

(No Model.)

2 Sheets—Sheet 1.

H. LORING & L. K. JEWETT.

RAILWAY CAR.

No. 327,093.

Patented Sept. 29, 1885.

Fig:3.

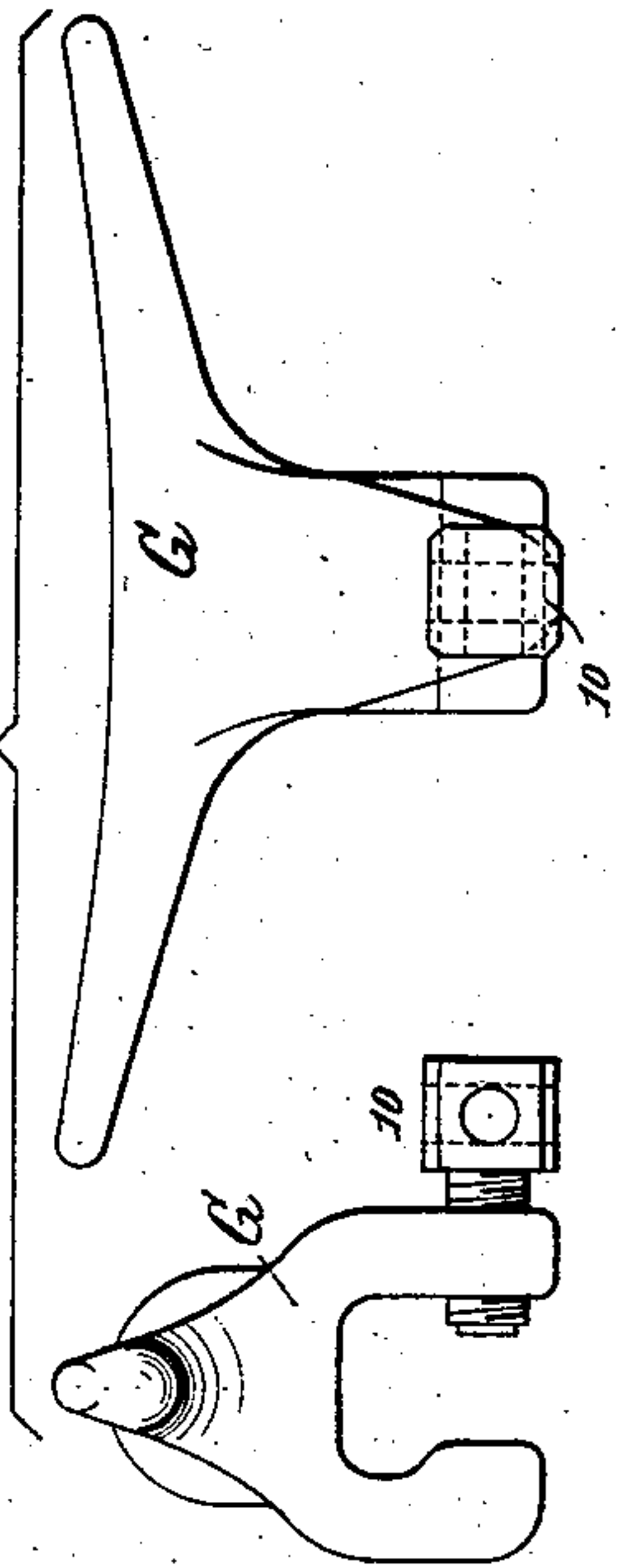


Fig:1.

