IMPROVED HOT AIR FURNACES

Gurneys' "Harris" Hot Air Furnace

I S an improvement on any of the former Furnaces, as it has a larger radiating surface than any other; the Radiator being of the full diameter of the Furnace and containing a number of open pipes of large diameter, and the Dome being large and filled with large pipes, presents as much inside as outside surface for radiation,

The supply air passes directly through and over the Dome and Radiator, and over this extensive radiating surface, becoming thoroughly warmed. The heat is obtained from a large radiating surface moderately heated, so that the air is not burned or scorehed, but comes into the room in a mild condition. No part of the Furnace can become red hot, so that it always gives a healthful heat.

ECONOMY IN FUEL

While we do not claim that we can heat a large house with a single hod of coal for twenty-four hours, yet we do claim a great economy in fuel from its construction and perfect combustion of the gases; and further, that we can obtain more heat from a given amount of fuel than can be produced by any other Furnaces.

The Dome above the Fire-Pot, when the Furnace is running, is filled with a single mass of flame, which continually strikes against the decreasing diameter of the Dome, giving off more heat than if the flame passed smoothly up the side of a perpendicular. This space between the burning fuel and the top of the Dome is also filled with burning gases, from which is obtained a continuous and intense heat by itself. As the top of the Dome is closed, the gases must ascend and be held there, as the only means of escape from the Dome is through hollow arms at its base, above which the gases will remain, and to aid in their combustion a current of fresh air is introduced into Dome over Fire-Pot through Slide in Feed Dome—the Dome thus receiving the gases, after they are expelled from the coals, radiating inwardly as well as outwardly, intensifies the heat. By this retention very full combustion of the gases is secured, and thus is saved a vast amount of heat, which usually passes off into the chinney and is lost—and a consumption of the gases must lessen the amount of fuel otherwise required. The extensive inside radiation must also prove a considerable saving in the consumption of fuel.

GURNEYS' NEW "HARRIS" FURNACE will give

NO GAS, DUST OR SMOKE

Through its Hot Air Pipes and Registers, as the gases arising from the combustion ascend to the top of the Dome, where they are held and consumed.

The smoke and any dust passing to the Chimney goes from the Dome through hollow arms into the Smoke Pipe.

The Dome is made in one solid casting, heavily corrugated.

The Joints are sand joints, and it is a perfect self-cleaner.

When the Grate is raked, the ashes and dust fall into the Ash Pit, which is perfectly air-tight, so that no dust can get into the Air Chamber, and all parts and joints are constructed specially with a view to uniform expansion and contraction, and where exposed to the fire are adapted to receive the flame.