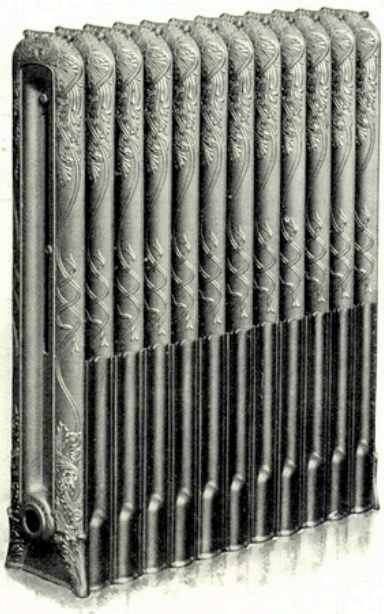
DIRECT-INDIRECT RADIATORS



LOWER portion of Radiator is inclosed with *detachable* plates placed between the sections in a manner to give ample space for introduction of air under base of Radiator and between sections. Plates may be removed for dusting and sweeping under Radiator whenever desired. When cold air is supplied through conduit in wall, *above* the floor, a sufficient number of plates may be raised to any desired height, to conform with the opening in wall, and the air introduced at back of Radiator.

FOR WATER AND STEAM.

For dimensions, prices, etc., see page 9.

Price per Section, extra, - - - 10*d.*

NATIONAL

DIRECT-INDIRECT.

THE lower portion of each section or loop of the Radiator has flanges cast on each side, and when the sections are connected, the flanges dove-tail together and form large, perpendicular, fresh-air flues between the sections. A damper door is placed at either end of base, and, if desired, when cold air supply is shut off by means of a register in air duct, the Radiator can be converted into the ordinary direct type by opening both damper doors, thus taking the air from the room instead of the outside. The damper doors also make it possible to easily clean the base of any accumulation of dust and dirt. When specially ordered, can also furnish with opening at back so air conduit may be brought into Radiator above floor level, instead of under base of Radiator through floor.

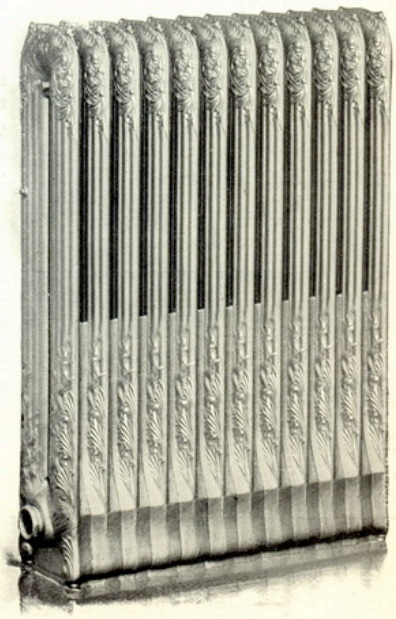
FOR WATER AND STEAM.

For dimensions, prices, etc., see page 23.

Price per Section, extra, - - - 10*d.*

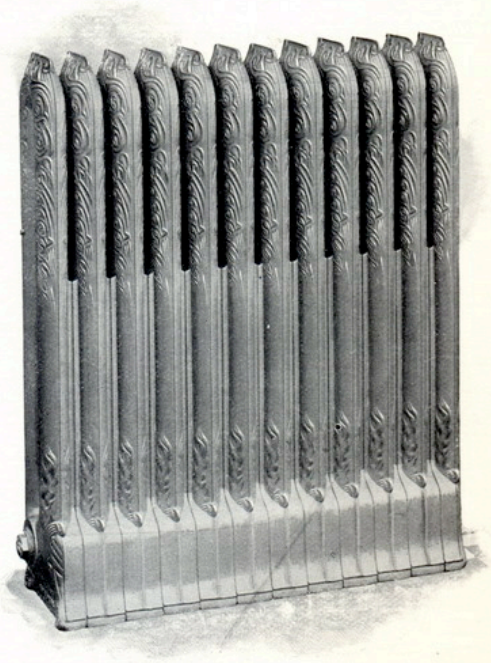
DETROIT

DIRECT-INDIRECT.



