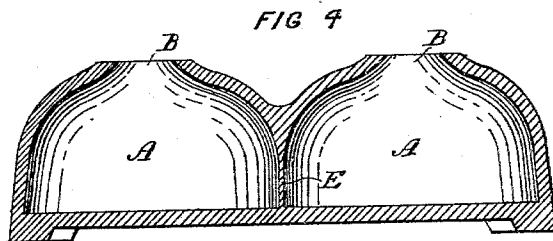
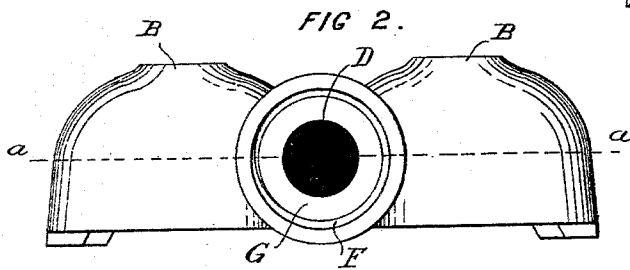
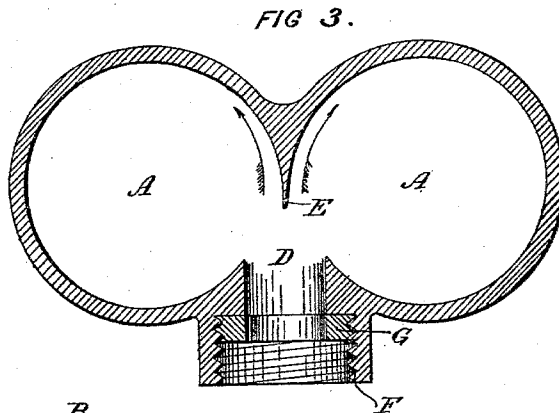
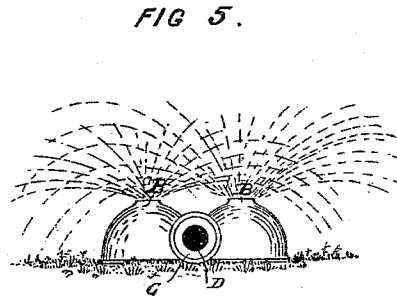
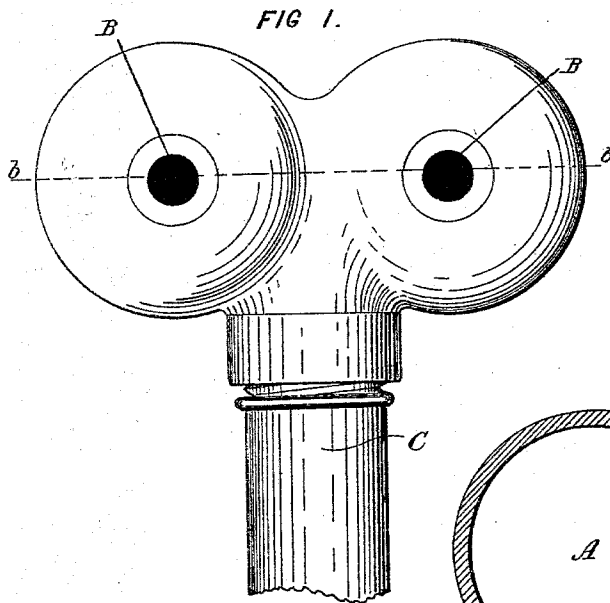


(No Model.)

J. P. VAN SICKLE.
LAWN SPRINKLER OR IRRIGATOR.

No. 545,320.

Patented Aug. 27, 1895.



WITNESSES.

Chas. Lewis.

H. B. Lewis

INVENTOR.

John Pulaski Van Sickle

BY

J. John Day.
ATTORNEY.

UNITED STATES PATENT OFFICE.

JOHN PULASKI VAN SICKLE, OF PASADENA, CALIFORNIA.

LAWN-SPRINKLER OR IRRIGATOR.

SPECIFICATION forming part of Letters Patent No. 545,320, dated August 27, 1895.

Application filed September 15, 1894. Serial No. 523,127. (No model.)

To all whom it may concern:

Be it known that I, JOHN PULASKI VAN SICKLE, a citizen of the United States, residing at Pasadena, in the county of Los Angeles and State of California, have invented certain new and useful Improvements in Lawn-Sprinklers, otherwise known as "Irrigators," of which the following is a full, clear, and exact description, reference being had to the annexed sheet of drawings illustrating my said improvements, and forming part of this specification.

