

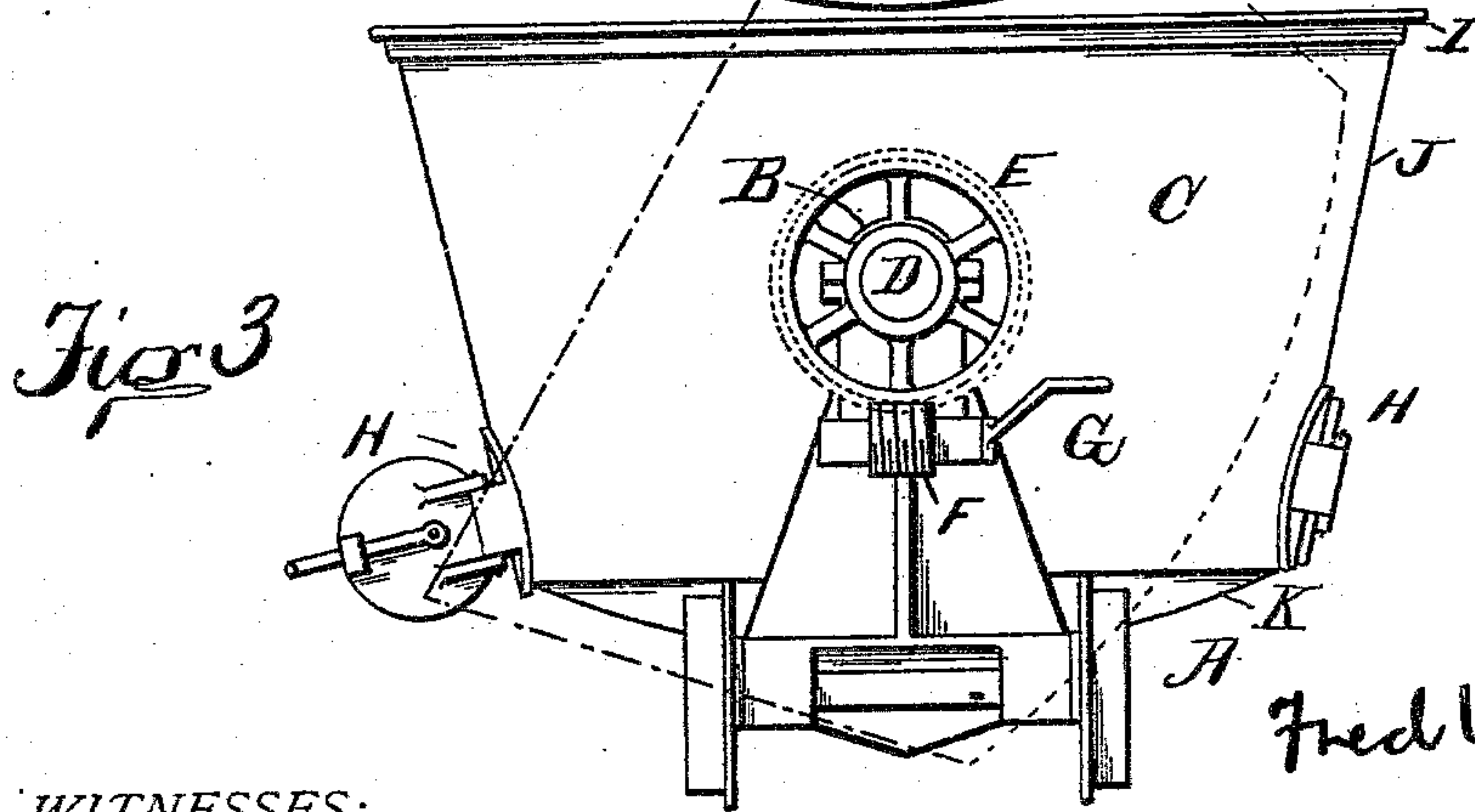
