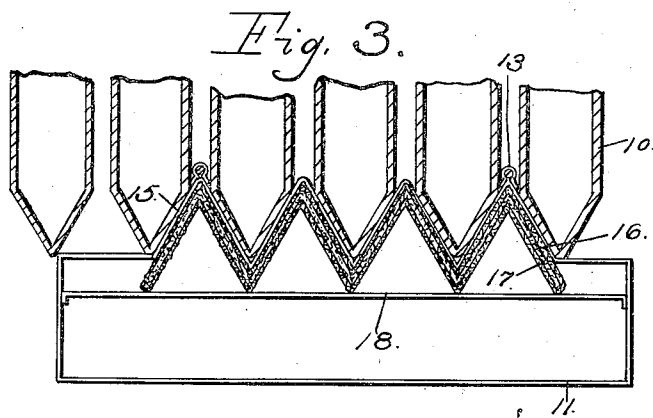
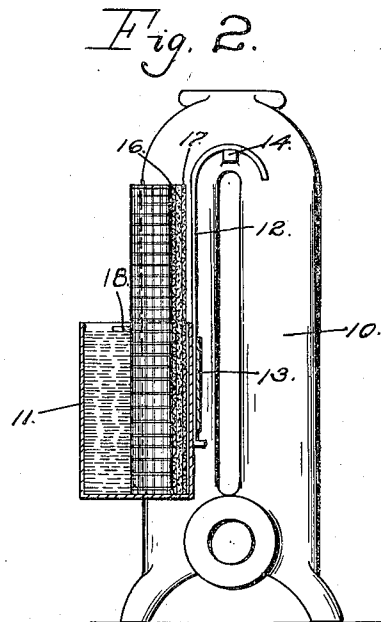
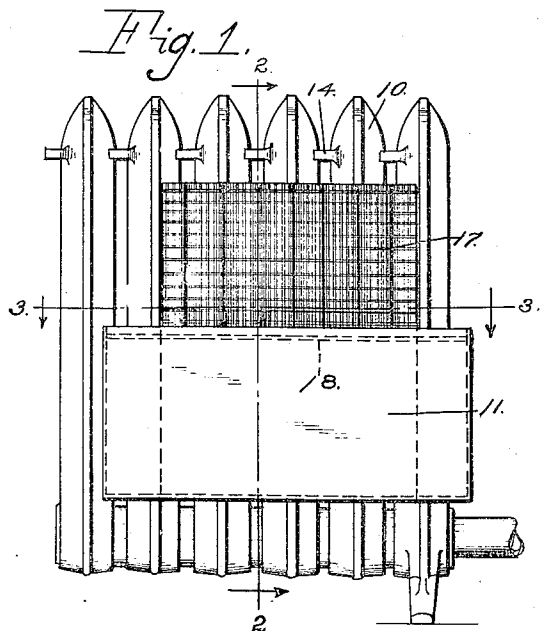


A. R. BLISS.
 DEVICE FOR HUMIDIFYING THE ATMOSPHERE OF A ROOM.
 APPLICATION FILED APR. 17, 1915.

1,369,775.

Patented Mar. 1, 1921.
 2 SHEETS—SHEET 1.



