

No. 684,965.

Patented Oct. 22, 1901.

F. WEIMAR.

CAR SWITCHING CRANE.

(No Model.)

(Application filed Feb. 4, 1901.)

2 Sheets—Sheet 1.

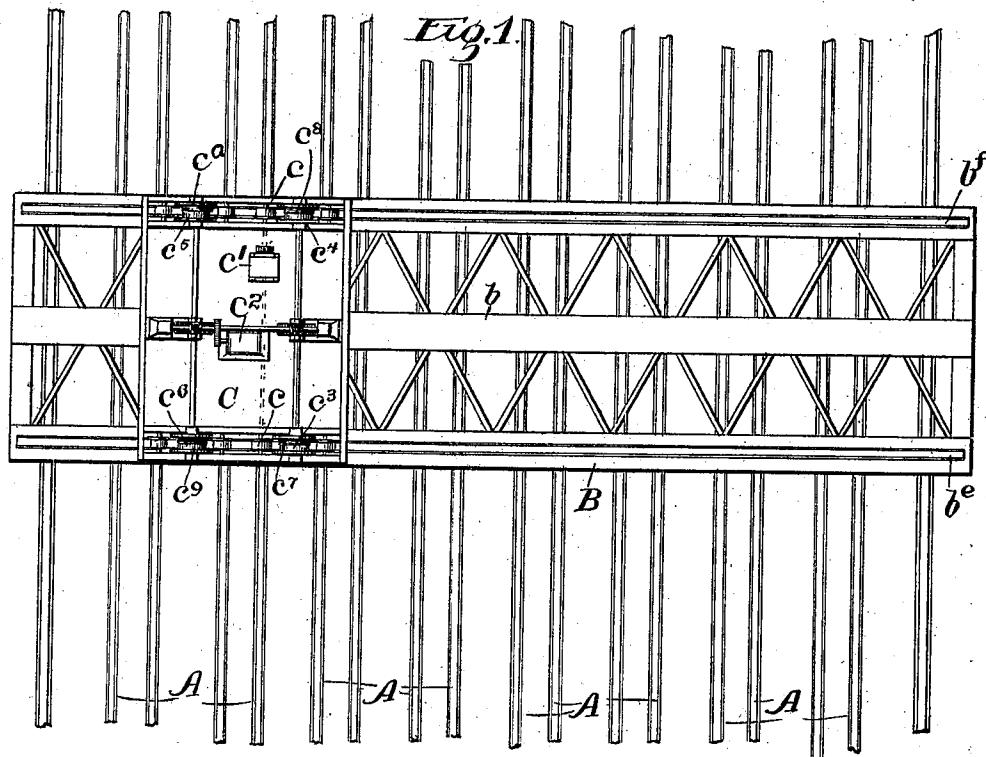
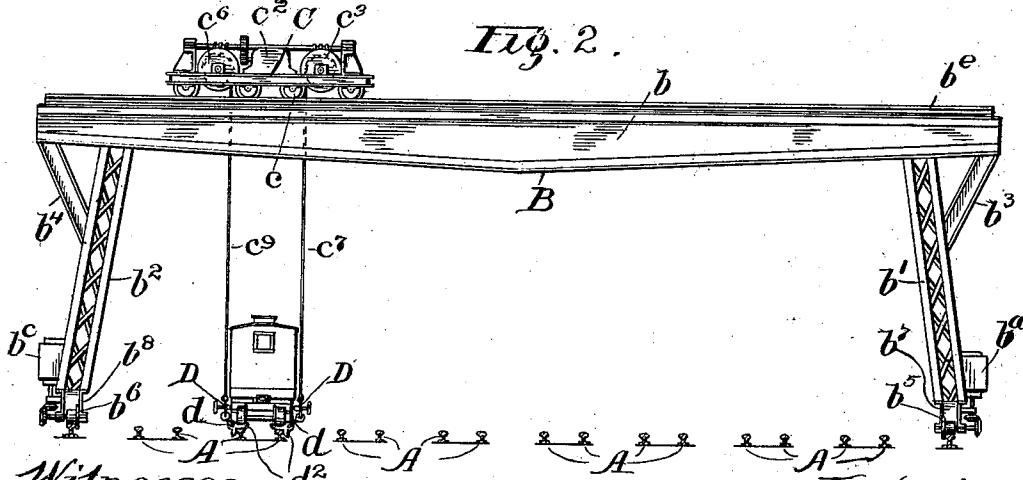


Fig. 2.



