

## Boilers

### Utica Heater Company

UTICA, New York

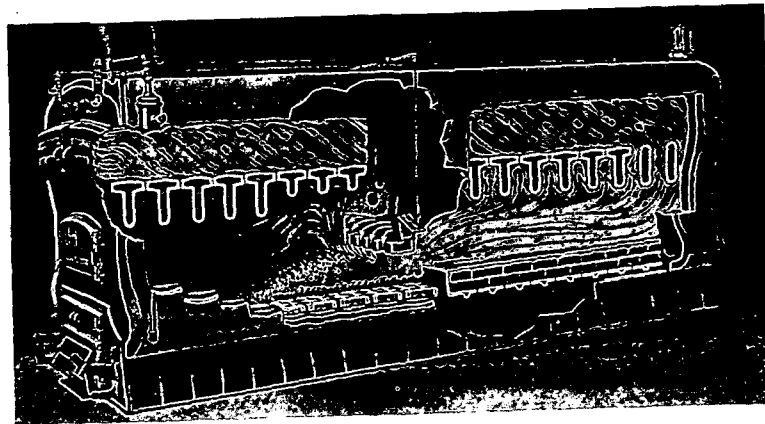
365 E. Illinois St.  
CHICAGO, ILL.

628 Union Building  
CLEVELAND, O.

1843 Grand Central Term'l  
NEW YORK, N. Y.

Representatives In Principal Jobbing Centers

**Utica-Imperial SUPER-SMOKELESS Boilers**  
Burn Soft Coal Smokelessly—Use Any Available Fuel



Patented January 10, 1922.

#### Utica-Imperial SUPER-SMOKELESS Boiler

Cut-away View, Showing Primary and Secondary Combustion Chambers and Air Inlets

#### SUPER-SMOKELESS BOILERS—

Are designed to operate smokelessly when burning soft coal. They utilize any available fuel, burning either hard coal, soft coal, lignite, coke, fuel oil or gas with exceptional efficiency and decided economy.

#### ELIMINATION OF SMOKE—

Is attained by consuming the smoke and soot within the boiler. This complete combustion is due to the admission of highly heated air through water-jacketed inlets, in the baffle wall at the rear of the fire box. The admixture of oxygen at this point instantly converts the heavy gases into incandescent flames of unusual heating capacity. The smoke and soot are actually used as fuel and clean chimney and flues are maintained at all times.

SUPER-SMOKELESS Boilers comply with the most rigid smoke ordinances and are recommended by foremost heating engineers and leading architects for important buildings.

#### CONSTRUCTION—

SUPER-SMOKELESS Boilers have a single grate and are of sectional cast iron construction. Cast iron is highly resistant to corrosion and preferable to steel where low pressure permits using it. The sectional construction permits easy handling in shipment as well as installation in completed buildings.

The baffle wall is a specially designed water section of the boiler. It has a series of water-jacketed air inlets above the firebed and is covered on the side facing the fire by high-test plastic firebrick.

#### OPERATION—

SUPER-SMOKELESS Boilers are extremely simple to operate. No special skill or high priced help is required. Long firing periods are the rule and little care or attention is required for successful, smokeless operation.

