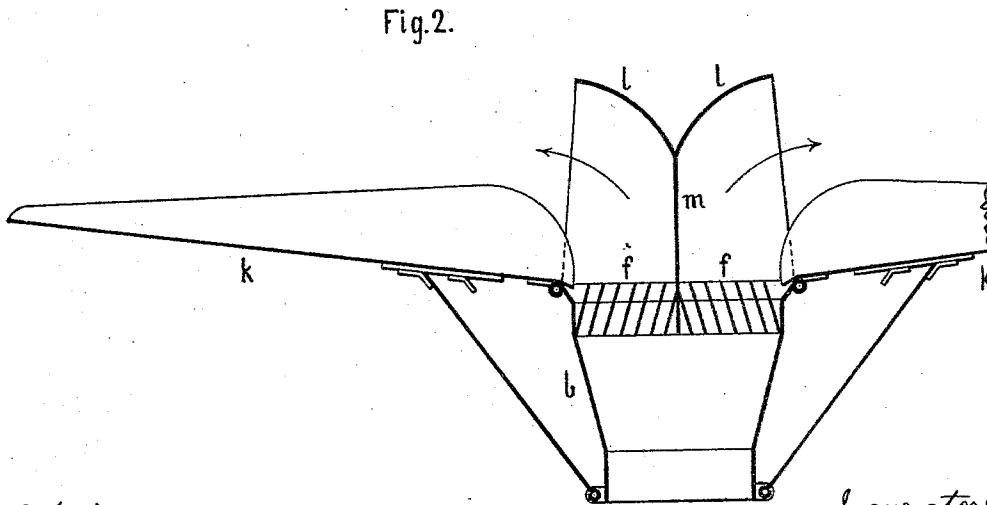
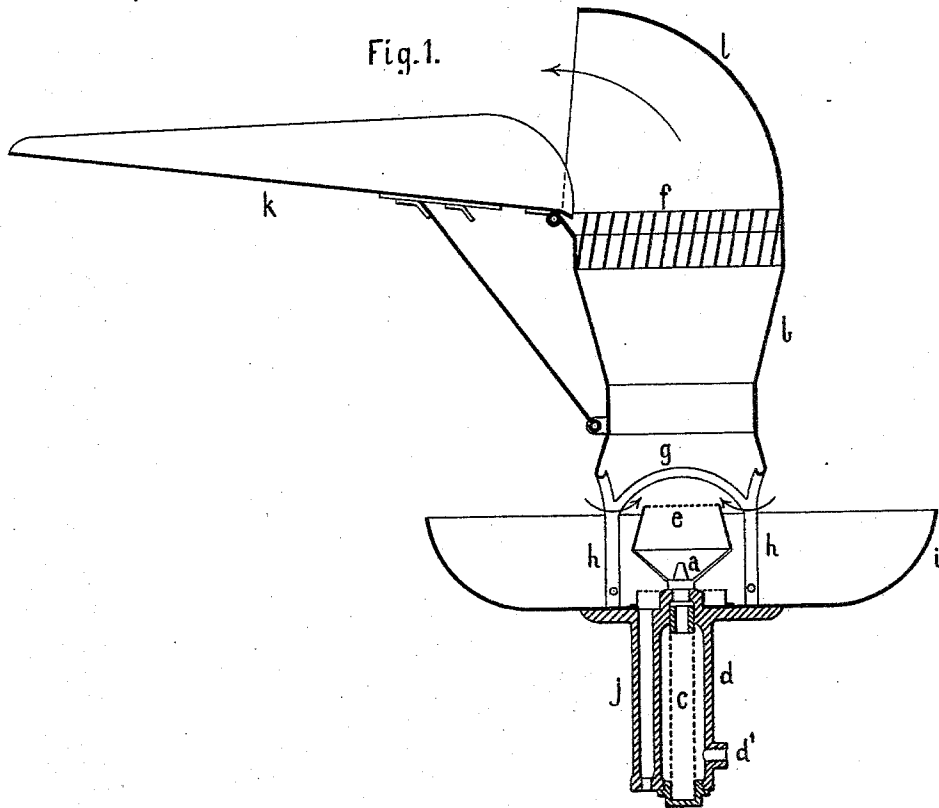


(No Model.)

