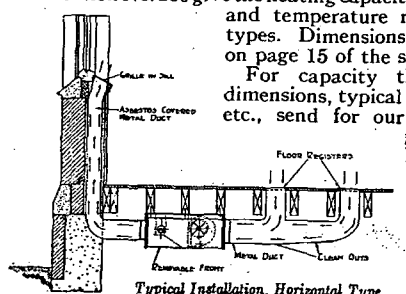
large areas—a vital matter in the heating of churches and assembly rooms.

**Temperature Control:** Simple and effective control of room temperature by means of making and breaking electric contact in line to motor.

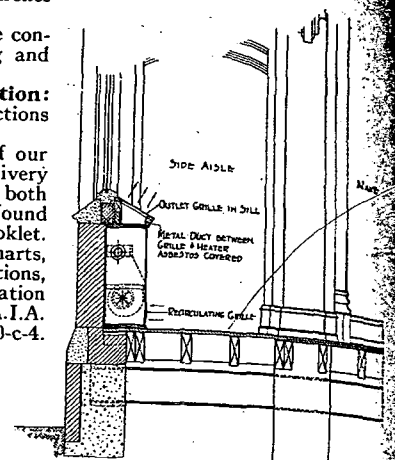
**Less Expensive to Install than Direct Radiation:** Piping system simplified and number of connections reduced, effecting a saving in labor and material.

**Sizes of Heaters:** The charts on page 14 of our Publication No. 209 give the heating capacity, air delivery and temperature rise for both types. Dimensions will be found on page 15 of the same booklet.

For capacity these charts, dimensions, typical installations, etc., send for our Publication #209, A.I.A. File #30-c-4.




*Typical Installation, Horizontal Type* Universal Unit Heater




*Detail from transverse section of Church showing typical* Universal Unit *Installation.*

# .3.

## Nesbitt Concealed Radiators

These modern radiators of light-weight, copper-fin construction are now available in a great variety of sizes, types and styles suitable for installations in residential, commercial, public or community buildings.

The heating element is the strong, all-copper, Multifin Radiator, described in preceding pages. The cabinets or enclosures are durable, good looking and easy to install. The combination makes complete apparatus ready to install without extra materials or troublesome details.

**Nesbitt Concealed Radiators** are available in any of the following types:

**Walled-in Radiators,** completely hidden in the wall construction.

**Flush-panel Radiators,** fully recessed, and having removable metal fronts.

**Partly-recessed Radiators,** for use where building walls will not permit depths of recess sufficient for complete concealment.

**Floor and Wall Cabinets,** exposed in rooms and installed in a similar manner to ordinary cast-iron radiators.

Any type of Nesbitt Concealed Radiator may be arranged for Face Discharge or Top Discharge of warmed air to the room. Where draperies or other decorations are in the path of rising heated air, Face Discharge types are preferred. For radiators installed with discharge through window sills in commercial, school, church and other buildings where draperies are not a factor for consideration, the Top Discharge types are desirable.

Available sizes of Nesbitt Concealed Radiators are printed on the following page.

## How to Select Nesbitt Radiators:

Assuming that the required square feet of equivalent of direct radiation for each proposed location has been determined according to usual practice and reliable data and formula, it is then necessary to select sizes of Nesbitt Concealed Radiators from the tables.

The selection in each case will be a Nesbitt radiator not less in square feet rating than the figured requirements and one which will best fit the width, length and height of the recess or other space at the proposed location. It should be borne in mind during this selection that the nominal or casing dimensions W, L and H





are not extreme dimensions of outside grilles or panels. Small additional dimensions of an inch or two must be allowed for actual installations.

The choice of type,—Walled-in, Panel, Partly Recessed or Cabinet—depends upon the thickness of walls or partitions and what part of the wall, if any, can be taken for recesses. Of the two completely recessed types, Walled-in and Panel, the former is usually chosen unless there is special necessity, as in hospitals, medical offices, etc., for complete accessibility of interiors or where the decoration schemes bring about a desire for panel fronts.

Cabinets may be floor or wall type, the choice being made according to the preference between cabinets set on legs and attached to floor or hung by suitable bolts or brackets fixed in the wall construction.

## RATINGS FOR NESBITT CONCEALED RADIATORS

**These ratings are from condensation tests and are based upon standard ratings of 240 B. T. U. per square foot, PLUS TEN PERCENT for convection heating. The tabular values below are equivalent square feet of direct radiation. They may be converted to standard ratings of 240 B. T. U. per square foot by dividing by the factor 1.10.**

