

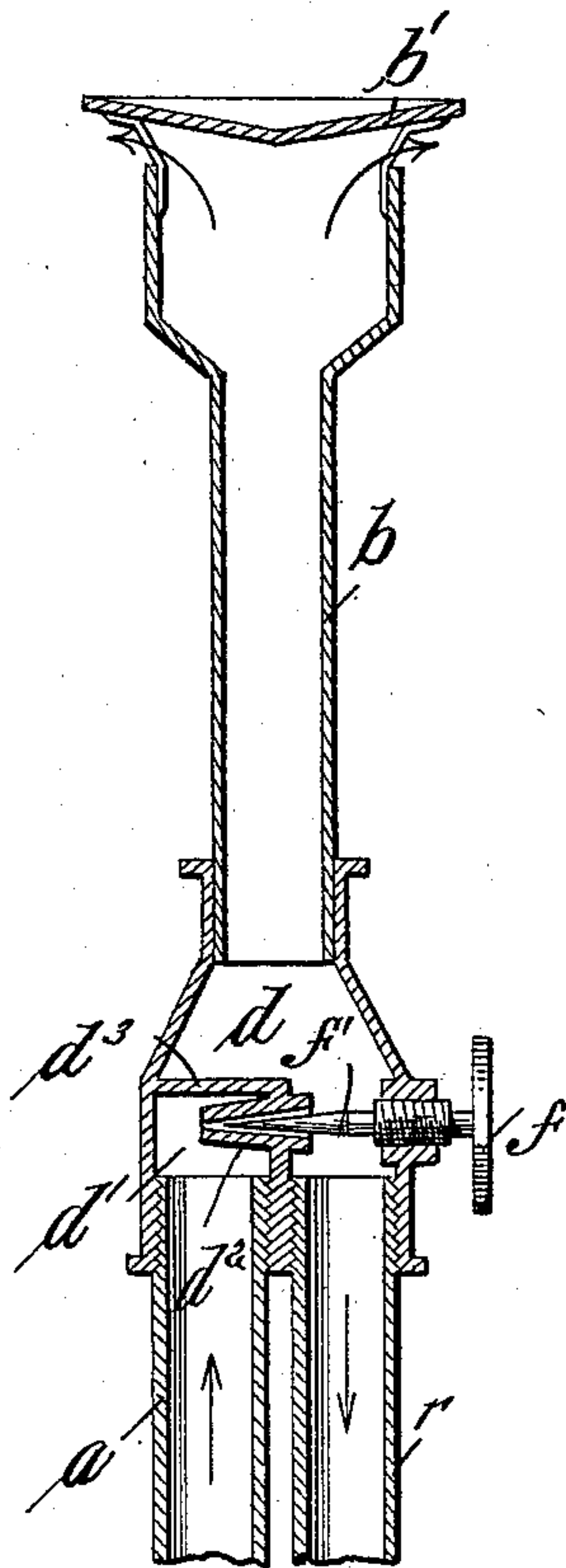
No. 614,099.

Patented Nov. 15, 1898.

B. W. E. GRIEP.  
STEAM ATOMIZER.

(Application filed Dec. 21, 1897.)

(No Model.)



Attest  
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# UNITED STATES PATENT OFFICE.

BRUNO WILLIBALD EMIL GRIEP, OF HAMBURG, GERMANY, ASSIGNOR TO  
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## STEAM-ATOMIZER.

SPECIFICATION forming part of Letters Patent No. 614,099, dated November 15, 1898.

Application filed December 21, 1897. Serial No. 662,860. (No model.)

*To all whom it may concern:*

Be it known that I, BRUNO WILLIBALD EMIL GRIEP, a subject of the German Emperor, and a resident of Hamburg, in the German Empire, have invented certain new and useful Improvements in Steam-Atomizers, (for which I have obtained patents in Germany, No. 88,734, dated January 15, 1896, and No. 95,400, dated January 13, 1897,) of which the following is a specification.

The present invention relates to improvements in steam-atomizers for diffusing steam in spray or in the form of dew to render it more effective in wetting the air of closed rooms in order to absorb the sensible dry heat of such rooms—for instance, of railway-cars, theaters, and the like; and with this end in view my invention consists in certain novel features of construction and combinations of parts, as will be hereinafter fully described with reference to the accompanying drawing, in which the figure is a vertical section through the improved steam-atomizer.

Similar letters refer to similar parts.

On the walls of the respective room or apartment to be cooled or wetted there are arranged one or more tubes *a*, communicating with a suitable source of steam—for instance, with the calorifiers or pipes of a steam-heating arrangement. The free extremity of the steam-tube *a* leads into a chamber *d'* of a cup-shaped connecting-piece *d*, carrying a suitable steam-outlet tube *b*, covered by a cap or cowl *b'*. Extending from the connecting-piece *d* and contiguous to the steam-tube *a* there is another pipe *r*, designed to carry off the condensed steam or water of condensation formed in the connecting-piece *d* and outlet-tube *b* when steam is allowed to pass through them. The outlet of steam may be regulated by

means of a suitable screw-down valve *f*, lodged in the wall of the connecting cup-piece *d* and fitting, with its conical or needle-shaped stem *f'*, into a corresponding seat *d''*, provided in the partition-wall *d''*. By screwing the valve-stem *f'* more or less into its seat *d''* the passage of a determinate quantity of steam from the tube *a* into the outlet-tube *b* is permitted or such passage entirely cut off, respectively.

The screw-down valve acts not only as a stop-valve, but also as a sprayer or atomizer, so that the steam escapes through the space left between the cowl and outlet-tube in an extremely fine atomized state for impregnating or saturating the surrounding air with the required moisture, while the condensed steam is permanently conveyed through the pipe *r*.

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

An atomizer comprising the casting *d* having a partition forming two chambers, a steam-supply pipe communicating with one of said chambers, a vertically-extending steam-outlet pipe from the other chamber having a covering-cap, a discharge-pipe for water of condensation from said second chamber, and a needle-valve controlling the passage of steam through an opening in said partition, substantially as described.

In testimony that I claim the foregoing as my invention I have signed my name, in presence of two witnesses, this 9th day of December, 1897.

BRUNO WILLIBALD EMIL GRIEP.

Witnesses:

MAX LEMCKE,

E. H. R. MUMMENHOFF.