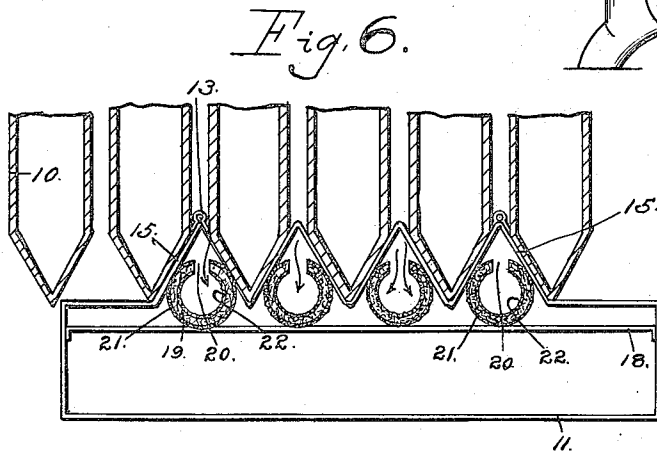
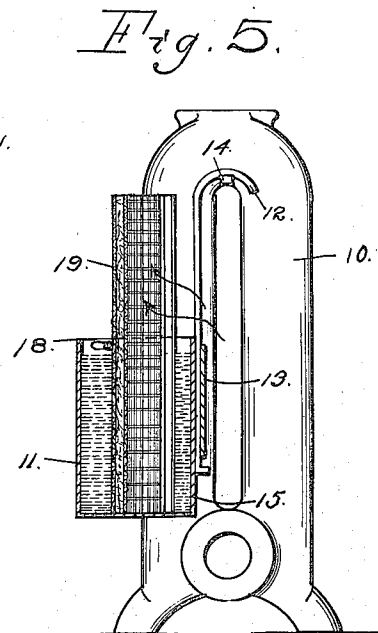
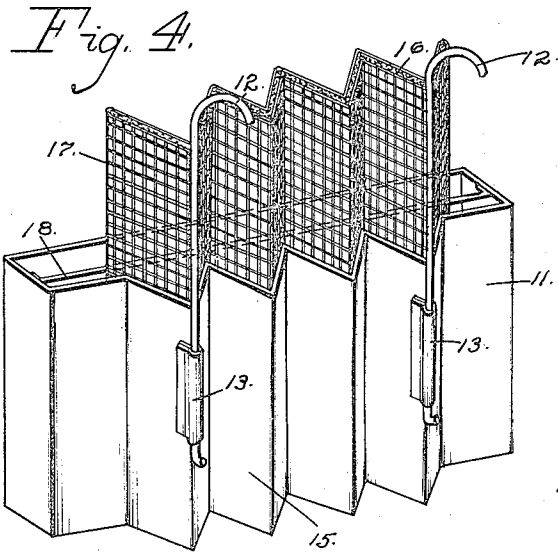
INVENTOR.
Amos K. Bliss
 BY *Edmund J. Murray*
 ATTORNEYS.

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INVENTOR.
 A. R. Bliss
 BY *Barnett & Munn*
 ATTORNEY

UNITED STATES PATENT OFFICE.

AMOS R. BLISS, OF CHICAGO, ILLINOIS.

DEVICE FOR HUMIDIFYING THE ATMOSPHERE OF A ROOM.

1,369,775.

Specification of Letters Patent.

Patented Mar. 1, 1921.

Application filed April 17, 1915. Serial No. 22,092.

To all whom it may concern:

Be it known that I, AMOS R. BLISS, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Devices for Humidifying the Atmosphere of a Room, of which the following is a specification.

My invention relates to means for humidifying the atmosphere of a room, for example, in connection with a steam or hot water radiator, or other heating device; and the primary object of the invention is to provide a simple, inexpensive humidifying device which will require but little attention, will be slightly in appearance or preferably of such character that it may be nearly or quite hidden from view by the steam radiator or other heating device in connection with which it is used and which, furthermore, without being unduly bulky, will be capable of evaporating a sufficient volume of water to maintain the atmosphere in a room at the normal degree of humidification.

With these ends in view the invention consists in the following constructions, arrangements and devices relating to humidifying devices which will be hereinafter described and claimed.

The invention is illustrated, in certain preferred embodiments, in the accompanying drawings, wherein—

Figure 1 is a side elevation of an ordinary sectional radiator with a humidifying device constructed in accordance with my invention attached thereto.

Fig. 2 is a sectional view, taken on line 2—2 of Fig. 1.

Fig. 3 is a sectional plan on line 3—3 of Fig. 1.

Fig. 4 is a view, in perspective, of the humidifying device shown in the preceding three figures.

Fig. 5 is a vertical sectional view illustrating a modification; and

Fig. 6 is a plan view of the modified construction.

Like characters of reference designate like parts in the several figures of the drawings.

Referring first to Figs. 1 to 4 inclusive, 10 is a sectional steam or hot water radiator of ordinary construction. 11 is a vessel preferably made of sheet metal and open at the top. The vessel is designed to be placed

close to a radiator. For example, it may be supported against the side of the radiator toward the wall of the room by means of hooks 12 supported in keepers 13, the hooks extending over two of the studs 14 which intervene between the radiator sections. The side of the vessel adjacent the radiator is preferably formed with a series of V-shaped projections 15 which intervene between successive sections of the radiator.

