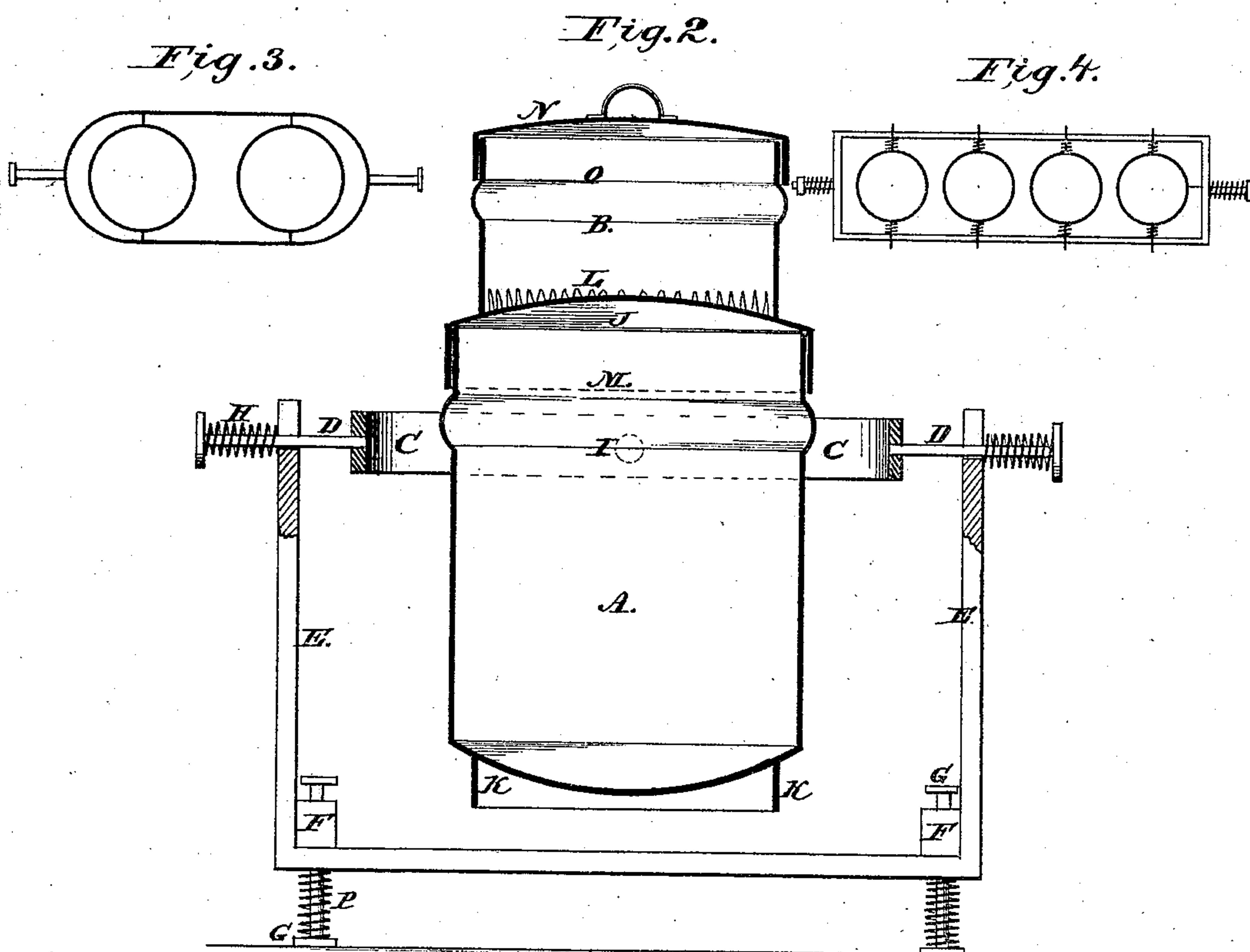
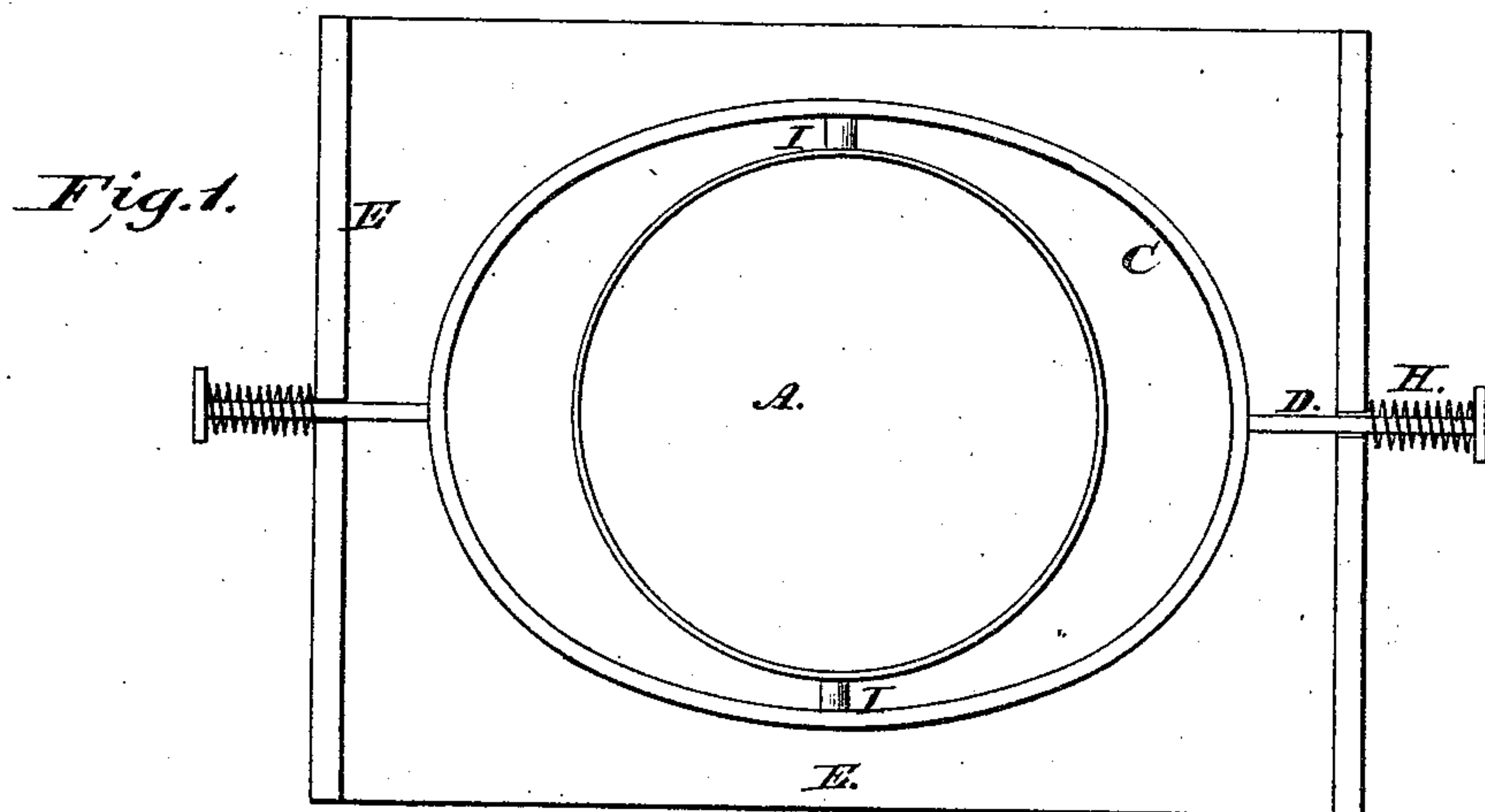