THE lower portion of each section or loop of the Radiator has flanges cast on each side, and when the sections are connected, the flanges dove-tail together and form large, perpendicular, fresh-air flues between the sections.

A damper door is placed at either end of base, and, if desired, when cold air supply is shut off by means of a register in air duct, the Radiator can be converted into the ordinary direct type by opening both damper doors, thus taking the air from the room, instead of the outside. The damper doors also make it possible to easily clean the base of any accumulation of dust and dirt. When specially ordered, can also furnish with opening at back so air conduit may be brought into Radiator above floor level, instead of under base of Radiator through floor.



FOR WATER AND STEAM.

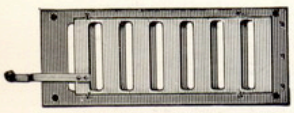
Made only in 38-inch Height, Water.
Made only in 45, 38 and 26 inch Heights, Steam.
For dimensions,* etc., and prices, see page 19.

Price per Section, extra, - - - 10*d.*

*NOTE.—Length occupied by each Section, 2⅝ inches, instead of 2½ inches, as in Perfection Direct Radiators.

PERFECTION

DIRECT-INDIRECT.

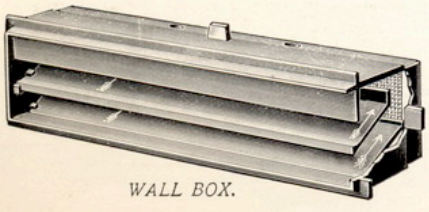


FLOOR DAMPER.

THIS Floor Damper is made to set in floor directly under Radiator. The handle shown in cut projects through the slot in damper door of Radiator, making it possible to introduce or shut off the cold air supply to meet requirements of the weather.

All 8¼ inches wide.

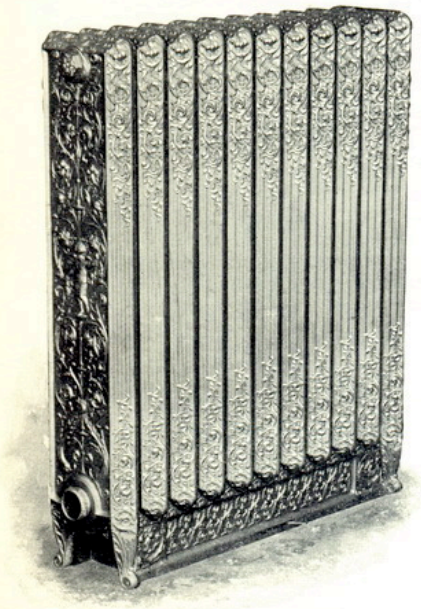
Size No.	Length, Inches.	To Fit Under	£ s. d.
4	8½	4 and 5 Section Radiators,	
5	11	6, 7 and 8 " "	0 10 0
9	21½	9 and 10 " "	0 12 0
10	24	11 " 12 " "	
12	29¼	13 " 14 " "	0 14 0
15	37	15, 16 and 17 " "	0 16 0
18	44¾	18, 19 " 20 " "	1 0 0
20	50	21 to 30 " "	1 4 0



WALL BOX.

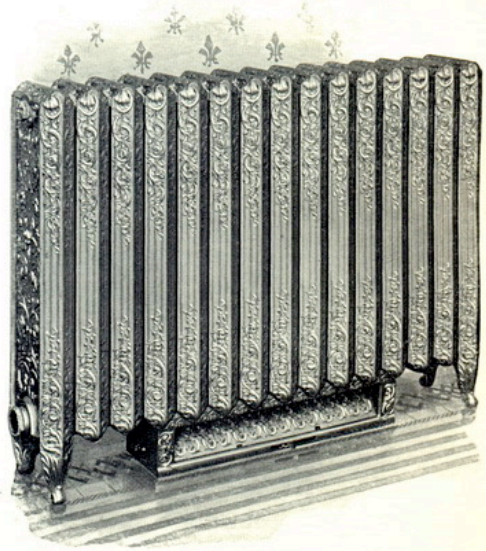
THIS is substantially constructed, and the angle slats and inside copper wire-screen render it storm and insect proof. Outside measurement of Wall Box is 5 x 17½ inches, to conform with brick measure.

