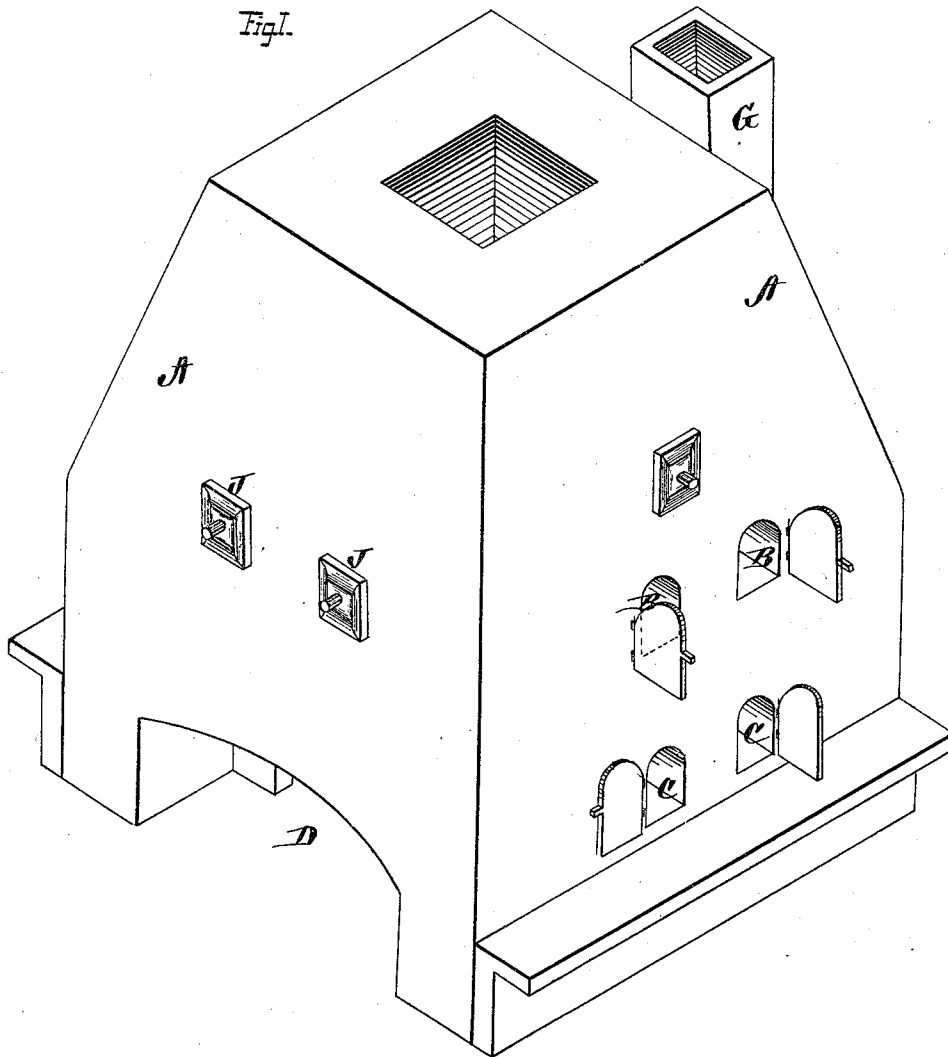


N. DAVIS.

Improvement in Lime-Kilns.

No. 129,539.

Patented July 16, 1872.



Witnesses:
 *Jas. O. Hutchinson
 C. L. Evert.*

Inventor,
 Nelson Davis
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Attorneys.

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Fig. 2.