A. W. CLIFFORD.  
Milk Carriers.

No. 155,363.

Patented Sept. 29, 1874.



Witnesses

R. C. Frey.  
Thos. S. Mumup.

Inventor.

Alfred W. Clifford.

# UNITED STATES PATENT OFFICE.

ALFRED W. CLIFFORD, OF CLEVELAND, OHIO.

## IMPROVEMENT IN MILK-CARRIERS.

Specification forming part of Letters Patent No. **155,363**, dated September 29, 1874; application filed March 17, 1874.

*To all whom it may concern:*

Be it known that I, ALFRED W. CLIFFORD, of Cleveland, county of Cuyahoga and State of Ohio, have invented an Improved Can for Carrying Milk, delicate fruits, and such other articles as are injured in the carrying by heat and violent commotion, of which the following is a specification:

My invention relates to an improved can for carrying milk and fruit; and it consists in the arrangement and combination of devices, which will be more fully described hereafter.

Figure 1 is a top view or plan of the frame E, can A, and oscillating ring C, with its journals D, and springs H, and the centers I on which the can swings within the ring C. Fig. 2 is a vertical half-section of the entire carrier, including the refrigerating cover B, and its cover N.

The can proper, in Fig. 2, reaches from the concave bottom to the line J. The ring K at the bottom makes a footing for the can when not suspended. The cover L is made convex on the top, and the sides reach down to the dotted line M. On the top of the cover L there is a cylinder slightly less in diameter, and, say, one-quarter the height of the can. This cylinder B is notched all round its lower edge, and then soldered to the top of L, and has a cover reaching down to the dotted line O. This cylinder is to be filled with ice, which, as it melts, will run out through the notches and over the cover and the can, and by its rapid evaporation carry the heat away from the can very fast.

Now, to carry this refrigerating-can steadily, I make journals D to extend from the ring C, through the standards E, about two inches on each end, and with a bur, nut, or pin I secure a coiled spring, H, on each projecting end impinging against the standard E, to relieve the can from sudden side lurches of the carriage.

The journals I are fixed inwardly on the ring C, at right angles to D, and half-boxes fixed to the sides of the can fit down over I, and oscillate thereon. I should be placed

about quarter way from top to bottom of the can, and the refrigerator should be about one-quarter the height of the can.

Under the corners of the frame I put coiled springs P round the sliding feet G, which are steadied by the blocks F. (See Fig. 2)

The object of the rounded or concave bottom for the milk to rest on is that, it being part of a sphere whose center is midway between the points I I, the bottom will glide over or round the milk, without causing any commotion, as it swings to the varying inclinations of the carriage.

I use the springs P under the frame when a common wagon is used, but with a spring-wagon strong stakes, or the bows of the cover, may be used instead of the standards E; and two or more rings may be in line with a common center. (See Fig. 3.) Or where many small cans or boxes are to be carried, then an oblong frame may be used, (see Fig. 4,) and on board of cars these frames may be ranged one above another, reaching from side to side of the car, and in that case I would have the springs H between the frames and sides of the cars or stanchions, and also springs between the can and frame, to ease the jerk of the car in starting, and then I would have the journals fixed to the sides of the can, and rest in boxes on the top of the frame. (See Fig. 4.)

What I claim as my invention, and desire to secure by Letters Patent, is—

1. A can, A, for carrying fruit or milk, provided with a refrigerating-cover, B L, having holes in its bottom, so that the water from the melted ice will run down over the sides of the can, substantially as set forth.

2. A can for carrying fruit or milk, which is hung in the ring C by means of the journals I, the ring being provided with the journals D and springs H, substantially as shown and described.

ALFRED W. CLIFFORD.

Witnesses:

R. C. FREY,  
THOS. MINNISS.