

# Alberger Heater Company

HOWARD IRON WORKS

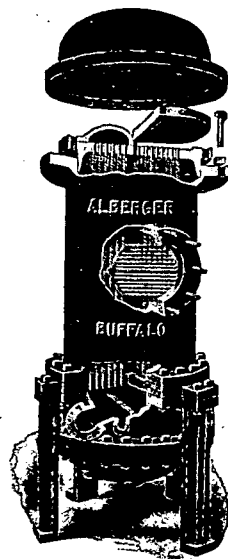
218 Chicago St.

BUFFALO, N. Y.

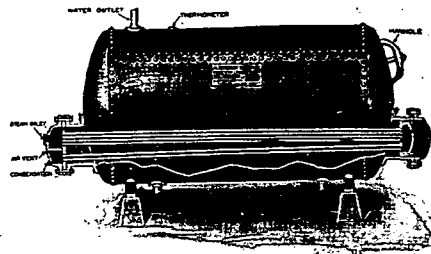
REPRESENTATIVES IN PRINCIPAL CITIES

Heaters — Condensers — Coolers — Economizers — Expansion Joints

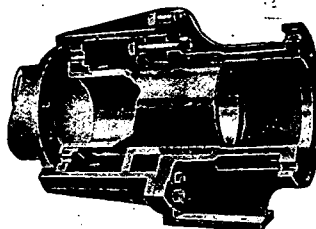
ALBERGER heaters are of five distinct types each having outstanding characteristics to insure a high heat transfer, economical operating and insignificant maintenance costs. The Multi-Head Instantaneous heater for domestic and feed water purposes is made in types H, horizontal and V, vertical. Type A is a special 3 pass heater for light service, and low temperature differences. Type S is a storage water heater for use where steam supply is intermittent and hot water requirements periodical. Type AB is a special designed heater for swimming pools, also for use in connection with air washers in heating and ventilating systems.



