Richardson & Boynton Co.

Manufacturers of "Richardson" "Perfect" Heating and Cooking Apparatus since 1837

260 Fifth Avenue, **New York City**

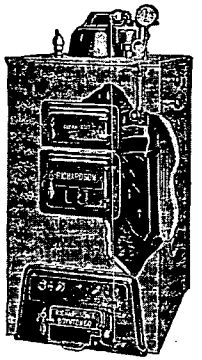
NEW YORK UTICA NEWARK PHILADELPHIA BOSTON CHICAGO BUFFALO
MINNEAPOLIS CINCINNATI PITTSBURGH DETROIT PROVIDENCE

New "RICHARDSON" Square Cased Boilers

Finish.—The outer casing is finished with high lustre blue Japan that is durable, easy to clean and will not crack or peel. The doors, ashpit front and smokebox, in other words, all cast iron parts not covered by the casing are coated with black enamel.

Insulation.—The lining or insulation of the "Richardson" boiler is of 1 in. 8-ply asbestos air cell and is attached to the cases when shipped. It thus cannot be damaged in transit or in handling. The air space between the heating unit and the outer casing provides extra heat conserving insulation.

Casings.—The casings are cut in half from side to side at the flow openings on the top of the boiler and horizontally at the return tappings so that they can be attached after all piping connections to the boiler are made.



Sectional View of "Richardson" Square Cased Boiler showing round interior construction, extra air space insulation and heavy asbestos insulation on outer casing.

RICHARDSON SQUARE CASED BOILER

Steam		Water		Grate area, sq. ft.	Diam. of grate, in.	Height, in.		Water line, stm., in.	Smoke pipe, in.	Square of base, in.	Outlets, in.	
No.	Rating, sq. ft.	No.	Rating, sq. ft.			Water	Steam				Steam	Water
1-S-1	350	1-W-1	550	1.58	17	43	49¾	44¼	7	26¾	2—2½	2—2½
1-S-2	425	1-W-2	675	1.58	17	47	53¾	48½	7	26¾	2—2½	2—2½
1-S-3	550	1-W-3	850	2.18	20	43¾	50½	45¼	8	29¾	2—3	2—3
1-S-4	650	1-W-4	1050	2.18	20	47¾	54½	49½	8	29¾	2—3	2—3
1-S-5	800	1-W-5	1350	2.89	23	46¼	53½	48¼	9	32¾	2—3	2—3
1-S-6	900	1-W-6	1500	2.89	23	50¾	57½	52½	9	32¾	2—3	2—3
1-S-7	1050	1-W-7	1700	3.70	26	47	55	49½	10	36¼	2—3½	2—3½
1-S-8	1150	1-W-8	1900	3.70	26	51	59	53¾	10	36¼	2—3½	2—3½

"Richardson" System of Mechanical Warm Air Heating and Ventilating

The Richardson System of Mechanical Heating and Ventilating provides a predetermined volume of fresh, warmed, moist air uniformly throughout the space to be heated. This system is especially suitable for the heating and ventilating of schools, churches, auditoriums, large residences, hospitals, garages, manufacturing plants, and is applicable to commercial enterprises where drying is to be done.

Heat is evenly distributed to all parts of the building at the proper temperature, and a healthful air condition is also maintained at all times without drafts, summer as well as winter, irrespective of the outside temperature conditions or direction of the winds.

This system is customarily installed with a sufficient capacity to provide from three to seven changes of air to each room per hour, depending on the type of the building and the number of people occupying the space to be heated.

By means of the Richardson System entire buildings can be warmed within 90 minutes from the time the heaters are put in operation.

How the System Works—The Richardson System of Mechanical Heating and Ventilating consists of warm air heaters (designed for this purpose) with fans or blowers.

Fresh outdoor air is drawn from a fresh air room by a fan into the plenum or pressure chamber back of the "Perfect" Warm Air Heaters; from here the air is passed over the prime heating surface of the heater which is set in a galvanized or brick housing known as the heat chamber, and thoroughly warmed. The air is then forced through ducts and discharged into the various rooms through grilles or registers located about 8 ft. above the floor level or placed in or just above the floor as may be necessary, according to the adaptability of the house or building to be heated, thus assuming the control of the movement of all air to the rooms connected to the system.