Price, each, - - - - - 15*s.*



Principle of Construction

of Base is such that all the air required for ventilation may be taken from without the building by means of air conduit in wall, and distributed through Base into the interior or flue surface of Radiator. When outdoor temperature is very low, dampers in Base may be adjusted to any smaller air capacity desired, regulating exactly the varying heating and ventilating requirements of the room; or dampers may be entirely closed, the Radiator then acting wholly as a direct Radiator.



Leading Features

of the Box Base are simplicity of construction, ease of operation, capacity for ample supply of air. Base being wholly under the Radiator, well recessed, is entirely out of the way and not liable to damage. Front of Base, including dampers, may easily be removed for cleaning purposes. Dampers may be operated merely by slight pressure of the foot.

Air Conduit

Fig. A (see page 35) shows view of Radiator and Box Base, with air conduit brought up underneath Radiator, through floor. Fig. B (see page 35) shows air conduit brought in at back of Radiator, above floor level. In this latter method it is necessary to use a galvanized or sheet-iron sleeve to make connection between flange or collar cast around back air-inlet of Base and a similar collar on back of Wall Box.

ITALIAN FLUE BOX BASE

FOR WATER AND STEAM.

DINING ROOM RADIATORS

DINING Room Radiators are an indispensable adjunct to any well appointed dining room, serving as a dish or food warmer.

Made in 38-inch Height only, for Water and Steam.

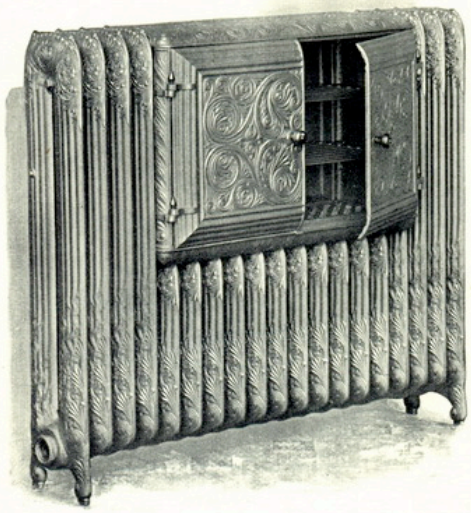
DIMENSIONS AND PRICES.

No.	*Length—Inches.	Heating Surface, sq. ft.	PRICE. £ s. d.
1	$30\frac{1}{16}$	33½	10 0 0
2	$34\frac{1}{16}$	42	11 0 0
3	$39\frac{5}{16}$	50¾	12 0 0
4	$43\frac{1}{16}$	59½	13 0 0
5	$48\frac{9}{16}$	68	14 0 0
6	$53\frac{3}{16}$	76¾	15 0 0
7	$57\frac{1}{16}$	85½	16 0 0
8	$62\frac{7}{16}$	94	17 0 0
9	$67\frac{3}{16}$	102¾	18 0 0
10	$71\frac{1}{16}$	111½	19 0 0

Other dimensions of Detroit Dining Room Radiators are as given on page 22.

Oven contains three shelves or racks, each 25½ inches long, 12⅜ inches wide, with 8¾ inches space between each.

Outside depth of oven is 13 inches, which should be observed when arranging for connections, so distance from wall to center of tapping shall not be less than 6½ inches.



DETROIT

FOR WATER AND STEAM.

PERFECTION

FOR WATER AND STEAM.

Made in 38-inch Height only, for Water and Steam.

DIMENSIONS AND PRICES.

