

No. 770,899.

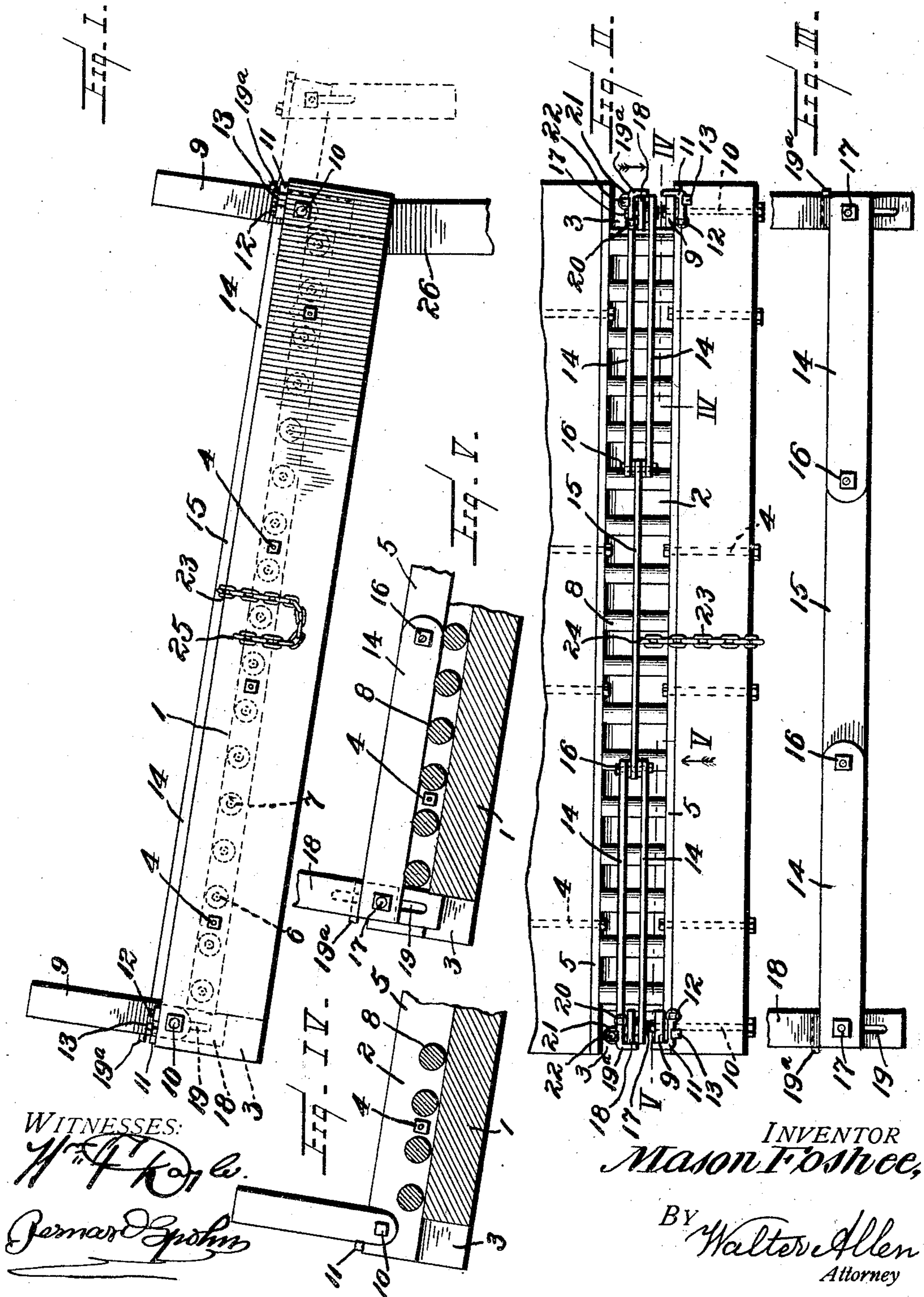
PATENTED SEPT. 27, 1904.

M. FOSHEE.  
BOLSTER FOR DUMPING CARS.

APPLICATION FILED JULY 5, 1904.

NO MODEL.

