No. 724,045. PATENTED MAR. 31, 1903.

J. S. ROGERS.

MOISTENING DEVICE FOR HOT AIR PIPES.

APPLICATION FILED AUG. 21, 1902.

NO MODEL.

Fig. 1.

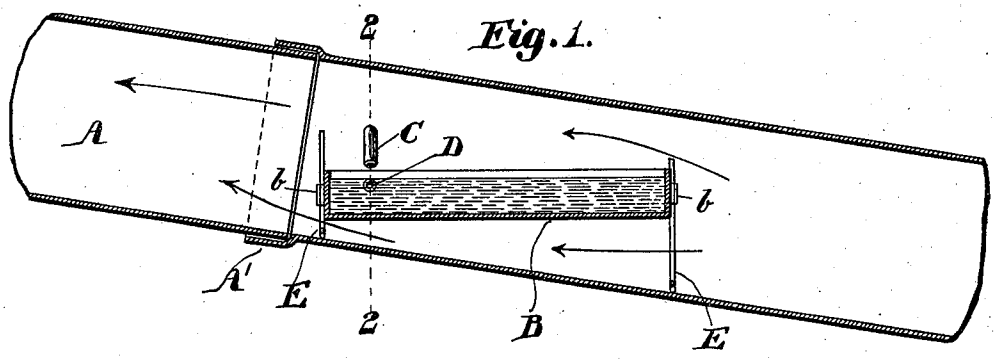


Fig. 2.

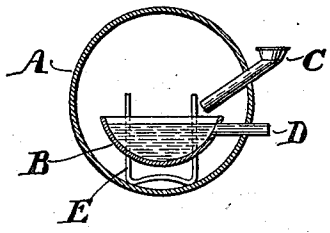


Fig. 3.

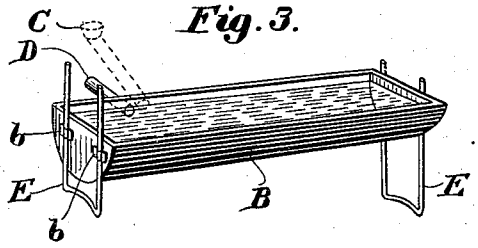
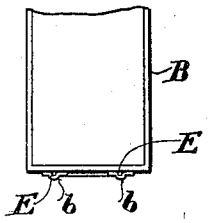


Fig. 4.



Witnesses:
Walter E. Lombard
Nathan. C. Lombard 2nd

Inventor:
James S. Rogers,
by Kirby Andrew Atty.

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UNITED STATES PATENT OFFICE.

JAMES S. ROGERS, OF BOSTON, MASSACHUSETTS.

MOISTENING DEVICE FOR HOT-AIR PIPES.

SPECIFICATION forming part of Letters Patent No. 724,045, dated March 31, 1903.

Application filed August 21, 1902. Serial No. 120,575. (No model.)

To all whom it may concern:

Be it known that I, JAMES S. ROGERS, a citizen of the United States, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Moistening Devices for Hot-Air Pipes, of which the following is a specification.

This invention relates to an improved device for moistening the air passing through hot-air pipes connected to heating-furnaces; and it has for its object to charge the hot air with a proper amount of moisture before passing through the registers leading to the rooms or chambers that are to be heated by the hot air from the furnace, as will hereinafter be more fully shown and described, reference being had to the accompanying drawings, wherein—

Figure 1 is a longitudinal section of a hot-air pipe and the improved moistening device arranged therein. Fig. 2 is a cross-section on the line 2 2 in Fig. 1. Fig. 3 is a perspective view of the improved moistening device, and Fig. 4 is a partial top plan view of the same.

Similar letters refer to similar parts wherever they occur on the different parts of the drawings.

In Figs. 1 and 2, A represents one of the hot-air pipes leading from a hot-air furnace, as usual. Within such hot-air pipe I locate at any suitable place, preferably at or near one of the jointed portions A′, (shown in Fig. 1,) a receptacle B, containing water, which by evaporation supplies the required moisture to the hot air as it passes through said pipe from the hot-air furnace to the room or rooms that are to be heated. As such hot-air pipes are usually cylindrical in cross-section, I prefer to make the under side of the receptacle B curved, as shown, so as to offer very little obstruction to the free passage of the hot air through the pipe A above and below said receptacle, as shown in Figs. 1 and 2.

Through a perforation in the side of the hot-air pipe A is inserted a suitable filler-tube C, through which the receptacle B may be filled with water from time to time, as may be needed. From the receptacle B, at or near its upper part, leads an overflow-pipe D through a side perforation in the hot-air pipe A to allow a portion of the water to overflow from the receptacle B outside of the pipe A before said receptacle is filled, so as to prevent any of the water from flowing into the hot-air pipe when filling said receptacle, and so as to enable the person in charge to ascertain when the receptacle is properly charged.

Hot-air pipes of the kind above mentioned are frequently arranged in inclined positions, as shown in Fig. 1, and it is often desirable to place the moistening device in inclined pipes and in such a manner as to keep the receptacle B in a level or horizontal position, as shown in Fig. 1. For such purpose I use in connection with said water-receptacle B vertically-adjustable end supports E E, the upper ends of which are adjustable in guides or sockets *b b*, secured to the ends of the receptacle B, as shown in the drawings. It will thus be seen that by adjusting the supports E E the receptacle B can be held in a horizontal position independent of the inclination of the pipe A, in which it is placed. I have in the drawings shown said supports E as being made of ⌊⌋-shaped wires; but this is not essential, as said supports may be made in any other suitable or equivalent manner, so as to adjust the position of the receptacle B according to the inclination of the pipe A, in which it is placed.

Having thus fully described the nature, construction, and operation of my invention, I wish to secure by Letters Patent and claim—

1. The combination with a hot-air pipe, of a water-receptacle B, arranged and concealed within the said hot-air pipe, a filling-tube passing through the latter and an overflow-pipe leading from the water-receptacle through the wall of the air-pipe substantially as and for the purpose set forth.

2. The combination with a hot-air pipe of a water-receptacle arranged within said hot-air pipe, a filling and overflow device and means for leveling said receptacle relative to the inclination of the hot-air pipe substantially as and for the purpose set forth.

3. The combination with a hot-air pipe of a water-receptacle, arranged within said hot-air pipe and provided with filling and overflow pipes, said receptacle being provided with adjustable supports for leveling it relative to the inclination of the hot-air pipe substantially as and for the purpose set forth.

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

JAMES S. ROGERS.

Witnesses:
ALBAN ANDRÉN,
CHARLES H. SMITH.