

wise the wind blows through them too rapidly, and, if the current be strong, draughts are felt; an overhanging shelf or hood outside will answer pretty well. Valves must be provided to partially close the openings if the wind blows in too strongly, or if the change of air is too rapid in cold weather. If covered with wire-gauze, it must be frequently cleaned.

"Sometimes an inlet tube must be carried some distance to an inner room, or to the opposite side of a large room which is unprovided with cross-ventilation. In this case the heat of the room so warms the tube that the wind may be permitted to blow through it.

"The position of the inlets is a matter of some difficulty. If there are several, they should be, of course, equally distributed through the room, so as to insure proper mixing of the air. They should not, however, be placed too near an outlet, or the fresh air may at once escape; theoretically, their proper place of entrance is at the bottom of the room, but if so, the air must in this climate be warmed; no person can bear the cold air flowing to and chilling the feet.

"If the air cannot be warmed, it must not be admitted at the bottom of the room; it must be let in above, about 9 or 10 feet from the floor, and be directed towards the ceiling, so that it may pass up and then fall and mix gradually with the air of the room. The Barrack Commissioners have adopted this plan with half the fresh air brought into a barrack-room. The other half is warmed. It answers very well.

"In towns or manufacturing districts the air is so loaded with particles of coal, or, it may be, other powders, that it must be filtered. Nothing answers better for this than muslin or thin porous flannel, or paperhangers' canvas, spread over the opening, which then should be made larger. This covering can be moistened if the incoming air be too dry."—*Parkes*.

As organic impurities in the air of inhabited rooms eventually gravitate toward the floor, it has been urged by some that the most perfect ventilation may be obtained by placing the opening for the outflow of impure air low down in the wall, as at the floor. But notwithstanding the fact that the organic matters tend downward, and that the carbonic acid is soon diffused, the tendency of all is undoubtedly upward until the expired air cools, and certainly that method appears most simple and practicable which takes advantage, so to speak, of this upward movement, and aids in continuing it until the foul air escapes from the building above the roof; to which point, in any case, it should be conveyed.

For good evidence of the upward tendency of breathed air, one has only to ascend to the upper part of an unventilated