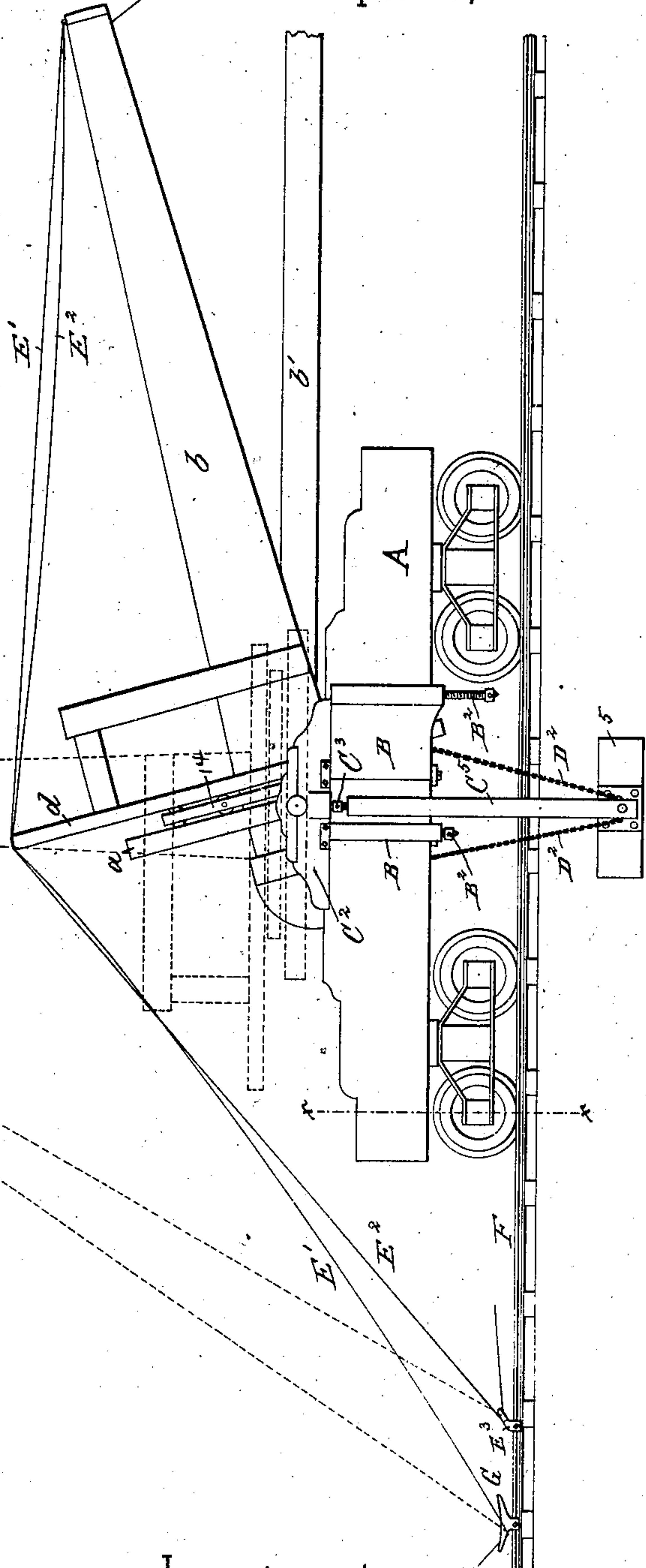
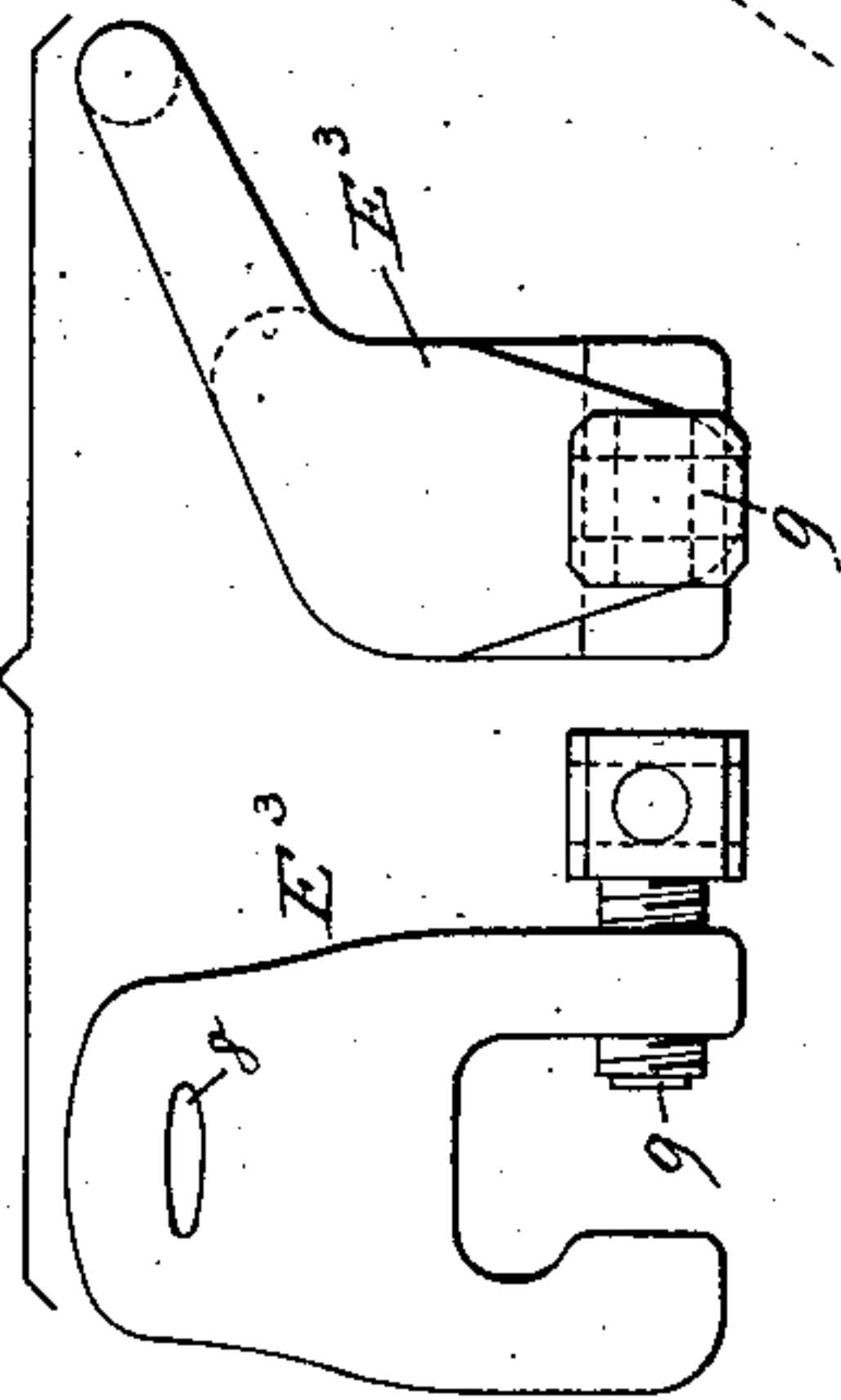


