No. 815,495. PATENTED MAR. 20, 1906.

O. P. WAGGENER.

LAWN SPRINKLER.

APPLICATION FILED APR 23, 1904.

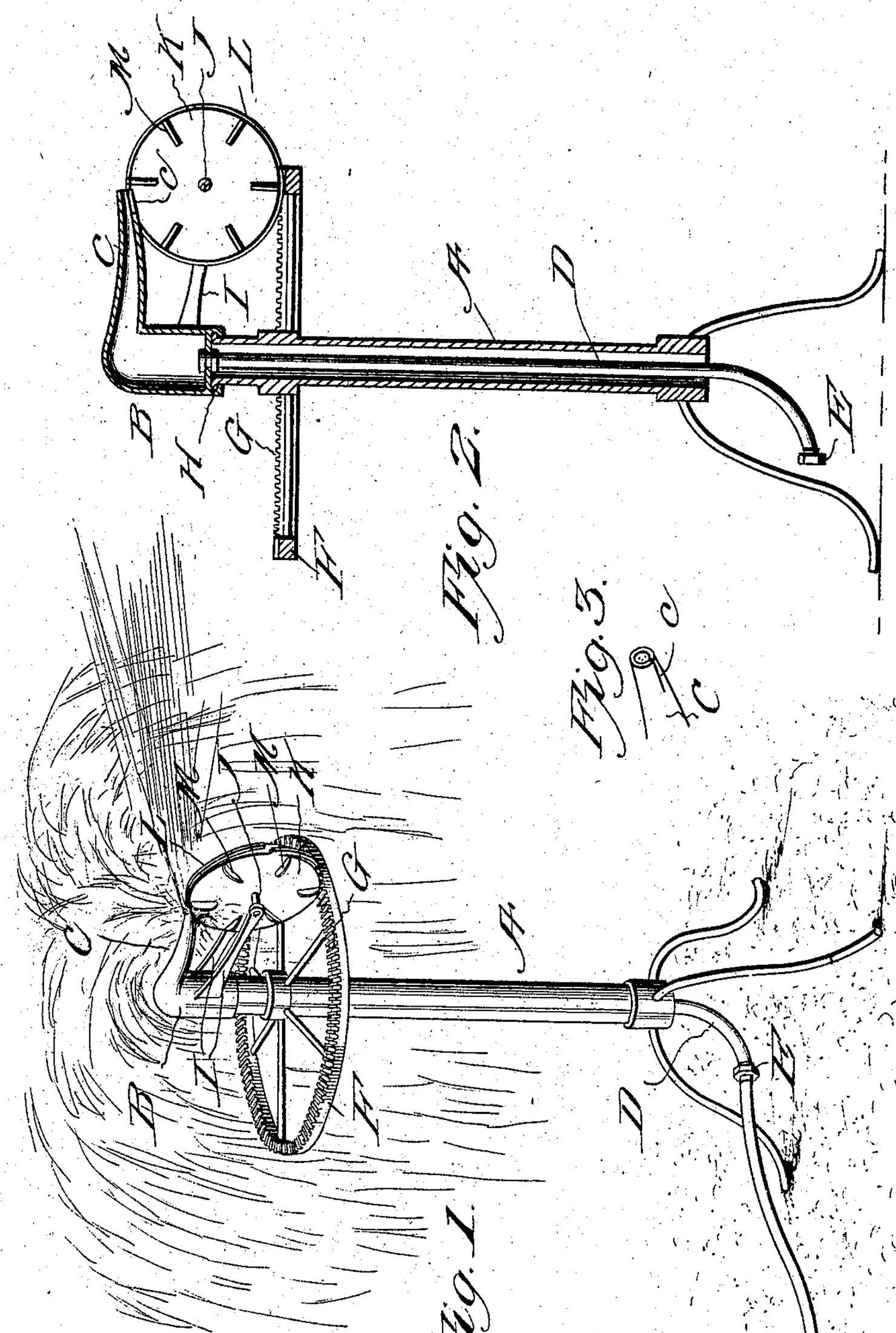

Fig. 2.

Fig. 3.

Witnesses

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OSCAR P. WAGGENER, OF KLAMATH FALLS, OREGON.

LAWN-SPRINKLER.

No. 815,495. Specification of Letters Patent. Patented March 20, 1906.

Application filed April 23, 1904. Serial No. 204,634.

To all whom it may concern:

Be it known that I, OSCAR P. WAGGENER, a citizen of the United States, residing at Klamath Falls, in the county of Klamath and State of Oregon, have invented new and useful Improvements in Lawn-Sprinklers, of which the following is a specification.

