No. 721,886. PATENTED MAR. 3, 1903.

C. A. GLOVER.

FREIGHT CAR FOR SHIPPING MUSICAL INSTRUMENTS.

APPLICATION FILED JUNE 19, 1902.

NO MODEL. 2 SHEETS—SHEET 1.

Fig. 1.

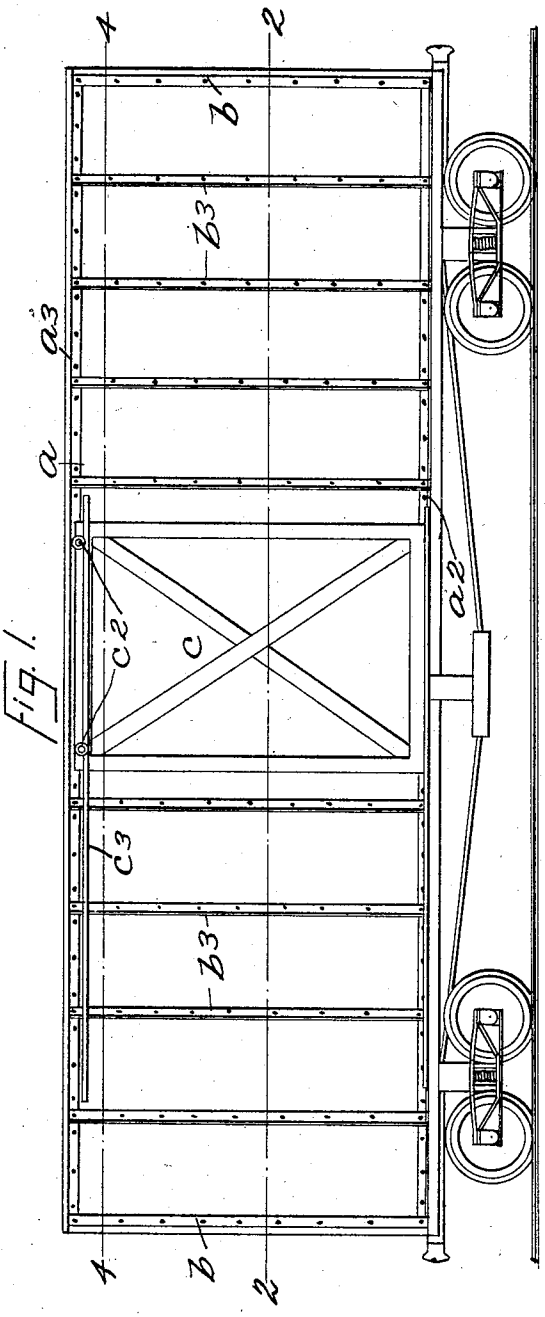
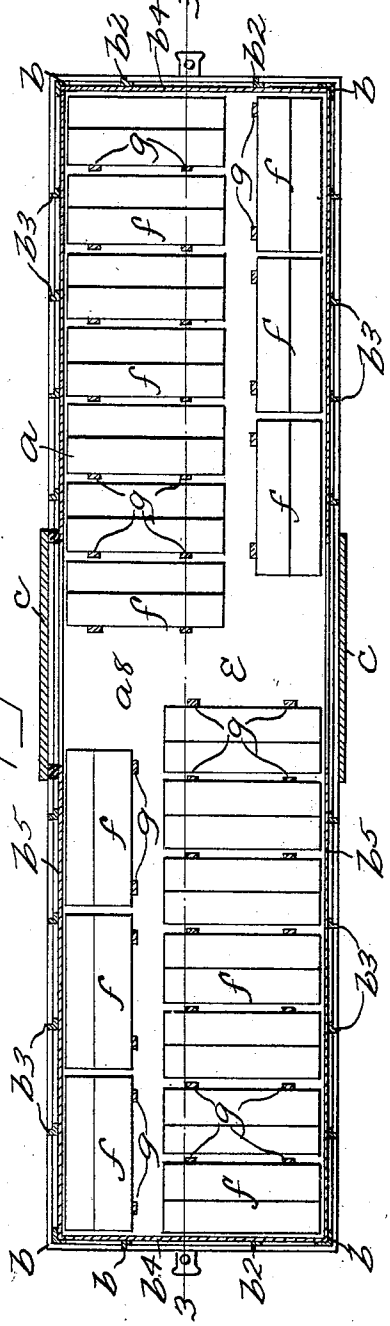


Fig. 2.



