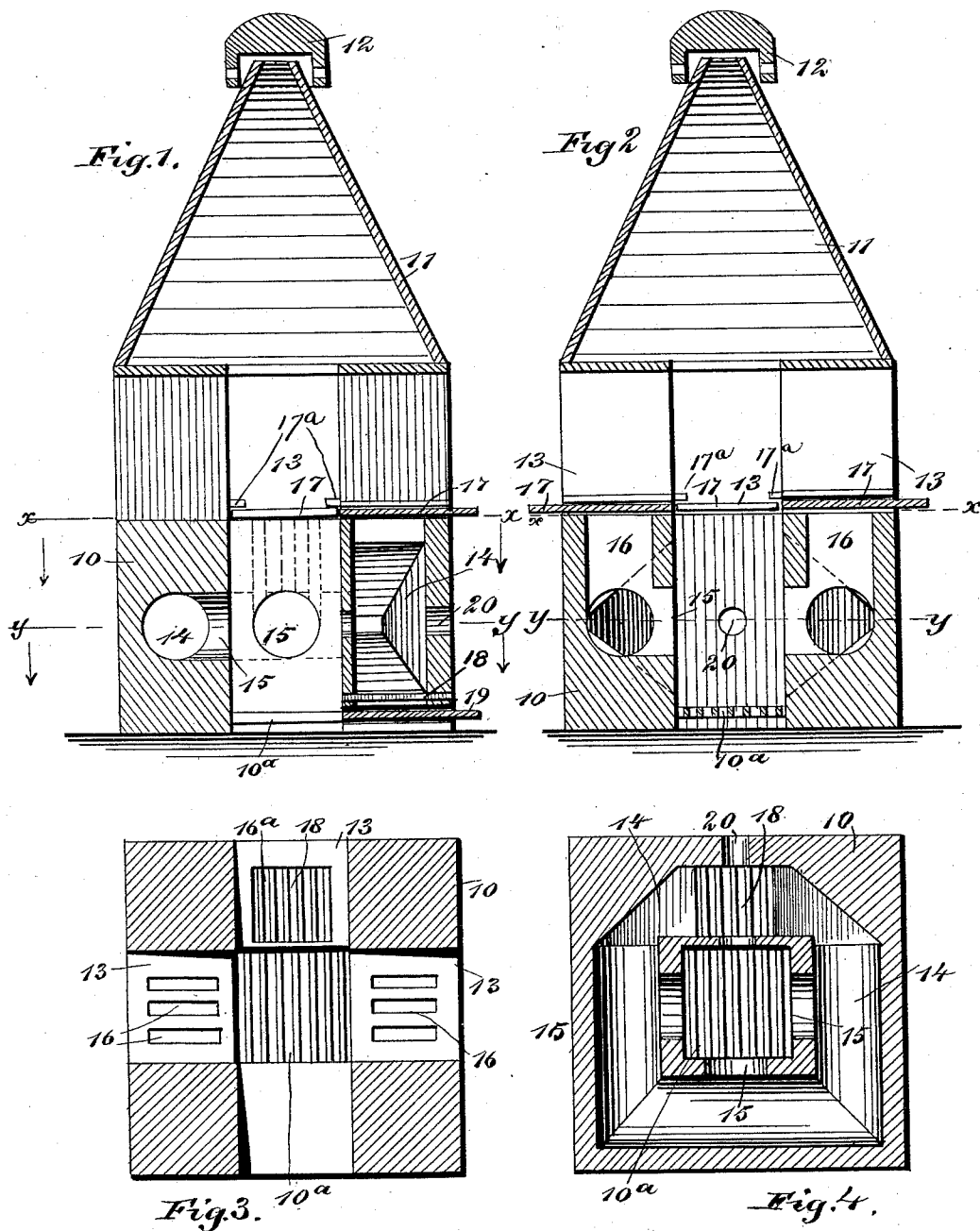


(No Model.)

H. HAGERLING.
GLORY HOLE FURNACE.

No. 468,657.