No.	*Length—Inches.	Heating Surface, sq. ft.	PRICE. £ s. d.
00	25	13	8 16 0
0	30	21	9 18 0
1	35	29	10 0 0
2	40	37	11 2 0
3	45	45	12 4 0
4	50	53	13 6 0
5	55	61	14 8 0
6	60	69	15 10 0
7	65	77	16 12 0

OTHER dimensions of Perfection Dining Room Radiators are as given on page 18.

Upper portion of oven, with double doors, when open, discloses two shelves, 20¾ inches long, 13 inches wide, with 9 inches space between each. Lower portion of oven, with drop door, has one shelf the same size as those in the upper portion.

The outside depth of oven is 13⅝ inches, which should be observed when arranging for connections, so distance from center of tapping to wall shall not be less than $6\frac{3}{16}$ inches.

*In estimating *length* of Radiator, *allow ½ inch* for each bushing.

CIRCULAR RADIATORS

LIST OF DIMENSIONS.

Number of Sections.	Outside Diameter at Legs, Inches.	Inside Diameter at Legs, Inches.
12	20¾	4½
14	22	6
16	24	8
18	25	9
20	26	10
22	27	11
24	28	12
26	29	13
28	30	14
30	32⅛	16⅛
32	33	17
34	34	18
36	37	21
46	42¾	26¾

For dimensions and prices of sections, see page 23.

Price per section, extra, Water, - - - - 3*s.* 8*d.*
" " " Steam, - - - - 2*s.* 2*d.*

ABOVE Circular Radiators are made *upon special order only*, in 45, 38, 31, 25 and 20 inch Heights, Water and Steam.

Detroit Circular Radiators are furnished in *two pieces*, forming two separate and distinct Radiators, which are simply bolted together, and can be taken apart, placed around a column and again bolted together.* For one pipe work, this Radiator has two tappings for valves; for two pipe work, and for Water, it has four tappings for valves—two supply in front and two return in back.

When, however, above Circular Radiators are not intended to be placed around a column or post, they can, if specially ordered, be furnished all in *one piece*, having but one connection for valve for one pipe work and two connections for valves for two pipe work.

Distance from floor to center of either supply or return tapping in above Water and Steam Circular Radiators is 3¾ inches.

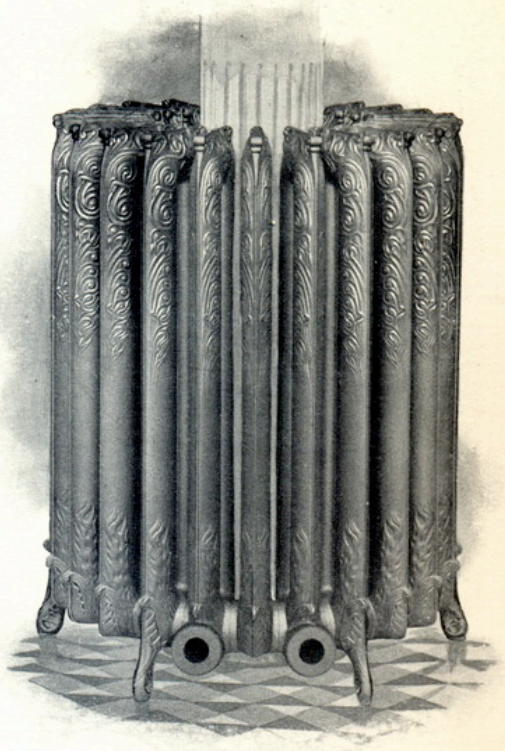
They are tapped 2 inches and, unless otherwise ordered, will be bushed according to our standard list; see page 49.

All openings will have right-hand thread, unless otherwise ordered.

Connected with extra-heavy right and left hand threaded nipples: Water, 2 inches at bottom, 1½ inches at top; Steam, 2 inches at bottom.

*Circular Radiators can be made to work as one Radiator, single pipe system, by use of elbows and tee.

CIRCULAR RADIATORS



LIST OF DIMENSIONS.

