

(No Model.)

3 Sheets—Sheet 1.

P. HENRI.

TANK FOR MANUFACTURING WINDOW GLASS.

No. 578,563.

Patented Mar. 9, 1897.

Fig. 1.

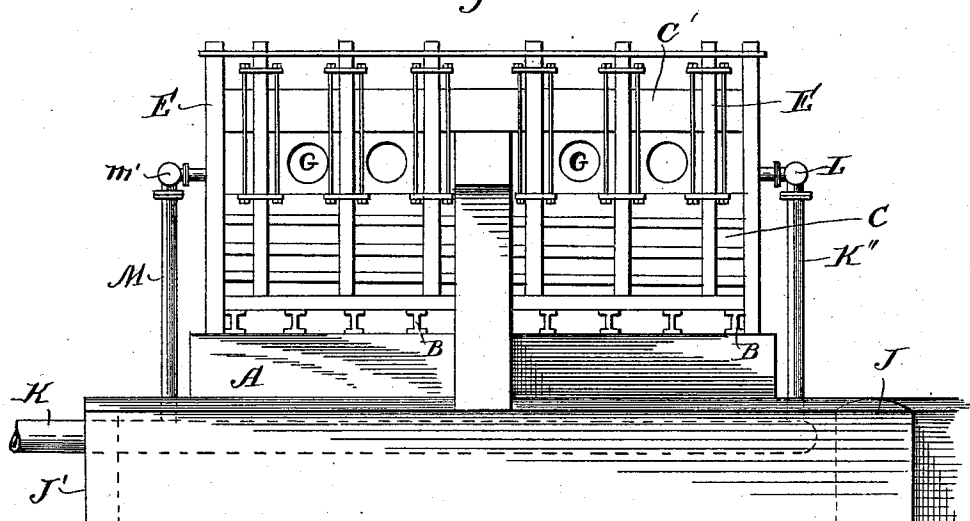
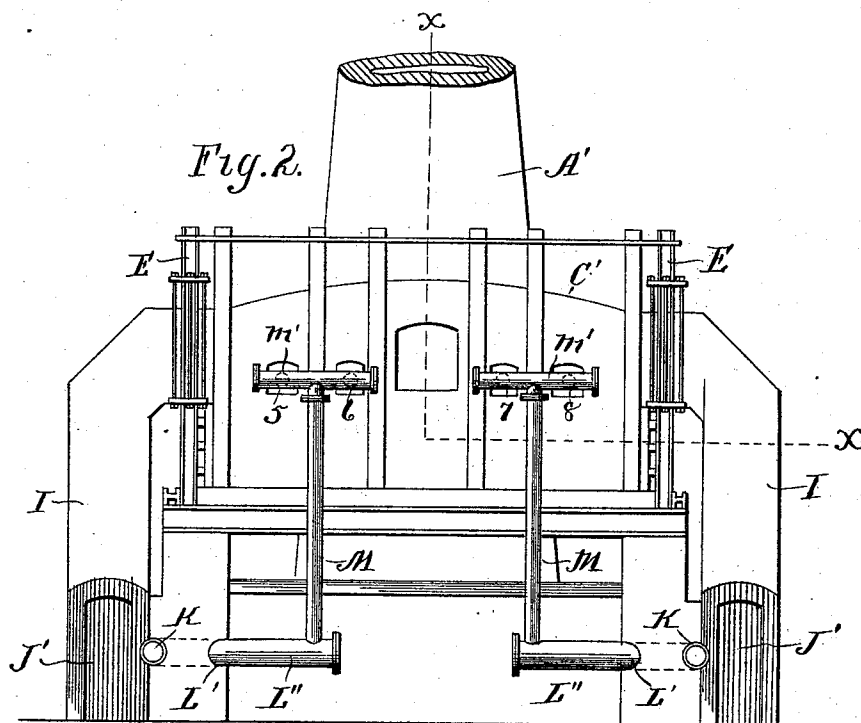


Fig. 2.



Witnesses:

Carroll J. Webster
W. B. Adams

Inventor:

Polidore Henri,
by Chas. E. Adams, Atty.

(No Model.)

