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GROUP SPRINKLING APPARATUS

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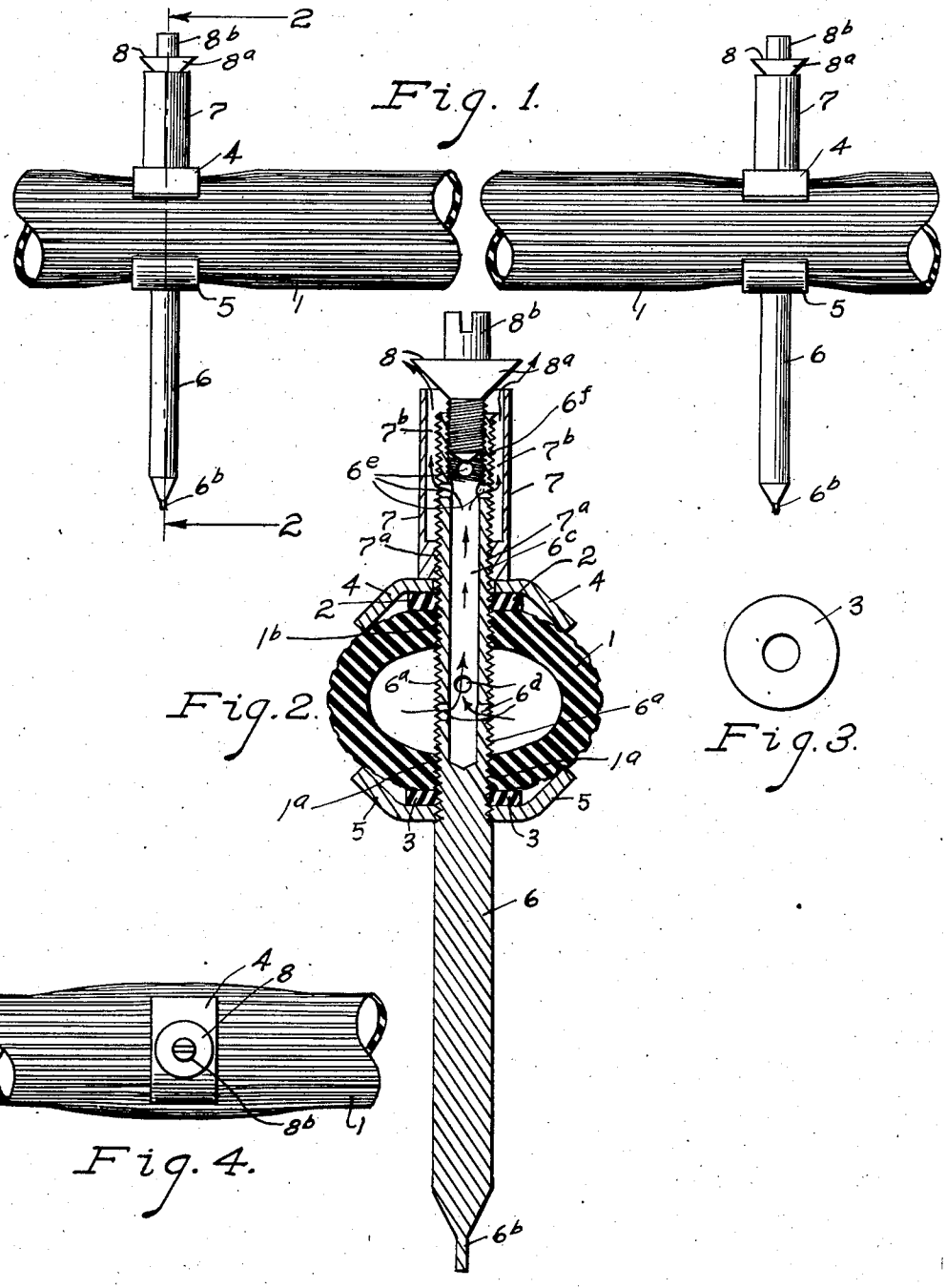

Fig. 1.

Fig. 2.

Fig. 3.

Fig. 4.

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GROUP SPRINKLING APPARATUS

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4 Claims. (Cl. 299—106)

My invention relates to a sprinkling apparatus in which a plurality of sprinklers are arranged in groups in connection with a hose, such as an ordinary garden hose and the objects of my invention are:

First, to provide a group sprinkling apparatus of this class in which several sprinkler units may be connected with a garden hose in spaced relation to each other and serve as a support for the hose as well as for sprinkling purposes;

Second, to provide a sprinkling apparatus of this class in which a part of the sprinkler unit also serves as a support for supporting the hose against movement;

Third, to provide an apparatus of this class in which the sprinkler and the support are rigidly connected with the hose in predetermined spaced relation from each other;

Fourth, to provide a group sprinkling apparatus of this class in which the water pressure in the hose tends to form a sealed joint between the hose and the sprinkler unit;

Fifth, to provide an apparatus of this class in which each sprinkler unit extends through the hose for rigid and positive connection therewith;

Sixth, to provide a group sprinkling apparatus of this class in which one of the water distributing members also forms a clamping means for securing the sprinkler unit to the hose; and

Seventh, to provide a sprinkling apparatus of this class which is very simple and economical of construction, easy to apply, applicable for use in connection with conventional garden hose and which will not readily deteriorate or get out of order.

