No. 691,758. Patented Jan. 28, 1902.

G. L. GAY.

SPRINKLING ATTACHMENT FOR HOSE NOZZLES.

(Application filed Mar. 16, 1901.)

(No Model.)

Fig. 1

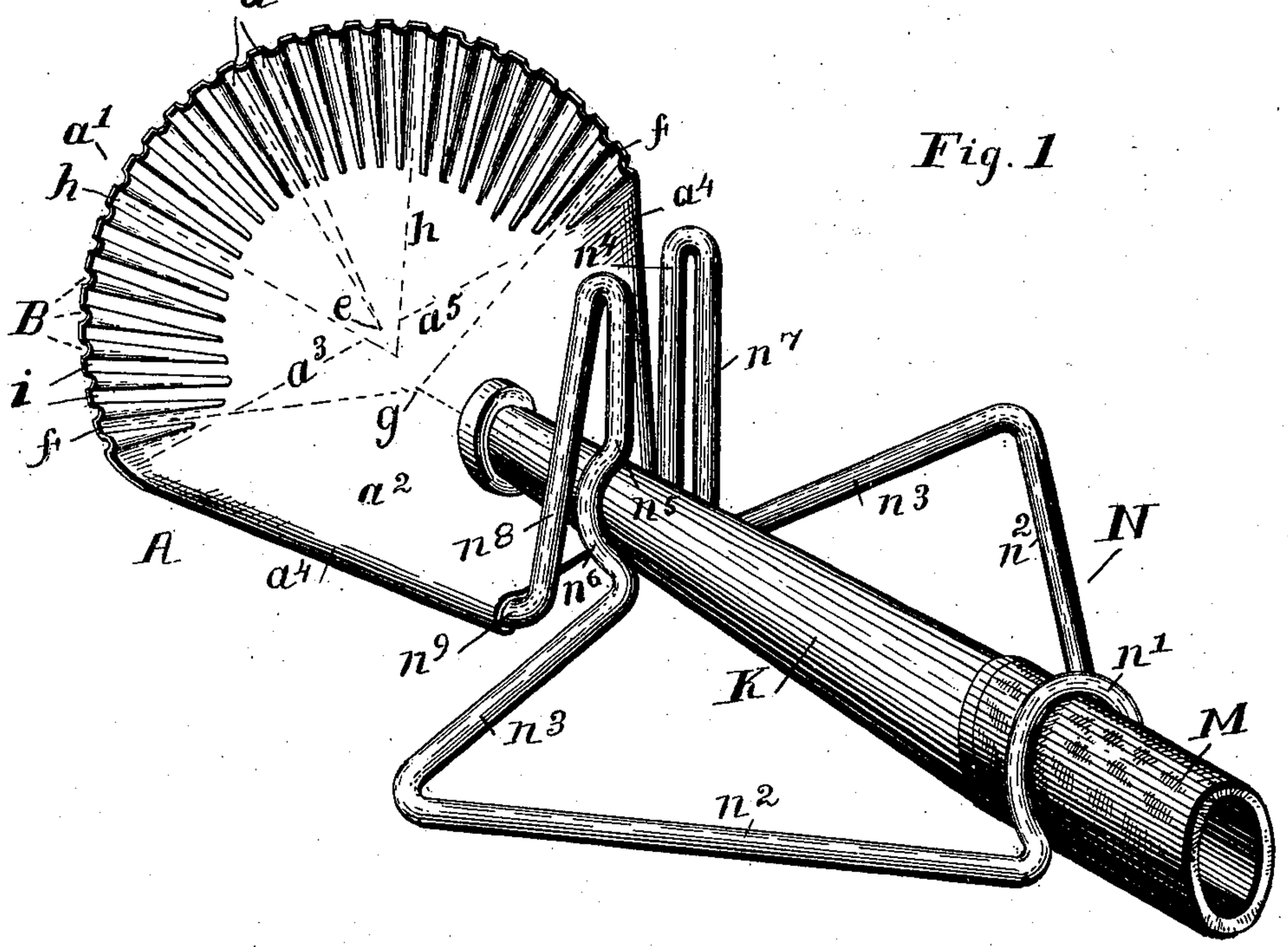

Fig. 2

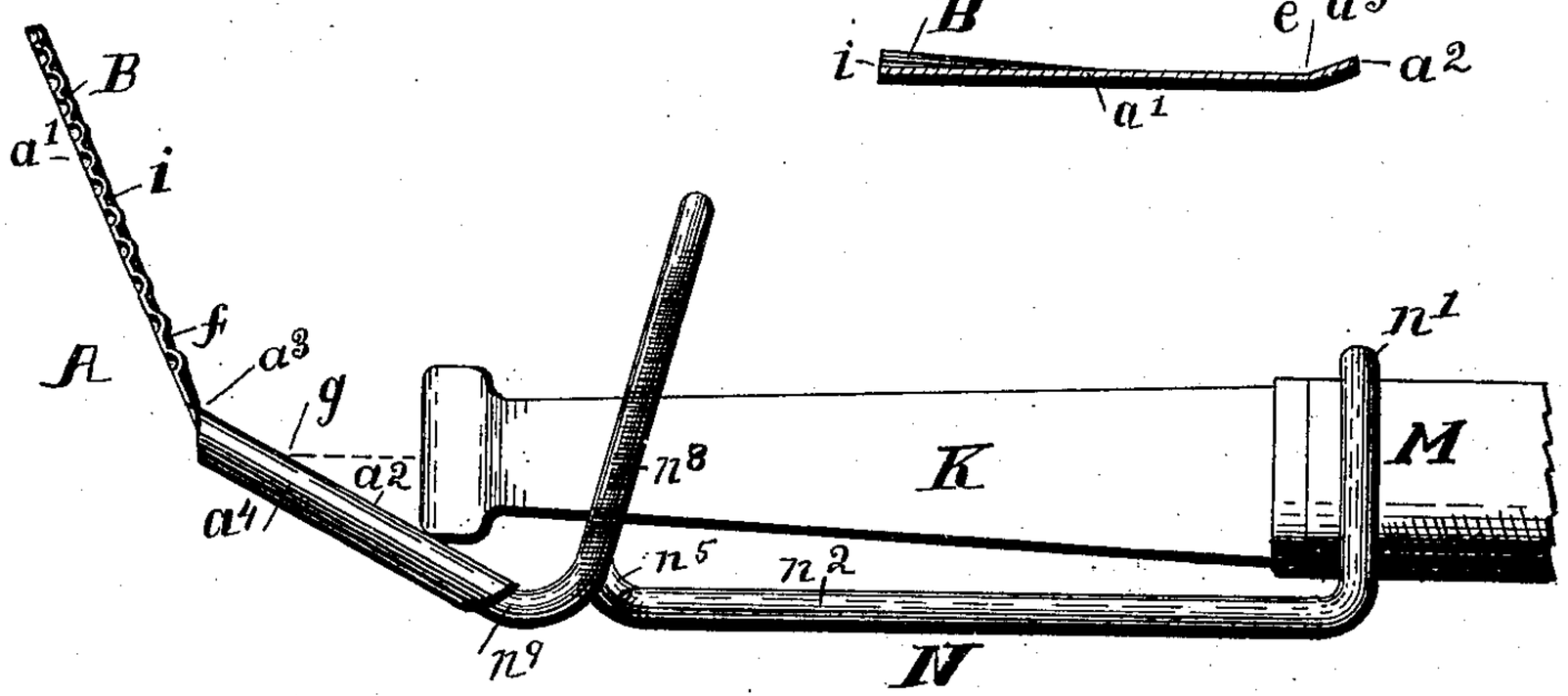

Fig. 3

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SPRINKLING ATTACHMENT FOR HOSE-NOZZLES.

SPECIFICATION forming part of Letters Patent No. 691,758, dated January 28, 1902.

Application filed March 16, 1901. Serial No. 51,472. (No model.)

