

No. 690,788.

Patented Jan. 7, 1902.

G. F. SPURLIN.
BALLAST CONVEYER AND LEVELER.

(Application filed Aug. 27, 1901.)

(No Model.)

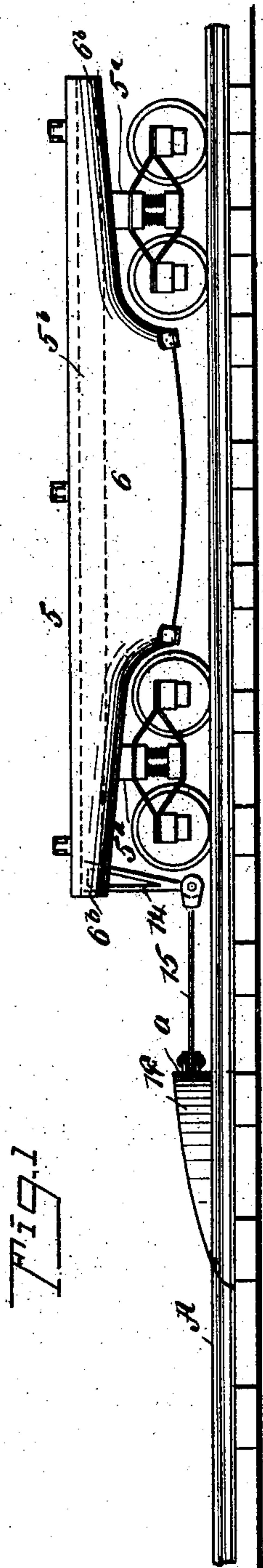


Fig. 1

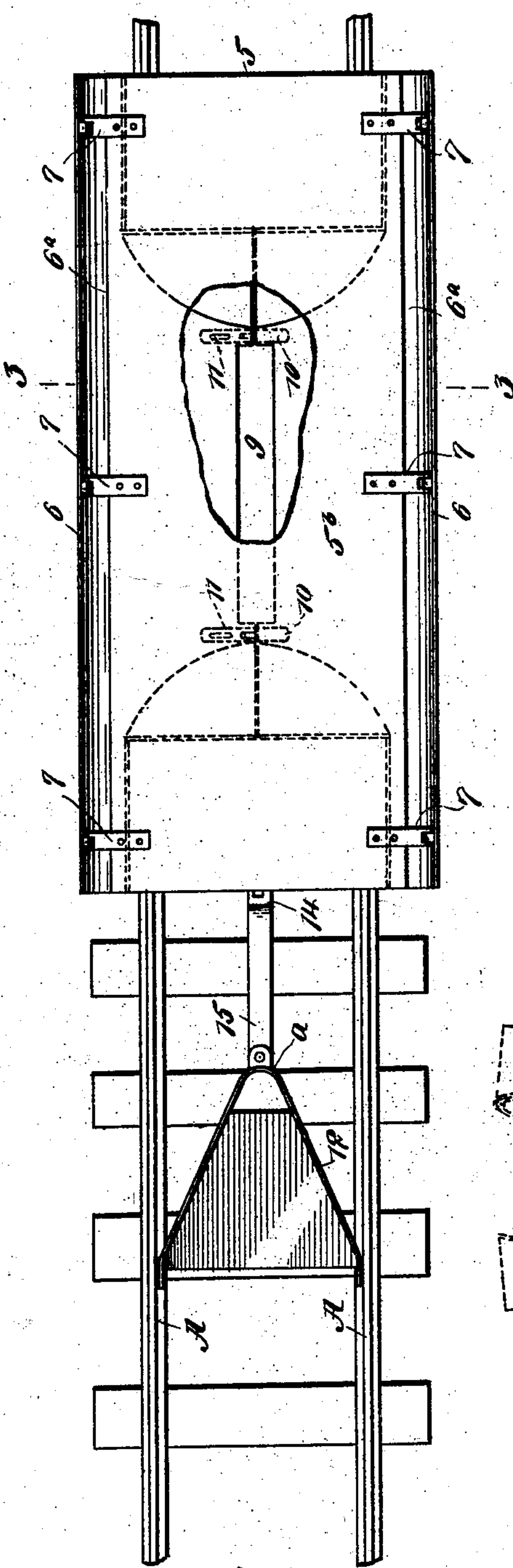


Fig. 2

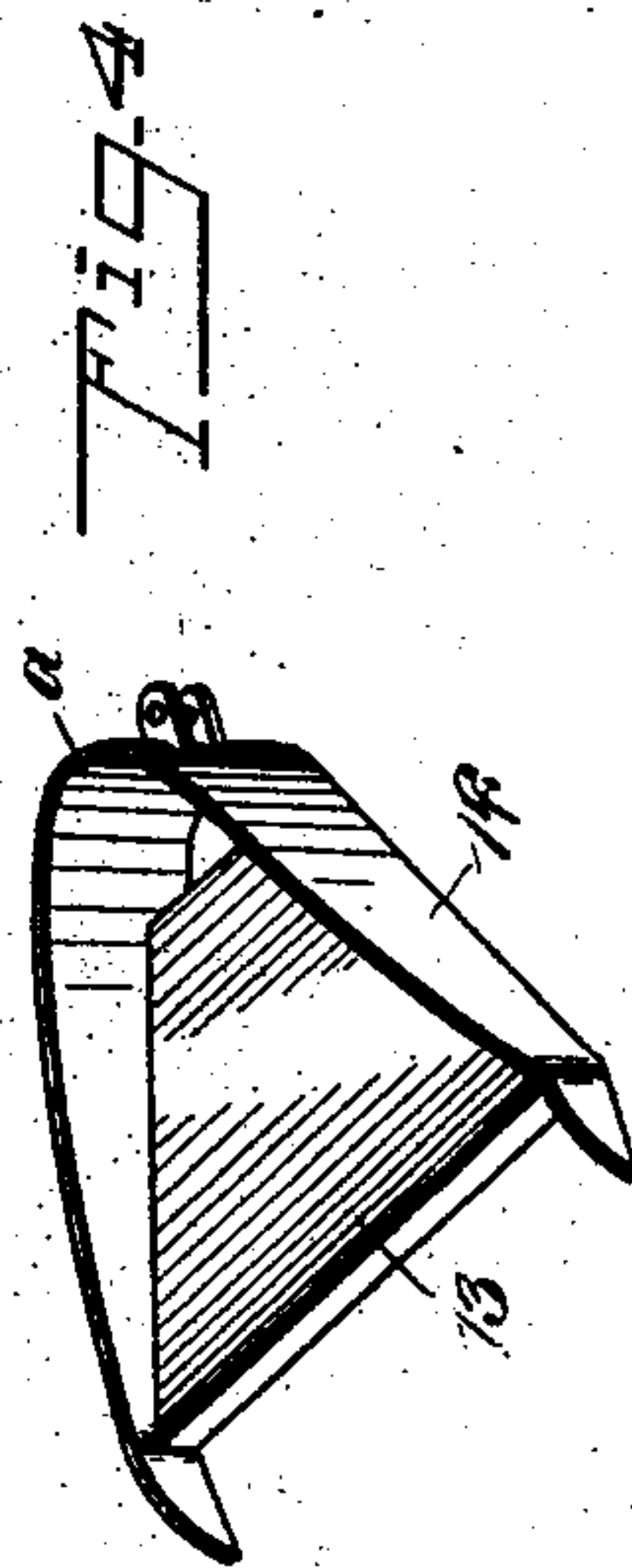


Fig. 3

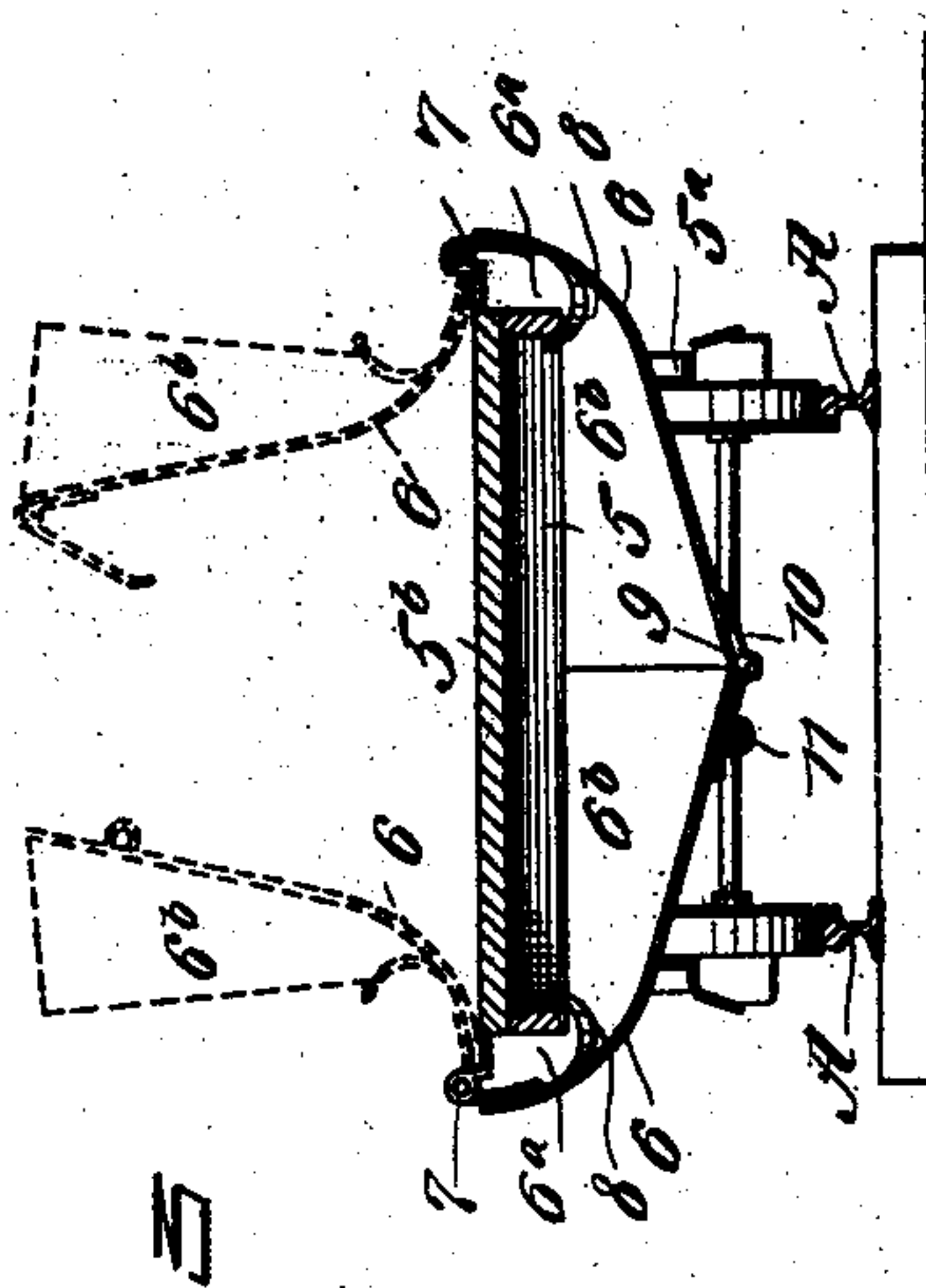


Fig. 4

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GREEN FRANKLIN SPURLIN, OF CAMDEN, ALABAMA.

BALLAST CONVEYER AND LEVELER.

SPECIFICATION forming part of Letters Patent No. 690,788, dated January 7, 1902.

Application filed August 27, 1901. Serial No. 73,446. (No model.)

To all whom it may concern:

Be it known that I, GREEN FRANKLIN SPURLIN, a citizen of the United States, and a resident of Camden, in the county of Wilcox and State of Alabama, have invented a new and Improved Ballast Conveyer and Leveler, of which the following is a full, clear, and exact description.

This invention relates to means for transferring sand and other material known as "ballast" from cars on a railroad-track to said track for filling in between cross-ties and also for leveling the filling material, so as to complete the road-bed or repair it.

