

July 15, 1924.

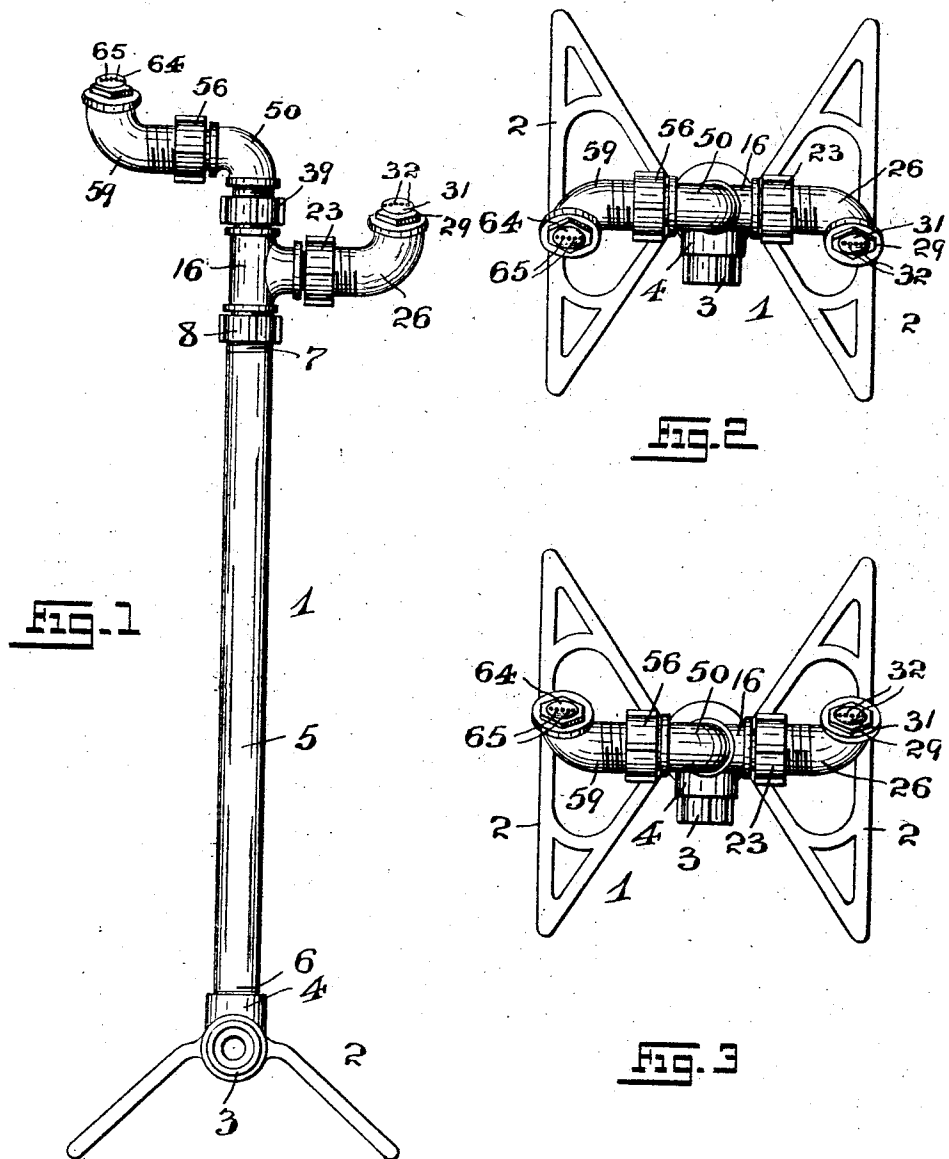
L. OLSCHESKI

1,501,718

SPRINKLER

Filed Dec. 6, 1921

3 Sheets-Sheet 1



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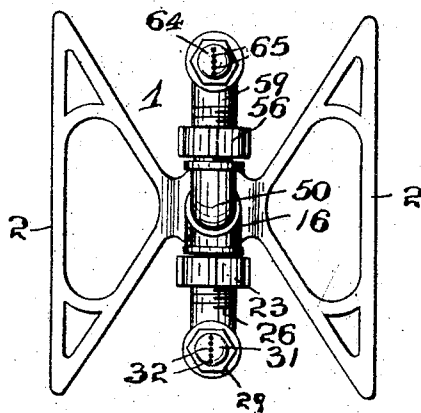