Fig:2.



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2 Sheets—Sheet 2.

RAILWAY CAR.

No. 327,093.

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Fig: 4.

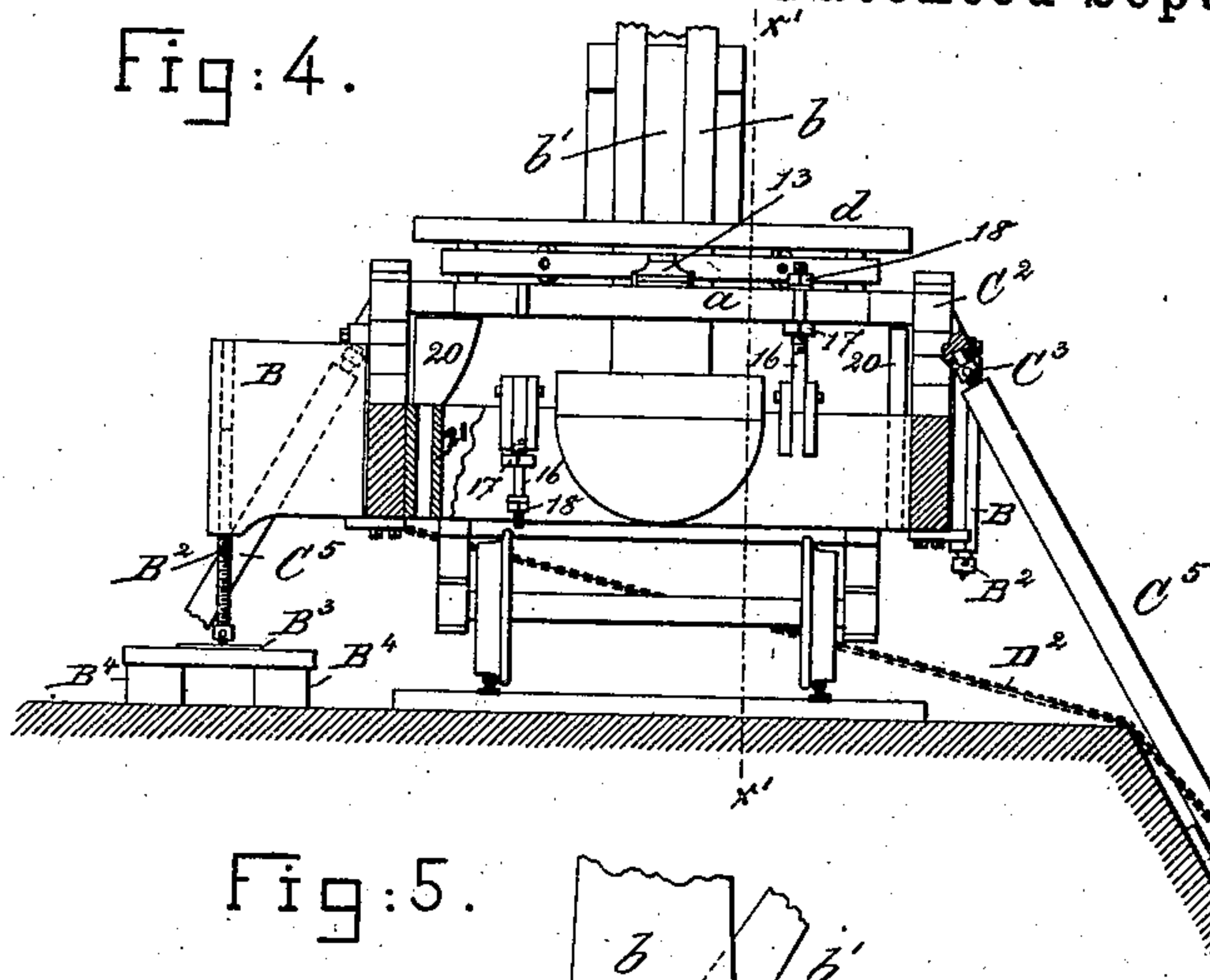


Fig: 5.