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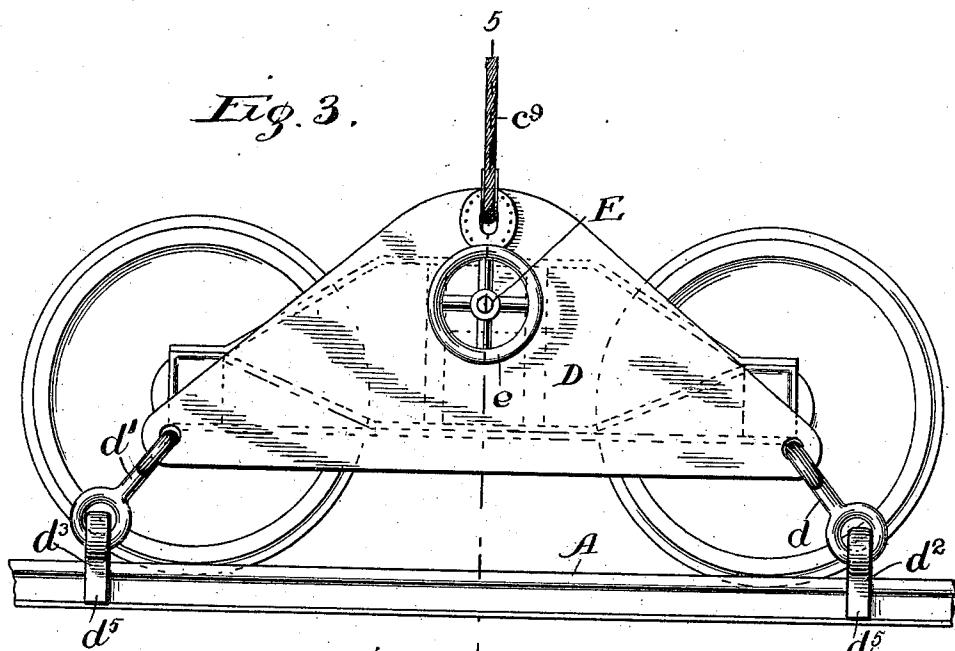
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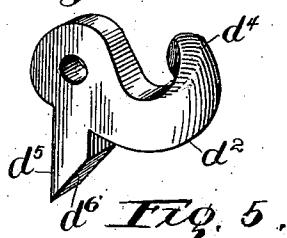
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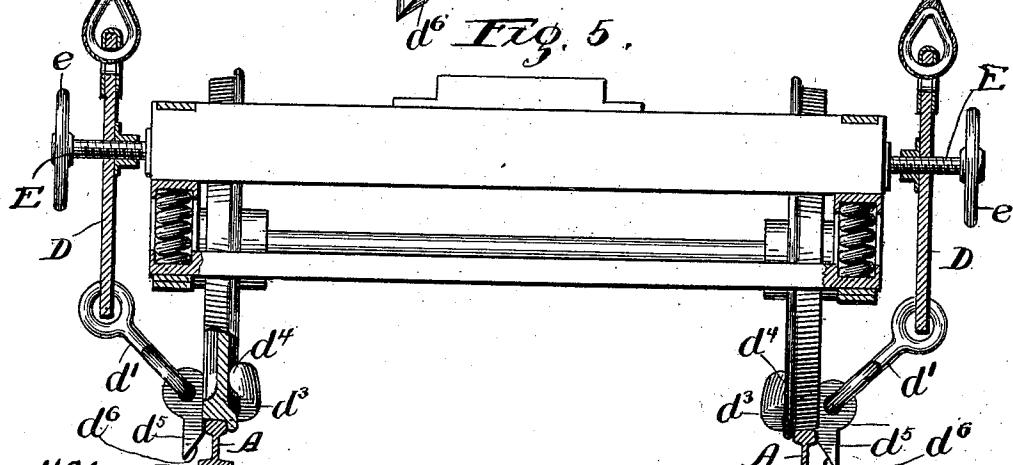
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*Fig. 4.*



*Fig. 5.*



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# UNITED STATES PATENT OFFICE.

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## CAR-SWITCHING CRANE.

SPECIFICATION forming part of Letters Patent No. 684,965, dated October 22, 1901.

Application filed February 4, 1901. Serial No. 45,850. (No model.)

*To all whom it may concern:*

Be it known that I, FRED WEIMAR, a citizen of the United States of America, residing at Chicago, in the county of Cook and State 5 of Illinois, have invented certain new and useful Improvements in Car-Switching Cranes, of which the following is a specification.

My invention relates to certain improvements in car-switching cranes, the object of 10 which is to adapt a traveling crane of ordinary construction to use in switching cars from one to another of a series of railroad-tracks arranged side by side, as in the ordinary freight-yards.

15 To such end the invention consists in certain novel characteristics, the preferred details of which will appear in the following description, and the essential features of which will be pointed out in the appended claims.

