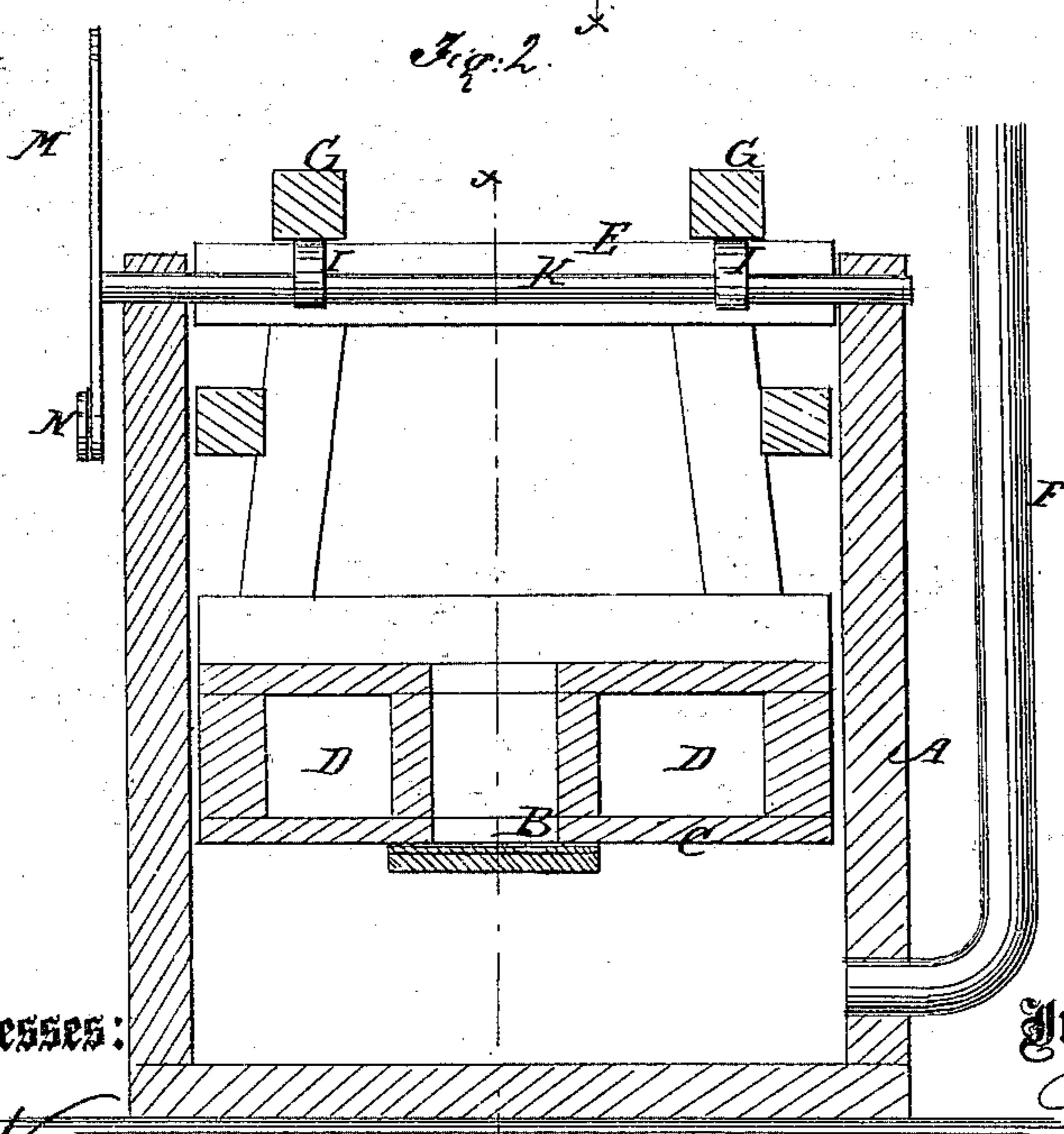
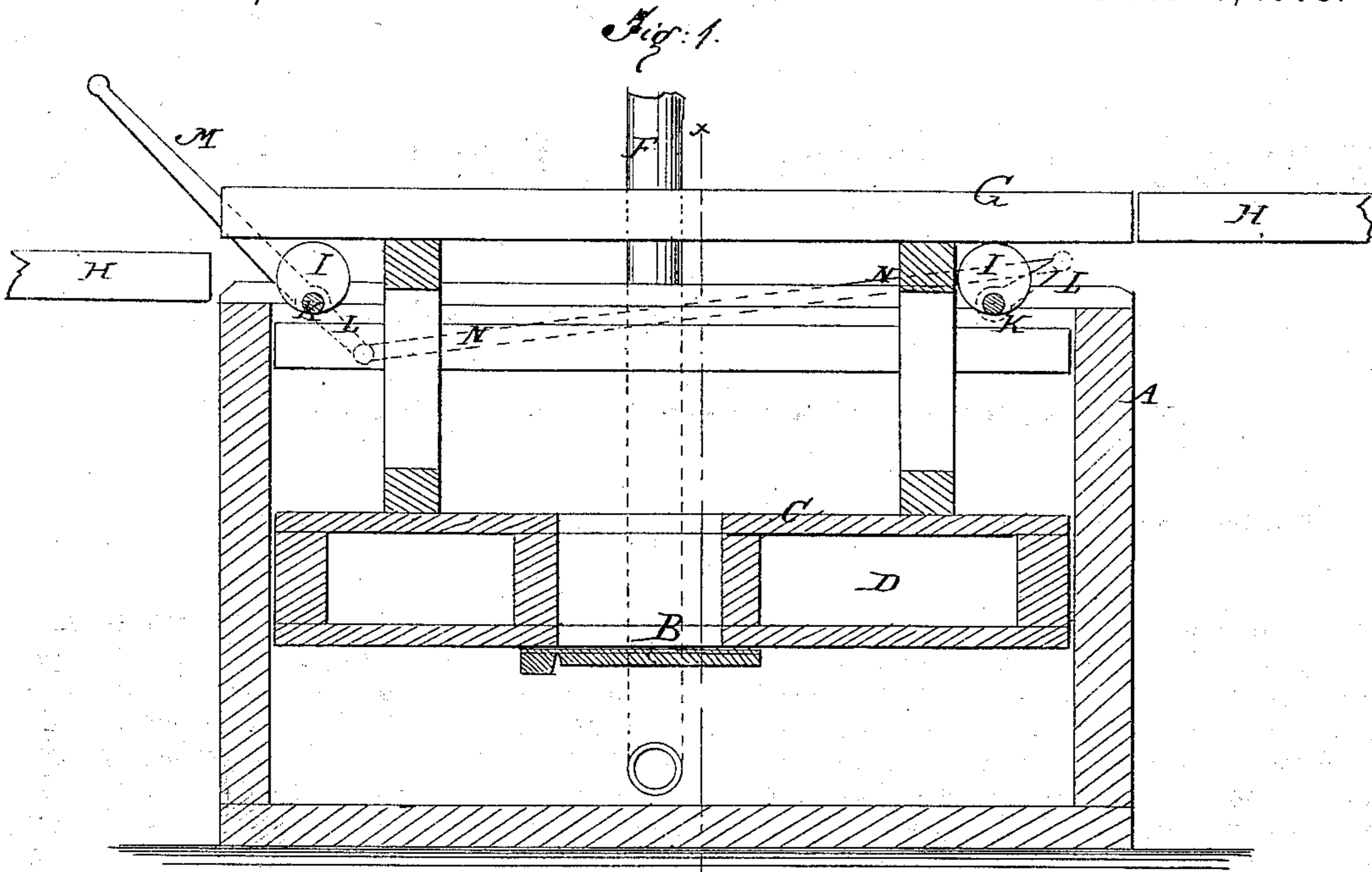


