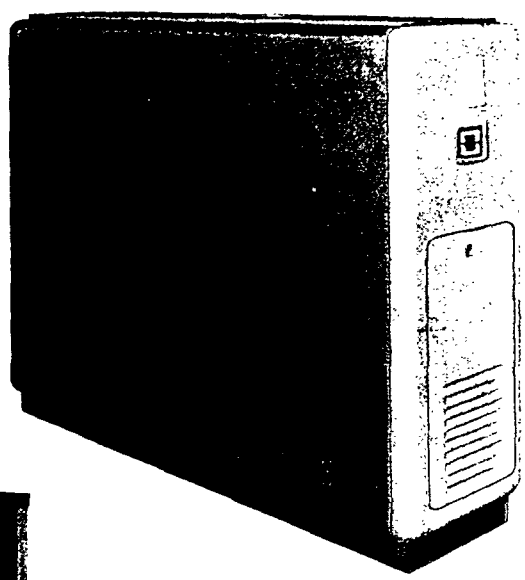
AMERICAN GAS BOILERS

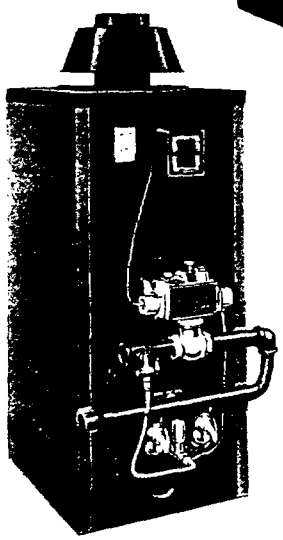
EMPIRE AND STANDARD

(TYPES 1-GA, 2-GA, 4-GA)

SMALL HEATING BOILERS FOR HOT WATER



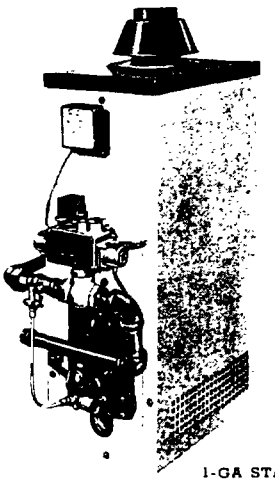
TYPE 4-GA-E EMPIRE



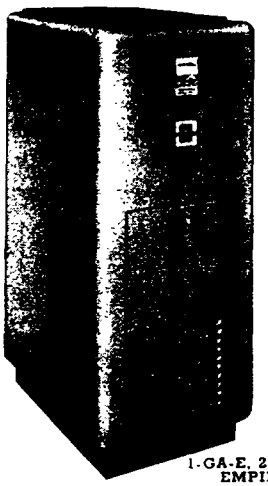
TYPE 2-GA STANDARD

AMERICAN RADIATOR & Standard Sanitary CORPORATION

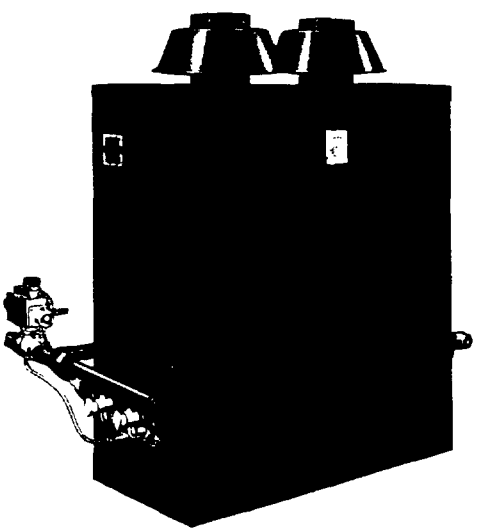
PLAINTIFF'S EXHIBIT
ASI-294
00404



1-GA STANDARD



1-GA-E, 2-GA-E
EMPIRE



4-GA STANDARD

"EMPIRE" FOR BEAUTY

The Empire Gas Boiler is the logical choice for beautiful heating equipment that blends harmoniously with any basement decorative scheme. Within its lustrous, colorful jacket are hidden all the efficient, automatic controls essential to perfect heating. Where both beauty and efficiency are desirable, the Empire provides the utmost in appearance as well as service.

