(No Model.)

S. G. FAIRLEY.

GONDOLA CAR.

No. 589,647. Patented Sept. 7, 1897.

Fig. 1.

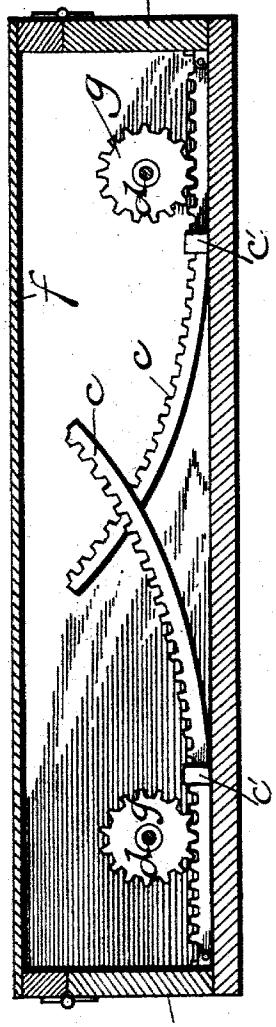


Fig. 2.

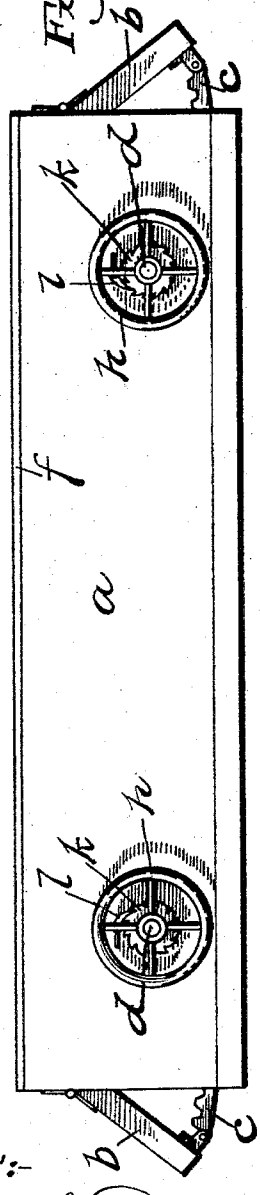
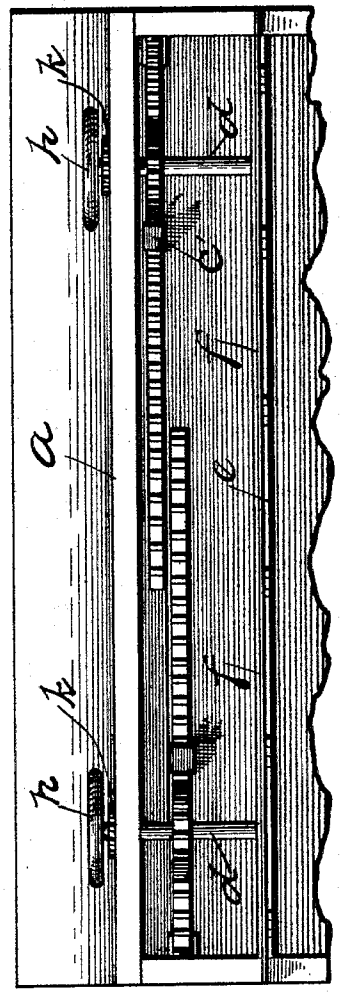


Fig. 3.



Witnesses:-
A. P. Appleman
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Inventor:
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By Henry C. Evans, Atty.

THE NORRIS PETERS CO., PHOTO-LITHO., WASHINGTON, D. C.

UNITED STATES PATENT OFFICE.

SAMUEL G. FAIRLEY, OF WILKINSBURG, PENNSYLVANIA.

GONDOLA CAR.

SPECIFICATION forming part of Letters Patent No. 589,647, dated September 7, 1897.

Application filed November 14, 1896. Serial No. 612,089. (No model.)

To all whom it may concern:

Be it known that I, SAMUEL G. FAIRLEY, a citizen of the United States of America, residing at Wilkinsburg, in the county of Allegheny and State of Pennsylvania, have invented certain new and useful Improvements in Gondola Cars, of which the following is a specification, reference being had therein to the accompanying drawings.

This invention relates to certain new and useful improvements in gondola cars, and relates more particularly to that class employed for coal and like material, the invention having for its object to construct a car for hauling such material as above stated that will be extremely simple in its construction, strong, durable, effectual in its operation, and comparatively inexpensive to manufacture.

A further object of my invention is to construct a car having hinged sides which may be swung open to permit the easy and rapid unloading of the car and to provide easy and simple mechanism to perform this function.

With the above and other objects in view the invention finally consists in the novel construction, combination, and arrangement of parts, to be hereinafter more specifically described, and particularly pointed out in the claim.

In describing the invention in detail reference is had to the accompanying drawings, forming a part of this specification, and wherein like letters of reference indicate similar parts throughout the several views, in which—

Figure 1 is a transverse vertical sectional view of the car-body. Fig. 2 is an end view of the same. Fig. 3 is a top plan view of a portion of the car-body, showing operating mechanism.

In the drawings, *a* represents the end of the car-body, and *b b* the hinged side pieces, to which are pivotally attached the curved rack-bars *c c* at the end of the car-body, staples or keepers *c' c'* being provided to guide the rack-bars and keep the same in their proper position. Shafts *d d* through the end *a* are supported at their inner ends by a cross-piece *e*, carrying a hinged cover *f*. The shafts also carry cog-wheels *g g*, engaging the curved rack-bars, and on their outer ends the shafts carry operating-wheels *h h*. Between the wheels *h h* and the end *a* on the shaft are secured ratchet-wheels *k k*, which engage pawls *l l*, attached to the end *a* of the car-body.

The operation of my improved coal or gondola car is as follows: When it is desired to unload the car, the wheels *h h*, when turned, operate the shafts *d d*, causing the cog-wheels *g g* to engage the curved rack-bars *c c* and force the same outwardly, thus opening the sides of the car and permitting the coal to fall out of the car at the sides. As this operation is performed the pawl will engage the ratchet and hold the sides in the open position. By reason of the rack-bars being curved they will be prevented from binding as the sides are forced outwardly, permitting the easy manipulation of same at all times, and when the pawl is disengaged from its ratchet the weight of the side pieces will force the same to their normal position and the pawl again engaging the ratchet locks the same. The hinged cover over the rack-bars and shafts will prevent the same from becoming damaged by the material that is being hauled coming in contact with the same.

It will be observed that the bottom of the car could be slightly inclined from the center to each side, if so desired, to permit the coal to fall more readily out of the car, and it will also be noted that various changes may be made in the details of construction without departing from the general spirit of my invention.

Having fully described my invention, what I claim as new, and desire to secure by Letters Patent, is—

In a gondola car, sides hinged to the top, cross-pieces extending across the car forming boxes, segmental rack-bars resting on the bottom of the boxes and pivoted at one end to the sides, guides on the bottom of the car in which said rack-bars operate, shafts journaled in the cross-pieces and ends of the car, a cog-wheel mounted on the shafts and meshing with the rack-bar, ratchets also mounted on the shaft, pawls for engaging the ratchet and operating wheels secured on the outer ends of the shafts, as and for the purpose described.

In testimony whereof I affix my signature in presence of two witnesses.

SAMUEL G. FAIRLEY.

Witnesses:
A. M. WILSON,
A. B. APPLEMAN, Jr.