

F. M. GRAY.  
Garden-Sprinkler.

No. 160,516.

Patented March 9, 1875.

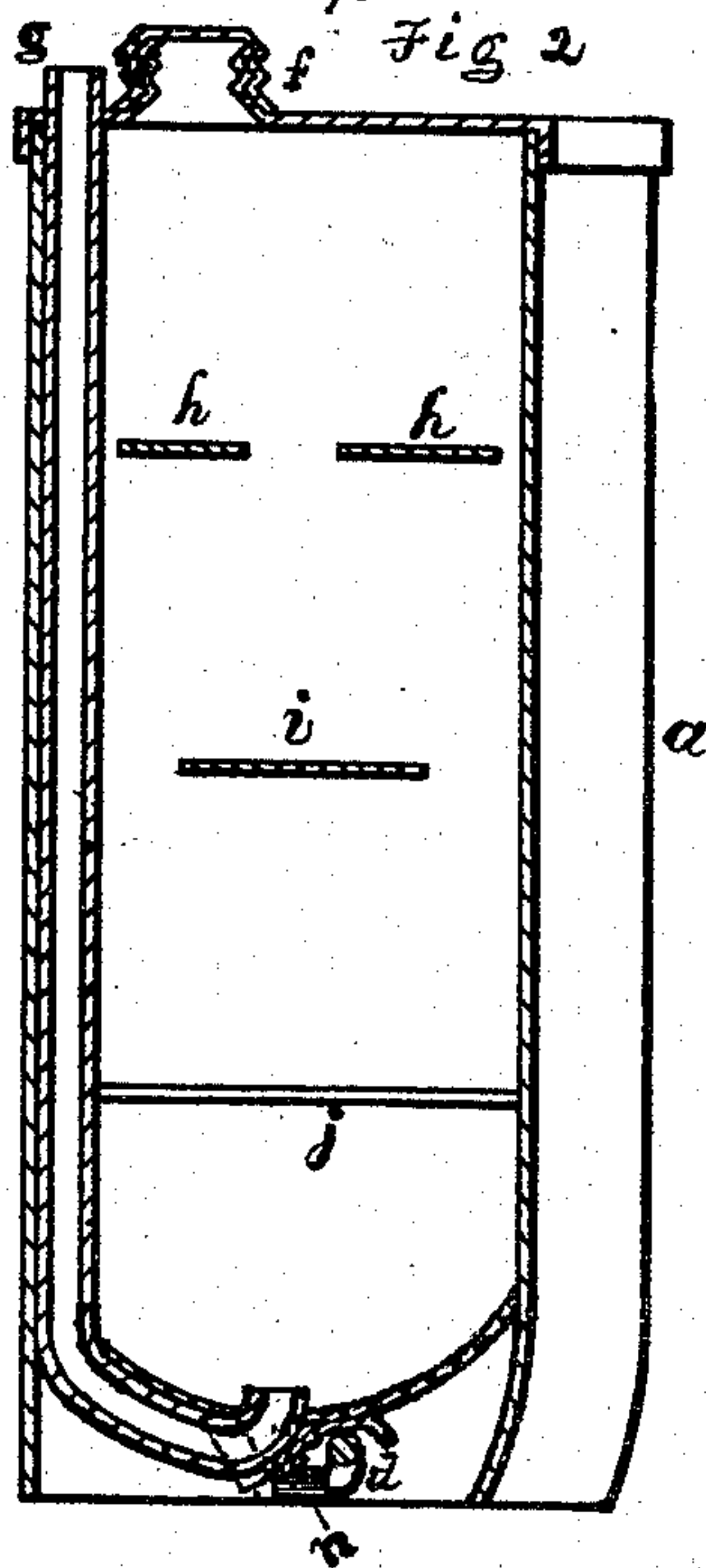
