May 3, 1927. 1,627,481

L. J. CLAPP

LIFTING MECHANISM FOR RAILWAY CARS

Filed Oct. 1, 1926

Fig. 1.

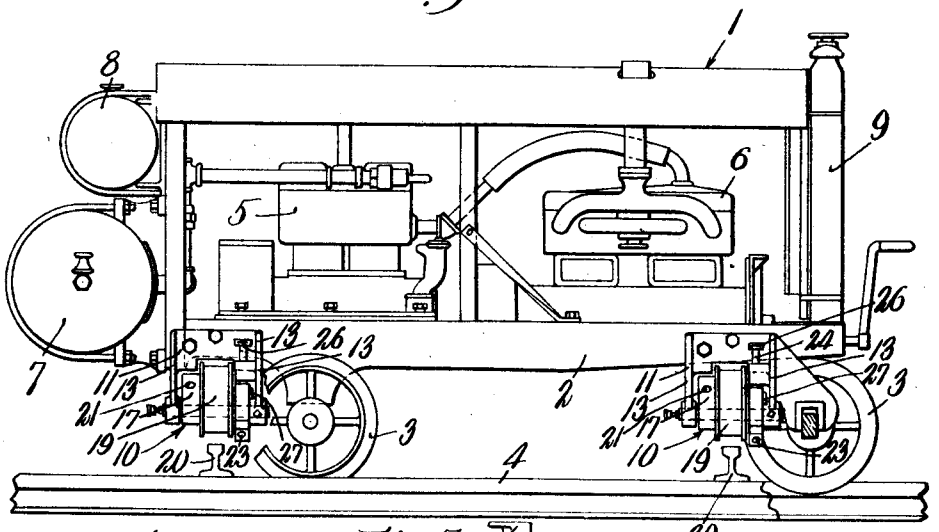


Fig. 2.

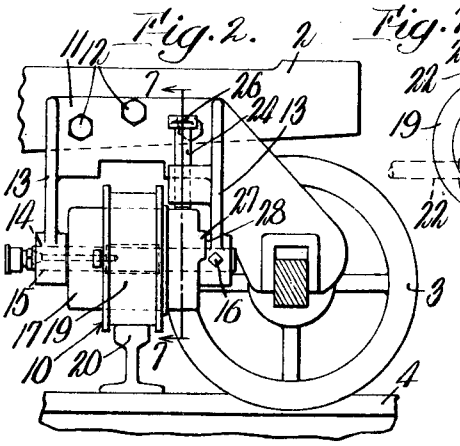


Fig. 7.

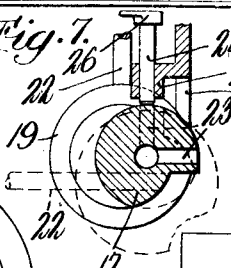


Fig. 3.

Fig. 4.

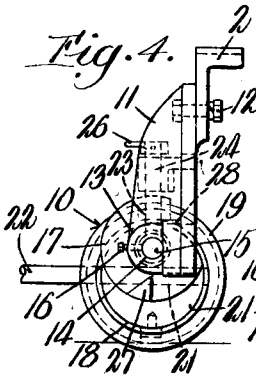


Fig. 5.

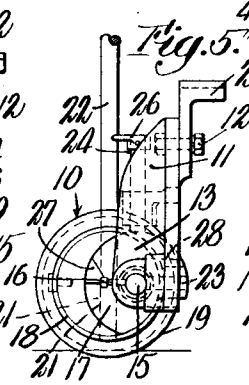
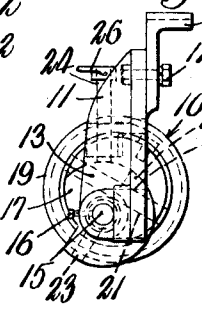


Fig. 6.



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UNITED STATES PATENT OFFICE.

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LIFTING MECHANISM FOR RAILWAY CARS.

Application filed October 1, 1926. Serial No. 139,006.

This invention relates to lifting mechanisms for railway cars and more particularly, but not exclusively, to lifting devices for portable railway compressor outfits.

An object of this invention is to provide improved lifting mechanism whereby a portable railroad compressor outfit may be readily and quickly lifted from the main trackway and thereafter shifted laterally therefrom on auxiliary lifting wheels running on supplemental transverse rails laid across the main trackway. Another object of this invention is to provide improved lifting devices for a portable railway compressor outfit which may be adjusted with facility and expeditiously, which are exceedingly rugged in construction, and which may be manufactured at a minimum of expense. Other objects of this invention will subsequently appear.