WITNESSES

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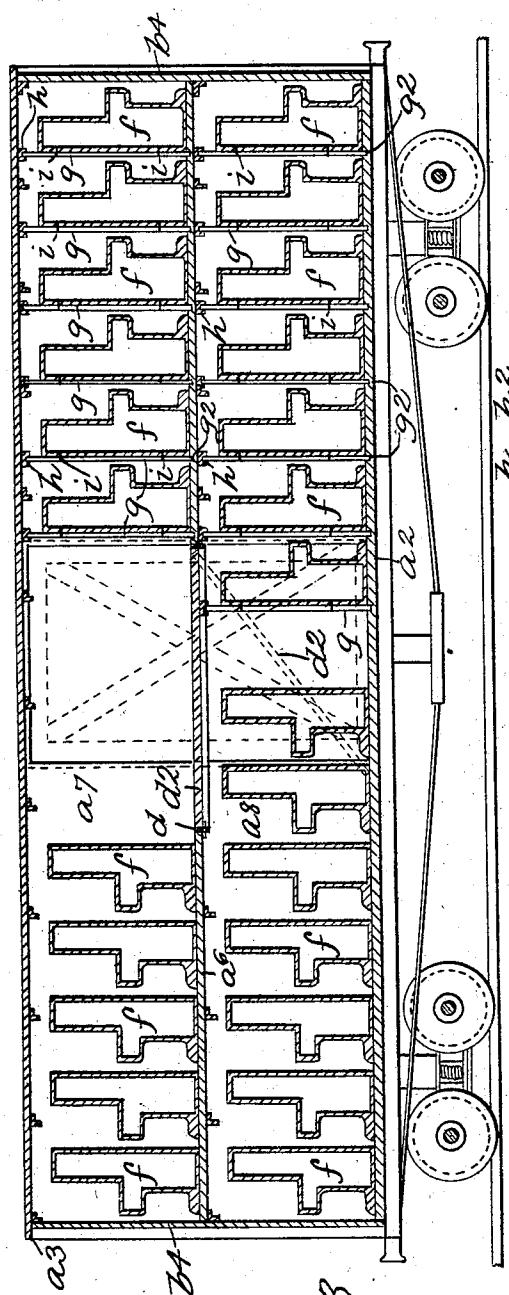


Fig. 3

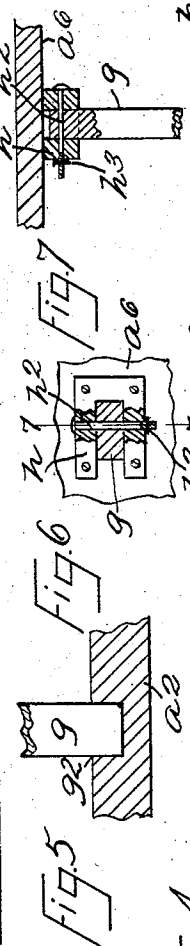


Fig. 7

Fig. 6

Fig. 5

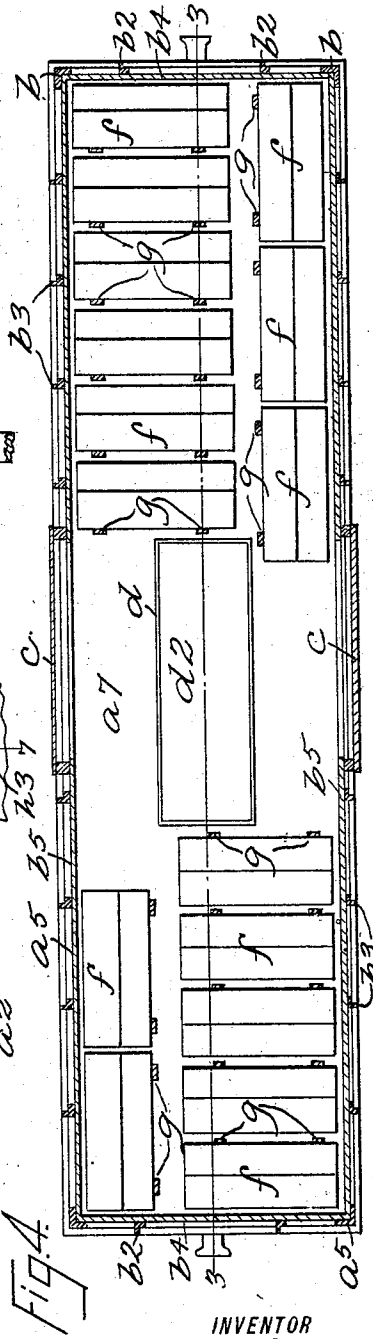


Fig. 4

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UNITED STATES PATENT OFFICE.

