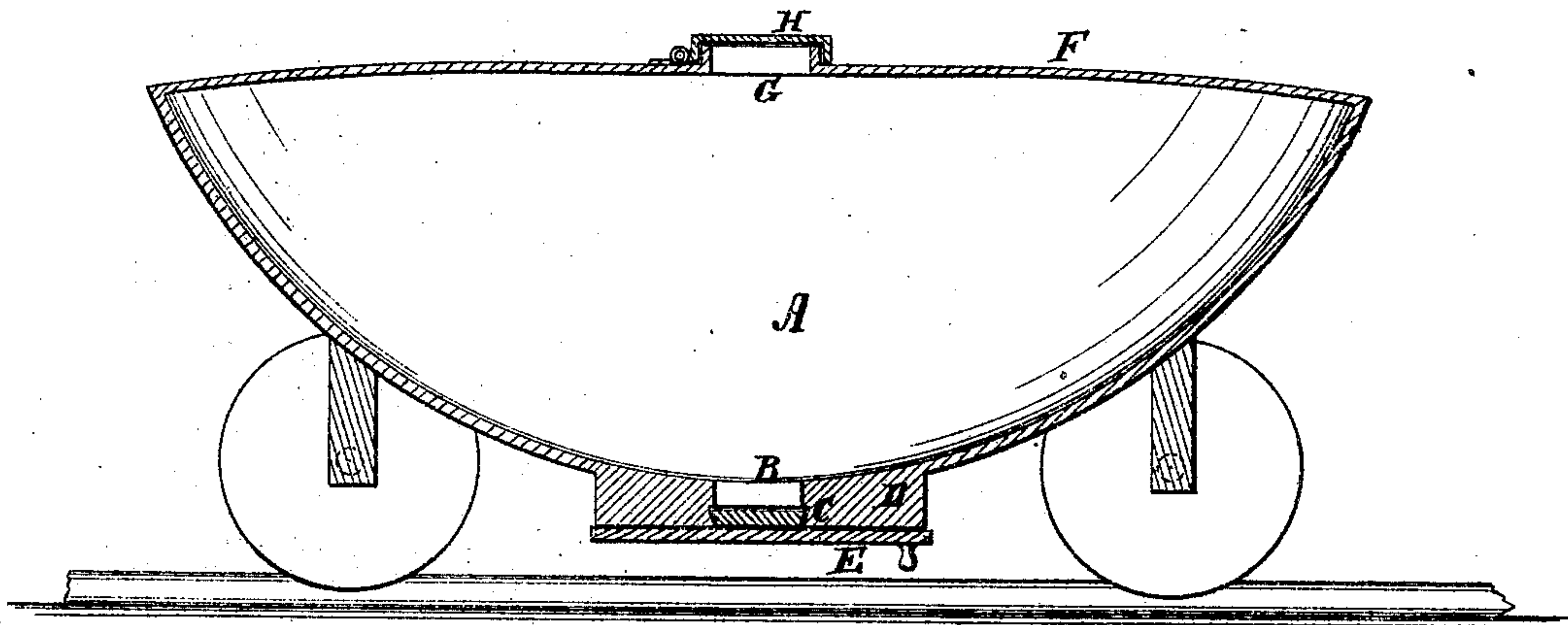


ALPHONSO E. GORDON.  
Improvement in Grain Cars.