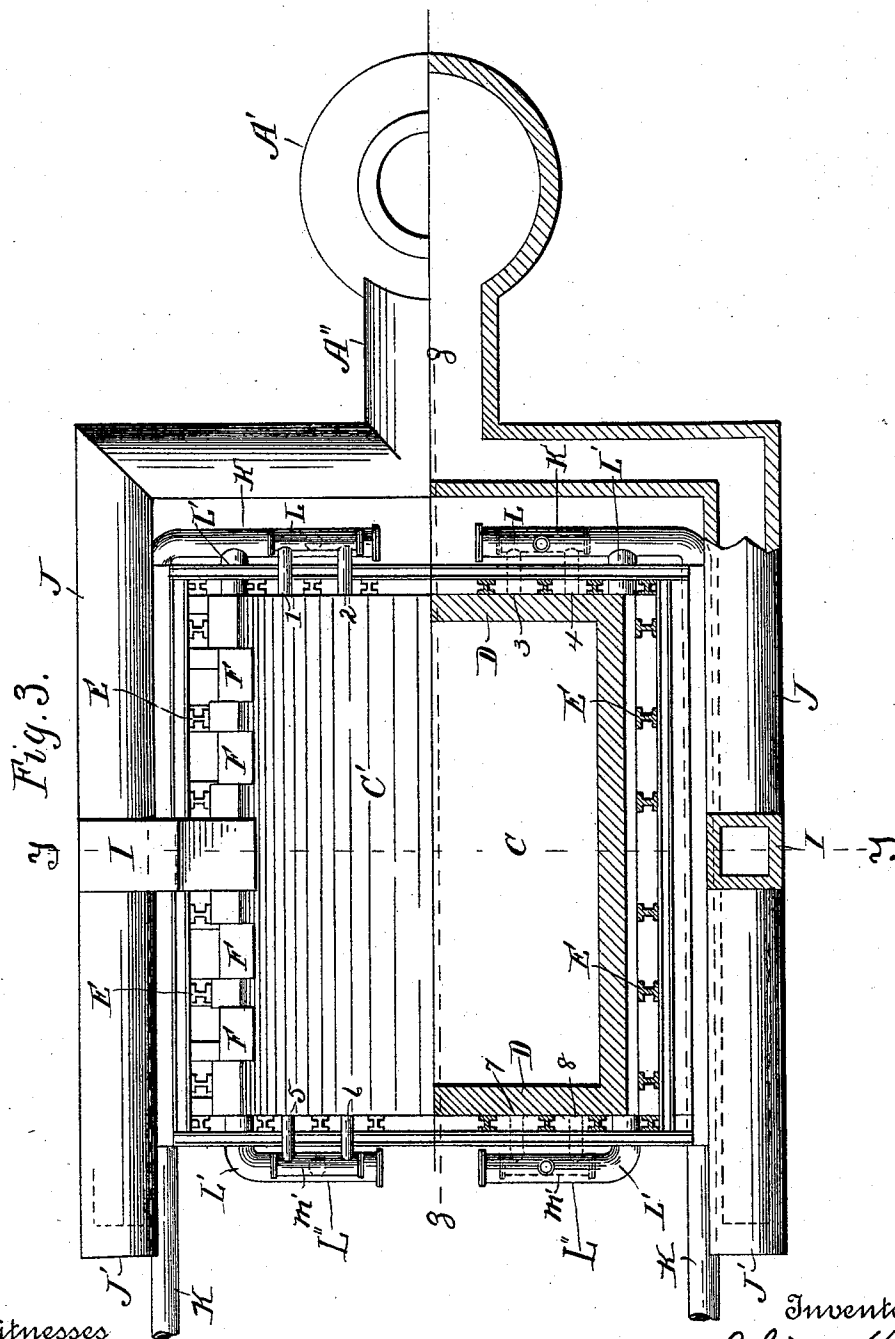
3 Sheets—Sheet 2.

P. HENRI.

TANK FOR MANUFACTURING WINDOW GLASS.

No. 578,563.

Patented Mar. 9, 1897.