2 SHEETS—SHEET 1.



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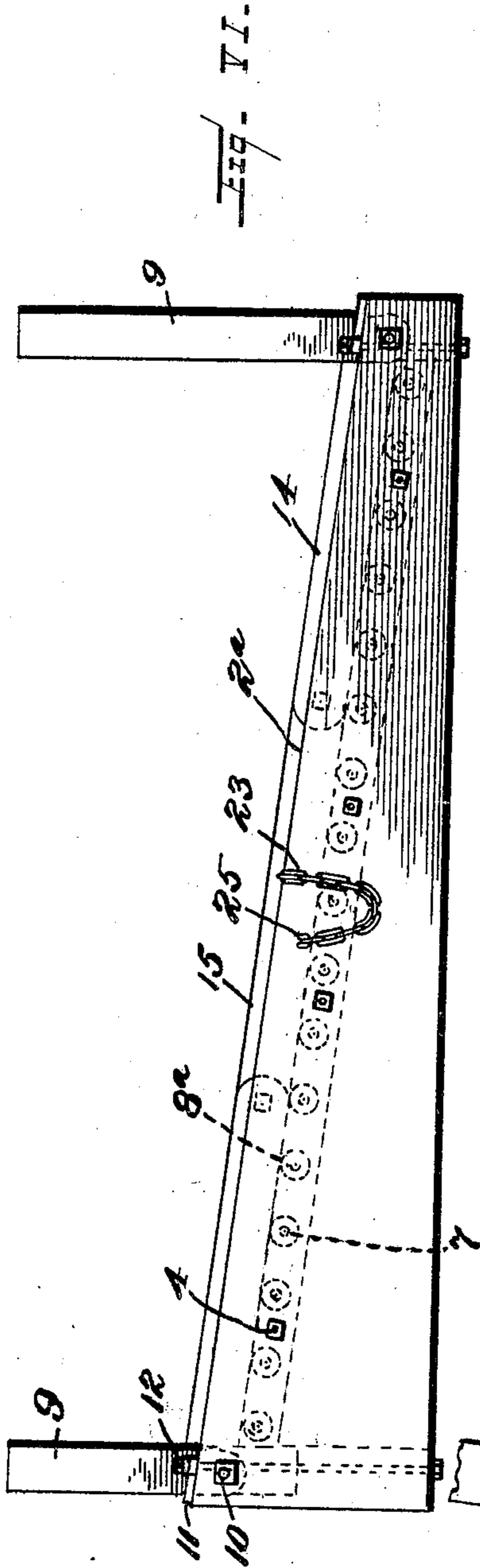


Fig. VI.

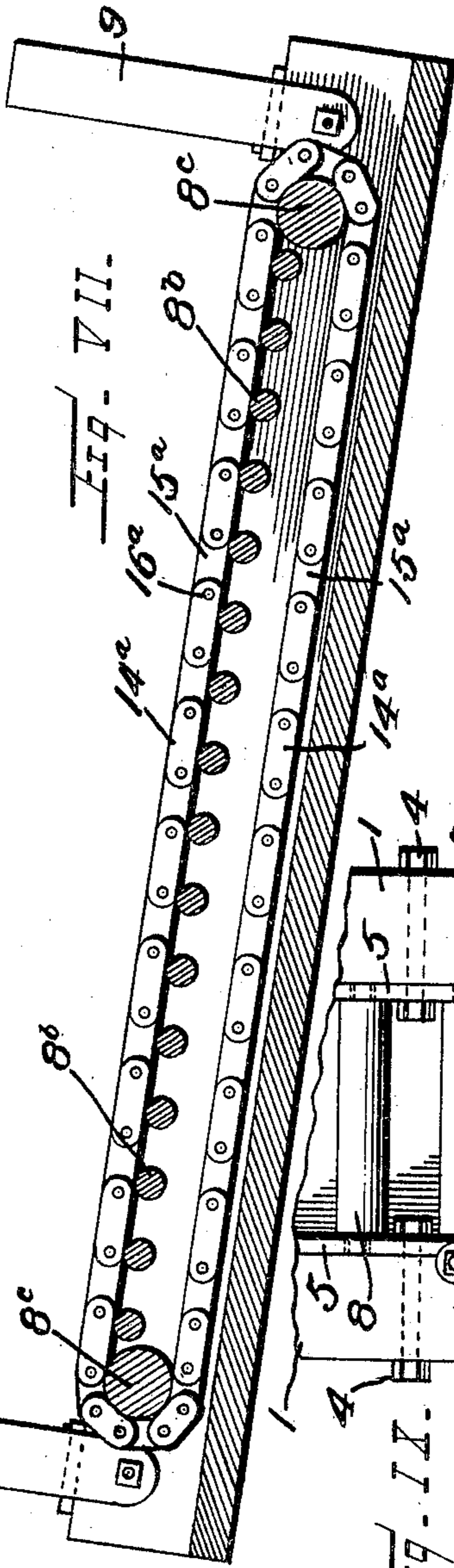


Fig. VII.

