2 Sheets--Sheet 1.

W. W. HARDING.

Water-Motor Fire-Plug.

No. 163,652. Patented May 25, 1875.

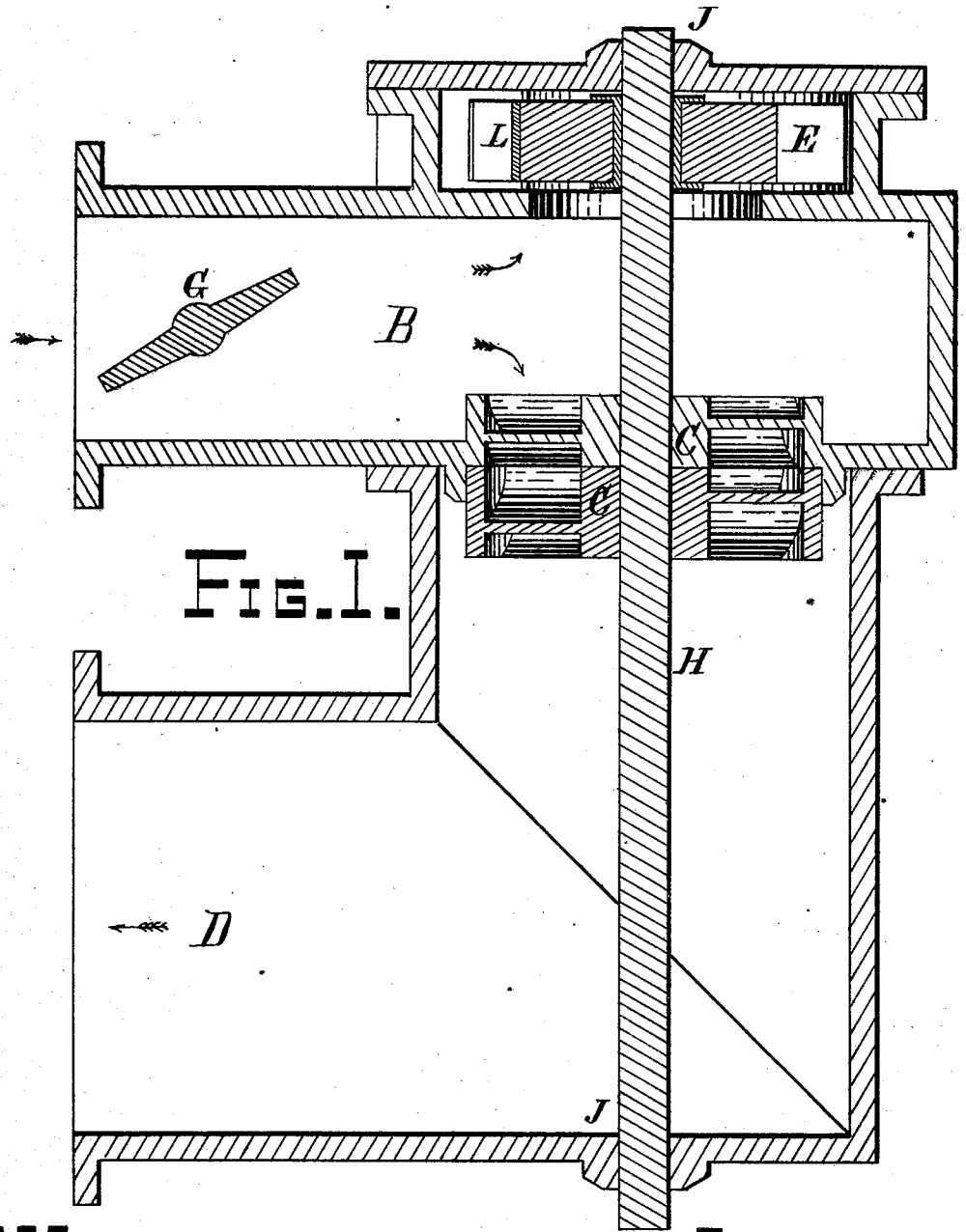

FIG. 1.

WITNESSES.

John G. Ford

Aug. P. Ritter

INVENTOR.

