

C. CHAMBERLIN.
Lawn-Sprinkler.

No. 223,277.

Patented Jan. 6, 1880.

Fig. 1.

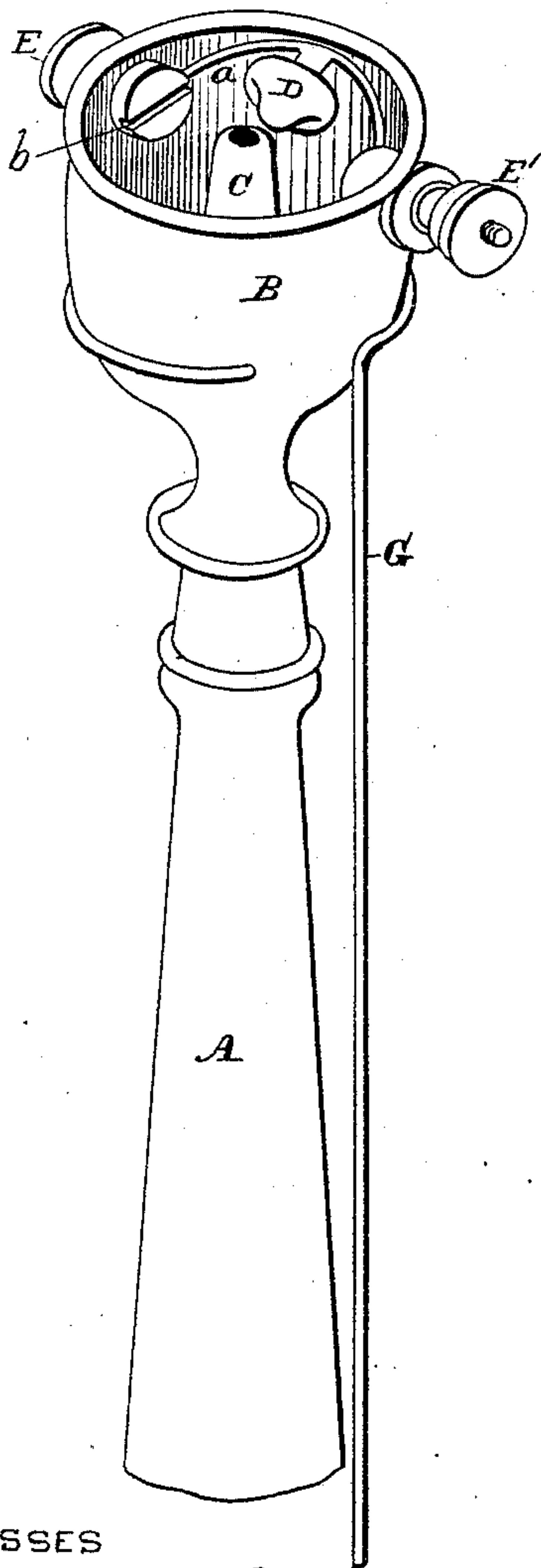
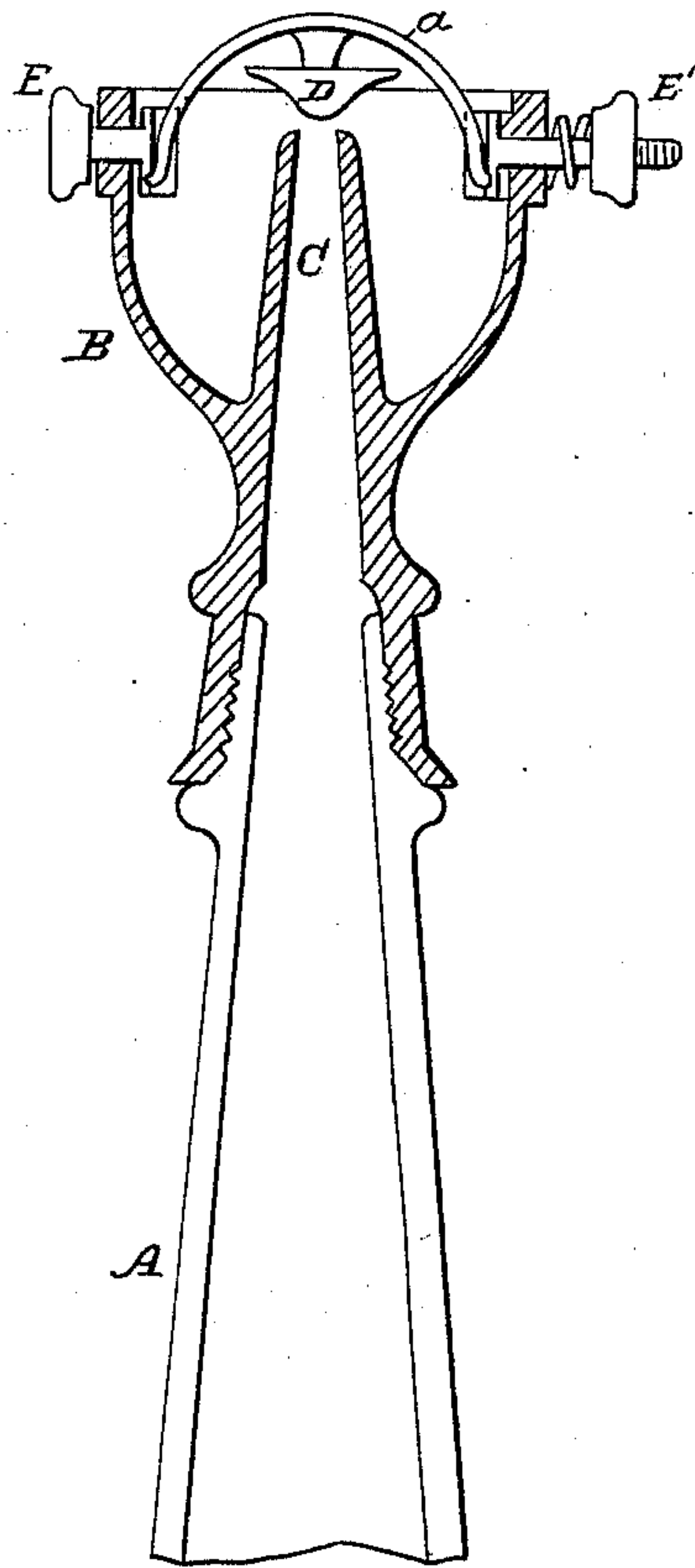