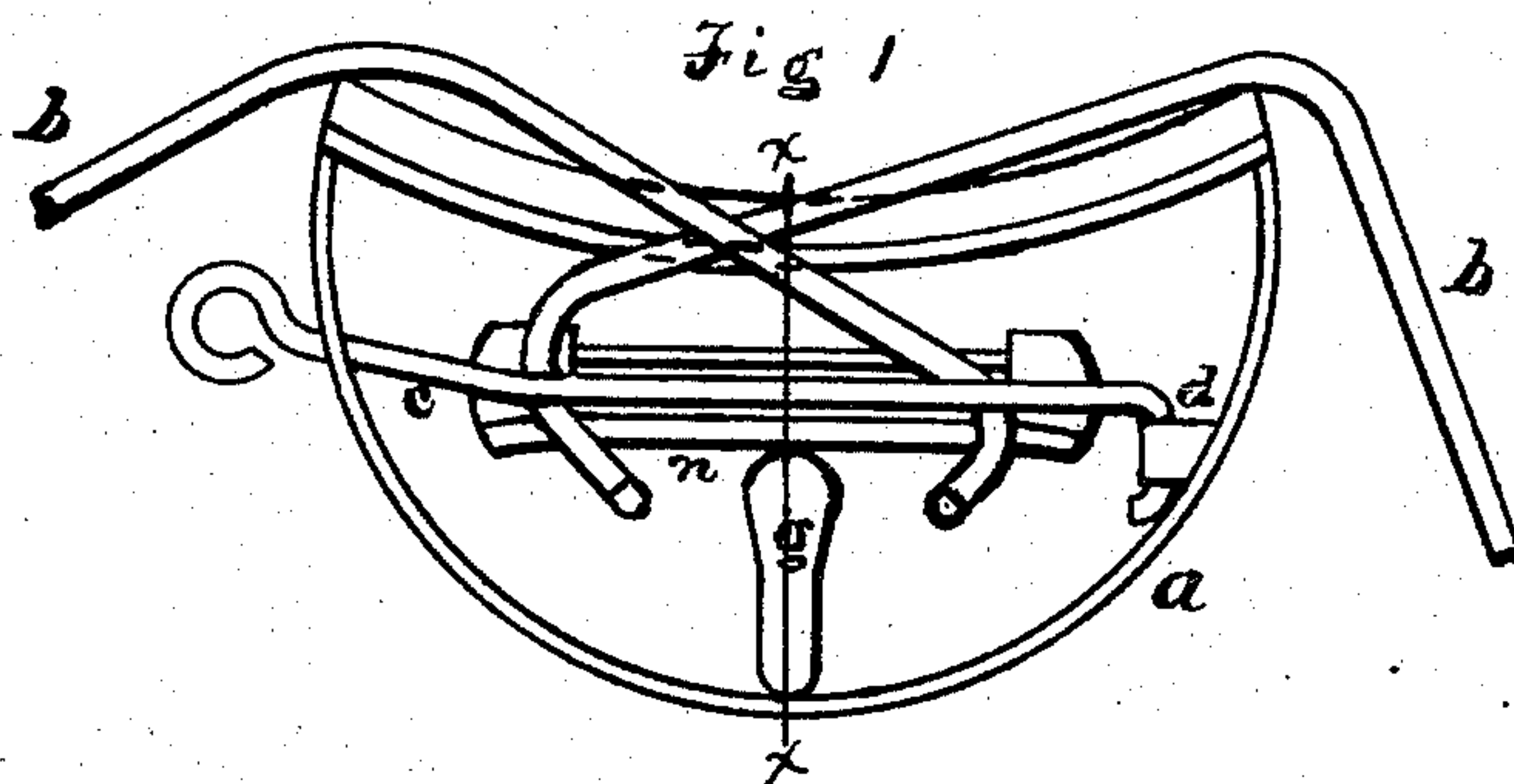
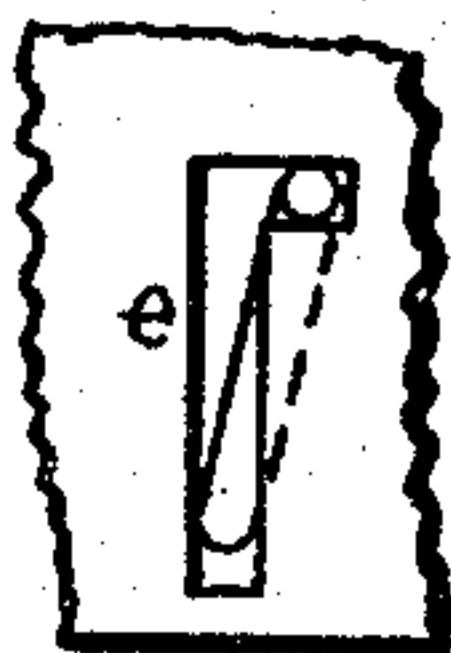


Fig 3.