20 In the drawings, Figure 1 is a plan view of a complete apparatus and a series of tracks which it spans. Fig. 2 is a side elevation of the same, showing the tracks in section. Fig. 3 is a side elevation of the portions of the apparatus which engage the tracks. Fig. 4 is 25 a perspective of one of the wheel-engaging hooks; and Fig. 5 is a transverse section in the line 5 5 of Fig. 3, showing a portion of one of the wheels broken away to reveal the 30 point of one of the hooks.

In the drawings, A represents a series of railroad-tracks, and B is a traveling crane spanning said tracks and moving longitudinally thereon. The bridge b of the crane is 35 carried upon posts b' b<sup>2</sup>, braced at b<sup>3</sup> b<sup>4</sup> and resting upon flanged wheels b<sup>5</sup> b<sup>6</sup>, journaled in the feet b<sup>7</sup> b<sup>8</sup> of the posts and rotated when desired by means of suitable gearing driven by motors b<sup>a</sup> b<sup>c</sup>. Means are thus provided 40 for moving the crane longitudinally upon the railroad-tracks, and a car C moves transversely of the tracks upon rails b<sup>e</sup> b<sup>f</sup> upon the bridge b of the crane. The wheels c of the car C are driven by suitable connections with the motor c', and a second motor c<sup>2</sup> is geared 45 in an ordinary manner to drums c<sup>3</sup> c<sup>4</sup> c<sup>5</sup> c<sup>6</sup>, carrying ropes c<sup>7</sup> c<sup>8</sup> c<sup>9</sup> c<sup>a</sup>, to the bottoms of which are secured, preferably, triangular blocks D, the blocks being hung from the 50 ropes preferably midway between their ends

and carrying at their ends links d d', upon which are hung hooks d<sup>2</sup> d<sup>3</sup>, a perspective of the hook d<sup>2</sup> being shown in Fig. 4. Each hook has a curved portion d<sup>4</sup>, adapted to engage the flange and tread of the wheel, and a guiding-lug d<sup>5</sup>, beveled outwardly at d<sup>6</sup>, to assist in properly locating the wheels upon the rails as the cars are lowered thereto. 55

Bearing-screws E are threaded in the plates D and provided with hand-wheels e, by means 60 of which they may be turned toward or from the truck-frame to hold the plates at proper distances therefrom.

In the operation of the device the car C is brought into position over a freight-car, the 65 hooks d<sup>2</sup> d<sup>3</sup> engaged with the wheels thereof, and the car lifted bodily from the track and carried, by means of the traveling crane, to any desired part of the yard and lowered upon the proper track. By this means the switching 70 of a great number of freight-cars may be done quickly and with but little expenditure of power and the capacity of the yards greatly increased by the saving of the moving of long trains back and forth, as is necessary in arranging the cars upon the proper tracks and in the proper places by means of the ordinary switches. 75

The details of the apparatus are immaterial to some of its most important features, and 80 for that reason I do not limit the invention to the exact construction.

I claim as new and desire to secure by Letters Patent—

1. In a car-switching crane, the combination 85 with a longitudinally-movable bridge, of a laterally-movable car thereon having hoisting apparatus and ropes depending therefrom, and car-wheel-engaging hooks supported by the ropes adapted to engage with the periphery of the wheels and having the hooks, d<sup>4</sup>, fitted to the inner side of the car-wheel flanges; substantially as described.

2. In a car-switching crane, the combination 95 with a longitudinally-moving bridge, of a laterally-moving carriage thereon, hoisting apparatus upon said carriage, ropes connected to said hoisting apparatus, and devices upon the ends of the ropes provided with hooks adapted to engage the car-wheels and having 100

guiding devices to assist in bringing the car-wheels in proper position upon the tracks; substantially as described.

3. In a car-switching crane, the combination with a longitudinally-moving bridge and a laterally-moving car thereon having hoisting devices and ropes depending therefrom, of a series of plates hung from the ropes having adjustable means for engagement with the truck-frames to hold the ropes away from the car and having car-wheel-engaging hooks adapted for engagement with the wheels of the car to lift the same; substantially as described.
- 15 4. In a car-switching crane, the combination with a longitudinally-moving bridge, of a laterally-movable car thereon having hoisting apparatus and ropes depending therefrom, and car-wheel-engaging hooks supported by the ropes and means for holding the

ropes away from the cars; substantially as described.

5. In a car-switching crane, the combination with a longitudinally-movable bridge, of a laterally-movable car thereon having hoisting apparatus and ropes depending therefrom, and car-wheel-engaging hooks supported by the ropes, said hooks being adapted to engage the periphery of the car-wheels and having the guiding-lug,  $d^5$ , beveled on the 3<sup>d</sup> side toward the rail; substantially as described. 25

In witness whereof I have hereunto set my hand, at Chicago, in the county of Cook and State of Illinois, this 19th day of January, 35 A. D. 1901.

FRED WEIMAR.

Witnesses:

CHAS. O. SHERVEY,  
S. BLISS.