F. STRAYER.

Improvement in Brick-Kilns.

No. 130,254. Patented Aug. 6, 1872.

Fig. 1.

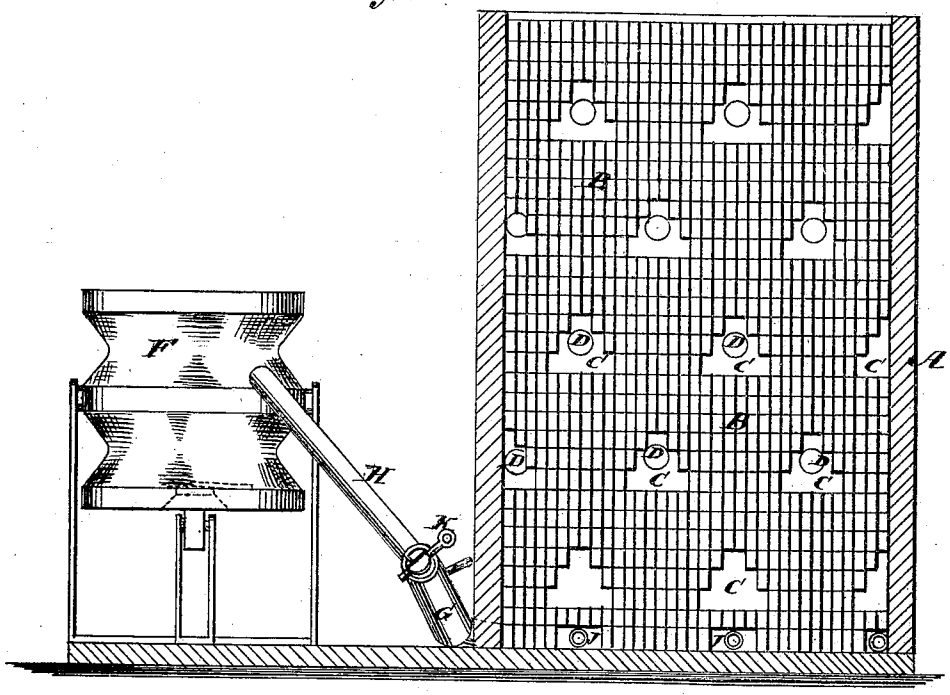
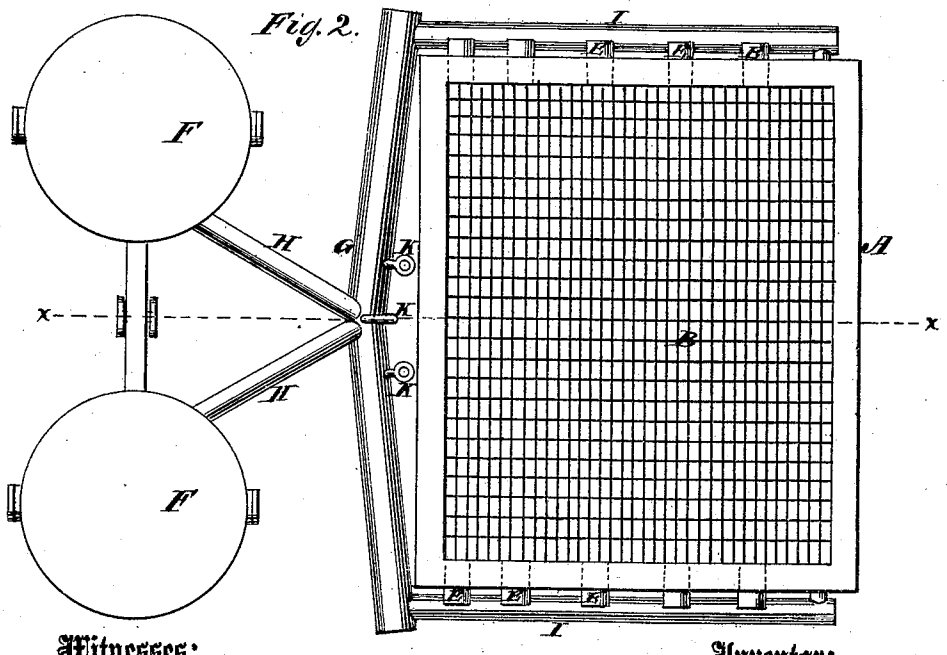


Fig. 2.



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UNITED STATES PATENT OFFICE.

FRANCIS STRAYER, OF CLINTON, IOWA.

IMPROVEMENT IN BRICK-KILNS.

Specification forming part of Letters Patent No. **130,254**, dated August 6, 1872.

Specification describing a new and useful Improvement in Brick-Kilns, invented by FRANCIS STRAYER, of Clinton, in the county of Clinton and State of Iowa.

The object of this invention is to economize fuel and lessen the amount of labor required in burning brick; and it consists in the construction and arrangement of parts hereinafter described.

In the accompanying drawing, Figure 1 is a vertical section of a brick-kiln constructed according to my invention. Fig. 2 is a top or plan view.

Similar letters of reference indicate corresponding parts.

A represents the kiln, constructed of masonry, of square, rectangular, or other form, and of any required size. In the drawing the mode of packing the brick in the kiln is shown. B represents the brick. In filling the kiln I form a succession of arched apertures, C, in which I place the coal or fuel for burning the brick. These apertures or pockets are distributed throughout the mass of brick, being made as the brick are packed in filling the kiln. The coal is introduced as the arches are made, or through the sides of the kiln, as may be found most convenient. D represents apertures through the sides of the kiln, for observing the condition of the kiln during the process of burning. These apertures are closed with plugs E, which are removed for inspecting the kiln, as may be required. To supply the requisite amount of oxygen for the consumption of the fuel, I employ one or more bellows, F, and conduct the air therefrom into a main pipe, G, through the smaller pipes H H, and from the main pipe to each side of the kiln through the pipes I I. These side pipes have branch pipes, which conduct the air into the kiln at the apertures J. K represents valves in the main pipe G, by which the blast of each bellows may be used separately and on opposite sides of the kiln, alternately, or the bellows may be used alternately.

I do not confine myself to any particular mode of applying the blast, nor to any particular kind of bellows. A fan-blower or blowing-cylinder may be used, as may be found advisable. The bricks are placed loosely in the kiln, so that the heat can circulate freely through it, as in ordinary brick-kilns.

The coal in the lower arches being ignited and subjected to a powerful blast will ignite the fuel in the arches above. The blast will carry the heat and flame throughout the kiln, and the result will be the bricks will be uniformly and thoroughly burned, and with the consumption of far less fuel than is ordinarily used. The labor and exposure to heat to which men are subjected by the old plan is, by my improvement, avoided.

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

1. The fuel pockets or apertures C, arranged in a brick-kiln, substantially as shown and described.

2. The observation-holes D, in combination with the pockets C, as and for the purposes described.

FRANCIS STRAYER.

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