J. PETERSON.

COMBINED SPRAY AND SPRINKLER.

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1,207,790.

Patented Dec. 12, 1916.

Fig. 1

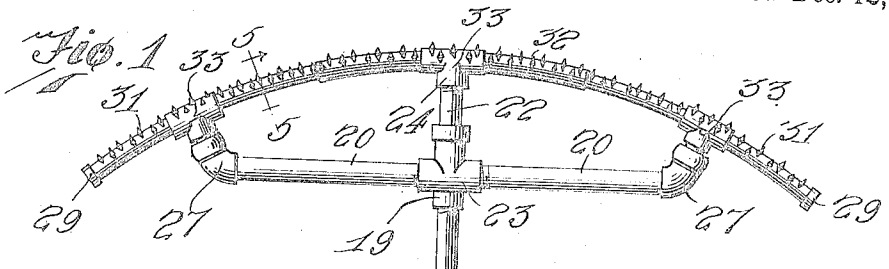


Fig. 4.

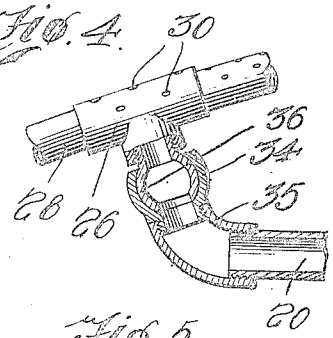


Fig. 3.

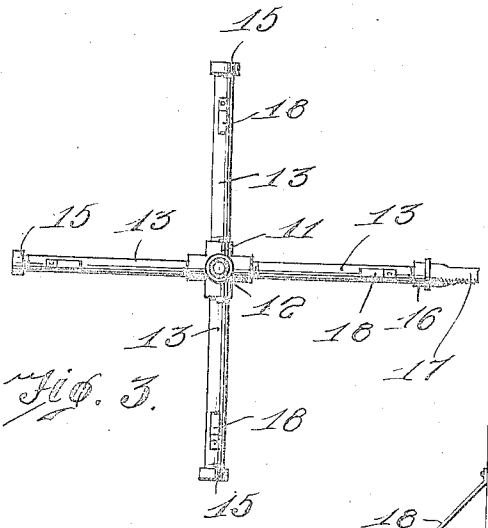


Fig. 5.

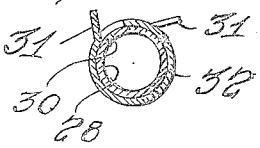
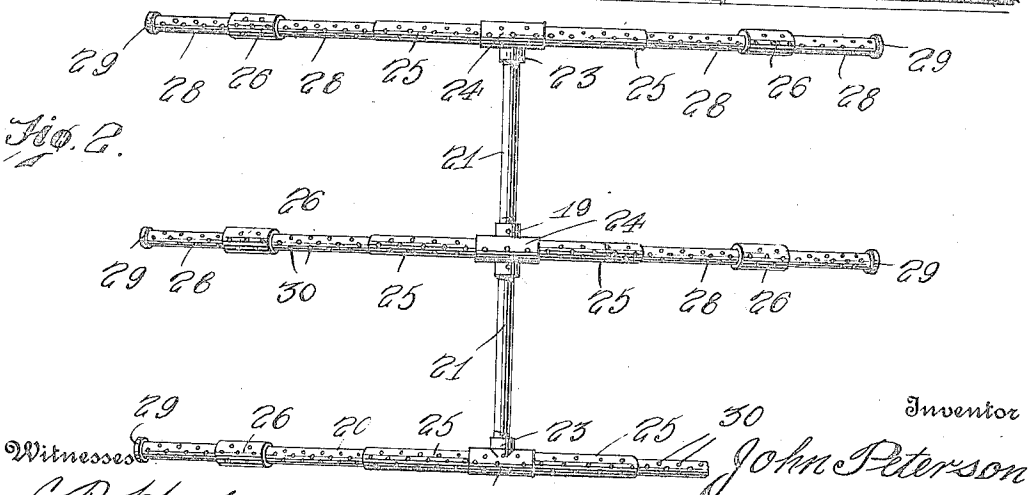


Fig. 2.



