woodland, in the county of St. Louis, State of Missouri, have invented a certain new and useful Improved Transfer-Float for Railroad-Cars, of which the following is a full, clear, and exact description.

My invention has for its object a means of readily transferring railroad-cars from one track to another in the depot and from the sidings or subsidiary branches from the depot along the streets of a city to the various warehouses or business premises on the streets, so that goods can be directly loaded into and unloaded from the freight-cars at any particular location required, and a great saving in cartage and labor thereby effected.

On the accompanying drawings, Figure 1 is a plan representing my invention as applied to transferring railroad-cars from one track to another in the depot; Fig. 2, an end view thereof; Figs. 3, 4, and 5, plan, side, and end elevations, respectively, of parts of Figs. 1 and 2, on an enlarged scale; Fig. 6, a section on line 1 1 in Fig. 5, and Fig. 6ª a section on line 4 4 in Fig. 5; Fig. 7, a plan showing the general application of my invention to the transferring of freight-cars from the ordinary-gage street-tracks along other streets to the different warehouses on the latter, and Fig. 8 a side and end elevation of the same on line 2 2 in Fig. 7; Fig. 9, a plan, to an enlarged scale, of my invention when in position for receiving a freight-car from the ordinary-gage street-track; Fig. 10, a section on line 3 3 in Fig. 9; and Fig. 11, a plan of an alternative arrangement of my invention, like letters of reference denoting like parts in all the figures.

My invention consists of a float or lorry, A, composed of longitudinal and transverse timbers *a a'*, arranged horizontally and secured together in any suitable manner, the whole being mounted on railway-wheels B, running on a track, C, of any desired gage. One end of this float or lorry A carries a frame-work, D, in which is mounted an upright shaft, E, (shown particularly in detail, Figs. 3, 4, 5, and 6,) supported in top and bottom bearings, *b*, and carrying drums F F', which are arranged horizontally and loosely at suitable distances apart between collars *c* on the shaft E. (See Figs. 5 and 6.)

Around the peripheries of the drums F F' pass one or more coils of two wire ropes or other cables, G G', respectively, to which a horizontal continuous traveling motion in opposite directions is imparted by steam or other power suitably located, the cables G G' being guided in their course by guide-pulleys *d*, carried by the lower portion of the frame-work D. The under side of the upper drum, F, and the top side of the lower drum, F', are respectively formed with notched hubs *e e'*, and on the shaft E, midway between the drums F F', is a double clutch, H, which is thrown into or out of gear with either of the hubs *e e'* of the drums F F', as required, by the clutch-lever I, which passes at one end through slots *x* in the lower extension, *y*, constituting the fulcrum of the clutch-lever I, which is hinged part way therefrom to the double clutch H, so that the latter cannot turn on the shaft E.

From the double clutch H the lever I extends to the outside of the frame-work D, where it is raised or lowered by the hand-lever J and connecting-rod K. The upper drum, F, has on its upper side a notched hub, *f*, and on the shaft E, above the drum F, is feathered a clutch, L, which is thrown into or out of gear, when required, with the upper notched hub, *f*, of the drum F, by the lever M, which is raised or lowered by the hand-lever N and connecting-rod O. On the upper end of the shaft E is fixed a capstan, P.

Surmounted and pivoted centrally to the float or lorry A is a turn-table, Q, carrying the ordinary-gage railroad-track R.

The mode in which my invention is operated for transferring a railroad-car from one track to another is as follows: Assuming the float or lorry A, with its turn-table Q, to be in the position shown in Fig. 1, with its track R in line with the track S, from which it is desired to transfer the car T, the rope *g* from the capstan P is hitched onto the farther end of the car T, and the clutch L being then thrown into gear with the hub *f* of the upper drum, F, (the double clutch H being meanwhile in its mid-position, or out of gear with either drum F F',) the traveling cable G, tightening its coils on the periphery of the drum F, will cause

