

S. H. Plump.

Automatic Feeder & Cut-Off for Cisterns.

N<sup>o</sup> 75969

Patented Mar. 24, 1868

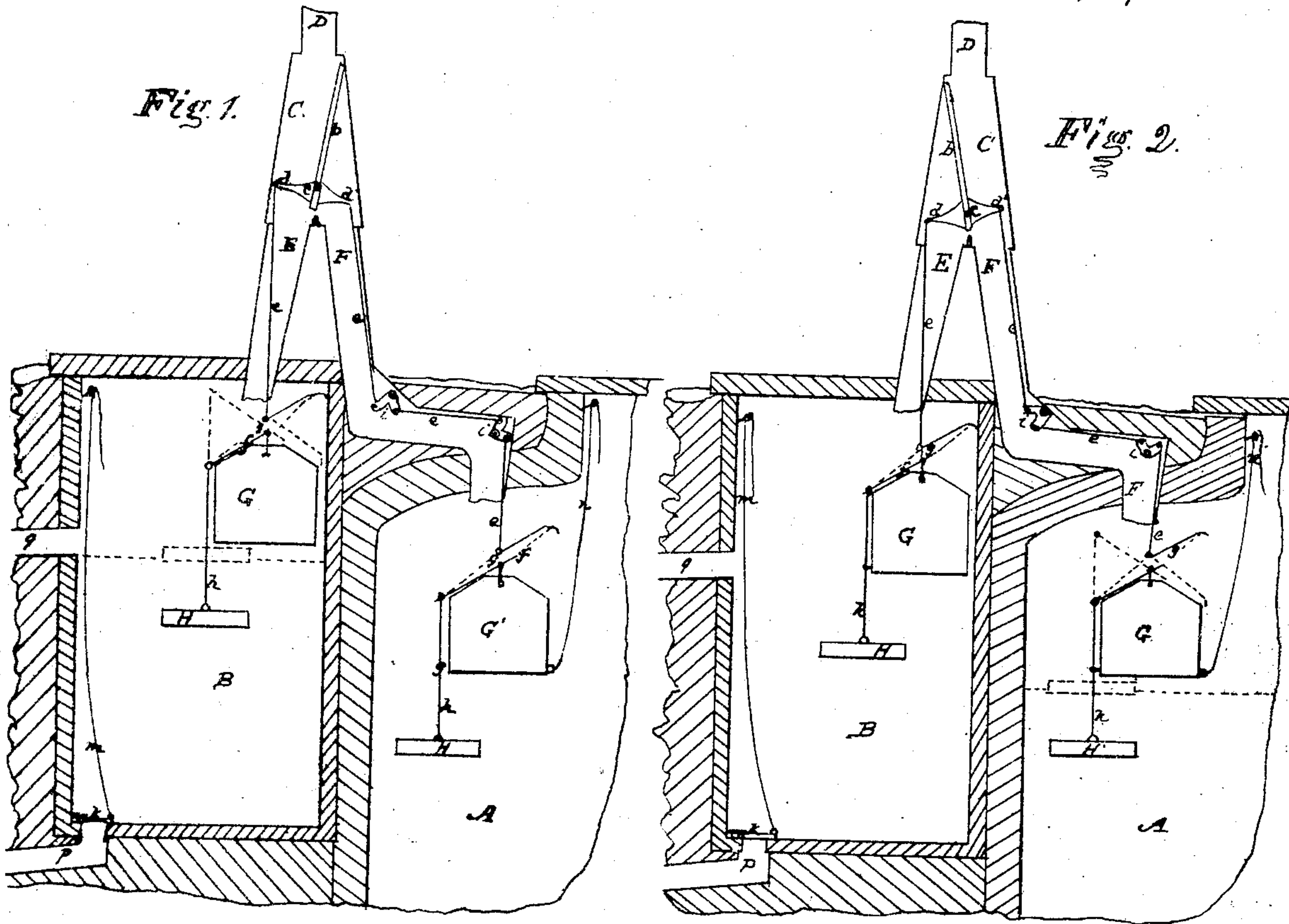


Fig. 4.