Witnesses

Carroll J. Webster
W. H. Jackson

Inventor

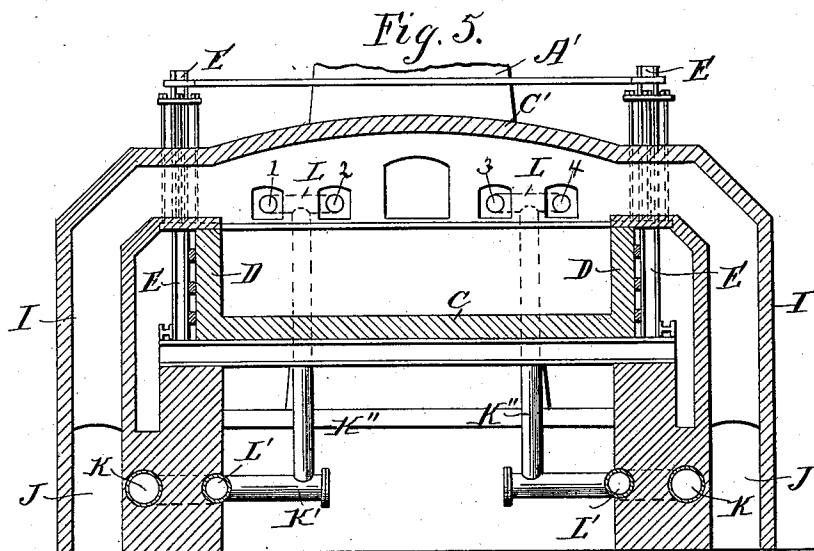
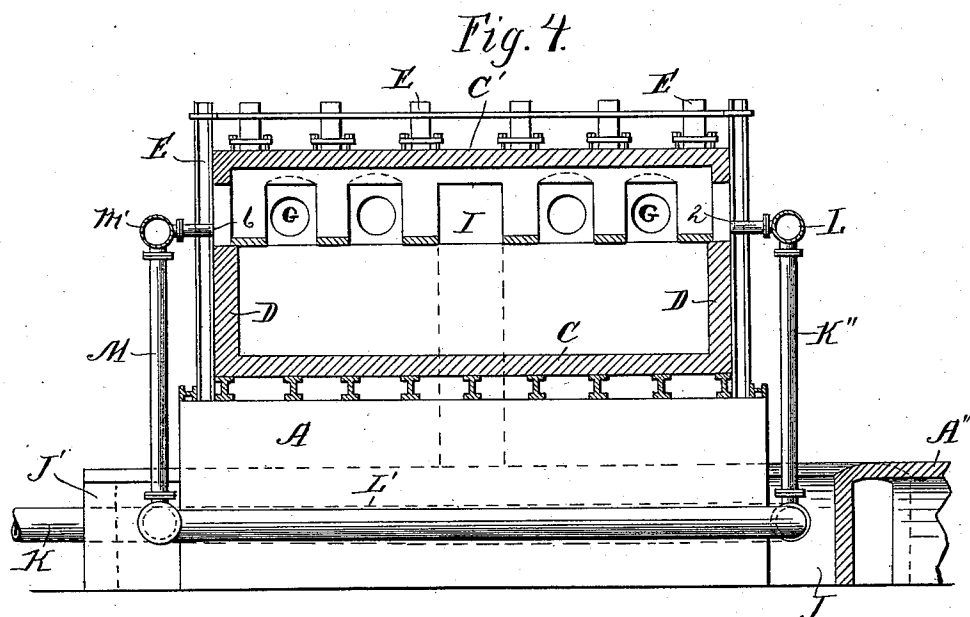
Polidore Henri
By Chas. P. Adams
Attorney

P. HENRI.

TANK FOR MANUFACTURING WINDOW GLASS.

No. 578,563.

Patented Mar. 9, 1897.



Witnesses:

Carroll J. Webster
 W. Bladen Jackson

Inventor:

Polidore Henri
 by Phas. E. Adamson
 Atty.

UNITED STATES PATENT OFFICE.

POLIDORE HENRI, OF HARTFORD, INDIANA.

TANK FOR MANUFACTURING WINDOW-GLASS.

SPECIFICATION forming part of Letters Patent No. 578,563, dated March 9, 1897.

Application filed October 10, 1895. Serial No. 565,283. (No model.)

To all whom it may concern:

Be it known that I, POLIDORE HENRI, a citizen of the United States, residing at Hartford, in the county of Blackford and State of Indiana, have invented certain new and useful Improvements in Glass-Melting Tanks; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to a new and useful improvement in glass-melting tanks; and it consists in the construction and arrangements of parts hereinafter described, and definitely pointed out in the claims.