Fig. 2.



WITNESSES

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CORYDON CHAMBERLIN, OF SANTA ROSA, CALIFORNIA.

LAWN-SPRINKLER.

SPECIFICATION forming part of Letters Patent No. 223,277, dated January 6, 1880.

Application filed October 17, 1879.

To all whom it may concern:

Be it known that I, CORYDON CHAMBERLIN, of Santa Rosa, county of Sonoma, and State of California, have invented a Universal Lawn-Sprinkler; and I hereby declare the following to be a full, clear, and exact description thereof.

My invention relates to an improvement in lawn-sprinklers, which I call the "Universal Lawn-Sprinkler;" and it consists in an attachment which may be screwed onto the hose pipe or nozzle, which attachment is provided with a nozzle and with a swinging arm having a conical circular plate or distributor, which disperses the currents into spray after it leaves the end of the nozzle. The swinging arm carrying the distributor is moved at will, so that the distributor will produce all of the effects produced by the various sprinklers in use. A suitable stand is provided also, upon which the attachment may rest when used as a fountain, or when it is not desired to hold it in the hand, as is more fully described in the accompanying drawings, in which—

Figure 1 is a perspective view with the disk turned to one side. Fig. 2 is a vertical section.

The ordinary rotating lawn-sprinklers are open to the objection of retarding the flow of water materially, so that the full capacity of the pipe or hose is not utilized. This is also the case with all the devices which divide the stream before it leaves the hose pipe or nozzle. Moreover, the revolving sprinklers are liable to get out of order, and they wear out very quickly.