"STANDARD" FOR UTILITY

When appearance of the heating plant is a secondary consideration, the Standard Gas Boiler is recommended for dependable, automatic heating service. It has the same sensitive controls as the Empire. It has every feature that assures the utmost in safe, automatic operation.

Perfected Design

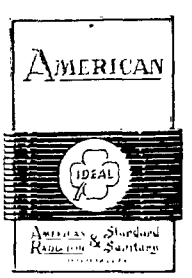
Both the Empire and Standard Gas Boilers have been designed by gas experts — by engineers who are thoroughly familiar with this fuel and its application to home heating equipment. No single feature of these Boilers is untried or unproved. In the laboratory and in the field the Empire and Standard have demonstrated their sound principals that result in economy and efficiency of operation. They are quality from the ground up — inside and out!

Precision Controls

In both the Empire and Standard Gas Boilers the desired room temperature is maintained without work or worry — thanks to their fine quality, precision controls. The exclusive Thermotor Throttling Valve operates from the thermostat. This valve gradually increases or reduces the gas consumption as the desired water temperature or steam pressure is reached, using only as much gas as needed. Overheating and underheating are prevented and safety assured by the special Thermotor Throttling Valve. With either the Empire or the Standard Gas Boiler you can enjoy to the utmost delightful comfort of radiator heating and its effortless operation with gas fuel.

SMART, MODERN JACKETS IN BEAUTIFUL, RICH COLORS

Empire Gas Boilers bring new beauty to the modern basement. Their smartly designed jackets in beautiful Two-Tone Canyon Red completely conceal all controls. Only the striking metal nameplate shown here and face of the steam or water gauge appear on the handsome jacket.



Look for this Nameplate on Empire Jackets

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A TRIUMPH OF GOOD ENGINEERING

1. Flue Connection — Designed to provide a vertical flue connection through top panel of jacket. Vertical draft hood is furnished. If a Horizontal rear flue connection is required it is available on the 2-GA-E Empire only. Room is available under the jacket to make a rear connection, but required horizontal draft hood is not furnished as Standard equipment.

2. Canopy — Heavy cast iron set in putty-filled groove, forming perfect gas tight joint.

3. Insulation — Thick asbestos insulation on all sides effectively prevents excess heat loss from boiler.

4. Cleanout Opening — Provides easy access for cleaning flue surfaces of sections.

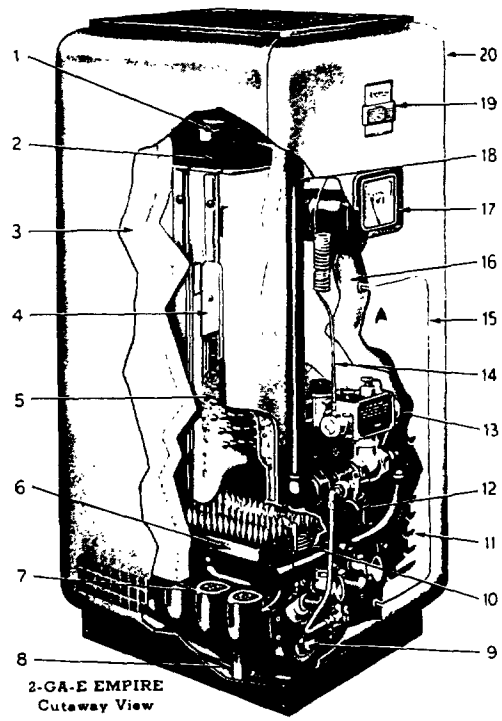
5. Patented Pin Type Cast Iron Section — The most effective type of cast iron heat absorbing surface. Rapidly and efficiently absorbs the heat from the rising columns of hot gases and transfers this heat to the water within the sections.