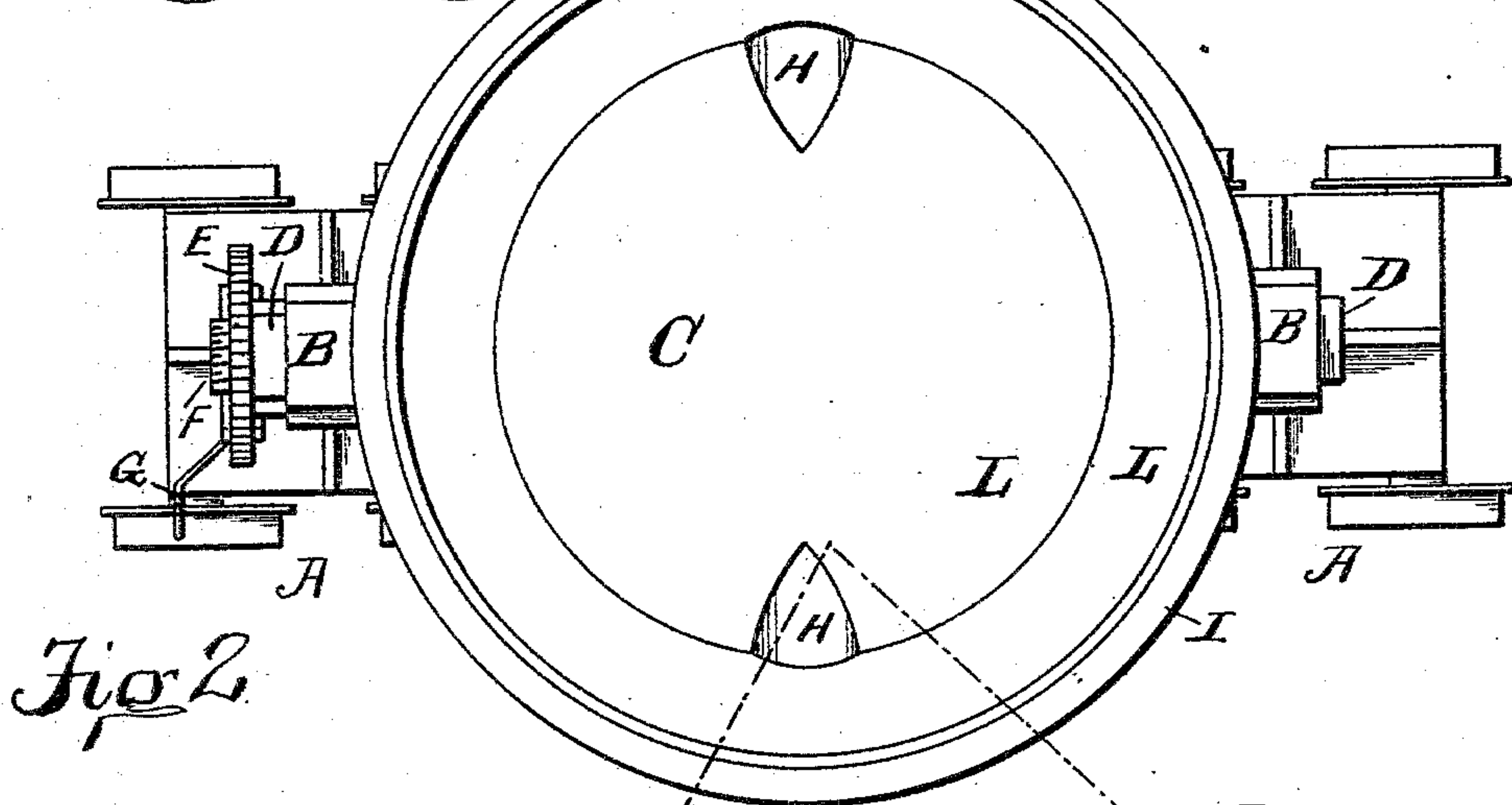
