

W. WRIGHT, C. KEEF & J. E. STRONG.
COKE OR COAL LOADER.

No. 534,024.

Patented Feb. 12, 1895.

Fig. 1.

Fig. 2.

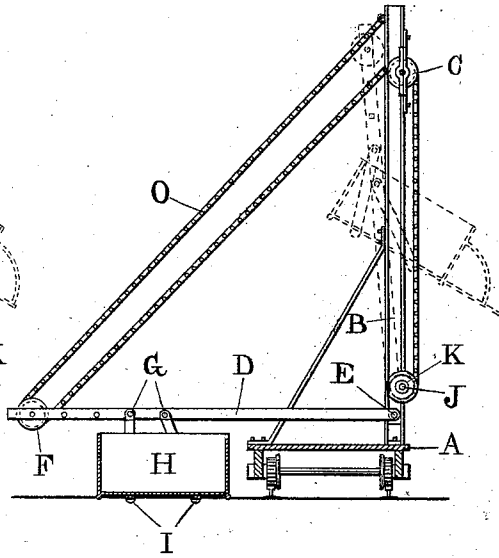
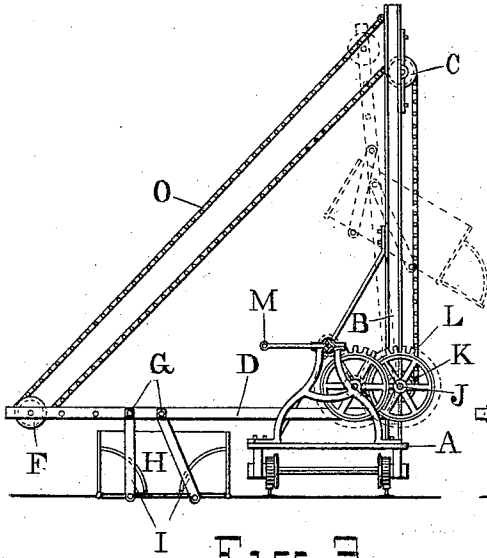
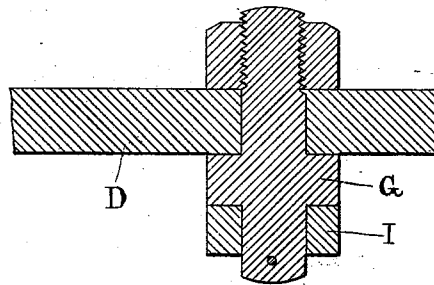
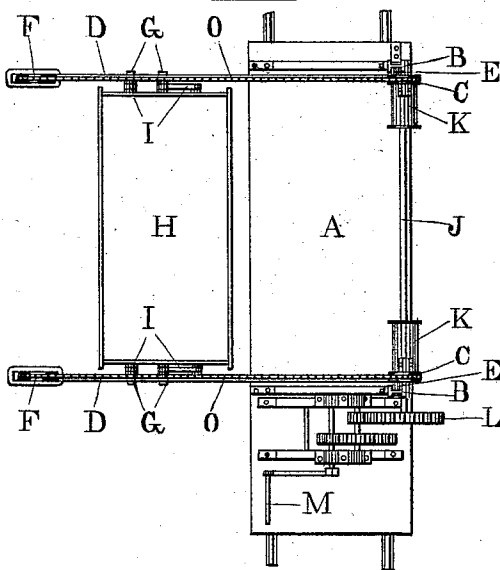


Fig. 3.

Fig. 4.



Witnesses

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(No Model.)

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Fig. 5.