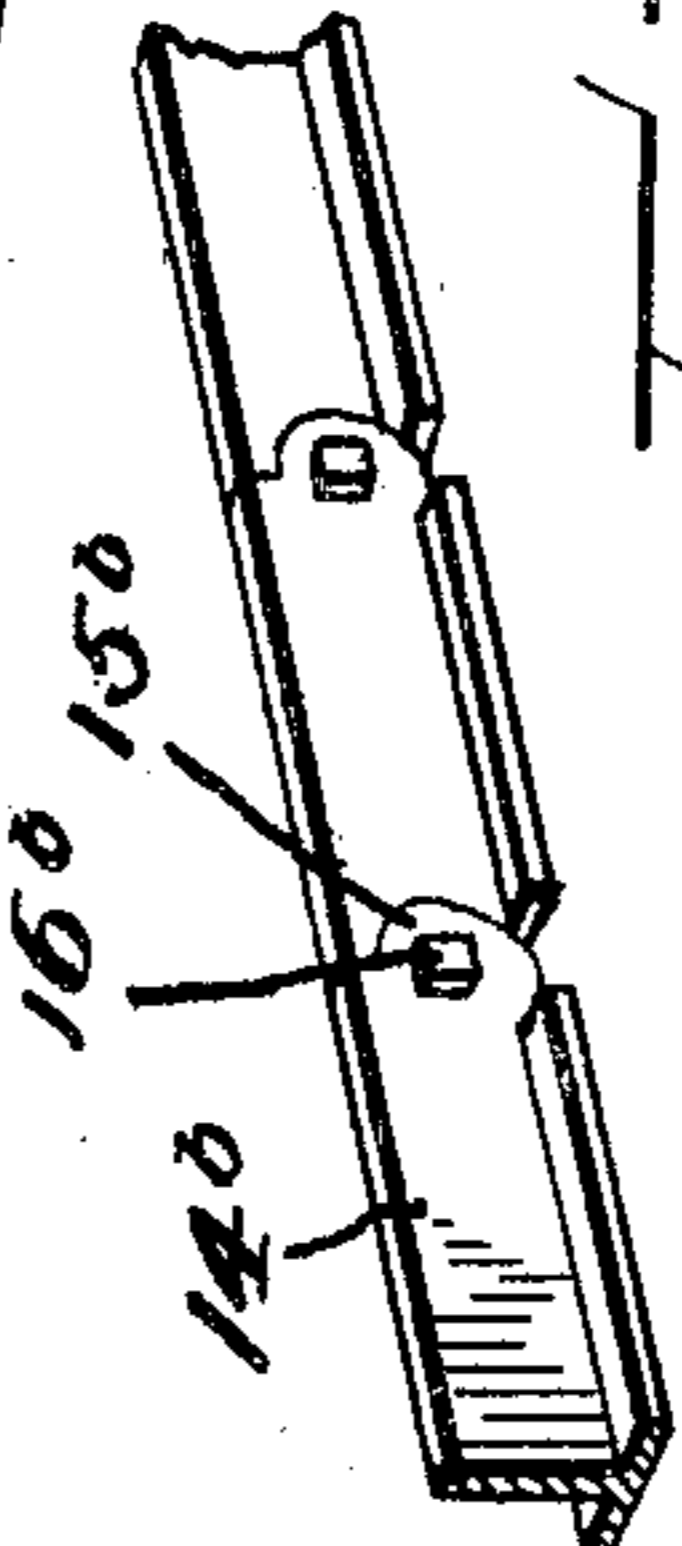


Fig. VIII.