Multi-Head Instantaneous Heater



Type S Storage Heater



Howard Expansion Joint

## SIZES OF TYPE "S" HEATER FOR TEMPERATURE RANGE 50 to 180 deg.—Steam at 212 deg. Fahr.

| Cal. per Hr. | CAPACITY OF STORAGE TANK IN GALLONS |           |           |           |           |            |           |            |             |             |             |  |  |  |  |  |
|--------------|-------------------------------------|-----------|-----------|-----------|-----------|------------|-----------|------------|-------------|-------------|-------------|--|--|--|--|--|
|              | 142 24x72                           | 258 30x84 | 318 36x72 | 425 36x96 | 500 42x84 | 650 42x108 | 754 48x96 | 942 48x120 | 1190 54x120 | 1473 60x120 | 1757 60x144 |  |  |  |  |  |
| 200          | AY-5                                | BY-4      | CY-5      | DY-4      | EY-4      | FY-3       | GY-4      | HY-3       | IY-3        | KY-3        | LY-3        |  |  |  |  |  |
| 300          | AY-7                                | BY-6      | CY-7      | DY-6      | EY-6      | FY-5       | GY-5      | HY-5       | IY-4        | KY-4        | LY-4        |  |  |  |  |  |
| 400          | AA-9                                | BA-8      | CA-9      | DY-7      | EY-8      | FY-6       | GY-6      | HY-6       | IY-6        | KY-6        | LY-5        |  |  |  |  |  |
| 500          | AA-11                               | BA-10     | CA-11     | DA-9      | EA-10     | FY-8       | GY-8      | HY-7       | IY-7        | KY-7        | LY-6        |  |  |  |  |  |
| 600          | AA-14                               | BA-12     | CA-13     | DA-11     | EA-12     | FA-9       | GA-10     | HA-9       | IY-8        | KY-8        | LY-7        |  |  |  |  |  |
| 700          | AB-16                               | BA-14     | CB-15     | DA-12     | EA-13     | FA-11      | GA-12     | HA-10      | IY-10       | KY-10       | LY-8        |  |  |  |  |  |
| 800          | AB-18                               | BB-16     | CB-17     | DA-14     | EA-15     | FA-12      | GA-13     | HA-11      | IY-11       | KY-11       | LY-9        |  |  |  |  |  |
| 900          | AB-20                               | BB-18     | CB-20     | DB-16     | EB-17     | FA-14      | GA-15     | HA-13      | IY-12       | KY-12       | LY-10       |  |  |  |  |  |
| 1000         | AB-22                               | BB-20     | CB-22     | DB-17     | EB-19     | FB-15      | GB-17     | HA-14      | IY-14       | KY-14       | LY-12       |  |  |  |  |  |
| 1100         | BB-22                               | CB-25     | DB-19     | EB-21     | FB-17     | GB-18      | HB-15     | IA-15      | KA-15       | LA-13       |             |  |  |  |  |  |
| 1200         | BB-24                               | CD-27     | DB-21     | EB-23     | FB-19     | GB-20      | HB-17     | IB-17      | KB-16       | LA-14       |             |  |  |  |  |  |
| 1300         | BD-25                               | CD-29     | DB-22     | ED-25     | FB-20     | GB-22      | HB-18     | IB-19      | KB-18       | LA-15       |             |  |  |  |  |  |
| 1400         | BD-27                               | CD-31     | DB-24     | ED-26     | FB-21     | GB-23      | HB-20     | IB-19      | KB-19       | LB-16       |             |  |  |  |  |  |
| 1500         | BD-29                               | CD-34     | DD-26     | ED-29     | FB-23     | GD-25      | HB-21     | IB-21      | KB-20       | LB-18       |             |  |  |  |  |  |
| 1600         | BD-31                               |           | DD-28     | ED-30     | FD-25     | GD-27      | HB-22     | IB-22      | KB-21       | LB-19       |             |  |  |  |  |  |
| 1700         | BD-33                               |           | DD-29     | ED-32     | FD-26     | GD-28      | HB-24     | IB-23      | KB-23       | LB-20       |             |  |  |  |  |  |
| 1800         |                                     |           | DD-31     | ED-34     | FD-28     | GD-30      | HD-25     | IB-25      | KB-24       | LB-21       |             |  |  |  |  |  |
| 1900         |                                     |           | DD-33     | ED-35     | FD-29     | GD-32      | HD-27     | ID-26      | KD-26       | LB-22       |             |  |  |  |  |  |
| 2000         |                                     |           | DD-34     | EF-37     | FD-31     | GD-33      | HD-28     | ID-27      | KD-27       | LB-23       |             |  |  |  |  |  |
| 3000         |                                     |           |           |           | FF-46     | GF-49      | HF-42     | IF-41      | KF-40       | LD-35       |             |  |  |  |  |  |
| 4000         |                                     |           |           |           |           | GH-67      | HH-56     | IH-54      | KH-54       | LF-46       |             |  |  |  |  |  |
| 5000         |                                     |           |           |           |           |            |           | JH-68      | KH-67       | LH-58       |             |  |  |  |  |  |
| 6000         |                                     |           |           |           |           |            |           | JI-81      | KI-81       | LH-69       |             |  |  |  |  |  |
| 7000         |                                     |           |           |           |           |            |           |            |             | LI-80       |             |  |  |  |  |  |
| 8000         |                                     |           |           |           |           |            |           |            |             | LI-92       |             |  |  |  |  |  |

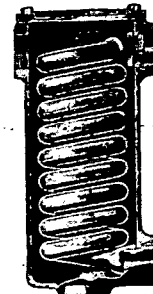
Howard Expansion Joints are extensively used in high and low pressure piping systems for all classes of service. They are a reliable means for accommodating expansion in such lines and are specified for all important work.

TO ARCHITECTS  
ENGINEERS  
CONTRACTORS EVERYWHERE

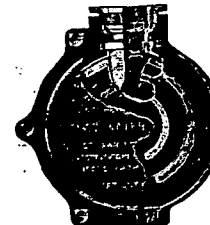
If you have not received a copy of the Alberger Engineers Heater Data Book describing all types and giving dimensions, service and installation data please send in your name immediately. Also remember that our experience in designing and building special heaters and coolers is available to prospective clients.

# Excelso Specialty Works, Inc.

119 Clinton St., BUFFALO, N. Y.



Sectional View



New Double-Coil Heater

will heat domestic water for most any tank capacity. Special problems involving the use of Excelso Heaters will be given prompt attention by our engineering department.

