

meters are made per 1,000 units. The value of the unit varies with the size of the meter, the pressure of the steam, and the cost of fuel and water, and the evaporative performance of the boilers.

#### DIRECT HEATING—RADIATORS.

From the meter the steam intended for heating purposes, passed through the supply pipes into the radiators. Any of the ordinary forms may be used, and all the ordinary steam fixtures. The usual American pattern of radiators are made of vertical lengths, of 1-inch iron pipe, secured into a base and cap, the steam exit and entrance both being in the base. In common with most descriptions of steam radiators, they have to be either full of steam or empty, there being no means of regulating the steam supply. Mr. Holly overcame this, by making the steam entrance at the top of the tubes, in the cap, and having an air valve at the base, to permit the air to escape. Steam, being lighter than air, displaced it to any extent that might be required, entirely, or only partially filling the tubes. In practice it was found difficult to keep the joints tight, in the base and cap, owing to unequal expansion and contraction.

#### INDIRECT HEATING—BY COILS IN THE BASEMENT.

The steam and water of condensation, from all the radiators, passed through coils of steam pipe, in a chamber in the basement, to which fresh air from the outside, was carried through a flue; the air thus heated rises through flues and registers, in the ordinary way, and supplies fresh air, while assisting to heat the house.

#### TRAPS.

The water of condensation escaped through a steam trap, and wasted into the sewers, unless required for domestic purposes.

#### OTHER USES OF STEAM.

Live steam can be used for heating water, and when this is done, by direct contact, the noise can be almost entirely stopped, by first passing the steam through a small box filled with gravel or fragments of stone.

For cooking purposes, steam does well for a variety of articles, and a stove has been perfected, that with superheated steam, all sorts of cooking can be done, the superheating being done with a gas flame.