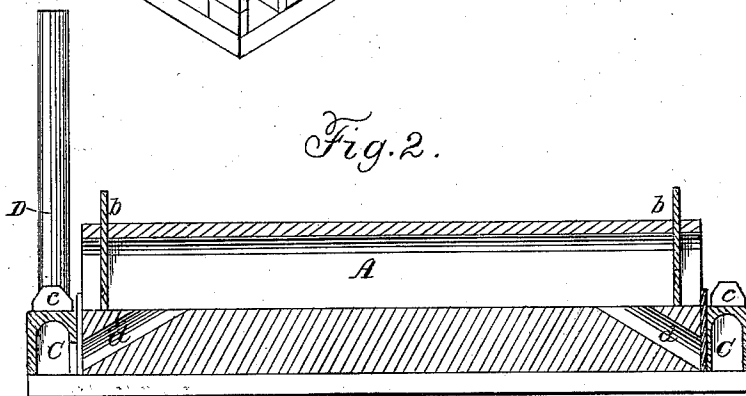
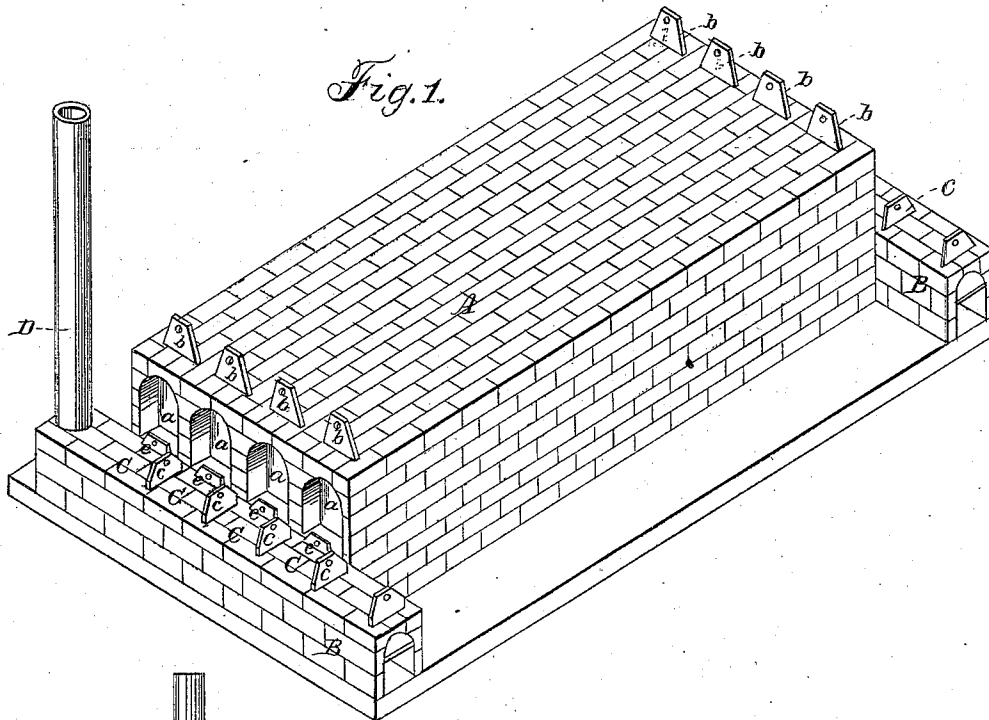


E. W. BINGHAM.

Brick Kiln.

No. 79,192.

Patented June 23, 1868.



Witnesses.  
J. A. Seaman  
Leopold Gueh

Inventor.  
E. W. Bingham  
per Alexander Mason  
Atty.

# United States Patent Office.

E. W. BINGHAM, OF WILLIAMSPORT, PENNSYLVANIA.

Letters Patent No. 79,192, dated June 23, 1868.

## IMPROVED BRICK-DRYING KILN.

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, E. W. BINGHAM, of Williamsport, in the county of Lycoming, and in the State of Pennsylvania, have invented certain new and useful Improvements in Devices for Drying Bricks; and do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

The nature of my invention consists—

First, in the construction of furnaces with a series of flues and valves, in such a manner that the heat can be regulated and confined to any part of the drying-kiln that may be desired; and,

Second, in combining such furnaces and flues with a drying-kiln, which is divided in as many compartments as may be desired, and provided with gates, for the admission of brick, and with valves, to admit or shut off the heat from the furnaces.

In order to enable others skilled in the art to make and use my invention, I will now proceed to describe its construction and operation, referring to the annexed drawings, forming part of this specification, in which—  
Figure 1 is a perspective view, and  
Figure 2 a side sectional view.

A represents a drying-kiln, of any dimensions required, and divided into several longitudinal apartments, each of which has arched entrances, *a a*, in each end, and which entrances are provided with gates, *b b*, to be shut when the brick is put in to be dried. These apartments may be provided with a railway, so that the brick can be put in them on carriages.

At each end of the drying-kiln A, and extending on each side thereof, furnaces B B are built, and connected with flues C C in such a manner that the flues extend the whole width of the kiln, and that the top of the furnaces and connecting-flues will be on a level with the bottom of the drying-kiln, and the railway (if any is used) leading into the entrances of the kiln will be laid across the top of the furnaces or flues. The flues C C are divided with valves *e e*, opposite the divisions between the several apartments of the drying-kiln, as well as opposite the sides of the kiln; and each part of the flues so divided is connected, by a side-flue, *d*, with its corresponding apartment in the kiln, which side-flues enter the bottom of the kiln just inside of the gates *b b*, as shown in fig. 2.

The side-flues *d d* can be closed and shut off from the flues C C by means of the valves *e e*, situated at the end of the kiln, so that the heat in the flues C C need not be communicated to the kiln, or can be communicated only to such apartments thereof as are desired to be used.

By this arrangement, the heat from the furnaces B B will be conducted, through the flues C C and side-flues *d d*, to one apartment of the drying-kiln A, and then, through side-flues and flues, back through another apartment, and so on through the whole kiln, until carried out through the smoke-stack D; or, some of the valves *e* and *d* may be closed, so that the heat will only pass through such of the apartments as it may be desired to use, thereby making a great saving in the quantity of fuel used.

There may only be one furnace, or there may be several, for instance, one at each end of the kiln, and on the side thereof, as shown in the drawings, and one, two, or more of them may be used at a time, according to the size of the drying-kiln, and number of apartments in use.

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

The combination and arrangement of the drying-kiln A with its apartments, arched entrances *a a*, gates *b b*, side-flues *d d*, and the valves *e e*, and the furnaces B B with flues C C and valves *e e*, 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, 1868.

E. W. BINGHAM.

Witnesses:

C. M. ALEXANDER,  
J. M. MASON.