W. C. TODD & J. W. POMEROY.

TRAVELING LAWN SPRINLKER.

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1,108,528. Patented Aug. 25, 1914.

Fig. 1.

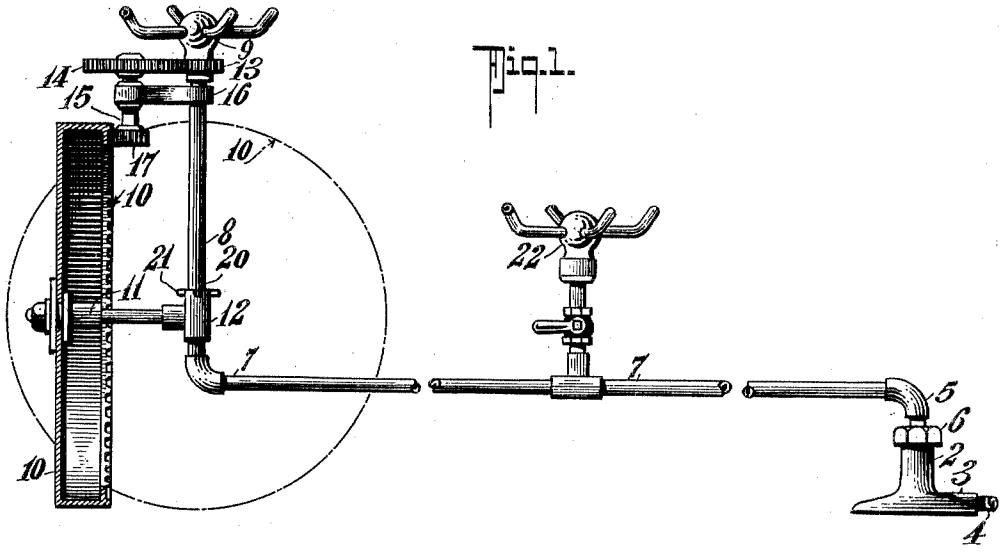


Fig. 2.

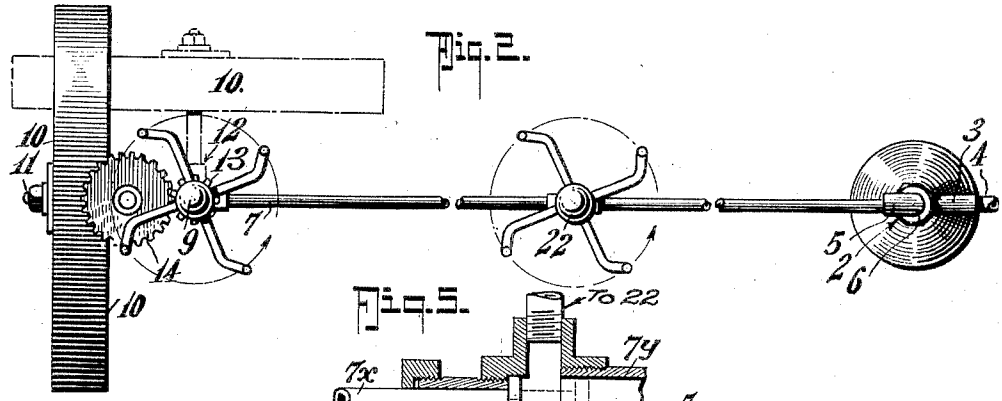


Fig. 5.

Fig. 3.

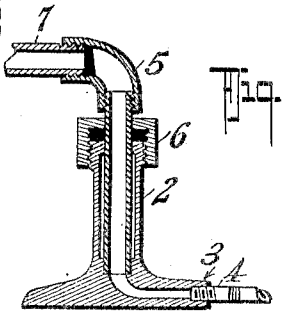
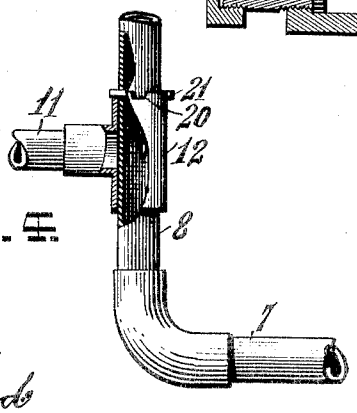


Fig. 4.



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TRAVELING LAWN-SPRINKLER.

1,108,528. Specification of Letters Patent. Patented Aug. 25, 1914.

Application filed August 25, 1913. Serial No. 786,470.

To all whom it may concern:

Be it known that we, WILLIAM C. TODD and JAMES W. POMEROY, citizens of the Dominion of Canada, residing at Victoria, in the Province of British Columbia, Canada, have invented certain new and useful Improvements in Traveling Lawn-Sprinklers, of which the following is a specification.