Witnesses.  
C. A. West.  
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Frank M. Gray  
Inventor.

# UNITED STATES PATENT OFFICE.

FRANK M. GRAY, OF NORWOOD, ILLINOIS.

## IMPROVEMENT IN GARDEN-SPRINKLERS.

Specification forming part of Letters Patent No. 160,516, dated March 9, 1875; application filed June 15, 1874.

*To all whom it may concern:*

Be it known that I, FRANK M. GRAY, of Norwood, Cook county, Illinois, have invented a new and useful Improvement in Garden-Sprinklers, of which the following is a full description, reference being had to the accompanying drawings, in which—

Figure 1 is a bottom view; Fig. 2, a vertical section on line *x* of Fig. 1; Fig. 3, a detail.

It is customary to apply various articles in solution, or mixed with water, to plants, for the purpose of destroying bugs and insects.

The chief object of my invention is to make a device which will facilitate such application.

In the drawings, *a* represents a vessel of any suitable size, which can conveniently be made of sheet metal, as shown. One side is convex, the other concave, so as to fit upon the back of the person using it, being secured in place by means of straps passing over the shoulders, which straps are not shown. *b b* are rubber or other suitable flexible pipes, connected to the vessel at or near the bottom, and communicating with the interior, through which pipes the contents of the vessel are discharged. It will be best to provide the outer end of each of these tubes with a rose, such as is usually used on garden-sprinklers. *c* is a rod, one end of which is hinged at *d*. The other passes through a slot in the rim attached to the bottom of the vessel, which slot is shown at *e* in Fig. 3, and is in form such as is used with the bayonet-catch. When this rod is pressed up against the tubes and the bottom of the vessel it compresses the tubes and prevents the outflow of the contents of the vessel *a*. When released, the contents can flow through the tubes. *f* is an opening for the introduction of water and other material. It is closed by a tight-fitting cap or cork. *g* is a tube, for the purpose of admitting air into *a* as the contents flow out. It may extend down through the center of the vessel and terminate near the bottom, and may have a bell-shaped opening at the lower end. I introduce the air through this tube instead of at the top of the vessel over the contents, for the purpose of agitating the contents, and aid in keeping the solid matters mixed with the water, if not dissolved. *h h*

are two shelves, extending across the vessel some distance from the top. *i* is another shelf, located near the center; and *j* is a shelf located over one of the openings from which the contents are discharged. I use such a shelf *j* over each outlet. The object of these shelves is to catch and hold temporarily the solid matters used which do not dissolve, and prevent them from falling directly to the bottom of the vessel. Such solid matters will be gradually dislodged from these shelves by the agitation of the water as the person using the device moves along, and will be more evenly and thoroughly mingled with the water than if the shelves were not used.

The device will be very useful in applying paris-green mixed with water to potato-vines to destroy the potato-bug.

The operator can walk between the rows of plants, holding a tube in each hand, regulating the discharge by pinching the tubes, or stopping it altogether, when desired, by the use of the rod *c*.

For some purposes it will be advisable to use a single discharge-pipe.

*n* is a projection upon the under side of the vessel *a*, over which the tubes *b* are compressed by the rod *c*, the more certainly to stop the outflow of the contents.

I do not claim, broadly, a vessel having a discharge-pipe and rose; but

What I do claim, and desire to secure by Letters Patent, is as follows:

1. The receptacle *a*, in combination with one or more flexible discharge-pipes, *b*, compressing-rod *c*, and open air-inlet pipe *g*, substantially as and for the purposes set forth.

2. The receptacle *a*, provided with one or more shelves within the same, in combination with one or more discharge-pipes, *b*, and the air-pipe *g*, substantially as and for the purposes set forth.

3. In a garden-sprinkler, the vessel *a*, in combination with one or more flexible tubes, *b*, and the open air-pipe *g*, having its lower opening at or near the center of the bottom of the vessel, substantially as and for the purpose specified.

FRANK M. GRAY.

Witnesses:

E. A. WEST,  
O. W. BOND.