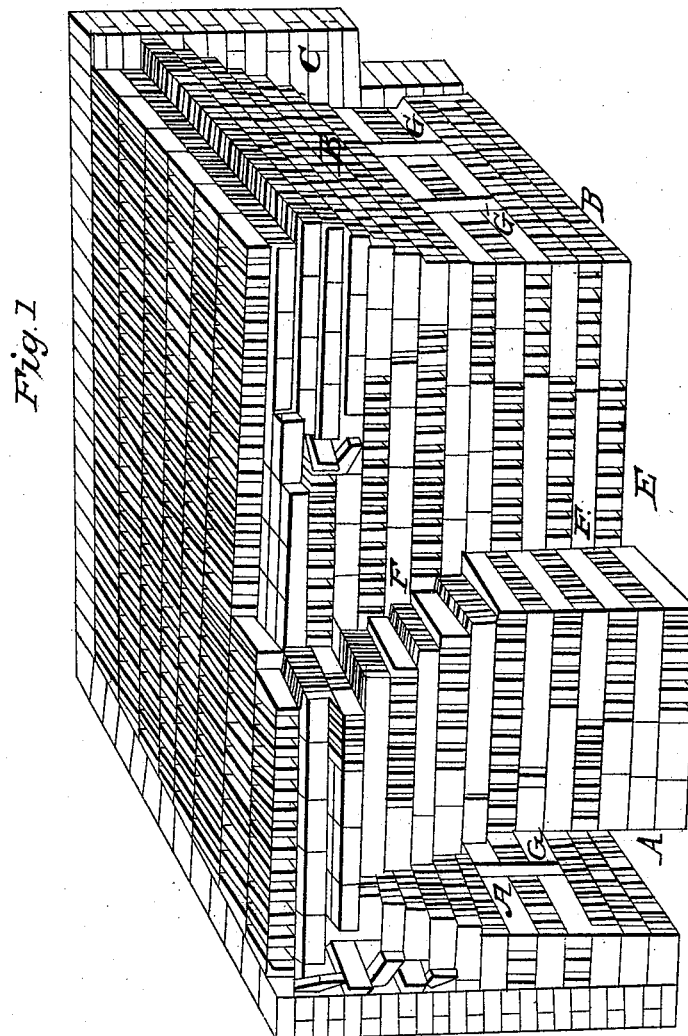


H. REED.
Brick Kiln.

No. 1,638.

Patented June 17, 1840.



UNITED STATES PATENT OFFICE.

HENRY READ, OF KENSINGTON, PENNSYLVANIA.

KILN FOR BURNING BRICK.

Specification of Letters Patent No. 1,638, dated June 17, 1840.

To all whom it may concern:

Be it known that I, HENRY READ, of Kensington, in the county of Philadelphia and State of Pennsylvania, have invented an
5 improvement in the mode of setting the bricks in a brick-kiln for the purpose of burning, which improvement consists in the manner in which I arrange the bricks so as to leave flues between the arches for the
10 more equal and thorough diffusion of the heat throughout the whole kiln; and I do hereby declare that the following is a full and exact description thereof.

Figure 1, is a view of so much of a kiln
15 as is necessary to the understanding of my plan, the outer wall being removed for the purpose of showing the arches and other parts of the pile.

A, A, is one of the arches, and the commencement of a second arch is shown at B, B; these arches extend from front to back of the kiln, in the ordinary way.

C, is a portion of the wall at the back of the kiln, near one end of the arch, D, being
25 one half of a feed hole. At the corner E, a part of the pile is supposed not to be completed, being left out to show the arrangement the more perfectly. The space seen at F, F, is that constituting a flue, and
30 which, as above stated, extends from arch to arch between every two lengths of brick, and in height from the bottom to the top of the arch; this space should be about two inches and a half in width; it is continued
35 of the same height and width until it reaches the last tier of bricks toward the side of one of the arches, where it is reduced to the height of three, or four, bricks, as shown at G, G, which is the opening of the flues into
40 one side of an arch. With the exception of

these flues, pervading the whole kiln, and connecting the respective arches, the manner of setting the bricks is similar to that adopted in other kilns, and the general management thereof is the same. By this arrangement of the flues the arches required
45 are less numerous than in the ordinary kiln, and the quantity of fuel employed to burn the bricks is diminished one third. In a kiln in which, under the ordinary mode of
50 construction, nine arches are required, not more than five will be found necessary upon my plan, and so in proportion for a kiln of any other dimensions.

It will be evident that although I have
55 spoken of the flues as extending in height from the bottom to the top of the arches, this height may be varied without interfering with the general arrangement; and it will also be manifest that instead of two,
60 a tier of three lengths of bricks may be placed between each flue, if desired, but I am of opinion that the number two, as stated, will be found to be the best.

What I claim as my invention, and desire
65 to secure by Letters Patent, is—

The above described manner of setting the bricks in a kiln, for the purpose of burning; that is to say, I claim the leaving
70 of flues for the free passage of the flame and draft between every two, or three, lengths of brick, said flues extending from arch to arch, throughout the whole length of the kiln, and being arranged and constructed
75 substantially in the manner herein set forth.

HENRY READ.

Witnesses:

ISAAC BOILEAU,
ISAAC BOILEAU, Jr.