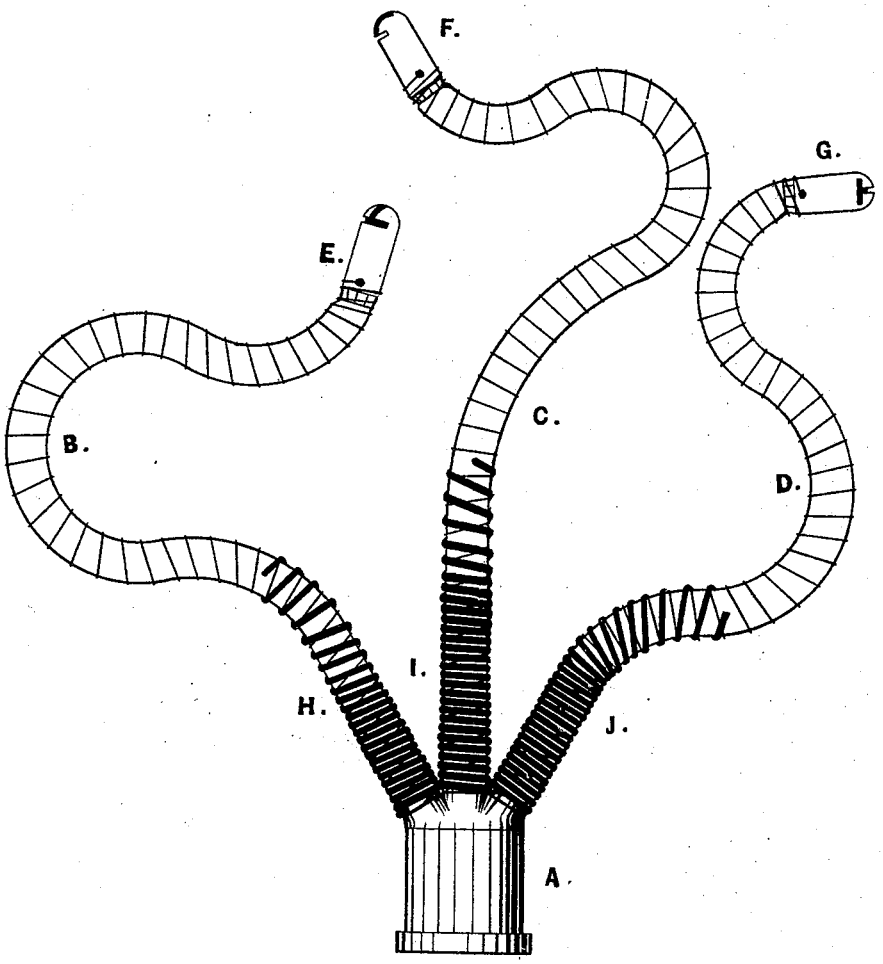
H. G. FISKE.
Fountain-Tip.

No. 212,368. Patented Feb. 18, 1879.



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UNITED STATES PATENT OFFICE.

HENRY G. FISKE, OF SPRINGFIELD, MASSACHUSETTS.

IMPROVEMENT IN FOUNTAIN-TIPS.

Specification forming part of Letters Patent No. **212,368**, dated February 18, 1879; application filed January 4, 1879.

To all whom it may concern:

Be it known that I, HENRY G. FISKE, of Springfield, in the county of Hampden and State of Massachusetts, have invented a new and useful Improvement in Fountain-Tips, which improvement is fully set forth in the following specification and accompanying drawing.

The invention relates to spray-tips for lawn-sprinklers, ornamental fountains, &c., and is of an amusing as well as useful character.

The object of my invention is to provide a cheap tip for ornamental fountains, or for lawn-sprinklers for wetting down lawns, gardens, &c., which shall be of an amusing and ornamental character, and also perform its work efficiently.

The invention consists, first, in uniting two or more flexible tubes at one end upon a common hollow base fitted to be coupled to the water-supply pipe, so that the water may pass out of their outer ends and operate them independently of each other; second, it consists in providing said flexible tubes with spray-producing tips, which permit the water to escape partially endwise and partly from one side, or, in other words, wherein the center of force of the body of the spray as it escapes from these tips is at one point only, and that at a point oblique to the internal water-passage, so as to impart a double reaction to the end of each tube; third, in combining with an elastic flexible tube having a spray-producing tip an outer elastic flexible support running its entire length, and secured to the said tip to impart a graceful curve to the tube where it joins the tip when the same is in operation, and also to impart great strength to the tube without adding undue weight thereto, and also allow an endwise elastic motion to the tube.