FIG. 4

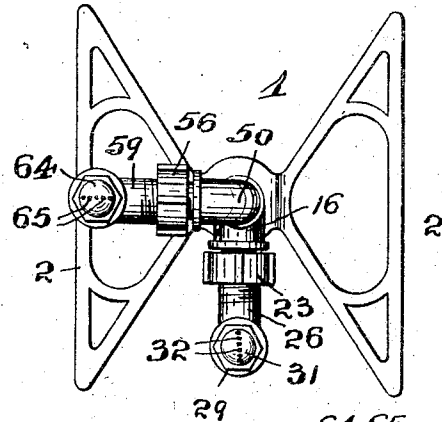


FIG. 5

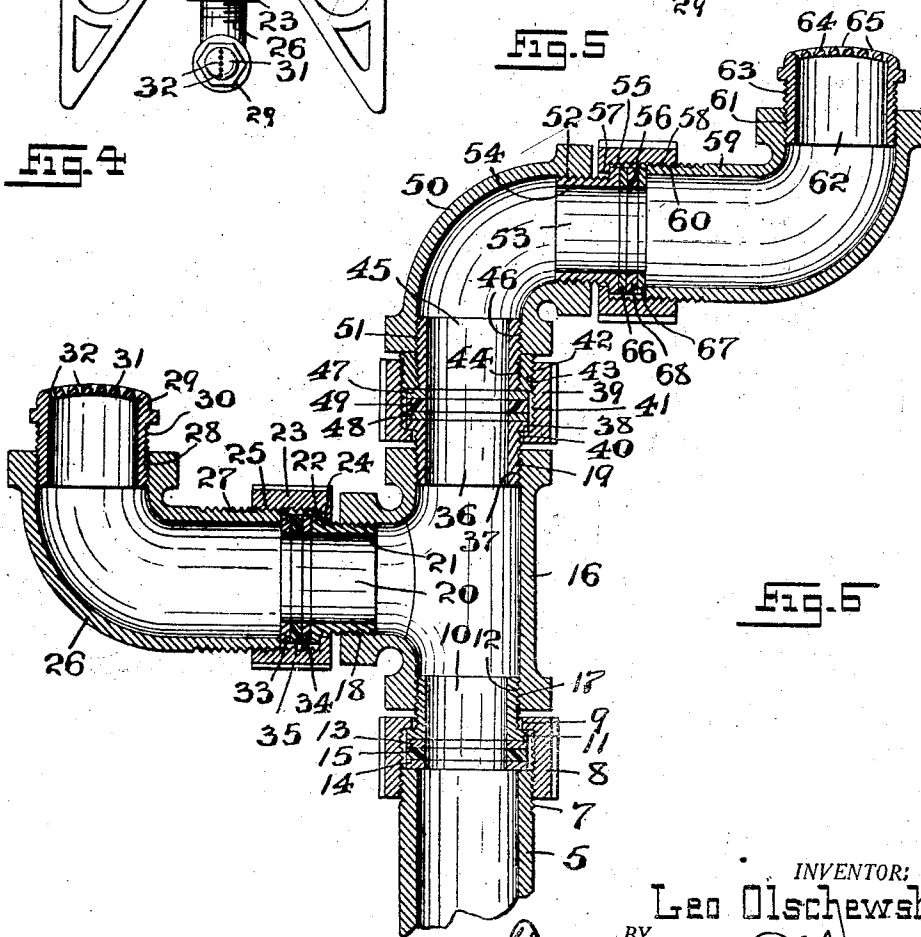


FIG. 6

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3 Sheets-Sheet 3

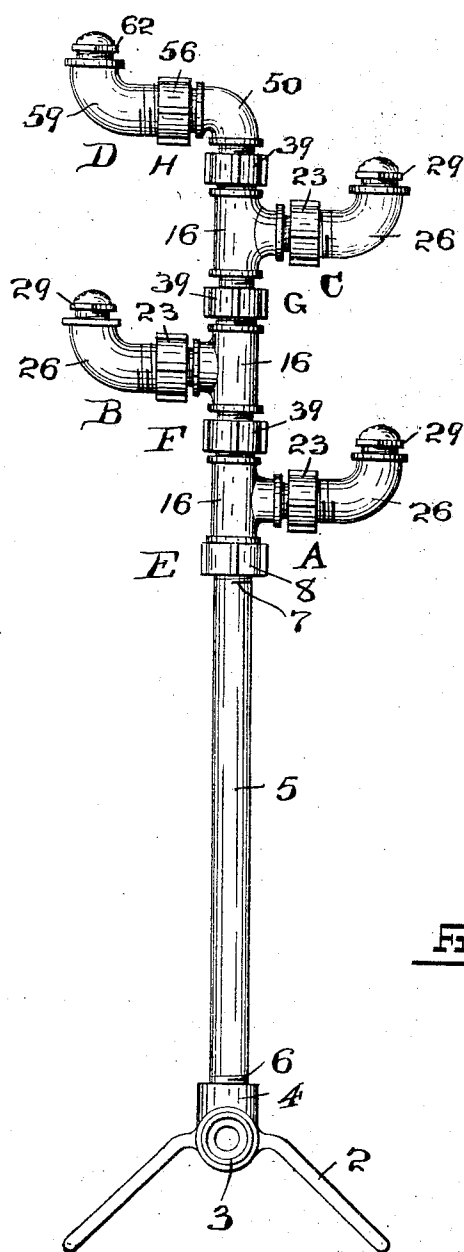


FIG. 7

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UNITED STATES PATENT OFFICE.

LEO OLSCHESKI, OF IRVINGTON, NEW JERSEY.

SPRINKLER.

Application filed December 6, 1921. Serial No. 520,384.

To all whom it may concern:

Be it known that I, LEO OLSCHESKI, a citizen of the United States, residing at Irvington, in the county of Essex and State of New Jersey, have invented certain new and useful Improvements in 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 and use the same, reference being had to the accompanying drawings, and to characters of reference marked thereon, which form a part of this specification.

This invention has reference, generally, to improvements in sprinklers or irrigating devices; and, the present invention relates, more particularly, to a novel and simple construction of sprinkler, in the form of a stand provided with a plurality of rotatably and movably disposed conveyor members or elements, each member or element being provided with a sprinkler-cap, and the said conveyor members or elements being variously movably adjustable with relation to each other, and being also rotatably disposed with relation to the vertical stand-pipe of the sprinkler, with a view of adapting the device for variously sprinkling different, and larger and smaller areas, without shutting off the flow of the irrigating or sprinkling medium, and without moving the sprinkler-stand from one place to another over a given or pre-determined area.

The present invention has for its principal object to provide a novel and simply constructed sprinkler comprising a main and vertically disposed stand-pipe, provided with a plurality of movable conveyor-members or elements, each provided with a sprinkler-cap, said members or elements being rotatably disposed with relation to each other for sprinkling alternately an area to the right or to the left of the stand-pipe, or for sprinkling at one and the same time upon opposite sides of the stand-pipes, the sprinkling faces of the sprinkler-caps being adapted to be variously set at different angles to the vertical axial plane of the stand-pipe; and the conveyor-members or elements being also rotatably disposed with relation to the vertical stand-pipe, for sprinkling in any portion of area lying in a large or small sector of a circle, all without having to change the position of the sprinkler-

