

(No Model.)

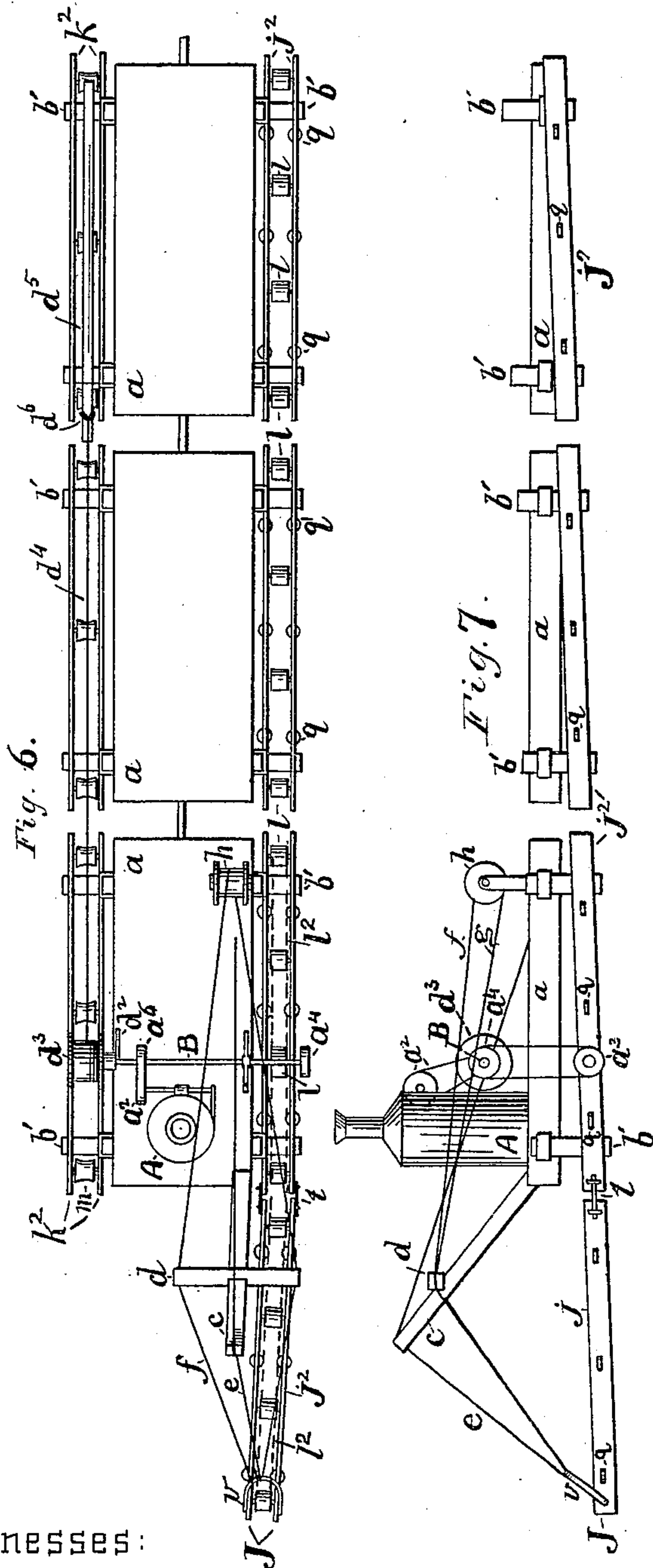
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MACHINERY FOR LAYING RAILWAY TRACKS.

No. 252,960.

Patented Jan. 31, 1882.



Witnesses:

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MACHINERY FOR LAYING RAILWAY-TRACKS.

SPECIFICATION forming part of Letters Patent No. 252,960, dated January 31, 1882.

Application filed November 28, 1881. (No model.)