The vitiated or cooled air in the rooms is exhausted (to make space for the fresh warmed air) into vent stacks through grilles at the floor line, fitted with louvers, or slatted and highly sensitive metal panels, which prevent back-drafts.

L. J. Mueller Furnace Co.

Manufacturers and Western Distributors

200 Reed Street, **Milwaukee, Wis.**

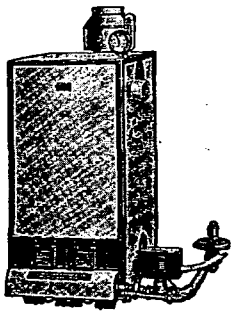
Richardson & Boynton Co.

Eastern Distributors

260 Fifth Avenue, **New York, N. Y.**

Gas-Era Gas-Fired Boiler

Adaptable for steam or hot water heating. Completely automatic operation. Cast iron construction for durability, with asbestos-lined metallic jacket. Vertical burner adjustment permits use with any manufactured or natural gas. Have steady water line and will not prime. Interior surfaces may be thoroughly cleaned without disturbing jacket. Multiple unit construction permits increase in size when desired. Boiler is highly efficient securing maximum heat utilization with minimum gas consumption.



Gas-Era Boiler

STEAM		WATER		STEAM		WATER	
Boiler No.	*A.G.A.* Rating	Boiler No.	*A.G.A.* Rating	Boiler No.	*A.G.A.* Rating	Boiler No.	*A.G.A.* Rating
13-S	420	13-W	670	1327-S	5460	1327-W	8710
25-S	840	25-W	1340	1429-S	5880	1429-W	9380
37-S	1260	37-W	2010	1531-S	6300	1531-W	10050
49-S	1680	49-W	2680	1634-S	6720	1634-W	10720
511-S	2100	511-W	3350	1838-S	7560	1838-W	12060
613-S	2520	613-W	4020	2042-S	8400	2042-W	13400
715-S	2940	715-W	4690	2246-S	9240	2246-W	14740
817-S	3360	817-W	5360	2450-S	10080	2450-W	16080
919-S	3780	919-W	6030	2654-S	10920	2654-W	17420
1021-S	4200	1021-W	6700	2858-S	11760	2858-W	18760
1123-S	4620	1123-W	7370	3062-S	12600	3062-W	20100
1225-S	5040	1225-W	8040				

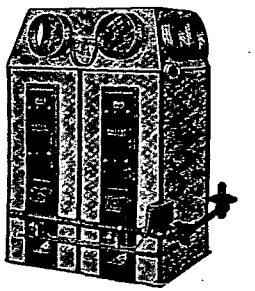
Standard Equipment with all Boilers. Insulated metallic jacket, draft hood, gas pressure regulator, electric gas valve, safety pilot, main gas cock, pilot gas cock, draw-off cock, cleaning brush. Steam boilers have automatic steam and vapor pressure regulator and low water cut-off, water gauge and try cocks, retard steam gauge and pop safety valve. Water boilers have automatic water temperature regulator, altitude gauge and thermometer.

Gas-Era Gas-Fired Warm Air Furnace

Cast iron construction, with lacquered casing in attractive color. Completely automatic, tamper-proof operation. Burns any gas, natural or manufactured. Accessible for cleaning. Ample free area. Automatic moisture supply. Adaptable for forced air heating on large jobs. Multiple unit construction.

Furnace No.	*A.G.A.* Input Rating B.t.u per Hour	Total Load B.t.u per Hour	Capacity Warm Air Pipes Sq. In.
1 (10)*	65,000	47,500	430
2 (20)	130,000	95,000	860
3 (30)	195,000	142,500	1290
4 (40)	260,000	190,000	1720
5 (50)	325,000	237,500	2150
6 (60)	390,000	285,000	2580

*Same furnace, less electrical equipment and automatic humidifier.
Data on larger units on application.



Gas-Era Furnace