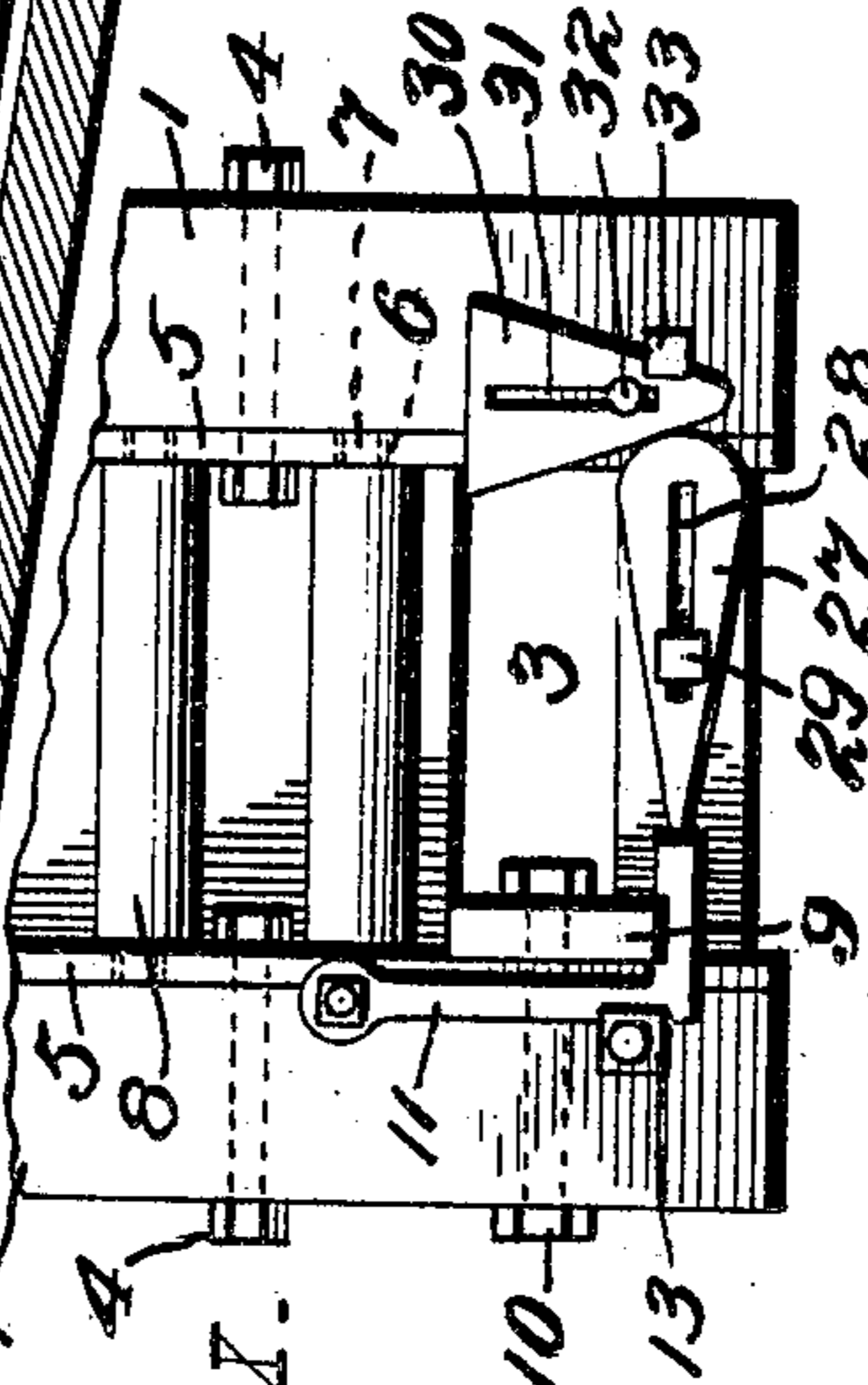


Fig. IX.

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# UNITED STATES PATENT OFFICE.

MASON FOSHEE, OF CHAPMAN, ALABAMA.

## BOLSTER FOR DUMPING-CARS.

SPECIFICATION forming part of Letters Patent No. 770,899, dated September 27, 1904.

Application filed July 5, 1904. Serial No. 215,255. (No model.)

*To all whom it may concern:*

Be it known that I, MASON FOSHEE, a citizen of the United States of America, and a resident of Chapman, in the county of Butler and State of Alabama, have invented certain new and useful Improvements in Bolsters for Dumping-Cars, of which the following is a specification.