6. Quiet Burner — Raised, drilled port, Bunsen type. Quiet in operation.

7. Water Leg — Water-filled sections entirely surround combustion chamber, even below burners. Prevents excess heat radiation to floor and permits use of water radiators located on the same floor as the boiler. No basement required.

8. Sections Assembled — All sections assembled factory with carefully machined slip nipples and heavy tie rods.

9. Return Tapping — Located at extreme bottom in front and rear for one-floor heating systems.



2-GA-E EMPIRE
Cutaway View

10. Thermostatic Pilot — Readily available for ignition. Keeps gas supply valve closed unless pilot is burning.

11. Ventilated Control Compartment — Keeps Controls cool.

12. Combustion Chamber Access Door — Conveniently located for easy inspection.

13. Thermotor Gas Valve — Electrically operated from room thermostat. Water temperature throttles gas flow to maintain required conditions. Upper limit and manual control, as well as Thermostatic Safety Pilot embodied in same valve.

14. Throttling Control — Element connects gas valve with water in boiler to provide throttled gas flow.

15. Access Door — Large, for easy inspection, sets flush with jacket.

16. Front Insulation — Heavy asbestos air cell, metal shielded.

17. Altitude Gauge and Thermometer — Convenient, readable, attractive.

18. Concealed Piping — Gas pipe concealed under jacket, gas pressure governor furnished for installation at rear of boiler, outside of jacket.

19. Name Plate — Attractive "American" name plate, the best known name in heating.

20. Jacket — Handsome in appearance and easy to keep clean. Beautiful two-tone Canyon Red baked enamel. Will enhance any recreation room or den.

For the usual residence heating application, our "10-MT" equipment is used. This includes the boiler and all those controls generally required except a room thermostat. Any two-wire or series 10 room thermostat may be used with "10-MT" equipment which includes:

Thermotor Throttling Valve with Thermo-Pilot (566-VW), Water Temperature Regulator; Gas Pressure Governor, Combination Altitude Gauge and Thermometer; Boiler Drain and Pilot Cocks; Insulated Enameled Jacket; Vitreous Enameled Draft Diverter.

FOR HOMES WITHOUT BASEMENTS

Even small homes without basements, apartments, stores, restaurants, etc., can install automatic gas heating, using the new Gas-Fired Arcola. This trim, compact, inexpensive Boiler takes so little space it can be installed in a corner of a kitchen, or even in a suitable closet.

CONVENIENT PAYMENT PLAN

The modern way to modernize your home heating is with a new Empire or Standard Gas Boiler — easy payments. These can be simply and quickly arranged without red tape. Payments can be extended over a considerable period of time so that monthly payments will fit your budget perfectly. Ask for details on this plan now.

SHORT FORM SPECIFICATION

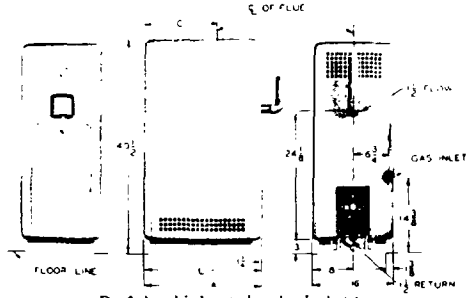
In general the following form will be found adequate: "Furnish and install according to manufacturer's instructions, where shown on the plans an Empire (or Standard) Gas Water Boiler with an A.G.A. output rating of ..... sq. ft. of radiation. The boiler shall be manufactured by the American Radiator & Standard Sanitary Corporation and shall be completely equipped with Type 10-MT Equipment consisting of (list items of equipment, given above)".

