the ward floor, while those for ventilation extend up above the roof. Those for heating are chambers into which fresh air is introduced through gratings placed in the face of the outside walls, a few feet above the surface of the ground. This is a smoothly sodded lawn, and the air will therefore be free from dust. Inside each of these chambers is a large coil of hot water pipes, by passing over which the air is warmed to the desired temperature. Valves are so arranged that the incoming air may, if desired, be sent up directly into the ward without passing over the coil, or its temperature may be nicely regulated to the desired degree by allowing only a portion of it to pass over the coil. These inlet flues are placed so as to distribute the fresh warmed air as equally as possible through the ward. The system of outlet, or exhaust flues is the necessary complement of the other, and their area is such that all the air which enters the room in a given time can be passed out again through them in the same time. It is expected that the whole body of air in the wards will be changed from three to four times an hour, and perfect ventilation ought to be ensured, because it will be impossible to warm the room without ventilating it in the process. A vessel of any kind, which is full, can contain no more, except under pressure, and with this complete system of outlets there can be no pressure here; therefore no warm air can be introduced unless a corresponding quantity of the air already in the room be removed to make space for it. The outlet registers are placed at the floor, and so located that currents will not be established directly between the inlets and them, but the warm air will pass to the ceiling and be drawn downwards by the passage of vitiated air through the outlets. Everything that might interfere with the free movement of the air, or that might catch dust has been avoided. Thus there are no sharp angles at floor, ceiling or corners, but all are rounded.

Although not intended for use in the continuous ventilation of the building, a small fan, worked by a little steam engine, has been provided under each of the large wards. This is intended to be used, when the ward is empty, for "flushing" it, and will draw in large quantities of cold air, which it will force up through tubes and special gratings into the ward. In connection with this flushing system several large apertures have been provided in the ceiling of the ward. These are connected with ducts in the roof, leading to a large brick shaft provided with a steam coil, in the same manner as the smaller ventilating flues. A complete change of air can thus be surely effected in a few minutes, and the temperature lowered to that of the outside air. When the ward is thoroughly flushed the fan will be stopped, the ceiling apertures closed, and the ordinary system once more brought into play.

It will be obvious that, in order to give off a sufficient amount of heat to warm so large a series of buildings, a very large quantity of water must be passed through the heating coils. It is not, however, under any higher pressure than the head from the supply tank, being open to the atmosphere there. The completeness of the circulation through all the multitude of coils has been attained by providing boilers of ample size and very large mains. Jutting out from the two angles of the Ls at the north and south ends respectively are the kitchen wing and nurses' home. Under each of these is a boiler-room containing a battery of large tubular boilers. The main flow and return pipes are connected with both sets of boilers, extending along the corridor from one to the other, and are 26 inches in diameter. An idea of the magnitude of the system will be best grasped by comparison. A main of this size would be sufficient for the water supply of a town of 30,000 inhabitants. A steam apparatus capable of supplying the same amount of heat would have been much less costly. But it would probably have been a higher pressure apparatus. By the open hot water system adopted, the temperature of the pipes can never exceed 212°, while with a steam system it would frequently have been very much higher according to the pressure. Where the object to be attained, as in this case, is to warm a large volume of air to a moderate temperature rather than a small volume to a high temperature the advantages of the more costly system are apparent. On the other hand it has this disadvantage that it calls for the exercise of a greater degree of care and watchfulness on the part of those having charge of it, if the risk of frozen coils on cold nights is to be avoided. This risk is not so great in the latitude of Baltimore as in more northern localities.

Some of the boilers already mentioned are used for the supply of steam for the ventilating apparatus as well as for cooking and washing. The system of steam pipes for warming the aspirating