

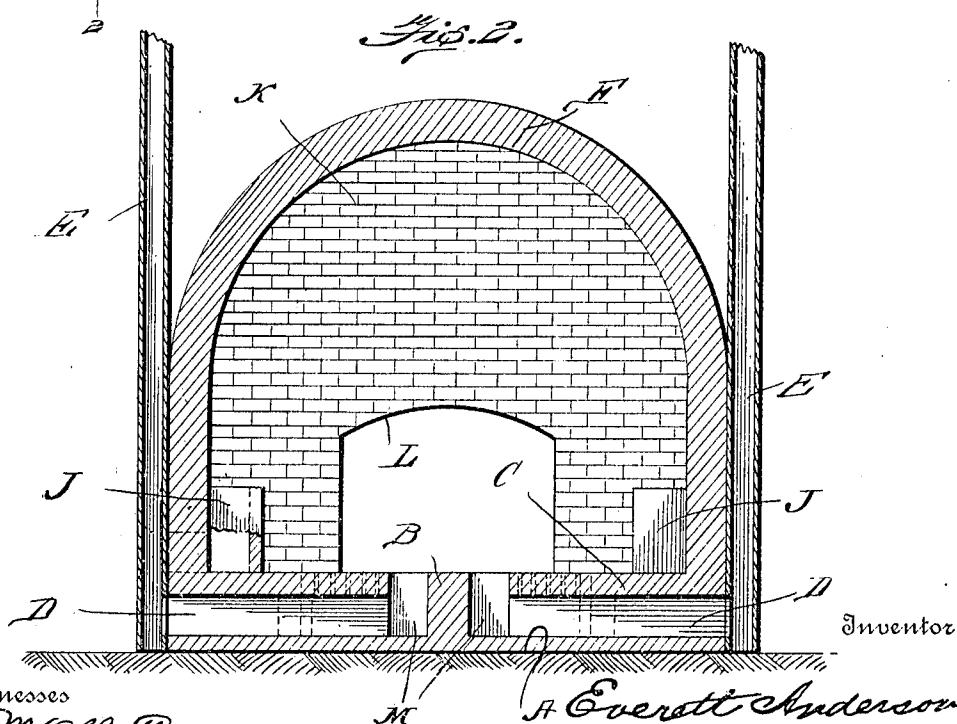
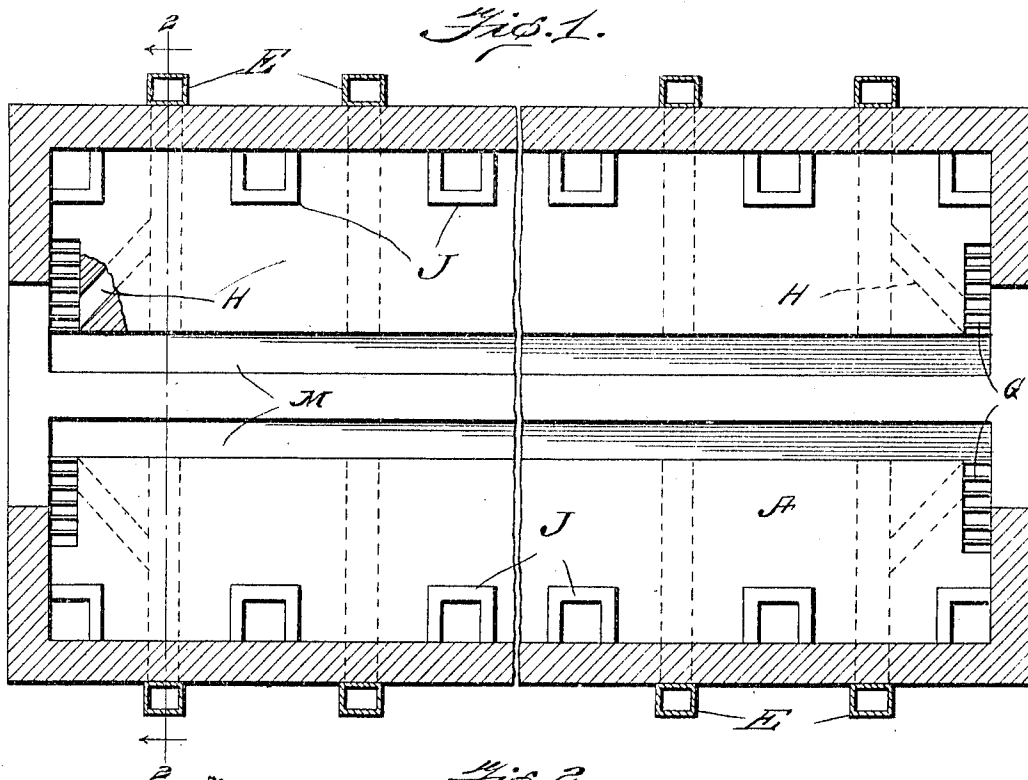
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KILN.

