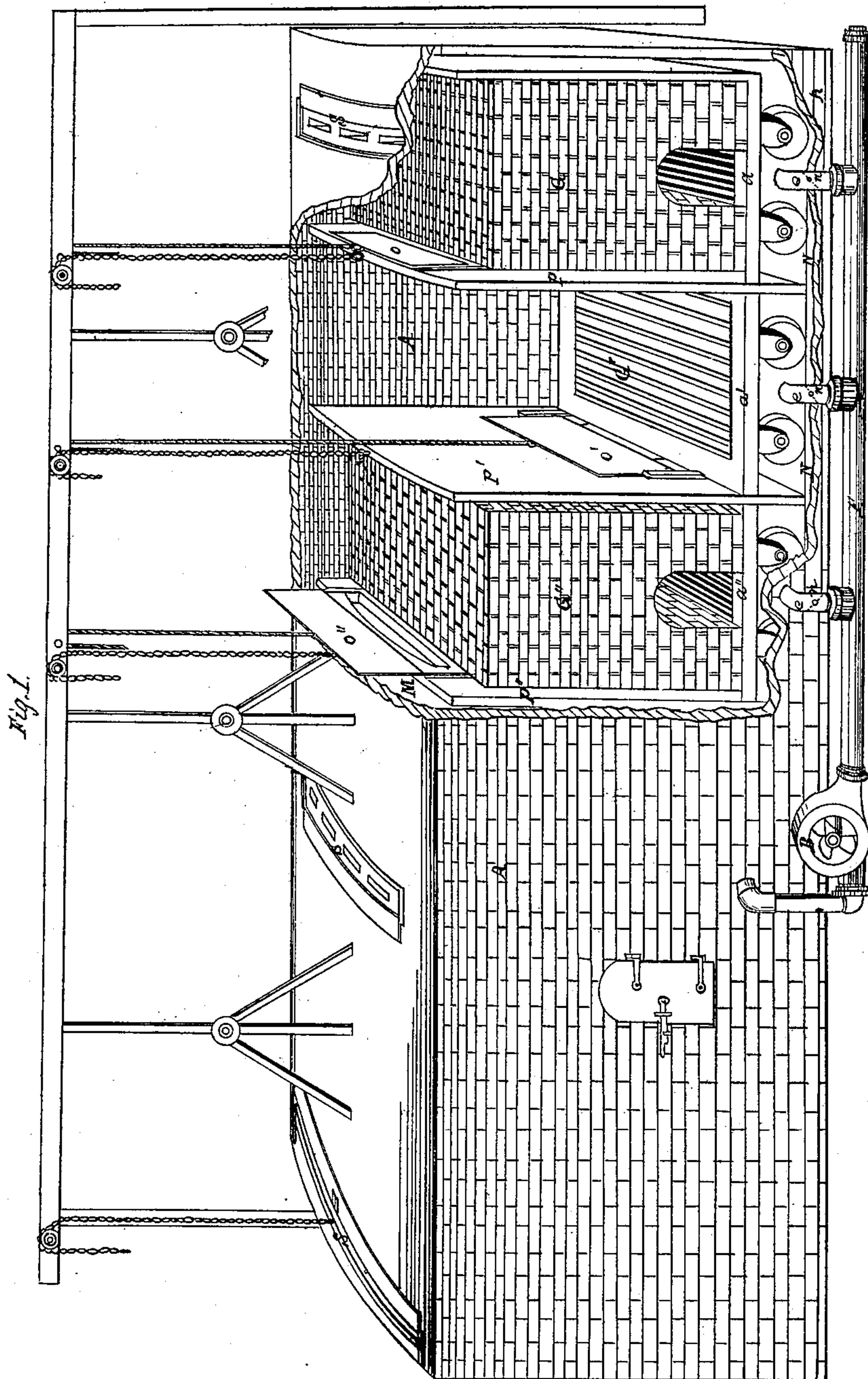


H. D. WHITTEMORE.
BRICK KILN.

No. 75,096.

Patented Mar. 3, 1868.



