

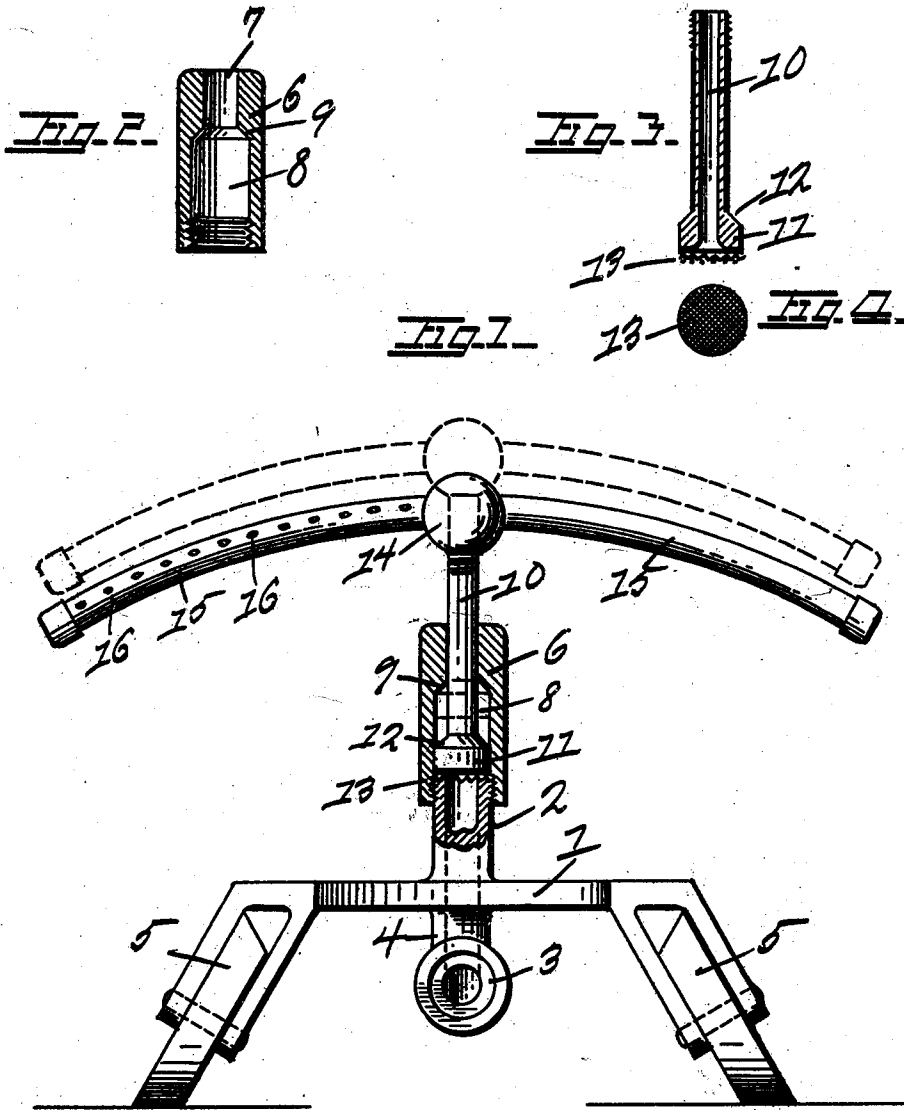
No. 690,762.

Patented Jan. 7, 1902.

H. PAPENFUS.
LAWN SPRINKLER.

(Application filed July 5, 1901.)

(No Model.)



WITNESSES

Charles E. DeFurdaugh
James H. Brown

INVENTOR

Herman Papenfus
By C. H. Rauch, atty.

UNITED STATES PATENT OFFICE.

HERMAN PAPENFUS, OF TOLEDO, OHIO.

LAWN-SPRINKLER.

SPECIFICATION forming part of Letters Patent No. 690,762, dated January 7, 1902.

Application filed July 5, 1901. Serial No. 67,077. (No model.)

To all whom it may concern:

Be it known that I, HERMAN PAPENFUS, a citizen of the United States, residing at Toledo, in the county of Lucas and State of Ohio, have invented certain new and useful Improvements in Lawn-Sprinklers; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make use the same.

My invention has reference to a lawn-sprinkler which shall be efficient in operation, simple in construction, comprising few parts, and consequently insuring low cost to manufacture.

In carrying out my invention I employ certain novel features of construction and the parts and combination of parts hereinafter shown, described, and claimed.

