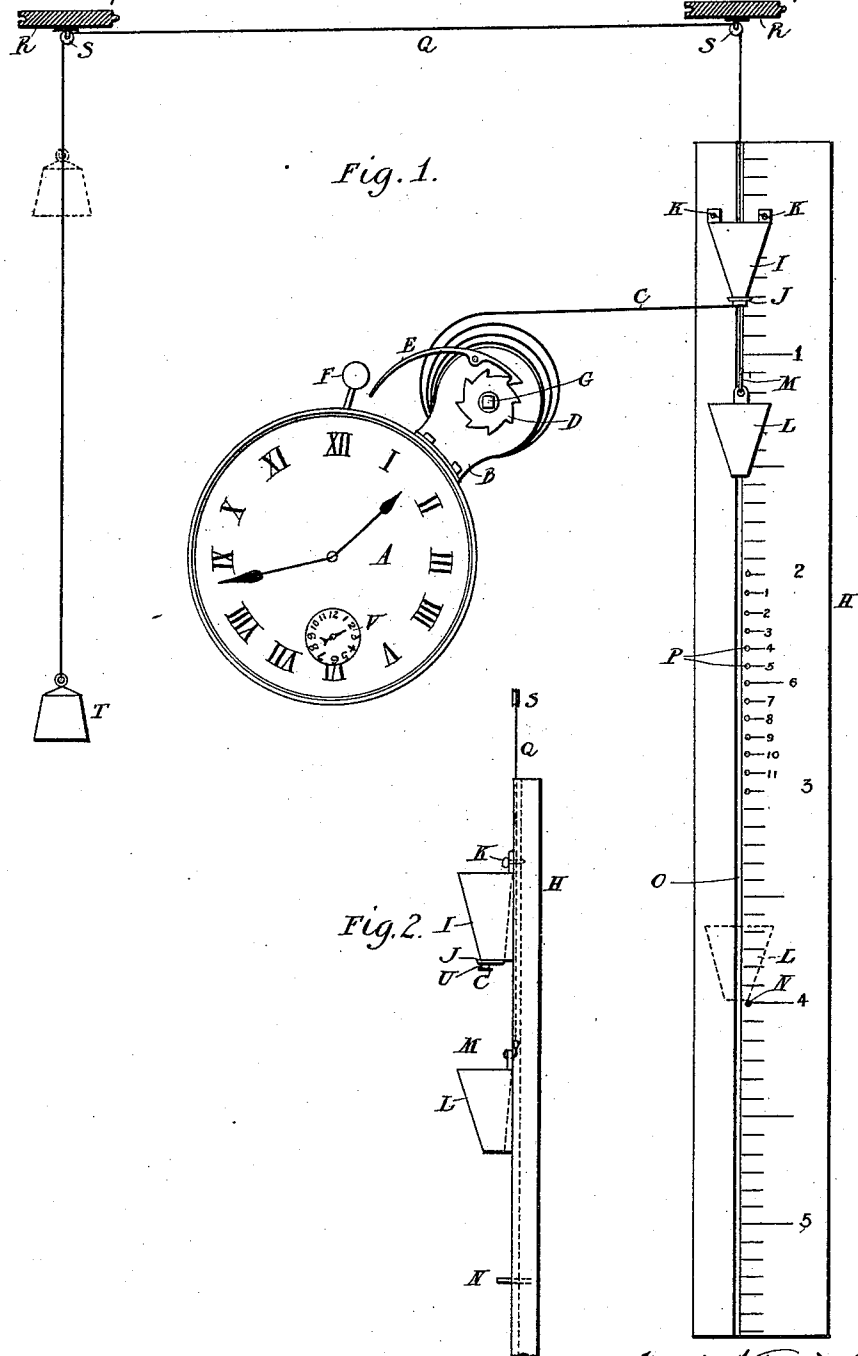


(No Model.)

H. VIGNÈRE.
TIME VALVE OPERATING MECHANISM.

No. 470,272.

Patented Mar. 8, 1892.



WITNESSES

Wm. T. Norton
Arthur J. Brown

Henri Vignère
INVENTOR

Wm. W. Dudley
Associate Attorney.

UNITED STATES PATENT OFFICE.

HENRI VIGNÈRE, OF SAN DIEGO, CALIFORNIA.

TIME-VALVE-OPERATING MECHANISM.

SPECIFICATION forming part of Letters Patent No. 470,272, dated March 8, 1892.

Application filed October 6, 1891. Serial No. 407,855. (No model.)

To all whom it may concern:

Be it known that I, HENRI VIGNÈRE, a citizen of the United States, residing at San Diego, in the county of San Diego and State of California, have invented certain new and useful Improvements in Time-Clock Power-Regulating Machines for General Purposes; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to a new and useful apparatus adapted to be controlled by the action of a clock for operating at predetermined times to close or let on steam, water, &c.; and it consists in the construction and arrangement of the several details, all of which will presently fully and clearly appear.

In the accompanying drawings, which form a part of this specification, Figure 1 is an elevation of my apparatus ready for use; Fig. 2, a detail thereof.

A denotes the clock mechanism from which the power is derived.

B is a standard extending outward from the clock and on which is mounted a ratchet-wheel D, and on the shaft G of this wheel is fixed a spring c, the free end of which normally closes the outlet of a hopper I, the construction and operation of which I will presently describe. The ratchet is normally locked by a pawl E, which has a handle in the path of a hammer or trip F, which is operated by the clock mechanism at certain predetermined times. Secured to the wall at a point near the clock mechanism is a frame H, having a groove o therein, in which travels a cord R, which is carried over pulleys s s, secured to beams R R, and is connected to a weight T. At the other end of the cord is a bucket L, which is secured thereto by the eye M. A stationary bucket or hopper I is secured to the upper end of the frame by bolts K, and has an outlet J normally closed by a hinged

valve U, held closed by the free end of the spring c. This hopper is normally filled with shot, which is kept from dropping therefrom by the action of the valve and spring. As soon, however, as the hammer strikes the pawl E and releases the ratchet the spring falls and releases the valve, which opens and allows the shot to fall from the hopper into the traveling bucket L. The fall of this bucket operates a valve or similar device in any preferred manner, and thus steam, water, gas, or the like is turned on or off, as described. I provide pins p, which fit into any desired holes of a series on the frame and limit the fall of the bucket.

I claim—

1. In apparatus of the class described, the combination, with a hopper adapted to contain shot or its equivalent, of a traveling bucket adapted to receive the shot from the hopper at predetermined times to operate the valve of a steam, water, or other pipe, substantially as described.

2. In apparatus of the class described, the combination, with a hopper for containing shot and having an outlet normally closed by the action of devices controlled by clock mechanism, of a traveling bucket beneath the hopper adapted to receive the contents of the hopper at predetermined intervals.

3. In apparatus of the class described, the combination, with a hopper having a valve in its outlet, of a spring for normally closing such valve and mechanism for operating such spring, consisting of a ratchet, a pawl, and a clock-actuated hammer, substantially as described, and for the purposes set forth.

In testimony whereof I have affixed my signature in presence of two witnesses.

HENRI VIGNÈRE.

Witnesses:

A. B. SMITH,
L. A. BLOCHMAN.