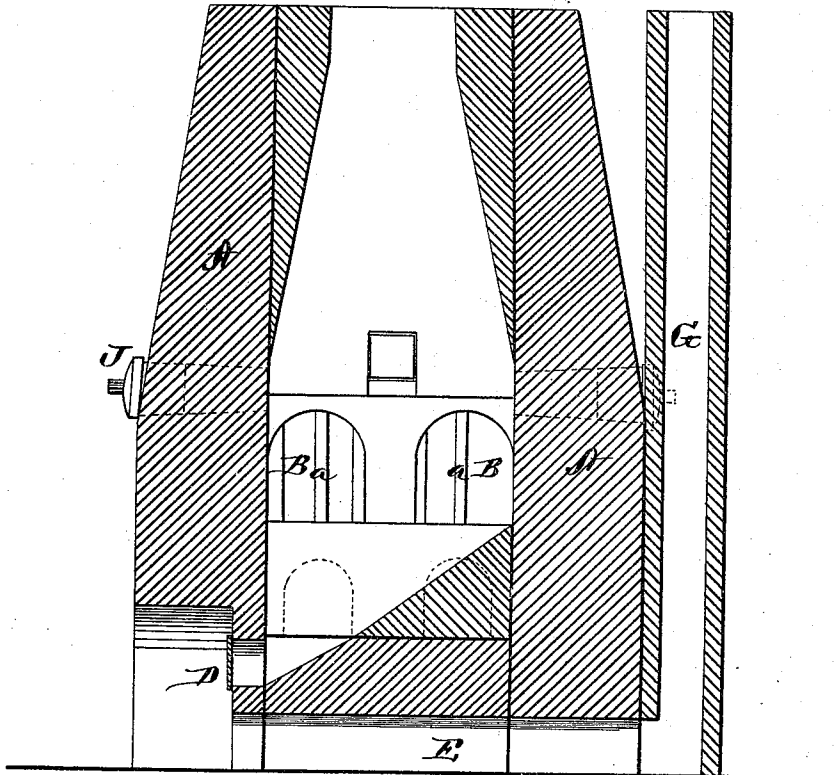
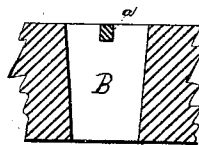


Fig. 3.



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UNITED STATES PATENT OFFICE.

NELSON DAVIS, OF IDA, MICHIGAN.

IMPROVEMENT IN LIME-KILNS.

Specification forming part of Letters Patent No. 129,539, dated July 16, 1872.

To all whom it may concern:

Be it known that I, NELSON DAVIS, of Ida, in the county of Monroe and in the State of Michigan, have invented certain new and useful Improvements in Lime-Kiln; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawing and to the letters of reference marked thereon making a part of this specification.

The nature of my invention consists in an opening through the kiln under the draught-place for the purpose of carrying off the dust by a chimney on the back of the kiln or on the side opposite from the draught-place, which opening also answers for the purpose of running one or more cars under the kiln to draw the lime into. It also consists in the construction and arrangement of the fire-places or arches and the "peck-holes," all of which will be hereinafter more fully set forth.

In order to enable others skilled in the art to which my invention appertains to make and use the same, I will now proceed to describe its construction and operation, referring to the annexed drawing, in which—

Figure 1 is a perspective view, and Fig. 2 a vertical section, of my improved lime-kiln. Fig. 3 is a horizontal section through one of the fire-arches.

A A represent the walls of my lime-kiln, constructed in any of the known and usual ways, with fire-places or arches B B, ash-pits C C, and draught-place D. Under the draught-place D is an opening, E, leading through the kiln and into a chimney, G, carried up on the back of the kiln or on the side opposite to the

draught-place D. While the lime is being drawn off the dust, smoke, and heat will be carried away through this opening or passage E and chimney G. This opening also answers another purpose: It allows of one or more cars of suitable size to be pushed into the same, into which the lime may be drawn from the kiln. J J represent the "peck-holes" or holes through which to punch down the lime. These holes are placed on the ends of the kiln from the fire, and just a little above the fire-places. The fire-places or arches B B are wider at the inner ends where they reach the kiln than at the outer ends, as shown in Fig. 3, which gives room for a pillar *a* in the center of the arch, and leaves a large opening for the heat to pass into the kiln.

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

1. In a lime-kiln, an opening or passage, E, running under the draught-place through the kiln, and communicating with a chimney, G, carried up along the side of the kiln opposite the draught-place, substantially as and for the purposes herein set forth.

2. The combination of the kiln A, fire-places B B with pillars *a a*, the peck-holes J J, draught-place D, dust-flue E, and chimney G, all constructed and arranged substantially as and for the purposes herein set forth.

In testimony that I claim the foregoing I have hereunto set my hand this 13th day of May, 1872.

Witnesses: NELSON DAVIS.
B. F. SOUTHWICK,
G. HECKEL.