(No Model.)

E. A. WOOD.

RADIATOR.

No. 371,017. Patented Oct. 4, 1887.

Fig. 2.

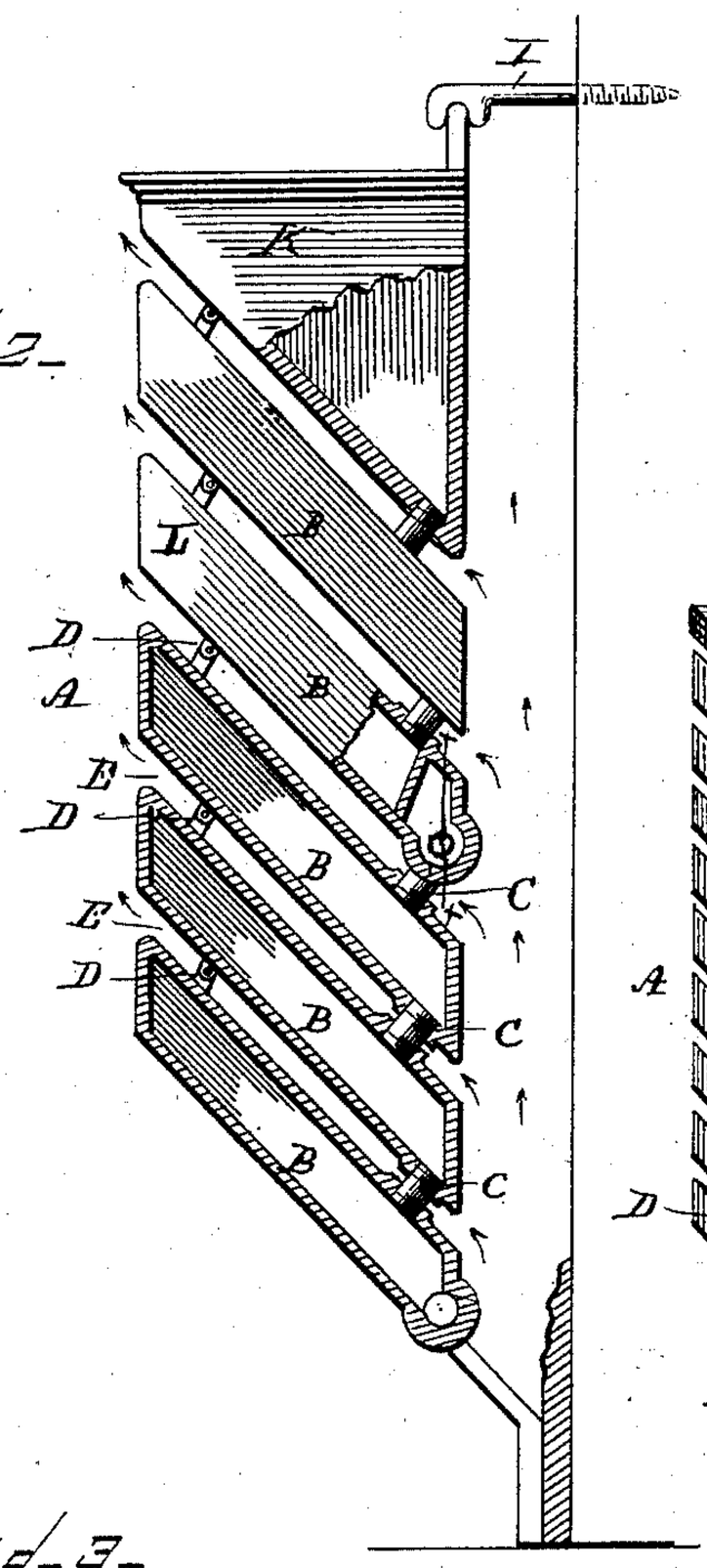


Fig. 1.