## Utica Heater Company

## Boilers

### Capacities and Dimensions of Utica-Imperial SUPER-SMOKELESS Boilers

| Number<br>Steam | Rating<br>Sq. Ft. | Number<br>Water | Rating<br>Sq. Ft. | Grate<br>Area<br>Sq. Ft. | No. and<br>Size of<br>Outlets<br>(Inches) | Diameter<br>of Smoke<br>Collar<br>(Inches) | Length of<br>Smoke<br>Box<br>(Inches) | Length of<br>Sections<br>(Inches) | Length of<br>Sections and<br>Smoke Box<br>(Inches) |
|-----------------|-------------------|-----------------|-------------------|--------------------------|-------------------------------------------|--------------------------------------------|---------------------------------------|-----------------------------------|----------------------------------------------------|
| S-245           | 1200              | W-245           | 1920              | 4.96                     | 1-4                                       | 12                                         | 21 3/4                                | 37 1/4                            | 59                                                 |
| S-246           | 1500              | W-246           | 2400              | 6.16                     | 2-4                                       | 12                                         | 21 3/4                                | 45 1/2                            | 67 1/4                                             |
| S-247           | 1800              | W-247           | 2880              | 6.16                     | 2-4                                       | 14                                         | 20                                    | 53 3/4                            | 73 3/4                                             |
| S-248           | 2100              | W-248           | 3360              | 7.36                     | 2-4                                       | 14                                         | 20                                    | 62                                | 82                                                 |
| S-249           | 2400              | W-249           | 3840              | 7.36                     | 3-4                                       | 14                                         | 20                                    | 70 1/4                            | 90 1/4                                             |
| S-335           | 2000              | W-335           | 3200              | 7.32                     | 1-5                                       | 15                                         | 23                                    | 37 1/4                            | 60 1/4                                             |
| S-336           | 2500              | W-336           | 4000              | 9.10                     | 2-5                                       | 15                                         | 23                                    | 45 1/2                            | 68 1/2                                             |
| S-337           | 3000              | W-337           | 4800              | 10.87                    | 2-5                                       | 15                                         | 23                                    | 53 3/4                            | 76 3/4                                             |
| S-338           | 3500              | W-338           | 5600              | 12.65                    | 2-5                                       | 16                                         | 21 1/2                                | 62                                | 83 1/2                                             |
| S-339           | 4000              | W-339           | 6400              | 14.42                    | 3-5                                       | 16                                         | 21 1/2                                | 70 1/4                            | 91 3/4                                             |
| S-3310          | 4700              | W-3310          | 7520              | 16.20                    | 3-5                                       | 16                                         | 21 1/2                                | 78 1/2                            | 100                                                |
| S-405           | 2750              | W-405           | 4400              | 9.68                     | 1-5                                       | 18                                         | 27 1/2                                | 37 1/4                            | 64 3/4                                             |
| S-406           | 3500              | W-406           | 5600              | 12.03                    | 2-5                                       | 18                                         | 27 1/2                                | 45 1/2                            | 73                                                 |
| S-407           | 4250              | W-407           | 6800              | 14.38                    | 2-5                                       | 18                                         | 27 1/2                                | 53 3/4                            | 81 1/4                                             |
| S-408           | 5000              | W-408           | 8000              | 16.73                    | 3-5                                       | 18                                         | 27 1/2                                | 62                                | 89 1/2                                             |
| S-409           | 5750              | W-409           | 9200              | 19.08                    | 3-5                                       | 18                                         | 27 1/2                                | 70 1/4                            | 97 3/4                                             |
| S-4010          | 6500              | W-4010          | 10400             | 21.43                    | 3-5                                       | 18                                         | 27 1/2                                | 78 1/2                            | 106                                                |
| S-4011          | 7250              | W-4011          | 11600             | 23.77                    | 3-5                                       | 20                                         | 26                                    | 86 3/4                            | 112 3/4                                            |
| S-4012          | 8000              | W-4012          | 12800             | 23.77                    | 4-5                                       | 20                                         | 26                                    | 95                                | 121                                                |
| S-4013          | 8750              | W-4013          | 14000             | 23.77                    | 4-5                                       | 20                                         | 26                                    | 103 1/4                           | 129 1/4                                            |
| S-4014          | 9500              | W-4014          | 15200             | 23.77                    | 4-5                                       | 20                                         | 26                                    | 111 1/2                           | 137 1/2                                            |
| S-4015          | 10250             | W-4015          | 16400             | 23.77                    | 4-5                                       | 20                                         | 26                                    | 119 3/4                           | 145 3/4                                            |
| S-4016          | 11000             | W-4016          | 17600             | 23.77                    | 4-5                                       | 20                                         | 26                                    | 128                               | 154                                                |
| S-4017          | 11750             | W-4017          | 18800             | 23.77                    | 4-5                                       | 20                                         | 26                                    | 136 1/4                           | 162 1/4                                            |
| S-4018          | 12500             | W-4018          | 20000             | 23.77                    | 4-5                                       | 20                                         | 26                                    | 144 1/2                           | 170 1/2                                            |
| S-4019          | 13250             | W-4019          | 21200             | 23.77                    | 5-5                                       | 20                                         | 26                                    | 152 3/4                           | 178 3/4                                            |
| S-4020          | 14000             | W-4020          | 22400             | 23.77                    | 5-5                                       | 20                                         | 26                                    | 161                               | 187                                                |
| S-4021          | 14750             | W-4021          | 23600             | 23.77                    | 5-5                                       | 20                                         | 26                                    | 169 1/4                           | 195 1/4                                            |
| S-4022          | 15500             | W-4022          | 24800             | 23.77                    | 5-5                                       | 20                                         | 26                                    | 177 1/2                           | 203 1/2                                            |
| S-4023          | 16250             | W-4023          | 26000             | 23.77                    | 5-5                                       | 20                                         | 26                                    | 185 3/4                           | 211 3/4                                            |
| S-4024          | 17000             | W-4024          | 27200             | 23.77                    | 5-5                                       | 20                                         | 26                                    | 194                               | 220                                                |