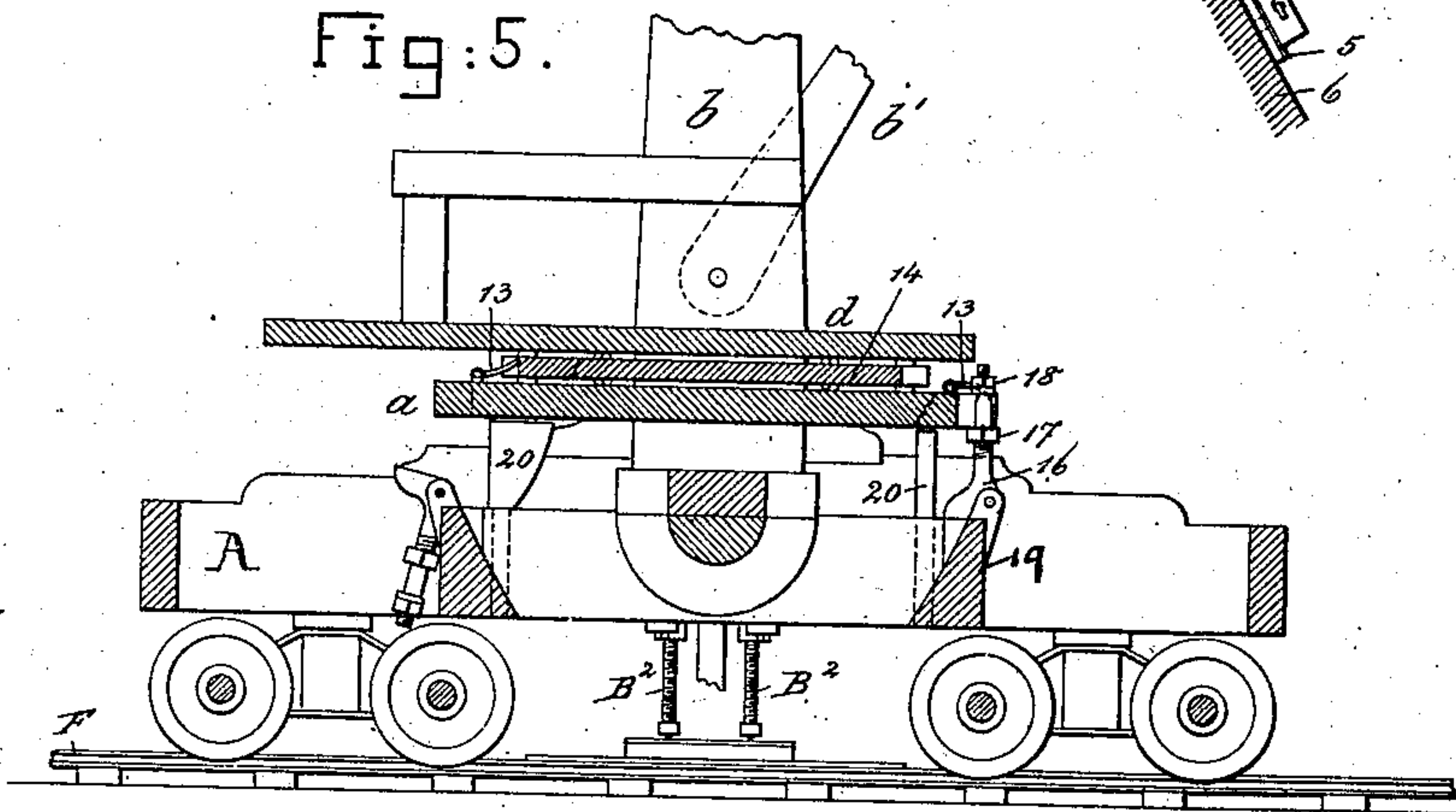


Fig: 6.