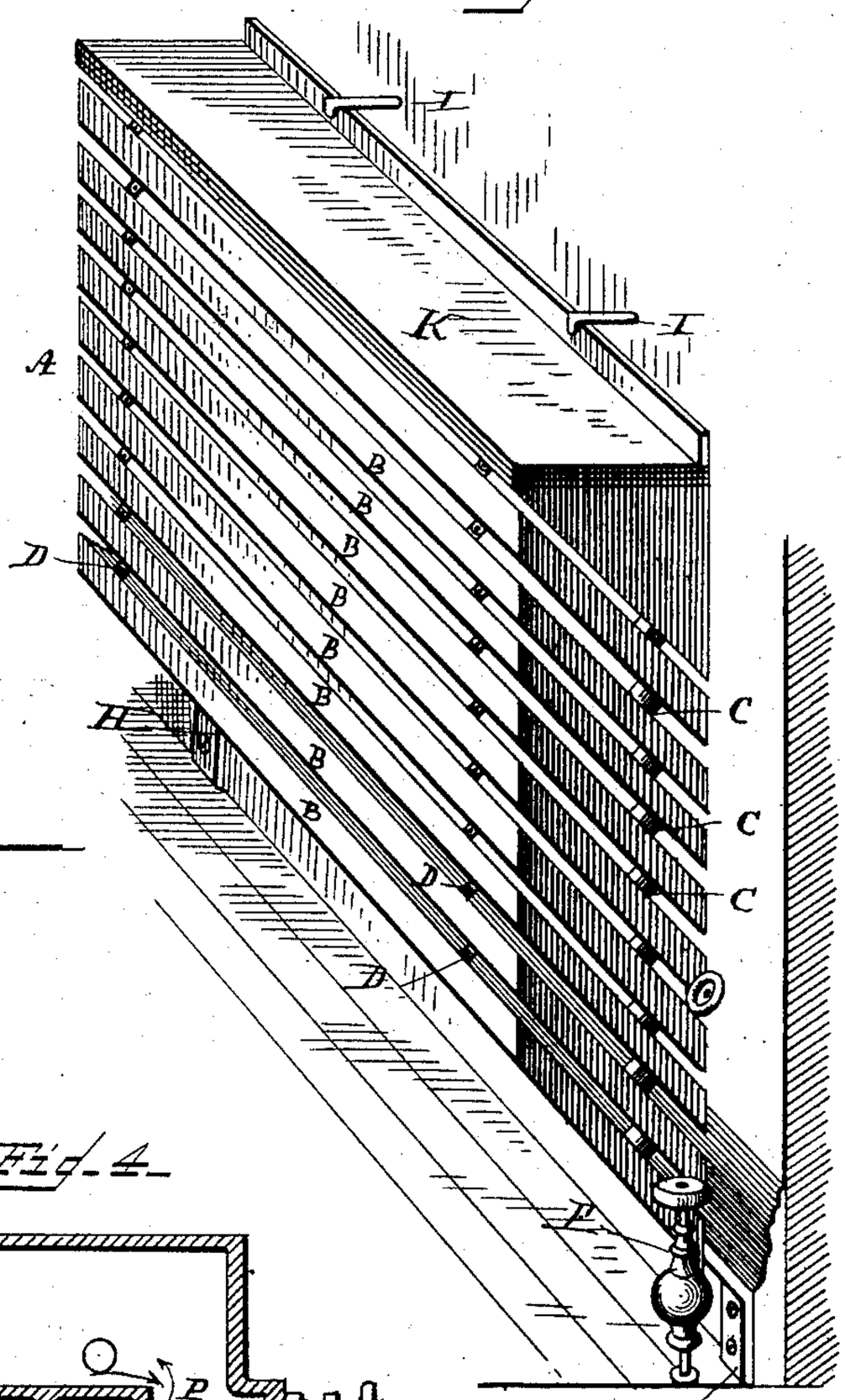


Fig. 3.

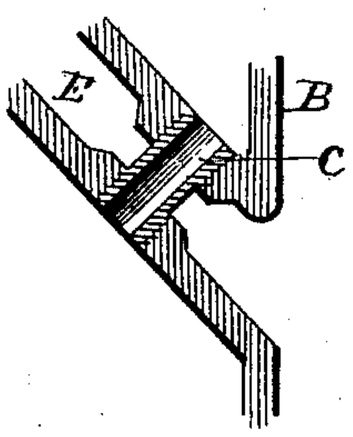
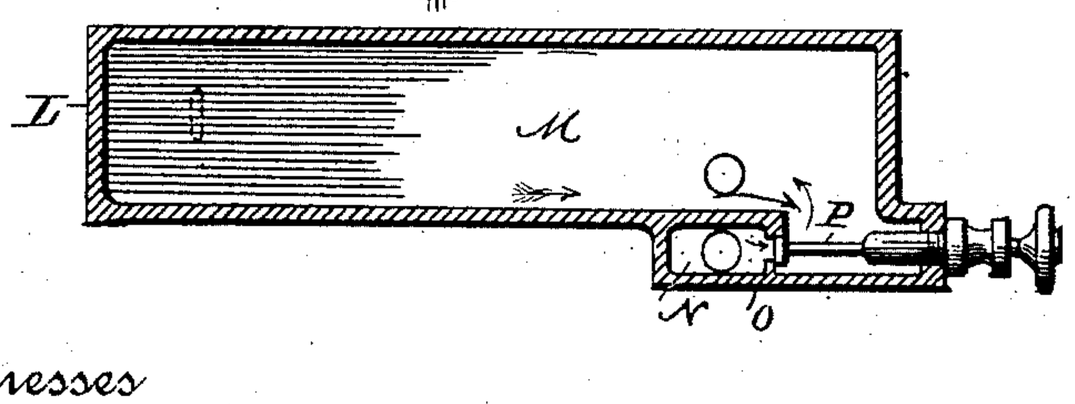


Fig. 4.