Witnesses

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COMBINED SPRAY AND SPRINKLER.

1,207,790. Specification of Letters Patent. Patented Dec. 12, 1916.

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To all whom it may concern:

Be it known that I, JOHN PETERSON, citizen of the United States, residing at Lake George, in the county of Warren and State of New York, have invented certain new and useful Improvements in Combined Sprays and Sprinklers, of which the following is a specification.

This invention relates to spraying instruments such as are frequently used on lawns and yards and more particularly relates to spraying devices combining the functions of an ornamental spray and a lawn sprinkler.

As a particular object, this invention contemplates the provision of a spraying instrument of the described character which may be so regulated as to produce in turn an ornamental mist-like fountain spray or a sprinkling spray for irrigation purposes.

A further object is to provide novel means for the regulation by a simple, quick manual adjustment of the style of spray it is temporarily desired to use and to further enable such means to be dispensed with or to be replaced at will.

An object of equal importance is to provide a device of this character which shall be readily portable and easily "taken down" when it is desired to dispose of the instrument in storage so that it shall occupy a minimum amount of space.

A coördinate object with the foregoing is to so construct a device of the type described with such regard to proportion, number and arrangement of parts as to render the same capable of being cheaply manufactured while at the same time durable and efficient in operation.

The above and additional objects which will become apparent as this explanatory description proceeds are accomplished by such means as are illustrated in the accompanying drawings, described in the following specification, and then more particularly pointed out in the claims which are appended hereto and form a part of this application.

With reference to the drawings, wherein there is illustrated the preferred embodiment of this invention as it is reduced to practice, and throughout the several views of which like characters of reference designate similar parts, Figure 1 is an elevational view of the combined sprayer and sprinkler comprehended by this invention, Fig. 2 is a plan view with the regulating sleeves removed, Fig. 3 is a section taken through the device showing the base in plan, Fig. 4 is a sectional detail of an improved form of coupling adapted for use with this invention, and Fig. 5 is a sectional view taken on the plane indicated by the line 5—5 of Fig. 1.

Proceeding now with the description of the drawings, the numeral 10 indicates a base union being of the type known as "five-way" unions having four pipe receiving portions 11 set at 90° to each other in the same plane and a fifth portion 12 set at right angles to the plane of the previous four. Each of the portions 11 receives the threaded end of a pipe section 13 while the portion 12 carries a similarly threaded upstanding main pipe 14 of the device. Three of the pipe sections 13 have their outer ends closed by removable caps 15 while the remaining pipe 13 carries a coupling 16 whereby it is removably connected to a hose or other water conductor 17 which connects at its other end with any suitable source of water supply, not shown on the drawings. Suitable braces 18 serve to maintain the upstanding central pipe 14 and the base sections 13 in rigid relation to each other. A "six-way" union 19 is threadingly received upon the upper extremity of the main pipe 14 and serves to connect the latter with a pair of horizontal branch pipes 20, a pair of horizontally-transverse lead pipes 21 and an upstanding continuation 22 of the pipe 14. "Four-way" unions 23 are threaded onto the free ends of the lead pipes 21 for the purpose of supporting and supplying other pairs of branches 20 and vertical sections 22 comprising a sprinkling unit.

It will be obvious that any number of sprinkling units may be positioned in train in this manner although a convenient form including three of these units as illustrated in Fig. 2 may be said to be best adapted for the ordinary use. "Three-way" unions 24 are carried on the vertical pipe sections 22 to receive the arcuate spraying pipes 25 which are threaded into each end and constitute the center portion of each sprinkling unit. Similar "three-way" unions 26 are

supported on the branch pipes 20 by the upwardly bent couplings 27 and carry smaller arcuate spraying sections 28 adapted to be received in the larger sections 25 so that a continuous arcuate spraying surface is formed for each unit as illustrated in Fig. 1. Caps 29 serve as closures for the free ends of the outer arcuate sections 28.

