

W. C. WREN.
Gas-Retort Furnaces.

No. 137,811.

Patented April 15, 1873.

Fig. 1.

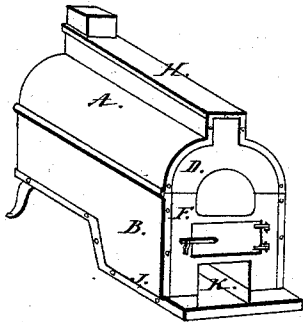


Fig. 2.

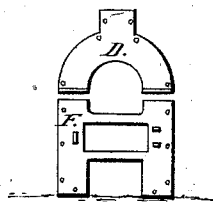


Fig. 3.

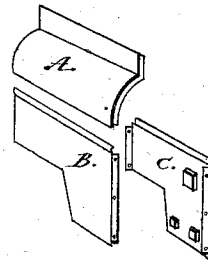


Fig. 5.

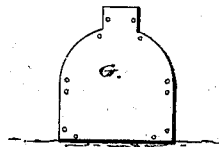


Fig. 6.

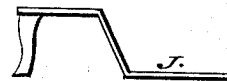


Fig. 4.

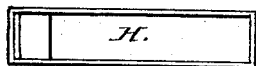


Fig. 8.

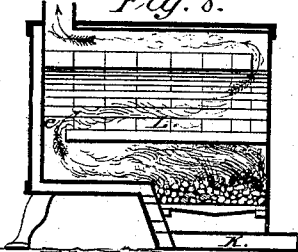


Fig. 7.

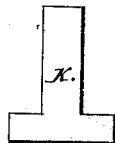


Fig. 10.

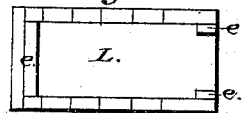
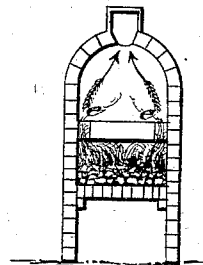


Fig. 9.



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IMPROVEMENT IN GAS-RETORT FURNACES.

Specification forming part of Letters Patent No. **137,811**, dated April 15, 1873; application filed April 3, 1873.

To all whom it may concern:

Be it known that I, WILLIAM C. WREN, of Brooklyn, in the county of Kings, State of New York, have invented a new and Improved Gas-Retort Furnace; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawing and the letters of reference marked thereon.

The first part of my invention relates to the combination of an iron frame put together in such a manner that each piece or part, when in place, will form the furnace complete, and hold the fire-brick lining in place. The second part of my invention relates to the combination of the fire-pot with the flues and the arch in such a manner as to give the greatest heat with the smallest consumption of fuel.

Figure 1 is a perspective view of the furnace. Fig. 2 is a view of the plates D F forming the front. Fig. 3 is a view of the side plates A B C shown in perspective; Fig. 4, the top plate H; Fig. 5, the back plate G; Fig. 6, the bottom plate J; Fig. 7, the ash-pan K to hold water; Fig. 8, a longitudinal section through the center; Fig. 9, an inside view with the front plates D and F removed.

The side and end plates having been put in position in the bottom J and bolted together, the bricks are built in place, grate-bars put

in, (grate-bars rest on the lugs shown on side C, Fig. 4;) then the slab L is put in place, L, Fig. 10, the front end of which rests on the lugs M, shown on side C, Fig. 3, which covers the fire-pot and forms the bottom of the oven, with the two small flue-holes *ee* on the front end and the larger opening *e* on the back end. Then the arch is built, with the opening N, Fig. 9, left in the front end. Then the plates A A, both being the same to fit either side, are put in place, and form the top flue over the arch. Then, with the top H, which is flanged all around and fits over the sides A A, and the back G and front D, binds the whole together.

The furnace, being constructed in the manner described, can be moved readily all together, or taken to pieces and put together in a very short time.

What I claim as my invention is—

1. The bottom, side, end, and top plates J B C F D G H, for the purpose as described.
2. The combination of the flues *eee* with the fire-pot and oven, together with the outside frame, in the manner and for the purpose as described.

WILLIAM C. WREN.

Witnesses:

P. RICHARDSON,
H. B. CULVER.