W. V. Cecil,

Brick Kiln

No. 92,702. Patented July 20. 1869.

Fig. 1.

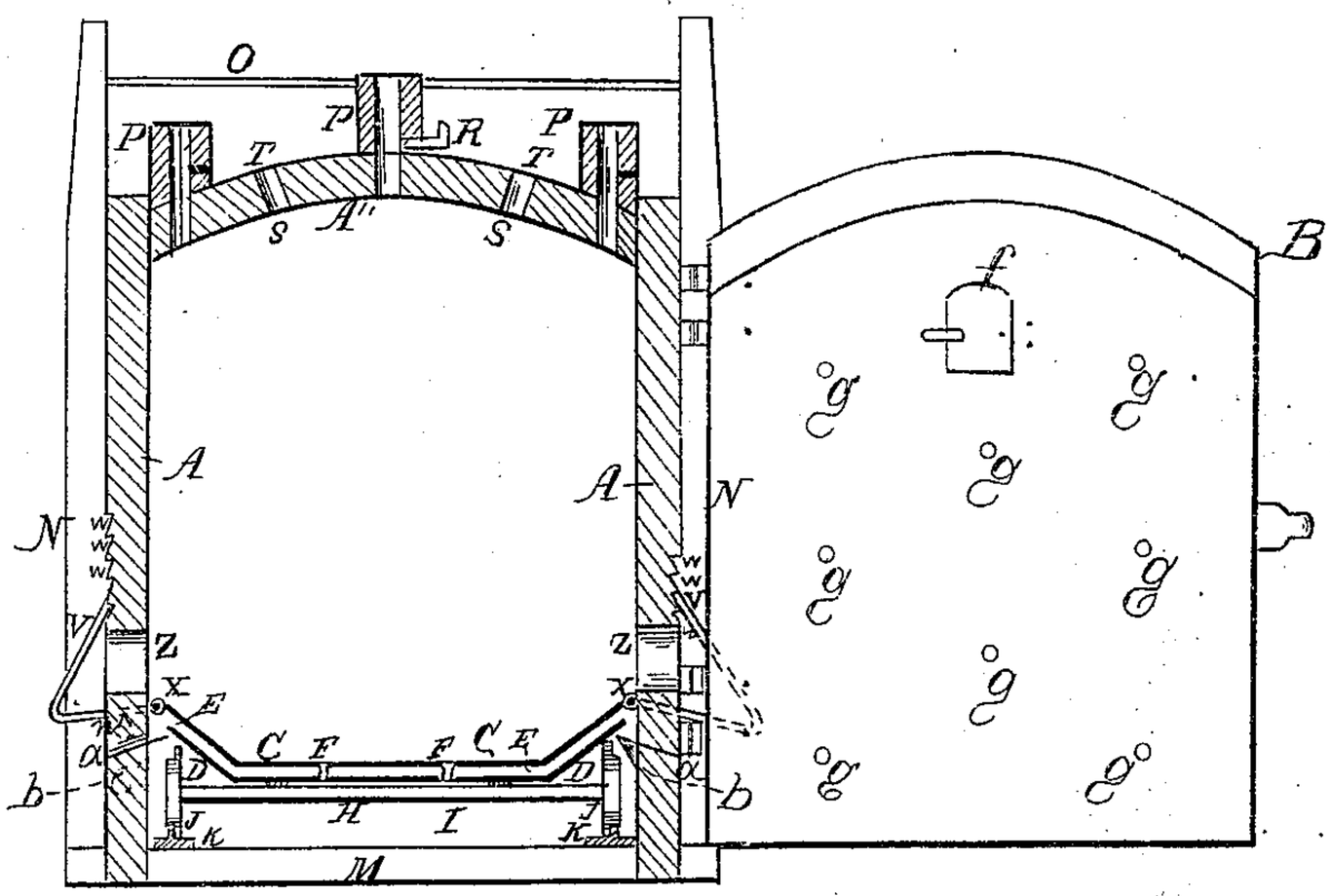
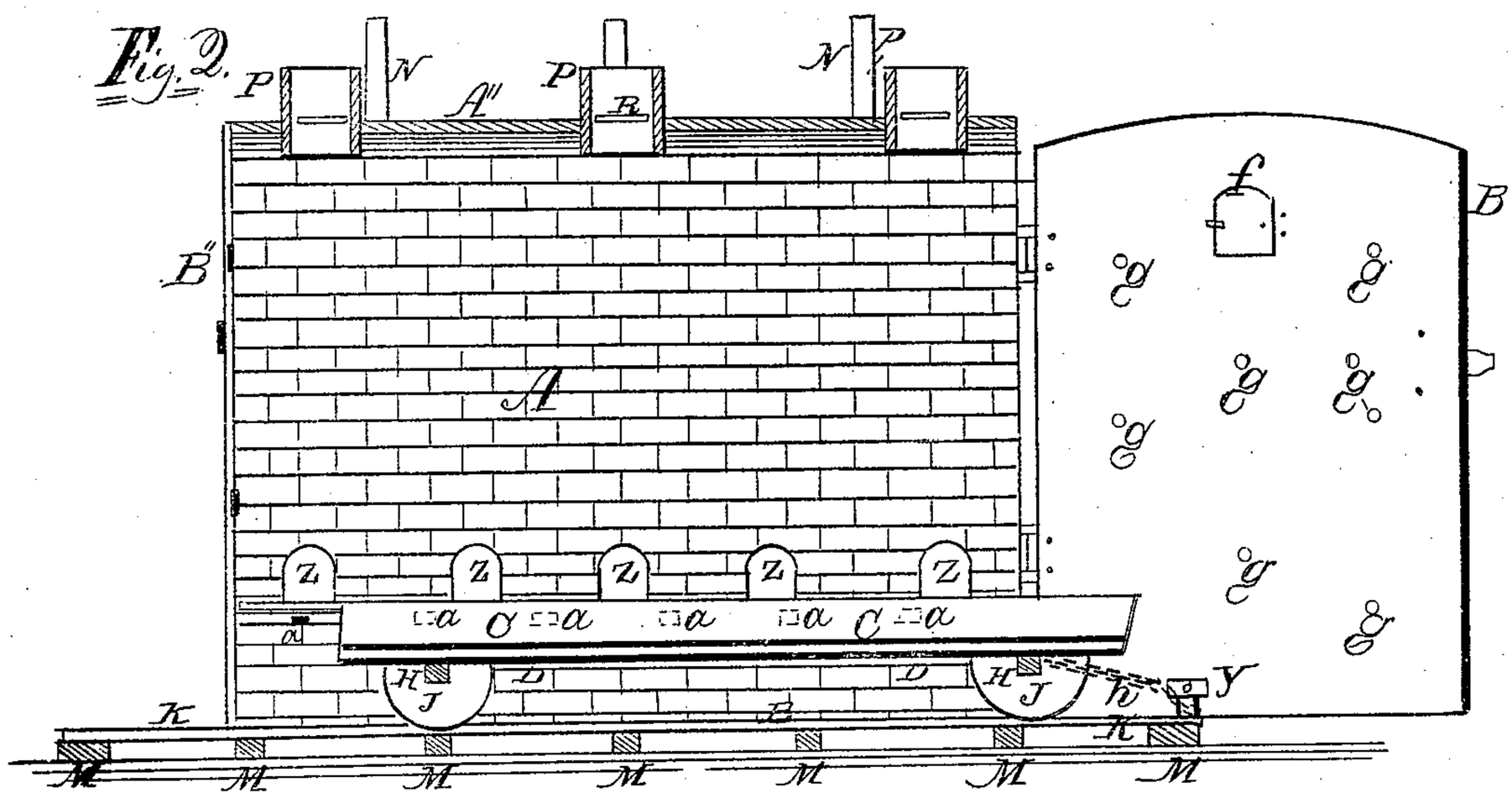


Fig. 2.



