Jan. 31, 1956 J. L. BONANNO 2,732,958

TOY RAILROAD TRACKSIDE ACCESSORIES

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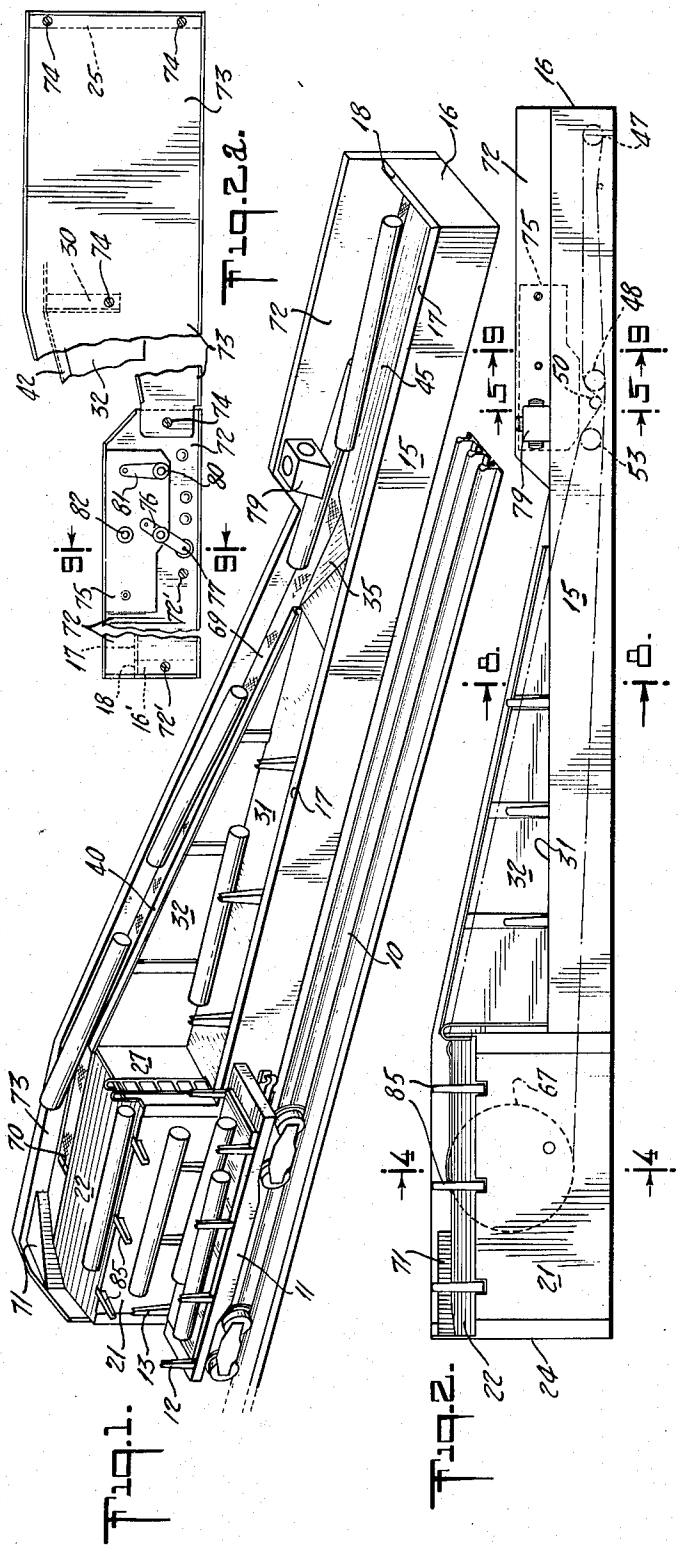


Fig. 1.

Fig. 2.

Fig. 2a.