Patented Feb. 9, 1892.



WITNESSES:

W. M. Crable
C. Sedgwick

INVENTOR

H. Hagerling
BY *Munn & Co.*
ATTORNEYS.

UNITED STATES PATENT OFFICE.

HENRY HAGERLING, OF ST. LOUIS, MISSOURI.

GLORY-HOLE FURNACE.

SPECIFICATION forming part of Letters Patent No. 468,657, dated February 9, 1892.

Application filed August 8, 1891. Serial No. 402,136. (No model.)

To all whom it may concern:

Be it known that I, HENRY HAGERLING, of St. Louis, State of Missouri, have invented a new and Improved Glory-Hole Furnace, of which the following is a full, clear, and exact description.

My invention relates to improvements in that class of glass-bottle-finishing furnaces known as "glory-holes." The furnaces generally used for this purpose provide for heating the neck of the bottle only, and consequently the body remains cold and there is a great loss, owing to breakage, which results from the unequal distribution of heat.

The object of my invention is to produce a simple furnace in which the bottles to be finished may be easily and conveniently heated and which will evenly heat the entire bottle, so as to prepare it nicely for the tempering-oven.

To this end my invention consists of certain features of construction and combinations of parts, which will be hereinafter described and claimed.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar figures of reference indicate corresponding parts in all the views.

Figure 1 is a central vertical section of the furnace. Fig. 2 is a central vertical section taken at right angles to the view shown in Fig. 1. Fig. 3 is a sectional plan on the lines *xx* in Figs. 1 and 2, and Fig. 4 is a sectional plan on the lines *yy* in Figs. 1 and 2.

The furnace 10 is provided with the usual vertical central flue, which is partially closed at the bottom by a grate 10^a and which is covered at the top by a pyramidal chimney 11, which terminates in a perforated cap 12.

On opposite sides of the furnace are working-holes 13, in which the bottles are placed to be heated, and extending horizontally around the central opening in the furnace and through the walls thereof is a horizontal flue 14, which has openings 15 leading to the central furnace and which connects with flues 16 and 16^a, extending vertically through the furnace-walls and opening into the working-holes 13. It will be noticed that the vertical flue 16^a is larger than the flues 16, and this flue is adapted for heating large-sized bottles. The vertical flues are adapted to be closed by sliding

dampers 17, which have suitable guides 17^a and which extend over the tops of them and are in the bottom of the working-holes, and by regulating these dampers just the required amount of heat may be allowed to pass up through the flues upon the bottles to be heated. The flue 16^a extends downward entirely through the front wall of the furnace, and in the bottom portion of said flue is a grate 18, beneath which is a sliding damper 19, (shown clearly in Fig. 1,) and the flue 14 is widened, so as to merge in the flue 16^a, and by regulating the damper 19 the temperature of the furnace may be controlled. This is because the flue 16^a, the flues 16, and the horizontal flue 14 are all connected, and by means of the damper the draft through the flues may be regulated and consequently the temperature. The flue 16^a has also a hole 20 in its front wall, through which coke or coal may be inserted to fire up. It will be noticed that the arrangement of flue provides for a thorough distribution and circulation of heat throughout the furnace, that the working-holes are arranged so that the bottles may be conveniently operated upon, and that the sliding dampers 17 provide means for supporting and evening the bottles.

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

1. A glory-hole furnace having a main combustion-chamber, a series of working-holes in the sides, a horizontal flue extending around within the furnace-walls and connecting with the combustion-chamber, and vertical flues of different sizes leading from the horizontal flue to the working-holes, substantially as described.

2. A glory-hole furnace having a main combustion-chamber, a horizontal flue leading from the combustion-chamber and extending around within the furnace-walls, a series of working-holes in the furnace-walls above the horizontal flue, flues leading from the horizontal flue to the working-holes, and sliding dampers mounted in the working-holes, substantially as shown and described.

HENRY HAGERLING.

Witnesses:

EDWARD ROTH,
GUSTAV KRING.