To all whom it may concern:

Be it known that I, GEORGE LEWIS GAY, a citizen of the United States, residing at Spokane, in the county of Spokane, in the State of Washington, have invented certain new and useful Improvements in Sprinkling Attachments for Hose-Nozzles, of which the following is a specification.

My invention relates to a sprinkling attachment and support for lawn-hose nozzles.

It has for its object to provide a device adapted to be readily attached to the nozzle of a garden-hose to receive the impact of a jet of water issuing therefrom and spread and finely divide and comminute the same in the form of small diverging streams which break into drops in passing through the air and scatter uniformly.

The invention consists in the novel construction and arrangement of a bent distributing-plate having its outer semicircular edge crimped to form ridges rising above the surface of the plate and separated by diverging parallel-sided distributing-chutes and the combination therewith of a novel nozzle attachment and supporting device adapted to saddle upon the hose and clamp upon the nozzle, being readily detachable therefrom, as hereinafter more fully described and claimed.

In the accompanying drawings, forming a part of this specification, Figure 1 is a perspective view of my improved sprinkling attachment and hose-nozzle support fitted upon a hose. Fig. 2 is a side elevation of the same. Fig. 3 is a cross-section of the deflecting-plate lengthwise of one of the distributing-chutes.

Referring to the drawings, A designates a segmental distributing-plate, which is substantially of the form of a semidisk a', having a deflecting portion a^2 extending from its diametral line a^3, with lateral edges a^4, converging in the direction away from the said diameter a^3. The plate is bent along the said diametral line to bring the planes of the surfaces a' a^2 at a slight angle with each other, as outlined in Fig. 2. The semicircular edge of the part a' is formed with a series of ridges B, raised or embossed above the plane of the surface of the plate and converging toward the central part of the plate. The ridges are wedge-shaped, tapering inwardly, and of such proportion that the sides of the spaces i, inclosed between the ridges, are substantially parallel, or at least no less in width at their inner ends than at the outer edge of the plate. These parallel-sided spaces comprise distributing chutes or waterways diverging from the flat or central field a^5 of the plate, but not from a common center. Instead the two central chutes d of the series are radial with the center e of the semidisk, and the end chutes f are radial with a point g in the deflecting extension a^2, while the intermediate chutes are radial to centers correspondingly distributed between these two points, as indicated by the dotted lines h in Fig. 1. The converging edges a^4 of the extension a^2 are bent over to inclose the correspondingly forked ends of a wire frame or holder, which is adapted to attach the deflecting-plate A to the nozzle of a lawn-hose in position to receive and evenly distribute the water-stream from the same. Said frame comprises a wire N, bent at its middle part to form a U-shaped loop or saddle n', adapted to fit upon an ordinary lawn-hose M just back of its junction with the nozzle K. As both the hose and loop are somewhat elastic, the limbs of the loop can converge below the center of the hose, which will thus be retained in the loop when the same is pressed over it. The depth of the loop is about equal to its diameter, and at the ends of the limbs thereof the wire is bent over at a right angle to the plane of the loop and extended in diverging limbs n^2, which expand sufficiently to provide a broad base or triangle, which will not easily roll on edge when laid upon the ground. The length of said limbs is somewhat less than that of the hose-nozzle, and from their outer ends the wire is bent inwardly in the plane of the limbs to near the central line, extending between them to form the horizontal limbs n^3. From said central line the wire is bent upward to form the straight upright limb n^4, joining one of the limbs n^3, and the upright limb n^5, having the semicircular bend n^6 to receive and retain the end of the hose-nozzle clamped between the upright limbs, as shown in Fig. 1. From the upper ends of the limbs n^4 n^5 the wire is doubled over in a return-bend and passes downward outside of said limbs to the plane of the limbs n^2 n^3, forming the vertical limb

n^7 and inclined limb n^8. From the lower ends of these limbs extend the terminal ends n^9 of the wire, branching outwardly from the vertical plane of the hose-nozzle and upwardly from the plane of the limbs n^2 n^3 in the direction away from the same, having the correspondingly-tapering edges a^4 of the deflecting-plate folded over and tightly wrapped about them, as shown in Figs. 1 and 3.