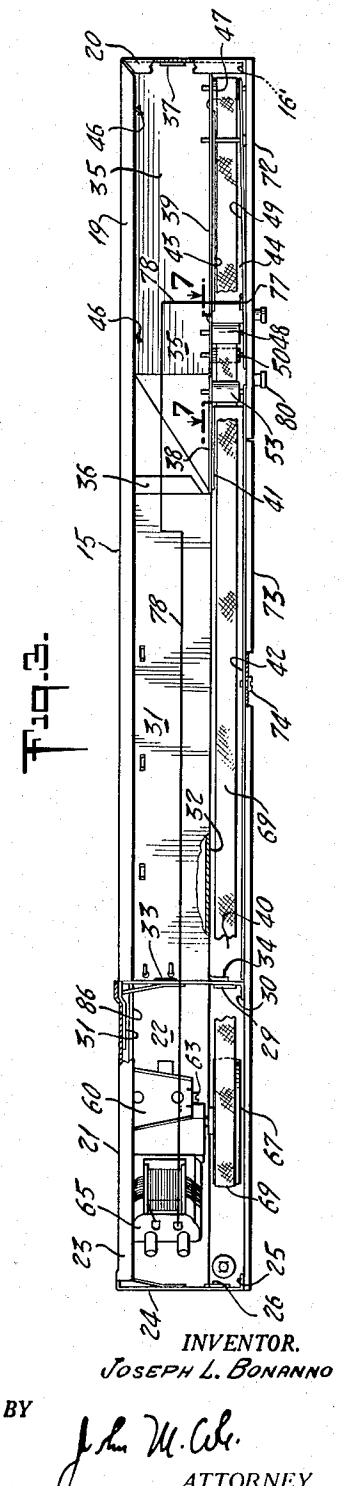


Fig. 3.

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Fig. 4.

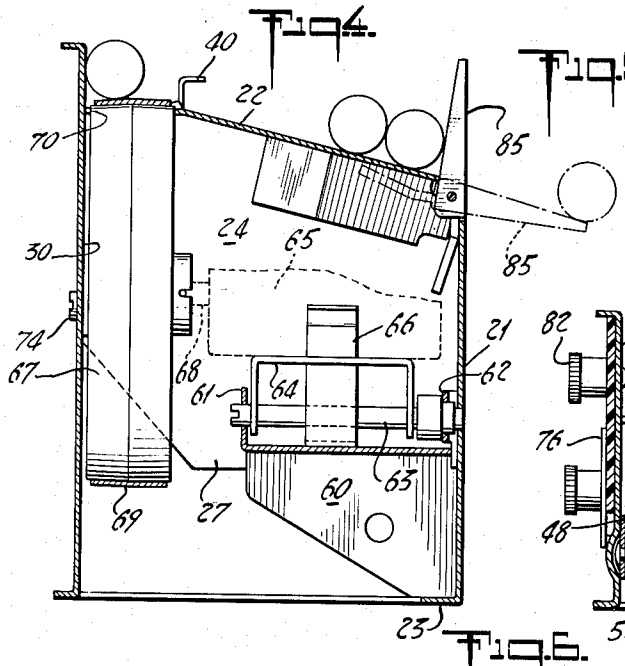


Fig. 9.

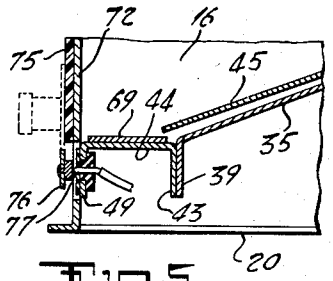


Fig. 5.

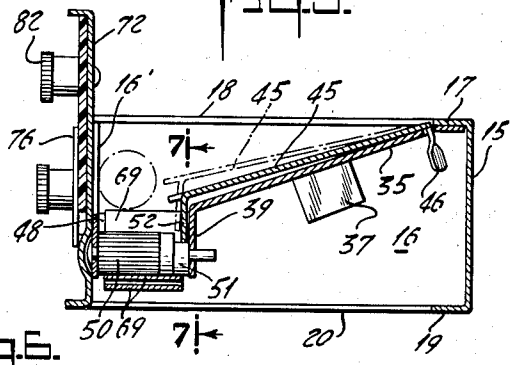


Fig. 6.