In the drawings, Figure 1 is a front elevation of my invention, the same being shown in part section. Fig. 2 is a sectional detail of the cap-piece 6. Fig. 3 is a sectional detail of the tubular stem 10. Fig. 4 is a view of the reticulated disk 13, the same being detached from the tubular stem 10.

Referring to the parts, 1 is a suitable base to support an upright tubular standard 2.

3 is an ordinary nipple extending below the base for the attachment of a hose leading water under pressure through an elbow connection 4 to the upright standard 2.

Journalled to the base 1 are beveled wheels 5, inclined to rotate at an angle to the vertical. Four wheels are thus arranged, the two upon one side of the sprinkler rotating in a plane which intersects the plane of rotation of the wheels upon the opposite side of the base. This construction provides an exceptionally stable base for the sprinkler and also a convenient means for permitting the movement of the sprinkler to various positions without the usual attendant inconvenience of overturning the sprinkler. Secured upon the standard 2 by being screwed upon the screw-threaded upper end of the same is a cap-piece 6, having bored-out sections 7 and 8 of small and large diameter, respectively, and a tapered seat 9, connecting the two sections.

Having a vertical movement within the

cap-piece 6 is a tubular stem 10, formed with an enlargement 11, provided with a tapered seat 12, adapted when the stem is in raised position, as shown in dotted lines, Fig. 1, to cooperate with the seat 9 to form a water-tight joint.

13 is a circular disk of reticulated formation adapted to be secured by soldering to the lower end of the stem 10 to strain the water as it passes through the sprinkler. This disk may be constructed of woven-wire netting or the same may be a sheet-metal disk having a plurality of perforations there-through.

14 is a hollow-ball connection secured to the upper end of the stem 10, from which extend radial sprinkler-arms 15, provided with perforations 16.

The normal position of the parts while in operative is shown in Fig. 1. When water under pressure is admitted to the sprinkler, the same passes through the standard 2 and the tubular stem 10 and entering the sprinkler-arms 11 is projected in the form of a multitude of jets from the perforations 16, causing the sprinkler-arms to rotate. By turning the sprinkler-arms and varying the angle of projection from the horizontal plane the velocity of the sprinkler is increased or diminished, as may be desired. The instant that water under pressure enters the sprinkler the tubular stem 10, together with the sprinkler-arms and the hollow-ball connection, will be lifted to the position shown in dotted lines, Fig. 1, causing the seat 12 to contact with the seat 9 and prevent the escape of water at the point of rotation. The enlargement upon the lower end of the stem 10, working in the cap-piece 6, presents an enlarged area to the water acting under pressure and causes the sprinkler-arms to be lifted, the same rotating with a minimum of friction, being supported by the column of water. When the water is turned off, the revolving parts will fall through gravity to their normal position. By the simple operation of unscrewing the cap-piece 6 any deposit in the sprinkler may be quickly removed, the heavier ingredients in the water, such as mud and vegetable fiber, being deposited upon the reticulated disk 13. The sprinkler may be moved about the lawn in one direc-

tion by means of the hose attached to the same and in the opposite direction by means of a rope attached to the sprinkler-base.

5 It will be observed that the simple construction of my sprinkler permits of it being easily taken apart and that the same is also easily assembled, thereby insuring low cost in manufacturing.

10 Having described my invention, what I claim, and desire to secure by Letters Patent of the United States, is—

1. In a lawn-sprinkler, an upright tubular standard, the cap-piece mounted thereon having internal cylindrical sections of large and
15 small diameter respectively, and a tapered seat between said sections, a tubular stem, carrying perforated sprinkler-arms, provided with an enlargement at its lower end and a tapered seat upon the enlargement, the same being
20 adapted to lift within the cap-piece when water under pressure is introduced into the sprinkler to cause the seat upon the stem to

coöperate with the seat upon the cap-piece, to form a water-tight joint, as set forth.

2. In a lawn-sprinkler, an upright tubular
25 standard externally screw-threaded at its upper extremity, a cap-piece adapted to be screwed thereon having internal cylindrical sections of large and small diameter respectively and a tapered seat between said sections,
30 a tubular stem disposed within the cap-piece, carrying perforated sprinkler-arms and having an enlargement at its lower extremity and a tapered seat upon the enlargement,
35 and a perforated or reticulated disk adapted to be secured upon the lower face of the enlargement upon the stem, as shown and for the purpose set forth.

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

HERMAN PAPENFUS.

Witnesses:

CARL H. KELLER,

CHARLES C. DEFENBAUGH.