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RAILWAY DINING CAR.

APPLICATION FILED NOV. 3, 1910.

1,007,184.

Patented Oct. 31, 1911.

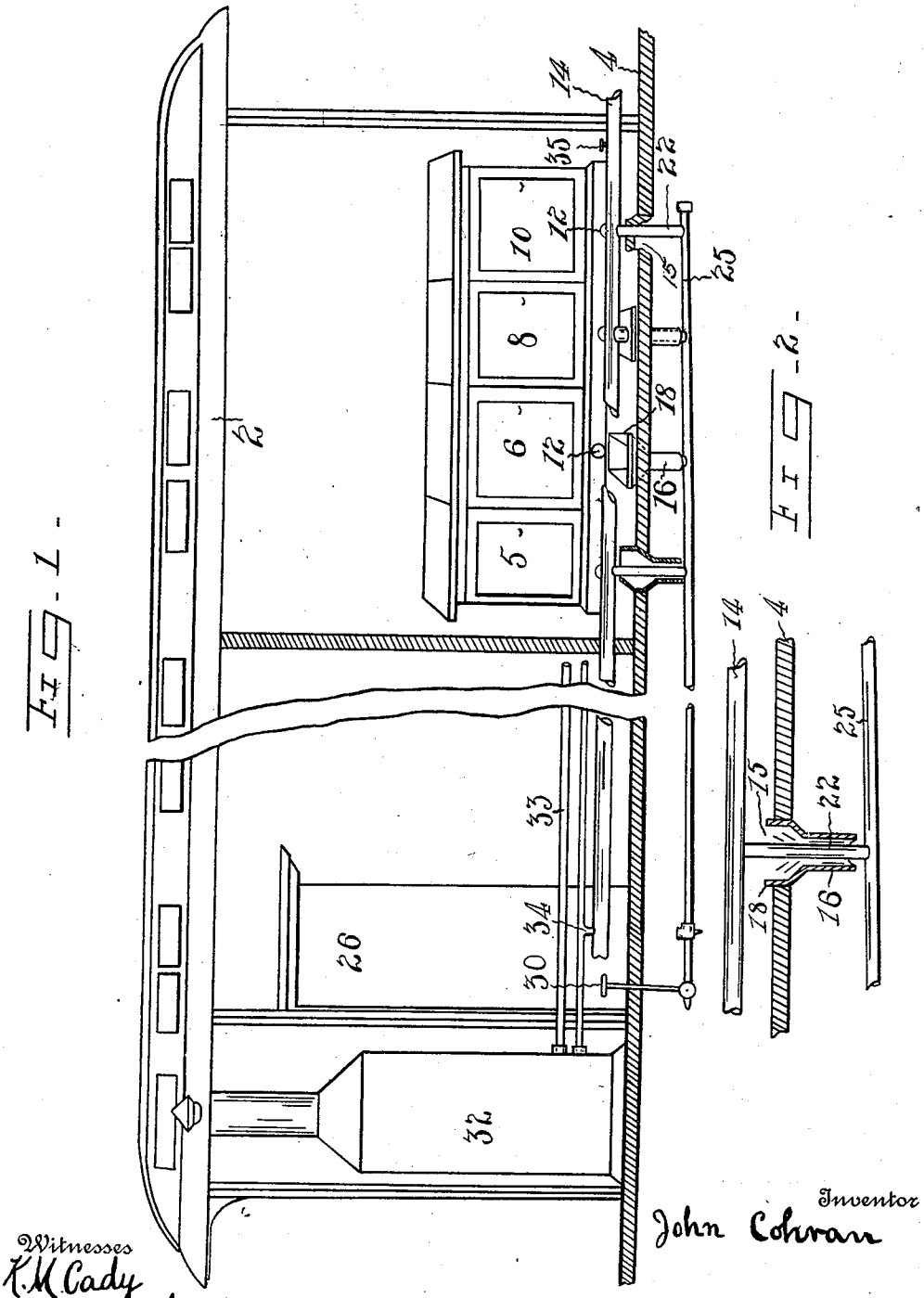

Fig. 1.

Fig. 2.

Witnesses

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RAILWAY DINING-CAR.

1,007,184. Specification of Letters Patent. Patented Oct. 31, 1911.

Application filed November 3, 1910. Serial No. 590,533.

To all whom it may concern:

Be it known that I, JOHN COHRAN, a citizen of the United States, residing at Dubuque, in the county of Dubuque and State of Iowa, have invented certain new and useful Improvements in Railway Dining-Cars, of which the following is a specification.

My invention relates to dining car construction with special reference to the care and disposal of the waste water from the ice chests, and the leading object is to provide a simple device that shall not interfere with the free use of the other appliances in the car and still effectually prevent the waste pipes that carry off the water from becoming stopped on account of freezing.

