

ESTIMATING RADIATOR SURFACE.

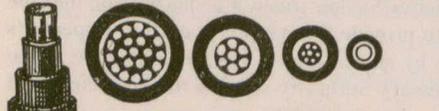
JAMES Keith, C.E., London, gives the following information for estimating the amount of pipe or radiating surface required to maintain the temperature of rooms by hot water, for direct radiation and where no special artificial ventilation is arranged for:

"Divide the difference in temperature between that at which the room is to be maintained and that of the outside atmosphere, by the difference between the temperature of the pipes or radiators, and that at which the rooms are to be kept; and the product thereof will be the square feet or fraction thereof, of pipe or radiator surface to each square foot of glass or its equivalent."

e. g. Assuming the average temperature of pipes to be one hundred and fifty degrees Fahr., while the outside temperature is thirty degrees, and the room is to be kept at seventy degrees, we have:

$$\begin{aligned} \text{Room minus outside} &= \text{Difference in temperature.} \\ 70 \text{ deg.} - 30 \text{ deg.} &= 40 \text{ deg.} \\ \left. \begin{array}{l} 150 \text{ deg.} - 70 \text{ deg.} \\ \text{Pipes} \quad \text{Room.} \end{array} \right\} &= 80 = 5 \text{ or half sq. foot.} \end{aligned}$$

Therefore, about one foot of two inch pipe to every square foot of glass, or its equivalent, will be required to maintain a difference of forty degrees; about twenty-five per cent. to the total being added for safety.



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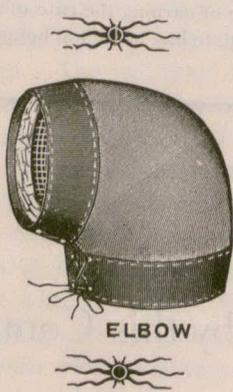
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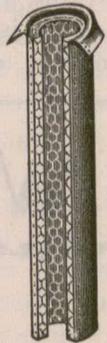



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