the shaft E and capstan P to rotate, whereby the car T will be hauled onto the turn-table Q and float or lorry A. The clutch L being then disengaged from the hub *f*, the drum F will be rotated loosely on the shaft E by the motion of the cable G. It being then desired to transfer the car T to, say, a distant track, U, the double clutch H is thrown into gear with the notched hub *e* of the drum F, and the clutch H being prevented from rotating by its embracing-lever I, thereby locks the drum F and the traveling cable G, tightening its grip on, but being unable to rotate the drum F, pulls the float or lorry A, with its turn-table Q and the car T, along the track C, until the turn-table track R is in line with the track U, when the double clutch H is disengaged from the drum F, which now revolves freely again on the shaft E, and the float or lorry A, with its load, is thereby stopped. The rope *g* from the capstan P is then passed round the snatch-block V at the end of one of the upper timbers of the float or lorry A, and the capstan P, being again rotated by throwing the clutch L into gear with drum F, the car T is hauled off the float or lorry A onto the track U. If, on the contrary, it is desired to transfer the car T from the track S to, say, a track, W, in the opposite direction, the double clutch H will be thrown into gear with the notched hub *e'* of drum F', the cable G' of which is traveling in that direction.

For preventing the float or lorry A from accidentally traveling too far in either direction, I arrange, horizontally in line therewith, midway between the drums F F', and extending slightly beyond each end of the float or lorry A, a spring stop-bar, X, formed with a double-V-shaped hole, *h*, through which the clutch-lever I passes. In case of either end of the bar X striking against a stop block or post at the limit of the travel of the float or lorry A, the bar X will be forced endwise, and the V-shaped sides of the hole *h*, pressing on the lever I, brings the latter to the mid-position, as shown by dotted lines in Fig. 6[a], or so that the double clutch H is thrown out of gear with the drum F or F', as the case may be, and the progress of the float or lorry A is thereby stopped.

For transferring freight-cars from the ordinary-gage subsidiary street-tracks to the warehouses situated along other streets, as illustrated by Figs. 7, 8, 9, and 10, the cars being first shunted from the main track Y, Figs. 7 and 8, along the elevated street-track Y', are passed by the locomotive onto the turn-table Q', surmounting the float or lorry A', which, with its load, is then transferred along the elevated street-track Z to, say, warehouse 4, by the traveling cables G G' and other driving apparatus carried by the float or lorry A', this apparatus being similar to that already described for the float or lorry A used at the depot, and shown in Figs. 1 to 6, except that the hauling-gear used with the latter, and comprising the notched hub *f* on the drum F, clutch L, and capstan P, may be dispensed with in the case of the float or lorry A', as shown in Figs. 9 and 10.

If desired, I may dispense with turn-tables on the floats or lorries A' for transferring the cars to the warehouses and substitute a float or lorry, such as A[2], (shown in Fig. 11,) the driving apparatus therefor being similar to that already described.

On the arrival of the float or lorry A' at the warehouse 4 the turn-table Q' may be turned, so that the side of the car is parallel with the front of the building for the purpose of loading or unloading into or from the car; or when the turn-table is dispensed with, as in Fig. 11, the car may be run endwise along a temporary track from the float or lorry A[2] into the warehouse.

I claim—

1. In a railroad-car float or lorry, A A' or A[2], the combination of upright shaft E, drums F F', having notched hubs *e e'*, traveling cables G G', and double clutch H, substantially as shown, and for the purpose described.

2. In a railroad-car float or lorry, A A' or A[2], the combination of upright shaft E, drums F F', having notched hubs *e e'*, cables G G', double clutch H, and operating clutch-lever I, substantially as shown, and for the purpose described.

3. In a railroad-car float or lorry, A A' or A[2], the combination of upright shaft E, drums F F', having notched hubs *e e'*, traveling cables G G', double clutch H, clutch-lever I, and spring stop-bar X, substantially as shown, and for the purpose described.

4. In a railroad-car float or lorry, A, the combination of upright shaft E, drum F, having notched hub *f*, traveling cable G, clutch L, lever M, and capstan P, substantially as shown, and for the purpose described.

In testimony whereof I affix my signature, in presence of two witnesses, this 24th day of November, 1886.

WILLIS HORD.

Witnesses:
S. L. SCHRADER,
PAUL BAKEWELL.