stand, and without any danger of becoming wet in making the desired changes.

Other objects of the present invention not at this time more particularly enumerated will be clearly understood from the following detailed description of the present invention.

With the various objects of the present invention in view, the said invention consists, primarily, in the novel sprinkler-stand hereinafter more fully set forth; and the said invention consists, furthermore, in the novel arrangements and combinations of the various devices and parts, as well as in the details of the construction of the said parts, all of which will be more fully described in the following specification, and then finally embodied in the clauses of the claims, which are appended to and which form an essential part of the said specification.

The invention is clearly illustrated in the accompanying drawings, in which:—

Figure 1 is a side elevation of a sprinkler-stand, showing one embodiment of the principles of the present invention, and Figure 2 is a top view of the same, said views showing a pair of articulating or movable conveyor-members or elements, each provided at its free end with a sprinkler-cap, moved into position so that the sprinkling is done on one side of the stand.

Figure 3 is a view, similar to said Figure 2, but showing said articulating or movable conveyor-members or elements, and their sprinkler-caps moved into a position opposite from that represented in said Figure 2, so that the sprinkling is done on the other side of the stand.

Figure 4 is another top view of the device, showing said articulating or movable conveyor-members or elements moved in a plane at right angles to the positions of said members or elements represented in said Figures 2 and 3, with the sprinkler caps shown in position for throwing a spray or sheet of water, vertically with relation to the plane of the surface which is being sprinkled; and Figure 5 is another top view, showing the two articulating or movable conveyor-members or elements set at right angles to each other.

Figure 6 is a vertical sectional representation of the upper portion of the stand-pipe of the sprinkler, and the movable conveyor-members or elements and of their

sprinkler-caps, connected therewith, said view being made on an enlarged scale.

Figure 7 is a side elevation of a sprinkler-stand provided with a multiplicity of articulating or movable conveyor-members or elements, each provided with a sprinkler-cap, and all arranged according to and embodying the principles of the present invention.

