

Patented Mar. 12, 1929.

1,705,006

UNITED STATES PATENT OFFICE.

GEORGE JOSEPH DUFFY, OF TORONTO, ONTARIO, CANADA.

COAL CAR.

Application filed November 12, 1927, Serial No. 232,844, and in Canada June 11, 1927.

My invention relates to improvements in coal cars, and the object of the invention is to devise a car, particularly adaptable for the transportation of soft coal so that it may be easily transferred from rail to boat with a minimum amount of handling, and it consists essentially of the arrangement and construction of parts as hereinafter more particularly explained.

Fig. 1 is a side elevation of a railroad car constructed in accordance with my invention.

Fig. 2 is an enlarged perspective detail of a portion of a car body and the coal containers inserted therein.

Fig. 3 is a transverse sectional view through the car body and one of the containers.

In the drawing like characters of reference indicate corresponding parts in each figure.

1 indicates a car body which is of flat type and supported upon the usual trucks 2 and 3. The main portion of the body 1 consists of a rectangular frame 4 forming the outside of the car body.

A series of transverse walls 5 extend between the sides of the frame 4 at suitably spaced apart positions and connected together by longitudinal rails 6 and 7 forming rectangular compartments into which the coal containers are fitted as will hereinafter appear.

The lower edges of the walls 5 incline upward towards the centre and are preferably provided with inclined edge portions 8 and 9, such portions being connected together centrally of the car body by longitudinal bar portions 10 thereby forming rectangular openings 11 and 12 in the bottom of the car for the discharge of coal.

13 are coal containers which as before stated fit between the transverse walls 5 and the interconnecting portions of the rails 6 and 7, the bottoms of which are inclined upwardly towards the centre to conform with the shape of the inclined portions 8 and 9 and the bar 10 so as to rest thereon and be supported in position. The bottom of each container 13 is provided at each side of its centre with an opening 14 provided with a door closure 15 pivoted at 16 and secured in position by any suitable apparatus operated by a lever 17 pivoted at 18, such as links 19 and 20 connected by links 21 and 22, the lugs 23 and 24 extending from the doors 15 at the outside of the wall of the corresponding container.

Although I have described this means of raising and lowering the doors to the open and closed positions any other suitable means may be employed.

The lever when in its lowered position raises the doors to the closed position and may be sprung beneath the projection 25 to lock the lever in its lowered position and the doors 15 closed.

The ends of the containers 13 are also provided with openings 26 provided with door closures 27 which may be locked in the closed position by a spring locking finger, such as indicated at 28 or by any other suitable means.

When it is desired to unload the car over a trestle all it is necessary to do is to spring the lever 17 free of the projection 25 so as to permit the doors 15 to drop to the open position when the coal will be discharged.

If it is desired to fill containers such as sacks with coal the doors 27 may be opened.

When the car reaches the rail head and it is desired to trans-ship the coal onto a boat the container 13 may be lifted by a crane and swing individually onto the boat from the car, thereby eliminating any handling of the coal, which particularly in soft and semi-soft coal grades is very detrimental to the coal causing it to deteriorate. Similarly when it is necessary to remove the coal from the boat to again transport it by rail all it is necessary to do is to lift the containers from the boat onto a car similarly to that described and transport it to its required destination.

What I claim as my invention is:—

1. In a coal car, a car body comprising a rectangular frame, transverse vertical walls extending between the frame at suitably spaced apart positions provided with inclined lower edges forming ledges, a longitudinal rail extending between the ends of the transverse walls, and removable containers adapted to fit between the transverse walls and having their bottoms formed to fit and rest upon the inclined ledges of the transverse walls.

2. In a coal car, a car body comprising a rectangular frame, transverse vertical walls extending between the frame at suitably spaced apart positions provided with inclined lower edges forming ledges, a longitudinal rail extending between the ends of the transverse walls, removable containers adapted to fit between the transverse walls

and having their bottoms formed to fit and rest upon the inclined ledges of the transverse walls and having bottom openings, doors fitting such openings, and a lever for
5 controlling the opening and closing of the doors.

3. In a coal car, a car body comprising a rectangular frame, transverse vertical walls extending between the frame at suitably
10 spaced apart positions provided with inclined lower edges forming ledges, a longi-

tudinal rail extending between the ends of the transverse walls forming side openings in the car body, removable containers adapted to fit between the transverse walls
15 and having their bottoms formed to fit and rest upon the inclined ledges of the transverse walls and having end openings opposite the side openings of the car body, and discharge doors coacting with such openings.

GEORGE JOSEPH DUFFY.