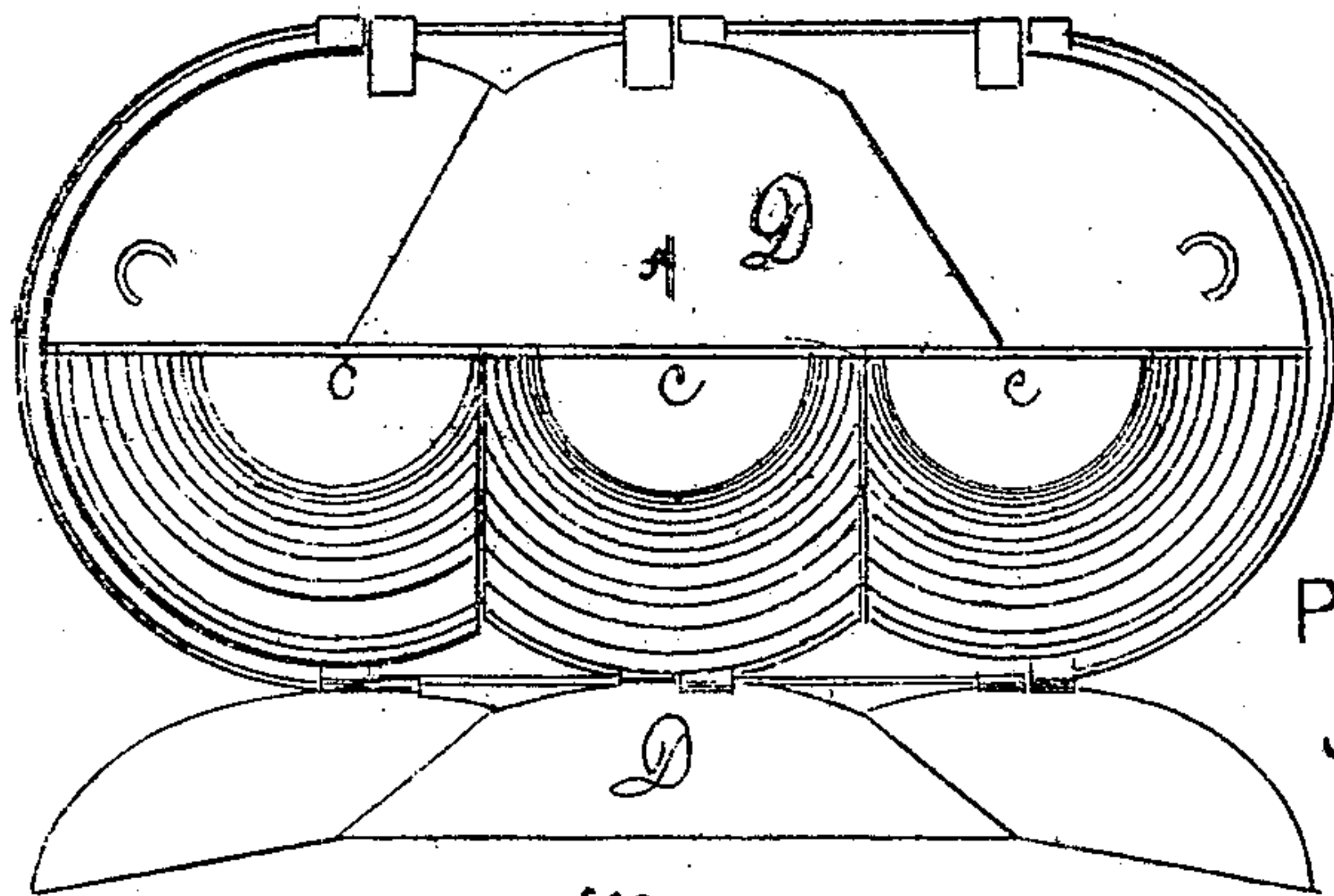


STEPHEN.W.DOWNEY

IMPROVEMENT IN FREIGHT CARS

73308

Fig. 1.



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Fig. 2.

