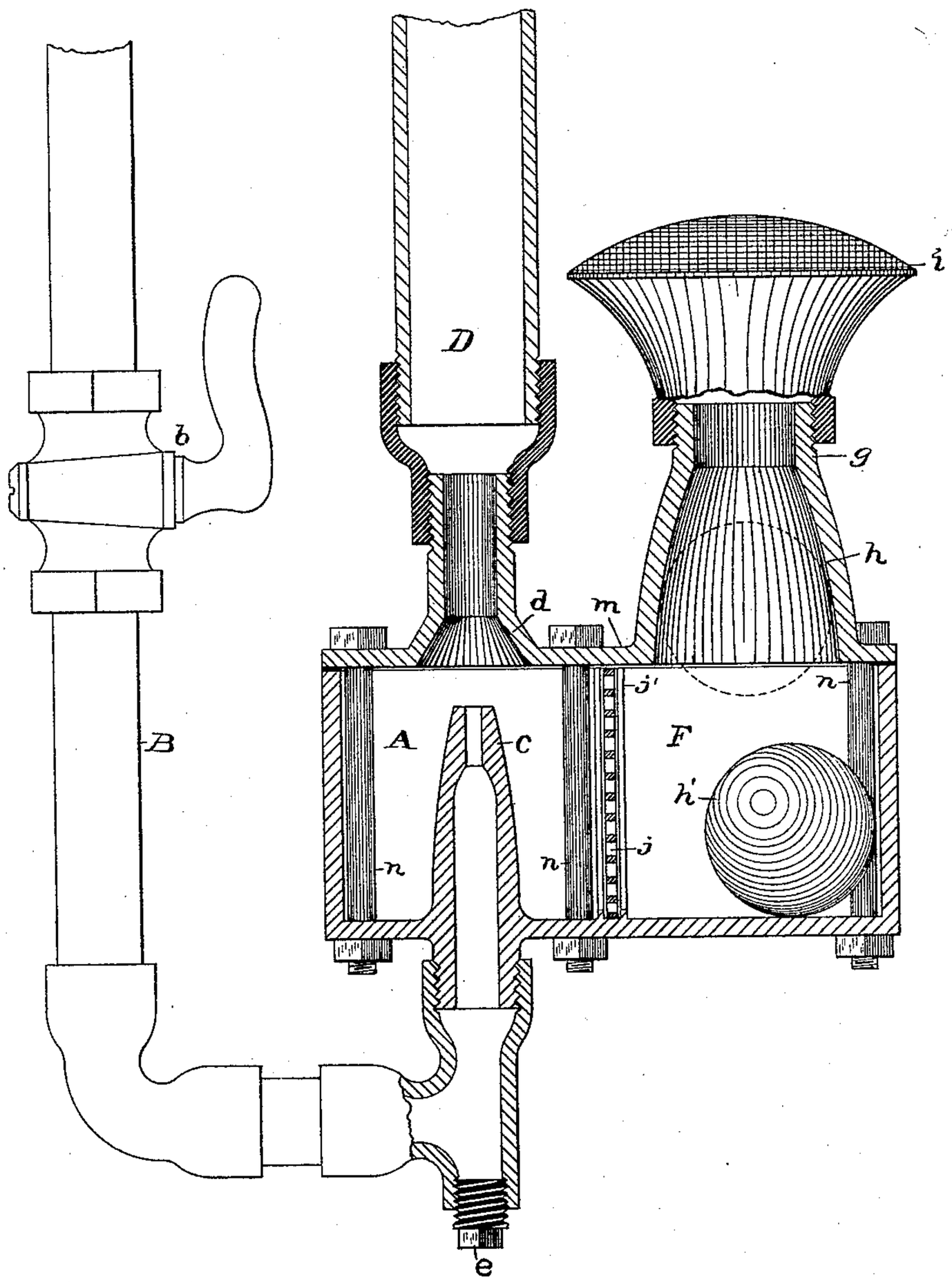
(No Model.)

W. LEE.

CELLAR DRAINER.

No. 452,308. Patented May 12, 1891.



WITNESSES:

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WILLIAM LEE, OF BALTIMORE, MARYLAND, ASSIGNOR OF ONE-HALF TO OLIVER HOBLITZELL, OF SAME PLACE.

CELLAR-DRAINER.

SPECIFICATION forming part of Letters Patent No. 452,308, dated May 12, 1891.