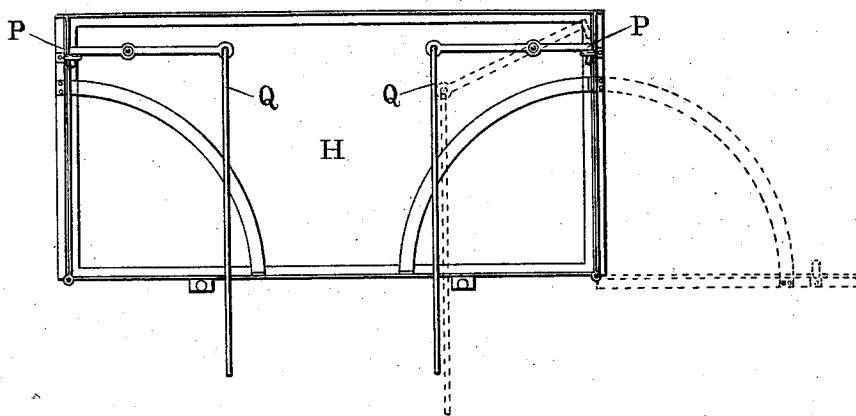
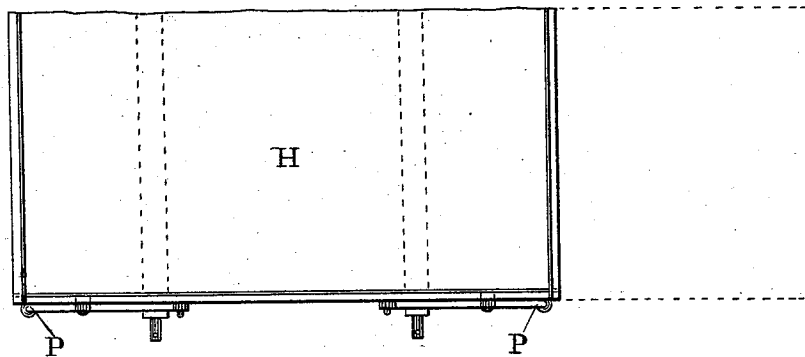


Fig. 6.



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UNITED STATES PATENT OFFICE.

WILLIAM WRIGHT, CALVIN KEEF, AND JAMES EDWARD STRONG, OF PRATT CITY, ALABAMA.

COKE OR COAL LOADER.

SPECIFICATION forming part of Letters Patent No. 534,024, dated February 12, 1895.

Application filed November 5, 1894. Serial No. 527,873. (No model.)

To all whom it may concern:

Be it known that we, WILLIAM WRIGHT, CALVIN KEEF, and JAMES EDWARD STRONG, citizens of the United States, residing at Pratt City, in the county of Jefferson and State of Alabama, have invented certain new and useful Improvements in Coke or Coal Loaders; and we do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to improvements in that class of devices used to elevate coke or coal in the loading of cars; and the objects of our improvement are, first, to provide a coke or coal loader of a simple and cheap construction which can be readily and cheaply operated to elevate and dump the contents of the hoisting car into an open top loading car; second, to provide a coke or coal loader placed on a truck or car the car movable on rails by which the loader can be moved to any part of the track desired to bring it to the material to be loaded; third, to provide a coke or coal loader with a dumping car pivoted to levers by connecting bars the said levers operated by a hoisting device to elevate and tip the car to dump the contents for loading into any desired receptacle. We attain these objects by the mechanism illustrated in the accompanying drawings, in which—

Figure 1, is a vertical end view of the loading device. Fig. 2, is a vertical sectional view of the same through the center. Fig. 3, is a top view of the entire device. Fig. 4, is an enlarged detail sectional view through the center of one of the movable studs to suspend the dumping car. Fig. 5, is an enlarged detail end view of the dumping car. Fig. 6, is a top view of the same.

Similar letters refer to similar parts throughout the several views.

The truck or car on which the device is placed, is represented by A. The car is made in the usual manner and provided with the usual flanged wheels mounted on axles. The axles are journaled in the car sills by any of the usual forms of bearings. A track constructed in the usual manner and equipped with any of the usual forms of rails adapted

to the car is provided, on which the car carrying the loader can be moved to any desired position on the track.

The vertical standards B, B are attached to the floor of the car by any suitable means. The standards can be made of metallic I, or channel beams, or of any other suitable material. The standards are provided near their upper ends with chain sheaves C, C. The sheaves are journaled in suitable bearings attached to the standards by any of the usual methods.