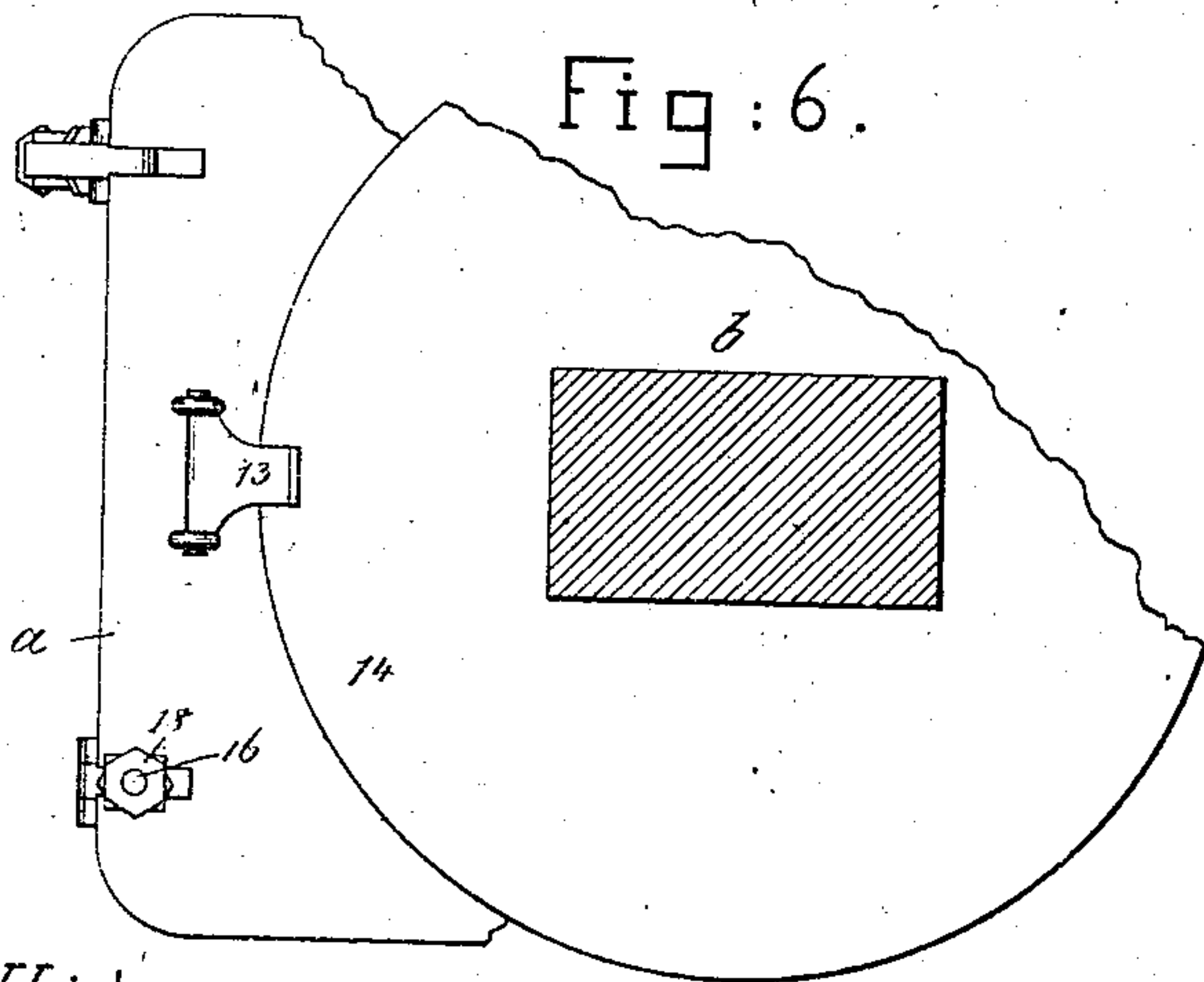