Number of Sections.	Outside Diameter at Legs, Inches.	Inside Diameter at Legs, Inches.
16	25½	6½
18	27	8
20	28½	9½
24	32	13
26	32½	13½
28	33½	14½
30	33½	14½
34	38 3/16	19 3/16
40	41½	22½
44	43½	24½
60	55	36

For dimensions and prices of sections, see page 19.

Price per section, extra, Water, - - - - 3*s.* 8*d.*
" " " Steam, - - - - 2*s.* 2*d.*

PERFECTION Circular Radiators are made *upon special order only*, in 45, 38, 32, 26 and 20 inch Heights of Water and Steam.

Perfection Circular Radiators are *made in halves*—each half requires independent pipe connection, as shown in cut.* For two pipe work, the return valves would be on the opposite side of the Radiator. Unless otherwise ordered, Circular Radiators are tapped supply in front, return at back—both halves.

Distance from floor to center of either supply or return tapping in Perfection Circular Radiators is 4 inches.

They are tapped 1½ inches in Water, 2 inches in Steam, and, unless otherwise ordered, will be bushed according to our standard list; see page 49.

All openings will have right-hand thread, unless otherwise ordered.

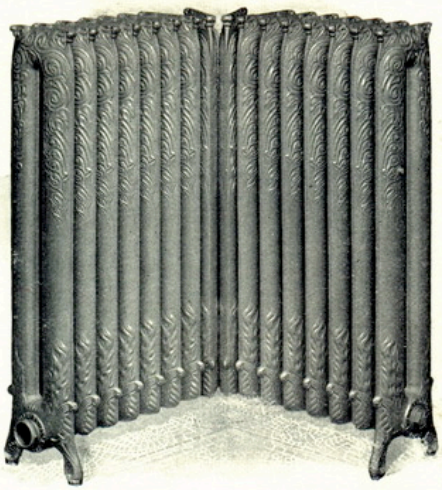
All Perfection Circular Water Radiators are connected at both top and bottom with 1½-inch extra-heavy right and left hand threaded nipples. Perfection Circular Steam Radiators connected at bottom with extra-heavy right and left hand threaded 2-inch nipples.

*Circular Radiators can be made to work as one Radiator, single pipe system, by use of elbows and tee.

PERFECTION

FOR WATER AND STEAM.

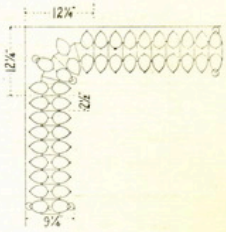
Corner Radiators



MADE in all heights and sizes of Perfection to suit the requirements of any angle (see note below).

Four sections are required to complete the corner.

For dimensions and prices of sections, see page 19.

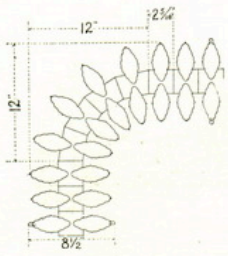


Price, extra, per Radiator, Water, - - 17*s.* 0*d.*
" " " Steam, - - 12*s.* 10*d.*

PERFECTION

FOR WATER AND STEAM.

NOTE. — In ordering Corner or Angle Radiators, specify the exact angle of the baseboard at floor within which the Radiator is to be placed. Show by sketch which end of Radiator is for supply connection and which for return. In estimating *length* of Radiator, *allow ½ inch* for each bushing.



MADE in all heights and sizes of Detroit Ornamental and Detroit Plain to suit the requirements of any angle (see note above).

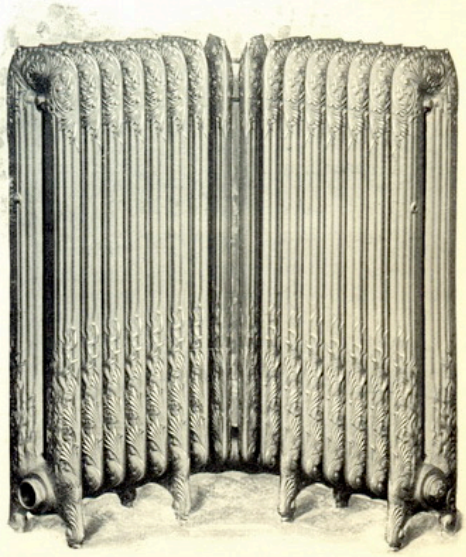
Four sections are required to complete the corner of either the Detroit Ornamental or Detroit Plain.