My invention is an improvement in those bolsters for dumping-cars which are provided with means for retaining, releasing, and dumping a load.

One object of my invention is to provide a bolster with improved means for retaining the load while being transferred.

Another object of my invention is to provide a bolster with improved means for facilitating the dumping of the load at either side of the car.

Another object of my invention is to provide a bolster with improved means whereby the load is readily carried to either side of the car.

Another object of my invention is to provide a bolster with an improved carrying means in the form of a dumping-carriage of peculiar construction.

Another object of my invention is to provide a bolster with a carrying means in the form of a dumping-carriage and means for holding and releasing the dumping-carriage.

Another object of my invention is to provide means for limiting the movement of the carrying means.

Another object of my invention is to provide improved means for releasing the shiftable hooks, whereby the bolster-stakes are held in normal position.

With these and other objects in view to improve the construction of such bolsters my invention consists in the novel combination of devices and features of construction herein-after fully described and claimed.

In order that my invention may be fully understood, I will proceed to describe it with reference to the accompanying drawings, in which—

Figure I is a side elevation of my improved bolster for dumping-cars tilted to its operative position, having a carrying means in the

form of a carriage, the outer carriage-stake being shown in dotted lines in released position. Fig. II is a top plan view thereof, the outer carriage-stake being in normal position. Fig. III is a side elevation of my carrying means in the form of a carriage. Fig. IV is a detail longitudinal section of the bolster, taken on the line IV IV of Fig. II, looking in the direction of the arrow. Fig. V is a detail longitudinal section of the bolster, taken on the line V V of Fig. II, looking in the direction of the arrow. Fig. VI is a side elevation of my improved bolster having a longitudinal trough, series of rollers, and carrying means inclined toward the dumping end of the bolster. Fig. VII is a longitudinal section of my bolster in which the carrying means is in the form of an endless chain. Fig. VIII is a perspective view of a section of my preferred form of chain, consisting of rail-sections having rule-joints. Fig. IX is a top plan view of one end of my bolster, showing my means for releasing the hooks of the bolster-stakes.

1 is the bolster of a flat or skeleton logging-car constructed with a longitudinal trough 2 extending its whole length and with recesses 3 in the ends of the bolster beneath the trough. Fitted against and secured to the walls of the trough by means of bolts 4 are a pair of oppositely-disposed binding-plates 5, each having a series of holes or orifices 6, Fig. IX, which receive the journals 7 of a series of conveyer-rollers 8, preferably made of metal.

9 represents bolster stakes or stanchions located one at each end of the bolster and having their lower ends pivoted in the trough over the recesses 3 by means of bolts 10. These bolster-stakes are prevented from moving inward by the load which is placed between them, and they are normally supported in upright position against outward movement by means of horizontally-arranged hooks 11, pivoted upon the top of the bolster by vertical bolts 12. The hooks 11 are held in place and from accidentally leaving the bolster-stakes (due to the vibration of the car) by means of headed retaining pins or spikes 13, inserted in the top of the bolster, so as to be readily removed for dumping the load.

The bolster-stakes are provided for the usual purpose of sustaining the load from sidewise movement. As a means for supporting and facilitating the dumping of the load I provide  
 5 a carrying means adapted to support the load upon the conveyer-rollers and to travel or run freely with the load upon the conveyer-rollers to either side of the car when the load is released. As shown in Figs. I, II, III, and  
 10 VI, the carrying means is in the form of a carriage consisting of two pairs of parallel outer bars 14 and an intermediate bar 15. The inner ends of the outer bars 14 are hinged to the ends of the intermediate bar 15 by  
 15 means of bolts 16. These bars are preferably formed of iron or steel plates one and one-fourth by two and one-half inches in dimensions and set up edgewise on the conveyer-rollers. Extending across the outer ends of  
 20 the outer bars 14 are pivot-bolts 17, and on these pivot-bolts between the outer ends of the outer bars, I mount carriage stakes or stanchions 18, having bolt-openings in the form of slots 19, so as to enable these car-  
 25 riage-stakes to be turned or raised or lowered on their pivot-bolts. These carriage-stakes are so positioned with relation to the conveyer-rollers 8 and bolster that they are normally held in upright position, with their lower  
 30 ends in engagement with or lapping the ends of the bolster within the recesses 3, so as to hold the load and carrying means from shifting toward the ends of the bolster until the carriage-stakes 18 are raised from the re-  
 35 cesses 3 to a position above the rollers 8 and to enable the carriage-stakes to pass over the conveyer-rollers 8 with the load either toward one end or the other end of the bolster.