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To all whom it may concern:

Be it known that I, EVERETT ANDERSON, a citizen of the United States, residing at Caney, in the county of Montgomery and State of Kansas, have invented certain new and useful Improvements in Kilns, of which the following is a specification.

My invention relates to improvements in kilns, and the leading object of my invention is the provision of a kiln which will be economical in the use of fuel.

Another object of the invention is the provision of a kiln which can be quickly heated and in which there will be a rapid circulation of air.

A further object of the invention is the provision of a kiln in which the air will circulate freely and equally in all parts so that the brick burned therein will be rapidly, thoroughly and evenly burned, thus enabling me to make a better uniform grade of brick at a small cost.

With these and other objects of like character in view, my invention consists in a kiln embodying certain novel features of construction and combination and arrangement of parts for use substantially as herein-after described and as illustrated in the accompanying drawings.

Figure 1 represents a longitudinal cross-sectional view of my device, and, Fig. 2, represents a vertical cross-sectional view of the same, on the line 2—2, Fig. 1.

In the drawings, in which similar characters of reference denote corresponding parts in the views; the letter A designates the bottom of the kiln, said bottom being divided longitudinally by a partition wall B into two equal portions of symmetrical shape and construction. Formed on the bottom A is the false bottom C which is on a level with the wall B and extends from the outer edge of the bottom to within a short distance of the wall on each side thereof. Extending laterally under the bottom C are a series of tunnels or passages D, each being provided at its outer end with a stack E, said stack extending upward along the vertical portion of the dome F of the kiln and projecting vertically above the kiln. Formed at each end of the bottom C are the pair of gratings G, the floor under the gratings being hollow and a diagonally disposed tunnel H connect-

ing each of the spaces under the grating with the end tunnel of the casing.

To heat the kiln, intermediate each pair of tunnels I provide a fire box J, said box being open at the top and having its entrance in the wall F of the kiln into which the fuel is fed. The ends of the kiln are closed by the walls K having formed therein the door openings L which permit of access to the interior of the device.

In operation a fire is built in each of the boxes J, and when the kiln has become heated the brick or other objects to be burned are placed inside. It will be observed that the structure is proportionately low, and the heat rising to the top of the kiln is thus at all times near the objects therein, while the heated air which is constantly entering the device forces the air at the top downward where it strikes the objects in the kiln, the air then passing into the space M between the wall B and the false bottom C, whence it is led out through the tunnels D and stacks E, the air as it passes under the floor serving to heat the same and thus burn the lower portion of the brick.

From the foregoing description taken in connection with the drawings the operation of my kiln will be fully understood and its advantages fully appreciated by all familiar with the operation of firing brick, and it will be seen that by my improved construction I provide a kiln which is easily heated, since the air remains near the bottom at all times, and which is economical in the use of fuel, since the majority of the heat is utilized, either when it rises or is forced downward when it heats the floor and sides of the device as it passes out through the tunnels and stacks. It will be further understood that by means of the gratings G and tunnels H I insure a thorough draft at the ends of the kiln, inasmuch as the air being sucked down into the tunnel is thus drawn to the ends of the kiln.

I claim:

In a kiln, the combination with a bottom, of a wall dividing the same into two parts, an open-topped passage extending along each side of the wall, small inclosed passages meeting the longitudinal passages at right angles and extending outward under the floor of the kiln, flues secured to the exterior

of the kiln and receiving the outer ends of the passages, there being a flue for each passage, recesses formed in the inner portions of the bottom at each end and extending to the longitudinal passages, gratings covering said recesses, and diagonal passages running from the inner portion of the recesses to the intermediate portion of the endmost of the transverse passages, said diagonal passages

serving to create a draft at the ends of the 10 longitudinal passages and also at the ends of the kiln through the gratings.

In testimony whereof I affix my signature, in presence of two witnesses.

EVERETT ANDERSON.

Witnesses:

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