My invention relates to that class of lawn-sprinklers in which the sprinkling instrument is a stationary body, but wherefrom the water issues through two or more orifices in the upper part of the sprinkler or irrigator and in such manner that the issuing water has a tangential motion imparted to it by the manner of its entrance into and exit from the body of the sprinkling apparatus. In this class of lawn sprinklers or irrigators as hitherto constructed and used the circular portion of the ground for some distance around the sprinkler or irrigator has been but only slightly or very incompletely sprinkled, the defect being due to tangential discharge of the water, causing it to be thrown some distance upward and outward before falling upon or striking the ground being sprinkled.

The object of my improvements is to insure that some of the water escaping from the central orifice of one member of the sprinkler or irrigator shall strike against the water issuing from the other or more than one other such orifice, thereby causing a portion of the two sprays, or more than two sprays, according to the number of such orifices as are used, to strike against each other, thereby causing a portion of the water-jets to be broken up immediately on their escape from the said orifices and to fall in spray or broken water on the ground immediately surrounding the sprinkling instrument or irrigator, while the rest of the water sprinkles or irrigates the farther portion of the ground lying outside the aforesaid central portion.

In the accompanying drawings, Figure 1 is a plan of my improved sprinkler. Fig. 2 is a side elevation of the same; Fig. 3, the horizontal section of the same on the line *a a*, Fig. 2. Fig. 4 is a vertical section of the same on

the line *b b*, Fig. 1. Fig. 5 is an end elevation of my improved sprinkler in which two jets or sprinkling-orifices are used, and showing adjacent parts of the said jets striking against each other and breaking up the water so as to insure it falling on the ground closely around the sprinkler.

In the figures it will be seen that there are two chambers marked A A provided with two sprinkling-orifices B B at the central upper part of each chamber A. Each chamber A is, by preference, formed or shaped as shown more particularly in the transverse section, Fig. 4,—that is to say, more or less dome-shaped from the bottom upward and for a short distance within, tapering toward a narrow edge which forms the central orifice. It is not, however, absolutely essential that the chambers A A should be thus formed—that is to say, dome-shaped—but I find this shape to give the best results. Water is led from the source of supply by the pipe C into the channel D, connecting it with the interior of each chamber A. As the water escapes from the channel D it strikes against the tapered tongue E, shown more particularly at Figs. 3 and 4, and as the water strikes against this tongue E it is divided into two equal portions, which are equally distributed into each of the chambers A A and around each of which the water travels in a circular route, as indicated by the arrows in Fig. 3. So, as soon as the chambers A A are thus filled with water having this circular motion the said water escapes through the respective orifices B B in the upper part thereof. That portion of the water escaping through either of the orifices B B strikes against that escaping from the other orifice, as shown at Fig. 5, and the portions which thus strike against each other become immediately broken up into spray and thus fall upon that portion of the ground immediately surrounding the position of the sprinkler or irrigator as a center, while the rest of the water, which is not thus broken up, is thrown farther outward by pressure and centrifugal action to sprinkle or irrigate so far as it will reach the portion of the ground surrounding the said central portion.

The sprinkling instrument or irrigator has a screw-thread F formed in it at the outer end of the channel D, whereby it is screwed

onto the metallic coupling in the flexible pipe C and thereby attached thereto. The bottom of the screw-socket F is also fitted with an elastic washer G, which becomes compressed when the sprinkler is screwed onto the metallic coupling of the flexible pipe C.

Having now described the nature of my said invention and the manner of carrying the same into practice, I desire to observe in conclusion that although I have shown upon the annexed drawings my improved sprinkler or irrigator as constructed with two chambers and orifices A A and B B, respectively, which from practical test and experience I have found and believe to be the best manner of carrying my invention or improvements into practice; yet it is to be understood that I do not limit my invention or improvement to the use of two such chambers A A and two such orifices B B, as I may use more than two such chambers and orifices.

What I consider to be my improvement or invention, and claim as novel and original, is as follows:

1. A lawn sprinkler or irrigator consisting of two circular chambers connecting with each other and with an entrance channel and flexible water supply pipe common to both chambers, and having between the said circular chambers a vertical dividing edge or tongue

for dividing the water conveyed by the supply pipe into two portions, and having a central orifice in the top of each chamber whereby the water is given a rotary motion within the said chamber and escapes tangentially, and those portions of the escaping water adjacent to the orifices strike against and break each other up into spray so as to fall upon the ground immediately surrounding the lawn sprinkler or irrigator, while the rest of the water is thrown by centrifugal action over that portion of the ground surrounding the central portion, all operating in the manner and for the purposes substantially as set forth.

2. A lawn sprinkler or irrigator consisting of two chambers having a common inlet passage for the water, a dividing or separating tongue or edge placed opposite the inlet, each chamber having a dome-shaped upper part provided with a discharge orifice, the whole operating in the manner and for the purposes substantially as set forth.

In testimony whereof I have hereunto set my signature in presence of two subscribing witnesses.

JOHN PULASKI VAN SICKLE.

Witnesses:

ST. JOHN DAY,
W. H. WAGNER.