This invention relates to a device wherein a rotatable lawn sprinkler of approved design is mounted on the free end of a pipe which is radially rotatable about a central standard or pivot to which the water delivery hose pipe is connected; whereby the end of the pipe on which the sprinkler is mounted is constrained to travel in a circular path and the sprinkler is enabled to distribute its spray over an area considerably beyond the circular reach of the sprinkler itself.

The traveling motive power is derived from the rotation of the sprinkler and is communicated by gears to the driving wheel which supports the free end of the radial pipe.

In an amplification of the device the operative sprinkler may be supplemented by another non-operative but sprinkling the zone between the pivot standard about which the device rotates and the range of the operative sprinkler.

The invention also comprises a provision whereby the supporting and driving wheel may be moved out of driving engagement with its gear pinion and turned to a position wherein it may rotate parallel to the radial pipe, to facilitate transmission of the sprinkler from place to place.

The invention is particularly described in the following specification, reference being made to the drawings by which it is accompanied, in which:

Figure 1 is a side elevation of the device with the driving wheel in section. Fig. 2 is a plan of the same. Fig. 3, a detail section of the pivot standard and the connection of the radial pipe thereto, and Fig. 4 is a detail showing the provision by which the axle of the driving wheel may be turned to alternate positions. Fig. 5 is a detail view of a modification hereinafter referred to.

In these drawings 2 represents a tubular central standard having provision at 3 in its base for the attachment of the water delivery hose pipe 4. Rotatably supported in this standard 2 and packed against leakage of water by a gland washer at 6 is the downwardly turned end 5 of a horizontally disposed pipe 7 of any convenient length. The free end of this pipe 7 is upwardly turned, as at 8, and on the upper end of 8 is mounted a rotatable sprinkler 9 of any approved design that will accomplish the desired object of operating the driving mechanism as well as that of sprinkling. The free end of 7, with its sprinkler and driving mechanism, is carried on a light wheel 10 which is mounted on an axle 11 projecting at right angles from a sleeve 12 on the upwardly turned end 8 of the radial pipe 7. The face of this wheel 10 is provided with gear teeth into which mesh those of a pinion 17 which is secured on the end of a small shaft 15 rotatably mounted in a member 16 secured on the upper end of the pipe 8, and on the upper end of this shaft 15 is secured a wheel 14 with the teeth of which mesh those of a small pinion 13 secured on the hub of the rotatable sprinkler 9. Rotation of the sprinkler 9 thus supplies a motive power which will drive the carrying wheel 10, which being constrained by the radial pipe 7 will travel in a circle about the pivot standard 2.

The sleeve 12 may be secured on the pipe in any approved manner but to facilitate moving the device from place to place it is preferably mounted on it in a manner that will allow of it being turned from its operative position, which is substantially parallel to the radial pipe 7, to a position normal to that radial pipe, as shown in dot and dash lines in Figs. 1 and 2, so that the plane of rotation of the wheel will be parallel to the line of the pipe length.

As shown in Fig. 4 of the drawing, the sleeve member 12 is a loose fit on the pipe 8, and a pin 21 secured in the pipe rests in one or the other of two sets of notches 20 in the upper edge of the sleeve, which sets of notches are at right angles to each other. The weight of the pipe 7—8 and its connected parts retains the pin in the notches of either position as desired. In moving the wheel 10 to place its plane of rotation parallel to the line of the pipe 7, as shown by dot and dash lines, the teeth of that wheel will move out of driving engagement with its pinion 17, so that the mechanism of the sprinkler will not be rotated while the de-

vice is being moved from place to place. Where it is desired to cover an area greater than twice the range of the sprinkler 9, and the water pressure is sufficient, a second sprinkler 22 may be mounted either on the head of the pivot 5 or on the pipe 7 at a distance from the pivot approximately half the range of the sprinkler. The radial pipe 7 will be made up in lengths convenient for transportation, or for change in length to suit the requirements as hereinbefore set forth, or if preferred, it may be made telescopic, one length sliding within the other. In this case the smaller pipe 7^x toward the outer end may telescope within a larger pipe 7^y connected to the pivot so that the movement inward of the smaller pipe will itself cut off the water supply to the supplementary sprinkler 22. Where a hose pipe is used to deliver water to the pivot standard the driving gear of the operative sprinkler 9 to the supporting wheel 10 will be such as will lift the wheel over the hose pipe lying on the ground, or where it is found necessary to reduce this gearing, a short incline may be placed for the wheel over the pipe to facilitate ascent of the wheel.

A convenient and simple device is thus provided whereby a larger area may be covered by a single or by more sprinklers and will be found effective for the watering of lawns, tennis grounds or the putting green of golf courses.

