

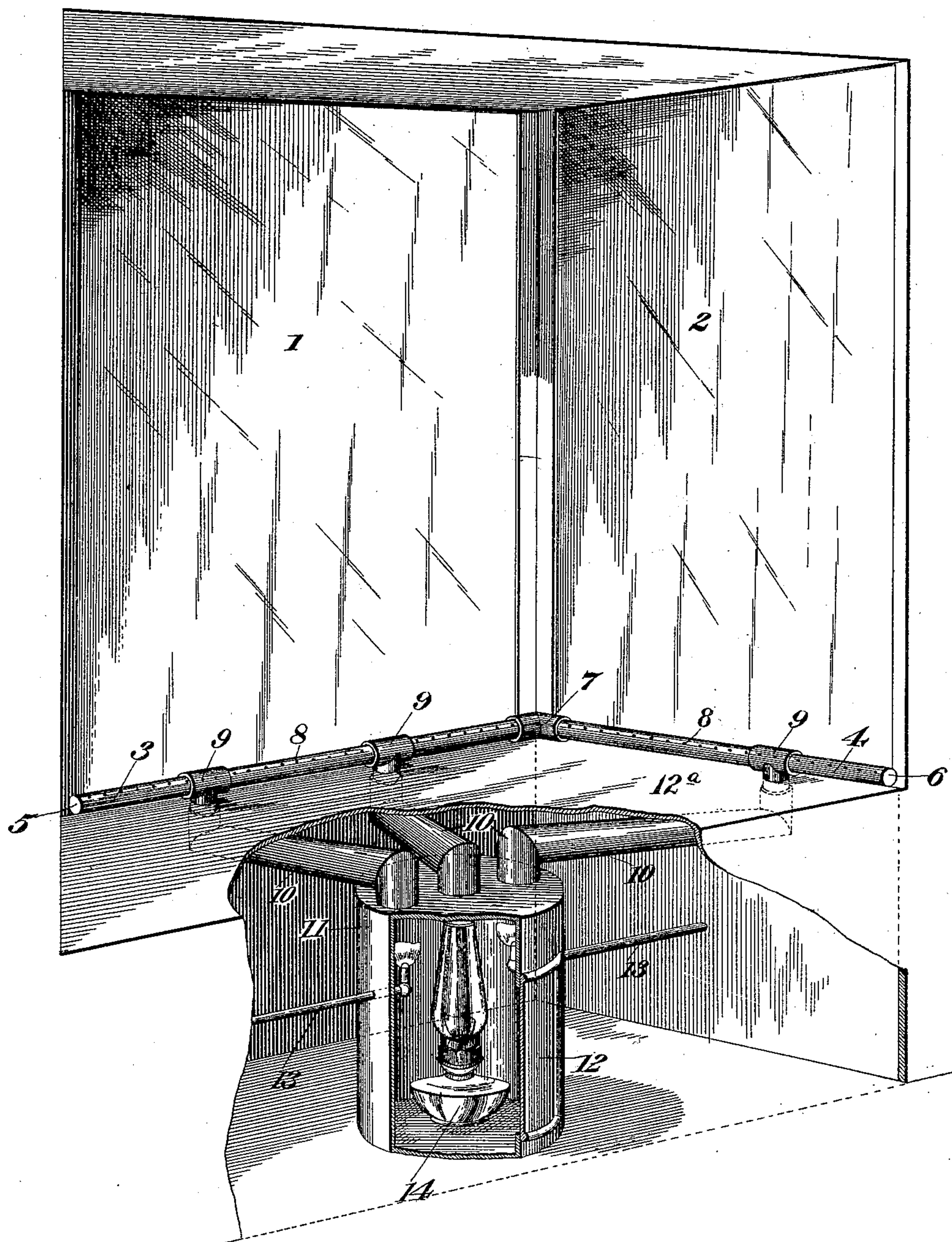
(No Model.)