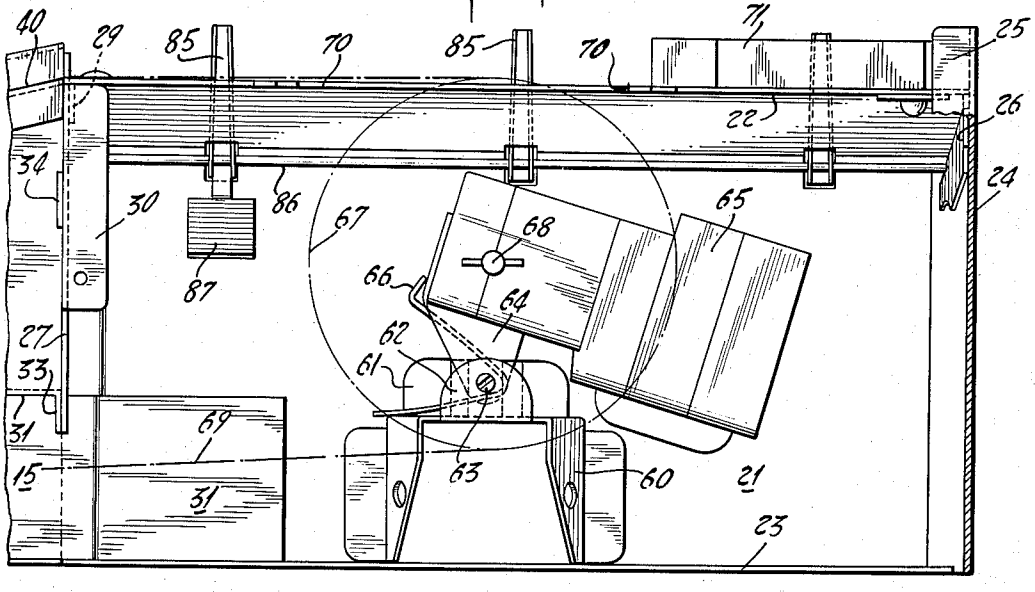


Fig. 7.

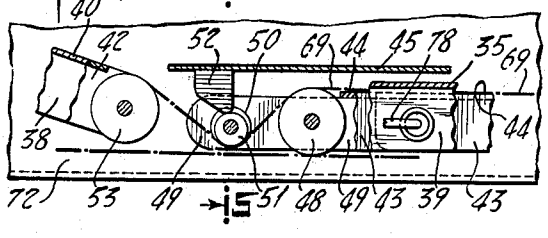
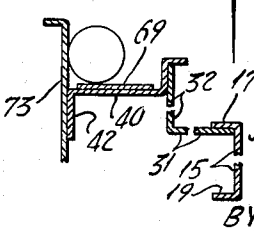


Fig. 8.



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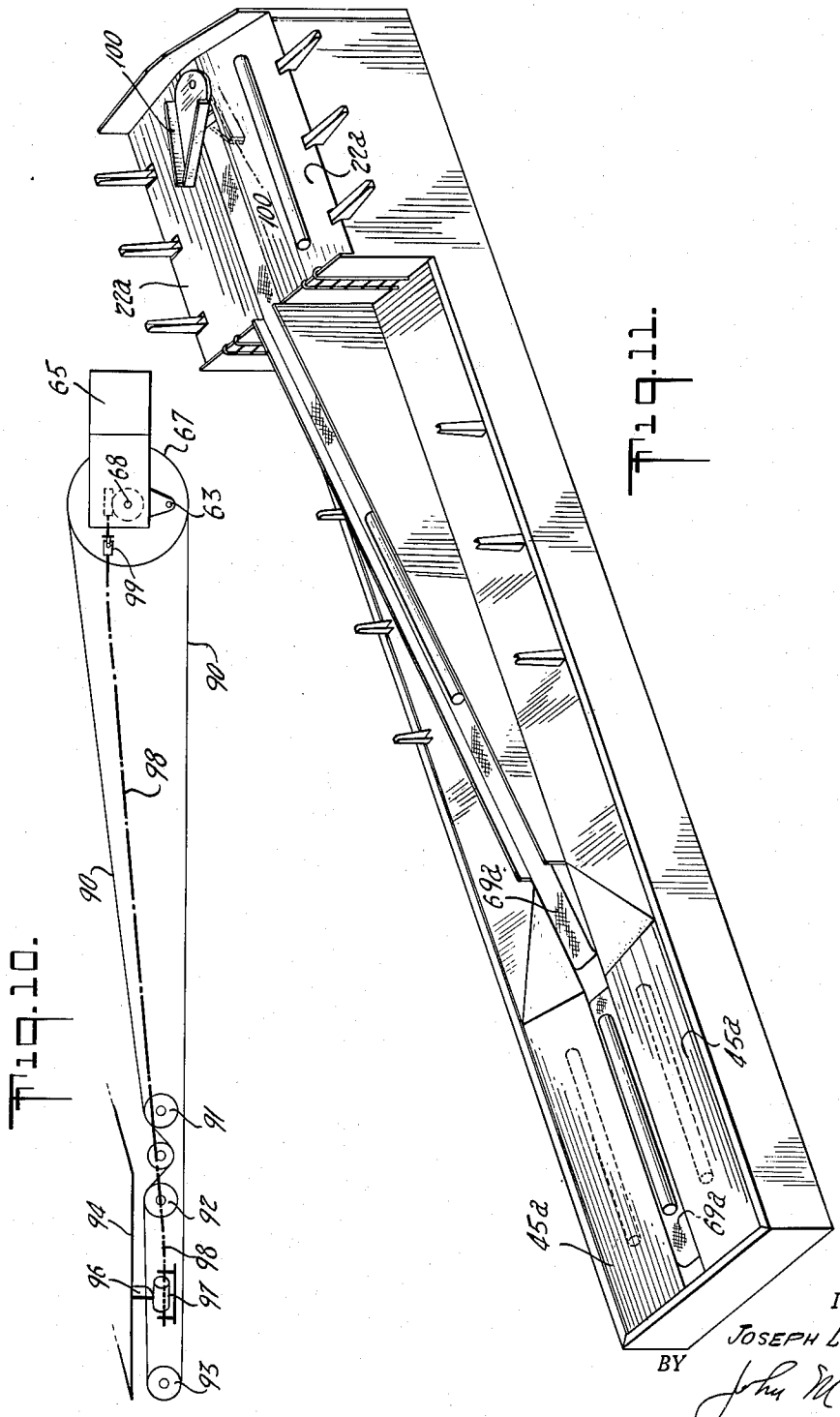


