

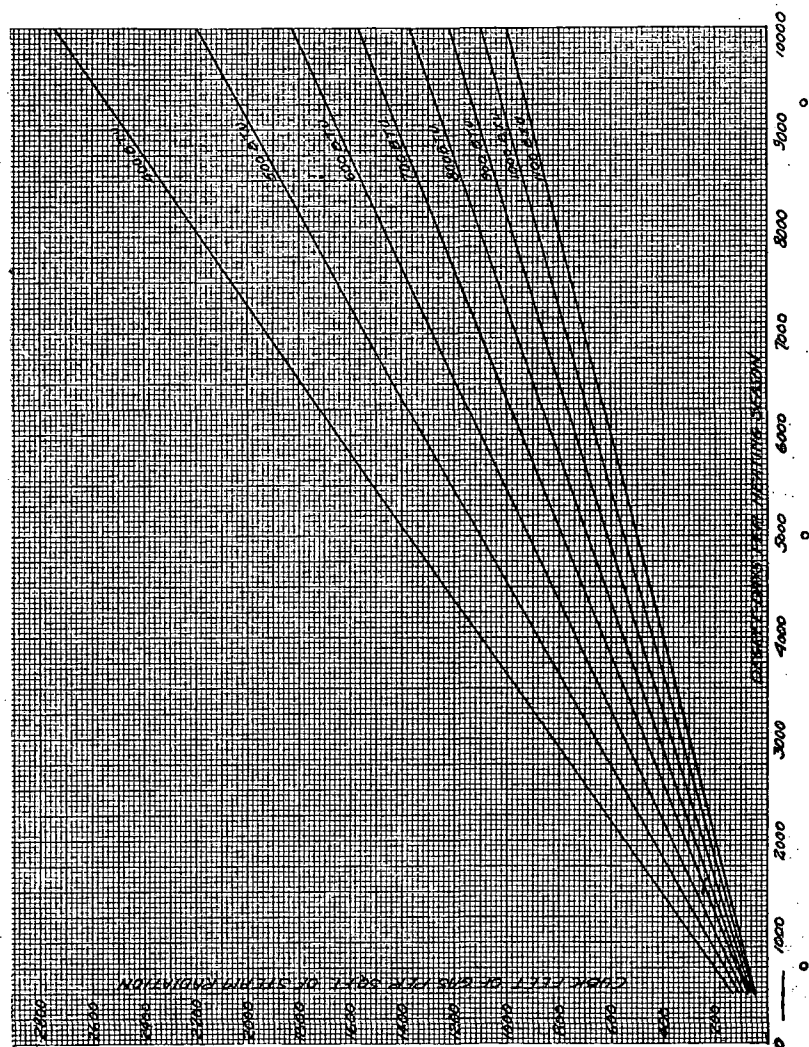


FIG. 1. GAS CONSUMPTION PER SQUARE FOOT OF STEAM RADIATION

By averaging the records of a large number of gas-boiler installations, the following equations have been derived:

$$\text{For Steam } G = \frac{110 \times R \times D}{H}$$

$$\text{For Water } G = \frac{64 \times R \times D}{H}$$

where G = cubic feet of gas per season
 R = square feet of direct cast-iron radiation (as calculated)
 D = degree-days per season
 H = B.t.u. (gross) per cubic foot of gas

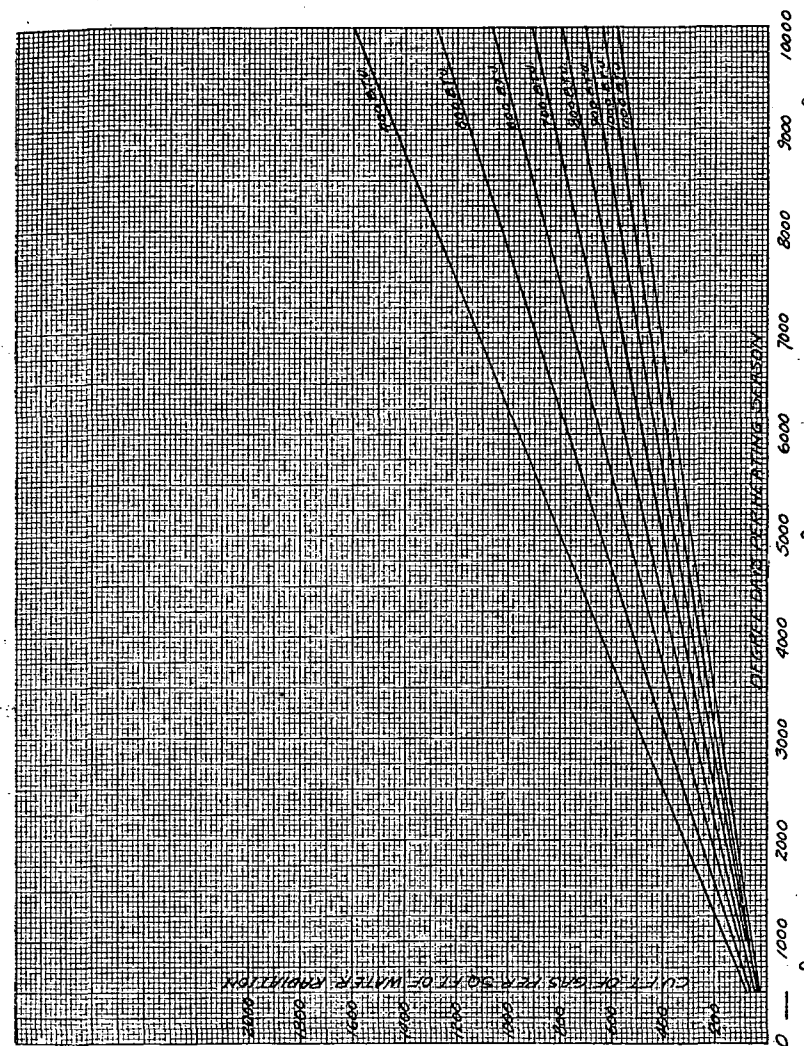


FIG. 2. GAS CONSUMPTION PER SQUARE FOOT OF HOT WATER RADIATION

Example.—To estimate the gas consumption for the average heating season for a 200 sq. ft. steam heating system in Chicago.

From Table 4 it is found that the average heating season in Chicago has 6007 degree-days. The gross heat value of the gas supplied to that city is 535 B.t.u. per cu. ft. Substituting in the equation:

$$G = \frac{110 \times 200 \times 6007}{535} = 247,017 \text{ cu. ft.}$$