(No Model.)

O. DE KAY TOWNSEND.

RAIN WATER ESCAPE.

No. 316,853. Patented Apr. 28, 1885.

Fig. 1.

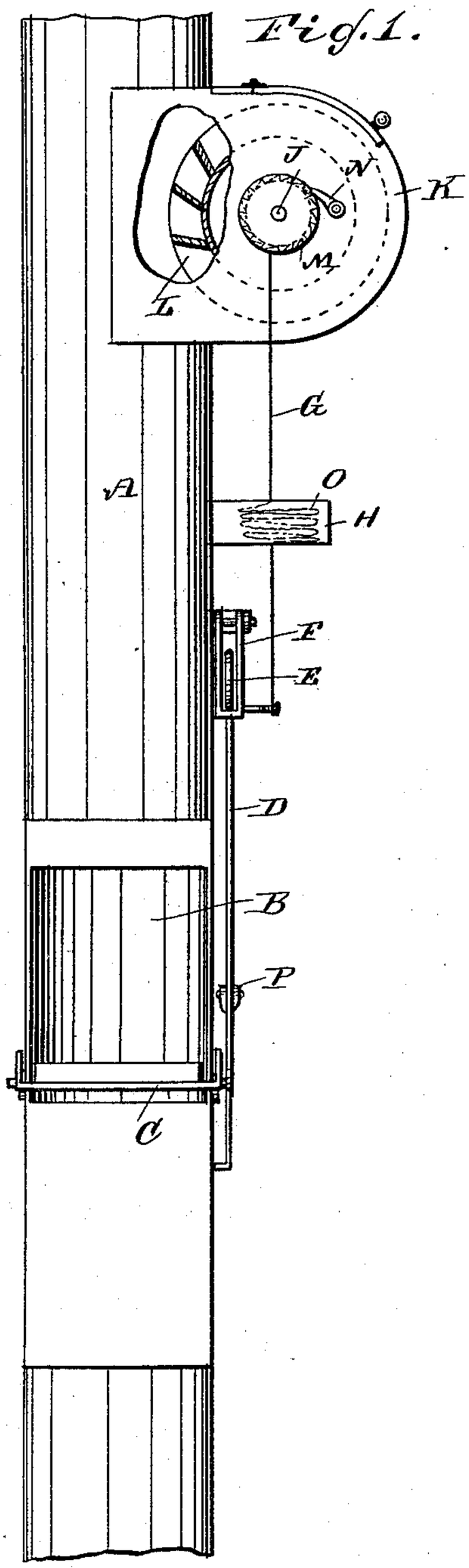
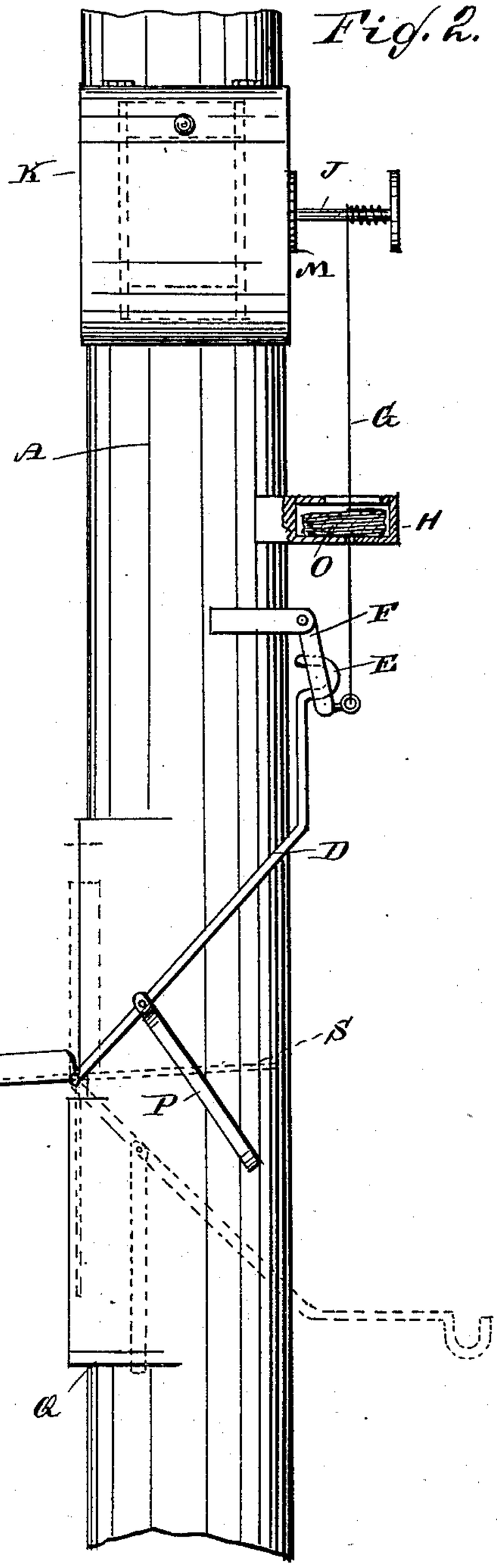


Fig. 2.



