F. STRAYER.

Lime-Kilns.

No. 154,296. Patented Aug. 18, 1874.

Fig. 1.

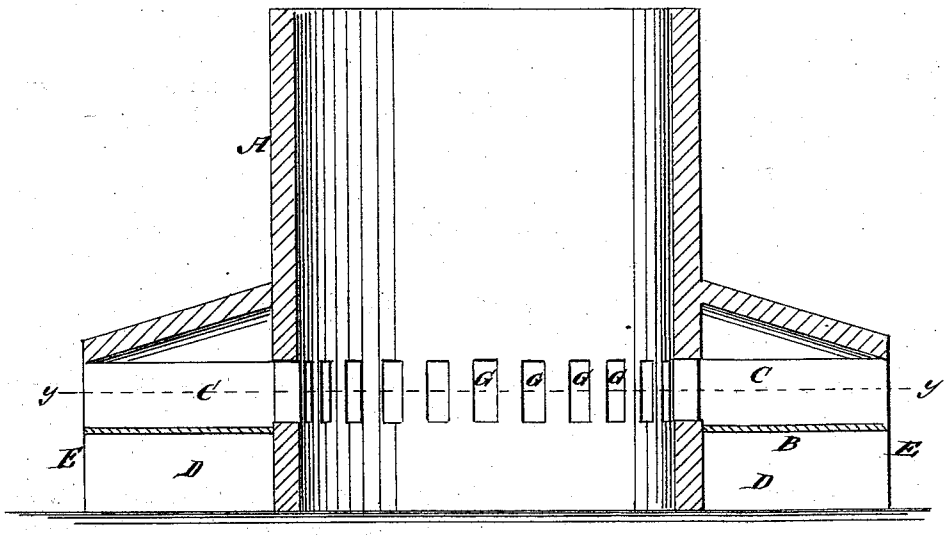
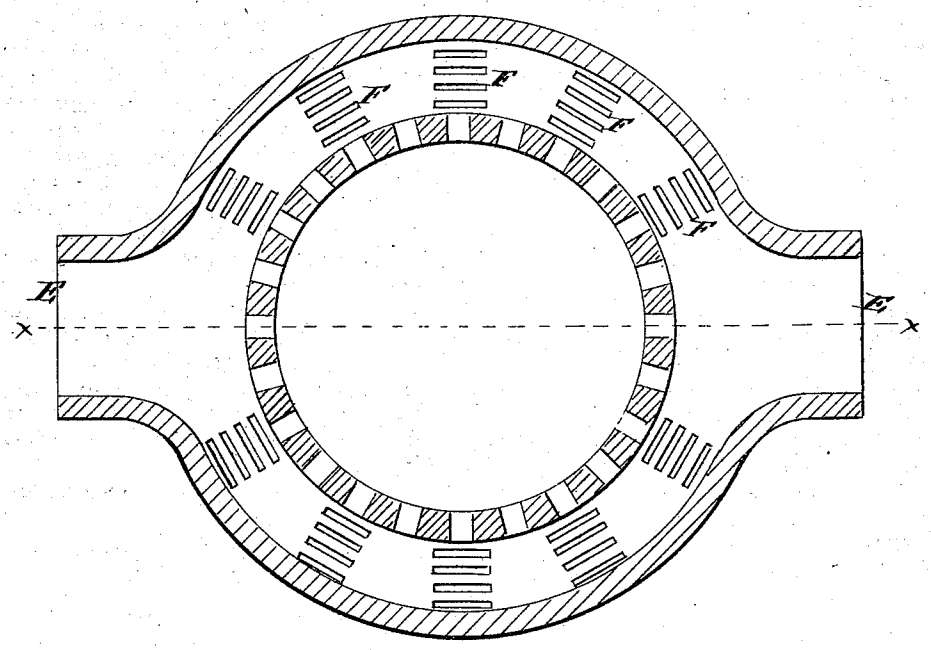


Fig. 2.



WITNESSES:

E. Wolff

Sedgwick

INVENTOR:

F. Strayer

BY Munn & Co

ATTORNEYS.

THE GRAPHIC CO. PHOTO-LITH. 39 & 41 PARK PLACE, N.Y.

UNITED STATES PATENT OFFICE.

FRANCIS STRAYER, OF CLINTON, IOWA.

IMPROVEMENT IN LIMEKILNS.

Specification forming part of Letters Patent No. **154,296**, dated August 18, 1874; application filed July 11, 1874.

To all whom it may concern:

Be it known that I, FRANCIS STRAYER, of Clinton, Clinton county, Iowa, have invented a new and useful Improvement in Limekilns, of which the following is a specification:

The object of this invention is to construct a kiln for burning lime, which shall economize fuel and time in its operation; and it consists in the construction and arrangement of parts hereinafter described.

In the drawing, Figure 1 represents a vertical section of the kiln, taken on the line *x x*, Fig. 2; and Fig. 2 is a horizontal section of Fig. 1, taken on the line *y y*.

Similar letters of reference indicate corresponding parts.

A is the stack or cupola, in which the lime-rock to be burned is placed. This stack is built up of stone or brick, or made of any suitable material, and of any desired size and proportion. The stack rests upon a suitable foundation, and is entirely surrounded by the arch and ash-pit, forming the base of the stack. This base is divided by a horizontal partition, B, into two compartments, the upper one, C, being the arch or fire-place, and the lower compartment, D, being the ash-pit. E represents the mouths of the arch, where the fuel is introduced and the ashes are taken out. F are openings through the partition B, for allowing the ashes to escape into the ash-pit. G are openings from the arch or fire-place C through the wall of the cupola.

When the kiln is in operation, the fuel is pushed to the right and left, and distributed around the cupola, so as to heat the lime-rock in the cupola uniformly throughout.

I am aware it is not new to construct limekilns with fire-places or arches arranged around the base, and separated by regular intervals of space; and I do not claim such construction and arrangement, in whole or in part.

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

The continuous semicircular covered fire-places or arches, in combination with the cupola A, the same leading from one fuel-supply opening, E, to the other opposite, and communicating with the interior of the cupola by openings G, as shown and described, for the purpose specified.

FRANCIS STRAYER.

Witnesses:

CHAS. W. CHASE,

GEORGE FLITT.