No. 859,691. PATENTED JULY 9, 1907.

H. S. POTTER.

END DUMP CAR.

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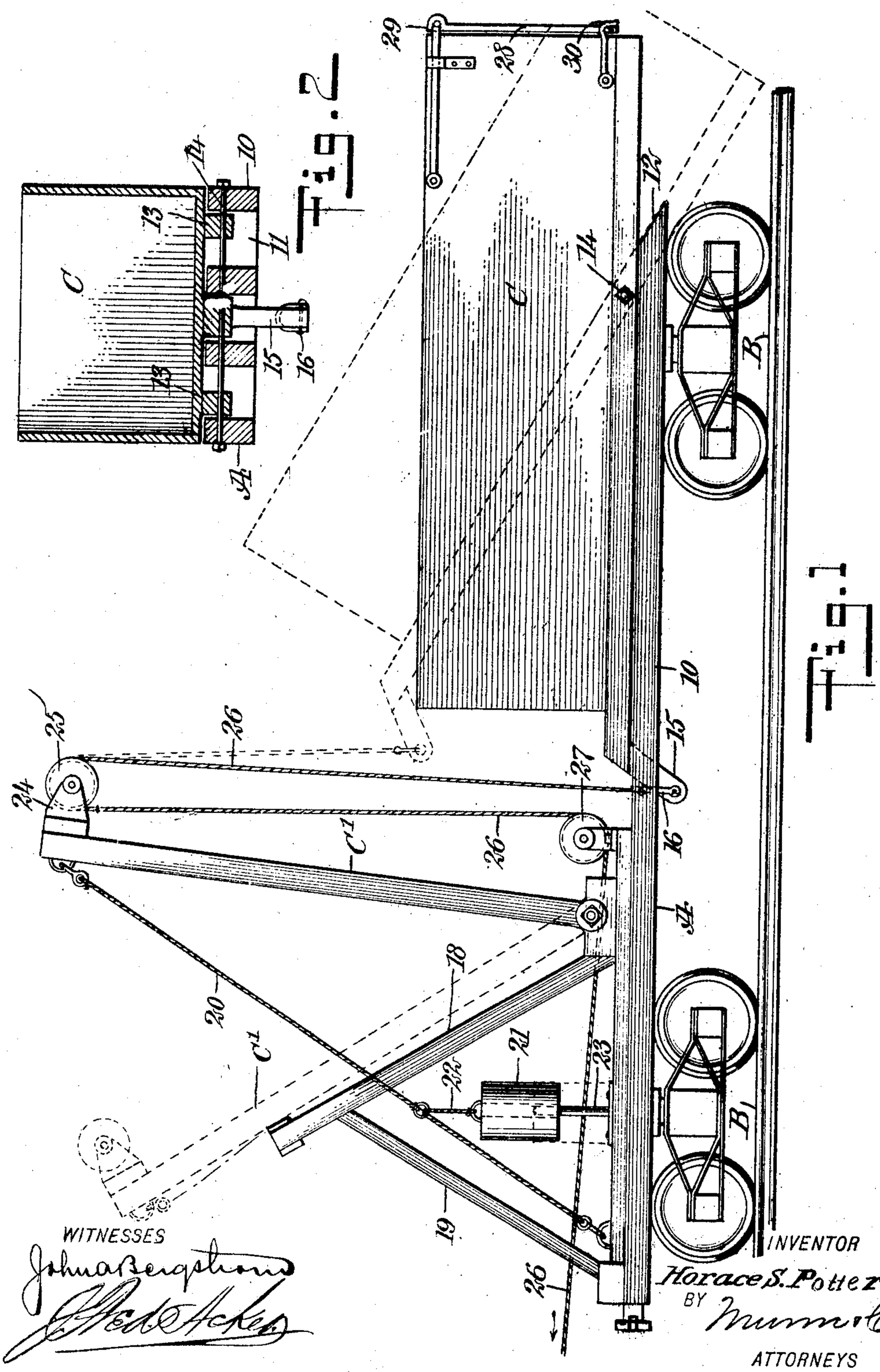

UNITED STATES PATENT OFFICE.

HORACE S. POTTER, OF JERSEY CITY, NEW JERSEY.

END-DUMP CAR.

No. 859,691. Specification of Letters Patent. Patented July 9, 1907.

Application filed February 9, 1907. Serial No. 356,539.

To all whom it may concern:

Be it known that I, HORACE S. POTTER, a citizen of the United States, and a resident of Jersey City, in the county of Hudson and State of New Jersey, have invented a new and useful Improvement in End-Dump Cars, of which the following is a full, clear, and exact description.

The purpose of the invention is to provide a railroad car especially adapted for construction usages, of large capacity, and which dispenses with trestle work, and wherein the body of the car will dump at the end of the bed or platform instead of at the sides as is customary, enabling the material carried by the body of the car to be readily shoveled to either side of the track or deposited directly upon the road-bed, thus greatly facilitating the building up of the latter.

It is also a purpose of the invention to construct a car of the character described in a very simple, durable and economic manner, and so that the body of the car will be dumped by means of a motor on the car, or a motor independent of the car.

The invention consists in the novel construction and combination of the several parts as will be hereinafter fully set forth and pointed out in the claims.

Reference is to be had to the accompanying drawings forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a side elevation of the improved car; and Fig. 2 is a transverse section taken through the body of the car and its bed or platform at the point where the said body is hinged or pivotally connected with the platform or bed.

A represents a bed of a car adapted for construction purposes, comprising a series of longitudinal sills 10, and crossed sills 11, as is particularly shown in Fig. 2, and the rear end portions of the longitudinal sills 10 are preferably given a downward and outward inclination, shown at 12 in Fig. 1.