Having now particularly described our invention, we hereby declare that what we claim as new and desire to be protected in by Letters Patent, is:

1. In a rotatable lawn sprinkler, a central standard, a pipe pivoted at one end in said standard for movement in a horizontal plane, the free end of said pipe extending vertically upward, a re-action sprinkler mounted on the end of the upward extension of said pipe, an axle member mounted on the upward extension of said pipe and projecting in a horizontal direction, a wheel mounted on said axle and supporting the free end of said pipe, said wheel having a peripheral tooth portion, a bracket carried by said upwardly extending end of said pipe, a stub shaft in said bracket, a pinion on said stub shaft meshing with said peripheral tooth portion, and a direct gear connection between said stub shaft and said sprinkler.

2. In a rotatable lawn sprinkler, a central standard, a pipe pivoted at one end in said standard for movement in a horizontal plane, the free end of said pipe extending vertically upward, a re-action sprinkler mounted on the end of the upward extension of said pipe, an axle member mounted on the upward extension of said pipe and projecting in a horizontal direction, a wheel mounted on said axle and supporting the free end of said pipe, said wheel having a peripheral tooth portion, a bracket carried by said upwardly extending end of said pipe, a stub shaft in said bracket, a pinion on said stub shaft meshing with said peripheral tooth portion, a direct gear connection between said stub shaft and said sprinkler, said wheel shaft being swivelly mounted on said upward extension of said pipe whereby it may be swung to disconnect the wheel from said pinion, and means for holding said wheel shaft in its different positions of adjustment.

3. In a rotatable lawn sprinkler, a central standard, a pipe pivoted at one end in said standard for movement in a horizontal plane, the free end of said pipe extending vertically upward, a re-action sprinkler mounted on the end of the upward extension of said pipe, an axle member mounted on the upward extension of said pipe and projecting in a horizontal direction, a wheel mounted on said axle and supporting the free end of said pipe, said wheel having a peripheral tooth portion, a bracket carried by said upwardly extending end of said pipe, a stub shaft in said bracket, a pinion on said stub shaft meshing with said peripheral tooth portion, a direct gear connection between said stub shaft and said sprinkler, said pipe including two sections telescopic one within the other, and a supplemental sprinkling means mounted on the larger of said pipe sections, the smaller of said pipe sections when telescoped past said supplemental sprinkling means serving to cut off the supply of water to said supplemental sprinkling means, substantially as shown and described.

4. In a rotatable lawn sprinkler, a central standard, a pipe pivoted at one end in said standard for movement in a horizontal plane, the free end of said pipe extending vertically upward, a re-action sprinkler mounted on the end of the upward extension of said pipe, an axle member mounted on the upward extension of said pipe and projecting in a horizontal direction, a wheel mounted on said axle and supporting the free end of said pipe, said wheel having a peripheral tooth portion, a bracket carried by said upwardly extending end of said pipe, a stub shaft in said bracket, a pinion on said stud shaft meshing with said peripheral tooth portion, a direct gear connection between said stub shaft and said sprinkler, said wheel shaft being swivelly mounted on said upward extension of said pipe whereby it may be swung to disconnect the wheel from said pinion, means for holding said wheel shaft in its different positions of adjustment, said pipe including two sections telescopic one within the other, and a supplemental sprinkling means mounted on the larger of said pipe sections, the smaller of

said pipe sections when telescoped past said supplemental sprinkling means serving to cut off the supply of water to said supplemental sprinkling means, substantially as shown and described.

5. In a rotatable lawn sprinkler, a central standard to which the water service is delivered, a pipe having one end upturned and the other end pivoted to said central standard, a rotatable lawn sprinkler mounted on the upturned end of said pipe, a wheel supporting the free end of said pipe, an axle for said wheel, and means for connecting said axle to said pipe whereby said wheel may be secured to rotate in a plane at right angles to the line of the radial pipe or parallel thereto.

6. In a traveling lawn sprinkler, a central standard, a pipe having one end upturned and the other end pivoted in said standard, a packing gland carried by said standard for packing the pivot end of said pipe, a reaction sprinkler mounted on the upwardly turned end of said pipe, a sleeve loosely mounted on said upwardly turned pipe end, the upper edge of which sleeve is provided with notches alternately at right angles to one another, a pin projecting from the pipe and designed to enter and be retained in said notches alternatively, a shaft projecting from said sleeve, a supporting wheel rotatably mounted on said shaft, and means for driving said wheel by the rotation of said sprinkler.

7. In a rotatable lawn sprinkler, a central standard, a pipe pivoted at one end in said standard for movement in a horizontal plane, the free end of said pipe extending vertically upward, a reaction sprinkler mounted on the end of the upward extension of said pipe, a wheel supporting said pipe, said wheel having a peripheral tooth portion, a bracket carried by said upwardly extending end of said pipe, a stub shaft in said bracket, a pinion on said stub shaft meshing with said peripheral tooth portion and a direct gear connection between said stub shaft and said sprinkler.

In testimony whereof we affix our signatures in presence of two witnesses.

WILLIAM C. TODD.
JAMES WM. POMEROY.

Witnesses:
EARL E. BOYNTON,
W. A SMITH.