Two elevating levers D, D are pivoted at E, E to the standards. The pivots can be formed in any of the usual forms, and attached to the standards by any of the usual methods. The levers are provided at their outer ends with chain sheaves F, F. The sheaves are journaled on both sides of a slot formed in the end of the levers. A series of holes is provided in the levers, by which the series of studs G to suspend the dumping car can be adjusted to place the car at any desired position on the levers, as hereinafter described.

The elevating and dumping car H is made of any suitable metallic material. The sides of the car are attached by hinges, the hinges constructed and arranged to allow the sides of the car to open on a line with the bottom, as shown by dotted lines in Figs. 1 and 2.

Each end of the car is provided with two hooks P, P pivoted on pivots attached to the car end. The points of the hooks engage eyes attached to the car sides to keep the sides closed, the hooks having ropes or chains Q, Q attached to their inner ends for moving the hooks by hand to disengage the hooks from the eyes, to allow the sides to drop for dumping the load.

The car is provided with a series of suspension bars I, I. The bars are pivoted to the car at the bottom, by suitable pivots attached to the car. The upper ends of the bars are pivoted to the series of studs G. The studs are attached to the levers in the usual manner, the series of holes above referred to being provided in the levers, to adjust the studs in any desired position.

A shaft J is journaled in suitable bearings attached to the vertical standards B, B. The

shaft is provided with two spools K, K mounted thereon. A gear wheel L is mounted on one end of the shaft. A train of gearing mounted on a suitable stand connects with the gear L, the whole being operated by a hand lever M mounted on the end of a shaft. We do not claim or confine ourselves to the form of operating machinery shown. Any other desirable form of power can be used to operate or rotate the shaft J.

The chains O, O are attached at one end by any suitable device, to the upper ends of the vertical standards B, B. The free ends of the chains are rove round the chain sheaves journaled in the levers and uprights as shown, the ends of the chains being then attached by any suitable device to the spools K, K, on which they wind to elevate the levers.

To operate the loader, the elevating or dumping car H is filled with the material to be loaded. If used to load coke from the ovens, the coke can be drawn from the oven into the car. When the car is full, the operating machinery is put in motion to rotate the shaft carrying the spools, thereby drawing up the levers carrying the car to nearly a vertical position, as shown by dotted lines in Figs. 1 and 2, the suspension bars tipping the car, as the levers come to the vertical position. The side of the car is then opened on its hinges to allow the load to slide out. The levers and car are then lowered to repeat the operation.

Having thus described our invention, what we claim as new, and desire to secure by Letters Patent, is—

1. In a coke and coal loader, the combination with a car having two vertical standards attached thereto, two levers carrying a dumping car the levers being each pivoted at one end to one of the vertical standards, a shaft

carrying two spools the shaft being journaled in bearings attached to the standards, two chains each attached at one end to one of the standards and operating over sheaves journaled in the levers and standards and the remaining ends of the chains being attached to the spools and means to rotate the shaft carrying the spools, substantially and for the purpose described.

2. In a coke and coal loader, the combination with a car having two vertical standards attached thereto, two levers each pivoted at one end to one of the vertical standards, a dumping car, a series of suspension bars connecting the dumping car to the levers the bars operating on pivots at both ends to tip the car to discharge the load, when the levers are raised to near a vertical position, and means to elevate the levers, substantially as described.

3. In a coke and coal loader, the combination with a car having two vertical standards attached thereto, two levers each pivoted at one end to one of the vertical standards, a dumping car, a series of suspension bars connecting the dumping car to the levers the bars operating on pivots at both ends, the studs in the levers forming the upper pivots adjustable in a series of holes in the levers, to adjust and tip the car when the levers are raised to near a vertical position, and means to elevate the levers, substantially as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM WRIGHT.

CALVIN KEEF.

JAMES EDWARD STRONG.

Witnesses:

S. D. HALEY,

THOS. H. MOORE.