For dimensions and prices of sections, see pages 23 and 25.

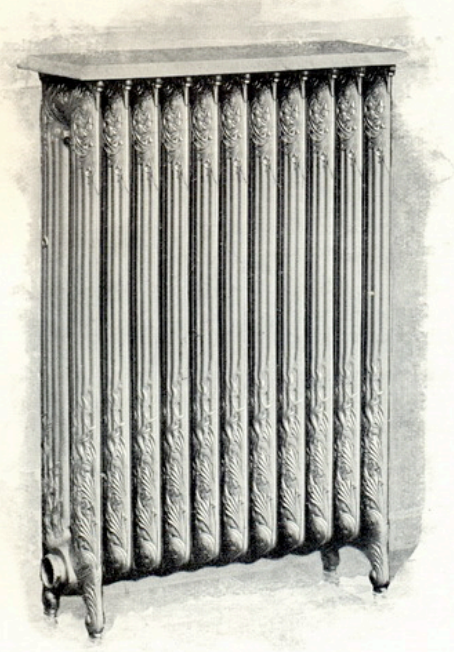
Price, extra, per Radiator, Water, - - 17*s.* 0*d.*
" " " Steam, - - 12*s.* 10*d.*

DETROIT ORNAMENTAL

FOR WATER AND STEAM.



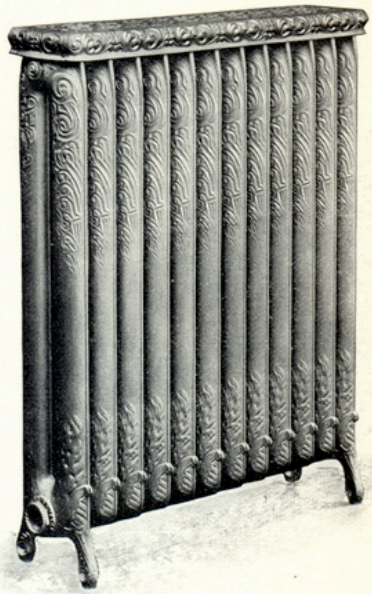
SPECIAL AND CURVED RADIATORS



FOR dimensions and prices, see page 23. Price for Marble Tops quoted on application.

DETROIT

SPECIAL WIDE TOP WITH MARBLE SLAB.



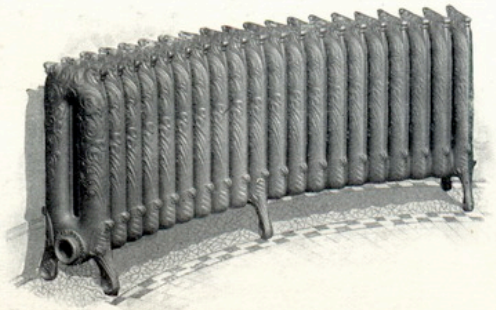
FOR WATER AND STEAM.

FOR dimensions and prices, see page 19.
When ordering Tops only, state whether for Water or Steam.

Cast-iron Tops per section, - - - 7*d.*

PERFECTION

SPECIAL CAST-IRON TOP.

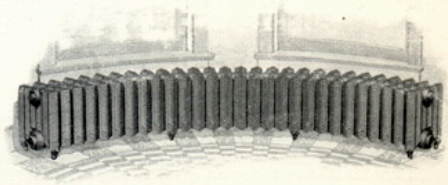


MADE *upon special order only*, for Water or Steam, in all heights and sizes to suit the radius of any curve.
For dimensions and prices, see page 19.

Price per section, extra, Water, - - 3*s.* 8*d.*
" " " Steam, - - 2*s.* 2*d.*

PERFECTION

SPECIAL WIDE TOP CURVED RADIATOR.