Fig. 10.

Fig. 11.

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TOY RAILROAD TRACKSIDE ACCESSORIES

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Application December 8, 1949, Serial No. 131,834

5 Claims. (Cl. 214—38)

The present invention relates to toy railroad trackside accessories and is more particularly directed toward accessories for use with toy railroads adapted for the loading and unloading of toy cars with articles of merchandise such as toy logs. The loading and unloading of toy cars with toy logs has heretofore been accomplished by devices in which the logs were received on one side of the device carried by a conveyor upwardly and placed on a loading platform directly opposite the unloading platform where they were stored, if desired, and from this loading platform they were delivered to the car being loaded. These devices had considerable vertical height and were suitable for use only with a double track toy railroad outfit, usually one with a siding.

The present invention is directed toward a trackside accessory more particularly a log loader, which in its simpler form is suitable for use alongside a single track railroad and so arranged that cars may be unloaded at one place alongside the accessory and reloaded at another. The accessory is a complete operative device having an electric motor adapted for remote control so that whenever it is desired to transfer the logs at the receiving end of the accessory to a suitably located car on the track, the conveyor forming part of the accessory may be actuated to shift the logs up to a discharge platform from which they roll on to the car being loaded. Certain features of the present invention are also suitable for use in constructions adapted for use with double track trackage.

Other and further objects of the invention will appear as the description proceeds.

The accompanying drawings show, for purposes of illustrating the present invention, two embodiments in which the invention may take form, together with modifications of certain parts, it being understood that the drawings are illustrative of the invention rather than limiting the same.

In the accompanying drawings:

Figure 1 is a perspective view of the trackside accessory for use with single track trackage;

Figures 2 and 2–*a* are front and rear elevational views of the accessory;

Figure 3 is an inverted plan view of the accessory;

Figures 4 and 5 are transverse sectional views on the lines 4—4 and 5—5 of Figs. 2 and 7;

Figure 6 is an elevational view of one end of the accessory with the back cover removed, the driving pulley and conveyor being shown in dot and dash lines;

Figure 7 is a sectional view taken on the line 7—7 of Figs. 3 and 5;

Figure 8 is a fragmentary section on the line 8—8 of Fig. 2;

Figure 9 is a sectional view on line 9—9 of Figs. 2 and 2*a*;

Figure 10 illustrates a modified form of construction; and

Figure 11 is a perspective view of a trackside accessory for use with double track trackage.