To all whom it may concern :

Be it known that I, DAILY S. MOORE, of Chicago, in the county of Cook and State of Illinois, have invented certain new and useful
5 Improvements in Machinery for Laying Railway-Tracks; and I hereby declare the following to be a full, clear, and exact description thereof, which will enable others skilled in the art to which my invention relates to make and
10 use the same, reference being had to the accompanying drawings, forming a part hereof, and in which—

Figure 1 represents a side elevation, and Fig. 2 a plan view, of my improved apparatus. Fig.
15 3 represents a cross-section of the frame j^2 , formed of the rails j , on an enlarged scale, and showing the roller l and anti-friction rollers l^0 , also the rollers q and hangers b' , in full. Fig. 4 represents an inside or face view of the plate s .
20 Fig. 5 represents an enlarged side view of one of rails k , forming the frame k^2 , provided with a guard, u , and box n , carrying anti-friction rollers r , roller m , strap o , and staple p . Fig. 6 represents a plan view, and Fig. 7 a side view,
25 of mechanism used to bring the ties and rails forward from the rear on the frames or ways k^2 and j^2 . Fig. 8 represents an enlarged view of a roller, l , and the chains l^2 . Fig. 9 represents a plan view of the chains l^2 and connecting-
30 bars l^3 .

Like letters of reference indicate like parts.

The object of my invention is to improve the details of construction as originally shown in Letters Patent No. 200,148, granted to Daily
35 S. Moore, February 12, 1878, so as to better facilitate the unloading and distribution of materials at the required point for laying railway-track; and it consists in the construction and arrangement of the details, as hereinafter de-
40 scribed.

In the drawings, a represents an ordinary flat car, provided with stake-pockets b . Into these pockets are placed adjustable right-angled hangers b' , which carry the frames j^2 and
45 k^2 , the former being constructed more especially for carrying and unloading the ties, the latter the rails. The frame j^2 is provided with rollers l , the axle of which is carried upon anti-friction rollers l^0 , carried in plates s bolted to
50 the inner sides of the rails j . The rollers l are made with concave ends, into which project the

lower ends of the hook-shaped plates s , in which are formed the bearings of the anti-friction rollers l^0 , as shown. One of said plates s is provided with a fixed projection, s' , over the shaft
55 of the roller l , and the plate s on the opposite side is then provided with a latch or button, s^2 , which may be turned to one side to admit the shaft of the roller l upon the roller l^0 , after which it is turned back, as shown, for the purpose of
60 keeping the shaft l' in its proper place.

Above the roller l , and on each side, are the rollers q , turning on pins q' , which are placed loosely into the rails j , the object of which is to
65 guide the tie and prevent its friction against the sides of the rails j , and thereby prevent clogging, or at least impairment of the motion of the tie to the forward end on the frame or way j^2 . The ties are pushed along over the rollers by men
70 provided with spiked poles until they reach the forward car, in which the frame j^2 is provided with an endless chain, l^2 , (shown dotted in Figs. 2 and 6 and enlarged in Figs. 8 and 9.) Said
chain is propelled by means of a shaft, B , provided at its end with a pulley, a^4 , and belt work-
75 ing a pulley, a^3 , on the outer side of the frame j^2 , and attached to the shaft l' of a roller, l . Said roller is provided with spurs l^5 , working into the links of the chain l^2 , and when set in
80 motion causes the endless chain to travel and thereby carry the ties forward over the front end of the swinging and adjustable frame J . Only one of the rollers l need be provided with
85 spurs l^5 , and that should be the roller provided with the pulleys a^3 . On the opposite end of the shaft B , and so as to be vertically over the frame
 k^2 , is attached a drum, d^3 , arranged so that it may be made to turn loosely or with the shaft
by means of a clutch, d^2 .

To the drum d^3 is attached a rope, d^4 , pro-
90 vided at its outer end with a claw, d^6 , shown attached to a rail, d^5 . In this case the engine A drives the shaft B by means of the belt over the pulleys a^2 and a^6 . On the opposite side of
95 the cars a is a track or way, formed of parallel rails k , hung in adjustable hangers b' , and between which are concaved rollers m , the shaft
 m' of which turns upon anti-friction rollers r in a cast-iron box, n , let into the top edge of the
100 rails k , as shown, and the shaft m' is kept in its place by straps o , held in its place by means of staples p and keys passed through them. (Not

shown.) On the outside of the outer rail, k , are fastened stakes u , which serve to catch the rail in falling, so as to cause it to fall from the car upon the roller m .