The object of my invention is to provide novel features of construction for a device of the indicated character, which enables the convenient conveyance and discharge of the ballast from an ordinary platform-car at each side thereof to the road-bed between the track-rails, a further object being to provide a ballast-leveling device which coacts with the conveyer to complete the ballasting of the road-bed at one operation.

The invention consists in the novel construction and combination of parts, as is hereinafter described, and defined in the appended 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 views.

Figure 1 is a side view of the improvements upon and connected with a platform-car. Fig. 2 is a plan view of the same. Fig. 3 is a transverse sectional view substantially on the line 3 3 in Fig. 2, and Fig. 4 is a perspective view of a novel leveling device employed.

In the drawings showing the features of the invention and their application, 5 indicates a railroad-car of the type known as a "platform-car," such as is usually employed for transporting heavy freight and also the movement of sand, gravel, or broken stone used in the construction or repairs of the railroad-bed, and, as usual, such a car is provided with a wheeled truck 5^a at or near each end and a flat platform 5^b without fixed sides.

The improved conveyer device comprises two guide-walls 6 6 of similar form, each guide-wall being produced from plate metal, which extends the entire length of the car-platform

5^b and has end walls 6^b bent thereon. Each guide-wall 6 is rockably secured upon a side edge of the car-platform by the strong hinges 7, that are secured upon the car and guide-wall, as is indicated in Fig. 3. The hinges 7 are so formed and secured in place that they serve to space the upper edge of each guide-wall 6 from a respective side edge of the car-platform 5^b, as shown at 6^a in Figs. 2 and 3. As represented in Fig. 3, the guide-walls 6 are bent to curve them similarly downward and inward, so as to provide a downwardly-sloped lower portion on each guide-wall, which portions have contact at their lower edges when said walls are adjusted as shown in Fig. 3, the portions of the guide-walls which occupy the space between the car-trucks 5^a being considerably lower where they have contact than are those portions which are over the trucks. The guide-walls 6 6 are also supported and spaced from the sides of the car-frame by the strut-braces 8, that extend from the inner surfaces of the guide-walls and impinge upon the car-frame when the guide-walls are adjusted for service.

