No. 874,367. PATENTED DEC. 17, 1907.

E. Y. MOORE.

TROLLEY.

APPLICATION FILED SEPT. 6, 1907.

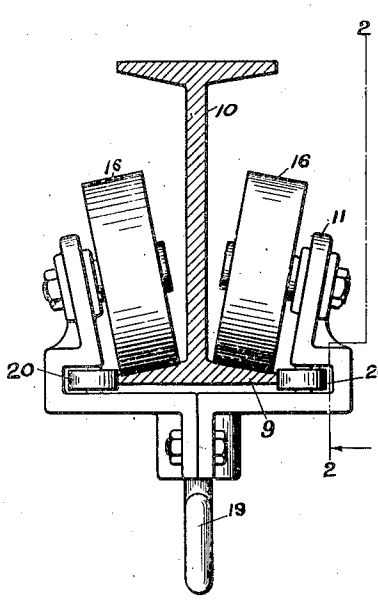

FIG. 1.

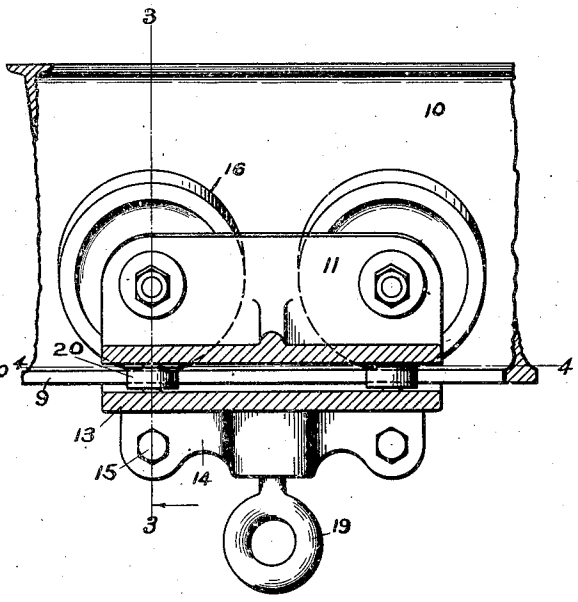

FIG. 2.

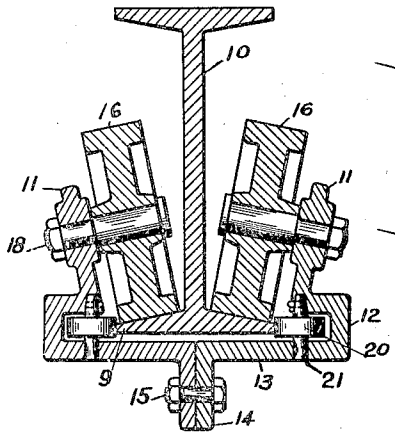

FIG. 3.

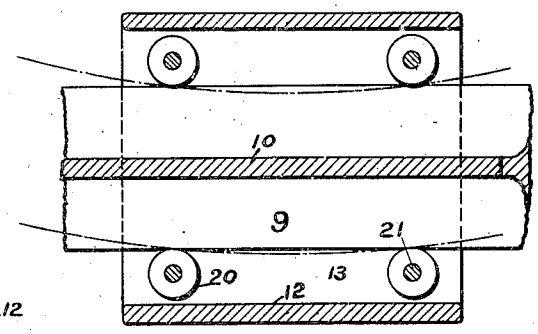

FIG. 4.

WITNESSES:

Norman Bridesat.

Nathan F. Fretter.

INVENTOR,

Edward Y. Moore

BY Baker Foulds & Hull,

ATTYS.

UNITED STATES PATENT OFFICE.

EDWARD Y. MOORE, OF CLEVELAND, OHIO.

TROLLEY.

No. 874,367. Specification of Letters Patent. Patented Dec. 17, 1907.

Original application filed June 8, 1907, Serial No. 377,889. Divided and this application filed September 6, 1907. Serial No. 391,548.

To all whom it may concern:

Be it known that I, EDWARD Y. MOORE, a citizen of the United States, residing at Cleveland, in the county of Cuyahoga and State of Ohio, have invented a certain new and useful Improvement in Trolleys, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings.

This invention relates to trolleys adapted to travel on a suitable support and carry a load. The trolley may or may not be combined with raising mechanism to make a traveling hoist, as desired.

The object of the invention is to increase the efficiency of such trolleys by arranging them so that they may move freely whenever desired, whether the track be straight or curved, and may be clamped to such track at any point.

The invention resides in the means by which these advantages are attained, as will be hereinafter described and definitely set out in the claims.

In the drawings, Figure 1 is an end elevation of my trolley, supported on a suitable I-beam. Fig. 2 is a sectional side elevation of the same, the plane of the section being indicated by the line 2—2 in Fig. 1. Fig. 3 is a cross section in a plane parallel with Fig. 1, on the line 3—3 on Fig. 2. Fig. 4 is a sectional plan taken just above the lower flange of the I-beam, as indicated by the line 4—4 in Fig. 2.

Referring to the parts by reference numerals, 10 represents an I-beam support, on the lower flange 9 of which the trolley rides. The frame of the trolley is shown as composed of a pair of members extending onto opposite sides of the I-beam and connected together beneath the I-beam. The frame may thus be described as being generically of a U-shape. As shown, it has portions 11 which are opposite the web of the I-beam and are inclined parallel with the normal to the top surface of the flange 9 of the I-beam. At their lower edges, these side members 11 continue outwardly and then downwardly in the offset portion 12, and then inwardly, as shown at 13 beneath the I-beam, and finally downwardly as shown at 14, where they are held together by bolts 15.