Within the vessel is arranged an absorbent element 16, preferably blotting paper (by which I intend any fibrous fabric having the qualities and characteristics of the sort of paper used as blotting paper). The absorbent element is preferably supported and rigidified by means of a foraminous supporting member 17 consisting preferably of a sheet or sheets of wire mesh on one side of, or more desirably on both sides, of the absorbent element. This structure is, in this form of the invention, bent into substantially the same form as the inner side wall of the vessel, and is arranged in the projections 15, being held in place by any suitable means, for example, wire 18. The absorbent element, and preferably also the supporting member, extend above the upper edge of the vessel and the bent configuration of the same provides, in effect, partly inclosed flues—between the adjacent outward projections—which flues are open at the side toward the radiator and at the top. The hot air from the radiator circulates up through these flues, producing an evaporation of the water drawn into the upper portion of the absorbent element by capillary attraction.

I have shown the vessel as so formed as to project slightly beyond the end of the radiator, as shown in Figs. 1 and 2. This preferred construction is for convenience in filling. If the blotting paper composing the absorbing element should become clogged with dirt and dust, it may be readily removed and replaced. However, I have found that when blotting paper is used in this connection there is much less likelihood that it will be clogged and its power of capillary attraction impaired than is the case with an absorbent element made of cloth, wicking, or the like. The blotting paper may be used for a long time without any appreciable impairment of its capacity for absorbing moisture from the vessel.

A modification in the structure of the ab-

sorbent means is shown in Figs. 5 and 6. The vessel may be the same in construction as that above described. Instead of using a single strip of absorbent material and bending the same into a succession of V's, I provide, in this case, a plurality of cylindrical absorbent elements 19 which are arranged within the V-shaped projections 15 of the vessel and are formed with slots or longitudinally extending openings 20 in the sides adjacent the apexes of the V-shaped projections. The absorbent elements are preferably supported by similarly shaped pieces of wire mesh. Preferably there will be one piece of wire mesh 21 on the outside of the blotting paper and another, 22, on the inside.

It will be seen that these cylindrical absorbent elements, which are preferably open on the side toward the radiator and which project above the top of the vessel 11, form flues for the convection currents of hot air from the radiator. The evaporation which can be produced in this way which is, of course, augmented by evaporation from the outside of the absorbent elements above the water level, is very considerable even with a device of comparatively small and compact proportions.

A humidifying device constructed in either manner above described can be hidden entirely, or almost entirely, behind a steam or hot water radiator and will be sufficient to keep the atmosphere in a room of ordinary size at normal humidification.

While I have described my invention in certain preferred embodiments, it will be understood that further modifications might be made without departure from the principles of the invention. Therefore I do not wish to be understood as limiting the invention to the precise constructions, arrangements and devices shown and described except so far as the claims are specifically so limited.

I claim:

1. A humidifying device comprising a vessel adapted to be arranged with one side close to a heating device, and an absorbent element in said vessel extending above the

same and shaped so as to provide a partially inclosed flue open on the side of the vessel adjacent the heating device.

2. A humidifying device comprising a vessel adapted to be arranged with one side close to a heating device, an absorbent element in said vessel extending above the same and shaped so as to provide a partially inclosed flue open on the side of the vessel adjacent the heating device, and a foraminous supporting structure for said absorbing element shaped so as to correspond substantially to the shape of said element.

3. A humidifying device comprising a vessel formed with a projection on one side thereof adapted to extend between the sections of a sectional steam or hot water radiator, and an absorbent element arranged in said projection and extending above the upper edge of the vessel between the edges of the adjacent radiator sections and shaped so as to provide a partially inclosed flue open on the side toward the radiator.

4. A humidifying device comprising a vessel formed with a projection on one side thereof adapted to extend between the sections of a sectional steam or hot water radiator, an absorbent element arranged in said projection and extending above the upper edge of the vessel between the edges of the adjacent radiator sections and shaped so as to provide a partially inclosed flue open on the side toward the radiator, said absorbent element being made of blotting paper, and a wire mesh supporting structure for the same.

5. A humidifying device comprising a vessel formed with a series of substantially V-shaped projections adapted to extend between the sections of a sectional steam or hot water radiator, and a plurality of substantially cylindrical absorbent elements arranged in the V-shaped projections of the vessel and projecting above the same, said elements being formed with slots in the sides toward the radiator.

AMOS R. BLISS.

Witnesses:

L. A. FALKENBERG,
H. M. HUTCHINGS.