W. W. Harding.

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

2 Sheets--Sheet 2.

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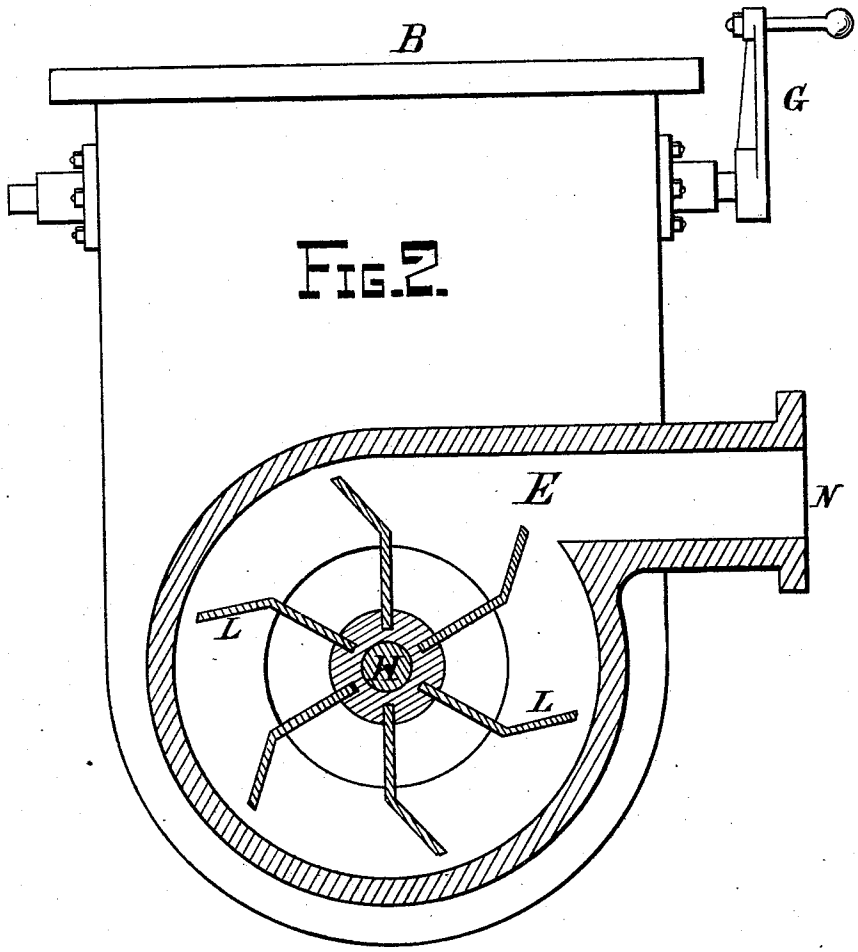

FIG. 2.

WITNESSES.

John G. Ford

Aug. B. Ritter

INVENTOR.

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UNITED STATES PATENT OFFICE.

WILLIAM W. HARDING, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN WATER-MOTOR FIRE-PLUGS.

Specification forming part of Letters Patent No. **163,652**, dated May 25, 1875; application filed May 3, 1875.

To all whom it may concern:

Be it known that I, WILLIAM W. HARDING, of the city of Philadelphia and State of Pennsylvania, have invented a new and useful Water-Motor Fire-Plug, of which the following is a specification:

My invention aims at the production of a fire-plug which shall, by the utilization of the pressure of water in the city or other mains, raise a column of water to a height proportionate to that pressure.

In the drawings, Figure 1 is a section of my device, and Fig. 2 an end view, the pump being shown in section.

Similar letters of reference denote like parts in both the figures.

The construction of my invention is as follows: B is the inlet-pipe, through which water is admitted from the city mains, to which it is attached. G is the stop-cock, controlling the admission of the water. The water thus entering is forced by its pressure laterally in both directions, as indicated by the arrows; acting on the one side to produce rotation in a turbine wheel or motor, C, after passing through which the waste-water escapes through the outlet D into sewers or surface or other drains. The turbine C is set upon a shaft, H, resting in bearings at I I. Upon the other side the entering water flows into a rotary pump, E, the buckets L of which are set upon the shaft H, and derive their motion from the turbine C. By means of this pump the water is forced through the nozzle N to a height proportionate to the pressure due to the acceleration of momentum caused by the pump on the existing pressure in the main.

The object of my invention is to throw a mass of water on any fire near by without the intervention of a steam fire-engine.

Having thus fully described my invention, I claim and desire to secure by Letters Patent of the United States—

The water-motor fire-plug herein described, consisting of an inlet-pipe, B, a motor, C, an outlet-pipe, D, and a pump, E, the force of the water on the motor acting on the pump to force a column of water through a nozzle, N, substantially as described.

W. W. HARDING.

Witnesses:

J. BONSALL TAYLOR,

JNO. D. PATTEN.