### Capacities and Dimensions of Utica-Duplex SUPER-SMOKELESS Boilers

| Number<br>Steam | Rating<br>Sq. Ft. | Number<br>Water | Rating<br>Sq. Ft. | Grate<br>Area<br>Sq. Ft. | No. and<br>Size of<br>Outlets<br>(Inches) | Diameter<br>of Smoke<br>Collar<br>(Inches) | Length of<br>Smoke<br>Box<br>(Inches) | Length of<br>Sections<br>(Inches) | Length of<br>Sections and<br>Smoke Box<br>(Inches) |
|-----------------|-------------------|-----------------|-------------------|--------------------------|-------------------------------------------|--------------------------------------------|---------------------------------------|-----------------------------------|----------------------------------------------------|
| S-827           | 8500              | W-827           | 13600             | 28.76                    | 8                                         | 28                                         | 17                                    | 53 3/4                            | 70 3/4                                             |
| S-828           | 10000             | W-828           | 16000             | 28.76                    | 8                                         | 28                                         | 17                                    | 62                                | 79                                                 |
| S-829           | 11500             | W-829           | 18400             | 33.46                    | 8                                         | 28                                         | 17                                    | 70 1/4                            | 87 1/4                                             |
| S-8210          | 13000             | W-8210          | 20800             | 33.46                    | 8                                         | 28                                         | 17                                    | 78 1/2                            | 95 1/2                                             |
| S-8211          | 14500             | W-8211          | 23200             | 38.16                    | 8                                         | 28                                         | 17                                    | 86 3/4                            | 103 3/4                                            |
| S-8212          | 16000             | W-8212          | 25600             | 38.16                    | 8                                         | 28                                         | 17                                    | 95                                | 112                                                |
| S-8213          | 17500             | W-8213          | 28000             | 42.86                    | 8                                         | 28                                         | 17                                    | 103 1/4                           | 120 1/4                                            |
| S-8214          | 19000             | W-8214          | 30400             | 42.86                    | 8                                         | 28                                         | 17                                    | 111 1/2                           | 128 1/2                                            |
| S-8215          | 20500             | W-8215          | 32800             | 42.86                    | 8                                         | 28                                         | 17                                    | 119 3/4                           | 136 3/4                                            |
| S-8216          | 22000             | W-8216          | 35200             | 47.54                    | 8                                         | 28                                         | 17                                    | 128                               | 145                                                |
| S-8217          | 23500             | W-8217          | 37600             | 47.54                    | 8                                         | 28                                         | 17                                    | 136 1/4                           | 153 1/4                                            |
| S-8218          | 25000             | W-8218          | 40000             | 47.54                    | 8                                         | 28                                         | 17                                    | 144 1/2                           | 161 1/2                                            |

Height of water line: 24 series, 45 1/2 inches; 33 series, 53 inches; 40 series, 57 inches; 82 series, 57 inches.

#### Equipment Shipped with Boilers

All SUPER-SMOKELESS Boilers are provided with equipment of the best type. Steam Boilers are equipped with Water Column with gauge glass and compression cocks; Retard Steam Gauge with Bourdon brass tube spring, Non-Glare Dial, syphon and cock; All-brass Pop Safety Valve, A. S. M. E. Standard; and Automatic All-metal Damper Regulator suitable for low pressure. Every boiler is furnished with a complete set of firing tools, consisting of shaker handle, hook, hoe, slice bar and flue brush with handle. Duplex Steam Boilers are equipped with Steam Header, Return Yoke, and Equalizer fitted with Hartford Connection which may be used or not, as desired.