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RAIN-WATER ESCAPE.

SPECIFICATION forming part of Letters Patent No. 316,853, dated April 28, 1885.

Application filed January 26, 1885. (No model.)

To all whom it may concern:

Be it known that I, ORION DE KAY TOWNSEND, of Isle St. George, in the county of Ottawa and State of Ohio, have invented a new and Improved Rain-Water Escape, of which the following is a full, clear, and exact description.

The object of my invention is to provide a new and improved attachment for the water-pipes for conducting water from the roof to the cistern, whereby the water that first flows down the pipe and washes off the roof is conducted out of the pipe, and then the side opening is closed automatically, and the rest of the water flows directly through the pipe into the cistern.

The invention consists in the combination, with a rain-water pipe, of a hinged gate for closing the pipe or an opening in the side of the same, and a water-wheel arranged in the pipe and connected with the lever of the hinged gate, all as will be fully set forth and described hereinafter.

Reference is to be had to the accompanying drawings, forming part of this specification, in which similar letters of reference indicate corresponding parts in both the figures.

Figure 1 is a face view of my improved rain-water escape. Fig. 2 is a side view of the same.

The rain-water pipe A is provided with a side opening, B, which can be closed by a gate, C, having side flanges and hinged to the pipe at the bottom of the opening and adapted to swing downward and against that portion of the pipe below the opening.

A bent lever, D, is connected with the gate and bent at its free end to form a hook or projection, E.

A U-shaped latch, F, is pivoted to the pipe in such a manner that when it is swung against the pipe A the hook or projection E passes into it and is held.

A cord, G, is connected with the free end of the latch F, passes through an aperture in a bracket-box, H, projecting from the pipe, and the upper end of the cord is secured on a shaft, J, journaled in a box, K, projecting from the pipe and having a hinged door in its top.

Within the box K a bucket-wheel, L, is mounted on the shaft J, and outside of the box a ratchet-wheel, M, is mounted on the shaft, and a pawl, N, pivoted on the side of the box, engages with the ratchet-wheel. The cord G forms a coil or ball, O, on the bracket-box H.

A latch-lever, P, pivoted to the lever D, is adapted to catch on a spring or catch, Q, on the side of the pipe.

The gate C is provided with an inwardly-projecting part, S, the free edge of which is adapted to fit against the inside of the pipe.

If desired, the opening through which the rain-water escapes from the pipe, and the casing in which the water-wheel is located may be arranged on opposite sides of the pipe.

The operation is as follows: The latch-lever P is released and gate C is swung down to project horizontally from the pipe, as shown in Fig. 2, the part S extending transversely over the pipe and closing it below the opening B, and the latch D is swung up to engage the latch F. The water flowing down through the pipe A is guided out of the pipe by the part S of the gate C, upon which part S the water flows. At the same time the bucket-wheel L is revolved by the descending water, whereby the shaft J is revolved and the cord G is wound on the same. The cord forming the coil O is wound on the shaft J first, and then the cord pulls up the latch F, whereby the free end of the lever D is released, thus permitting the water flowing down the pipe to swing the part S down against the inside of the pipe, and thereby swinging up the gate C, which closes the opening. The water can then flow unobstructed through the pipe A.

The gate is locked, when closed, by passing the end of the latch-lever P under the part Q. The first water from the roof, which washes the sand, &c., from the roof, is thus conducted out of the pipe A automatically, and only the clean water is permitted to pass into the cistern.

To that part of the pipe at which the swinging gate is arranged one-half of the sides must be flattened, and the part S must be shaped accordingly, as a circular gate could not be swung down in the manner set forth.

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

1. The combination, with a water-conduct-

ing pipe having a side opening, of a hinged gate adapted to close the said opening, a lever connected with the gate, a latch for locking the lever in place, and a water-wheel arranged in the pipe and connected by a cord with the latch, substantially as herein shown and described.

2. The combination, with a water-conducting pipe having a side opening, of a hinged gate for closing the said opening and having an inwardly-projecting portion adapted to close the pipe, of a lever connected with the gate, a latch for locking the lever in place, a water-wheel arranged in the pipe, and a cord connected with the shaft of the water-wheel and with the latch, substantially as herein shown and described.

3. The combination, with the water-conducting pipe A, having the opening B, of the hinged gate C, the lever D, having the projection E, the pivoted catch F, the bracket-box H, the cord G, and the water-wheel L on the shaft J, on which shaft the cord is fastened, substantially as herein shown and described.

4. The combination, with the water-conducting pipe A having an opening, B, of the hinged gate C, having the part S, the lever D, having a projection, E, the latch P, the latch F, the bracket-box H, the water-wheel L, and the shaft J, substantially as herein shown and described.

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Witnesses:
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