Similar characters of reference are employed in all of the said above described views, to indicate corresponding parts.

Referring now to the several figures of the drawings, the reference-character 1 indicates, in general, one form of sprinkler embodying the principles of the present invention, the same comprising a suitably formed base, as 2, which is provided with a suitably constructed tubular fitting 3, to which may be attached, in a usual manner, a hose for conducting water to and into said fitting. This fitting is provided with an upwardly extending outlet-member, as 4, to which is attached the lower screw-threaded end-portion 6 of a vertical stand-pipe 5, of any suitable length, the upper end-portion of said stand-pipe being also provided with a screw-thread, as 7. Mounted upon this screw-threaded end-portion 7, as shown more particularly in Figure 6 of the drawings, is a union 8, the upper portion of which is made with an inwardly extending annular flange 9, for rotatably connecting therewith the outwardly extending annular flange 11 of a coupling 10, said coupling being also provided with an externally screw-threaded surface-portion, as 12. To provide a leak-proof connection, without interfering with the rotatable motion of the coupling 10, there is arranged between the flanged end-portion of the coupling and the end-surface of the stand-pipe 5, a pair of perforated metal discs or washers, as 13 and 14, and an intermediately disposed non-metallic gasket or washer 15, made of leather, rubber, or other analogous packing material.

Suitably screwed upon the screw-threaded portion 12 of the coupling 10, so as to turn with the same, when the coupling is rotated, is the internally screw-threaded inlet-portion 17 of a T-fitting 16, said fitting being provided with the usual internally screw-threaded outlet-members or portions 18 and 19, arranged at right angles to each other, as is usual with this class of fittings. Screwed into the internally screw-threaded outlet-member 18 of said T-fitting is the externally screw-threaded surface-portion 21 of another coupling 20 provided with an outwardly extending annular flange 22. Rotatably mounted upon said coupling 20, against the flange 22 thereof, is the inwardly extending annular flange 24 of a union 23, the inner surface-portion of which is internally screw-threaded, as at 25. Screwed

into this screw-threaded portion 25 is the screw-threaded portion 27 of an elbow 26, said elbow having screwed into its other internally screw-threaded portion 28, the screw-threaded portion 30 of a sprinkler-cap 29 provided in its convexly formed end-wall 31 with a series of openings or perforations 32, usually extending in a single line diametrically across the surface of the said end-wall. To provide a leak-proof connection, without interfering with the rotatable motion of the union 23, there is arranged between the flanged end-portion of said union and the end-surface of said elbow 26, a pair of metal discs or washers, as 33 and 34, and an intermediately disposed non-metallic gasket or washer 35, made of leather, rubber, or other analogous packing material.

Screwed into the internally screw-threaded outlet-member 19 of the T-fitting 16 is the externally screw-threaded surface-portion 37 of another coupling 36 which is provided with an outwardly extending annular flange 38. Rotatably mounted upon said coupling 36, against the flange 38 thereof, is the inwardly extending flange 40 of a union 39, the inner surface-portion of which is screw-threaded, as at 41. Screwed into this screw-threaded portion 41 is the externally screw-threaded surface-portion 43 of a ring or collar 42, which is also internally screw-threaded, as at 44, to receive the externally screw-threaded surface-portion 46 of another coupling 45.

To provide a leak-proof connection, without interfering with the rotatable motion of the union 39, there is arranged between the flanged end-portion 38 of the coupling 36 and the end-surfaces of the ring or collar 42 and the coupling 45, a pair of metal discs or washers, as 47 and 48, and an intermediately disposed non-metallic gasket or washer 49, made of leather, rubber or other analogous material. Screwed upon the externally screw-threaded portion 46 of the coupling is the internally screw-threaded inlet-portion 51 of another elbow 50, said elbow being also provided with an internally screw-threaded outlet-portion 52, into which is screwed the externally screw-threaded portion 54 of a coupling 53 which is also provided with an externally extending annular flange 55.

Rotatably mounted upon said coupling 53, against the flange 55 thereof, is the inwardly extending flange 57 of a union 56, the inner surface-portion of which is interiorly screw-threaded, as at 58. Secured into this screw-threaded portion 58 is the screw-threaded inlet-portion 60 of an elbow 59, said elbow having screwed into its other internally screw-threaded portion 61, the screw-threaded portion 63 of a sprinkler-cap 62 provided in its convexly formed end-wall 64 with a

series of openings or perforations 65, usually extending in a single line diametrically across the surface of the said end-wall.