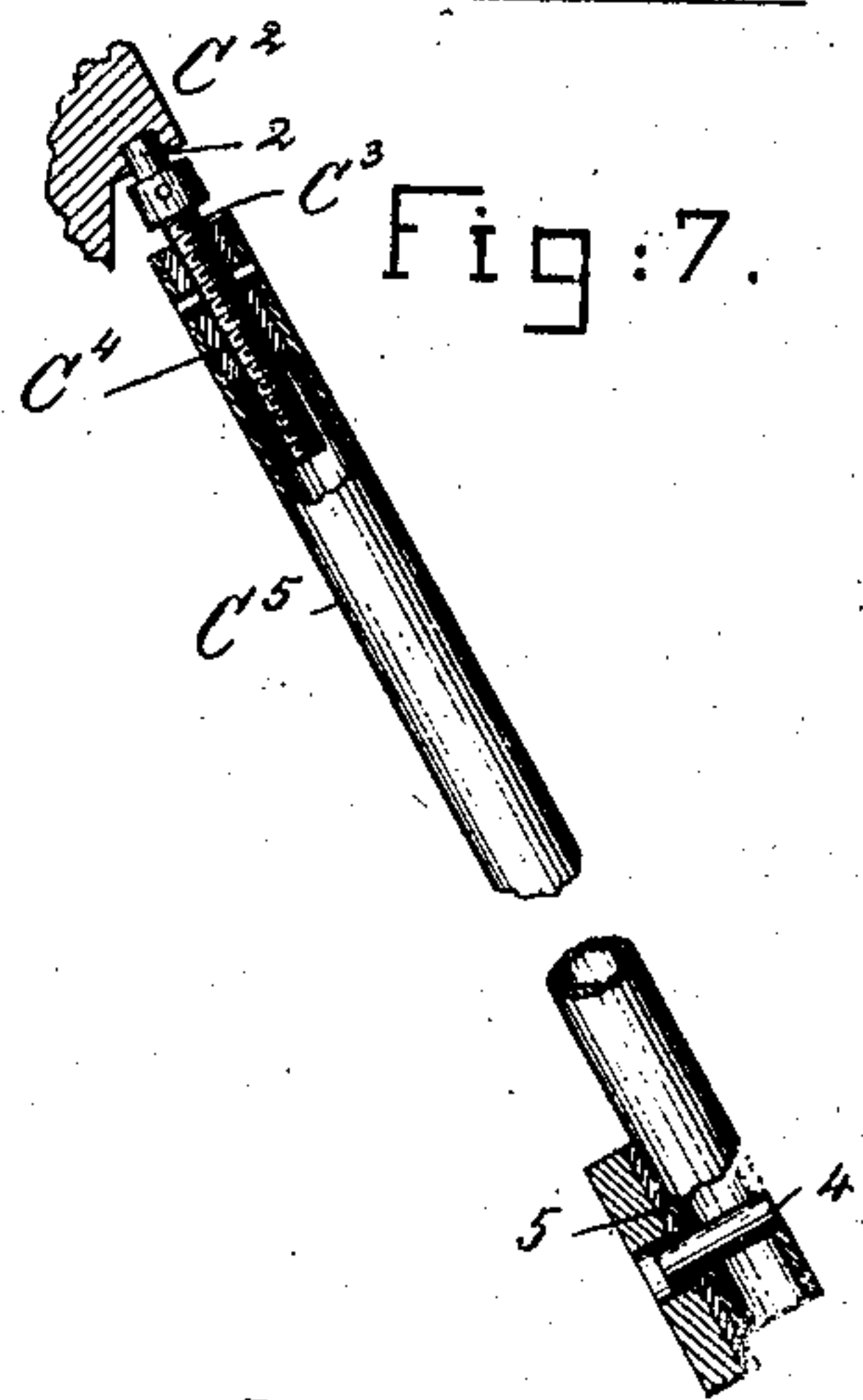