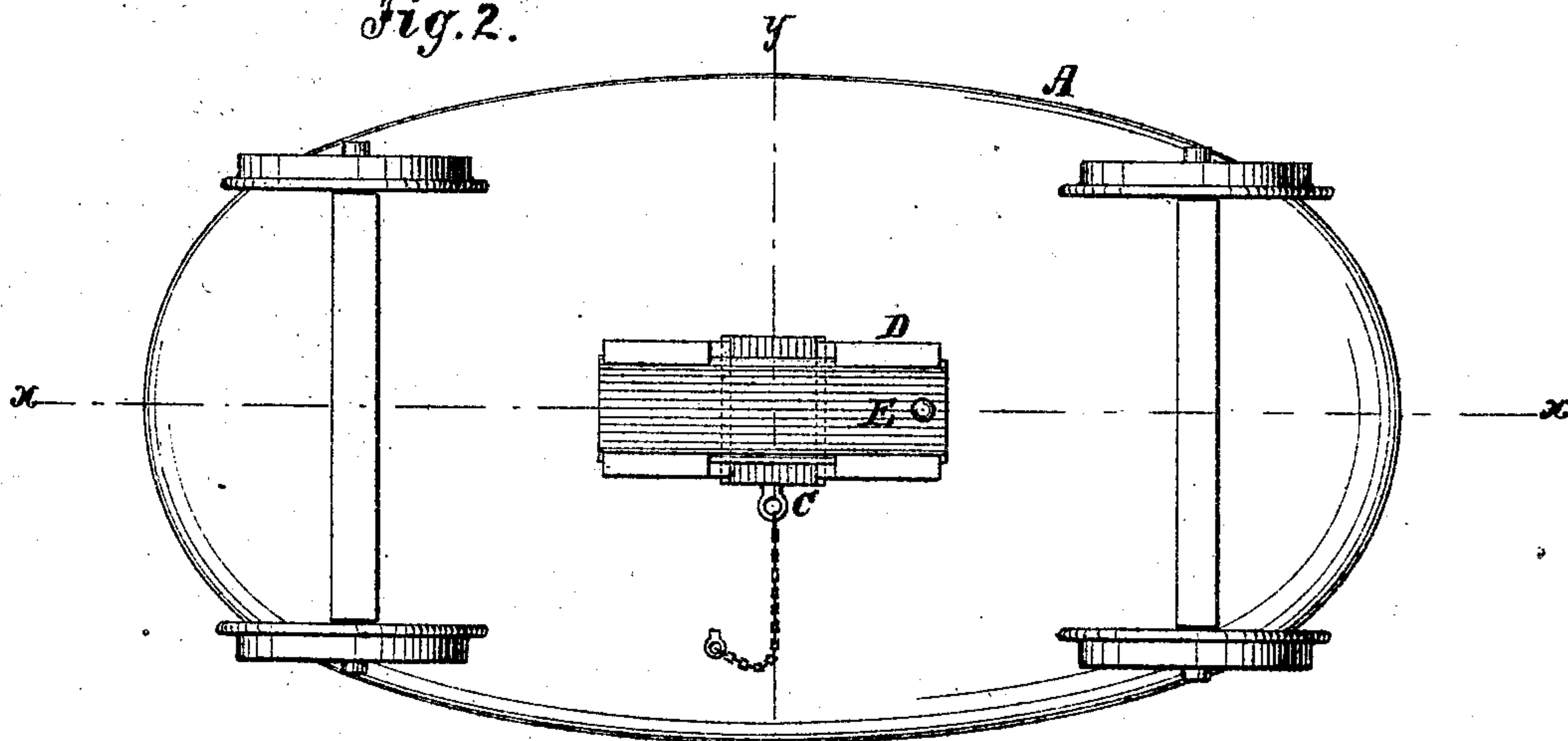
No. 121,612.

Patented Dec. 5, 1871.