This may be supplemented with paragraphs governing installation of gas supply, piping, connections, tests, etc., as required.

RATINGS AND DIMENSIONS — WATER ONLY

(See Separate Folders for Boilers for Hot Water Supply Purposes and for Steam Heating)

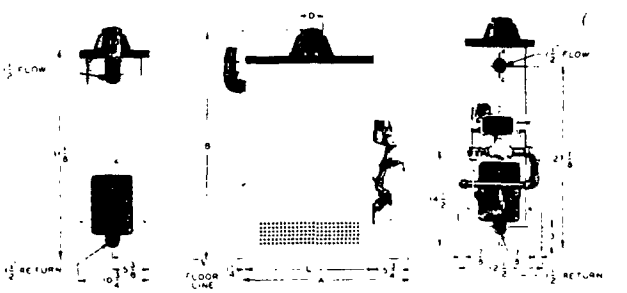
EMPIRE BOILER TYPE 1-GA-E



Draft hood is located under Jacket top

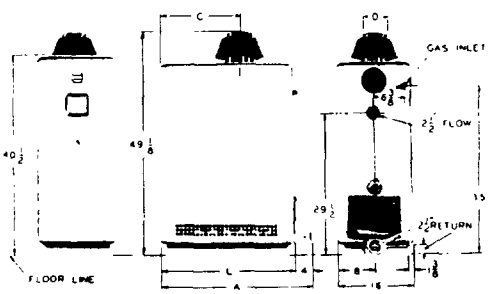
Boiler No.	A.G.A. Water Rating Sq. Ft.	*Supplies Installed Sq. Ft. 150 Btu.	Sq. Ft. 200 Btu.	A	C	L	Diam Flue	Gas Conn	Number and Size Tapping Flow	Return
1-GA-4-E	210	135	101	20½	12⅜	19¼	3	¾	1 1½	1 1½
1-GA-5-E	280	179	134	23½	14⅛	22¼	4	¾	1 1½	1 1½
1-GA-6-E	350	224	168	26½	15⅝	25¼	4	¾	1 1½	1 1½
1-GA-7-E	420	269	202	29½	17⅛	28¼	5	¾	1 1½	1 1½

STANDARD BOILER TYPE 1-GA



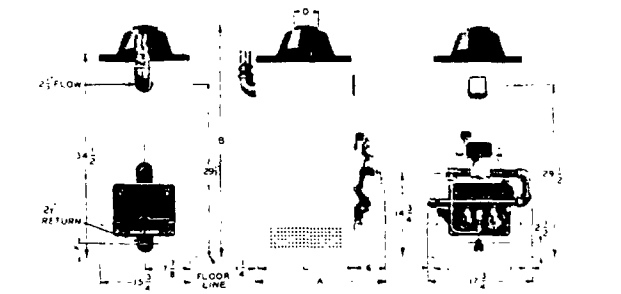
Boiler No	A.G.A. Water Rating Sq. Ft	*Supplies Installed Sq. Ft. 150 Btu	Sq. Ft. 200 Btu.	A	B	L	Diam Flue	Gas Conn	Number and Size Tapping Flow	Return
1-GA-4	210	135	101	20¾	37¼	13¾	3	¾	2-1½	2-1½
1-GA-5	280	179	134	23¾	37¼	16¾	4	¾	2-1½	2-1½
1-GA-6	350	224	168	26¾	37¼	19¾	4	¾	2-1½	2-1½

