

FILE NO. 30-C-1
(MAY, 1949)

PLAINTIFF'S EXHIBIT

ASI-1171

AMERICAN GAS BOILERS

EMPIRE and STANDARD American Radiator
& Stand. Sanitary Corp.
RECEIVED
MAY 16 1949
H. R.



EMPIRE TYPE, 4-GA-E

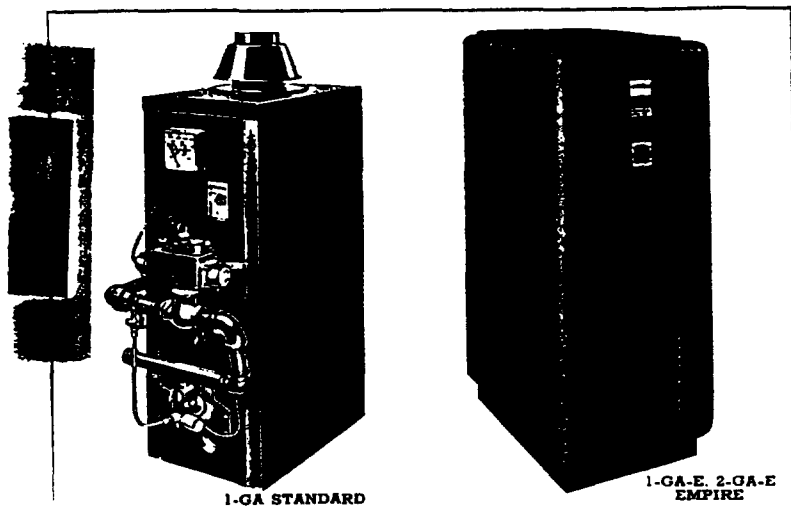
and

STANDARD TYPE, 2-GA

AMERICAN-Standard
First in heating . . . first in plumbing

12842

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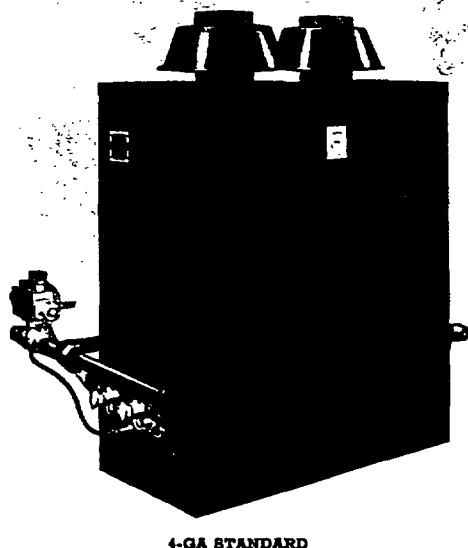


"EMPIRE" FOR BEAUTY

The Empire 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 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 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 principles that result in economy and efficiency of operation. They are quality from top to bottom — inside and out!

Precision Controls

In both the Empire and Standard 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 temperature of water in the boiler 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 Boiler you can enjoy to the utmost the delightful comfort of radiator heating and its effortless operation with gas fuel.

Smart Modern Jackets in Attractive Colors

Empire Boilers bring new beauty to the modern basement. Their smartly designed jackets, in richly beautiful Canyon Two-Tone Red, completely conceal all controls. Only the striking metal name plate, shown here, and the face of the water gauge appear on the handsome jacket. The Empire blends harmoniously with any decorative plan. This name plate is found only on the boiler that is a masterpiece of engineering and designing — your assurance of efficiency, dependability and economy.



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.

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 to cleaning flue surfaces of sections.

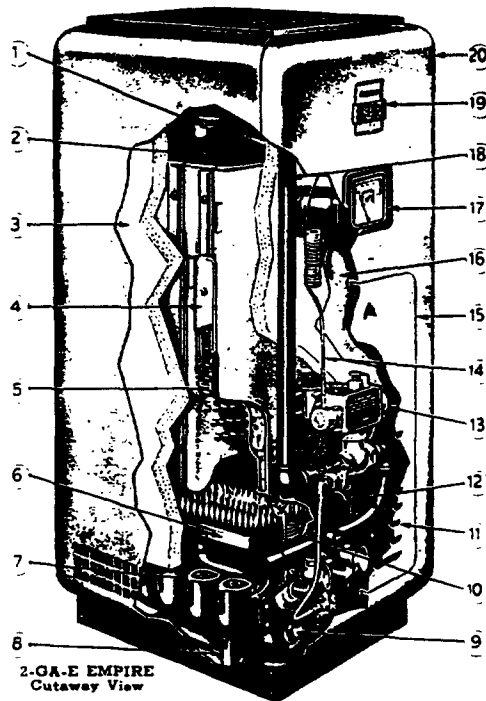
5. **PIN TYPE CAST IRON SECTION** — The most effective type of cast iron heat absorbing surface. Rapidly and efficiently absorbs the heat from the rising columns of hot gases and transfers this heat to the water within the sections.