Application filed February 7, 1891. Serial No. 380,700. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM LEE, a citizen of the United States, residing at Baltimore, in the State of Maryland, have invented certain new and useful Improvements in Cellar-Drainers, of which the following is a specification.

This invention relates to cellar-drainers; and the object is to provide means for preventing the flooding of cellars caused by a back action of the water in the drainer.

With this end in view the invention consists in the peculiarities of construction and combination of parts described hereinafter, and pointed out in the claims.

In the accompanying drawing, illustrating the invention, the figure shows a vertical section of a drainer constructed after my improved plan.

My invention is specially applicable as an improvement to be applied to that class of cellar-drainers where the pressure of the city water in the water-pipes is utilized in lifting the water in the cellar and carrying it to the ground surface, and in the drawing I have represented a construction of drainer similar to that now in use.

The letter A designates a box which receives the cellar water and into which leads the city water-pipe B, which has a suitable governing-cock *b*. This pipe enters the said box from beneath the same and is provided with a vertical spray-nozzle *c*, which projects up in the box near the top. A drain-pipe D leads out of the top of the box A, having a funnel-shaped inlet end *d* directly over the upper end of said spray-nozzle *c*, and said drain-pipe is extended up to the ground surface and carries the water off from the cellar. This is the well-known cellar-drainer and works as follows: The cellar water flows into and fills the box A, and the pressure of the city water in the pipe B causes a fine spray to be thrown from the nozzle *c* up the drain-pipe D. This will cause the cellar water to be lifted into the said pipe D and discharged through the same to the ground surface. A suitable plug *e* is placed in the city water-pipe B, back of the pressure-nozzle *c*, to facilitate cleaning of the latter.

In using this style of drainer it has been found that there is a liability of flooding the cellar by a back action of the water caused by a letting down of the pressure in the city water-pipe or by any of the pipes becoming stopped up. My invention is designed to overcome this, and in carrying out the same I provide an auxiliary box F, located beside the box A and preferably cast integral therewith. The two boxes have direct communication with each other through a screen *j*, which fits in vertical slideways *j'* cast in the boxes. A common cover *m* closes both the boxes and is secured by bolts *n*. An inlet-neck *g* rises from the top of the box F. Its lower end, which opens into the box, is conical or funnel-shaped, as shown at *h*, and the box contains a float ball-valve *h'*, which is adapted to seat in the said conical part *h* of the inlet-neck and thereby close it. A perforated cap *i* is secured on the upper end of the neck *g* and acts as a strainer.

My device operates, in conjunction with the drainer already described, as follows: The cellar water enters the perforated cap *i* and passes down the neck *g* into the box F and through the screen *j* into the box A and is lifted out through the pipe D, as previously described, by the city water pressure. While this takes place it will be seen that the ball-valve *h'* is kept down in the box F by the inflowing cellar water; but as soon as there is a back action of the water, which may be caused, as previously explained, by a letting down of pressure in the city pipe or by the pipes becoming stopped up, it will be observed that the ball-valve *h'* will be immediately floated up to its seat in the conical part of the neck *g*, and will thus close the latter and effectually prevent the water from flowing back into the cellar and flooding the same. When the drainer is restored to working order, it will be obvious that the ball will drop from its seat in the neck *g* and the water will flow around it into the box F and out through the drain-pipe. Thus I provide a non-flooding at

tachment for cellar-drainers, which is simple, sure, and effective in its operation.

The ball-valve may be of any suitable material; but I prefer to use a hollow rubber ball, which best answers the purpose.

The screen *j* catches the dirt and other foreign matter in the cellar-water, which lessens the liability of the pipes becoming stopped up, and also confines the ball-valve to its own box.

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

1. In a cellar-drainer, the combination of a box having a drain-pipe and a pressure-nozzle, an auxiliary box located beside the said primary box and communicating therewith, an inlet-neck rising from the top of said auxiliary box, and a floating ball-valve confined in the latter and adapted to be floated into the lower end of said inlet-neck to close the same when a back action of water takes place in the drainer.

2. The combination, in a cellar-drainer, of a box having a pressure-nozzle *c*, a drain-pipe D, leading from the box, a cellar-water inlet neck provided with a conical end *h*, and a floating ball-valve *h'*, adapted to seat in said conical end and close the inlet when a back action of the water takes place in the drainer.

In testimony whereof I affix my signature in the presence of two witnesses.

WILLIAM LEE.

Witnesses:
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JNO. T. MADDOX.