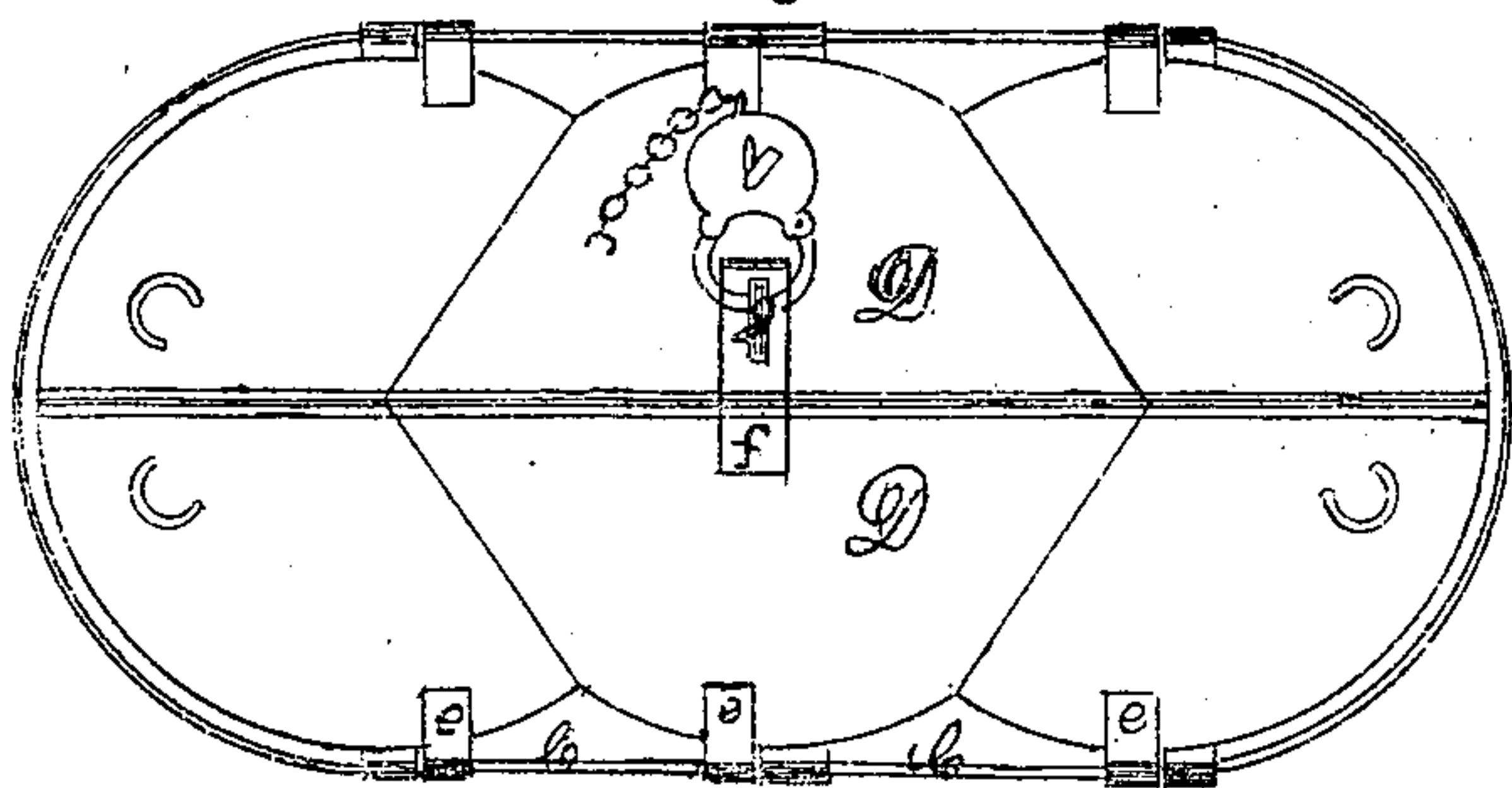
