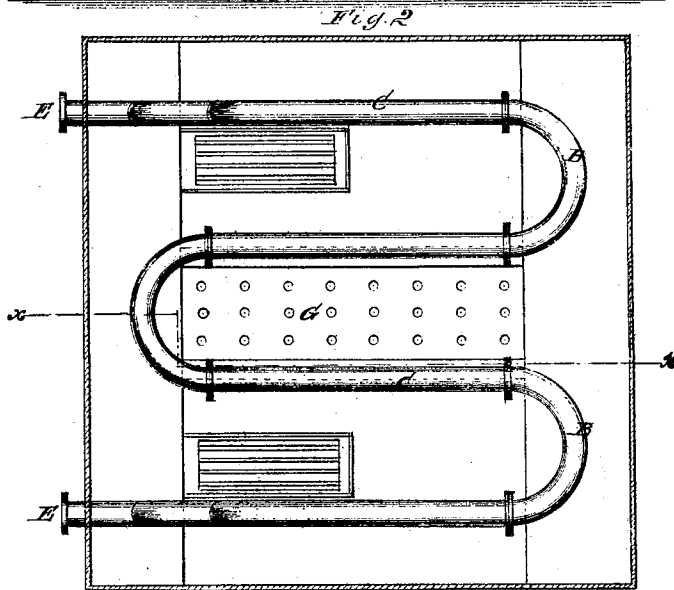
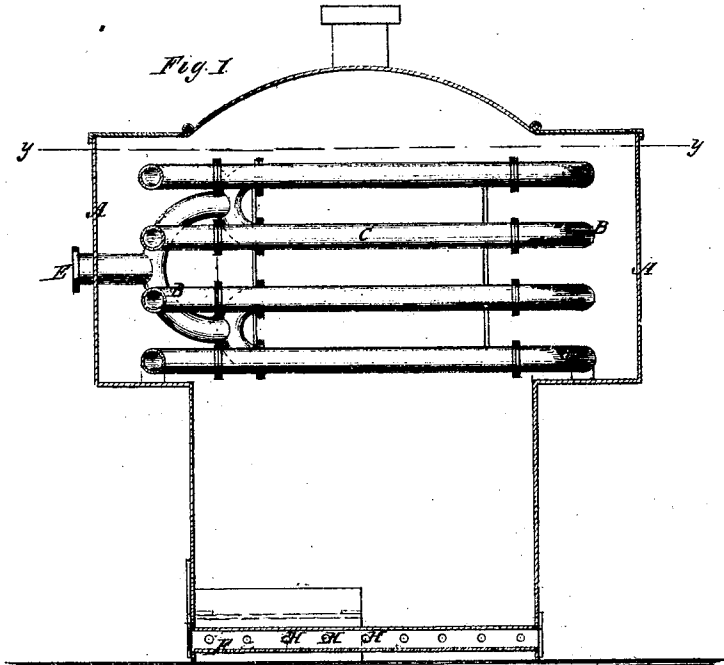


*J. Froggett,*

*Hot Blast Oven.*

*No. 103597.*

*Patented May 31, 1870.*



Witnesses:

*E. Wall*  
*L. S. Mabce*

Inventor:

*Job Froggett*  
PER *Munn & Co*  
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# United States Patent Office.

JOB FROGETT, OF YOUNGSTOWN, OHIO.

Letters Patent No. 103,597, dated May 31, 1870.

## IMPROVEMENT IN HOT-BLAST OVENS.

The Schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, JOB FROGETT, of Youngstown, in the county of Mahoning and State of Ohio, have invented a new and useful Improvement in Hot-blast Ovens; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to improvements in hot-blast ovens, and consists—

First, in inclosing the air-pipe connections in the oven, together with the main parts thereof;

Second, in providing two or more pipes or sets of pipes, for dividing the blast, to lessen the friction; and

Third, in arranging air-flues through the hot-blast oven, with holes admitting air immediately or directly to the gas where it enters the oven, or to the combustion-chamber of hot-blast ovens using other fuel.

Figure 1 is a sectional elevation of my improved hot-blast oven, taken on the line *x x* of fig. 2.

Figure 2 is a horizontal section on the line *y y* of fig. 1.

Similar letters of reference indicate corresponding parts.

A represents lateral extensions of the oven, made near the top, to inclose the pipe-connections B with the main parts C.

This arrangement saves a great amount of heat now lost by the projections of these connections

through the sides of the oven, where they are exposed to the air.

E represents two connections for supplying two blasts through the pipe, which may be arranged in two sections or sets, for dividing the blast to reduce the friction.

F represents one of the air-flues which I pass through the oven at the place G, where the gas is supplied, or alongside of the combustion-space in ovens using other fuel, to supply the air directly thereto through the holes H in the side.

This plan very greatly facilitates the combustion, as is well understood.

Having thus described my invention,

I claim as new, and desire to secure by Letters Patent—

1. Hot-blast ovens, arranged to inclose the air-pipe connections B, together with the main parts C, substantially as specified.

2. The application to hot-blast ovens of two or more sets of pipes, with separate supply-connections for dividing the blast, substantially as specified.

3. The arrangement, in connection with the gas-supply G, or the combustion-space of ovens using other fuel, of the air-supply flues F, traversing the ovens, and perforated to supply the air directly to the burning-flue, substantially as specified.

JOB FROGETT.

Witnesses:

J. H. BROWN,  
WM. BONNELL.