No. 795,124. PATENTED JULY 18, 1905.

F. V. HETZEL.

CAR HAUL.

APPLICATION FILED MAY 5, 1903.

Fig. 1.

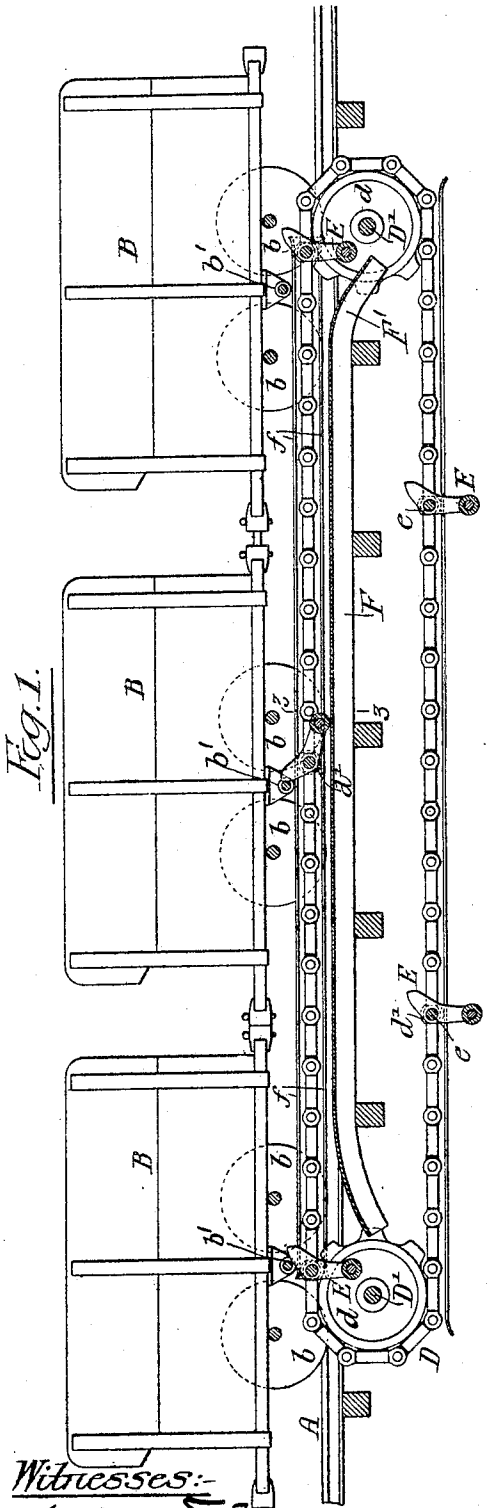


Fig. 4.

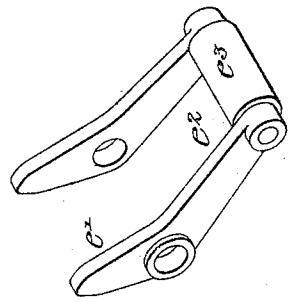


Fig. 3.

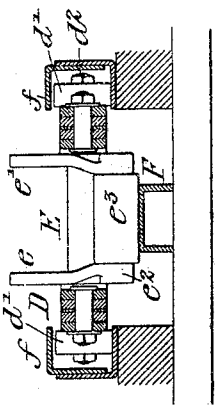
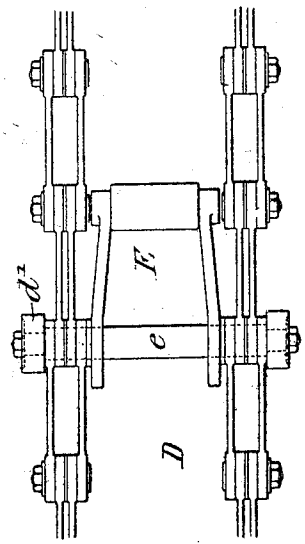


Fig. 2.



Witnesses:-

Hamilton D. Turner

Herman C. Metius.

Inventor:-

Frederic V. Hetzel,

by his Attorneys;

Howson & Howson

No. 795,124. Patented July 18, 1905.

UNITED STATES PATENT OFFICE.

