June 4, 1929. C. POSTWEILER 1,716,240

APPARATUS FOR THE UNLOADING OF RAILROAD CARS AND OTHER VEHICLES

Filed June 25, 1926

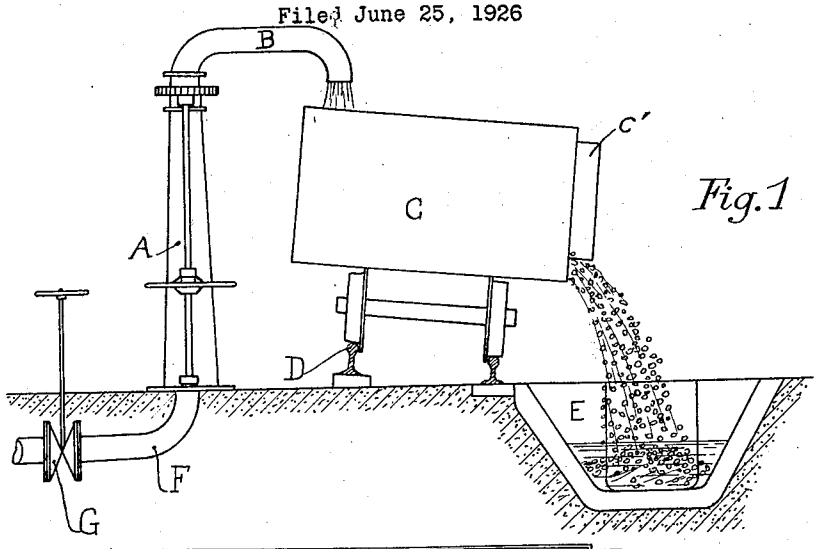


Fig.1

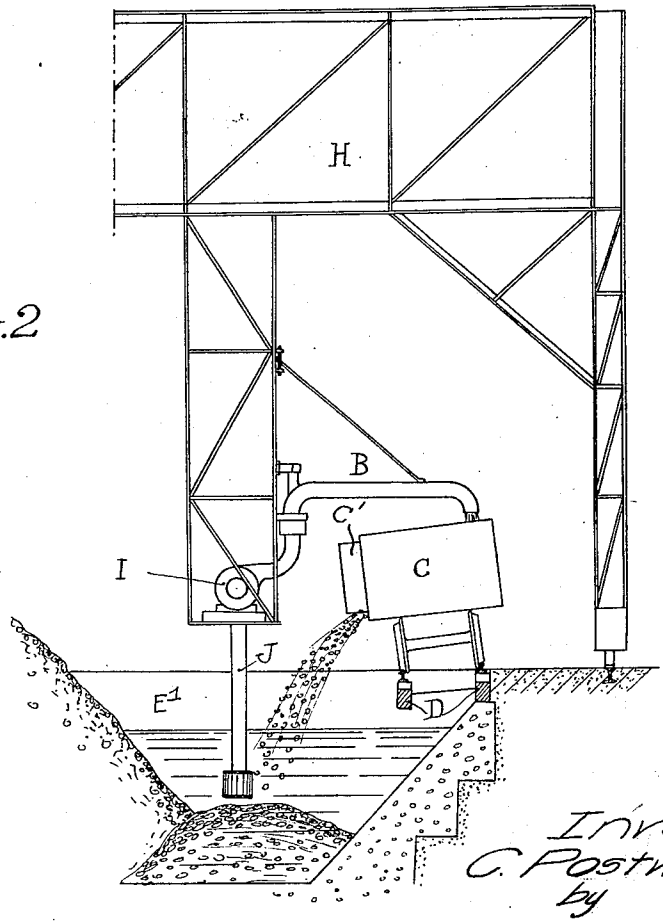


Fig.2

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UNITED STATES PATENT OFFICE.

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APPARATUS FOR THE UNLOADING OF RAILROAD CARS AND OTHER VEHICLES.

Application filed June 25, 1926, Serial No. 118,586, and in France September 25, 1925.

The present invention relates to a method and apparatus for the rapid and economical unloading of railroad cars and other vehicles containing material which will suffer contact with water without damage, such as coal, slag, coke, ore, stone, wood and the like.

The said process essentially consists in bringing upon the material to be unloaded a great volume of water, in one or more streams, so that the said material will be rapidly expelled from the vehicle.

The appended drawings show by way of example two embodiments of the invention, as applied to the unloading of coal cars.

Figs. 1 and 2 are elevational views of the two forms of construction.

At the side of the track is disposed a hollow column A to whose upper end is pivoted a conduit B which can thus be moved in a horizontal plane and serves to discharge the water supplied by the piping F upon opening the gate valve G. This water falls along the side of the wagon C opposite to the side carrying the doors C′, which are open; it is thus brought upon the coal, and by the great volume of the water, the coal is carried into the hopper E, from which it may be directly removed, or otherwise it may be circulated by hydraulic means to the place of storage.

To facilitate the discharge of the water and the coal from the car, I may as herein represented raise the rail D which is the farther from the hopper E, so that the bottom of the car will necessarily have the inclined position; but I may obviously incline the body of the car C by mechanical means.

By displacing the conduit B above the car, or the car C on the track, the water supplied by said conduit may reach and expel all the coal in the car.

The said device may be further constructed as shown in Fig. 2, in order to form a movable discharging outfit. Herein the set of cars C to be unloaded is brought upon the track which runs along the coal yard E^1, a part of which is kept under water for the preservation of the coal.

Across the track and the coal yard is mounted the traveling crane H, known per se, and it carries the unloading device. This latter consists of a pump operated by electric motor or by like means, which withdraws the water from the yard through the pipe J and delivers it as above stated upon the coal through the conduit B.

The water and the coal fall into the yard by reason of the inclined position of the car C, and since the crane can be made to travel, all the cars of the set can be unloaded without making it necessary to move the cars.

The water serving to discharge the coal may be recovered in order to reduce the expense.

Having thus described my apparatus, what I claim as new therein, and my own invention, is:—

1. Apparatus for the unloading of vehicles containing materials capable of being without inconvenience brought into contact with water, each of said vehicles having a side discharge opening, the apparatus comprising the combination of means adapted to give to the vehicle an inclination towards one side, and means for delivering upon the materials a mass of water in a sufficient quantity to partially immerse the said materials.

2. Apparatus for the unloading of vehicles containing materials capable of being without inconvenience brought into contact with water, each of said vehicles having a side discharge opening, the apparatus comprising the combination of a track having a transverse inclination, and means for delivering water upon the materials contained in the cars which are upon this track, the said means being adapted to deliver the water to the higher side of the said cars.

In testimony whereof I have hereunto affixed my signature.

CHARLES POSTWEILER.