In the accompanying drawings I have shown for purposes of illustration one form which my invention may assume in practice.

In these drawings,—

Fig. 1 is a side elevation of a portable railway compressor outfit to which the improved lifting devices are applied, the auxiliary wheels being shown in their raised or inoperative position.

Fig. 2 is an enlarged fragmentary view illustrating one of the lifting devices shown in Fig. 1.

Fig. 3 is a rear end elevational view of the compressor outfit shown in Fig. 1, the compressor outfit being shown lifted from the trackway and supported by the auxiliary wheels.

Figs. 4 to 6 are detail views illustrating the several positions of the auxiliary wheels.

Fig. 7 is a vertical sectional view taken on line 7—7 of Fig. 2, illustrating the improved locking means for the auxiliary wheels.

In this illustrative embodiment of the invention the improved lifting devices are shown applied to a portable railway compressor outfit generally designated 1, although it is obvious that the invention is applicable to any railroad car. The compressor outfit 1, generally stated, comprises a supporting frame 2 supported on usual track wheels 3 adapted to run along a usual trackway 4. Mounted on the frame 2 is a compressor 5 suitably driven by a gasoline engine 6, the compressor discharging air under pressure to a usual receiver 7. A gasoline tank 8 and a radiator 9 are also provided in the usual manner.

In the improved construction it will herein be observed that located preferably at the rear of each of the track wheels 3 are auxiliary wheel devices, generally designated 10, of improved form which are so constructed as to permit the compressor outfit to be lifted bodily from the main trackway 4 and thereafter shifted laterally therefrom in a manner to be later described. The devices 10 each comprise a supporting frame or bracket 11 secured as by bolts 12 to the sides of the frame 2. The brackets 11 are each provided with depending arms 13 having at their lower ends apertures 14 in which a stationary shaft 15 is rigidly secured as by set screws 16. The shaft 15 has rotatably mounted thereon a wheel supporting or eccentric lifting member 17 having arranged eccentrically thereof bearing surfaces 18 on which an auxiliary wheel 19 is journaled. The wheels 19 of the lifting devices 10 are adapted to run along supplemental transverse rails 20 which are laid across the main trackway 4. As illustrated, formed in the eccentric portion of the wheel support 17 is a socket 21 adapted to receive one end of a lever or bar 22. Furthermore, extending radially of the shaft 15 is an aperture 23 formed in the member 17 and this aperture is adapted to receive a slidable locking pin 24 carried within a projecting lug 25 formed on one of the arms of each of the brackets 11. The upper end of the locking pin has secured thereto a suitable grasping handle 26. It will thus be evident that when the aperture 23 is brought into alinement with the locking pin 24, the latter may drop within the aperture to lock the auxiliary wheel in its operative or lowered position.

In accordance with this invention the portion 17 of the auxiliary wheel mounting has formed thereon at one end thereof a lateral projection 27 which is adapted to engage a similar projection 28 formed on the inner side of the adjacent arm 13 of the bracket 11. It will be obvious that when the wheel 19 is rotated into its inoperative or raised position as shown in Fig. 6, the projection 27 engages the projection 28 on the bracket, there-

by maintaining the wheel in position, the projections 27, 28 being located at a point past the center of gravity of the wheel.

In the use of the improved auxiliary lifting devices it will be noted that when it is desired to lift the compressor outfit from the main trackway 4 and to shift the same laterally therefrom, the supplemental rails 20 are laid transversely across the rails 4 as clearly shown in Figs. 1 and 3. The wheels 19 are then swung about their eccentric mountings until they engage the treads of the supplemental rails, the wheels assuming the position shown in Fig. 5 at that time. The levers 22 are then inserted into the sockets 21 in the lifting eccentrics 17 and the operator then manually swings the wheels to their lowered position shown in Fig. 4, consequently lifting the compressor outfit bodily from the main trackway 4 as shown in Fig. 3, the entire weight of the compressor outfit then being carried by the auxiliary wheels 19 directly upon the transverse rails 20. When the wheels assume the position shown in Fig. 4, the locking pins 24 drop within the apertures 23 in the eccentrics 17, thereby locking the auxiliary wheel mountings against further rotation. The compressor outfit is then shifted laterally on the transverse rails 20 in an obvious manner.

