to the fact that it is warm and moist. Cold air being heavier than warm, and dry air, whether cold or warm, heavier than damp, it follows that in rooms occupied the foul air is found towards the middle and top rather than at the bottom of the room.

No system of ventilation is perfect that does not provide an outlet as well as an inlet for air. The relative size of inlets has been much discussed, but it is not possible to indicate here more than the main principles on which they should be constructed. They should bring air from a pure source and should be protected from wind. If large and single they should bring air in warmed to a temperature of from 56 to 60 degrees Fahr., and should be placed about half way up the wall. If small they should be well distributed about the room. Theoretically, the floor would be the best part for the entry of fresh air, but in case of its being cold this would be intolerable, and in any case some air is bound to come in under doors, etc. Tobius Tube is much used in England, and except in extreme weather is a very effective ventilating apparatus. It consists of a tube 4-6 feet high communicating at its base with the external air through a grating or perforated brick. The air enters the room in an upward direction and mixes with the warmer air, diffusing itself through the room. There is a lid which may be closed to a varying extent. It is quite usual to see two and even three of these tubes in English schoolrooms and they are also often found in dwelling-houses. Another convenient way of ventilating through the wall is by Sheringham's valve placed six feet from the floor and introducing the air on the same principles as Tobius Tube.

The chimney forms the best means for the escape of foul air if openings are made above the fire place, and the fire, together with the aspirating action of winds, causes a regular upward current. When there is no fire a chimney acts as an inlet for outside air. There can be no doubt that natural ventilation, i.e., the introduction of external air by the most direct means, is the best; it is not always, however, possible. Artificial ventilation, or the introduction of fresh warm air, by mechanical apparatus can be very efficiently carried out provided the tubes are kept clean and the air uncontaminated with smoke and dust. Smead & Dowd's ventilating apparatus gives a good supply of warm air provided there are sufficient outlets for the vitiated air. There should always be several of these in the walls of school rooms, near the ceiling. Even if the air introduced into the room is as warm as the air expired by the occupants the dampness of the respiratory products inevitably causes them to rise. The plan of having the outlets at the base of the wall is unscientific and obviously inefficient. To be effective such a method requires many gratings and a strong current of air always drawing. This implies costly and elaborate apparatus. A very simple and easy way of providing an outlet for school-rooms would be to have a window over each door opening