An elongated notch is cut in the lower edge of each guide-plate 6, extending toward each end of said plate a proper distance from the longitudinal center, which affords a discharge-slot 9 when the other portions of the lower edges of the guide-walls are caused to impinge upon each other by lowering the guide-walls.

When it is desired to keep the guide-walls secured together at their lower edges, two strong hasps 10 are employed, that are loosely secured by one end of each upon one guide-wall near a respective end of the notch therein, the other end of the hasp being shackled upon two staples 11, that project from the other guide-wall, as represented in Figs. 2 and 3.

The bottom of the chute provided for discharging filling material from the car-platform to the middle of the railroad-track by the lowered adjustment of the two similar guide-walls 6 slopes from the sides toward the discharge-slot 9 and also from the ends of said walls, so that sand, gravel, or fine broken stone carried as a load upon the platform 5^b may be transferred from the car to the center of the road-bed by shoveling the material from the

car into the opening 6^a along each side of the car-platform or by the unloading-plow pulled by steam in front, which pushes sand off of the car.

5 The leveling device consists of a substantially triangular drag or spreader 12, having an upright front wall bent to produce sides which equally diverge from the preferably-rounded end α at the center of said wall, the
10 wings or sides being held in position by the brace-piece 13, that may be formed of wooden plank or other suitable material. The drag may with advantage have a width at the rear
15 end sufficient to permit it to travel on the inner base-flange of the track-rails A, as indicated in Fig. 2, when the device is arranged for service and on the outside of the rails on the ends of the cross-ties.

From the rear end of the car-platform or
20 car-frame an arm 14 projects downwardly, and upon the lower end of said arm a draft-bar 15 is jointed, the opposite or rear end of the draft-bar being pivoted upon a projection from the end α of the drag 12.

25 It will be seen that as the car having the ballast-conveyer on it is moved along the railroad-track and the material on the car-platform is shoveled or pushed from the sides of the platform into the openings 6^a the filling
30 material which is discharged from the slot 9 upon the road-bed at its center in a ridge will as the car is moved be impinged upon endwise by the drag 12, which will obviously spread the filling material evenly upon the road-bed
35 and fill all spaces between the cross-ties of the same, between rails, and on the outside of rails.

When the device is not needed for service, it may be removed from below the platform
40 of the car by releasing the hasps 10, which will permit the guide-walls 6 to be rocked sidewise and upward into position above the platform, as indicated by dotted lines in Fig. 3, and be supported in such elevated adjustment by any suitable means.

It will be seen that by using the improvements a great saving of labor and time is effected and, furthermore, that the device for transference of material from the car to the
50 road-bed is inexpensive, does not require any changes in the construction of the car, and is adapted for appliance upon cars now in use, if desired.

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

1. In a ballast-conveyer, the combination with a car-platform, of guide-walls held spaced at the sides of said platform, and curved to
60 extend under the platform between the car-

trucks, the meeting lower edges of the guide-walls being notched, to provide a discharge-slot for material moved from the platform into openings at the sides of the platform where the guide-walls are spaced from the 6; platform.

2. In a ballast-conveyer, the combination with a car having a platform and trucks near the ends of said platform, of guide-walls formed of plate metal, each guide-wall having
70 hinged connection with a side edge of the platform, and spaced therefrom by members of the hinges and also by strut-braces projecting from the guide-walls toward the sides of the car-frame, each guide-wall curving
75 downwardly and inwardly to provide sloped portions thereon, the lower edges of which portions impinge upon each other, said edges near the longitudinal center of the guide-walls being notched to form a discharge-slot
80 for material passing down over the sloped surfaces of the guide-walls, and means for holding the lower edges of the guide-plates together.

3. In a ballast-conveyer and leveling device, the combination with a car and a conveying device on said car, comprising two curved and hinged guide-plates adapted to guide material thrown thereon and to discharge it on a road-bed from an opening at
90 the lower edges of said guide-plates, of a leveling device in triangular form, connected to the car rearward of the conveyer device.

4. The combination with a car, and a ballast-distributing device thereon, of a ballast-leveling device, comprising a drag formed with a substantially V-shaped upright wall, the sides of which are spaced by a transverse
95 brace, an arm depending from an end of the car, and a draft-bar pivoted by one end on the arm and by the other end on the narrow end of the drag.

5. The combination with a car-platform, of guide-walls held spaced at the sides of the platform and extending under it, having a
105 discharge-opening at their lower edges.

6. The combination with a car-platform, of guide-walls held spaced at the sides of the platform, extending under it, having a discharge-opening at their lower edges, and
110 means to hold said edges detachably secured together.

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

GREEN FRANKLIN SPURLIN.

Witnesses:

JNO. S. HUNTER,
JOHN MCLEAN.