MADE *upon special order only*, for Water or Steam, in all heights and sizes to suit the radius of any curve.
For dimensions and prices, see page 29.

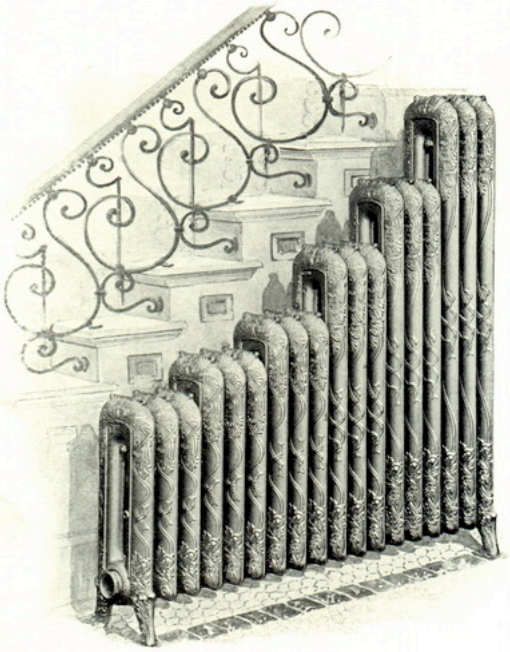
NOTE.— In ordering Curved Radiators, specify the exact radius of the skirting at floor within which the Radiator is to be placed. Show by sketch which end of Radiator is for supply connection and which for return.

Price per section, extra, - - - 3*s.* 8*d.*

DETROIT FLUE

CURVED RADIATOR.

STAIRWAY RADIATORS



MADE *upon special order only*, in all heights of National Single Column, National Two Column and Peerless, and in sizes to suit the pitch of any stairway.

FOR STEAM ONLY.

For dimensions and prices of sections, see pages 7, 9 and 11, respectively.

Distance from floor to center of tapping: single pipe Steam, 4 inches; double pipe Steam, 4½ inches supply, 4 inches return.

In ordering, show by sketch which end of Radiator is for supply connection and which for return.

Price, extra, per section, - - 1*s.* 0*d.*

NATIONAL TWO COLUMN.

MADE *upon special order only*, in all heights of Perfection, Detroit Ornamental and Detroit Plain, and in sizes to suit the pitch of any stairway.

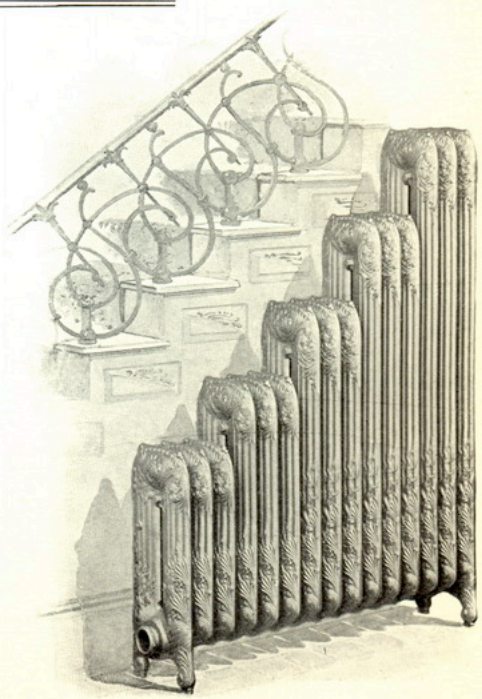
FOR STEAM ONLY.

For dimensions and prices of sections, see pages 19, 23 and 25, respectively.

