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L. A. PHILLIPS
SPRINKLER DISTRIBUTOR

1,877,046

Filed May 29, 1930

Fig. 1.

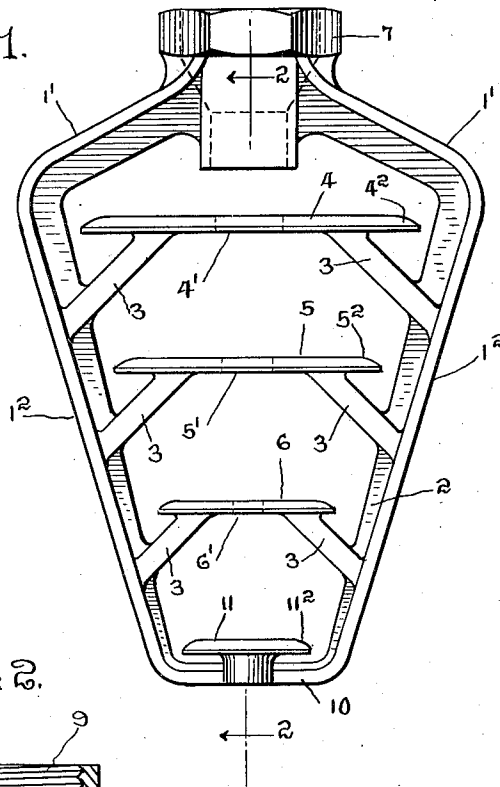


Fig. 2.

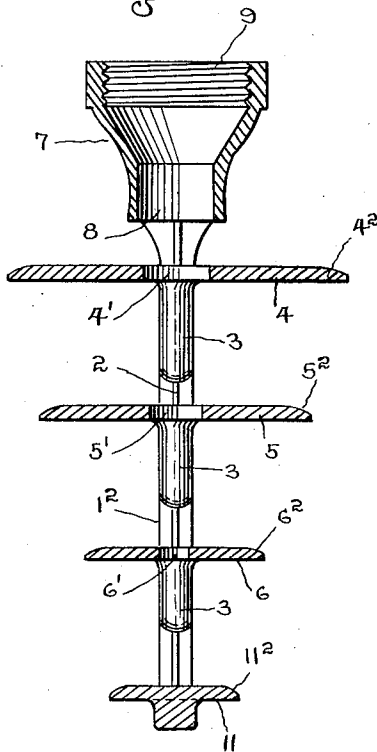
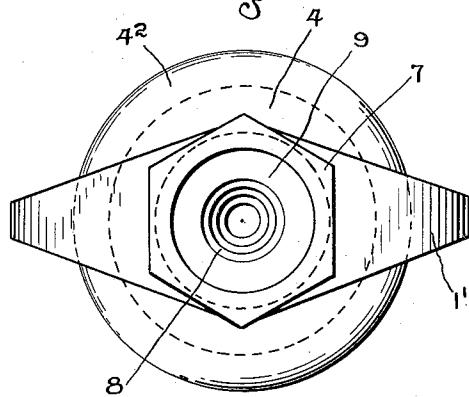


Fig. 3.



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UNITED STATES PATENT OFFICE

LOUIS A. PHILLIPS, OF DOBBS FERRY, NEW YORK, ASSIGNOR TO THE COOLING TOWER CO., INC., OF NEW YORK, N. Y., A CORPORATION OF NEW YORK

SPRINKLER DISTRIBUTOR

Application filed May 29, 1930. Serial No. 456,854.

My invention relates to improvements in sprinkler distributors.

An object of my invention is to provide a device whereby the spray from a nozzle may be evenly spread and distributed, a further object of my invention is to provide means whereby the cooling of water by atmospheric contact may be conveniently accomplished.

In the cooling of water by atmospheric action it becomes desirable to so divide and spray the water to be cooled that the maximum effect of the atmosphere on the water may be attained and an object of my invention is to attain this maximum effect by so dividing and spreading the water that the air may reach and cool the water when divided into very small particles and spray.

I accomplish these and other objects by my invention, a preferred embodiment of which is illustrated in the accompanying drawing, in which

Figure 1 is an isometric view of my improved device,

Figure 2 is a vertical section of the same on the line 2—2 in Figure 1, and

Figure 3 is a plan view of the same.

Similar characters of reference refer to similar parts throughout the several views.

My improved device is preferably in the form of an integral casting and comprises a skeleton frame having diverging head bars 1¹ and converging side bars 1² provided with a strengthening rib 2 longitudinally disposed thereon.

Integral bracket arms 3 are set in opposed pairs on the side bars 1² at an angle of approximately 45° to the vertical.

These bracket arms 3 carry discs 4, 5 and 6 which are of circular form and of progressively decreasing diameter from top to bottom and preferably terminate short of the side bars and spaced therefrom. Each of the said discs 4, 5 and 6 is provided with a centrally located orifice 4¹, 5¹ and 6¹ respectively of progressively decreasing diameter from the upper disc 4 to the lower disc 6.

At the apex of the diverging head bars 1¹ is provided a hollow open nozzle head 7, having a discharge port 8 and an internally threaded

inlet 9 whereby the device may be attached to any desired source of water supply.

At the apex of the converging side bars 1², there is provided a cross bar 10 on which is seated a circular disc 11.

The peripheral upper margins of the discs 4, 5, 6 and 11 are preferably rounded or bevelled to permit the water to flow freely therefrom, to minimize capillary adhesion of the water and to cause the particles of water which may fall upon the margins of the discs to be thrown or rebound outwardly.

In operation, the nozzle head 7 of the device is secured at its threaded inlet 9 to a suitable source of water supply.

The water to be sprayed and distributed is admitted through the nozzle head 7 and discharges through the port 8 downwardly. The descending stream falls successively through the orifices 4¹, 5¹ and 6¹ of the discs 4, 5 and 6 which said orifices are of progressively decreasing diameter whereby a part of the descending column of water strikes the upper surfaces of the discs 4, 5 and 6 and such part of the water as passes through the said orifices strikes the surface of the lower disc 11.

The water which strikes these respective discs rebounds and is thrown outwardly in circles of graduated diameter of finely divided spray whereby there is permitted a maximum atmospheric contact with the small particles of water.

The number of discs may be increased or diminished and the device may be otherwise modified without departing from the spirit of my invention.

Having thus described my invention, what I claim is:

In a device for spraying water, the combination of a head having a discharge port therein directed to discharge water downward in the direction of discs arranged therebelow, a plurality of graduated, horizontal, circular discs below said discharge port and axially disposed with reference thereto, said discs being of progressively, graduated, decreasing size and having a flat, horizontal, upper surface and rounded, peripheral, downwardly turned margins on their upper surface terminating in a sharp edge at the under

side, each of said discs having a single, axi-
ally disposed aperture, said apertures being
progressively diminishing in size in said re-
spective discs, and an imperforate circular
disc below the lowermost perforated disc.

In testimony whereof I affix my signature.

LOUIS A. PHILLIPS.

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