With these and other objects in view as will appear hereinafter, my invention consists of certain novel features of construction, combination and arrangement of parts and portions as will be hereinafter described in detail and particularly set forth in the appended claims, reference being had to the accompanying drawing and to the characters of reference thereon which form a part of this application in which:

Figure 1 is a fragmentary side elevational view of my apparatus assembled showing two units; Fig. 2 is an enlarged sectional view taken from the line 2—2 of Fig. 1 showing some of the parts and portions in elevation to facilitate the illustration; Fig. 3 is a detailed plan view of one of the sealing washers and Fig. 4 is a top or plan view of a fragmentary portion of the hose with one of the sprinkling units in connection therewith.

Similar characters of reference refer to similar parts and portions throughout the several views of the drawing.

The hose member 1, sealing washers 2 and 3, clamp members 4 and 5, combined support and water conductors 6, water distributing and clamping sleeve 7, and water distributing adjusting nozzle member 8 constitute the principal parts of my group sprinkler apparatus.

The hose member 1 is of any conventional type of garden or irrigation hose. A suitable length hose of this class is used and the sprinkler units are placed in the hose a suitable distance apart about five or six feet apart being the preferred distance, and various lengths hose may be made to suit.

One unit of the sprinkler unit will now be described. The hose is provided with relatively small holes 1*a* and 1*b* in opposed relation to each other and the screw threaded end 6*a* is inserted first through the hole 1*a* and then through the hole 1*b* in the hose member 1 to form a tight joint with the hose member side wall. Before the member 6 is inserted into the holes 1*a* and 1*b*, however, it is provided with a clamp member 5 which is screw threaded on the threads 6*a* of the member 6 to the end of the thread as shown best in Fig. 2 of the drawing and positioned on this threaded portion 6*a* and resting against the upper face of the clamp member 5 is a washer 3 which also is provided with a relatively small hole so that it stretches over the screw threaded portion 6*a* of the member 6 thus providing additional sealing means interposed between the clamp member 5 and the hose 1. On the other side of the hose is provided another washer 2 which is similar to the washer 3 and positioned over the threaded end and adapted to slip thereon is another clamp member 4 similar to the clamp member 5 except that it is not provided with threads, but slides over the outer side of the thread 6*a*. Screw threaded on the upwardly extended end of the threaded portion 6*a* of the member 6 is a water distributing and clamping sleeve 7 which is a hollow cylindrical member provided with a screw threaded lower end 7*a* which is adapted to abut against the upper side of the clamp member 4 and when the member 7 is tight thereon tends to clamp the hose between the clamp members 4 and 5 and compress the washers 2 and 3 and also compress the hose so that it is substantially oval shaped, as shown best in Fig. 2 of the drawing, so that when water pressure is permitted in the hose, it tends to seal the joints between the hose

and the member 6 by compressing the washers 2 and 3. This sleeve member 7 is provided with an open portion 7b which permits the water to pass upwardly and out at the upper end of the sleeve 7.

The member 6 is provided with a pointed end 6b to facilitate positioning it in the ground for supporting the hose. It is also provided with a bore 6c which extends downwardly some distance from the upper end sufficient distance to reach below the middle of the hose 1, as shown best in Fig. 2 of the drawing.

Communicating with this bore 6c are water inlet orifices 6d which are preferably positioned at right angles to each other and are for the purpose of receiving the water from the hose into the bore 6c. Near the upper end of the member 6 are also provided outlet orifices 6e which are preferably positioned at right angles to each other as shown and are adapted to permit the water to pass out into the opening 7b in the sleeve member 7.

The upper end of the member 6 is internally threaded at 6f in which is screw threaded the water distributing and adjusting nozzle member 8 which is provided with a bevelled head portion 8a and is adapted to be adjusted upwardly and downwardly to limit the outlet between the upper edge of the sleeve member 7 and the head portion 8a of the nozzle member 8. It is provided with an upwardly extending slotted lug portion 8b for receiving a screw driver for adjusting the nozzle to regulate the flow of water.

Though I have shown and described a particular construction, combination and arrangement of parts and portions, I do not wish to be limited to this particular construction, combination and arrangement, but desire to include in the scope of my invention the construction, combination and arrangement substantially as set forth in the appended claims.

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

1. In a group sprinkling apparatus of the class described, the combination with a conventional garden hose, of a combined support and water conductor piercing through the hose at its opposite sides and forming a vertical support for the hose, said support being hollow from the interior of the hose upwardly and communicating with the interior of the hose, and a sprinkling nozzle at the upper end of said support communicating with the hollow portion thereof.

2. In a group sprinkling apparatus of the class described, the combination with a conventional garden hose, of a combined support and water conductor piercing through the hose at its opposite sides and forming a vertical support for the hose, said support being hollow from the interior of the hose upwardly and communicating with the interior of the hose, a sprinkling nozzle at the upper end of said support communicating with the hollow portion thereof, and spaced clamp members on said support on opposite sides of said hose.

3. In a group sprinkling apparatus of the class described, the combination with a conventional garden hose, of a combined support and water conductor piercing through the hose at its opposite sides and forming a vertical support for the hose, said support being hollow from the interior of the hose upwardly and communicating with the interior of the hose, a sprinkling nozzle at the upper end of said support communicating with the hollow portion thereof, spaced clamp members on said support on opposite sides of said hose, and resilient washers interposed between said clamp members and the side walls of said hose on opposite sides.

4. In a group sprinkling apparatus of the class described, the combination with a conventional garden hose, of a plurality of sprinkler units secured to said hose in spaced relation to each other, each of said sprinkling units including a support adapted to be forced into the ground at its lower end and piercing through the opposite sides of the hose and provided with a bore at its upper end communicating with the interior of the hose, a sprinkling nozzle at the upper end of said support, means for clamping said hose tightly on the support for sealing the joint between said support and the hose, and a portion of said nozzle forming a portion of the clamping means.

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