This invention relates to a lawn-sprinkler in which a supporting-standard has on its upper end a hollow swiveled head provided with a projecting nozzle through which water is adapted to pass and strike a wheel provided with buckets or paddles whereby the wheel is rotated and the stream of water broken into a fine spray. The paddle-wheel supported by the swiveled head engages with a toothed ring attached to the standard near its upper end, and as the bucket or paddle wheel turns the swiveled head is caused to revolve about the vertical axis of the standard.

Referring to the drawings, Figure 1 represents a perspective view of my improved lawn-sprinkler. Fig. 2 is a vertical section thereof. Fig. 3 is a detail view of the outlet end of the nozzle.

Similar letters of reference indicate the same parts on each figure.

A indicates an upright tubular supporting-standard open at its ends and standing on legs curved and ornamented as desired. Connected to the top of the supporting-standard by a water-tight swiveled joint H is a cap B, provided with a laterally-projecting nozzle C. Through the standard A passes a pipe D, also swiveled to the head B, curved at its lower end and furnished with an ordinary garden-hose coupling E.

Near the top of the standard A and fixed thereto is a horizontally-disposed concentric ring F, its upper surface bearing a series of gear-teeth G.

I I are two arms reaching outwardly from the head B below the nozzle C. Supported in the outer ends of the said arms I on a rotatable shaft J is a wheel or disk K, having a spiral flange L formed on its periphery, which is adapted to engage with the teeth G of the ring F. Buckets or paddles M project from one side of the disk or wheel K in position to be struck by a jet of water issuing from the nozzle C. The outlet end of the nozzle C bears such relation to the wheel K that but a small portion of the stream of water strikes the paddles, the greater part of it passing over the wheel. If desired, a small slit *c* may be cut in the under side of the nozzle at its mouth, through which water for operating the bucket-wheel will pass.

When it is desired to use my sprinkler, it is placed on a lawn and the pipe D connected by the coupling E to a water-hose. Water being turned on passes through the pipe D to the head B and out through the nozzle C, where a portion of it striking successively against the buckets or paddles M turns the wheel K. As the wheel revolves the spiral flange L, through its engagement with the teeth G, gradually and continuously rotates the head B and distributes the water, partly broken into a fine spray by its impact with the paddles over an extended area.

Having thus described the invention, what is claimed is—

1. A lawn-sprinkler, having a supporting-standard, a hollow head swiveled thereto from which a nozzle projects laterally, a bucket or paddle wheel rotatably supported by said head, and a horizontal toothed ring on the standard operatively engaged with said bucket or paddle wheel.

2. In a lawn-sprinkler having a supporting-standard carrying a pipe for water, a hollow head swiveled to said standard and water-pipe, a nozzle projecting from said hollow head, a bucket or paddle wheel supported by said head and having a peripheral spiral flange, and a horizontal toothed ring on the standard operatively engaged with said bucket or paddle wheel.

3. A lawn-sprinkler having a supporting-standard, a hollow head swiveled to said standard from which hollow head a nozzle projects laterally, a bucket or paddle wheel supported on said head and movable therewith, and a toothed ring on the standard in direct engagement with said bucket or paddle wheel.

4. A lawn-sprinkler having a supporting-standard carrying a pipe for water, a hollow head with a projecting nozzle opening thereinto swiveled to said standard and water-pipe the latter also opening into said head, a bucket or paddle wheel carried by said hollow head in operative relation to the outlet of said nozzle, said bucket or paddle wheel having a spiral peripheral flange, and a fixed toothed ring in engagement with said spiral flange.

5. A lawn-sprinkler having a fixed toothed ring, a bucket or paddle wheel having a spiral peripheral flange in direct engagement with

said toothed ring, and a hollow head having a single nozzle and supporting said bucket or paddle wheel, said nozzle being in such relation to said bucket or paddle wheel that a portion of the water issuing therefrom operates said bucket or paddle wheel.

6. In a lawn-sprinkler, a bucket or paddle wheel having a spiral peripheral flange, a fixed toothed ring in engagement with said spiral flange, and a rotatable head having arms in which said bucket or paddle wheel revolves and a nozzle projecting from said head toward said bucket or paddle wheel.

7. In a lawn-sprinkler, a bucket or paddle wheel having a spiral peripheral flange, a fixed toothed ring in engagement with said spiral flange, and a head from which a nozzle projects supporting said bucket or paddle wheel and adapted to be turned on an axis at a right angle to that of said bucket or paddle wheel by the rotation of said paddle-wheel.

8. A lawn-sprinkler having a bucket or paddle wheel adapted to be rotated by a jet of water, a nozzle therefor having an outlet-opening and a slit on one side extending backwardly from said outlet-opening through which slit the water for rotating said bucket or paddle wheel escapes.

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

OSCAR P. WAGGENER.

Witnesses:
C. C. BROWER,
J. L. YADEN.