

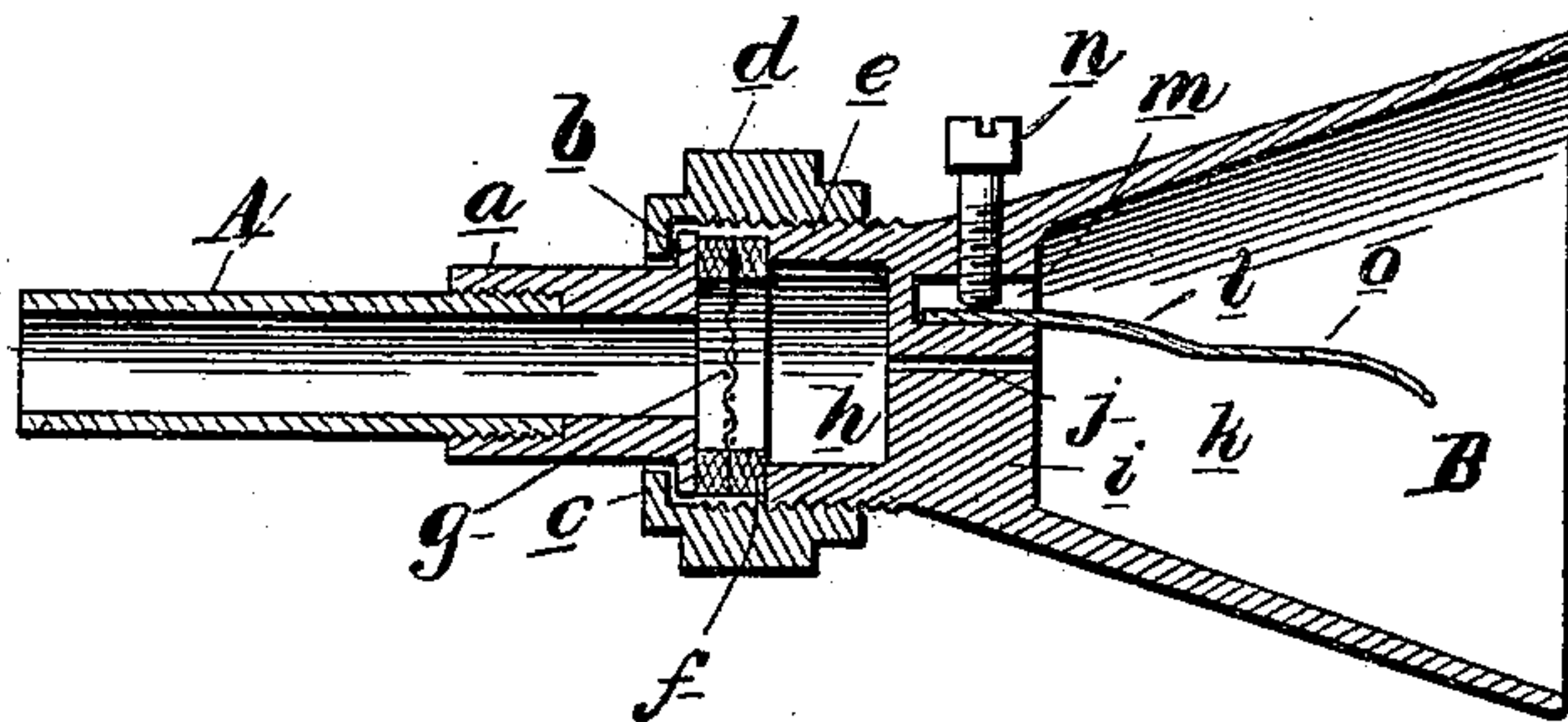
(No Model.)

M. J. CASWELL.

SPRINKLER NOZZLE.

No. 458,014.

Patented Aug. 18, 1891.



Witnesses:

P. M. Halbrook

M. B. O'Leary

Inventor:

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By *Thos. Sprague* Esq.  
Att'y.