Witnesses.
Robt. C. Ives
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HARRY D. WHITTEMORE, OF NEW YORK, N. Y.

Letters Patent No. 75,096, dated March 3, 1868.

IMPROVEMENT IN BRICK-KILNS.

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, HARRY D. WHITTEMORE, of New York city, in the county and State of New York, have invented certain new and useful Improvements in the Construction of Brick-Kilns; and I hereby declare the following to be a full, clear, and exact description thereof, reference being had to the accompanying drawings, which are lettered to correspond with and form a part of the specification.

To enable the public to understand the nature of my invention, and those skilled in the art of brick-making to construct and operate the same, I will describe it as follows, to wit:

Figure 1 is a perspective drawing of my improved apparatus.

A is an exterior of a kiln having its opposite sides parallel, and is provided with a railroad-track, N, upon which the movable fire-grate cars a a' a'' move backwards or forwards when operated by any suitable power. e e' e'' are blast-pipes which pass through the wall A to distribute the air from the main blast-pipe F, which is charged under pressure from the blower or air-pump B, operated by a steam-engine or other motor-power. G G' G'' are bricks suitably piled upon the movable fire-grate cars a and a'' , with open joints, to allow a free circulation of heat to pass through or around the bricks, and to allow a free circulation and escape of the gases through the openings at the top of one and at the bottom of the next movable vertical division-plates, m m m , which are operated, and may be withdrawn if desired, by means of the chains and pulleys P P' P''.

The draught is regulated by means of dampers n in the short air or blast-pipes e e' e'' , in such a manner that car a is kept at a much lower temperature than a' , in order to thoroughly sweat the fresh-moulded bricks that are placed upon its iron platform, so as to gradually increase the heat to the highest degree by the time it reaches the last car, a'' . During the time that the bricks are sweating upon the car a , that compartment is closed and entirely separated from compartments a' by means of the damper o , which constitutes a part of the vertical plate m , and is operated by a wire rope and pulleys, or other suitable arrangement, that may be controlled by the workmen.

In order that the smoke and vapor may pass off freely, I open the slide S in the top of the outer arch, A; and after the water-smoke has passed off through the opening S, I close the slide or hood thereof, and open the damper o that admits the heat to escape into the next car, a' , where the water-smoke is again allowed to pass off through the top of the outer wall or arch A. Then the hood is closed, and damper o' is opened for the heat to pass into the next or last chamber, a'' , where the escaping heat is equally distributed through the bricks upon the car a'' in said chamber. Hence I produce a uniform degree of heat and color in all the bricks. The car a'' , with its load of burnt bricks, is moved into the cooling or refrigerating-chamber M, and the next car, a' , takes its place, and so on, for any number of cars or movable fire-beds, the process of sweating, burning, and cooling may be continued.

After the bricks have been thoroughly burnt upon the metallic cars, they are to remain in the cooling-chamber M, which is kept moderately warm, until they become gradually cool, before being run out into the yard for storage, thereby preventing them from cracking, which would be the result if they were not allowed to cool in chamber M before coming in contact with the cold air.

Therefore, I believe the above-described mode of burning bricks upon movable trucks, beds, or cars, with fire-grates constructed in fire-brick arches, or otherwise, upon said cars, and the economical mode of equalizing, distributing, and using all the caloric, after being distributed from chamber to chamber, or from car to car, and regulating the same by dampers in the movable metallic partitions, and supporting combustion by a uniform blast, by means of a force-pump or blower, B, to be new and useful to the public. Therefore,

What I claim as novel and useful, and what I wish to secure by Letters Patent of the United States, is—

The railway-cars a a' a'' , constructed in the form of a fire-grate, and the artificial blast B, pipes e e' e'' , with dampers n , all in combination with the dampers o o' o'' , arranged with the vertical partition-plates m m m , all arranged and operating substantially as herein set forth.

In testimony whereof, I hereunto subscribe my name in the presence of two witnesses.

HARRY D. WHITTEMORE,

Witnesses:

JAMES P. McLEAN,
ABRAM TALMADGE.