QUIET BURNER — Raised rib, drilled port. Quiet in operation. Ribbon burners for manufactured gas are optional.

7. **WATER LEG** — Water-filled sections entirely surround combustion chamber, even below burners. Prevent 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 at factory with carefully machined slip nipples & heavy tie rods.

9. **RETURN TAPPING** — Located at extreme bottom in front and rear for one-floor heating systems.



2-0A-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** — This distinctive identification bears the best known name in heating.

20. **JACKET** — Handsome in appearance and easy to keep clean. Beautiful. Will enhance any recreation room or den.

For the usual residence heating application, our "Regular" 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 "Regular" 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 Metal Jacket; Enameled Draft Hood.

FOR HOMES WITHOUT BASEMENTS

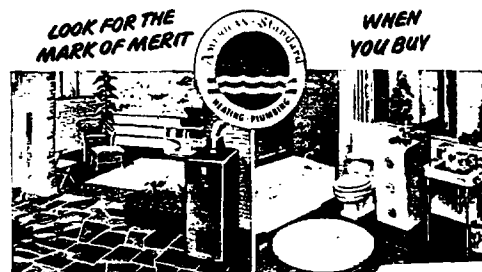
Even small homes without basements, apartments, stores, restaurants, etc., can install clean automatic gas heating, using these Gas Fired Boilers. This trim, compact, inexpensive Boiler takes so little space it can be installed in a corner of a kitchen, or even in a suitable closet.

CONVENIENT PAYMENT PLAN

The modern way to modernize your home heating is with a new Empire or Standard Boiler on 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.

CONSULT YOUR CONTRACTOR

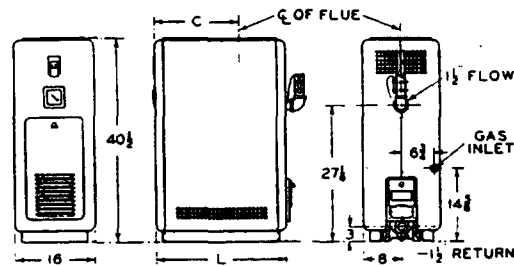
For information as to the size of the Empire or Standard Boilers needed for your requirements, as well as data on cost and installation, see your Heating Contractor. He has the expert knowledge and training to give you practical advice, and he will be glad to serve you.



RATINGS AND DIMENSIONS — WATER ONLY

See additional American-Standard literature—Forms No. 704 and No. 735—for more information about quality gas boilers for hot water and steam heating installations.

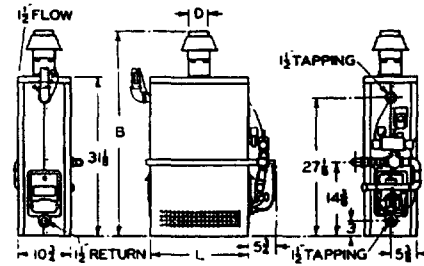
EMPIRE BOILER TYPE 1-GA-E



Draft hood is located under Jacket top

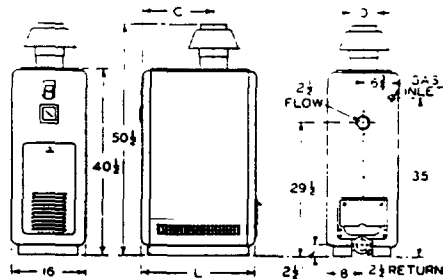
Boiler No.	A.G.A. Water Rating sq ft	Installed Radiation sq ft	C	L	Diam Flue	Gas Conn.	No. of Burners	Number and Size Tappings	
								Flow	Return
1-GA-1-E	210	135	12 3/4	19 1/4	3	3/4	1	1-1 1/2	1-1 1/2
1-GA-3-E	280	180	14 1/4	22 1/4	4	3/4	1	1-1 1/2	1-1 1/2
1-GA-6-E	350	225	15 3/4	25 1/4	4	3/4	1	1-1 1/2	1-1 1/2

STANDARD BOILER TYPE 1-GA



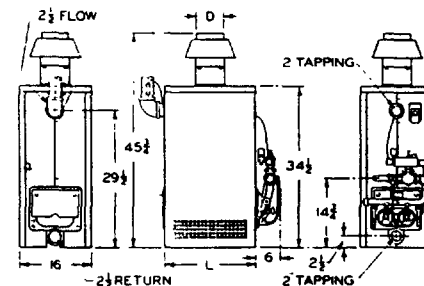
Boiler No.	A.G.A. Water Rating sq ft	Installed Radiation sq ft	B	L	D Diam Flue	Gas Conn.	No. of Burners	Number and Size Tappings	
								Flow	Return
1-GA-4	210	135	10 3/4	13 3/4	3	3/4	1	1-1 1/2	1-1 1/2
1-GA-5	280	180	10 3/4	16 3/4	4	3/4	1	1-1 1/2	1-1 1/2
1-GA-6	350	225	10 3/4	19 3/4	4	3/4	1	1-1 1/2	1-1 1/2