TYPE 2-GA-E



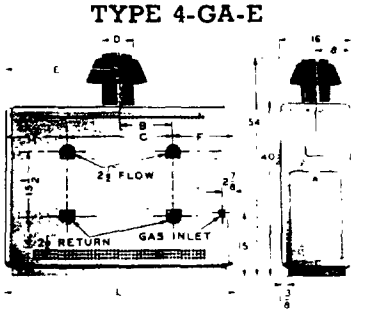
Boiler No	A.G.A. Water Rating Sq. Ft	*Supplies Installed Sq. Ft. 150 Btu.	Sq. Ft. 200 Btu	A	C	L	Diam. Flue	Gas Conn	Number and Size Tapping Flow	Return
2-GA-4-E	420	269	202	23¼	12⅜	19¼	5	¾	1 2½	1 2½
2-GA-5-E	560	361	269	26¼	14⅛	22¼	5	1	1 2½	1 2½
2-GA-6-E	700	454	341	29¼	15⅝	25¼	6	1	1 2½	1 2½
2-GA-7-E	840	548	411	32¼	17⅛	28¼	6	1¼	1 2½	1 2½

TYPE 2-GA



Boiler No	A.G.A. Water Rating Sq. Ft	*Supplies Installed Sq. Ft. 150 Btu	Sq. Ft. 200 Btu.	A	B	L	Diam. Flue	Gas Conn.	Number and Size Tapping Flow	Return
2-GA-4	420	269	202	21	42¼	13¾	5	¾	1-2½	1-2½
2-GA-5	560	361	269	24	42¼	16¾	5	¾	1-2½	1-2½
2-GA-6	700	454	341	27	42¼	19¾	6	1	1-2½	1-2½
2-GA-7	840	548	411	30	42¼	22¾	6	1¼	1-2½	1-2½

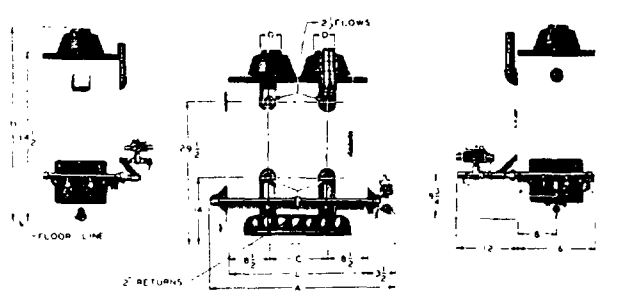
TYPE 4-GA-E



Dimension "F" — 14⅛"

Boiler No	A.G.A. Water Rating Sq. Ft	*Supplies Installed Sq. Ft. 150 Btu.	Sq. Ft. 200 Btu	C	E	L	Diam Flue	Gas Conn	Number and Size Tapping Flow	Return
4-GA-8-E	980	643	482	9	18⅝	37¾	7	1¼	2 2½	2 2½
4-GA-9-E	1120	738	554	12	20⅝	40¾	7	1¼	2 2½	2 2½
4-GA-11-E	1400	931	698	18	24⅝	46¾	8	1¼	2 2½	2 2½
4-GA-13-E	1680	1126	845	21	26⅝	52¾	8	1½	2 2½	2 2½

TYPE 4-GA



Boiler No	A.G.A. Water Rating Sq. Ft	*Supplies Installed Sq. Ft. 150 Btu	Sq. Ft. 200 Btu	A	B	C	L	Diam Flue	Gas Conn.	Number and Size Tapping Flow	Return
4-GA-9	1120	738	554	18	42½	12	29	2-5	1¼	2-2½	2-2½
4-GA-11	1400	931	698	14	42½	18	35	2-6	1¼	2-2½	2-2½
4-GA-13	1680	1126	845	50	42½	24	41	2-6	1½	2-2½	2-2½

NOTE DIMENSION "B" ON BOTH TYPES 2-GA AND 4-GA IS 45¾ IN. ON ALL 1765 INSTEAD OF 6 CHIEF [illegible]

* Ratings listed under "Supplies Installed" include a suitable allowance for normal piping and pickup. This rating is shown computed on the basis of 150 Btu and 200 Btu per square foot per hour emission for water boilers. Note: All dimensions are in inches.

AMERICAN RADIATOR & Standard Sanitary
New York CORPORATION Pittsburgh

00407

Form No 7028-3SM-6-41-Graphic

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