Fig: 7.



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UNITED STATES PATENT OFFICE.

HARRISON LORING AND LUTHER K. JEWETT, OF BOSTON, MASSACHUSETTS.

RAILWAY-CAR.

SPECIFICATION forming part of Letters Patent No. 327,093, dated September 29, 1885.

Application filed November 24, 1884. (No model.)

To all whom it may concern:

Be it known that we, HARRISON LORING and LUTHER K. JEWETT, of Boston, county of Suffolk, State of Massachusetts, have invented an Improvement in Railway-Cars, of which the following description, in connection with the accompanying drawings, is a specification, like letters on the drawings representing like parts.

This invention relates to that class of car employed for wrecking and railway construction, a crane being employed thereon, the invention being an improvement on that described in United States Letters Patent No. 252,672, dated January 24, 1882.

One object of our present invention is to provide more efficient side braces for the car-body, and another object is to provide means for controlling both the elevation and depression of the mast and its attached boom, and also to provide means for locking the mast-supporting or turn table in position.

Figure 1 is a side elevation of a sufficient portion of a railway-car of the class referred to to enable our invention to be understood; Figs. 2 and 3, enlarged details, respectively, of the anchor and kevel employed when raising and lowering the mast and its connected boom. Fig. 4 is a section of Fig. 1 in the dotted line $x x$, the mast being, however, elevated. Fig. 5 is a longitudinal section of Fig. 4 in the dotted line $x x'$. Fig. 6 is a partial plan of the trunnion ring or plate and the disk secured to the mast at the under side of the turn-table; and Fig. 7 is a sectional detail of the jack-screw and foot used at the side of the car and adapted to bear upon an embankment.

The car-body A, its trucks, the trunnion ring or plate a , the turn-table d , its attached mast b , and the boom b' are and may be all substantially as in the said patent, to which reference may be had, the said turn-table and trunnion ring or plate, in practice, having interposed between them a ring provided with anti-friction wheels, as in the said patents.

The car-body at one side has pivoted upon it wings B B', one of which in Fig. 1 is shown as closed against the side of the car, while the other wing is shown as turned outward. These wings or side supports each have suitable jack-screws, B³, which may be turned to

place their lower ends against suitable blocks or rests, B³, with sufficient force to sustain the car-body directly from the ground, or on suitable timbers, B⁴, thereon. In Figs. 4 and 5 the jack-screws of the wings B are supposed to be forced downward in contact with the block B³ with sufficient force to constitute a side support for the body of the car outside the track, thus greatly increasing the working base of the car. When the car is running on the track, these wings are closed, as represented by one of the wings, B, in Fig. 1, the jack-screw being elevated from contact with the road-bed. These wings and their jack-screws may be applied to both sides of the car-body. At times, when a wreck occurs on a portion of the track laid upon an elevated road-bed having embankments at each side, we find it of great importance to have a side support which may be readily sustained upon the inclined embankment. To make this practicable we have provided the metallic trunnion box or bearing C² with a seat (best shown in Figs. 4 and 7) to receive the end 2 of the screw C³, the co operating nut C⁴ of which is located in a shell or base, C⁵, having at one side, near its lower end, a stud, 4, (see Fig. 7,) which is made to enter a hole in a foot piece or block, 5, adapted to rest on the inclined face 6 of the embankment.