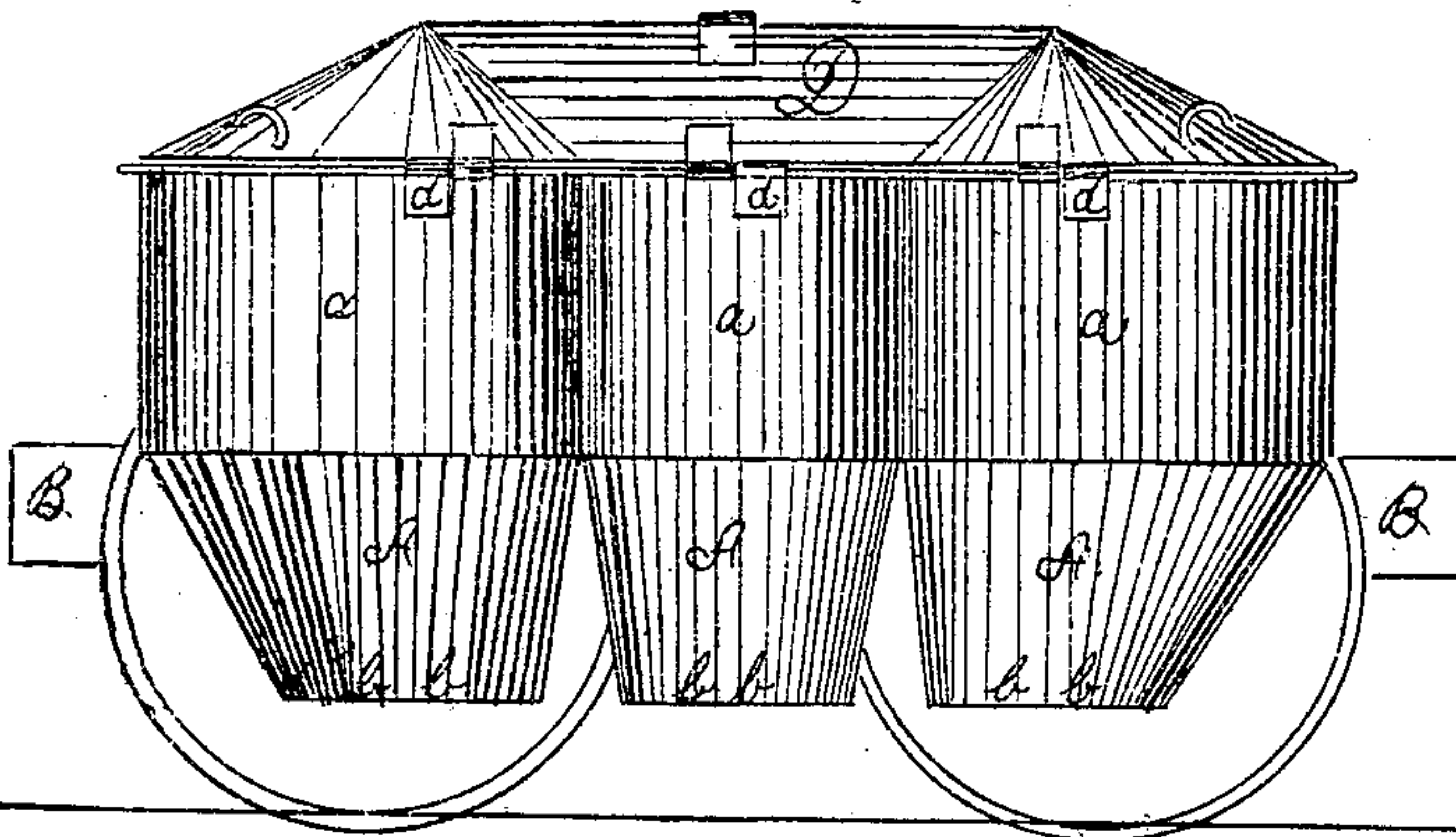


