

Correspondence.

WINTER VENTILATION.

To the Editor of the Canada Health Journal.

SIR,—In your article headed "Winter Ventilation," in the December number of the CANADA HEALTH JOURNAL, you refer to the desirability of having a special inlet to supply fresh air in the place of the air taken away by the suction of fire-places, &c. The difficulty that has been usually felt about inlets for cold air, is their liability to cause unpleasant and hurtful "draughts." If in cold weather one lets down a window for a few inches at the top, the incoming current of cold air is sure to direct its course downwards, and to make itself unpleasantly felt on the heads and persons of the occupants of the room. The same remark holds good of every horizontal inlet; the weight of the incoming horizontal current of air brings it slantingly downwards in the shape of a draught.

Permit me to call the attention of your readers to a complete remedy for this difficulty, invented some years ago by Mr. Tobin, of Leeds, Yorkshire, England; and in mentioning it, I may say that I know nothing whatever of the inventor, and have no interest whatever in his invention. I first saw it referred to in a newspaper paragraph, and I have since tried it in my own house, with the most satisfactory results. It has been tried with success in some of the public schools and offices in this city. This plan is to bring in fresh cold air through small vertical tubes placed in the corners of the room, extending upwards about four feet from the floor, and having at the lower end an elbow, which communicates with the external air. The fresh air enters the outer end of the tube, passes round the elbow, and enters the room in a vertical current at a point about four feet from the floor; the current then passes undeflected upwards, until it reaches the ceiling, where it breaks, is deflected along the ceiling, and finds its way gradually and imperceptibly downwards. This plan is a perfect cure for draught, as far as it is itself concerned; and

it has the additional merit of preventing or lessening the little knife-edged draughts that find their way through cracks and crannies of windows and doors, because air will always enter the easiest way. It is desirable to have the outside ends of the tubes protected by a covering from the direct action of the wind, otherwise too powerful a current may enter the room, when a strong, cold breeze is blowing outside. The tubes may be constructed of ordinary three-inch tin rain-water pipe; they can be painted or papered to match the walls, and are then scarcely observable, especially if the base-board is brought round outside of them. They are usually fitted with a tin disk inside, turned with a small handle from the outside, to shut off the current if desired; but the handle is very apt to get loose in the disk after a short time, and not to move it. I use the simple expedient of placing a small book on the top of the tube on the rare occasions when I need to close it. Three inches diameter and four inches for a large room is about the right diameter for the tubes. I notice that some architects in this city have carried the tubes up eight or nine feet from the floor, or to within two or three feet from the ceiling. I don't think this is advisable, because there is a danger of the incoming air striking the ceiling with such force as to be deflected in the shape of a draught.

An excellent system of ventilation for an ordinary-sized dwelling-room is an open grate or stove combined with two of these Tobin tubes—one in each corner opposite the fire. As the foul air is withdrawn from the room by the fire-place or stove below, its place is taken by the fresh air which descends gently and imperceptibly from above, heated by and partly mixed with the air of the room. Would not this plan remove, in regard to dwelling-rooms, the objection to outlets for foul air near the floor that you mention under the heading "Ventilation and Carbonic Acid" in the same number of the HEALTH JOURNAL? The constant downward current from the ceiling of the fresh air would surely counteract any tendency the carbonic acid gas