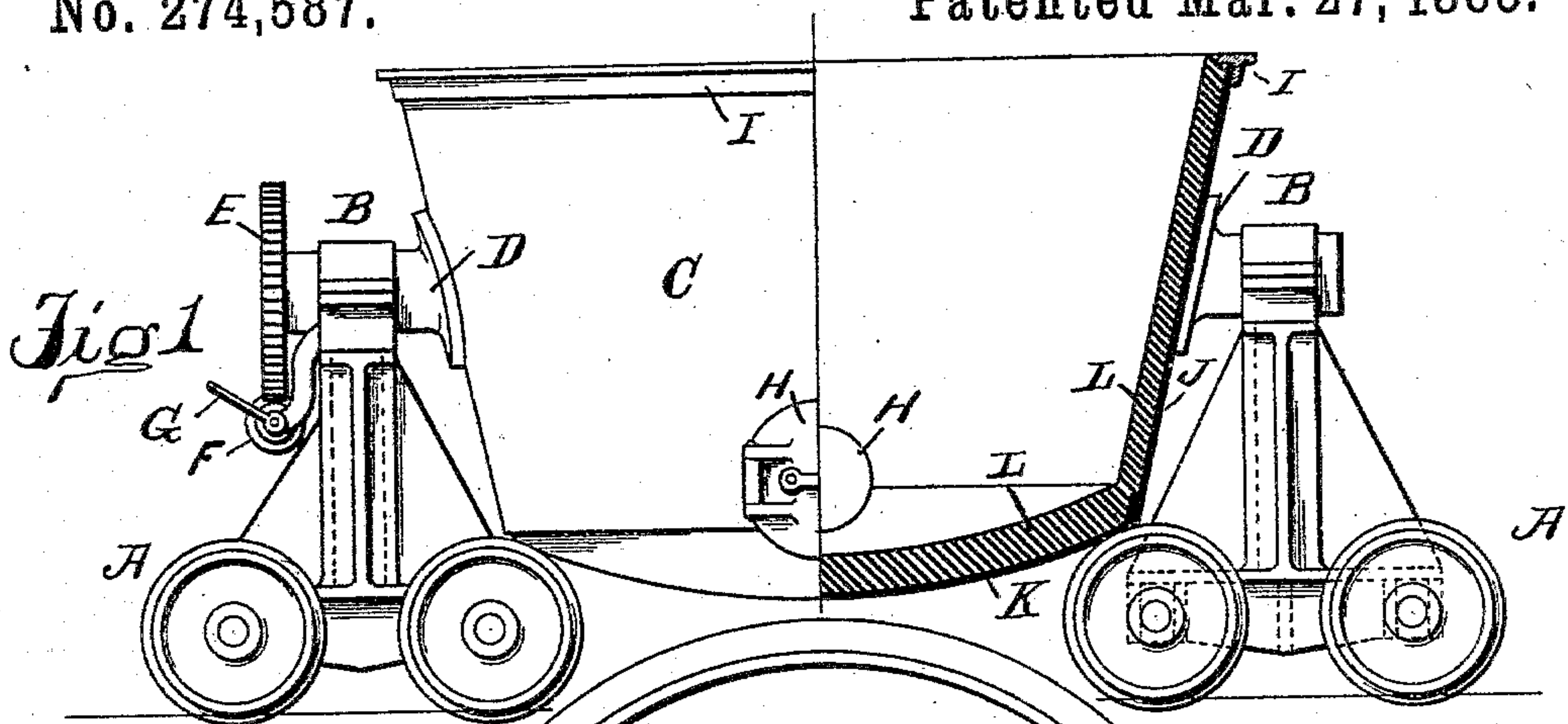
(No Model.)