# UNITED STATES PATENT OFFICE.

MYRON JOSIAH CASWELL, OF CASTALIA, OHIO.

## SPRINKLER-NOZZLE.

SPECIFICATION forming part of Letters Patent No. 458,014, dated August 18, 1891.

Application filed May 27, 1891. Serial No. 394,315. (No model.)

*To all whom it may concern:*

Be it known that I, MYRON JOSIAH CASWELL, a citizen of the United States, residing at Castalia, in the county of Erie and State of Ohio, have invented certain new and useful Improvements in Sprinkler - Nozzles, of which the following is a specification, reference being had therein to the accompanying drawing.

This invention relates to new and useful improvements in sprinklers; and the invention consists in the peculiar construction of a sprinkler-nozzle, all as more fully hereinafter described.

In the drawing, the figure represents my invention in vertical central longitudinal section.

My invention is especially designed to be used in distributing liquid poison upon potato-vines, grape-vines, &c., and is designed to sprinkle the liquid with the least possible amount of loss of solid matter and without danger of clogging up of the nozzle, and also to provide means for giving varying effects in the spray, both as to evenness and direction.

A is a supply-pipe from any source of liquid-supply, to the outer end of which is secured my nozzle, which consists of the following parts:

*a* is a nipple screw-threaded to receive the end of the supply-pipe A either upon its inner or outer face. This nipple is provided with a circumferential flange *b* at its forward end, with which the flange *c* on the coupling *d* is adapted to engage. This coupling is interiorly screw-threaded and engages with the tubular portion *e* of the nozzle B. Between the nipple *a* and the tubular portion *e* of the nozzle are the washers *f*, between which is clamped the screen or sieve *g*, held firmly in position by the clamping effect of the coupling *d*.

*h* is a chamber formed in the nozzle in rear of the wall *i*. This wall is provided with a discharge-aperture *j*, preferably arranged in the center thereof and leading from the chamber *h* into the chamber *k* of the bell-shaped nozzle B.

*l* is a spraying-blade secured at its rear end in a socket *m*, formed in the front of the wall *i*, preferably held in position by means of the set-screw *n*, so that it may be detached at will. This blade consists of the securing portion extending into the socket, and the flexible portion *o* extends in front of the aperture *j*. The blade is of such material that it may be bent more or less across the path of the liquid-stream issuing from the aperture *j*, and bent so that the point of intersection of the stream shall be nearer to or farther from the mouth of said aperture. This might be accomplished by adjusting it in or out of the socket *m*.

In practice the fluid, being fed under pressure through the tubes A, will be strained through the sieve *g*, accumulating in the chamber *h*, and thence be discharged through the aperture *j*. If the blade *l* is entirely detached, the circular stream will be thrown with very little spraying effect a considerable distance; but if the blade is inserted and bent across the path of the stream it will spray the liquid over a greater or smaller amount of space, proportioned to the distance from the mouth of the aperture at which the stream strikes the blade, and by bending the blade this may be adjusted to any desired extent, so that the stream shall not be thrown vertically up or down. The blade is inclosed within the bell-mouth nozzle B, which will deflect it in the proper direction, and also protects the nozzle from danger of being filled with dirt, and also prevents the action of the wind from striking the stream until after it has been properly sprayed.

What I claim as my invention is—

1. A sprinkling-nozzle consisting of a flaring mouth having an aperture in the rear thereof and a spraying-blade in the mouth extending in front of the aperture, substantially as described.

2. In a sprinkling-nozzle, the combination, with the nipple and flaring mouth, of a screen secured between the same, and a spraying-blade located within the mouth, substantially as described.

3. In a sprinkling-nozzle, the combination,  
with the supply-pipe and nipple thereon,  
of a flaring nozzle having a rear apertured  
wall therein, a screen between the nipple and  
5 the nozzle, and a coupling connecting the  
nipple and the nozzle, substantially as de-  
scribed.

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

MYRON JOSIAH CASWELL.

Witnesses:

ARTHUR PHINEY,  
LINN W. HULL.