Witnesses:-

Platt R Richards

J B Harsh

Inventor,

W V Cecil

per W B Richards Atty

United States Patent Office.

W. V. CECIL, OF MONMOUTH, ILLINOIS.

Letters Patent No. 92,702, *dated July* 20, 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, W. V. CECIL, of the city of Monmouth, county of Warren, and State of Illinois, have invented certain new and useful Improvements in Brick-Kilns; and I do hereby declare that the following is a full, clear, and exact description of the same, reference being had to the accompanying drawings, making a portion of this specification, in which—

Figure 1 is a vertical lateral sectional view of the kiln, with the doors at each end open.

Figure 2 is a vertical longitudinal sectional view, with one door open and one closed.

Similar letters of reference indicate corresponding parts in both figures.

The nature of this improvement relates to brick-kilns; and

The invention consists in a kiln constructed of brick or metal, with parallel sides, and doors forming the ends, and with an arched or pointed roof containing flues and dampers, and the sides provided also with flues and dampers, as herein described.

A track is laid longitudinally through the kiln, on which a car, with bottom as described, and containing the brick, may be run in or out of the kiln at pleasure, the invention also consisting in the manner of constructing and arranging said bottom to prevent it burning out, &c.

To enable others to understand the construction and operation of my invention, I will proceed to describe it with reference to the drawings.

A represents the sides of the kiln, which may be constructed of brick or metal, or their equivalent.

A″ represents the roof, joining the two sides A A, and provided with chimneys P, in which may be placed dampers R.

N represents pilasters or posts, set against the sides of the walls A, and joined at the top by the rod *o*, and used for strengthening the walls A.

S represents holes in the roof, with isinglass T in them, through which the progress of the burning, &c., may be examined.

B B″ represent doors enclosing the ends of the kiln.

The doors B B″ are provided with small door *f*, which may be opened, when the kiln is first fired, to let off the steam generated from the green brick.

The holes *g g* are for the same purpose.

M represents ties or sleepers, on which an ordinary car-track, K, is laid, extending through the kiln, and out at each end, any desired distance.

J represents the wheels, and H the axle of the car, on which rests the metallic plate D, curved up at the sides, as shown at fig. 1.

Immediately over the plate D is another plate, C, held at a short distance from the plate D by the blocks F, and extending out at the edges or sides a little further than the under plate D.

a represents openings in the wall A, for admitting cold air between the plates C and D.

X represents a round bar, carried on the levers V, which are pivoted at *n*, and by lowering which, at their outer end, the rod *x* may be raised and close the space between the plate C and wall A, and prevent cinders or hot ashes from dropping under the car or between the plates C and D.

The lever V may be secured in the notches W W in the walls A.

Z represents openings in the walls A, directly opposite each other in the two walls, and about the same distance apart as ordinary arches in a brick-kiln.

The operation of this invention is as follows:

The car being drawn out of the kiln, the upper plate C is covered with dirt to a level with their highest point at the edge or side.

The brick to be burned are then placed or built thereon, as in ordinary kilns, with the flues exactly corresponding with the openings Z in the wall A.

The car is then run into the kiln, the doors B″ B closed, and the levers V raised, and fire inserted through the openings Z, the steam allowed to escape through the door *f* and holes *g*, and the plate C kept cool by the dirt above it and the cold air circulating below it.

Hinged doors may be placed over the openings Z, for regulating the heat at different places, and the dampers R may be used for the same purpose.

b represents ledges running along the walls A, to catch any dirt or fire that may pass the bar X, and carry it out of the openings *a*.

When the brick are burned, the capstan Y and chain *h* may be used in drawing the car out, and, when out, another car may be ready, and run in after it.

Having thus described my invention,

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

The car I, when formed of the two plates C and D, with cold-air space between them, in combination with openings *a*, ledges *b*, levers V, and rods X, all constructed and arranged as and for the purpose herein set forth.

Signed at Galesburg, Illinois, this 16th day of January, 1869.

W. V. CECIL.

Witnesses:

J. B. HARSH,

PLATT R. RICHARDS.