J. H. MORRIS.

APPARATUS FOR PREVENTING CONDENSATION ON WINDOW PANES.

No. 543,749.

Patented July 30, 1895.



Witnesses

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JOHN H. MORRIS, OF BRIDGETON, NEW JERSEY.

APPARATUS FOR PREVENTING CONDENSATION ON WINDOW-PANES.

SPECIFICATION forming part of Letters Patent No. 543,749, dated July 30, 1895.

Application filed February 26, 1895. Serial No. 539,601. (No model.)

To all whom it may concern:

Be it known that I, JOHN H. MORRIS, of Bridgeton, county of Cumberland, State of New Jersey, have invented certain new and useful Improvements in Apparatus for Preventing Condensation on Window-Panes, of which the following is a specification, reference being had to the accompanying drawing.

The object of my invention is to produce improved apparatus for preventing the accumulation of frost or moisture upon the panes of show-windows or the like, which commonly obscures such windows in cold, damp, or foggy weather. Apparatus now in use designed for a similar purpose usually require certain conditions of appliance, which limit their use to certain localities or certain kinds of windows.

By my invention I propose to make an apparatus which may be used under all conditions and in any desired location.

In the accompanying drawing I have shown a perspective view of my apparatus, showing it applied to a bulk-window, for example, part of the apparatus being shown broken away, to more fully illustrate its construction.

Referring to the figure on the drawing, 1 and 2 indicate the panes of the window, that are set in frames at an angle to each other.

3 indicates a heat-distribution pipe located at the bottom of the pane 1, and 4 indicates the heat-distribution pipe located at the bottom of the pane 2. Each of the distribution-pipes may be closed at opposite ends, as indicated at 5 and 6, or where more than one pipe is used to heat contiguous panes, as in the illustration, a union 7 may be employed between them. The distribution-pipes are provided with a line of minute jet-apertures 8, which in the drawing are shown as turned farther from the glass than in practice I prefer to have them, it being desirable, in fact, to set them nearly opposite the bottom of the glass, so that they discharge against it.

9 indicates T-fittings, which serve to connect the supply-pipes 10 to the distribution-pipes. The distribution-pipes may be made in sections with threaded ends, so that they may be screwed into the T-fittings, and I prefer this method of construction in practice, although the cross of the T-fittings may sur-

round the distribution-pipe like a collar. The upper ends of the supply-pipes 10 are secured, respectively, to the branch of one of the T-fittings and their lower ends are respectively secured to the top of a heating-drum 11. In this way the supply-pipes and drum support the distribution-pipes in place, in order to facilitate their adjustment and their removal when required. The lower end of each T-fitting is preferably long enough to extend through the floor or platform 12^a below the windows, so that the supply-pipes may be concealed entirely beneath the floor. The drum may be of any suitable shape, size, and dimensions. It is preferably constructed of sheet-iron and is provided with a door 12. The interior arrangement of the drum may be varied at pleasure, in order to regulate its heating capacity, and may be heated by any suitable heating medium. For example, I illustrate gas-burners 13, which enter the walls of the drum from opposite sides, and also a lamp 14. The lamp and gas-burners would seldom need to be used conjointly, but may be used separately, the lamp, for example, in places where gas is not available. Any other suitable means for heating the drum may be substituted for that illustrated.

What I claim is—

The combination with a heating-drum, and a plurality of horizontal radiating pipes provided with vertical extensions opening into the top of the drum and supported exclusively by the drum, said radiating pipes having vertical extensions at their outer ends, of an angular distribution pipe provided with a plurality of T fittings adapted to fit within the vertical extensions at the outer ends of the radiating pipes, and a plurality of burners within the drum and immediately beneath the vertical extensions of the radiating pipes communicating with the top of the drum, substantially as specified.

In testimony of all which I have hereunto subscribed my name.

JOHN H. MORRIS.

Witnesses:

JAMES MATHER,
RICHARD TRENCHARD.