In what it consists, its mode of construction and manner of operation will be fully set out and described in detail in the following specification when taken in connection with the drawings accompanying the same and forming a part hereof.

Figure 1 is a side elevation of the inside of a car showing a cross section of my invention in position. Fig. 2 is a perspective view showing a cross section of a detail.

Like characters of reference indicate the same parts in each of the figures.

In the drawings, 2 represents the car roof, 4 the floor, 5, 6, 8 and 10 the ice boxes which are located along the sides of the car in the kitchen. Each of the ice boxes is provided with a waste opening 12 through which the water from the ice box is drawn off. Along the front of the ice boxes runs the usual steam pipe 14 which is used for heating the cars. In front of each ice box there is an opening 15 through the floor 4 of the car which openings register with the openings 12 in the lower part of the ice boxes. These openings 15 through the floor are for the purpose of drawing the waste water from the ice-boxes through the base of the car. In these openings 15 are inserted spouts or tubes 16 which are of rectangular shape at the top 18 and terminate in a tube at the bottom and extend through the floor of the car. There are preferably as many of these spouts as openings 12 in the ice boxes. Through each of the spouts 16 is inserted a steam tube 22 which are steam fitted in the steam pipe 14 and extend a short distance below the lower end of the tubes and are all steam-fitted into a common pipe 25. The pipe 25 may extend a short distance beyond the length of the kitchen or it may extend to the opposite end of the car near the conductor's locker 26. At its end there is provided an ordinary stop and waste cock with a handle 30 running up through the floor of the car and in easy reach of the conductor.

In one end of the dining car there is provided an emergency heater 32 which, when occasion requires, is brought into action and furnishes the heat for the car, or it may be used as a supplemental heat supply. To this heater there are usually connected heat pipes 33 that extend out into the dining room and supply the needed heat. In case the car is side tracked or cut out from its usual supply of heat, there is provided a pipe 34 which is connected to the heater 32 and with the supply pipe 14 which is provided with a stop cock 35.

In operating my device the operator turns on the steam into the pipe 14 and it passes down the pipes 22 and along the pipe 25, warming the tubes through which the waste water from the ice boxes is carried off through the floor of the car. Then the operator grasps the handle 30 and opens the valve at the end of the pipe 25 just a trifle and allows the steam to pass out sufficient to give a slight circulation of steam through the pipes 22 and 25 and also to allow any condensed steam in the pipes 25 to be drawn off. If the car is side-tracked then the operator turns on the heat from the heater 32 and the heat passes through the pipe 14 into the pipes 22 and 25 the same as before.

It will be observed by this mode of construction that there will always be a circulation of steam through the waste pipes and no possibility of the pipes becoming frozen while the car is connected with the train or while the heater is in use and further if for any cause the steam or heat is entirely withdrawn from the car and the waste pipes should become frozen, they can be thawed out in a very short time when the car is again connected with the steam supply.

Having described my invention what I claim is,—

1. In a device of the character described, a car, a series of ice chests each provided with an outlet opening into the car, a drain pipe for each chest extending through the floor of the car and registering with the outlet in the ice chests, a heat supply pipe extending longitudinally in the car, means for

supplying heat to said supply pipe, a waste pipe suspended beneath the car at an angle to the plane of the floor of the car, tubes passing through each drain pipe and connecting at one end to the heat pipe in the car and at the other end to the waste pipe beneath the car, and a stop-cock in said waste pipe at its lower end to control the supply of heat passing through the drain pipe and for disposing of the water condensed in said suspended waste pipe.

2. In a dining car structure, an ice chest, a waste outlet for said chest, a drain pipe extending through the floor of the car beneath said outlet, a heat supply pipe within the car connected with a source of heat supply and extending across the top of said drain pipe, a heat discharge pipe beneath the car, and a pipe within the drain pipe connected at one end with the heat supply pipe and at the other end with the discharge pipe, and means within the car for controlling the discharge of the discharge pipe.

3. In a dining car structure, a series of waste pipes extending through the floor of the car and each having an opening within the car and an opening beneath the car, a heat supply pipe crossing the openings of said waste pipes within the car, a discharge pipe crossing the openings of said waste pipes beneath the car, pipes within the waste pipes connecting the heat supply pipe with the discharge pipe, and means within the car for regulating the operation of the discharge pipe.

4. In a dining car structure a series of ice chests each provided with an outlet opening, a drain pipe extending through the floor of the car below each outlet opening, each drain pipe being provided with an opening within the car below the outlet opening of its ice chest and an opening below the car, a heat supply pipe crossing the openings of the drain pipes within the car, a discharge pipe crossing the openings of the drain pipes below the car, pipes passing through the drain pipes and connecting the heat supply pipe with the discharge pipe, and a cock in one end of the discharge pipe arranged so as to be operated by means within the car.

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

JOHN COHRAN.

Witnesses:
M. M. CADY,
A. B. HANSHAW.