S. H. Clapp,
Brick-Kilns.

No. 75,730. Patented Mar. 24. 1868

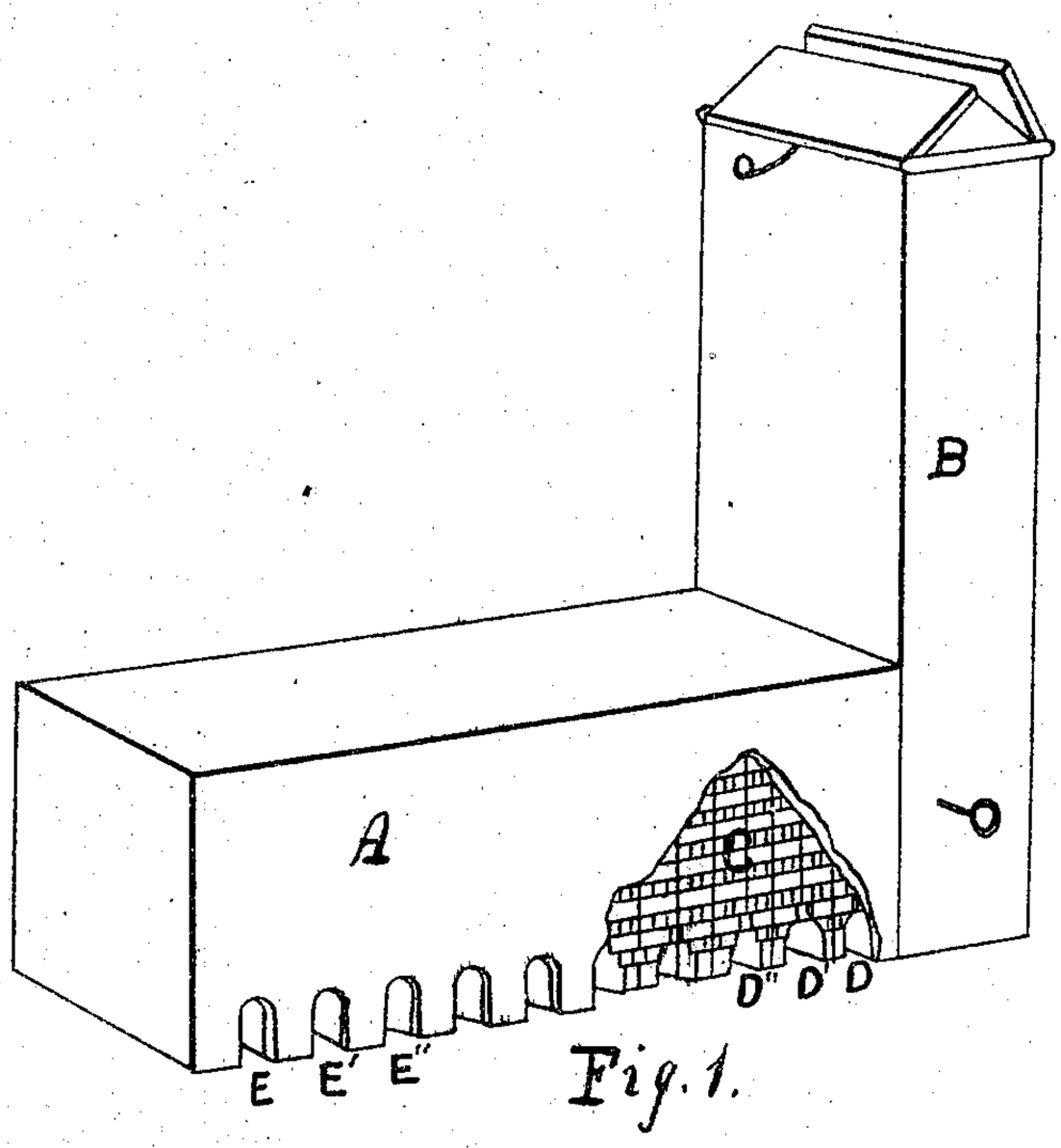

Fig. 1.