Mounted upon the outer end of one of each  
 40 pair of the outer bars 14 of the carriage are horizontally-arranged hooks 19<sup>a</sup>, pivoted by bolts 20 to the bars and engaging the carriage-stakes, so as to hold them in their normal up-  
 45 right position against the load, and thus preventing them from falling outward when raised until it is desired to release them. These bars 14 are also provided with laterally-  
 50 extending eye-brackets 21, in which are inserted removable headed pins or spikes 22 for holding the hooks 19 from accidentally leaving the carriage-stakes.

23 is a chain for limiting the movement of the carrying means, secured at one end to an eye 24 upon the side of the carrying means  
 55 and at the other end to an eye 25 upon the side of the bolster.

26 is a bumper for supporting the ends of the bolsters from which the load is to be dumped.

Instead of tilting the car, as indicated by  
 60 the inclined position of the bolster shown in Figs. I, IV, V, and VII, for the purpose of throwing the weight of the load to one side I may provide the bolster with an inclined trough 2<sup>a</sup> and a correspondingly-inclined  
 65 series of conveyer-rollers 8<sup>a</sup> and conveying

means mounted upon the rollers, as shown in Fig. VI. In Fig. VII, I show another form of carrying means, in which I substitute for the carriage a continuous chain of short paired parallel bars 14<sup>a</sup> and intermediate bars 15<sup>a</sup>,  
 70 connected by bolts 16<sup>a</sup> and adapted to travel or run on a series of rollers 8<sup>b</sup> and around end rollers 8<sup>c</sup>. The chain may be constructed of sections of L-rails 14<sup>b</sup>, having rule-joints 15<sup>b</sup>, connected by bolts 16<sup>b</sup>, as shown in Fig. VIII.  
 75 This form of chain provides a broad base for the carrying means.

Referring to Fig. IX, I show the means which I have provided for releasing the hooks 19<sup>a</sup> from the bolster-stakes 9 after their re-  
 80 taining-pins 13 have been removed. 27 is a sliding plate having a slot 28, receiving the upper end of a pivot-bolt 29, whereby it is mounted over the end recess 3 of the bolster. This sliding plate is located in such a position  
 85 with relation to the bolster-stake as to impinge against the end of the hook 19<sup>a</sup>. Located upon the top of the bolster, at the opposite side to the bolster-stake, is a sliding wedge 30, having a slot 31, through which is inserted a headed  
 90 pin 32, whereby it is secured to the bolster. 33 is another headed pin or bolt, inserted in the bolster and located adjacent to the heel of the sliding plate 27, and between the latter and the pin 33 the point of the sliding wedge  
 95 is positioned so that when the latter is driven outward by a suitable tool in the hands of an operator the sliding plate 27 will be forced toward the hook 19<sup>a</sup> and release it, when the  
 100 bolster-stake will fall outward and turn the sliding plate 27 on its pivot-bolt 29 out of the way, thus permitting the stake to drop out of the way of the load to be dumped.

A car provided with my improved bolsters and the carrying means and loaded with logs  
 105 or timbers is brought to the dumping-ground or pond, where the railway-track is elevated and the inner side of the track is built higher than the side next to the dumping-ground or pond. The bolsters are therefore in the in-  
 110 clined position. (Shown in Figs. I, II, and III.) To dump the load, the means for holding the outer bolster-stakes are released and the bolster-stakes fall outward, the load being sus-  
 115 tained by the carriage-stakes, which are in their lowest position. The operator next goes to the inner side of the car and strikes the carriage-stakes on that side of the car upward to disengage their lowest ends from the bol-  
 120 sters, so as to release the carrying means and enable the carriage-stakes farthest from the dumping side to pass over the rollers. The load being released, the carrying means and its load of logs travel upon the rollers and the load is immediately dumped onto the  
 125 dumping-ground or into the pond. The car is prevented from tipping or turning over at the dumping side by bringing it to such a position as to permit the outer ends of the  
 130 bolsters to be supported upon the bumper 26.