As a result of this invention it will be noted that improved auxiliary lifting devices for a portable railway compressor outfit are provided, which may be adjusted with facility and expeditiously, which are exceedingly rugged in structure, and which may be manufactured at a minimum expense. It will further be noted that improved lifting devices are provided which may be attached to a standard compressor outfit with a minimum of change. These and other advantages of this invention will be clearly apparent to those skilled in this art.

While I have in this application specifically described one form which my invention may assume in practice, it will be understood that this form of the same is shown for purposes of illustration and that the invention may be modified and embodied in various other forms without departing from its spirit or the scope of the appended claims.

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

1. In a portable railway compressor outfit, the combination with a supporting frame and track wheels carried thereby, of brackets attached to said frame, lifting eccentrics rotatably carried by said brackets, auxiliary wheels journaled on said eccentrics, and lever operated means for rotating said eccentrics to raise or lower said auxiliary wheels.

2. In a portable railway compressor outfit, the combination with a supporting frame and track wheels carried thereby, of brackets attached to said frame each carrying a shaft, lifting eccentrics rotatably mounted on said shafts, auxiliary wheels journaled on said eccentrics, and lever operated means for rotating said eccentrics to raise or lower said auxiliary wheels.

3. In a portable railway compressor outfit, the combination with a supporting frame and track wheels carried thereby, of brackets attached to said frame each carrying a stationary shaft, lifting eccentrics rotatably mounted on said shafts, auxiliary wheels journaled on said eccentrics, means for rotating said eccentrics to raise or lower said auxiliary wheels, and means for maintaining said eccentrics in their raised position.

4. In a portable railway compressor outfit, the combination with a supporting frame and track wheels carried thereby, of brackets attached to said frame each carrying a stationary shaft, lifting eccentrics rotatably mounted on said shafts, auxiliary wheels journaled on said eccentrics, means for rotating said eccentrics to raise or lower said auxiliary wheels, means for maintaining said eccentrics in their raised position, and means for locking said wheels in their lowered position.

5. In a portable railway compressor outfit, the combination with a supporting frame and track wheels carried thereby, of brackets attached to said frame each carrying a stationary shaft, lifting eccentrics rotatably mounted on the shafts, auxiliary wheels journaled on said eccentrics, means for rotating said eccentrics to raise or lower said auxiliary wheels, and means for maintaining said wheels in their raised position comprising lugs carried by said eccentrics engageable with lugs on said brackets.

6. In a portable railway compressor outfit, the combination with a supporting frame and track wheels carried thereby, of brackets attached to said frame each carrying a stationary shaft, lifting eccentrics rotatably mounted on said shafts, auxiliary wheels journaled on said eccentrics, means for rotating said eccentrics to raise or lower said auxiliary wheels, means for maintaining said wheels in their raised position comprising lugs formed on said eccentrics engageable with lugs formed on said brackets, and means for locking said wheels in their lowered position comprising a slidable locking pin carried by each of said brackets engageable with apertures formed in said eccentrics.

7. In a portable railway compressor outfit, the combination with a supporting frame and track wheels carried thereby, of brackets attached to said frame each having depending arms, a stationary shaft carried by the arms of each bracket, a lifting eccentric rotatably mounted on each shaft, auxiliary wheels journaled on said eccentrics, means

for rotating said eccentrics to raise or lower said auxiliary wheels, and means for locking said auxiliary wheels in their lowered position comprising a locking pin carried by one of the arms of said brackets and cooperating with an aperture formed in said eccentric.

8. In a portable railway compressor outfit, the combination with a supporting frame and track wheels carried thereby, of brackets attached to said frame and having depending arms, a stationary shaft carried by the arms of each bracket, a lifting eccentric rotatably mounted on each shaft, auxiliary wheels journaled on said eccentrics, means for rotating said eccentrics to raise or lower said auxiliary wheels comprising a socket therein adapted to receive a lever, means for maintaining the auxiliary wheels in their raised position comprising lugs formed on said eccentrics engageable with lugs formed on an arm of each bracket, and means for locking said wheels in their lowered position comprising a reciprocable locking pin carried by one of the arms of each bracket and cooperating with an aperture in said eccentric.

In testimony whereof I affix my signature.

LEWIS J. CLAPP.