J. K. GOOD.

Brick Kiln.

No. 87,838. Patented March 16, 1869.

Fig. 1.

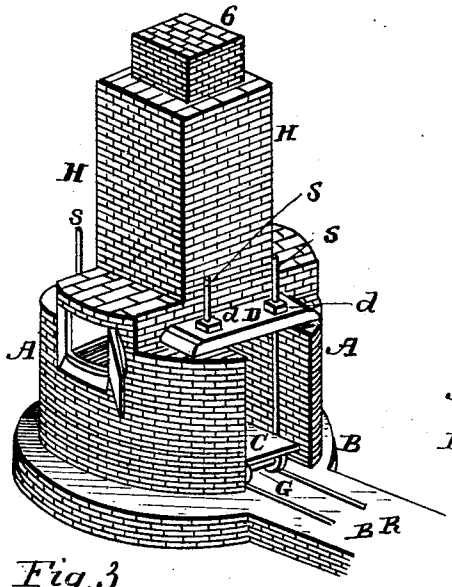


Fig. 2.

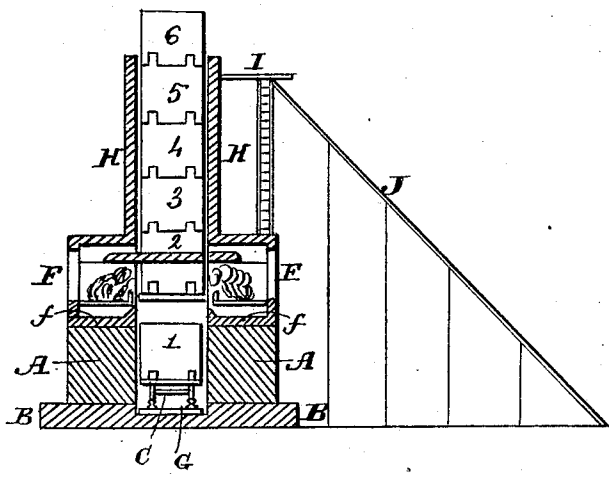


Fig. 3.

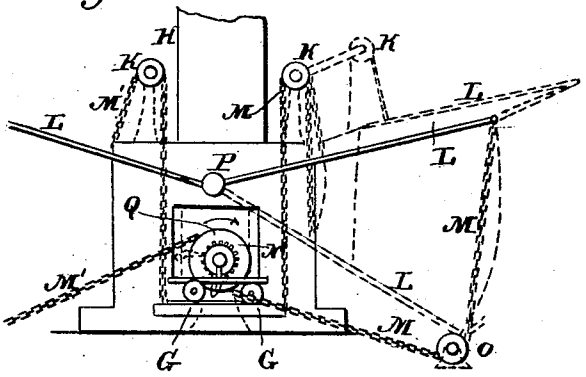
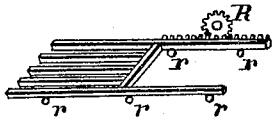


Fig. 4.



Witnesses:

Jno. B. Wiley.

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Letters Patent No. 87,838, *dated March* 16, 1869.

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, JACOB K. GOOD, of Pequa township, in the county of Lancaster, and State of Pennsylvania, have invented a new and improved Mode of Charging and Discharging Kilns for Burning Bricks; and I do hereby declare that the following is a full description of my kiln, and operation of the same, reference being had to the accompanying drawings, making a part of this specification, in which—

Figure 1 is a perspective view of my kiln, showing the open base and central square stack.

Figure 2, a vertical section, showing a series of six charges, and other appliances in profile.

Figure 3 illustrates a modification of the device for elevating the platform and car.

Figure 4, the arrangement of united grate-bars, with side-racks and pinions.

The nature of my invention consists in building up a series of charges, (say, of four hundred or more bricks in each,) one on top of the other, in a vertical stack, having a removable grate, or separate bars, so as to open the throat of the stack its full width into an open arch-way, and furnished with side-furnaces, for keeping a continuous fire, and so that when the charge next the fire is sufficiently burned, it can be withdrawn, and the next charge above brought in its place.

To enable others skilled in the art to make and use my invention, I need simply refer them to my drawings.

Fig. 1 shows a rounded base, B, with a road-way, B R, and rails, leading through a tunnel in the rounded superstructure A, in two sides of which are furnaces, ash-box, grates, &c., constructed in the ordinary, or most approved style in use for side-furnaces.

Centrally, is shown a square stack, H, of any desired height and dimensions, whether of cast plates or masonry. This stack is open below into the road-way.

In this road-way is a sunken platform, G, with segments of rails to match those on the road-way, (if rails for the car are used.)

This platform is connected, at its four corners, with, say, screw-rods, S, passing through a heavy cross-piece, D, on top of the superstructure A.

Across the road-way, burrs, to be worked with a wrench, are shown, for raising the platform. A more speedy mode for doing the same is shown by fig. 3, by means of four chains, M', connected with the platform G, passing over pulleys, K, and connected to a lever, L.

The ends of the levers are united on each side, and a chain, M, attached, passing around a ground-pulley, O, and connected with a drum, or windlass, Q, provided with a pawl and ratchet, said chains M, from the projecting ends of the two pairs of levers, being reversely attached, so that the windlass will draw upon both in unison, and thus draw up the platform, with the car upon it, against the under side of the stack. The bars are then drawn out, when the burned charge of brick will rest upon the car adapted to the pile, and lowered down until the next charge above has settled down, the base of each charge being adapted to receive the bars of the supporting-grate, which are now replaced, and the car lowered down to the road-way with the charge No. 1 on it, (see fig. 2,) and charge No. 2 in its place, subjected to the direct action of the fire in the side-furnaces F. The other charges, 3, 4, 5, receiving the spent heat, are being rapidly dried, or partially burned, while a new charge, 6, is built on top, adapted to the movable grate-bars in the bottom of the stack, by building the charge on or over like bars, so as to fit with ease, when finally lodged, as the lower charges are withdrawn, and the upper charges successively brought down, burned, and removed, in the manner specified.

I am aware that an inclined kiln is used, and trucks employed, like in patent No. 60,029, where charges of brick are burned and removed, claiming certain cars, with their running-gear, as also supplemental cars, the groove-way in the tunnel, as also the trucks passing through the furnace. Such I do not use or claim.

I am aware, also, that cupolas, curved below, charges on rods and chutes, and an endless apron, are used, as also a top platform, and various devices; but I am not aware of any mode ever being used in which the series of charges are vertical, one on top of the other, in a straight stack, from which the burned brick are taken out below, and the fresh-made or pressed brick stacked or set in above, as fast as they are burned and withdrawn below, by any known mechanical means to effect the same, or substantially in the manner specified; therefore,

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

The arrangement herein described, viz, of setting the charges of brick, one on top of the other, within the cupola H, having side-furnaces, F, on an elevated base, A and B, in combination with the removable base, and hoisting-apparatus for elevating the platform G, with car C, substantially as set forth.

JACOB K. GOOD.

Witnesses:

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