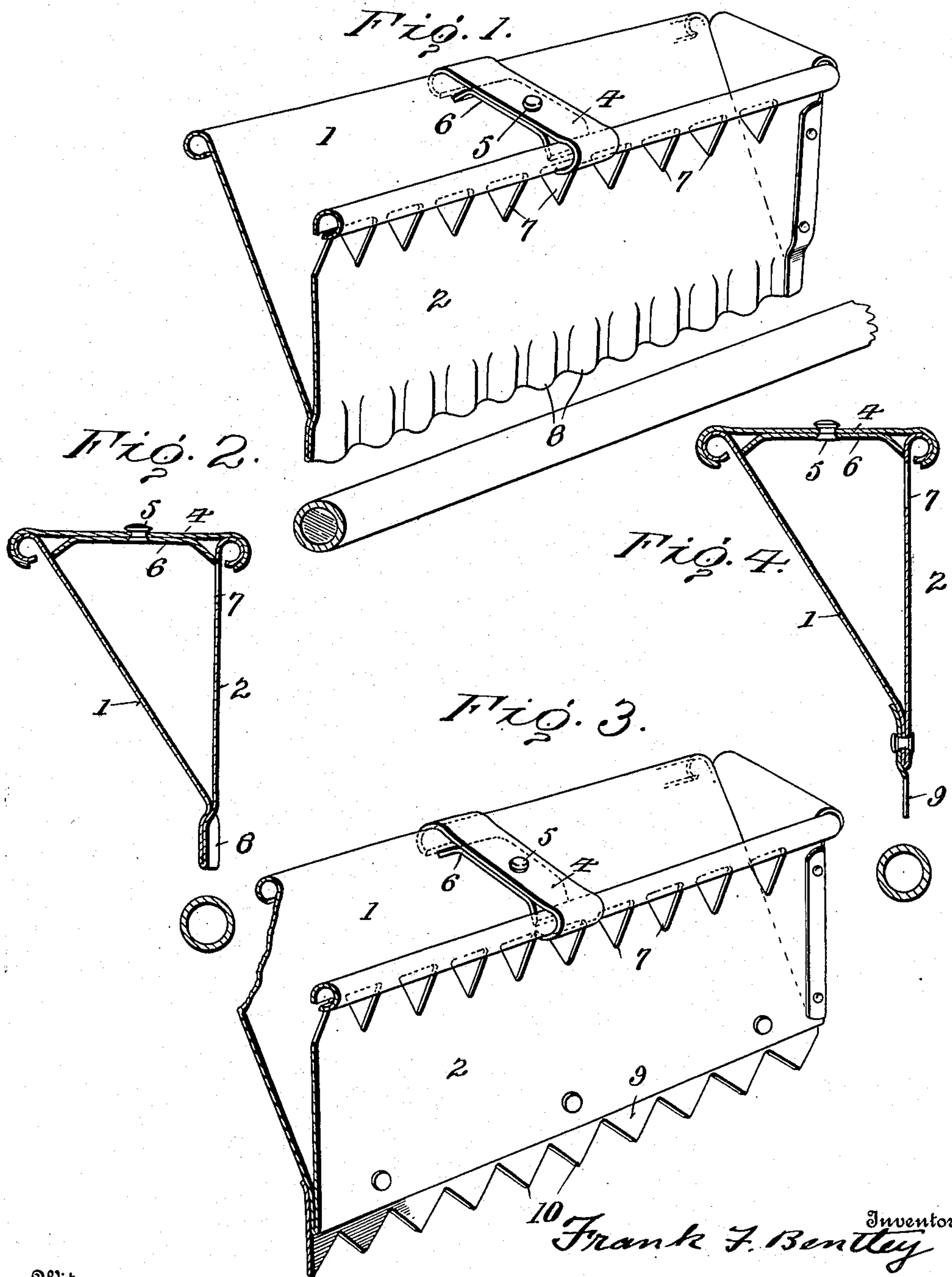


F. F. BENTLEY.
 SPRAY TROUGH.
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930,926.

Patented Aug. 10, 1909.



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FRANK F. BENTLEY, OF NILES, OHIO.

SPRAY-TROUGH.

No. 930,926.

Specification of Letters Patent.

Patented Aug. 10, 1909.

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To all whom it may concern.

Be it known that I, FRANK F. BENTLEY, a citizen of the United States, residing at Niles, in the county of Trumbull and State of Ohio, have invented certain new and useful Improvements in Spray-Troughs, of which the following is a specification.

The object of this invention is to simplify and lessen the cost of construction, and to increase the durability of troughs from which water is supplied for cooling the ammonia and steam condensing coils of an ice making or refrigerating plant.

The invention will be hereinafter fully set forth and particularly pointed out in the claims.

In the accompanying drawings, Figure 1 is a view in perspective, showing a section of a trough located above a condensing coil. Fig. 2 is a cross-sectional view. Fig. 3 shows a modification. Fig. 4 is a cross section thereof.

Referring to the drawings, 1 designates the inner wall and 2 the outer wall of the trough formed by bending the metal of which the trough is composed into approximately V-shape, the two walls being thus integral and having their ends closed. The inner wall 1 may be of greater height than the outer wall, and the upper longitudinal edges of both walls are bent back or coiled upon themselves to strengthen the trough without the necessity of employing stiffening rods. The vertex of the trough being formed by bending the metal back upon itself, the use of rivets or solder to connect the two walls is unnecessary. The walls at their upper edges are held as against spreading by means of spaced-apart cross pieces 4 which at their ends are curved to conform to the rolled or coiled edges of said walls, and at the center of each cross piece, by means of a pin 5, a spacing piece 6 is secured, the ends thereof being bent downwardly so as to bear against the inner opposite faces of the two walls. In this way the integrity of the trough is maintained. In the wall 2, near its upper edge, are formed openings 7 through which the water is designed to pass as it rises in the trough as high as such openings.

The trough at its bottom is corrugated, as shown at 8, the outwardly pressed portions of the corrugations forming teeth, so to speak, so that the water as it trickles down

the trough from openings 7 will fall in more or less distributed drops on the containing tube.

If desired a separate plate 9 may be riveted to the bottom of the trough, as shown in Fig. 3, and such plate formed with teeth 10 in lieu of the corrugations in the trough itself. In either event, the corrugated portion occupies a plane in continuation of or parallel with that wall of the trough in which the openings are formed so that the dripping of the water from the lower edge of such corrugated portion is insured.

The advantage of my invention will be apparent to those skilled in the use of steam or ammonia condensing pipes. Not only is the water evenly distributed in drops upon the containing tubes, but the trough being made from one piece of metal with the walls braced and strengthened, the cost of manufacture is greatly lessened and the life of the trough is prolonged.

I claim as my invention:—

1. As an article of manufacture, a water distributing spray trough for ammonia and steam condensers, composed of two walls formed from a single piece of metal bent into approximately V-shape in cross section, one of said walls having outlet openings formed therein, and a series of teeth along the lower longitudinal edge of the trough, such teeth occupying a plane in continuation of or parallel with the plane of the side wall in which said outlet openings are formed.

2. As an article of manufacture, a water distributing spray trough for ammonia and steam condensers, composed of two walls formed from a single piece of metal bent into approximately V-shape in cross section, one of said walls having outlet openings formed therein, and both walls being in engagement with each other along the lower longitudinal edge or bottom of the trough, which said edge or bottom is corrugated to form teeth which occupy a plane in continuation of or parallel with the plane of the side wall in which said outlet openings are formed.

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

FRANK F. BENTLEY.

Witnesses:

ANNA CONLON,
J. L. HERZOG.