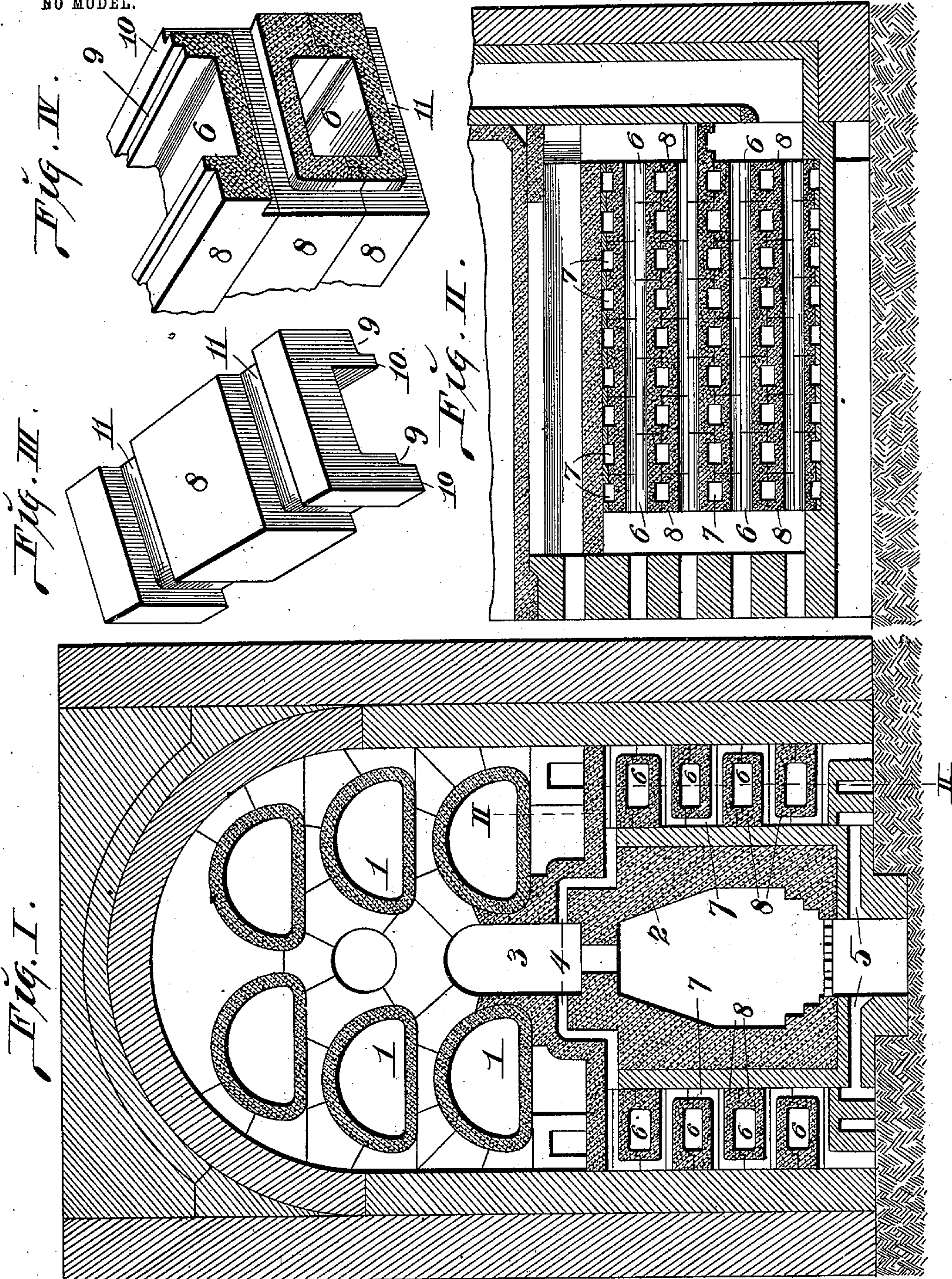


No. 723,668.

PATENTED MAR. 24, 1903.