To provide a leak-proof connection, without interfering with the rotatable motion of the union 56, there is arranged between the flanged end-portion 55 of the coupling 53 and the end-surface of the elbow 59, a pair of perforated metal discs or washers 66 and 67, and an intermediately disposed non-metallic gasket or washer 68, made of leather, rubber, or other analogous packing material.

The use of the various metal discs or washers in conjunction with the non-metallic gasket or washers, in addition to providing a positive leak-proof connection, also prevents the non-metallic gaskets or washers, when the assembled parts are moved or turned for various adjustments, from becoming unduly worn or marred, as will be clearly evident.

While in the foregoing description I have set forth, and in the accompanying drawings I have shown sprinkler caps of the general construction described and claimed in another application for Letters Patent filed by me on the 24th day of September, 1921, Serial Number 502,989, it will be clearly understood that other forms of sprinkler caps may be employed, if desired.

Referring now to Figure 7 of the drawings, it will be seen that the stand-pipe 5 of the sprinkler may be provided with a multiplicity of articulating or movable elements, each being provided with a sprinkler cap, in this instance four elements, as A, B, C and D being employed instead of two elements, as shown in Figures 1 to 6 inclusive, the member A being rotatably or movably connected with the stand-pipe 5 by means of an articulating coupling-joint E. The two members A and B are rotatably connected by means of a coupling-joint F; similarly the two members B and C are also rotatably connected by means of a coupling-joint G; and in a like manner the two members C and D are rotatably connected by means of a coupling-joint H. In all other respects, the details of the construction of the several members A, B, C and D, as well as the details of construction of the several coupling-joints and other parts connected therewith, are the same as those described in the foregoing specification, in connection with said Figures 1 to 6 inclusive, and any further description of the same is therefore deemed unnecessary.

Of course, it will be understood that the number of such outlet members or elements may be decreased or increased, without departing from the scope of the present invention.

I claim.

1. A sprinkler comprising a stand-pipe

having a screw-threaded portion, a flanged union screwed thereon, a screw-threaded and flanged coupling connected with said union, a packing between said union and coupling and the end of said stand-pipe, a T-fitting screwed upon said coupling, a screw-threaded and flanged coupling connected with one of the outlets of said T-fitting, a flanged union rotatably connected with said last-mentioned coupling, an elbow screwed into said last-mentioned union, and a sprinkler-cap connected with said elbow, a packing between said coupling and union and the end of said elbow, a flanged and screw-threaded coupling screwed into the other outlet of said T-fitting, a flanged and screw-threaded union rotatably connected with said last-mentioned coupling, a screw-threaded sleeve screwed into said last-mentioned union, another flanged and screw-threaded coupling screwed into said sleeve, an elbow screwed upon said latter coupling, a packing between the flanged end-portions of said last-mentioned couplings, a flanged and screw-threaded coupling screwed into the outlet-portion of said last-mentioned elbow, a flanged and screw-threaded union connected with said last-mentioned coupling, an elbow screwed into said last-mentioned union, and a sprinkler-cap connected with said last-mentioned elbow, and a packing between said last-mentioned coupling and union and the said last-mentioned elbow.

2. A sprinkler comprising a stand-pipe having a screw-threaded portion, a flanged union screwed thereon, a screw-threaded and flanged coupling connected with said union, a packing between said union and coupling and the end of said stand-pipe, a T-fitting screwed upon said coupling, a screw-threaded and flanged coupling connected with one of the outlets of said T-fitting, a flanged union rotatably connected with said last-mentioned coupling, an elbow screwed into said last-mentioned union, and a sprinkler-cap connected with said elbow, a packing between said coupling and union and the end of said elbow, a flanged and screw-threaded coupling screwed into the other outlet of said T-fitting, a flanged and screw-threaded union rotatably connected with said last-mentioned coupling, a screw-threaded sleeve screwed into said last-mentioned union, another flanged and screw-threaded coupling screwed into said sleeve, an elbow screwed upon said latter coupling, a packing between the flanged end-portions of said last-mentioned couplings, a flanged and screw-threaded coupling screwed into the outlet-portion of said last-mentioned elbow, a flanged and screw-threaded union connected with said last-mentioned coupling, an elbow screwed into said last-mentioned union, and a sprinkler-cap connected with said last-mentioned elbow, and a pack-

ing between said last-mentioned coupling and union and the said last-mentioned elbow, the several packings in each instance comprising a pair of perforated metallic discs, and an intermediately disposed non-metallic disc.

In testimony that I claim the invention

set forth above I have hereunto set my hand this 1st day of December, 1921.

LEO OLSCHESKI.

Witnesses:

FREDK. C. FRAENTZEL,
EVA E. DESCH.