Constructed as hereinbefore described and shown, the operation of this sprinkling attachment and support is as follows: With the loop n' set over a hose and the nozzle of the hose pressed down between the limbs n^4 n^5 into the semicircular bend n^6, which may very readily be accomplished through the spring of the parts, the nozzle will be held in the position to direct a stream of water upon the deflecting-plate, striking at the point g in the extension a^2 and at an obtuse angle with the surface thereof, whereby it is deflected upward to and spread out over the flat central field a^5 of the semidisk and deflecting-plate, into and through the chutes i, and discharged therefrom in fine rivulets, which break into drops and scatter uniformly.

It will be seen that as the forward impulse of the stream of water when discharged from the nozzle against the center g is greater than its lateral deflection the chutes should be correspondingly graduated and set radial to successive centers, advancing from said point g toward the central chutes d of the series, as hereinbefore described. The angle which the part a' forms with the part a^2 also serves to counteract the upward impulse of the water and uniformly deflect it over the central field of the disk to the chutes i.

I claim as my invention and desire to secure by Letters Patent—

1. As a new article of manufacture a sprinkling attachment for hose-nozzles, comprising a flat segmental plate having a row of ridges around its edge raised or embossed above the level of the surface of the plate, and forming intervening troughs or waterways having the cross-sectional area of their outer ends substantially equal to that of their inner ends, substantially as and for the purpose specified.

2. As a new article of manufacture a sprinkling attachment for hose-nozzles comprising a flat segmental plate having a row of ridges around its edge raised or embossed above the level of the surface of the plate, with their sides converging inwardly and forming parallel-sided grooves or channels intervening between the ridges and extending above the plane of the plate, substantially as and for the purpose specified.

3. As a new article of manufacture a sprinkling attachment for hose-nozzles comprising a flat segmental plate having a row of wedge-shaped ridges B around its edge raised or embossed above the plane of the surface of the plate, with their sides converging toward the central part of the plate and having the substantially parallel sided grooves or channels i intervening between the ridges and above the plane of the plate, in combination with a deflecting part adapted for attachment to a hose-nozzle, substantially as and for the purpose specified.

4. In sprinkling attachments for hose-nozzles the combination of a distributing-plate and a holder attached thereto comprising a wire bent to form a central loop or saddle adapted to fit upon the hose or its nozzle, side limbs branching outward from the loop and returning inwardly to form a base, upright limbs in continuation of the side limbs adapted to span the end of the nozzle, one of which is provided with a bend forming a receiving-notch for the nozzle, return-limbs in continuation of said upright portions projecting downward to or below said notch, and terminal limbs in continuation of said return-limbs secured to the deflecting-plate, substantially as and for the purpose specified.

5. In a sprinkling attachment for hose-nozzles the combination of a distributing-plate and a holder attached thereto, comprising a wire bent to form a central loop adapted to saddle upon the hose or its nozzle, side limbs branching outward from the loop and returning inwardly to form a base, upright limbs in continuation of the side limbs adapted to span the ends of the nozzle, one of which is provided with a bend forming a receiving-notch for the nozzle, return-limbs in continuation of said upright portions projecting downward below the cross-plane of the notch, and terminal limbs in continuation of said return-limbs extending at an angle with the plane of the hose-nozzle and having the lateral edges of the deflecting-plate wrapped over and upon the same, substantially as and for the purpose specified.

6. In a sprinkling attachment for hose-nozzles the combination of a distributing-plate and a holder attached thereto comprising a wire bent to form the central hose-fitting loop or saddle n', the diverging horizontal limbs n^2, the inwardly-extending limbs n^3, the upright limbs n^4 n^5, the downward return-limbs n^7 n^8 and the outwardly and upwardly branching terminal limbs n^9 having the lateral edges of the deflecting-plate folded around and wrapped upon them, substantially in the manner and for the purposes specified.

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Witnesses:
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