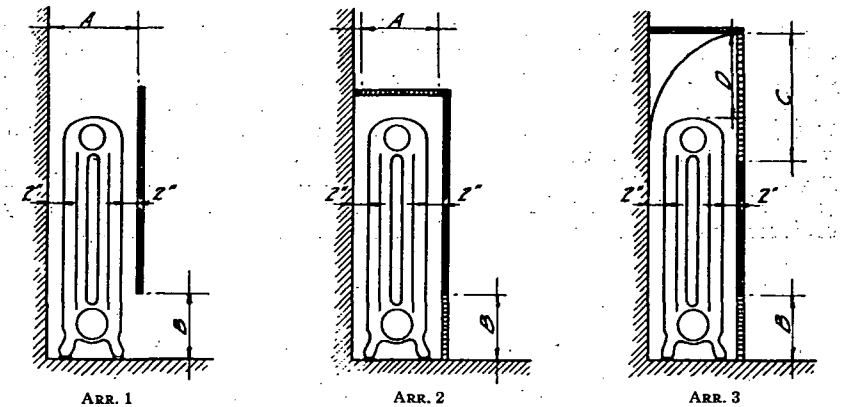

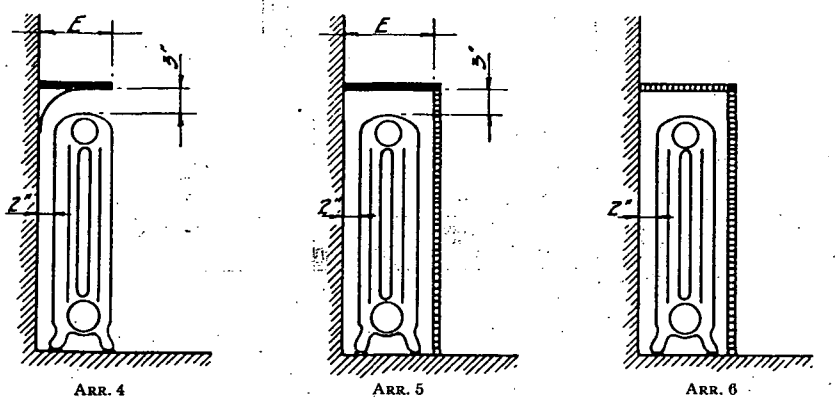

TYPE	INSTALLATION CONDITIONS	HEAT EMISSION SHALL BE ALTERED BY PERCENTAGE INDICATED
Arr. 1	When dimension A is as shown in Arr. 1 and dimension B is equal to 80 per cent of A	10% increase
Arr. 2	When dimension A is as shown and dimension B is equal to 80 per cent of A	5% increase
Arr. 3	When dimension B is equal to 80 per cent of A (as in Arr. 1), dimension C is equal to 150 per cent of A and dimension D is equal to A	No change
Arr. 4	When dimension E is equal to 50 per cent of A	10% reduction
	When dimension E is equal to A	20% reduction
	When dimension E is equal to 150 per cent of A	35% reduction
Arr. 5	When dimension E is equal to A	30% reduction
Arr. 6	When as shown	5% reduction

[a]From A.S.H.V.E. Code of Minimum Requirements for the Heating and Ventilation of Buildings (edition of 1929).

FIG. 8. TYPES OF ENCLOSURES AND HEAT EMISSION OF ENCLOSED RADIATORS

The *stack height* is usually taken as the vertical distance from the bottom of the heating unit to the top of the enclosure. (See Figs. 5 and 6.)

SELECTION OF WALL OR CABINET CONVECTORS

The procedure for selecting wall or cabinet gravity convectors is as follows:

1. Estimate the total heat loss from the room or space to be heated in accordance with the procedure outlined in Chapter 2, making proper allowance for exposure, wind velocity, height of ceiling, etc.

2. *Radiators With Enclosures.* If heating units for which heat emission data are given only for use as exposed radiators, are to be used, estimate the percentage decrease in heat emission from a unit thus installed in accordance with Fig. 8, and add this percentage to the heat loss from the room as estimated in Paragraph 1. From the manufacturers' guaranteed performance data as given in the Catalog Data Section of THE GUIDE or elsewhere, find the number of sections or size of each heating unit to supply the corrected heat loss.

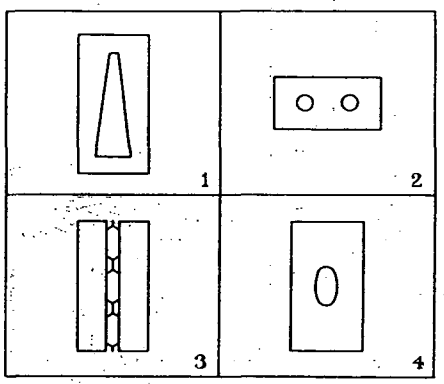

FIG. 7. SECTIONS THROUGH TYPICAL HEATING UNITS OF EXTENDED SURFACE TYPE

3. *Convectors (Concealed Radiation).* If convection-type units with enclosures are to be used, decide upon the type and the number of units to be used. Then find from manufacturers' guaranteed performance tables for the particular type of unit and enclosure under consideration as given in the Catalog Data Section of THE GUIDE or elsewhere, the number of sections or the size of each heating unit required to supply the heat loss from the room. No addition because of enclosure need be made to the ratings as guaranteed by the manufacturer.

GRAVITY-INDIRECT HEATING SYSTEMS[5]

If the heating units are placed in the basement, properly encased, and this enclosure connected to the room by means of supply ducts, it is usually termed a *gravity-indirect heating system.* (See Fig. 9). The heating units for this type of heating are likewise of special design, usually of the extended surface type, and give off their heat by conduction to the air passing over them.

[5]For further information on this subject see A.S.H.V.E. Code of Minimum Requirements for the Heating and Ventilation of Buildings (edition of 1929) and Mechanical Equipment of Buildings, by Harding and Willard, Vol. I, second edition, 1929.