TYPE 2-GA-E



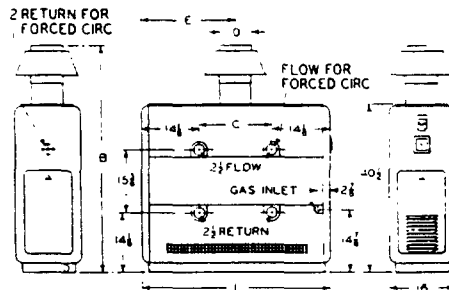
Boiler No.	A.G.A. Water Rating sq ft	Installed Radiation sq ft	C	L	D Diam Flue	Gas Conn.	No. of Burners	Number and Size Tappings	
								Flow	Return
2-GA-1-E	420	270	12 3/4	19 1/4	5	3/4	2	1-2 1/2	1-2 1/2
2-GA-5-E	560	360	14 1/4	22 1/4	5	3/4	2	1-2 1/2	1-2 1/2
2-GA-6-E	700	455	15 3/4	25 1/4	6	1	2	1-2 1/2	1-2 1/2
2-GA-7-E	840	550	17 1/4	28 1/4	6	1	2	1-2 1/2	1-2 1/2

TYPE 2-GA



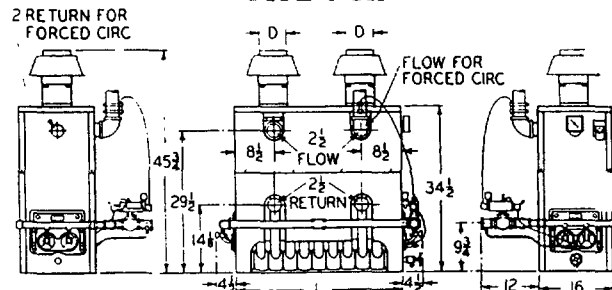
Boiler No.	A.G.A. Water Rating sq ft	Installed Radiation sq ft	L	D Diam Flue	Gas Conn.	No. of Burners	Number and Size Tappings	
							Flow	Return
2-GA-4	420	270	13 3/4	5	3/4	2	1-2 1/2	1-2 1/2
2-GA-5	560	360	16 3/4	5	3/4	2	1-2 1/2	1-2 1/2
2-GA-6	700	455	19 3/4	6	1	2	1-2 1/2	1-2 1/2
2-GA-7	840	550	22 3/4	6	1	2	1-2 1/2	1-2 1/2

TYPE 4-GA-E



Boiler No.	A.G.A. Water Rating sq ft	Installed Radiation sq ft	B	C	E	L	D Diam Flue	Gas Conn.	No. of Burners	Number and Size Tappings	
										Flow	Return
4-GA-8-E	980	645	34	9	18 3/4	37 1/4	7	1 1/4	4	2-2 1/2	2-2 1/2
4-GA-9-E	1120	740	34 1/2	12	20 1/4	40 1/4	7	1 1/4	4	2-2 1/2	2-2 1/2
4-GA-11-E	1400	930	34 1/2	18	23 1/4	46 1/4	9	1 1/4	4	2-2 1/2	2-2 1/2
4-GA-13-E	1680	1125	36	24	26 1/4	52 1/4	9	1 1/2	4	2-2 1/2	2-2 1/2

TYPE 4-GA



Boiler No.	A.G.A. Water Rating sq ft	Installed Radiation sq ft	L	D Diam Flue	Gas Conn.	No. of Burners	Number and Size Tappings	
							Flow	Return
4-GA-9	1120	740	29	2-5	1 1/4	4	2-2 1/2	2-2 1/2
4-GA-11	1400	930	35	2-6	1 1/4	4	2-2 1/2	2-2 1/2
4-GA-13	1680	1125	42	2-6	1 1/2	4	2-2 1/2	2-2 1/2

† Ratings show for A.G.A. Water Rating sq ft are approved by American Gas Association.

* The ratings—Installed Radiation sq ft—of American Gas Boilers represent the maximum net loads (150 Btu per sq ft hot water) that may be connected to the boilers. Allowances have been made in these ratings for normal piping (covered) and pick-up loads.

Sufficient radiation must be installed for the requirements of the building.

Ratings shown are for elevations up to 2,000 feet. For elevations above 2,000 feet, ratings shall be reduced at the rate of 5% for each 1,000 feet above sea level.

Note: All dimensions shown are in inches.

For data on regular control equipment see current American-Standard Price Book.

Drilled port burners are regular equipment. Ribbon burners are optional in territories where manufactured gas is used.

**AMERICAN & Standard
RADIATOR & Sanitary**

CORPORATION

PITTSBURGH, PA.