The aim and purpose of this invention is to construct a glass-melting tank in which the air-chambers are dispensed with and the air-conduits through which the air is passed to the combustion-chamber are located adjacent the exits for the product of the combustion, whereby the air is heated to a uniform temperature before entering the combustion-chamber. It is also furthermore contemplated to construct the furnace and tank of the least amount of material, and one that can be cheaply built and occupy but a small space. These and other objects not hereinbefore specified are accomplished by the construction illustrated in the accompanying drawings, wherein like letters and figures of reference indicate corresponding parts in the several views, and in which—

Figure 1 is a side elevation of my improved tank. Fig. 2 is an end view. Fig. 3 is a half-plan and half-section on the line X X, Fig. 2. Fig. 4 is a section at a point indicated by the line Z Z, Fig. 3; and Fig. 5 is a section at a point indicated by the line Y Y, Fig. 3.

In the drawings, A represents the foundation, constructed of fire-brick or other suitable material, and B represents the supporting-bars for the tank, resting longitudinally on the foundation.

C represents the bottom of the tank, and D the sides and front thereof.

E represents the buck-stays, and F the skewbacks.

G represents the ring-holes, and C' the crown, resting upon the skewbacks F.

I represents the chimneys or exits for the

products of combustion. These chimneys extend from opposite sides of the tank and lead from the combustion-chamber horizontally outward, and are then curved downward and terminate in the conduits J. These conduits extend parallel with the sides of the tank and have their outer ends closed, as shown at J', Fig. 1. The opposite ends of these conduits are bent at an angle toward each other and are united and terminate in the conduit A'', which leads to the stack A'.

K represents the air-flues, which extend a short distance beyond the outer ends of the conduits and are located within the inner wall of the same. These flues extend the entire length of the furnace and then extend inwardly, as shown at K', Figs. 2, 3, and 5, and then extend upwardly, as shown in Figs. 1, 4, and 5, and terminate in the short horizontal pipes L, which are closed at both ends. Extending inwardly from the pipes L into the combustion-chamber are the pipes 1, 2, 3, and 4.

Extending from the portion K' of the flues are the flues L', which are supported in the foundation A. These flues L' extend to the opposite ends of the tank and are then turned inwardly, as shown at L'', Fig. 2, and then upwardly, as shown at M, Figs. 1 and 3, and terminating in the horizontal pipes m', which are closed at both ends. Leading inwardly from the pipes m' into the combustion-chamber are the pipes 5, 6, 7, and 8.

It will thus be seen from the above description that the air is first heated by the escaping products of combustion and conveyed to opposite ends of the combustion-chamber, where it is fed into the tank. By this construction all air-chambers are dispensed with and no change is made necessary.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In a glass-melting tank, the combination with the tank, of downwardly-extending exits leading from opposite sides of the tank, conduits located on opposite sides of the tank in which the exits terminate one end of the conduits being closed and the opposite end terminating in the stack, air-inlet flues located adjacent the conduits, and adapted to be heated thereby extending parallel therewith

and then upwardly leading into one end of the tank, and flues leading from the air-inlet flues extending parallel with the tank and then upwardly and leading into the opposite end of the tank, substantially as described.

2. In a glass-melting tank, the combination with the tank, of an exit leading from the tank, a conduit in which the exit terminates, one end of the conduit being closed and the opposite end terminating in the stack, an air-inlet flue located adjacent the conduit, and adapted to be heated thereby, extending parallel therewith and leading into one end of the tank, and a flue leading from the air-inlet flue and terminating in the opposite end of the tank on the same horizontal plane as the air-inlet flue, substantially as described.

3. In a glass-melting tank, the combination with the tank, of downwardly-extending exits leading from opposite sides of the tank, conduits located on opposite sides of the tank in

which the exits terminate, one end of the conduits being closed and the opposite end terminating in the stack, air-inlet flues located in the side wall of the conduits and extending parallel therewith and then upwardly and terminating in horizontal pipes, closed at both ends, and located at one end of the tank, pipes leading from the horizontal pipe into the tank, flues leading from the air-inlet flues extending parallel with the tank and then upwardly and terminating in horizontal pipes at the opposite end of the tank, and pipes leading from the horizontal pipe into the tank, substantially as described.

In testimony whereof I affix my signature in presence of two witnesses.

POLIDORE HENRI.

Witnesses:

ARTHUR BRANDAMORE,
AUGUST DEWERPE.