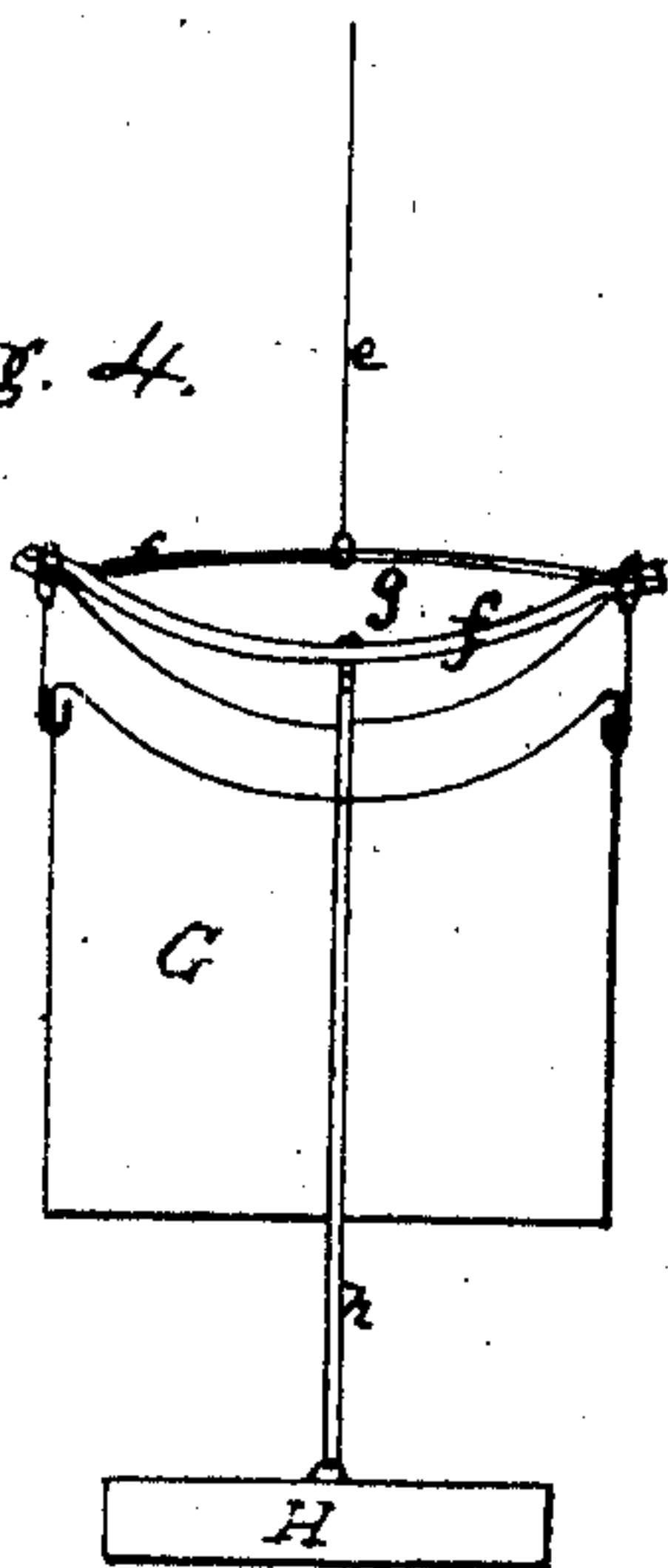
