

The Stationary Coal Burner

DESCRIPTION

The Ash Pit (A) is of heavy cast iron, and supports the Furnace.

The Fire Pot (B) is of heavy cast iron, and corrugated to allow for expansion and contraction, the diameter being greater at the top than at the bottom.

The Grate (K) when in position, is between the Ash Pit and Fire Pot, and being ANTI-CLINKER, can be cleansed with a poker or a slicer, with as much ease as an ordinary Base Burning Stove, and should not be shaken.

The Dome (C) rests upon the Fire Pot, is of cast iron, very heavy, and being cast in one piece (with no joints), there can be no escape of smoke or dust.

On the outside of Dome, near its bottom, are six openings at equal distances, over which hollow arms of Radiator fit, and through which the smoke and heat pass into Radiator, as has been explained; the products of combustion arise from the Fire Pot at once into top of Dome, where they are held and consumed.

The Expansion Rings (D) are placed over the arms of the Dome to receive the arms of the Radiator after they lock into those of the Dome. They are packed with sand, though really self-packers, and allow for expansion and contraction of the arms without breaking the joints.

The Radiator (E) is circular in form, and extends in diameter over the entire Furnace, and its very extensive radiating surface can be seen from the cut.

The construction warrants it a self-cleaner, as at its centre open pipe it is but four inches in thickness, from which to lower rim it has an angle of 45 deg., so that a temporary lodgment of soot or dust must run back into Fire Pot. Uniform distribution of the heat from the Dome into the Radiator is accomplished by the connecting arms.

On account of the arms being at equal distances, the Radiator can be adjusted to suit location of chimney.

The Front (F) is cast iron, and with its doors, is outside the brick-work.

The Feed Door (G).—Through this the fire is fed with coal by the cast iron shoot connecting it with the Dome. In it are two openings, filled with mica, and a slide through which air is admitted over the fire to assist in consuming the gases held in the top of the Dome.

The Ash Pit Door (J).—Through this the ashes are taken out, and with its slide open, gives draft to the fire.

The Grate Doors (H), over the Ash Pit Door, open to Grate, through which poker is admitted to cleanse Grate.

A Man Hole Door is placed in the brick-work, through which access can be had to any part of the Furnace needing attention.

The Brick-work consists of a double wall, the outer square and the inner circular, with a dead air space of four inches where the two walls come nearest together. The inner wall being within 1½ inches of the sides of the Radiator, forces all the air directly upon the Furnace and up through the Radiator.

DIMENSIONS OF STATIONARY FURNACES

No. 8.....	Height, 4 feet, 3 inches.	Diameter, 3 feet, 2 inches.
" 9.....	" 4 " 7 "	" 3 " 7 "
" 10.....	" 4 " 8 "	" 4 " 4½ "
" 11.....	" 4 " 10 "	" 4 " 8½ "