A portion of single track toy railroad trackage is indicated in Figure 1 at **10** and a toy flat car at **11**. The flat car may, for example, be of the type shown in Patent 2,305,491. It has stakes **12**, **13** to hold the toy logs in position on the platform and suitable mechanism to release the stakes on one side of the car so that the logs can be rolled off the car whenever desired.

The accessory shown in detail in Figs. 1 through 9 of the drawings is of elongated rectangular shape and adapted to be placed alongside the track at the proper distance from the right of way to clear the cars.

The body of the accessory is made of sheet metal parts formed to shape and secured together by welding or interlocking. At the front of the low end of the accessory is a long narrow strip **15** bent to form an end **16** and provided with stiffening flanges **17**, **18**, **19** and **20** and a rear flange **16'**. At the front of the high end of the accessory is a wider strip **21** having an upwardly sloping platform **22**, a bottom flange **23**, a rearwardly bent end wall **24** with a rear flange **25**. The strip **21** also has, at the other end of the platform **22** a rearwardly bent wall **27**, secured to the platform **22** by a welding lug **29** and a back flange **30**. The wall **24** and platform **22** are secured together by a welding lug **26** and the strips **15** and **21** are secured together by a welding lug **31**. The left portion of the flange **17** of the strip **15** is welded to a stationary platform member **31** having upwardly extending rear wall **32**. It is welded to wall **27** by lugs **33** and **34**. The right portion of flange **17** is welded to a connecting strip **35** which in turn is welded to strip **31** at **36** and to end wall **16** by lug **37**. The strip **35** has downwardly extending flanges **38** and **39**. An incline forming strip **40** is welded to the upper edge of wall **32**, has a flange **41** welded to flange **38** on **35** and a back flange **42**. The flange **39** on **35** is welded to the front side **43** of a downwardly opening channel **44** (Fig. 9).

A sloping platform **45** is mounted above the right end of a strip **35** and is pivotally secured to it by twisted prongs **46**. Guide pulleys **47** and **48** are carried between the flange **39** of plate **35** and the front flange **49** of channel **44** opposite the sloping platform **45**. Guide pulley **50**, preferably roughened on its surface, is carried close to pulley **48** and carries a cam **51** on which rests a prong **52** extending down from platform **45**. Another guide pulley **53** is carried by flange **42** on incline **40** and by flange **38** on strip **35**.

At the other end of the accessory and under the upper platform, the front wall **21** carries a bracket **60** having upwardly bent ears **61**, **62** to receive a pin **63**. This pin pivotally supports a yoke **64** on which is mounted a motor-reduction gear unit **65**. This unit is preferably biased in a clockwise direction (Fig. 6) by a spring **66** and carries a large diameter pulley or drum **67** on a shaft **68**.

A belt conveyor **69** passes about the drum and pulleys and is held tight by the spring **66**. The belt is preferably made of fabric treated not to stretch and having an inner slightly tacky surface, while the drum **67** is a phenol formaldehyde molding. These cooperate to give a satisfactory friction drive.

The top of the drum **67** is received in a notch **70** in the upper rear part of platform **22**. A deflector **71** beyond the upper end of the belt diverts the logs sidewise.

A back plate **72** is secured to the flanges **16'** and **49** by screws **72'** and a back plate **73** is secured to rear flanges **25**, **30**, **42** and to plate **72** by screws **74**. The plate **72** carries a terminal plate **75** having a spring contact **76** bearing on a contact **77** carried by the channel **43** and connected by a wire **78** with the motor. The front of plate **72** carries a lamp box **79** supplied by current from

the binding post 80 and contact strip 81. The binding post 82 is grounded.

The log loader shown in Figures 1 through 9, inclusive, is adapted to be placed alongside the track as illustrated in Figure 1 and to receive logs from the automatically unloading cars of the type above referred to, these logs rolling onto platform 45 and down this platform onto the belt conveyor. The motor reduction-gear unit drives the belt conveyor. The belt drives the roller 50 and the cam 51 on the roller platform 45 to move up and down so as to facilitate discharging the logs onto the conveyor. The conveyor also carries the logs up the incline and brings the end of a log against the deflector 71. This causes the log to roll forwardly. In order that they may be delivered to the car being loaded, the accessory is provided with a number of stakes indicated at 85 (Figs. 1, 2, 4 and 6) located at the front of the platform 22 mounted on shaft 86 and biased to a vertical position by a weight 87. These stakes will intercept a log as it rolls down the platform and assist in aligning it so that it will be delivered generally parallel with the track direction. The stakes swing out as indicated in Figures 1 and 4 so as to span the gap between the accessory and car and deliver the log onto the car.