Each of the spray pipes 25 and 28 as well as the unions 24 and 26 are apertured as indicated at 30 in order to provide an egress for the spray. As a means for regulating the quality of this spray this invention contemplates the provision of rotatable sleeves adapted to surround the spraying surface of each sprinkling unit as is illustrated in Fig. 5. V-shaped integral tongues 31 are upwardly struck from each of these sleeves 32 at intervals along the upper surface thereof such that the openings in the sleeve occasioned by the upward bending of the tongues 31 are adapted to register with the spray apertures 30 which it may be noted are preferably spaced in staggered relation from each other. These sleeves 32 provided for the unions 24 and 26 differ from the sleeves indicated by the same numeral which are provided for the arcuate spraying sections both in size and in the provision of a cut out portion 33 formed in the latter which is necessary as will be obvious upon a persual of Fig. 1 in order to render their desired rotation possible.

Instead of the pipe coupling 27 a ball joint coupling may be used which is illustrated in Fig. 4. This ball coupling comprises a substantially spherical joint 34 connected to the branch 20 by the threaded and curved sleeve joint 35 and adapted to contain a partially rotatable and hollow ball 36 which is in turn threaded into one of the portions of the "three-way" union 26. The partial rotation afforded by the ball 36 enables the proper positioning of the arcuate portions 28 interposed between the unions 26 and the similar but larger arcuate spray pipe 25 since the threads on the sleeve 35 prevent the adoption of the usual manner of placing these portions of each sprinkling unit in connection with the spray pipe 25 and the branch 20 which is normally accomplished by simply wedging the unthreaded coupling 27 upon the branch pipe after the pipes 28 and 25 have been connected in the obvious manner.

In practice the sprinkling units are assembled upon the central supportnig pipe 14 in the manner described and the device will distribute water over the surrounding lawn when properly supplied by means of the hose 17. As far as regards the regulation of the jets of the spray issuing from the apertures 30, it will be understood that with the tongues 31 of the rotatable sleeve positioned as illustrated in Fig. 5 that each issuing jet will impinge upon the slanting surface of the tongue and be disseminated in a fine mist particularly adapted for ornamental purposes when the device is so positioned as to catch the rays from the sun. Should it be desired to actually water or irrigate the lawn the sleeve may be rotated so that the issuing jets are forced outwardly through the apertures 30 clear of the tongues 31, or yet again portions of the spraying units may be cut off independently of the remainder by merely rotating the proper sleeve so that the solid portion thereof serves as a closure for the spray apertures of the pipe it is desired to shut off.

While in the foregoing, however, there has thus been illustrated in the drawings and described in the specification, such combination arrangement of elements as constitute the preferred embodiment of this invention, it is desired to emphasize the fact that such minor changes in the matters of proportion and degree may be made in later adaptations of this device as shall not alter the spirit of the invention as defined in the appended claims.

What is claimed is:—

1. The combination with an upright central pipe, of horizontal lead pipes communicating with said central pipe, a plurality of horizontal branch pipes carried by each of said lead pipes and said central pipe, fitted sleeve connections carried by said branch pipes, a plurality of downwardly curved parallel spray pipes mounted in said sleeve connections, ball and socket joints between said connections and said spray pipes, a perforate sleeve rotatably mounted on said spray pipes and having tangentially disposed fingers which may be moved into position to break up and scatter streams of water from the spray pipe.

2. A combined sprayer and sprinkler including a base formed of pipe sections, means connecting one of said sections with a suitable source of water supply, an upstanding central pipe, lead pipes communicating with said central pipe, branch pipes communicating in pairs with each of said lead pipes and said central pipe, unions carried at the extremities of said branch pipe, arcuate and apertured spray pipes positioned in said unions, rotatable sleeves embracing said couplings and said spray pipes, and tongues struck out from said sleeves in registration with the apertures of said embraced pipes as a means for regulating the spraying or sprinkling jet.

3. A combined sprayer and sprinkler including a base formed of pipe sections, a fluid supply connected to one of said sections, an upstanding central pipe connected to all of said sections, lead pipes communicating with said central pipe, branch pipes communicating with each lead pipe, a plu-

rality of similarly curved parallel spray pipes carried by said lead and branch pipes, rotatable sleeves carried by each of said spray pipes, and tongues projecting tangentially from said sleeves for directing the dissemination of spray when water from the spray pipes impinges upon said tongues.

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

JOHN PETERSON.

Witnesses:
EDW. QUINLAN,
ROBERT O. WARD.