

S. WEIRICK & H. LATHROPE.
Pumps and Fire-Engines.

Patented June 10, 1873.

No. 139,840.

Fig. 1.

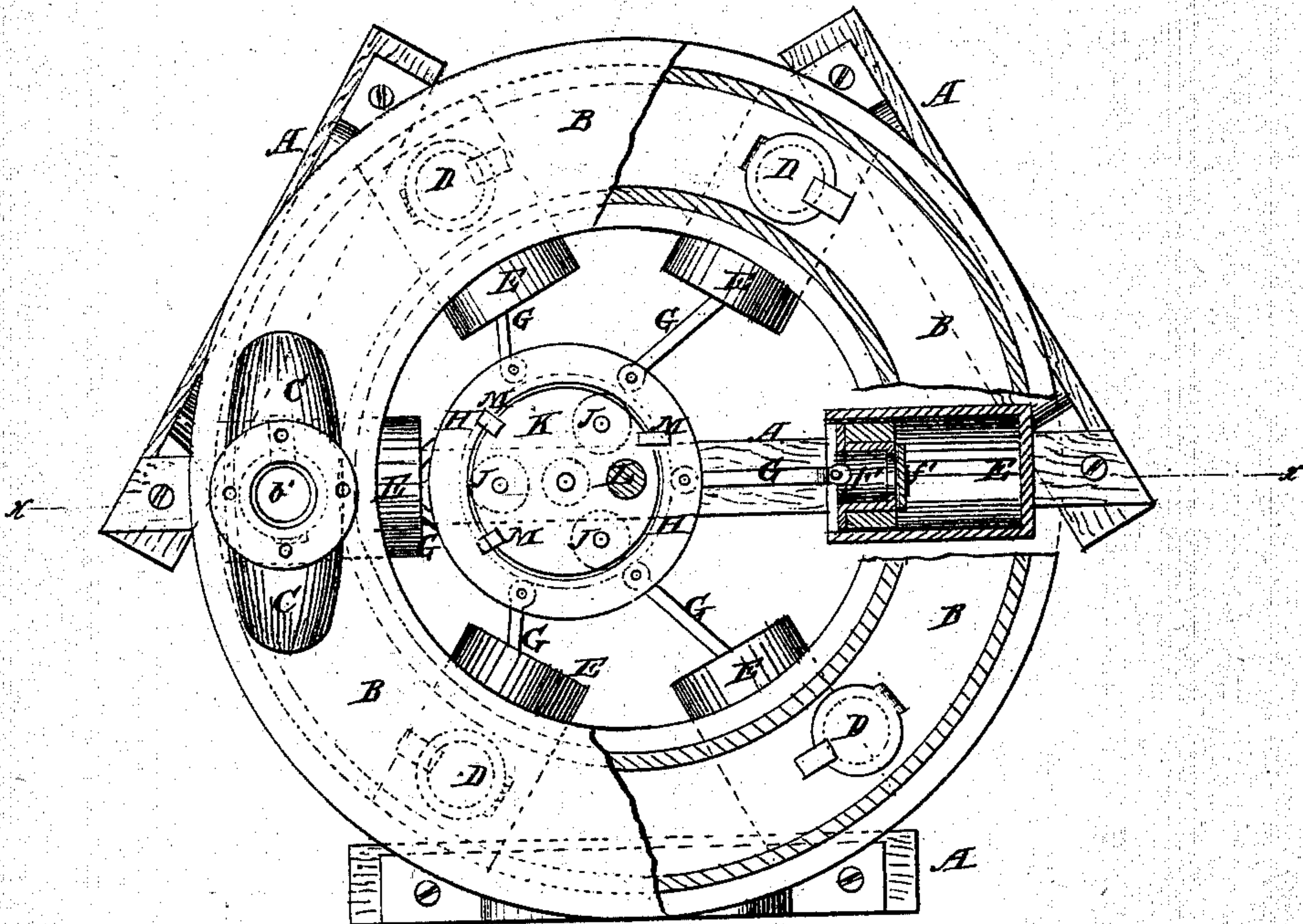
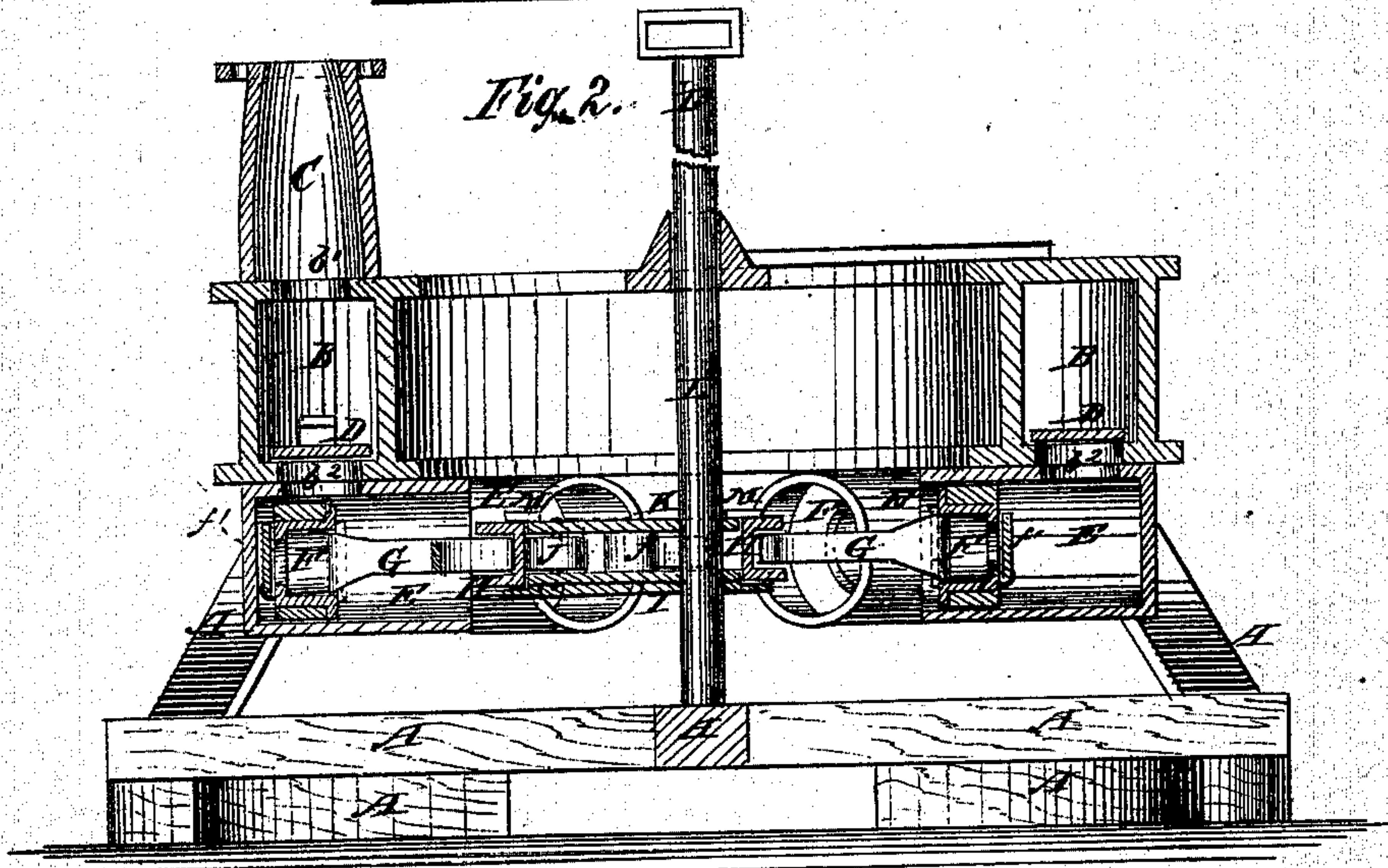