CHARLES APPLETON GLOVER, OF ARDSLEY, NEW YORK.

FREIGHT-CAR FOR SHIPPING MUSICAL INSTRUMENTS.

SPECIFICATION forming part of Letters Patent No. 721,886, dated March 3, 1903.

Application filed June 19, 1902. Serial No. 112,278. (No model.)

To all whom it may concern:

Be it known that I, CHARLES APPLETON GLOVER, a citizen of the United States, residing at Ardsley, in the county of Westchester and State of New York, have invented certain new and useful Improvements in Freight-Cars for Shipping Musical Instruments, of which the following is a full and complete specification, such as will enable those skilled in the art to which it appertains to make and use the same.

The object of this invention is to provide a freight-car which is particularly designed for shipping pianos, but which may also be used for the purpose of shipping organs and other articles, a further object being to provide a car for the purpose specified which will carry the greatest possible number of pianos in order that the cost of shipping such articles great distances may be reduced to a minimum, a further object being to provide a car for the purpose specified which is divided into upper and lower compartments, into which pianos may be packed and stored in such manner that the car will contain the greatest possible number of such instruments.

The invention is disclosed in the following specification, of which the accompanying drawings form a part, in which the separate parts of my improvement are designated by suitable reference characters in each of the views, and in which—

Figure 1 is a side view of the framework of the freight-car made according to my invention; Fig. 2, a horizontal section on the line 2 2 of Fig. 1 and showing the car complete and pianos packed or stored in the bottom compartment thereof; Fig. 3, a section on the line 3 3 of Fig. 2; Fig. 4, a section on the line 4 4 of Fig. 1 and showing the car complete and pianos packed or stored in the upper compartment thereof; Fig. 5, a sectional view showing a part of a vertically-arranged stanchion which I employ for holding the pianos in position and showing the bottom support thereof; Fig. 6, a bottom plan view of the upper support of said stanchion and showing said stanchion in section, and Fig. 7 a section of the upper end of one of said stanchions and its supports.

In the practice of my invention I provide a freight-car a, which is preferably about forty feet long, fourteen and one-half feet high from the rails, and eight feet nine inches wide, and this car consists of a steel frame which is made in the usual manner and comprises a bottom a^2, a top a^3, ends a^4, sides a^5, and a central horizontal partition a^6, which divides the car into top and bottom compartments a^7 and a^8 and which form the bottom of the top compartment a^7.

As shown in the drawings, the sides and ends of the car consist of the usual corner frame-post b, intermediate end post b^2, and intermediate side posts b^3, to the inner sides of which are secured the end boards b^4 and side boards b^5, which make up the body of the car; but the details of the construction of car proper form no part of this invention. The car is also provided at its opposite side and center thereof with doors c, which preferably extend from the top to the bottom thereof and which are supported by means of rollers c^2, connected therewith and resting on horizontal tracks or ways c^3, and the bottom a^6 of the top compartment a^7 is provided with an oblong opening d, which is closed by a plate or board d^2 and through which pianos may be raised into the top compartment or lowered therefrom when desired, and said plate or board d^2 may also be used as a means for lowering the pianos from the upper compartment into the lower compartment when desired, and in practice one end of this plate or board b^2, which is adapted to serve as an ordinary skid and which may be of any desired construction, is hinged or usually connected with one end of the opening d, and the other end thereof may be lowered, so as to rest on the bottom of the bottom compartment a^8, as indicated in dotted lines in Fig. 3.

In Fig. 2 of the drawings I have shown twenty pianos stored in the bottom compartment a^8 of the car, so as to leave a central space e between the doors c, and these pianos are designated by reference character f, and seven thereof are arranged transversely of the opposite ends of the car, at the opposite sides thereof, and six of said pianos are arranged longitudinally of the opposite ends of the car, at the opposite sides thereof.

