erable quantity of ice and inthis case the refrigerating apparatus will also need to be much more powerful and consequently much more costly, to attain the same end.

In fact these apparatus should be looked upon merely as auxiliary to the walls and not as the basis of the cooling of the curing-room.

The walls of these rooms,owing to the manner in which they have hitherto been built, allow much more heat to pass than is generally imagined, owing to their conductivity.

Let us take for instance a curing room of 26 × 27 × 10 feet, the walls of which are built in the usual way. Let us admit that at a given moment the inside temperature of this room is 60° and the outside temperature 80°. Then even supposing the room to be completely air-proof, it will not take more than three hours to raise the temperature to about 80° as will be seen by the curved line in figure 13.

If the initial inside temperature of that room were 65° and the outside temperature maintained itself at 70°, the inside temperature would take about the same time to reach the vicinity of 70° (curved line II fig. 13).

To maintain the temperature of this room at 60° in the first case, 25 lbs of ice per hour would be needed and to maintain it at 65° in the second, about 6 lbs per hour would be needed.

If the walls of that room were twice as impermeable to heat, it would take about 6 hours to raise the temperature from 60° to the neigborhood of 80° (curved line III fig. 14) and it would take about the same time to raise it from 65° to 70° if the outside temperature remained at 70°.

In the first case of the second experiment, only 15 lbs of ice would be needed to maintain the temperature at 60° and 3½ lbs to maintain it at 65° in the second case. This saving of ice shows that the quantity required to maintain a low temperature is in an inverse ratio to the impermeability of the walls and in proportion to the difference of temperature inside and outside.