L. C. HAMLINK.
RECUPERATIVE GAS FURNACE.
APPLICATION FILED OCT. 30, 1901.

NO MODEL.



attest:—
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UNITED STATES PATENT OFFICE.

LAZENBY CLINTON HAMLINK, OF ST. LOUIS, MISSOURI, ASSIGNOR TO
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RECUPERATIVE GAS-FURNACE.

SPECIFICATION forming part of Letters Patent No. 723,668, dated March 24, 1903.

Application filed October 30, 1901. Serial No. 80,497. (No model.)

To all whom it may concern:

Be it known that I, LAZENBY CLINTON HAMLINK, a citizen of the United States, residing in the city of St. Louis, in the State of Missouri, have invented certain new and useful Improvements in Recuperative Gas-Furnaces, of which the following is a full, clear, and exact description, reference being had to the accompanying drawings, forming part of this specification.

My invention relates to the structural form of tiling-blocks for use in recuperative gas-furnaces through which the horizontal flues beneath the retort-benches extend and which provide for the circuitous uptake-flues that extend around the tiling-blocks from bottom to top of the tiers thereof.

My invention consists in features of novelty hereinafter fully described, and pointed out in the claims.

Figure I is a vertical transverse section through a furnace provided with tiling-blocks of my improved construction. Fig. II is a vertical longitudinal section taken on line II II, Fig. I. Fig. III is an enlarged perspective view of the upper section of one of the tiling-blocks. Fig. IV is a view, partly in perspective and partly in cross-section, of the end of one of the tiling-blocks surmounted by the lower section of a second tiling-block.

1 designates the retorts in the furnace, and 2 the furnace fire-box.

3 is a combustion-chamber above the fire-box, that has communication with passage-ways 4, located above the fire-box.

5 designates inlet air-flues leading to the fire-box 2.

6 designates the horizontal flues that are fed from the retort-chamber, and 7 are the uptake-flues that have communication with the passage-ways 4 for the delivery into the combustion-chamber 3 of the air that is heated in passing upwardly through the flues 7.

No invention is herein claimed *per se* for the construction thus far described, my invention relating to the construction of tiling-

blocks whereby the horizontal flues 6 and circuitous uptake-flues 7 are produced.

The tiling-blocks are composed of sections 8 of channel form, whereby the flues 6 are obtained when the sections are laid together, the sections being provided with grooves and tongues, as seen at 9 and 10, by which an interlocking joint is produced when the sections are placed together. Each of the sections is provided with transverse grooves 11, (see Fig. III,) that are adapted to coincide with the grooves of adjoining sections throughout the structure formed in the mounting of the tiling to produce the circuitous uptake-flues 7, as seen in Fig. I. The tiling-sections are arranged to overlap and break the joints between adjoining blocks throughout the mounting of the tiling, as seen in Fig. II, and the bodies of the tiling extend above the grooves 11 to provide supports for the adjacent tiling mounted thereon from bottom to top of the structure. The tiling is placed alternately, as seen in Fig. I, so that the flue extends in zigzag directions by reason of their ungrooved faces being alternately placed one against one wall at one side of the space in which the tiling-blocks are assembled and the next surmounting block being placed with its ungrooved face against the wall at the opposite side of such space.

I claim as my invention—

1. As a new article of manufacture, an interiorly-channeled tiling-block having exterior grooves extending transversely of the channel in said block, substantially as described.

2. A tiling-block for gas-furnaces having a channel extending therethrough and provided with an exterior groove extending transversely of the channel in the block and across two meeting sides of the block, substantially as described.

3. A sectional tiling-block for gas-furnaces comprising sections longitudinally interiorly channeled and provided with exterior

grooves extending transversely thereof, and flanges on said sections arranged to mate with each other to provide a locking-joint between the sections, substantially as described.

4. The combination of a series of sectional tiling-blocks interiorly channeled and exteriorly grooved, the said grooves extending

transversely of the channels in said blocks, and the opposing sections of the blocks being arranged to overlap the abutting ends of the mating sections.

LAZENBY CLINTON HAMLINK.

In presence of—

E. S. KNIGHT,
M. P. SMITH.