In Fig. 4 I have shown sixteen pianos stored

in the upper compartment of the car, the arrangement being somewhat similar to that in the bottom compartment, but slightly different, for the reason that seven of the pianos are arranged in one end of the car, five of which are arranged transversely at one side of the car and two longitudinally at the other side of the car, while nine pianos are placed in the opposite end of the car, five of which are arranged transversely at one side and three longitudinally at the opposite side.

Each of the pianos are held in place by two vertically-arranged stanchions g, and in Fig. 5 I have shown a portion of the floor a^2 of the bottom compartment and one of the stanchions g, the lower end of which is set into a recess or socket g^2, formed in said floor, and in Figs. 5, 6, and 7 I have shown one method of supporting and holding the upper ends of the stanchions g, which are connected with the roof a^6 of the bottom compartment a^8, which also forms the bottom of the top compartment a^7, and for this purpose I preferably employ a U-shaped attachment h, which is screwed to the under side or surface of the partition a^6 or top of the bottom compartment a^8 and into which the top end of the stanchion g is passed after the bottom end thereof has been set into the socket or recess g^2, and a bolt h^2 is passed through the side of the U-shaped attachment h and through the stanchion g and held in place by key-pin or other device h^3.

The stanchions g in the upper compartment are exactly the same as those in the lower compartment and are held in place in the same manner, the lower ends thereof being sunk into the recess or socket g^2, while the upper ends are held by the attachment h.

The sockets g^2 may be formed in plates or other attachments secured to the bottoms or floorings of the separate compartments, and the attachments h may be formed in any desired manner and may be secured to the ceilings of said compartment in any desired manner, or they may be formed with the framework of the car, the only object of this connection being to provide supports for said stanchions whereby the lower ends thereof may be placed in position and the upper ends after which swung into position are securely locked.

In storing the pianos into separate compartments those which are arranged longitudinally of the car are first placed in position, beginning at the ends of the car, and after each piano is placed in position the stanchions g are placed in position at the back thereof and secured thereto by screws or other suitable fastening devices i, which are secured into the back thereof or into the boards connected therewith, after which the pianos which are arranged transversely of the car are placed into position, beginning at the ends thereof, and the stanchions g are placed in position adjacent to each piano and secured thereto, as above described.

In Fig. 4 vacant spaces are shown centrally of the top compartment a^7 and at each side of the opening d in the floor thereof, in which other pianos may be arranged longitudinally, if desired, and by means of the vertically-arranged stanchions g it will be seen that both compartments of the car are, as a matter of fact, divided into separate spaces, each of which is designed to receive a piano, and said pianos are placed so that they do not touch the framework of the car and do not touch each other, and in shipping pianos in this way it is not necessary to provide boxes or covers therefor, and a great expense in this connection is saved, while the greatest possible number of pianos may be shipped in a single car.

The chief feature of my invention consists in the detachable or removable stanchions g, which are secured to the pianos after the latter are placed into position and which hold said pianos in position in the car, and in the division of the car in the top and bottom compartments, both of which are provided with the removable or detachable stanchions g for the purpose specified.

The pianos in the upper compartment may be placed therein and taken therefrom through the side doors c, as may, of course, those in the bottom compartment; but the pianos in the upper compartment of the car may be placed therein and removed therefrom through the opening d, if desired.

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

1. A car for shipping pianos and other instruments or articles, provided with vertically-arranged and movable stanchions, by means of which the car is divided into separate spaces, each of which is adapted to receive a piano or other instrument or article, and to which the said stanchions are secured, substantially as shown and described.

2. A car divided into top and bottom compartments each of which is provided with vertically-arranged and movable stanchions by which the said compartments are divided into spaces each of which is adapted to receive a piano to which the said stanchions are adapted to be secured and means for locking stanchions in an upright position, substantially as shown and described.

3. A car provided with vertically-arranged and movable stanchions, which divide the car into separate spaces, each of which is adapted to receive a piano, each of said spaces being also provided with two of said stanchions which are adapted to be secured to a piano in said space, a part of said spaces being arranged longitudinally and others transversely of each end of the car, substantially as shown and described.

4. A car divided into top and bottom compartments, said compartments being divided into separate spaces by means of vertically-arranged and movable stanchions, and each

of which is adapted to receive a piano, said spaces being arranged longitudinally and transversely of each end of each of said compartments, substantially as shown and described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of the subscribing witnesses, this 17th day of June, 1902.

CHARLES APPLETON GLOVER.

Witnesses:
CORA S. GLOVER,
JULIA B. GLOVER.