5 To the front end of the rails j^2 of the front car is attached and suspended by straps t or other suitable contrivance the way or frame J , which is formed like the frame j^2 , its front end being provided with a clevis, which is suspended by a rope or chain, e , passing over the
10 top of the strut c , whose rear end is fastened to the floor of the car, as shown.

Near the middle of the strut c is attached a cross-bar, d . To the clevis v are attached ropes
15 f and g , passing respectively over the ends of the cross-bar d , and attached to a drum, h , one of said ropes, g , passing to the under side of the drum, the other to the upper side thereof. Said drum is provided with a winch, i . The
20 object of this mechanism is to enable the operator to throw the end of the way J to the right or left, as may be required in going around curves, and so as to cause the ties to fall from it into the center of the road-bed. Both ropes
25 f and g being taut, and passing over the ends of the bar d , will therefore, as the drum h is turned in one direction or another, cause the frame J to swing into the desired position.

The operation of my improved mechanism
30 is substantially as follows, to wit: A series of cars, a , are united into a train, each of which is provided with the adjustable ways k^2 and j^2 , and loaded, preferably the front cars with rails and those in the rear with ties. Ties are
35 then first thrown upon the rollers l , and as the ways j^2 , as also k^2 , are inclined or slope toward the front, the ties begin to move forward, or will do so with slight help, until they reach the front car of the train, provided, as shown,
40 with an engine and mechanism propelling the endless chains l^2 , which, in their motion, will then carry the tie forward and drop it over the front end of the swinging ways J , and by reason of the fact that the frame J is laterally
45 adjustable the ties may be dropped upon the center of the road-bed, whether the course is straight or curves to the right or left. The ropes f and g will cause the front of said ways to swing to the right or left, as may be de-
50 sired, by turning the drum h in one direction or another.

The claw d^6 is hitched to a rail, d^5 , on the rear ways, k^2 , and the drum d^3 set in motion with the shaft B by the clutch d^2 , which will thus
55 wind the rope d^4 on the drum, and thus bring the rear rail forward and push those out lying in front of it. The ties and iron thus brought before the front of the train are then properly

distributed, and the rails spliced to the track already laid then spiked, when the train is ad- 60
vanced the length of the newly-laid rail by a locomotive pushing from the rear, and thus the work is continued.

What I claim as new, and desire to secure by Letters Patent, is—

1. The vertically-adjustable and laterally-swinging frame or ways J and strut c , provided with cross-bar d , in combination with the drum
65 h and ropes f and g , arranged to operate substantially as described. 70

2. The rails j , provided with rollers q , in combination with the plates s , provided with rollers l^0 , roller l , and stops s' and s^2 , substantially as specified.

3. The adjustable frame k^2 , provided with box
75 n , carrying rollers r , and concave roller m , in combination with the adjustable hanger b' , substantially as specified.

4. The adjustable hanger b' , frame k^2 , provided with box n , carrying rollers r , and con- 80
cave roller m , in combination with the strap o , substantially as and for the purpose specified.

5. The adjustable hanger b' , frame k^2 , provided with stakes u , box n , carrying rollers r , and concave roller m , in combination with the 85
straps o , substantially as specified.

6. The beveled rails j , provided with rollers q , in combination with the plates s , provided with rollers l^0 and l , and stops s' and s^2 , sub- 90
stantially as and for the purpose specified.

7. In combination with a series of cars, a , provided with ways k^2 and j^2 , having rollers m and l , the parallel endless chains l^2 , provided with bars l^3 , roller l , provided with spurs l^5 , and pulleys a^3 a^4 , shaft B , drum d^3 , clutch d^2 , 95
rope d^4 , and claw d^6 , all constructed and arranged to operate substantially as specified.

8. In combination with a series of cars, a , provided with frames or ways k^2 and j^2 , having rollers m and l , parallel endless chains l^2 , provided 100
with bars l^3 , roller l , provided with spurs l^5 , pulleys a^3 a^4 , and shaft B , the horizontally and vertically adjustable swinging frame J , provided with rollers l , constructed and arranged to operate substantially as specified. 105

9. A flat car provided on its sides with vertically-adjustable ways provided with rollers, in combination with ways extending beyond the front of the car, said ways together provided with an endless carrier and the car with 110
apparatus for operating said carrier and projecting ways, substantially as specified.

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Witnesses:

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