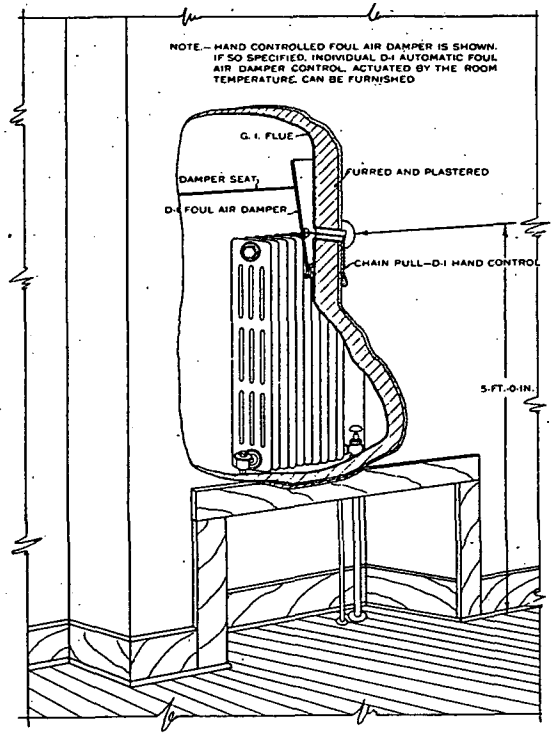
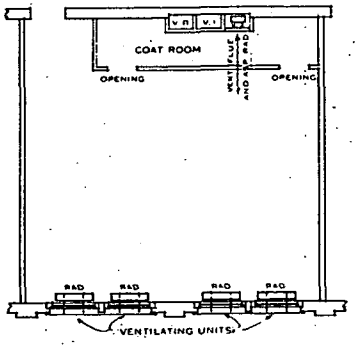


TYPICAL DETAIL VENT FLUE AND ASPIRATING RADIATOR

NOTE:—BOTTOM OF RADIATOR TO SET NOT LESS THAN 2-INCHES ABOVE TOP OF OPENING.



TYPICAL DETAIL OF CLASS ROOM

(IDEAL ARRANGEMENT AS DESIGNED BY JACOB H. HILKENE, SUPT. BUILDINGS AND GROUNDS, INDIANAPOLIS PUBLIC SCHOOLS, AND APPROVED BY THE BOARD OF EDUCATION.)

Methods of Calculation Applying to Gravity Ventilation

To determine the size of a foul air vent flue, first find out the number of pupils by allowing 225 cu. ft. of room contents to each pupil, then allow 16 sq. in. area in the flue to each pupil.

To determine the size of an aspirating radiator for a basement or first floor vent flue, allow ⅝ sq. ft. of radiation to each pupil; for a second floor vent flue, allow ⅞ sq. ft. to each pupil.

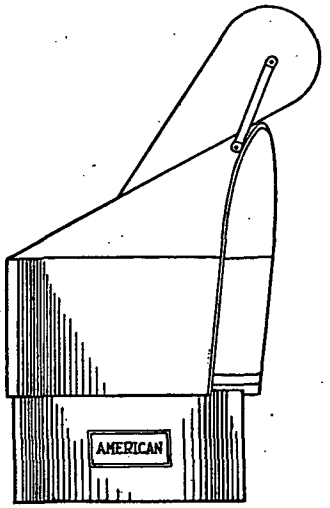
All vent flues should be connected to a collecting chamber or chambers constructed in attic. Size of chamber or chambers should be 10 per cent larger than the combined free area of all flues connecting into same.

Each collecting chamber should be connected to a revolving automatic ventilator. To determine the size of the ventilator, ½ sq. in. free area in ventilator should be allowed to each 1 sq. in. free area in foul air vent flues.

NOTE.—For positive ventilation and to insure the withdrawal of 30 cu. ft. of air per minute per pupil, we recommend the use of an exhaust fan in the attic, properly connected to all foul air vent flues.

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AMERICAN AUTOMATIC VENTILATORS

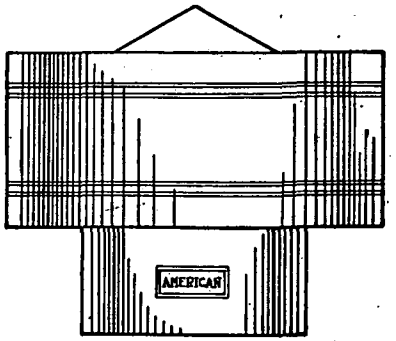


Ball Bearing

Diameter In.	Area in Sq. In.	Shipping Weight	Trade Price
10	78	20	$ 12.78
12	113	25	15.53
14	153	35	18.56
16	201	45	24.06
18	254	48	24.75
20	314	60	25.78
22	380	70	28.18
24	452	78	29.91
26	530	94	33.68
28	615	110	35.75
30	706	140	37.81
32	804	155	44.68
34	907	165	48.13
36	1017	197	50.88
38	1134	225	61.88
40	1256	250	68.75
42	1385	275	71.50
44	1520	300	78.38
46	1661	350	83.88
48	1809	378	89.38
50	1963	400	96.25
52	2123	425	103.13
54	2290	450	110.00
56	2463	500	119.63
58	2642	575	126.50
60	2827	660	134.75

NOTE.—Furnished in galvanized iron only unless otherwise ordered. Base extra.

AMERICAN STATIONARY VENTILATORS



Diameter In.	Area in Sq. In.	Shipping Weight	Trade Price
12	113	40	$ 3.92
14	153	50	5.63
16	201	60	8.66
18	254	70	10.65
20	314	90	13.75
24	380	100	17.18
30	706	150	23.38
36	1017	210	37.13
42	1385	350	49.50
48	1809	450	65.25
54	2290	570	75.63
60	2827	700	92.81

NOTE.—American Ventilators are received by all transportation companies under Classification One, double rate.

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METHOD OF CALCULATION FOR D-I SANITARY VENTILATING RADIATOR UNITS

The following method of calculation for amount of air required is based on State requirements of Indiana, and will naturally vary in states where the requirements are different. However, the general principles of the method will apply to all cases.

1. The amount of Direct Radiation installed, which is not enclosed with the Air Diffusers, is that required for the exposed wall and glass. This Radiation is determined in the following manner:

2. Multiply square feet of glass surface in room by 89, if from zero to 70 deg., or by 99 if from −10 deg. to 70 deg.