Witnesses
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UNITED STATES PATENT OFFICE.

EDWIN A. WOOD, OF UTICA, NEW YORK.

RADIATOR.

SPECIFICATION forming part of Letters Patent No. 371,017, dated October 4, 1887.

Application filed April 2, 1887. Serial No. 233,395. (No model.)

To all whom it may concern:

Be it known that I, EDWIN A. WOOD, a citizen of the United States, residing at Utica, in the county of Oneida, State of New York, have invented certain new and useful Improvements in Radiators, of which the following is a specification, reference being had therein to the accompanying drawings.

My invention relates to improvements in radiators for heating buildings of all kinds.

The object of my invention is to so construct a radiator that the air as it is heated will be deflected from the walls and projected into the room, thus heating the room more quickly, preventing in a great measure the discoloration of the walls, and also protecting the pictures or other articles suspended from the walls above the radiator from the injurious effect of the heat, as will more fully appear.

Referring to the drawings, Figure 1 is a view in perspective of my improved radiator. Fig. 2 is a sectional end view showing the interior of the boxes forming the radiator. Fig. 3 is a sectional end view of a portion of radiator, showing the connection between the boxes. Fig. 4 is a longitudinal sectional view, on line *x x*, Fig. 2, with the valve and stem in full lines, of one of the radiating-boxes, in which there is a valve for controlling the supply of steam admitted to the radiator.

A indicates the radiator, which is made up of a series or any desired number of boxes or chambers, B and L, placed on an angle of about forty-five degrees. These boxes are arranged one over the other, and are joined by a pipe-nipple, C, at their lower edges, as shown in Figs. 2 and 3. These boxes or chambers are separated from each other by the lugs D and nipples C, or by any other suitable means, so as to form spaces or air-passages E.

As before intimated, the radiators are built up of two kinds of boxes or chambers—that is, the plain boxes B and the boxes L, the boxes L being divided into two compartments or chambers, M and N. The chamber M communicates with the chamber N by means of the opening O, said opening being controlled by a suitable valve, P. The closing of the valve P will shut off the heat or steam not only from this particular box, but from all the sections above it, so that the temperature of the room may be regulated to any desired degree of heat by using only a portion of the radiator. The lower section or box of the radiator is connected to a steam, hot-water, or hot-air pipe, but preferably to a steam-pipe, said pipe being controlled by a suitable valve, F, to admit or shut off the steam or other elements used to heat the radiator.

The lower end of the radiator is secured to or rests against the base-board G by means of suitable irons, H, while the upper portion of said radiator may be held in position by the hooks I.

The upper section, K, is by preference made of the form shown in Figs. 1 and 2, so as to present a flat top.

In operation steam is admitted at the bottom by the valve F in the usual manner, and is free to pass up through the sections or boxes of the radiator to heat them. The steam first seeks the forward and highest part, and as it condenses will fall back to the bottom of the chambers and through the nipple-pipe C to the bottom section, where it passes out through the same pipe it entered; or a pipe may be connected at the other end of the lower chamber, through which the water of condensation may be carried off. The radiator is placed about two inches from the wall of the room, and the air to be heated passes out through or between the sections, and is thrown or deflected forward into the room, leaving only a slight current to pass up along the wall. The heat passing up nearest the wall is hardly perceptible to the hand, and is not sufficient to discolor the walls or injure pictures or other ornaments hung thereon.

The bottom or feet of this radiator is carried back and secured to the base-board, as has been described, so that no cutting or changing of carpets is necessary, except for the passage of the steam-supply pipe, and the entire space under the radiator is clear, so that the room may be readily swept and the carpets laid back to the base-board.

These radiators may be built up of any size, and are simply screwed together by swinging each section around on the nipple until they are tight and in the proper position, when they are fastened together by clips or lugs.

Instead of securing the bottom of the radi-

ator to the base-board by means of the irons H, I may provide the lower box or chamber with feet of any suitable kind.

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

1. A radiator consisting of a series of inclined hollow chambers or boxes, one above the other, with intervening spaces, substantially as described, whereby the air as heated will be deflected from the wall and projected upward into the room, as and for the purpose set forth.

2. A radiator consisting of a series of inclined hollow chambers or boxes, one above the other, with intervening spaces, and each communicating with the other at the lower edge, substantially as described.

3. A radiator consisting of a series of inclined hollow chambers or boxes, B, and intermediate boxes, L, all arranged one above the other, in combination with connecting-pipes and valves or stop-cocks located in the boxes L, for cutting off a part of the series of boxes one from the other, substantially as and for the purpose set forth.

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

EDWIN A. WOOD.

Witnesses:
M. H. AYLSWORTH,
H. H. TIMERMAN.