I propose to divide the full stream after it leaves the nozzle, and by a simple device control the current so as to throw spray or jets of different character, as desired, without retarding the flow through the hose.

On the pipe A of the hose is screwed the cup-shaped attachment B, having a nozzle, C, forming part of it, as shown. This nozzle is of the same shape as those in ordinary use, and is in the center of the cup B, so that a straight stream will pass through it the same as through any ordinary nozzle.

A disk, D, slightly convex or conical at the bottom, is attached to a semicircular swinging arm, a, on the inside of the cup. The ends of

this curved swinging arm are turned at right angles, and fit into sockets or holes in the slots b, formed in the inner ends of the revolving thumb-screws E E'.

The screw E' may be screwed up against a spring, as shown, to keep the bearings stiff, so that the arm and disk will be held firmly in any desired position in which they are placed.

When the cup is so placed that its nozzle is vertical and the disk is brought over the center of the current of water issuing from the nozzle, two effects are produced. With a partial head of water, a beautiful moving ornament in the shape of a crystal vase is formed by the water flowing up the sides of the disk in a thin sheet and falling from the lips of the vase in a gentle spray. With a full head, the current is broken into a fine spray and dispersed over a circle of from thirty to fifty feet in diameter, according to the pressure.

With the nozzle in the hand held in front of the person and the edge of the disk just touching the current, a coarse spray is produced which can be sent nearly as far as the unbroken current itself; or, when the disk is pressed deeper into the current, a fine fan-shaped spray is formed. The spray can be regulated by a motion of the finger by turning the thumb-screw E to regulate the position of the disk.

When the disk is turned back and down into the cup the unbroken current can be used the same as through any ordinary nozzle. Various shapes of disks may be substituted to produce different effects.

In this method of sprinkling the whole percentage of the current of which the nozzle is capable is obtained, since the current is not divided until after it leaves the nozzle. Complete control of the stream is maintained so as to produce seven or eight different effects—full stream, coarse spray, fine spray, &c. All the effects desired or obtained in the various sprinklers are produced in this one device. It cannot stop up with insects or other matter, since all that will flow through the hose and nozzle can pass out.

The mist produced is so fine that the most delicate flowers cannot be injured. The person is protected from wetting and the disk itself protected from injury by the cup. The full hundredth per cent. of water passing

through the pipe is utilized, since it is not dispersed until after leaving the nozzle.

Extra arms and disks may be kept for use in case of damage to those originally procured with the attachment.

I provide with this a holder, G, which is simply a metal rod with a horizontally-turned hook at its upper end, as shown. This holder is pushed into the ground with the hook uppermost, and the cup-shaped attachment is placed in the hook and thus held vertically, so that a fountain is produced, if desired. The nozzle is held in place in this way when the lawn is being sprinkled, but may be removed by being taken out of the hook.

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

1. The attachment to hose-pipes, consisting of the cup B with its nozzle C, said cup being provided with the swinging arm *a*, having the distributor or disk D at its center, adapted to be moved in different positions, so as to impinge on the flowing stream, whereby different

effects of spray are produced, substantially as herein described.

2. In combination with the hose-pipe A, the cup-shaped attachment B, having a nozzle, C, swinging arm *a*, fitting in slots *b* in the thumb-screws E E', said arm being provided with a conical disk, D, adapted to be placed in different positions in front of the moving stream, whereby either a solid stream or a spray may be produced, substantially as herein described.

3. In a hose-nozzle, the disk or distributor D on its swinging arm *a*, whereby the stream is broken into spray by the impetus or force of the stream itself against an obstacle after it has left the nozzle, so that the full force and volume of water is utilized, substantially as herein described.

In witness whereof I have hereunto set my hand.

CORYDON CHAMBERLIN.

Witnesses:

CHAS. G. YALE,
S. H. NOURSE.