Fig. 2.



Witnesses:

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SAMUEL WEIRICK AND HENRY LATHROPE, OF WARSAW, INDIANA.

IMPROVEMENT IN PUMP AND FIRE-ENGINES.

Specification forming part of Letters Patent No. 139,840, dated June 10, 1873; application filed March 30, 1872.

To all whom it may concern:

Be it known that we, SAMUEL WEIRICK and HENRY LATHROPE, of Warsaw, in the county of Kosciusko and State of Indiana, have invented a new and useful Improvement in Pump and Fire-Engine, of which the following is a specification:

Figure 1 is a top view of our improved machine, parts being broken away to show the construction. Fig. 2 is a detail cross-section of the same taken through the line $x\ x$, Fig. 1.

Similar letters of reference indicate corresponding parts.

Our invention has for its object to furnish an improved pump and fire-engine which shall be simple in construction, convenient in use, effective in operation, and at the same time inexpensive in manufacture; and it consists in the construction and combination of the various parts of the machine, as hereinafter more fully described.

A represents a low frame, to which the operating parts are attached, and which is designed to support the said parts above the bottom of the well or cistern in which the machine is placed. B is an immovable circular chamber, which is attached to and supported by the frame-work, and with an opening, b^1 , in the upper side of which is connected the lower end of the discharge-pipe C. In the bottom of the immovable circular chamber B, at suitable distances apart, are formed a series of openings, b^2 , which are provided with drop or other suitable valves, D, opening upward. E is a series of pump barrels or cylinders, which are arranged radially, and the outer ends of which are connected with the immovable circular chamber B, and their interiors communicate with the interior of the chamber B through the openings b^2 and valves D. The inner ends of the barrels or cylinders E are open to allow the water to flow in freely. F are the pivoted pistons or plungers, which are constructed in the ordinary manner, and are provided with valves f' opening inward, so that, as the pistons F are drawn outward, the pressure of the water may open the valves f'

and allow the water to flow in and fill the cylinders. As the pistons F are forced into the cylinders E the pressure of the water closes the said valves f' and the water is forced through the openings b^2 and valves D into the chamber B, and thence out through the discharge-pipe C. To the pistons F are pivoted or hinged the ends of the piston rods G, the other ends of which are pivoted to the ring H which passes around the eccentric I J K. One or more of the piston-rods G may be rigidly attached to the ring H to prevent the said ring from turning so much that the pistons F or rods G may bind. The inner surface of the ring H is made smooth so that the rollers J of the eccentric I J K may roll along it smoothly. The rollers J are pivoted in a circle to and between the circular plates I K in such positions that their faces may come in contact with and roll along the face of the ring H. The circular plates I K are attached eccentrically to the lower part of the shaft L, the lower end of which revolves in a step formed in or attached to the base-frame A, and to the upper end of which is attached a lever or sweep for operating the machine.

The eccentric I J K may be kept in the ring H by making the lower plate I a little larger than the opening through said ring H, so that its edges may overlap the under side of said ring H, and by attaching projections M to the upper plate K, to overlap the top of the said ring H, or in any other convenient manner.

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

The fire-engine pump herein described, constructed with an immovable circular chamber B, discharge-pipe C, radial pump-barrels E, rigidly attached, the valves D, together with the valved and pivoted pistons F operated by a ring, H, and a cam on the driving-shaft, as and for the purpose specified.

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Witnesses:

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