In the arrangement shown in Figure 10, the conveyor 90 passes about fixed guide pulleys 91, 92 and 93. The vibratory platform 94, similar to the platform 45, has a downwardly extending finger 96 bearing on a cam roller 97 which is driven through a flexible shaft 98 connected at 99 with the motor-reduction gear unit 65.

The accessory for use with double track trackage is illustrated in Figure 11. The accessory is essentially the same as that shown in Figure 1, so far as operating mechanism is concerned. The conveyor belt 69*a* is carried between two sloping platforms 45*a*, 45*a* adapted to receive logs from cars on either track and pass them down onto the conveyor. The discharge end of the conveyor passes between two downwardly sloping platforms 22*a*, 22*a*, similar to platform 22. A swingable deflector 100 mounted beyond the end of the conveyor 69*a* can be moved from the position shown in full lines in the drawing, where the log is caused to be rolled forwardly, to the position shown in dotted lines where the log would be caused to roll rearwardly.

Since it is obvious that the invention may be embodied in other forms and constructions within the scope of the claims, I wish it to be understood that the particular forms shown are but a few of these forms, and various modifications and changes being possible, I do not otherwise limit myself in any way with respect thereto.

What is claimed is:

1. A toy railroad, trackside accessory for receiving toy, log simulating articles discharged laterally from a toy railroad car and reloading them onto another similar toy car, comprising an elongated body adapted to be placed parallel to toy railroad trackage so that the cars may pass thereby, and having at the receiving end thereof an article storage device including a laterally sloping platform over which the log simulating articles are adapted to roll and at an elevation to accept such articles discharged laterally from a toy car on the track opposite to said storage device and provided with means to further shift the article laterally toward the bottom of the platform, and at the other or reloading end a laterally sloping rollway at a higher elevation to discharge such toy articles onto a toy car on trackage opposite the discharge rollway and provided with means to engage an advancing article to shift the same toward the trackage, and a belt conveyor parallel with the trackage for accepting articles in the storage platform and conveying them to the discharge rollway, a pulley about which the discharge end of the belt passes, a pivotally supported arm for the pulley, a pulley operating motor supported on the arm, and a spring biasing the arm in a direction to tension the belt.

2. An accessory such as claimed in claim 1 adapted for use with cars on double track trackage and wherein the article shifting means at the reloading end of the accessory shifts the articles in the same lateral direction as that effected by the shifting means at the receiving end of the accessory.

3. An accessory such as claimed in claim 1 adapted for use on double track trackage and wherein the article shifting means at the receiving end of the accessory shifts the articles toward the conveyor from either side thereof and the shifting means at the reloading end shifts the articles laterally from the conveyor in a selected direction.

4. A toy log loader having a horizontally extending belt conveyor with a receiving end, an upwardly inclined portion and a discharge end at a higher elevation than the receiving end, means to drive the conveyor in a direction to move it up the incline, a driven cam near the receiving end, and an article support sloping downwardly toward that end of the conveyor and moved up and down by the cam as the conveyor moves to facilitate shift of articles thereon onto the belt.

5. A toy railroad trackside accessory for receiving toy log simulating articles discharged laterally from a toy railroad car and reloading them onto another similar toy car, comprising an elongated body adapted to be placed parallel to a toy railroad track and having a fixed front wall, two fixed end walls one higher than the other, an upper fixed unloading platform adjacent the higher end wall, above the level of the top of the car and sloping forwardly so that the log simulating articles may roll down the same into a car, a lower rearwardly sloping platform adjacent the lower end wall so that the log simulating articles discharged from a car may roll down the same, a propulsion unit including a motor, motor driven reduction gearing, a relatively large, reduction-gearing-driven pulley mounted below and to the rear of the upper platform and under an opening therein, a series of relatively smaller guide pulleys mounted to the rear of and below the lower platform, a conveyor belt extending about all the pulleys and onto which articles discharged from the lower platform fall, a fixed ramp-like support extending from a lower guide pulley to the upper pulley, and spring means biasing the unit in a direction to tighten the conveyor.

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