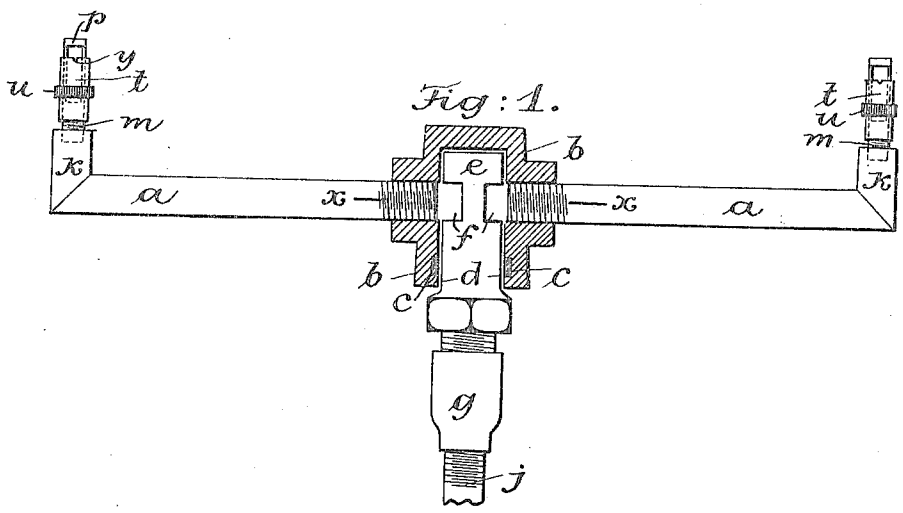
W. E. & W. G. P. MARSH.
ROTARY LAWN SPRINKLER.
APPLICATION FILED JUNE 13, 1914.

1,180,170. Patented Apr. 18, 1916.

Fig: 1.



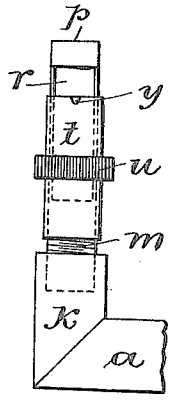


Fig: 2.

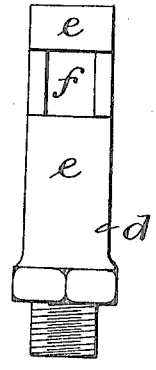


Fig: 4.

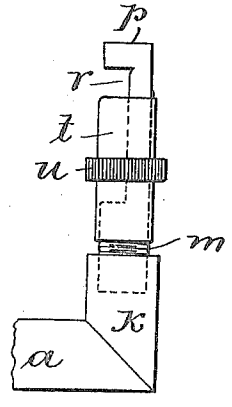


Fig: 3.

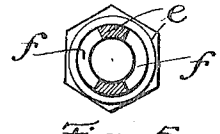


Fig: 5.

Witnesses.
M. E. McKade.

Inventors.
William E. Marsh
Wilfred G. P. Marsh
by James L. Morris,
Attorney

UNITED STATES PATENT OFFICE.

WILLIAM EDWARD MARSH AND WILFRED GEORGE PAGE MARSH, OF CLAREMONT, WESTERN AUSTRALIA, AUSTRALIA, ASSIGNORS OF ONE-FOURTH TO WILLIAM JAMES ROLFE, OF CLAREMONT, AUSTRALIA, AND ONE-FOURTH TO ERNEST ALFRED EVANS, OF FREMANTLE, AUSTRALIA.

ROTARY LAWN-SPRINKLER.

1,180,170. Specification of Letters Patent. Patented Apr. 18, 1916.

Application filed June 13, 1914. Serial No. 844,991.

To all whom it may concern:

Be it known that we, WILLIAM EDWARD MARSH and WILFRED GEORGE PAGE MARSH, both subjects of the King of Great Britain, residing at Otway Street, Claremont, Western Australia, Commonwealth of Australia, have invented certain new and useful Improvements in Rotary Lawn-Sprinklers, of which the following is a specification.

Our invention relates to that class of sprinkler for lawns and other surfaces intended to be irrigated, which sprinklers rotate by the action of the escaping water, and the object of our invention is to construct a sprinkler which works at a minimum of pressure and friction and also throws the water over a maximum area and in a uniform and evenly distributed manner, with the result that no overwatering or no underwatering exists within the area intended to be irrigated.

In order that our invention may be clearly understood the same will be explained with the aid of the attached drawings wherein—

Figure —1— is an elevation of a sprinkler made according to our invention and showing the hub in section. Figs. —2— and —3— are detail views of the nipple spray, Fig. —4— is an elevation of the pivot pipe and Fig. —5— is a sectional plan view on line *x*—*x* of Fig. —1— showing the ports in pivot pipe.

Referring to Fig. —1— *a* are the radial rotary arms of any number and are interscrewed into the hub *b*, said hub having the packing rings inset as shown at *c* and which form a water-tight joint for the bearing surface *d*. This hub *b* freely revolves on the end of a spindle *e* formed with the water exit ports *f* which communicate with the interior of the arms *a*. This spindle *e* is suitably connected by the socket *g* to the water supply pipe *j*, while to the outer ends of the arms by the elbows *k* are connected the nipple sprays whose construction is hereinafter described, such arrangement permitting any variation of angle to be given to the nipples in relation to the radial arms. The hub and thereto connected sprinkler as a whole rides on the spindle *e* and by reason of the upward and outflowing water, a water cushion is maintained for the rotation of the arms, which latter ride on said spindle in a resilient manner with a minimum degree of friction.

By reason of the peculiar construction of the invention the hub and thereto attached arms and nipples may be easily lifted off of the spindle *e* and replaced on another similar spindle at another position of the garden or field. The nipple spray is composed of two parts one being a short tube *m* closed at its upper end *p* and made with a water exit gap or opening *r*. On the lower portion of this tube *m* the sleeve *t* is loosely fitted, said sleeve having a milled rim *u*, whereby it is easily rotated to adjust it to any position on the tube. The sleeve is made with the notch *y*, at which point the water makes exit.

What we claim as our invention and desire to secure by Letters Patent is:—

A rotary sprinkler, comprising, in combination, radial discharge arms, a sprayer for each arm comprising an externally screw threaded tubular member having its inner end secured to the outer end of said arm and having its outer end closed, said member having a semi-circular portion cut out therefrom intermediate its ends, an internally threaded sleeve of a length greater than said cut-out portion mounted on said tubular member and longitudinally adjustable thereon, said sleeve having a V-shaped notch in its upper edge and means on its periphery for rotating it, substantially as and for the purpose set forth.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

WILLIAM EDWARD MARSH.
WILFRED GEORGE PAGE MARSH.

Witnesses:
RICHARD SPARROW,
EDWIN BUTLER.