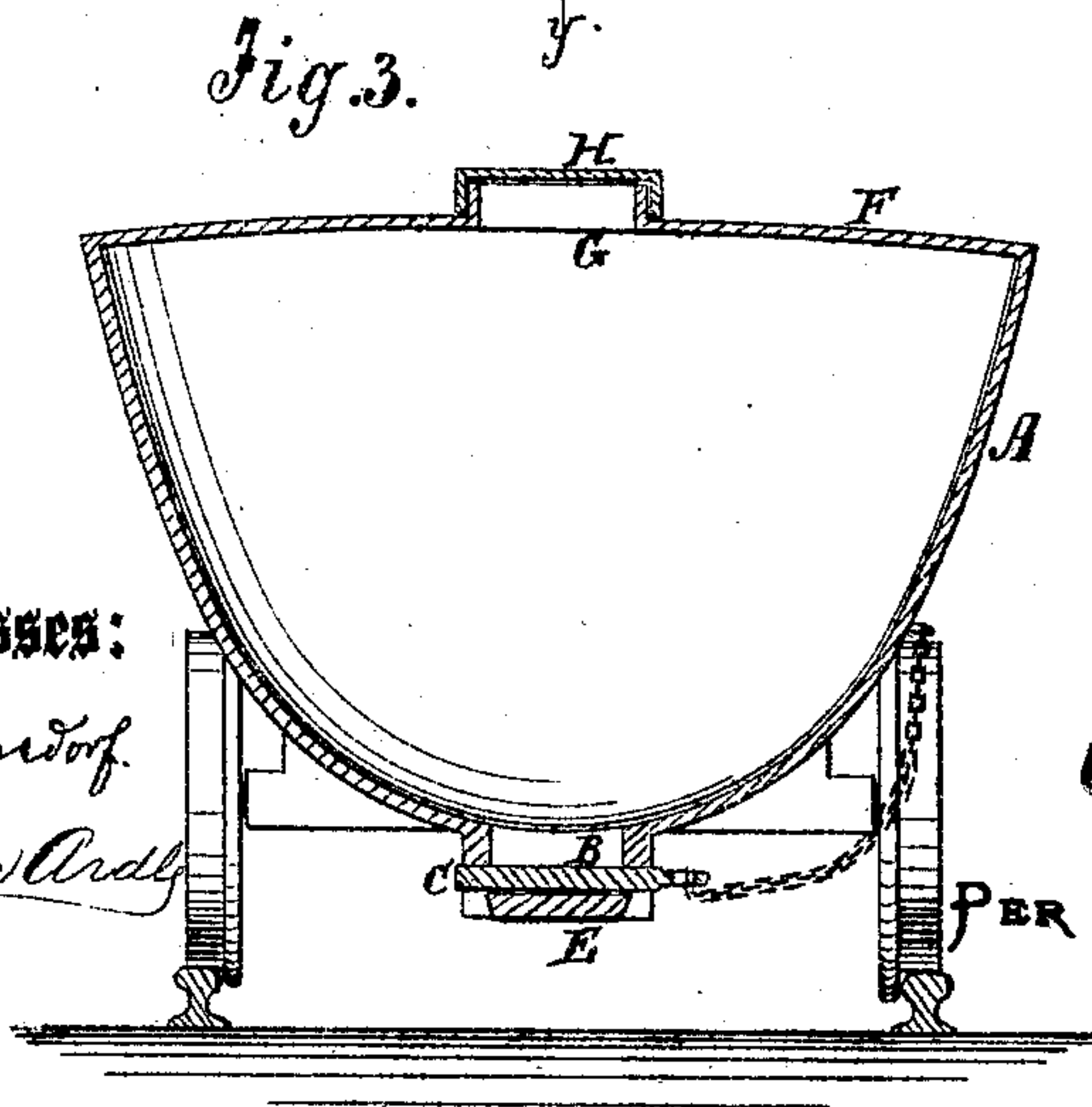
*Fig. 1.*



*Fig. 2.*



*Fig. 3.*



Witnesses:

A. Bennerhoff.  
Francis McArdu.

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# UNITED STATES PATENT OFFICE.

ALPHONSO E. GORDON, OF NEW BRUNSWICK, NEW JERSEY.

## IMPROVEMENT IN GRAIN-CARS.

Specification forming part of Letters Patent No. 121,612, dated December 5, 1871.

*To all whom it may concern:*

Be it known that I, ALPHONSO E. GORDON, of New Brunswick, in the county of Middlesex and State of New Jersey, have invented new and useful Improvements in Grain-Cars; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming a part of this specification.

The object of my invention is to provide an improved means for moving grain on railroads, viz., a car that shall be cheaper, lighter, more easily filled and readily discharged, and of less height and weight than those heretofore used for the same purpose. It consists in a railroad car provided with a slide-valve opening for delivering the grain, and of a door for securing the valve or valve-opening, the car being made of such form or shape that the grain will flow from the same by its own gravity when the valve orifice is open.

In the accompanying drawing, Figure 1 represents a vertical section of the car taken on the line *xx* of Fig. 2. Fig. 2, is a view of the under side of the car. Fig. 3 is a vertical cross-section of the car, taken on the line *yy* of Fig. 2.

Similar letters of reference indicate corresponding parts.

A is the car, which may be made oval or of rectangular form, with the sides and ends sloping from the top to a central opening, B, the sides and ends being at such an angle that the grain contained in the car will slide by its own gravity to the opening and be discharged. The opening B is closed by the sliding valve or shutter C. D represents a portion of the under side of the car which is blocked out so as to present a straight surface. The valve C is dovetailed into this blocking, and slides transversely, as seen in Fig. 1, thus tightly closing the orifice B. E is another sliding door or shutter, which is also dovetailed into the blocking so as to slide

longitudinally, as represented. The design of the door E is to support and secure the valve C. The two may be fastened together by a thumb-screw or otherwise, so that neither can slide.

The labor, time, and expense attending the discharge of grain from railroad cars has been a serious drawback to the transportation of grain on railroads. Shovelers have to be employed, much time is consumed, and much grain is usually wasted. By my improvement the grain is discharged by its own gravity, the conveyer-box receives the grain, so that none is wasted, and the contents of the car are conveyed to the proper destination, after the conveyer is attached, by simply opening the valve-orifice B. The car is provided with a water-tight roof, F, in which is a receiving orifice, G, provided with a tight cover, H. Thus cars can be made of either wood or metal—preferably the latter—and they may be constructed so as to contain return freight, as bales and bundles of goods.

The required weight of grain fills the ordinary car only about half full. My improved cars, being made especially for the transportation of grain, are much lower and lighter than the ordinary car.

The advantages to be derived from the use of cars made expressly for the transportation of grain and in the manner described are many, and must be obvious to all.

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

1. The improved car, herein described, for transporting grain, constructed with a flat roof and convex bottom and sides, and provided with receiving and discharge orifices closed by suitable valves, as specified.

2. In combination with a car, A, having a convex bottom, the valves C and E arranged to slide in opposite directions, substantially as specified.

ALPHONSO E. GORDON.

Witnesses:

GEORGE GREER,  
WM. H. HINCHMAN.

(121)