**Dimensions in this table are measured inside of casings.**

| Face Discharge | | WIDTH = 4¼" (Radiator Width—4") Length—Inches | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Overall Height | Draft Head | 16 | 20 | 24 | 30 | 36 | 42 | 48 | 54 | 70 |
| Inches | Inches | | | | | | | | | |
| 20 | 8 | 6.0 | 11.0 | 14.5 | 18.0 | 22.5 | 27.5 | 31.5 | 35.0 | 45.0 |
| 22 | 10 | 6.7 | 11.9 | 15.8 | 19.7 | 24.7 | 29.8 | 34.2 | 38.0 | 48.4 |
| 24 | 12 | 7.5 | 12.9 | 17.1 | 21.4 | 26.9 | 32.1 | 36.9 | 41.0 | 51.8 |
| 26 | 14 | 8.2 | 13.9 | 18.4 | 23.1 | 29.1 | 34.4 | 39.6 | 44.0 | 55.2 |
| 28 | 16 | 8.9 | 14.9 | 19.7 | 24.8 | 31.3 | 36.7 | 42.3 | 47.0 | 58.6 |
| 30 | 18 | 9.6 | 15.9 | 21.0 | 26.5 | 33.5 | 39.0 | 45.0 | 50.0 | 62.0 |
| 36 | 24 | 10.7 | 17.2 | 22.8 | 28.8 | 36.2 | 43.0 | 49.8 | 55.0 | 70.0 |
| 42 | 30 | 11.7 | 18.3 | 24.4 | 30.7 | 38.1 | 46.5 | 54.0 | 59.5 | 76.5 |
| *48 | 36 | 12.7 | 19.3 | 25.8 | 32.5 | 40.7 | 49.5 | 57.8 | 63.8 | 82.5 |
| *60 | 48 | 13.6 | 21.4 | 28.0 | 34.6 | 42.5 | 51.3 | 64.0 | 66.7 | 88.5 |
| *72 | 60 | 14.3 | 23.1 | 29.7 | 36.3 | 44.0 | 52.8 | 62.7 | 69.3 | 93.5 |
| | | WIDTH = 6¼" (Radiator Width—6") Length—Inches | | | | | | | | |
| | | 16 | 20 | 24 | 30 | 36 | 42 | 48 | 54 | 70 |
| 20 | 8 | 8.5 | 16.5 | 21.5 | 27.0 | 33.0 | 41.0 | 46.5 | 52.0 | 66.0 |
| 22 | 10 | 9.5 | 18.0 | 23.1 | 29.2 | 35.5 | 43.8 | 50.4 | 56.6 | 71.0 |
| 24 | 12 | 10.5 | 19.6 | 24.8 | 31.5 | 38.0 | 46.6 | 54.3 | 61.2 | 76.0 |
| 26 | 14 | 11.5 | 21.2 | 26.5 | 33.8 | 40.6 | 49.4 | 58.2 | 65.8 | 81.0 |
| 28 | 16 | 12.5 | 22.7 | 28.1 | 36.1 | 43.1 | 52.2 | 62.1 | 70.3 | 86.0 |
| 30 | 18 | 13.5 | 24.2 | 29.7 | 38.4 | 45.6 | 55.0 | 66.0 | 74.8 | 90.0 |
| 36 | 24 | 14.9 | 25.5 | 31.4 | 40.3 | 49.1 | 60.7 | 73.4 | 82.2 | 97.0 |
| 42 | 30 | 16.2 | 26.8 | 33.1 | 42.2 | 52.6 | 66.4 | 80.7 | 89.6 | 105.0 |
| *48 | 36 | 17.5 | 28.0 | 34.7 | 44.0 | 56.0 | 72.0 | 88.0 | 97.0 | 110.0 |
| *60 | 48 | 18.2 | 29.0 | 35.4 | 45.0 | 58.0 | 76.0 | 91.5 | 102.0 | 120.0 |
| *72 | 60 | 18.7 | 30.0 | 36.0 | 46.0 | 60.0 | 80.0 | 95.0 | 105.0 | 130.0 |
| | | WIDTH = 8¼" (Radiator Width—8") Length—Inches | | | | | | | | |
| | | 16 | 20 | 24 | 30 | 36 | 42 | 48 | 54 | 70 |
| 20 | 8 | 11.6 | 20.4 | 26.4 | 33.6 | 40.7 | 47.3 | 55.0 | 59.0 | 76.6 |
| 22 | 10 | 12.8 | 21.5 | 27.5 | 35.5 | 43.2 | 50.7 | 59.0 | 64.0 | 82.6 |
| 24 | 12 | 14.1 | 22.6 | 28.6 | 37.3 | 45.8 | 54.0 | 63.0 | 69.0 | 88.3 |
| 26 | 14 | 15.4 | 23.8 | 29.8 | 39.2 | 48.4 | 57.4 | 67.0 | 74.0 | 94.1 |
| 28 | 16 | 16.7 | 24.9 | 30.9 | 41.1 | 51.0 | 60.7 | 71.0 | 79.0 | 100.0 |
| 30 | 18 | 18.0 | 26.0 | 32.0 | 43.0 | 53.5 | 64.0 | 75.0 | 84.0 | 106.0 |
| 36 | 22 | 19.4 | 29.0 | 36.7 | 47.7 | 64.2 | 71.3 | 85.0 | 96.0 | 119.0 |
| 42 | 30 | 20.7 | 32.0 | 41.5 | 52.5 | 69.0 | 78.6 | 95.0 | 106.0 | 131.0 |
| *48 | 36 | 22.0 | 35.0 | 46.0 | 57.2 | 69.3 | 85.8 | 104.0 | 118.8 | 143.0 |
| *60 | 48 | 23.0 | 36.2 | 47.8 | 60.5 | 73.2 | 91.3 | 110.9 | 125.4 | 151.5 |
| *72 | 60 | 24.0 | 37.4 | 50.6 | 63.8 | 77.0 | 96.8 | 117.7 | 132.0 | 160.0 |

*Radiators higher than 42" are available only for Walled-In types.