19 represents a suitable supporting eye, which is shown as carried by the trolley frame, beneath the I-beam. This is to be taken as illustrative of any load supporting device which is carried by or mounted on the trolley.

The trolley is supported by wheels 16, which ride on the lower flange 9, being mounted on studs 18 carried by the portions 11 of the frame. These wheels 16 are flangeless. By reason of these wheels being inclined and standing normal to their inclined support, as shown, they tend to properly center the trolley on the support.

To insure against lateral displacement or binding, I provide guide rollers 20, mounted on vertical pins 21. These rollers are located in the offset portion of the frame, the upper ends of the pins extending into the frame approximately at points where it bends outwardly, and the lower ends extending into the horizontal portion 13 of the frame. These rollers ride against the vertical edge of the I-beam flange 9. This construction enables the hoist to freely pass around curves without binding, which has heretofore resulted from flanges on the supporting wheels. Moreover, such flanges have always been a source of wear, which my hoist avoids. The construction is simple and is capable of embodiment in a very compact form, as shown.

Having thus described my invention, I claim:

1. The combination with a trackway supported from above, of a trolley having wheels riding on a flange of the trackway, the trolley extending transversely beneath such flange, and guide wheels carried by the trolley and adapted to engage the edge of the flange.

2. The combination with an I-beam, of a trolley having a frame extending beneath the I-beam and above its lower flange, wheels carried by the upward extensions of the frame and adapted to ride on such flange, and other wheels carried by the frame and adapted to engage the edge of the I-beam.

3. In a mechanism adapted to travel on the lower flange of an I-beam and extend transversely beneath the beam, in combination, a frame, supporting wheels carried thereby adapted to ride on such flange, and guiding wheels carried thereby adapted to engage the edge of the flange.

4. In a mechanism adapted to travel on the lower flange of an I-beam, the combination of a frame adapted to extend beneath such I-beam and onto the opposite sides thereof, flangeless supporting wheels carried by said frame, and adapted to track on the

upper surface of the I-beam-flange, and guide wheels carried by the frame and adapted to engage the edge of such flange.

5. In a mechanism adapted to travel on the lower flange of an I-beam, the combination of an approximately U-shaped frame extending beneath the I-beam and onto opposite sides thereof, flangeless supporting wheels carried on the inner sides of the side members of the frame and inclining outwardly, and rollers carried on vertical pins mounted in the frame and adapted to engage the edge of the flange.

6. In a mechanism of the character described, the combination of a frame extending beneath its points of support, load supporting means carried thereby, flangeless supporting wheels carried by the frame, and lateral guide wheels carried by the frame.

7. In a mechanism of the character described, the combination of a frame having side members, studs carried by said members, supporting wheels journaled on said studs, and leaving space between them for the support of the trackway, and guiding wheels on vertical pins mounted in the frame.

8. In a mechanism adapted to travel on a support, in combination, a frame, inwardly projecting studs carried thereby, supporting wheels journaled on said studs, said frame being offset outwardly beneath the studs, and then extending inwardly beneath the supporting wheels and guiding wheels carried by the frame in said offset portion.

9. In a mechanism adapted to travel on a depending track, the combination of an approximately U-shaped frame extending beneath the track and onto opposite sides thereof, supporting wheels carried on the inner sides of the side members of the frame, the frame being offset below such wheels, and rollers carried on vertical pins mounted in the frame at such offset portions and adapted to engage the track.

10. In a mechanism adapted to travel on the lower flange of an I-beam, in combination, a frame, supporting wheels carried on the inner sides of the frame and inclining outwardly, and adapted to ride on such flange, and guiding wheels carried by the frame on vertical journals and adapted to engage the edge of the flange the frame being brought inward beneath the guiding wheels and beneath the I-beam flange.

11. The combination of a mechanism adapted to travel on the lower flange of an I-beam, comprising a frame made in two parts, each part having an upwardly projecting side plate, a lateral portion and a downward portion, the two lateral portions coming together beneath the I-beam flange and being secured by such downward portion, supporting wheels carried by the upwardly projecting portions of the frame, and guide wheels carried intermediately by the frame and engaging the edge of the flange.

12. In a mechanism of the character described, the combination of a substantially U-shaped frame, a pair of supporting wheels carried by the upwardly projecting side members of the frame on their inner sides, there being space between the wheels for a track support, and space beneath the wheels and above the intermediate portion of the frame for the track, and guide wheels carried by the frame above such intermediate portion and adapted to engage the edge of the track.

13. The combination of a frame having side members, studs carried by the side members, supporting wheels journaled on the studs, the frame extending transversely from one side to the other beneath the supporting wheels and lateral guide wheels carried by the frame adjacent to the edge of the trackway.

14. The combination of a frame having side members, studs carried by the side members, supporting wheels journaled on the studs, the frame extending transversely from one side to the other beneath the supporting wheels and lateral guide wheels carried by the frame adjacent to the edge of the trackway, said guide wheels being mounted on vertical pins, the prolongation of whose axes substantially intersect the axes of the studs.

In testimony whereof, I hereunto affix my signature in the presence of two witnesses.

EDWARD Y. MOORE.

Witnesses:

ALBERT H. BATES,

BRENNAN B. WEST.