It will be clearly understood that in carrying my invention into practical use two or more of these bolsters are employed with a car which may be either a skeleton, flat, or other car. In some instances I may dispense with the bolster-stakes, relying upon the stakes of the carrying means for retaining the load; but for additional security in transporting the loads I prefer to employ the bolster-stakes for additional strength. In like manner the carriage-stakes may be dispensed with and the bolster-stakes relied upon to secure the loads.

Having thus described my invention, the following is what I claim as new therein and desire to secure by Letters Patent:

1. A bolster for a dumping-car constructed with a longitudinal trough, a series of conveyer-rollers journaled in the walls of the trough, and stakes secured to the bolster at the ends of the trough.

2. A bolster for a dumping-car constructed with a longitudinal trough, binding-plates fitted in the trough and secured to the walls thereof, a series of conveyer-rollers journaled in the binding-plates, and stakes secured to the bolster at the ends of the trough.

3. A bolster for a dumping-car constructed with a longitudinal trough, a series of conveyer-rollers journaled in the walls of the trough, carrying means adapted to travel upon the conveyer-rollers, and stakes secured to the bolster at the ends of the trough.

4. A bolster for a dumping-car constructed with a longitudinal trough, a series of conveyer-rollers, journaled in the walls of the trough, carrying means adapted to travel upon the conveyer-rollers, a chain for limiting the movement of the carrying means connected with the carrying means and with the bolster and stakes secured to the bolster at the ends of the trough.

5. A bolster for a dumping-car constructed with a longitudinal trough, a series of conveyer-rollers journaled in the walls of the trough, stakes pivoted to the bolster, at the ends of the trough, and shiftable means for holding the stakes in their normal position.

6. A bolster for a dumping-car constructed with a longitudinal trough, binding-plates fitted in the trough and secured to the walls thereof, a series of conveyer-rollers journaled in the binding-plates, stakes pivoted to the bolster at the ends of the trough, and shiftable means for holding the stakes in their normal position.

7. A bolster for a dumping-car constructed with a longitudinal trough, recesses in the ends of the bolster, a series of conveyer-rollers, journaled in the walls of the trough, stakes pivoted to the bolster at the ends of the trough above the recesses, and shiftable means for holding the stakes in their normal position.

8. A bolster for a dumping-car constructed with a longitudinal trough, recesses in the ends

of the bolster, binding-plates fitted in the trough and secured to the walls thereof, a series of conveyer-rollers, journaled in the binding-plates, stakes pivoted to the bolster at the ends of the trough above the recesses, and shiftable means for holding the stakes in their normal position.

9. A bolster for a dumping-car constructed with a longitudinal trough, a series of conveyer-rollers journaled in the walls of the trough, carrying means, adapted to travel upon the conveyer-rollers, stakes pivoted to the bolster, at the ends of the trough, and shiftable means for holding the stakes in their normal position.

10. A bolster for a dumping-car constructed with a longitudinal trough, binding-plates fitted in the trough and secured to the walls thereof, a series of conveyer-rollers journaled in the binding-plates, carrying means adapted to travel upon the conveyer-rollers, stakes pivoted to the bolster at the ends of the trough, and shiftable means for holding the stakes in their normal position.

11. A bolster for a dumping-car constructed with a longitudinal trough, recesses in the ends of the bolster, a series of conveyer-rollers, journaled in the walls of the trough, carrying means, adapted to travel upon the conveyer-rollers, stakes, pivoted to the bolster at the ends of the trough above the recesses, and shiftable means for holding the stakes in their normal position.

12. A bolster for a dumping-car constructed with a longitudinal trough, recesses in the ends of the bolster beneath the trough, binding-plates fitted in the trough and secured to the walls thereof, a series of conveyer-rollers, journaled in the binding-plates, carrying means, adapted to travel upon the conveyer-rollers, stakes pivoted to the bolster at the ends of the trough above the recesses, and shiftable means for holding the stakes in their normal position.

13. A bolster for a dumping-car constructed with a longitudinal trough, a series of conveyer-rollers journaled in the walls of the trough, carrying means consisting of bars hinged together and adapted to travel upon the conveyer-rollers, stakes pivoted to the bolster, at the ends of the trough, and shiftable means for holding the stakes in their normal position.