E. KÖRTING.
APPARATUS FOR MOISTENING AIR.

No. 425,329.

Patented Apr. 8, 1890.



Attest.
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UNITED STATES PATENT OFFICE.

ERNST KÖRTING, OF HANOVER, PRUSSIA, GERMANY.

APPARATUS FOR MOISTENING AIR.

SPECIFICATION forming part of Letters Patent No. 425,329, dated April 8, 1890.

Application filed November 9, 1889. Serial No. 329,734. (No model.)

To all whom it may concern:

Be it known that I, ERNST KÖRTING, a subject of the King of Prussia, residing at Hanover, Kingdom of Prussia, Germany, have invented new and useful Improvements in Apparatuses for Moistening Air, whereof the following is a specification:

My invention relates to apparatuses consisting in a nozzle adapted to disperse into spray the water issuing therefrom and in an open vertical tube placed centrally above the same and forming a kind of funnel, the jet of dispersed water or spray producing in the latter an air-current which carries the finer portion of the spray into the surrounding air, with the effect of moistening the same.

The purpose of the improvement is to more efficiently divide the spray and to separate out therefrom the larger particles of water adapted to wet objects in the neighborhood of the apparatus, so that only the finest spray is carried along by the air-current. To this end I place into the aforesaid vertical tube or funnel a series of plates inclined in such direction that the spray impinges against the same, the large drops being thereby partly divided and partly retained and caused to run down into a collecting-dish.

In view of promoting the dispersion of the water a fine sieve of wire-gauze is arranged a short distance above the nozzle.

In the annexed drawings, Figure 1 is a sectional elevation of an apparatus comprising my improvements. Fig. 2 shows a modification of the upper part thereof.

In Fig. 1, *a* is the nozzle, and *b* the aforesaid vertical tube or funnel. The nozzle is fitted at its inlet end with a perforated pipe or tubular sieve *c*, passing through the casing *d*, to which is connected at *d'* a water-supply pipe, the perforated pipe or sieve *c* serving to retain any solid substances passing into the apparatus. *e* is the sieve of wire-gauze, serving to promote the dispersion of the water, while *f* are the inclined plates by which all particles of water not completely divided into fine spray are retained. The water collecting on the surface of these plates either drips off directly, or it runs along the edges of the plates

to the wall of the tube *b* and down thereon to the gutters *g*, which conduct it to the hollow columns *h*, communicating at their base with the collecting-dish *i*. From this dish the water discharges through the pipe *j*. The tube *b* is formed with a cap *l*, which directs the current of air and fine spray sideward.

In order to lead back into the apparatus any water which may still separate out from the current, the inclined conducting-plate *k* is provided for.

Fig. 2 is a sectional view of the upper portion of an apparatus designed to emit two currents of air and moisture—one to the left, the other to the right. The apparatus is for this purpose made with two caps *l*, separated by a plate *m* and opening out on opposite sides, while the plates *f*, corresponding to one cap, are inclined in opposite direction to those belonging to the other cap. Besides this, there are two water-conducting plates *k*.

I claim as my invention—

1. In an apparatus for moistening air, the combination of a nozzle *a*, an open vertical tube *b*, arranged above the said nozzle, and a series of inclined plates *f*, arranged in horizontal line and located in the said tube, substantially as described.

2. In an apparatus for moistening air, the combination of a nozzle *a*, an open vertical tube *b*, arranged above the said nozzle, and a series of inclined plates *f*, arranged in horizontal line and located in the said tube, and a sieve *e*, placed between the nozzle *a* and the plates *f*, substantially as described.

3. In an apparatus for moistening air, the combination of a nozzle *a*, an open vertical tube *b*, arranged above the said nozzle and having cap *l*, a series of inclined plates *f*, located in the tube *b*, and water-conducting plate *k*, extending in upwardly-inclined position beyond the cap, substantially as specified.

In testimony whereof I have hereunto set my hand in the presence of two subscribing witnesses.

ERNST KÖRTING.

Witnesses:

MAX EPSTEIN,
W. HETTLER.