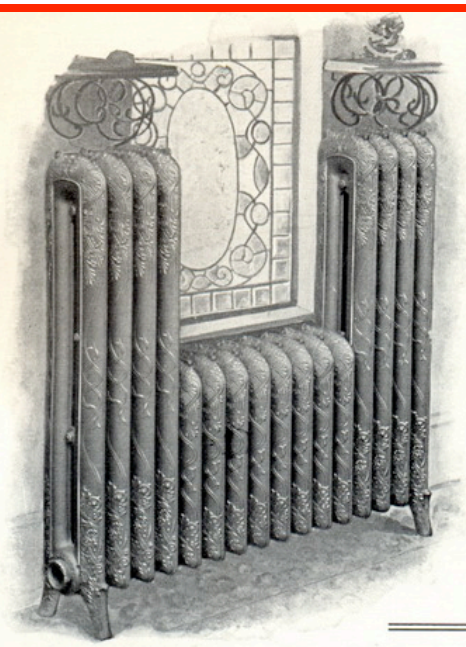
Distance from floor to center of tapping: single pipe Steam, 4 inches; double pipe Steam, 4½ inches supply, 4 inches return.

In ordering, show by sketch which end of Radiator is for supply connection and which for return.

Price, extra, per section, - - 1*s.* 0*d.*



DETROIT ORNAMENTAL.



WINDOW RADIATORS

MADE *upon special order only*, in all heights of National Two Column, National Single Column and Peerless, and in sizes to suit the requirements of any window.

FOR STEAM ONLY.

For dimensions and prices of sections, see pages 7, 9 and 11, respectively.

Distance from floor to center of tapping: single pipe Steam, 4 inches; double pipe Steam, 4½ inches supply, 4 inches return.

In ordering, show by sketch which end of Radiator is for supply connection and which for return.

Price, extra, per section, - - - - 9*d*.

NATIONAL TWO COLUMN.

MADE *upon special order only*, in all heights of Perfection, Detroit Ornamental and Detroit Plain, and in sizes to suit the requirements of any window.

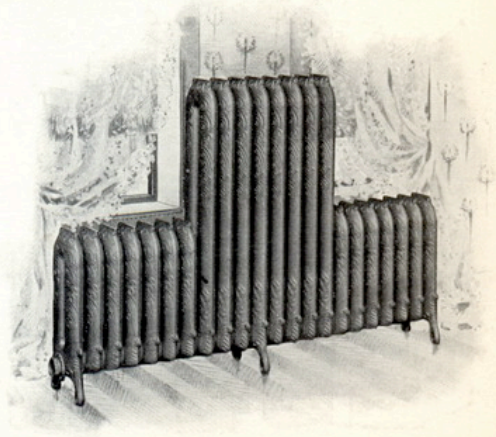
FOR WATER AND STEAM.

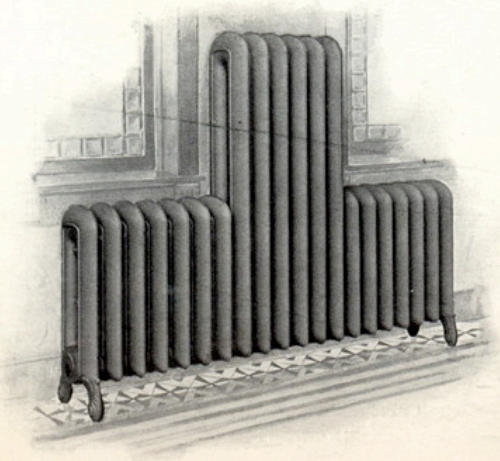
For dimensions and prices of sections, see pages 19, 23 and 25, respectively.

In ordering, show by sketch which end of Radiator is for supply connection and which for return.

Price, extra, per section, Water, - - 1*s*. 0*d*.
" " " Steam, - - 9*d*.

PERFECTION.





MADE *upon special order only*, in all heights of National Two Column, National Single Column and Peerless, and in sizes to suit the requirements of any window.

FOR STEAM ONLY.

For dimensions and prices of sections, see pages 7, 9 and 11, respectively.

Distance from floor to center of tapping: single pipe Steam, 4 inches; double pipe Steam, 4½ inches supply, 4 inches return.

In ordering, show by sketch which end of Radiator is for supply connection and which for return.

Price, extra, per section, - - - - 9*d*.

PEERLESS.