14. A bolster for a dumping-car constructed with a longitudinal trough, binding-plates fitted in the trough and secured to the walls thereof, a series of conveyer-rollers journaled in the binding-plates, carrying means consisting of bars hinged together and adapted to travel upon the conveyer-rollers, stakes pivoted to the bolster at the ends of the trough, and shiftable means for holding the stakes in their normal position.

15. A bolster for a dumping-car constructed with a longitudinal trough, recesses in the ends

of the bolster, a series of conveyer-rollers, journaled in the walls of the trough, carrying means consisting of bars hinged together and adapted to travel upon the conveyer-rollers, stakes pivoted to the bolster at the ends of the trough above the recesses, and shiftable means for holding the stakes in their normal position.

16. A bolster for a dumping-car constructed with a longitudinal trough, recesses in the ends of the bolster, binding-plates fitted in the trough and secured to the walls thereof, a series of conveyer-rollers, journaled in the binding-plates, carrying means consisting of bars hinged together and adapted to travel upon the conveyer-rollers, stakes pivoted to the bolster at the ends of the trough above the recesses, and shiftable means for holding the stakes in their normal position.

17. A bolster for a dumping-car constructed with a longitudinal trough, a series of conveyer-rollers journaled in the walls of the trough, carrying means consisting of two pairs of parallel bars and an intermediate bar to which the inner ends of the pairs of parallel bars are hinged, providing a carriage, adapted to travel upon the conveyer-rollers, pivot-bolts secured to the outer ends of the parallel bars, vertically - moving carriage-stakes having slots whereby they are connected with the pivot-bolts, and shiftable means for holding the carriage-stakes in their normal position.

18. A bolster for a dumping-car constructed with a longitudinal trough, binding-plates fitted in the trough, and secured to the walls thereof, a series of conveyer-rollers journaled in the binding-plates, carrying means consisting of two pairs of parallel bars and an intermediate bar to which the inner ends of the pairs of parallel bars are hinged, providing a carriage adapted to travel upon the conveyer-rollers, pivot-bolts secured to the outer ends of the parallel bars, vertically-movable carriage-stakes having slots whereby they are connected with the pivot-bolts, and shiftable means for holding the carriage-stakes in their normal position.

19. A bolster for a dumping-car constructed with a longitudinal trough, recesses in the ends of the bolster beneath the trough, a series of conveyer-rollers, journaled in the walls of the trough, carrying means consisting of two pairs of parallel bars and an intermediate bar to which the inner ends of the pairs of parallel bars are hinged, providing a carriage

adapted to travel upon the conveyer-rollers, pivot-bolts secured to the outer ends of the parallel bars, vertically - movable carriage-stakes having slots whereby they are connected with the pivot-bolts and are adapted to drop into the recesses, and shiftable means for holding the carriage-stakes in their normal position.

20. A bolster for a dumping-car constructed with a longitudinal trough, recesses in the ends of the bolster beneath the trough, binding-plates fitted in the trough and secured to the walls thereof, a series of conveyer-rollers, journaled in the binding-plates, carrying means consisting of two pairs of parallel bars and an intermediate bar to which the inner ends of the pairs of parallel bars are hinged, providing a carriage adapted to travel upon the conveyer-rollers, pivot-bolts secured to the outer ends of the parallel bars, vertically-movable carriage-stakes having slots whereby they are connected with the pivot-bolts and are adapted to drop into the recesses, and shiftable means for holding the carriage-stakes in their normal position.

21. A bolster for a dumping-car constructed with a longitudinal trough, a series of conveyer-rollers journaled in the walls of the trough, bolster-stakes pivoted to the bolster at the ends of the trough, shiftable means for holding the bolster-stakes in their normal position, carrying means, providing a carriage adapted to travel upon the conveyer-rollers, pivot-bolts secured to the outer ends of the carriage, vertically-movable carriage-stakes, having slots whereby they are connected with the pivot-bolts, and shiftable means for holding the carriage-stakes in their normal position.

22. A bolster for a dumping-car constructed with a longitudinal trough, a series of conveyer-rollers journaled in the walls of the trough, stakes pivoted to the bolster, at the ends of the trough, pivoted hooks for holding the stakes in their normal position, sliding plates impinging against the free ends of the hooks, pins secured to the bolster, and sliding wedge-plates adapted to be driven between the heels of the sliding plates and the pins for driving the plates against the hooks so as to release the stakes.

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Witnesses:

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