To sustain one end of the jack-screw, composed of the screw C³, nut C⁴, and shell C⁵, with the foot piece or block 5 in position on the inclined embankment, so as to resist the pressure against it of the jack-screw, we employ suitable chains, D², that at their other ends are attached to some fixed point which serves as an anchor. Preferably the said chains D² are attached to the car-body at its opposite side; but instead the said chains might be attached to some other suitable fixed body secured at the side of the track opposite the jack-screw referred to.

The turn-table, mast, and their connected parts, in practice, weigh upward of twenty tons, and hence are somewhat difficult to handle with safety. To raise and lower the mast we have provided it with two ropes, E¹ E², one of which is passed through the eye 8 of the metallic anchor E³, (see Fig. 2,) slotted or forked at its base to embrace the rail F, a set-screw, 9, securing the anchor in place on the

track. The other one of these two ropes is wrapped about the kevel G, (see Fig. 3,) also provided with a slot or space to embrace the rail F, a set-screw, 10, confining the kevel in place. The mast will be moved positively by the rope E' and then be held in place, when desired, by the rope E' over the kevel.

In order to retain the turn-table d and mast and trunnion-ring and their intermediate and attached parts in proper relative position when the trunnion-ring is to be turned to lower or to raise the mast, we have provided suitable locking devices, herein shown as catches, 13, pivoted upon the trunnion-ring a, and adapted by their free ends to engage suitable notches or projections of the turn-table or of the disk or plate 14, connected therewith, as in Fig. 5.

Instead of the so-called "ring-timbers" shown in the patent referred to, to keep the trunnion ring or plate in horizontal position, we have provided the car-body with trunnion-plate-locking devices, shown as pivoted bolts 16, having nuts 17 and 18, the said bolts between the said nuts engaging slots in the trunnion-plate, the said nuts by their adjustment preventing both the ascent and descent of the said plate. The bolt 16 has a broad base or head, and is pivoted at one side of its center line, as shown in Fig. 5, and takes a bearing on the cross-beam 19 of the car-body when the said bolt is in vertical position.

When the mast arrives nearly in vertical position, where it is to be secured by the engagement of the trunnion-plate-locking devices with the trunnion-plate, some one has to form the necessary connection, and to avoid accident, which might result in loss of life by carelessly permitting the end of the trunnion-plate to descend too far, we have provided the car-body with a trunnion-plate stop, 20, the lat-

ter being pivoted in the metal socket 21, (see Fig. 4,) attached upon the inner side of one of the beams of the car-body, and being swung out, as in Fig. 4, to receive the end of the trunnion-plate against it when the latter arrives in its proper position, the said stop being moved out of the ring when the bolts 16 have been placed in position to receive the trunnion-plate on the nuts 17.

We claim—

1. The car-body and jack-screw C³ C⁵, combined with a chain to sustain one end of the jack-screw, the opposite end of the chain being fixed with relation to the car-body, the outer lower end of the said jack-screw taking a bearing substantially as described, being on a foot or plate outside the track, substantially as described.

2. The car-body and pivoted mast mounted thereon and provided with a turn-table, d, near its bottom, combined with the rope E², connected to said pivoted mast at its top, and with the anchor adapted to be secured to the track independent of and removed from the car, substantially as described.

3. The car-body and trunnion-plate, combined with the bolt 16, pivoted to the car-body and provided with the nuts 17 and 18, arranged to operate substantially as described.

4. The car-body and trunnion-plate, combined with the pivoted trunnion-plate stop connected with the car-body, substantially as described.

In testimony whereof we have signed our names to this specification in the presence of two subscribing witnesses.

HARRISON LORING.
LUTHER K. JEWETT.

Witnesses:

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B. J. NOYES.