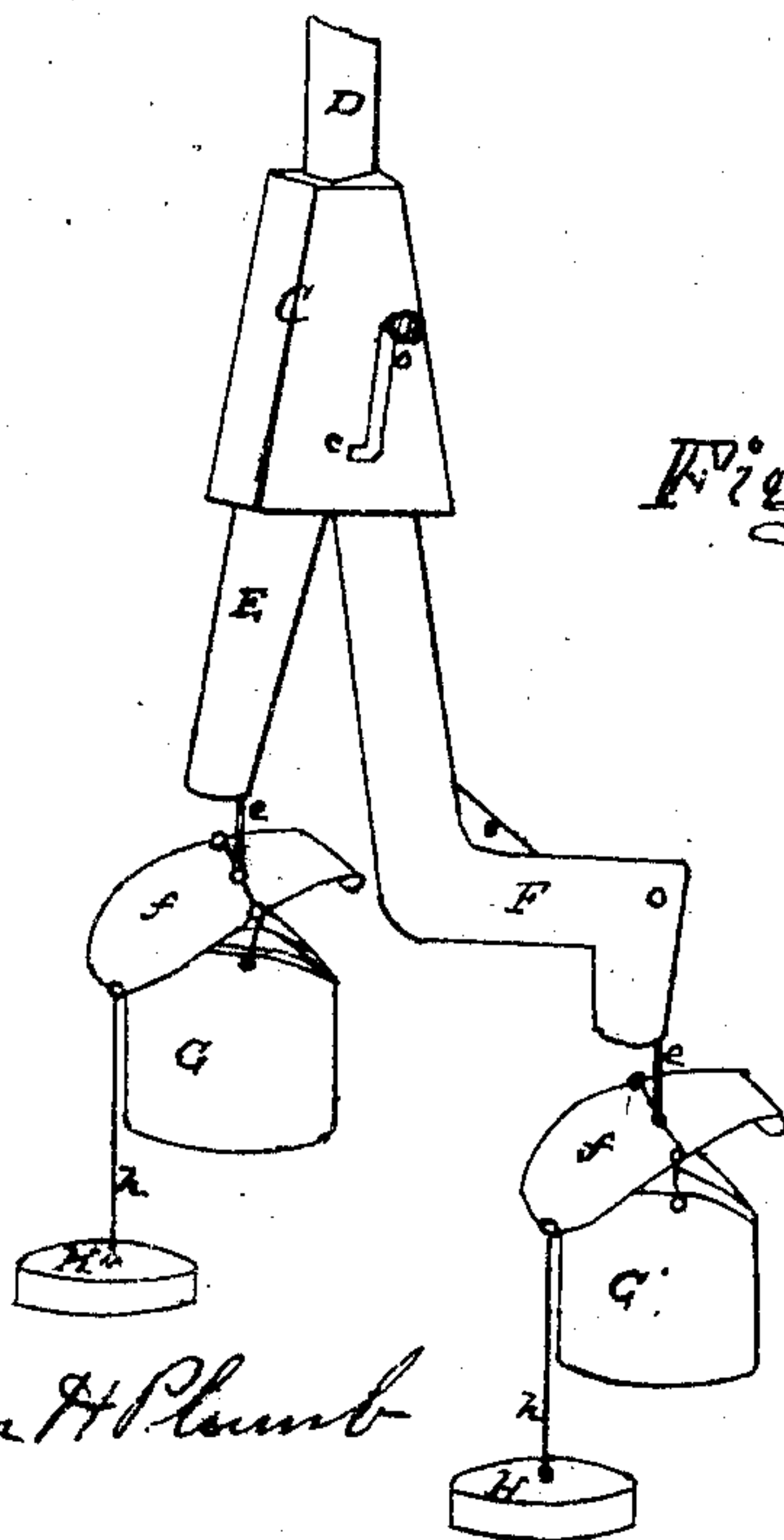