F. W. GORDON.

CINDER CAR.

No. 274,587.

Patented Mar. 27, 1883.



WITNESSES:

John R. Woods.
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UNITED STATES PATENT OFFICE.

FRED W. GORDON, OF PITTSBURG, PENNSYLVANIA, ASSIGNOR, BY MESNE ASSIGNMENTS, TO HIMSELF AND JAMES P. WITHEROW, OF SAME PLACE.

CINDER-CAR.

SPECIFICATION forming part of Letters Patent No. 274,587, dated March 27, 1883.

Application filed January 22, 1883. (No model.)

To all whom it may concern:

Be it known that I, FRED W. GORDON, of Pittsburg, Allegheny county, Pennsylvania, have invented certain new and useful Improvements in Cinder-Cars, of which the following is a specification.

This invention pertains to that class of cinder-cars which are intended to receive, transport, and discharge blast-furnace cinder in a liquid form, as distinguished from that class of cars which are intended and adapted to discharge the cinder in solid or nearly solid form.

The invention relates to devices for permitting the ready removal from the car, in addition to the liquid cinder, of such cinder as may have become solidified.

In the accompanying drawings, Figure 1 is a side elevation, partly in section, of a cinder-car embodying my improvements. Fig. 2 is a plan, and Fig. 3 an end elevation, of the same.

A A represent a pair of railway-trucks; B B, journal-boxes supported one by each truck; C, a circular car-body; D D, trunnions attached to car-body and journaled in boxes B; E, a worm-gear on one of the trunnions; F, a worm engaging the worm-wheel; G, a crank to revolve the worm; H H, discharge-outlets on opposite sides of the car-body, near the bottom, and provided with tight doors; I, a strengthening and retaining rim of angled iron around top of car-body; J, the plate-iron shell of car-body; K, the plate-iron bottom of car-body; L, the fire-brick lining of car-body. The trucks may have any suitable draft attachments, and, if nature of track-curves requires it, may be articulated to the car-body by vertical pivots connecting boxes B with the trucks, as shown.

Liquid cinder being run into the car, the car is drawn to the cinder-dump, the outlets H opened, and the cinder still liquid discharged. The fire-brick lining L prevents much of the natural radiation of heat from the cinder, and consequently the cinder, generally speaking, remains liquid; but the top of the carful of cinder is exposed to the cooling influence of

the air and rain or snow, and consequently more or less solid cinder forms at the top. More or less cinder also forms solid against the fire-brick lining in the way of a scum or skin. These solid matters must to a great extent be removed by shoveling. In this improved car the liquid cinder is discharged as usual in such cars, and then the car-body is tilted on its trunnions and the solid portions readily shoveled out. The worm and worm-gear contrivance shown adds to the convenience in tilting the car-body; but other contrivance may be used for the purpose. The circular form of the car-body permits the trucks to be brought up very closely, so as to shorten the wheel-base without interfering with the tilting operation. The dotted outline in Fig. 3 indicates the position of the car-body when very much tilted, the object of the tilting being not to enable the car-body to automatically pour liquid matter over its brim, but to enable the ready removal of solid matter, as above mentioned.

I claim as my invention—

1. In a cinder-car, a wheeled vehicle and a refractory-lined car-body provided with liquid-outlets near the bottom, supported by said vehicle and adapted to be tilted with reference thereto, combined substantially as and for the purpose specified.

2. The combination, in a cinder-car, of a wheeled vehicle, a refractory-lined car-body provided with liquid-outlets near the bottom, and trunnions uniting said car-body to said wheeled vehicle, substantially as and for the purpose specified.

3. The combination, in a cinder-car, of a pair of trucks, a pair of journal-boxes supported thereon, a refractory-lined circular car-body having liquid-outlets near its bottom, and a pair of trunnions uniting said car-body and trucks, substantially as and for the purpose set forth.

4. The combination, in a cinder-car, of a pair of trucks provided with journal-boxes for supporting a tilting car-body, a worm supported by one of said trucks, a refractory-lined car-body having trunnions and liquid-

outlets, and a worm-gear fixed to one of said trunnions, substantially as and for the purpose specified.

5 The combination, in a cinder-car, of a pair of trucks supporting journal-boxes, a worm supported by said trucks, a refractory-lined circular car-body having trunnions and

liquid-outlets, and a worm-gear fixed to one of said trunnions, substantially as and for the purpose specified.

FRED W. GORDON.

Witnesses:

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