Fig. 3.



Witnesses
John G. Besor
John S. Hollingshead

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United States Patent Office.

STEPHEN W. DOWNEY, OF PIEDMONT, WEST VIRGINIA.

Letters Patent No. 73,308, dated January 14, 1868.

IMPROVEMENT IN FREIGHT-CARS.

The Schedule referred to in these Letters Patent and making part of the same.

TO ALL WHOM IT MAY CONCERN:

Be it known that I, STEPHEN W. DOWNEY, of Piedmont, Mineral county, State of West Virginia, have invented certain new and useful Improvements in Freight-Cars, for the transportation of coal and other like articles; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the annexed drawings, and to the letters of reference marked thereon, making part of this specification, in which—

Figure 1 is an interior plan view with the sectional top left open.

Figure 2 is a top view.

Figure 3 is a side sectional view.

It is a well-known fact that grain is often, and coal invariably, transported in uncovered cars. This plan has always been considered objectionable, but the articles mentioned are usually discharged into the car by means of chutes or other equivalent devices, which seemed to require that the top should be left perfectly free, so that no obstruction should intervene to prevent the proper and rapid loading of the car.

My invention consists in attaching to the "Winans metallic hopper-car," or any other uncovered car, a hinged top or roof, so arranged that when desired, the top of the car can instantly be thrown open, for the purpose of loading and unloading, the roof being constructed in sections, falling along the horizontal sides of the car, and in no manner impeding the operation of freighting and unfreighting the same.

The cover or roof I construct in two or more sections, and attach the same to the car by means of an ordinary hinge, or by means of metal clasps lapped around a rod or railing, which is firmly secured to the upper portion of the car, and around which the sections of the cover or roof can readily revolve, so that when desired they can be thrown in a position along the side of the car, thus leaving the entire top of the car open and as free of access as are the uncovered cars now in general, and, indeed, universal use.

The top or roof I construct in two or more parts or sections, and they may be either straight or concave, and so formed that when in position there will be a gentle ascent from the side toward the centre of the car. These parts or sections may be made of metal or any other suitable material, and meet over the centre of the car, and can there be securely fastened by means of hasp and staple, or other equivalent device.

The great advantage of my invention is found in the fact that the load is entirely protected from the weather, and is also securely guarded against the continual pilfering, which is now so extensively practised on the uncovered and consequently unprotected car now in general use.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

A represents the body of the car, or cars made of sheet metal or any other suitable material, in the form of a frustum of a hollow cone, with its upper part, *a*, cylindrical. In the lower portion of the cone there is an opening, *b*, by which the load can be discharged when desired. This opening *b* can be securely closed by a movable bottom, *c*. The body of the car A, I attach to a truck, B, in the usual manner. C is an iron rod or railing, which is firmly secured to the side of the car by means of suitable metal strips, *d d*. These metal strips extend sufficiently far from the side of the car to allow of a space being left between said side and the rod or rail, to permit of the free revolving of the sections which constitute the roof or top of the car. D D are plates or sheets of metal or other suitable material. These plates or sheets of metal may be either straight or slightly concave in form, and are so arranged that when in the position shown in fig. 3, they furnish a perfect and secure top or roof for the car, and one which is slightly angular in form. To these plates or sheets D D, I securely attach metal strips *e e*. These metal strips are lapped around the rod or rail C, and act on the principle of the ordinary hinge-joint, by means of which, when occasion requires for the purpose of loading and unloading the car, the same can be readily uncovered and loaded from the top with the same facility that the open car is now loaded, the top plates falling to a horizontal position along the side of the car, as shown in fig. 1. *f* is a hasp, and *f'* is a staple, which enables me, by means of the lock *g*, to securely fasten the car, and thus not only protect the freight from the action of the weather, but also guard the same against all that class of depredations which are now so common. *h* is a chain, by means of which the lock can be securely attached to the top, D, or any other portion of the car. Another great advantage of the arrangement of the rod C is, that when the con-

ductor or brakeman is compelled to go to the rear of the train while the same is in motion, he can safely pass along the ledge, on the lower side of the car, the rod or rail C furnishing him a firm hand-hold and secure support.

The great advantage of my invention is found in its simplicity of construction and in its practical utility. There is not an open car now in use but to which it can readily be applied, securing to the freight, when the same is loaded, in every particular, the protection which is now afforded by the close-house or express-car.

Having thus fully described my invention, what I claim therein as new, and desire to secure by Letters Patent of the United States, is—

The construction and arrangement of the hinged top or roof, in combination with the car A *a* and rail or rod C, when the same are constructed and arranged substantially as described, and for the purpose specified.

In testimony whereof, I have signed my name to this specification in the presence of two subscribing witnesses.

STEPHEN W. DOWNEY.

Witnesses:

JOHN D. BLOOR,

JOHN S. HOLLINGSHEAD.