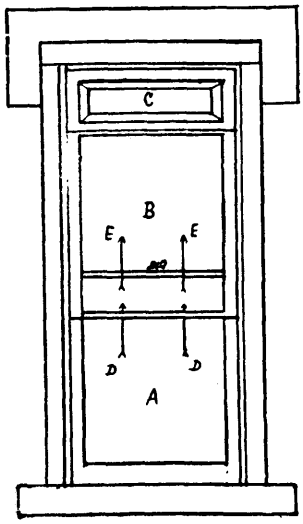
As a contribution towards the accomplishment of this desired end, I have devised a ventilating appliance, simple, cheap, and, for ordinary house ventilation, quite efficient.

The object is two-fold, firstly, to afford diffusion of fresh air without perceptible draughts, and, secondly, to make the ventilating appliances in a form that will add to, rather than detract from the appearance of the windows and the building, and, thus, to make them self-recommendatory.

The ventilating appliance consists of a short supplemental sash, preferably ornamental, placed at the upper part of, and outside of the window, and close against the top part of the upper sash.



This supplemental sash placed in this position affords simple means for changing a direct draught into an indirect draught when the top sash is lowered for ventilating purposes. The extra sash forms a block to the passage of a direct draught over the top of the upper window-sash, while a syphon-like space is afforded for the passage of an indirect draught by the overlapping of the upper and lower sashes. It is not new to ventilate buildings by utilizing the space caused by the overlapping of two window sashes, but heretofore this was done by the cumbrous method of placing a piece of planking below the lower sash. The cumbersomeness of this method has prevented its general adoption.

By placing the ventilating appliances at the top instead of at the bottom of the windows; by making them a fixture requiring no attention, and by substituting ornamental sashes for unsightly loose pieces of planking, the new ventilating appliances become self-recommendatory. They render window ventilation simple and easy, and I see no reason why they should not make it popular as well.

By admitting the fresh air between the overlapping sashes three important points are gained, viz.: Firstly, by treating several or all the windows in this manner the number of inlets and outlets prevent the concentration of the draught at any one point in the room, the fresh air is diffused and perceptible draughts are avoided. Secondly, the inlets are at the right height to prevent unpleasant draughts on the person. Thirdly, by admitting the fresh air through the syphon-like space between the overlapping sashes the fresh air is directed upward towards the ceiling. This can be very easily verified by a simple experiment, as, for instance, by using lycopodium seeds or the phosphorous acid given off at the first striking of a match before heat is evolved from the burning of the sulphur, as also by using the air meter.

Where windows on opposite sides of a room or building are equipped with these ventilating appliances both an inlet for fresh air and an outlet for foul air is afforded—"cross ventilation"—the direction of the current varying with the direction of the wind; and this method of admitting fresh air may be combined with any of the usual systems of removing foul air, such as by the use of fans, by cowls, or by artificially heated flues.

This system of ventilation, it seems to me, is particularly well adapted to bedrooms and sick chambers where it is desirable to have a constant supply of fresh air with freedom from unpleasant or dangerous draughts. It may also be made to supplement any other system of ventilation.

I have suggested to some parties the propriety of taking up the manufacture and putting in of these ventilating appliances as a business. Would it be too much to bespeak the co-operation of the profession in the enterprise? It is only by such co-operation that the venture can be made a success.

It is true that many families can not afford to decorate their houses with ornamental ventilating sashes. In such cases narrow opaque transom bars, painted to harmonize with the window frame may be substituted at a comparatively small cost.