

and broken so as to become warmed up in the room or ward, it must mix with the impure air already in the room, and become more or less impure; and then unless there is some definite *vis a fronte* drawing off the foul air, and giving a definite direction to its movement, fresh and foul air will be indefinitely and hopelessly mingled, the fresh passing in on the windward or colder side, falling cold upon the beds on that side, and passing over to those on the other side, giving them a little benefit (?) or not according as it has not happened or has happened to have become sufficiently warmed to pass entirely over the level of these beds in its progress towards the windows. If you admit cold air at the windows instead of introducing it over some heating body you are on the horns of a dilemma, either to let it remain and mix with impure air until it becomes warmed, in which case it is no longer pure; or else to bring it cold to the patients, some of whom may be stripped for clinical observation or treatment.

Compare all this with the "artificial means" in Wards III. and VIII. Here there is a grating in the floor under each bed, and on a cold winter's day a smoke test will show the foul air being drawn down from the floor line through these outlets. Over the beds are registers which, (when kept open), allow currents of moderately warmed air to enter, and diffuse over the beds in its downward passage to the outlets; in very severe weather it is found necessary to add to the heat of the room by radiators, but there is always a definite drawing down to the floor and away of the air which has been rendered impure by the exhalations of the inmates.

I am not upholding the system here described as the most efficient possible. The amounts of fresh air brought in could be increased by more powerful extractive force, and larger inlet space. The artificial means used are simply shafts extending up from the ground floor to the roof, and with which the flues from below the floor are connected; the extractive action is simply that the air rises through flues surrounded by indoor warmth. At any time this extractive force can be increased by fans or jets if found necessary. The warm air above the beds is conveyed from out-doors in flues containing heated coils, and it does not rise and escape without being used, because it is drawn down by the extractive force and passes the breathing line on its way. The atmosphere of these rooms is always pleasant, and even the floor line is warm to the feet.

If there is any necessity for pointing to other contrasts I would instance the changed atmosphere of the rooms of the