FREDERIC V. HETZEL, OF PHILADELPHIA, PENNSYLVANIA, ASSIGNOR TO THE LINK BELT ENGINEERING COMPANY, OF PHILADELPHIA, PENNSYLVANIA, A CORPORATION OF PENNSYLVANIA.

CAR-HAUL.

SPECIFICATION forming part of Letters Patent No. 795,124, dated July 18, 1905.

Application filed May 5, 1903. Serial No. 155,764.

To all whom it may concern:

Be it known that I, FREDERIC V. HETZEL, a citizen of the United States, residing in Philadelphia, Pennsylvania, have invented certain Improvements in Car-Hauls, of which the following is a specification.

The object of my invention is to so construct a car-haul for transferring cars from a track to the dump or discharging-platform that the strain will be gradually transferred from one car to another without jar. This object I attain in the following manner, reference being had to the accompanying drawings, in which—

Figure 1 is a side view, partly in section, showing my improved car-haul in connection with a series of cars. Fig. 2 is a plan view of a portion of the chain. Fig. 3 is an enlarged section on the line 3 3, Fig. 1; and Fig. 4 is a perspective view of one of the pivoted hooks.

A is the track on which travel the wheels *b* of the cars B.

D is an endless chain which passes around sprocket-wheels *d* on a shaft D'. One of these shafts may be driven so as to impart motion to the chain. At each side of the chain are rails *f*, on which travel the rollers *d'*, mounted on cross-shafts *e* in the present instance.

Hooks E are pivoted on the shafts *e* of the chain D, and these hooks engage bars *b'* on the cars B or they may engage the axles or other parts of the car to move the cars forward toward the dump. It has been the usual practice to fix the hooks rigidly to the chain, and the great objection to this construction is that when a hook commences to pass around the forward sprocket-wheel before it disengages itself from the car it forces the car forward, owing to the fact that the end of the hook is moving at a greater speed than the chain in passing around the wheel. This causes a jar or shock to the other cars, which is objectionable. I obviate this objection by pivoting the hook so that it will disengage itself from the car before it passes around the forward wheel.

The hook E shown in the drawings has two connected side members *e' e'* in the form of bell-crank levers, and between the side members is a roller e^3 at the outer end of one arm of the lever. The other arm is of such a length as to engage a bar or other projection on a car. The roller e^3 travels over a rail F, which has a cam or depressed portion F' at its forward end.

The hooks on the chain are so spaced that when the hook engaging the first car of a train is free of the control of the cam it is allowed to drop back and swing. The hook following is in such position back of the bar or other portion of the second car that it will engage the second car and take the strain of the train, allowing the first car to go free. As the first hook is backed off by traveling over the cam-surface of the rail it allows the second hook to move forward and engage the second car before the first hook is free, so as to avoid jars. The grade in many instances is such that the first car will then be pushed by the second car, and this releases the tension of the coupling between the first and second cars and the coupling-pin can then be readily withdrawn, so as to detach the first car from the train, allowing it to go free to the dump. After the contents of the car have been discharged it will be directed in the usual manner to the downhaul.

I claim as my invention—

1. The combination in a car-haul, of an endless chain, wheels around which the chain passes, a series of hooks pivoted to the chain, each hook being in the form of a bell-crank lever, one arm of each hook arranged to engage a car, the other arm of the hook extending rearwardly, a track over which the arm travels, and a depressed portion in the track forming a cam to allow the hook to turn on its pivot, substantially as described.

2. The combination of an endless chain, a hook pivoted thereto, said hook being made of two side members each in the form of a bell-crank lever, a roller mounted between the two members, a cam-rail bearing against the roller to hold the hook in operative position,

and the cam-section of said track allowing the hook to turn on its pivot to clear the car, substantially as described.

3. The combination in a car-haul, of an endless chain having two or more hooks pivoted thereon, means for controlling the hooks, and a cam portion for releasing each hook at a predetermined point, said hooks being so arranged in respect to the cars that as one hook is being disengaged from the first car the second hook will engage the second car without jar, substantially as described.

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

FREDERIC V. HETZEL.

Witnesses:
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JOS. H. KLEIN.