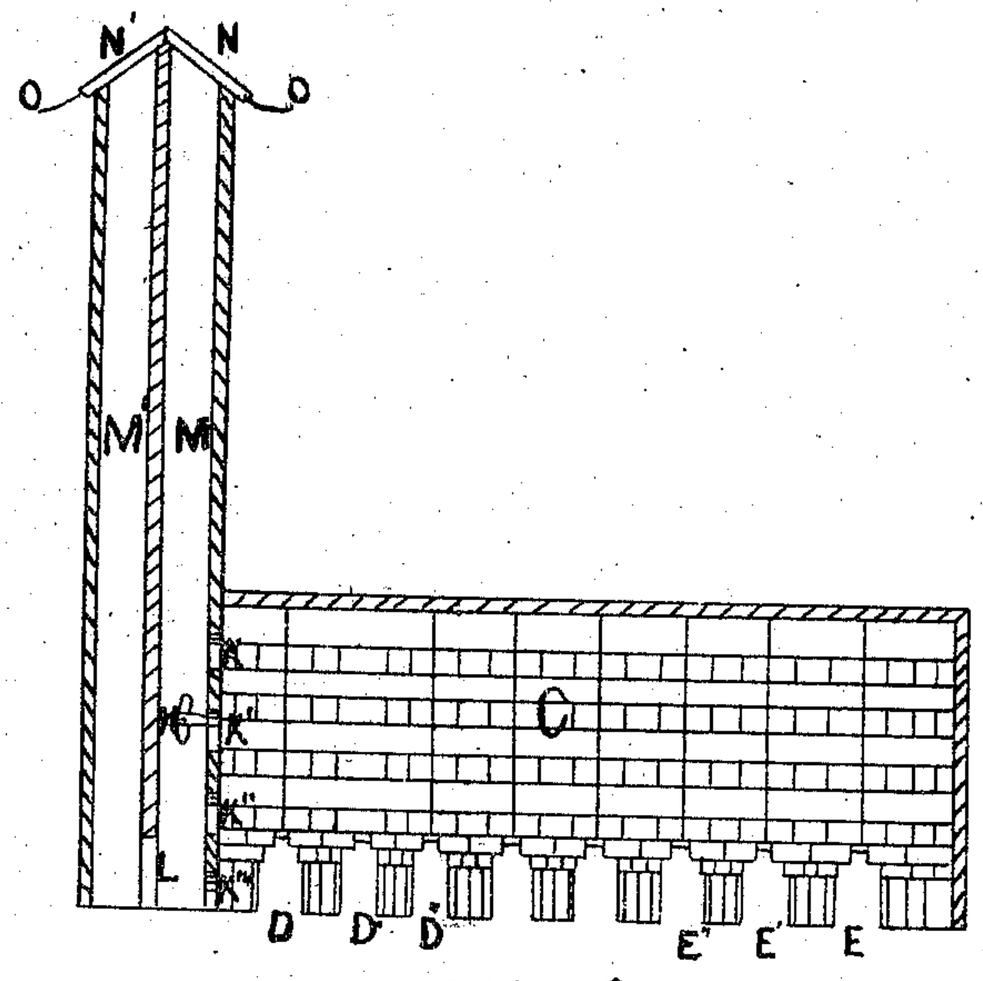

Fig. 2.

Witnesses

Frank G Parker

A Hun Berry

Inventor

S H Clapp

United States Patent Office.

SAMUEL H. CLAPP, OF MALDEN, MASSACHUSETTS.

Letters Patent No. 75,730, *dated March* 24, 1868.

IMPROVED BRICK-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, SAMUEL H. CLAPP, of Malden, in the county of Middlesex, and State of Massachusetts, have invented certain new and useful Improvements in Brick-Kilns; and I do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction, its nature, and use.

The nature of my invention consists in combining, with a brick-kiln, a chimney with flues, inlets, and dampers, so arranged that by proper management of the fires, the heated air may be directed at will through any portion of the kiln.

Drawings.

Figure 1 is a perspective view of the kiln and chimney, a portion of the case of the kiln being removed so as to show the unburned bricks, C.

Figure 2 is a vertical section, showing the arrangement of the bricks C, and of the flues and dampers.

The permanent part of my kiln is the double-flue chimney M M′, having cap-dampers, N N′, at the top, which may be operated by cords attached to the levers O O′, fig. 2. The flue, M, nearest the kiln, has a large number of openings, K K′ K″, &c., extending from the top to the bottom of the kiln, while the flue M′ has openings only very near its bottom. The flue M is provided with a damper, H, at a distance from the bottom equal to about half the height of the kiln. The temporary part of the kiln, A, is constructed in the ordinary manner, that is, of refuse brick and plastic clay. In actual construction the walls forming the kiln A are so arranged in relation to the bricks that air-spaces are left, so that the heated products of combustion may freely circulate about the outside of the pile of bricks to be burned.

The uses and objects of the several parts will best be understood from the description of the process of burning bricks in my kiln. The bricks to be burned are piled as represented at C, figs. 1 and 2, the fire-openings or arches being formed in the usual manner, represented in the drawings by D D′ D″, &c., and E E′ E″, &c., one end of the kiln butting against the chimney B, all other parts being covered with refuse bricks and "daubed" with plastic clay. The drying-fires are made throughout the kiln, all burning at the same time, until the bricks become sufficiently dry and the heat becomes sufficient to create a strong draught. Then all the fires except two or three at the end of the kiln that is away from the chimney, are allowed to go out, the doors of the openings being closed. The end fires E E′ are maintained, the heat being directed, by means of the dampers N N′ and H, through the upper or lower portion of the kiln. When that portion of the kiln over the fires E E′ is sufficiently burned, fires are started in the arches nearer the chimney, and the heat managed in the same manner as above described. This operation is continued until fires have been made in all the arches.

It will be seen that by my arrangement all the heat of the first fires will be utilized, as it has to pass entirely through the kiln; that is, it partially burns the bricks over the arches that are nearer to the chimney, so that it requires but slight firing to complete the burning of the bricks over the near arches.

Having thus described my invention, I will proceed to set forth my

Claim.

What I claim as my invention, and desire to secure by Letters Patent of the United States, is—

The brick-kiln A, provided with the flues M M′, dampers N N′, and H, and the openings K K′, and L, combined and arranged as set forth and described.

S. H. CLAPP.

Witnesses:

FRANK G. PARKER,

A. HUN BERRY.