A. GROCHAU.
Railway Tank-Feeders.

No. 135,473.

Patented Feb. 4, 1873.



Witnesses:

Inventor:

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UNITED STATES PATENT OFFICE

AUGUSTUS GROCHAU, OF DULUTH, MINNESOTA.

IMPROVEMENT IN RAILWAY-TANK FEEDERS.

Specification forming part of Letters Patent No. 135,473, dated February 4, 1873.

To all whom it may concern:

Be it known that I, AUGUSTUS GROCHAU, of Duluth, in the county of St. Louis and State of Minnesota, have invented a new and Improved Water-Supplying Apparatus for Locomotives; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawing forming a part of this specification.

My invention consists of a water-tank with a piston floating therein upon the water, and a frame above the piston adapted for receiving a railroad-engine and tender. These force the piston down by their weight, while the piston forces upward the water to the tender. The piston with the load on it is graduated in the time of its descent by a system of eccentrics and a regulating-lever, manipulated by an attendant.

Figure 1 is a longitudinal sectional elevation of my improved apparatus, the section being taken on the line *x x* of Fig. 2; and Fig. 2 is a transverse sectional elevation taken on the line *y y* of Fig. 1.

A is the water-tank, set in the ground and receiving water through a check-valve, B, in the piston C, so as not to be forced out again by the way it came when the piston acts upon

it. The piston C floats upon the water and supports a strong frame, E. F is the pipe through which the water is forced up to tender. G are rails in the line of a siding, H, adapted for the locomotive and tender to run on upon one side, while at the other side rails will be lowered for the locomotive to run off after the piston has been forced down. In order to prevent the piston from being forced down too fast by the too great weight of the locomotive, I use a system of eccentrics, I, on shafts K under the rails G, and connected together by cranks L and a rod, N. M is a lever for actuating them so that the weight may at first be received on the eccentrics, and then be delivered upon the piston by turning the eccentrics downward, as required.

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

The combination, with a vertically-movable railroad-platform, floating piston, water-tank, and pipe F, of the lever M, eccentrics I, shafts K, cranks L, and rod N, arranged and applied as and for the purpose described.

AUGUSTUS GROCHAU.

Witnesses:

ALBERT WIELAND,
FREDRICH PRINCE.