The accompanying drawing is a front elevation of my invention, showing each tube as having acquired a relatively different position, and showing also the position of the outlets in the tips as related to the water-passage within said tips.

The base A is hollow, and is provided with an internal thread at its lower end and three branch tubes at its upper end, upon each of which is secured a flexible elastic tube, B C D, said elastic tubes being provided at their outer end with the spray-producing tips E F G, and surrounded throughout their entire length by a spiral spring, the upper ends being fastened each to its respective tip, and the lower ends are secured upon their respective branch tubes of the base.

Surrounding the lower portion of each tube B C D is still another spiral spring, H I J, forming a flexible supporting-base, for the purpose of imparting a gradually-increasing flexibility to the tubes from the base upward, and increasing the strength of the said tubes at that point, as shown in the patent granted to me January 29, 1878.

The tips E F G are each of a similar pattern, and are secured upon the elastic tubes by clinching the tips over a ring which is within said tubes.

In the drawing it will be observed that the outward water-passages in the tips are formed of two slots, the outer ends of which form the three outer points of a triangle, thus locating the center of force of the spray as it issues from each tip at a point practically corresponding to the center of the triangle, and which point is at an oblique angle to the internal water-passage, thereby causing the action of the water as it escapes to impart a partially-downward and partly side and squirming motion to the tubes.

To accomplish this result it will be observed that the particular forms of openings shown are not absolutely necessary, as openings formed in any way which will permit the center of force of the spray to issue at a point oblique to the internal passage will accomplish the desired result, although I prefer the ones shown as being the cheapest to make.

The operation is as follows: Secure the base A to the water-supply pipe having a suitable pressure. The water, being turned on, will immediately pass up through the tubes B C D, tending to straighten up said tubes, and thence out through the outlets in the tips E F G, and as the water passes out through one side and a part of the end only it forces the tips in a direction exactly opposite to that of the outlet, and the tips, in thus endeavoring to back away from said outlets, cause the tubes to go through with the most comical antics that can

be imagined, and imparting to the whole the appearance of a mass of snakes writhing for dear life. This strange and comical appearance, which, on a small scale, so much resembles the monster devil-fish, is owing to the fact that two or more of the flexible tubes are united upon a common base, and are thus brought so close together as to give them the appearance of being some of the arms or tentacles of said monster as they writhe, and kick, and thrash, and mingle with one another. Of course, this appearance is not and cannot be produced in the patented sprinkler aforementioned, issued to me January 29, 1878. Although that may give the appearance of being one of said tentacles, it does not and cannot readily give the appearance of being the said fish itself without uniting at least two or more upon a common base. During these operations the water is scattered in every conceivable direction in great profusion and to a great distance.

It will be observed that almost any conceivable number of these tubes may be united upon a common base and perform equally well, provided the water-supply is sufficient for the same; also, that the supporting flexible base may be wound with close coils, or may be wound with a gaining spiral, the latter being preferable; also, that the outlets in the tips may be formed of round holes or the slots; and, also, that different tips may be secured upon the said tubes, or the tips may be left off altogether, and yet all operate to produce substantially the desired result, but still would say that tips which have merely an opening or a series of them which provide that the center of force of the spray as it issues therefrom shall be directly in a straight line with the internal water-passage, or those to which are imparted a whirling motion when applied to said flexible tubes, do not give as good satisfaction as the ones shown as having the oblique outlet heretofore mentioned.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a fountain-tip, the base A, having secured thereto a number of flexible tubes, not less than two, all provided with water-passages throughout their entire length, and connecting with the water-passage in the said base, substantially as shown and described.

2. In a fountain-tip, the combination of the elastic flexible tube with its spray-producing tip, and the elastic support running its entire length and secured to the said tip, for the purposes substantially as shown and described.

3. In a fountain-tip, the flexible tube having the water-outlet in the tip of said tube, so arranged that the center of force of the body of the spray when issuing therefrom shall be at a point on one side only, and that oblique to the internal water-passage, substantially as shown and described.

4. In a fountain-tip, the elastic flexible tube provided with the short flexible supporting-base, which is arranged to impart a gradually-decreasing flexibility to the lower end, and the elastic support when applied to its entire length, to impart great strength to resist outward pressure without perceptibly increasing its weight, substantially as shown and described.

HENRY G. FISKE.

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