The new heaters take care of installations from 160 to 400 gal. Double the No. 18 up in batteries of two and 800 gal. can easily be heated.

These new heaters are built along the same general lines as the famous single coil heaters except that they have a double coil.

The Excelso Water Heater consists of a heavy copper coil heating element fitted in a cast iron shell by means of patented ground joint connections. All parts are interchangeable and easily accessible.

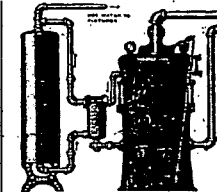
Connected on the outside of steam or vapor boilers the Excelso eliminates the fire pot coil and insures a constant supply of domestic hot water all during the heating season at an even temperature.

The Excelso method of generating domestic water is so satisfactory and the expense so trifling that boiler manufacturers and heating engineers generally are recommending its use.

The New Heavy Duty Double Coil Heater—For larger installations—for apartment houses, buildings and other places where large quantities of hot water are required.

These larger heaters are made in four sizes for tank capacities of 160, 200, 300 and 400 gal.

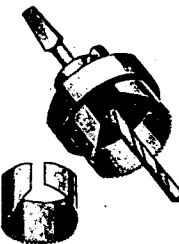
Connecting two or more of these heaters in battery



Excelso Heater Connected to Round Steam Boiler

Excelso Rotary Hack Saw Tool—Boilers may be easily and quickly tapped by means of Excelso Rotary Hack Saw Tool.

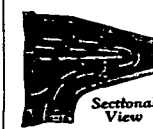
Each tool cuts holes for either 1, 1½ or 2 in. pipe tap. Price \$7.50 net, including 6 blades, 2 of each size.



Hack Saw Tool



Top View



Sectional View

Fire Pot Generator

Also Manufacturers of EXCELSO-PHAETON FIRE POT HEATERS.

## Dimensions—Price List—Capacities

| Size of Heater       | Jr.     | 11   | 12   | 13   | 14   | 15   | 25    | 26    | 27    | 28    |
|----------------------|---------|------|------|------|------|------|-------|-------|-------|-------|
| Length, in.          | 8½      | 10½  | 14   | 11½  | 15   | 19½  | 12½   | 15    | 19    | 23¼   |
| Diameter, in.        | 5       | 5    | 5    | 6½   | 6½   | 6½   | 2     | 9     | 9     | 9     |
| Shell opening, in.   | 1       | 1    | 1    | 1½   | 1½   | 1½   | 2     | 2     | 2     | 2     |
| Coil opening, in.    | ¾       | ¾    | ¾    | 1    | 1    | 1    | 1½    | 1½    | 1½    | 1½    |
| Weight, crated, lbs. | 11      | 17   | 23   | 31   | 39   | 46   | 58    | 68    | 82    | 95    |
| List Price           | \$12.50 | \$30 | \$40 | \$50 | \$60 | \$70 | \$120 | \$150 | \$180 | \$210 |

\*Formerly Nos. 16, 17 and 18.

## HEATING WATER BELOW WATER LINE OF STEAM OR VAPOR BOILERS

Temperature rise 100 deg. in 3 hr.

| Size of Heater | Jr. | 11 | 12 | 13 | 14 | 15  | 25  | 26  | 27  | 28  |
|----------------|-----|----|----|----|----|-----|-----|-----|-----|-----|
| Tank Capacity  | 30  | 30 | 45 | 60 | 90 | 120 | 160 | 200 | 300 | 400 |

## HEATING WATER WITH LIVE STEAM

Temperature rise 100 deg. in 3 hrs. at 5 lb. pressure.

| Size of Heater | Jr. | 11 | 12 | 13  | 14  | 15  | 25  | 26  | 27  | 28  |
|----------------|-----|----|----|-----|-----|-----|-----|-----|-----|-----|
| Tank Capacity  | 45  | 50 | 75 | 100 | 150 | 200 | 250 | 300 | 450 | 600 |

## INSTRUCTIONS FOR ORDERING HEATERS

Many tanks are installed too small and heaters should always be ordered to correspond with work required and not size of tank. Also make liberal allowance if circulating system is used.