C represents the body of the car or that portion thereof which is to carry the load. This body C is provided with longitudinal sills 13 at the bottom that extend between the corresponding sills 10 of the bed or platform A, and the body C is pivotally attached to the bed or platform A by means of a pivot rod 14, or its equivalent, passed through the longitudinal sills 10 of the bed or platform, and through the sills 13 of the body, as is shown in Fig. 2. The body C is so pivoted on the bed that when the said body is carried to dumping position it will occupy the downwardly and rearwardly inclined position shown in dotted lines in Fig. 3. A downwardly and forwardly extending arm 15 is secured to the inner end of the central sill 13 of the body C, and when the body is in its carrying position shown in full lines in Fig. 1, the said arm 15 extends through an opening in the bed or platform A. A link 16 is attached to the lower end of the arm 15 for a purpose to be hereinafter described.

A mast C′, preferably of an A-shape, is pivotally supported at its lower end in sockets 17 secured to the bed or platform A, opposite the inner end of the body C, but I desire it to be understood that I do not restrict myself to any particular form of mast. When the mast C′ is inoperative it lies against a bulkhead 18 that has an upward and forward inclination, being sustained by the platform or bed A just forward of the sockets 17, as is shown in Fig. 1, and preferably this bulkhead is provided with braces 19, also secured to the bed or platform. When the mast C′ rests against the bulkhead 18, its upper end is sufficiently lowered to clear bridges and other overhead obstructions that are common to railways. The mast C′ is provided with stay ropes 20 secured to its upper end and these stay ropes 20 are also secured to the bed or platform A at its forward end portion, as is shown in Fig. 1. Weights 21 are attached to the stay ropes 20 by means of flexible connections 22, and by preference the weights 21 are adapted for sliding movement upon guides 23 secured to the said bed or platform A, as is also shown in Fig. 1. When the body C of a car is in dumping position, the weights 21 act automatically to bring the mast C′ in resting position relatively to the bulkhead 18, as is shown in dotted lines in Fig. 1. A bearing 24 is located at the upper rear portion of the mast C′ and in this bearing, which is horizontal, a pulley 25 is mounted to turn. A cable 26 is passed over the said pulley 25 and one end of this cable is attached through the medium of the aforesaid link 16 of the arm 15 at the inner end of the body C, while the other portion of the said cable 26 is passed over a pulley 27 at the central portion of the bed or platform A, and in front of the body C, and this portion of the said cable 26 is carried to the engine or to a windlass operated by the engine, or to a drum or the equivalent, located on the bed or platform, and operated, for example, by an independent motor, but the power for lifting up the body C may be changed at will. The arm 15 from the body C extending normally down through the bed or platform A with the forward and downward inclination described, enables the body C to be lifted to dumping position, as is shown in dotted lines in Fig. 1, with comparatively but a slight travel of the cable 26. When the cable 26 is drawn upon to bring the body C in dumping position it automatically carries the mast C′ to a position to constitute a fulcrum, as is shown in positive lines in Fig. 1. The end gate 28 for the body C is hinged thereto at the top, as is shown at 29 in Fig. 1, in any suitable or approved manner, and is normally held closed at its bottom by any

approved type of latches 30. When the load is to be dumped the latches are disconnected from the end gate or tail board 28, and the latter trailing upon the surface between the tracks on which the car is supported, will serve to distribute the load as the car advances.

I desire it to be understood that the elevating mechanism may be set far enough back to enable a train of said cars to be coupled together, or that the forward end of the car may be made longer than shown to accomplish the same result.

Having thus described my invention, I claim as new and desire to secure by Letters Patent,—

1. A railway car comprising a wheel supported bed, and a body pivoted on the bed and arranged to dump at the rear thereof, a mast pivoted to the car, a forwardly inclined support for the mast, means for normally retaining the mast on the support, a pulley at the foot of the mast, a cable connected with the body and passing over the mast and the pulley at the foot thereof, whereby when traction is exerted on the cable, the mast will be moved forwardly and the body dumped.

2. A railway car comprising a wheel supported bed, a body pivoted thereon and arranged to dump at the rear of the bed, a pivot mast and a cable connected with the said body and guided by the said mast for dumping the said body.

3. A railway car comprising a wheel supported bed, a body pivoted on the bed and arranged to dump at the rear thereof, a central arm located at the inner portion of the said body, which arm extends normally downwardly and forwardly through and beneath the bed, a mast pivoted on the bed adjacent to the arm carrying section of the body, a guide pulley located at the upper portion of the mast, a second guide pulley located adjacent to the lower portion of the mast, a cable attached to the said arm and passed over the said pulleys to be adapted for connection with a source of power.

4. A railway car comprising a wheel supported bed, a body pivoted on the bed and arranged to dump at the rear thereof, a central arm located at the inner portion of the said body, which arm extends normally downwardly and forwardly through and beneath the bed, a mast pivoted on the bed adjacent to the arm carrying section of the body, a guide pulley located at the upper portion of the mast, a second guide pulley located adjacent to the lower portion of the mast, a cable attached to the said arm and passed over the said pulleys to be adapted for connection with a source of power, guy ropes connected with the forward portion of the said mast and the said bed, and weights connected with the said guy ropes.

5. In a railway car, a wheel supported bed, a body pivoted on the said bed and arranged to dump at the rear thereof, a downwardly and forwardly extending arm located at the inner central portion of the said body, a mast pivoted on the bed adjacent to the inner end of the body, a cable connected with the said arm and adapted also for adjustment with a source of power, guides for the said cable carried by the said mast and the said bed, weighted guy ropes for the mast, and a bulkhead against which the mast is adapted to normally rest.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

HORACE S. POTTER.

Witnesses:
J. FRED ACKER,
JNO. M. RITTER.