Fig. 3.



Witness

J. M. Daniels  
W. L. Carroll

Stephen H. Plump



# United States Patent Office.

STEPHEN H. PLUMB, OF DAVENPORT, IOWA.

*Letters Patent No. 75,969, dated March 24, 1868.*

## IMPROVEMENT IN AUTOMATIC FEEDERS AND CUT-OFFS FOR CISTERNS.

The Schedule referred to in these Letters Patent and making part of the same.

### TO ALL WHOM IT MAY CONCERN:

Be it known that I, STEPHEN H. PLUMB, of Davenport, in the county of Scott, and State of Iowa, have invented a new and improved Automatic Cistern-Feeder and Cut-Off; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Figures 1 and 2 are vertical sections.

Figure 3, a perspective view of the whole.

Figure 4 is an elevation of one of the buckets, with the lid raised to a horizontal position, so as to show the opening between the two parts of the lid.

Similar letters of reference indicate corresponding parts in the different figures.

This invention relates to an improved mode of conducting water from roofs of buildings into cisterns or waste-water tanks, as desired. It consists in applying buckets beneath the pipes which lead downwards from a valve-box, through which the water passes, said buckets being provided with tilting lids, connected with floats hanging below said buckets, and so arranged that when the water in the cistern or tank has risen to a certain point, the float is raised and the lid turned in a different position, by which means the bucket is filled. The buckets are attached, by connecting-wires, to arms, one on each side of the valve above, and when a bucket is filled, its weight throws the valve over to that side, cutting the water off from there and sending it in the other direction.

To enable others skilled in the art to understand my invention, I will describe its construction and operation.

In the accompanying drawings A represents the cistern, (a portion of it only being shown,) B a waste-water tank. The latter is intended to receive the water which first runs from the roof, until the roof is washed clean, and also to receive the surplus water after the cistern is full, obviating the necessity of a waste-pipe to the cistern. A drain-pipe, *p*, is laid from the bottom of tank B, and a waste-pipe, *q*, is placed towards the top of the tank, which should lead into the drain below. C is the valve-box, into which the water is brought by the pipe D, and from which the water descends by pipes E and F. A valve, *b*, is placed in the box C, turning on a pivot at *c*, having an outside handle, *o*, (fig. 3,) and this valve being thrown to either side, cuts off the water from that side, and turns it down the other pipe. The valve *b* has arms *d d* attached, one on each side. G G' are buckets hanging in the cistern and tank, and suspended by wires *e e* to the arms *d d*. Small cranks or elbows *i i* are placed at the angles of the pipe F, as shown, to which the wires are attached connecting the bucket G' with the arm *d*.

The buckets G G' are furnished with tilting lids *f f*, made as shown, in two pieces, one overlapping the other, but curved so as to leave a space between them, *g*, (fig. 4.) Thus, when the lid *f* is in the ordinary position, the water falling on it runs off, but when its inclination is reversed, the water passes through the opening *g* into the bucket G. H is a float, being an air-tight vessel, or a block of cork, wood, or other light substance, suspended from the edge of the lid *f* by a rod, *h*.

To be ready for use, the valve *b* is turned in the position shown by section, fig. 1, which will turn the water into the tank B. As the tank fills, the water raises the float H, which lifts the edge of the lid *f*, tipping it in the opposite direction, as shown by dotted red lines. The water then runs down through the space *g* into the bucket G. The bucket is filled, and by its increased weight pulls down the arm *d*, and throws the valve *b* in the position shown in section, fig. 2, and turns the water to the cistern; and the tank-bucket G, having a small hole in the bottom, is gradually emptied. When the cistern fills, the float H' is lifted, and the bucket G' filled, as in the other case, and the valve *b* is thrown over to that side, turning the water again into the waste-tank.

In case it may be desired to allow the water to run longer for washing the roof than would be required to fill the waste-tank up to the float, a valve, *k*, is placed in the bottom of said tank, which valve may be slightly raised by the cord *m*, to allow a portion of the water to run out, and take more time to fill the tank. When it is desired to empty the cistern-bucket G' to set the valve *b* the other way, it is done by means of a cord, *n*.

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

1. The water-buckets *G G'* attached to the valves *b*, substantially as and for the purpose specified.
2. The tilting lids *f* of the buckets, formed substantially as described, and for the purpose set forth.
3. The buoy or float *H*, so connected with the lid *f* as to change the position of said lid, when the water reaches a certain height, substantially as and for the purpose set forth.

S. H. PLUMB.

Witnesses:

HENRY W. PERKINS,

J. M. DANIELS,

W. L. CARROLL.