



## Useful Data

|                                                        |                 |
|--------------------------------------------------------|-----------------|
| One cubic inch of water weighs.....                    | .036 lbs.       |
| One cubic inch of cast iron weighs.....                | .26 lbs.        |
| One cubic inch of wrought iron weighs.....             | .28 lbs.        |
| One cubic inch of copper weighs.....                   | .31 lbs.        |
| One cubic inch of lead weighs.....                     | .41 lbs.        |
| One cubic foot of water weighs.....                    | 62.321 lbs.     |
| One United States gallon of water weighs.....          | 8.33 lbs.       |
| One Imperial gallon of water weighs.....               | 10.00 lbs.      |
| One United States gallon equals.....                   | 231.00 cu. in.  |
| One Imperial gallon equals.....                        | 277.274 cu. in. |
| One cubic foot of water equals.....                    | 7.48 U.S. gals. |
| One cubic foot of water equals.....                    | 6.23 Imp. gals. |
| One pound of steam equals at atmospheric pressure..... | 27.222 cu. ft.  |
| One pound of air equals at 70 degrees Fahr. ....       | 13.817 cu. ft.  |
| One Imperial gallon equals.....                        | .16 cu. ft.     |
| One United States gallon equals.....                   | .1366 cu. ft.   |
| One pound of water equals.....                         | 27.72 cu. ft.   |
| One pound of water equals.....                         | .10 Imp. gals.  |
| One pound of water equals.....                         | .083 U.S. gals. |

A column of water 1 foot high is equal to a pressure of .433 lbs. per square inch.

A pressure of 1 lb. is equal to a column of water 2.31 feet high.

Mercury freezes at 37.9 degrees Fahr. below zero, and alcohol at not less than 200 degrees Fahr. below zero. Mercury boils at 662 and alcohol at 173 degrees Fahr.

Water expands one twenty-third part, or  $4\frac{1}{3}$  per cent., from 32 degrees Fahr. to 212 degrees Fahr.

Water boils at 98 degrees Fahr. in a perfect vacuum, and at the sea level at 212 degrees Fahr.

A heat unit (British Thermal Unit) is the quantity of heat required to raise one pound of water from 40 degrees to 41 degrees Fahr., or one degree.

A pound of anthracite coal contains about 14,000 heat units.

Tons of coal in a coal bin are found by multiplying height, breadth and depth together and dividing the result by 40. For soft coal divide by 49.

Water converted into steam expands about 1,700 times its volume. One cubic inch of water will produce approximately 1 cubic foot of steam.