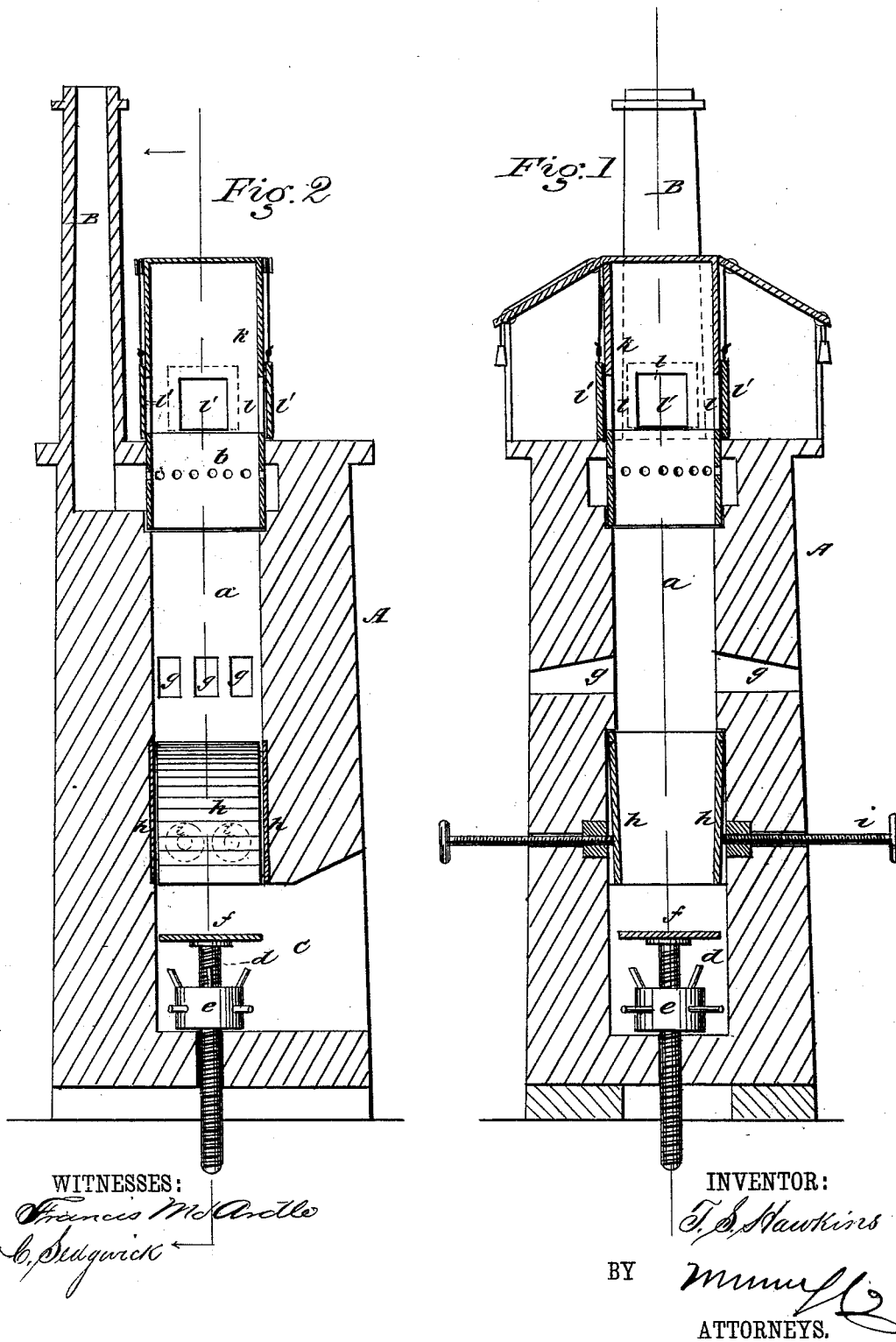


T. S. HAWKINS.
Brick-Kiln.

No. 218,529.

Patented Aug. 12, 1879.



UNITED STATES PATENT OFFICE.

THOMAS S. HAWKINS, OF CHATTANOOGA, TENNESSEE.

IMPROVEMENT IN BRICK-KILNS.

Specification forming part of Letters Patent No. **218,529**, dated August 12, 1879; application filed April 8, 1879.

To all whom it may concern:

Be it known that I, THOMAS SAMUEL HAWKINS, of Chattanooga, in the county of Hamilton and State of Tennessee, have invented a new and Improved Brick-Kiln, of which the following is a specification.

My invention relates to a brick-kiln into which the bricks are placed and burned, and withdrawn without extinguishing the fires.

The kiln is built in the form of a cupola-furnace, with a chimney-stack connected to the upper part of the burning-chamber. In the lower part of the chamber is a platform that is raised and lowered by a screw. Access to the platform is had through an opening at the bottom of the kiln, whereby the bricks can be lowered and removed.

The details and operation will be described in connection with the accompanying drawings, wherein—

Figure 1 is a sectional front elevation of the kiln. Fig. 2 is a vertical section at right angles to Fig. 1.

Similar letters of reference indicate corresponding parts.

The kiln A is built of timbers and brick in the form of a square cupola, and with a central chamber, *a*, that is lined with fire-brick. The chamber *a* extends from the foundation to the top. The chimney-stack B extends from the top of the kiln some distance above, and chamber *a* communicates with B by flue-openings *b* that may be fitted with dampers. At the bottom of the chamber *a* is an opening or throat, *c*, through the front of the kiln, to give access to the chamber. In the lower part of *a* is fitted a screw, *d*, and its operating hand-wheel *e*. The screw *d* sustains a platform, *f*, so that by means of wheel *e* and screw *d* the platform *f* is lowered to the opening *c* or raised up in the chamber *a*. The fire-boxes (not shown) are fitted at the sides of the kiln, three on each side, and communicate with chamber *a* by openings *g* in the sides of the kiln, about midway of its height. The sides below the fire-openings *g* are lined with metal plates *h*, two or more of which, at opposite sides, are fitted for compression inward upon the brick by the screws *i i*, which extend

through the side of kiln A. At the top of kiln A is fitted an iron frame, *k*, that supports sliding shutters *l*, fitted to be raised and lowered for covering or uncovering the openings *l*.

The kiln will be operated as follows: The platform being raised, the bricks are stacked in the kiln, through the openings *l*, by workmen at the top of the kiln, the openings *l* then closed, and the fires kindled. The lower courses of brick are subjected to the greatest heat, and will first be removed, which is done by lowering the platform to the bottom of the chamber, then compressing plates *h* by screws *i*, to clamp and sustain the brick above the openings *c*. The lower courses of brick may then be removed from the platform and the platform raised again. This operation is to be repeated at proper intervals, and brick supplied at the top to take the place of those removed.

To save handling, the platform *f* may consist of a loose plate, which will be lowered upon a truck beneath, and the truck then drawn out with the plate and bricks. Another plate will then be placed on the platform and raised by the screw. By this means the burned brick can be removed as often as necessary, which usually will be every four or six hours.

The kiln may be built to any desired capacity and proportioned in size of chamber to the size of the bricks.

I am aware that a kiln has been heretofore provided with central chamber and suitable means for lowering the bricks below the fire-flues for removal.

Having thus fully described my invention, I claim as new and desire to secure by Letters Patent—

In a brick-kiln, the combination, with the burning-chamber *a*, of the platform *f*, screw *e*, compression-plates *h*, and screws *i*, substantially as described and shown, and for the purposes set forth.

THOMAS SAMUEL HAWKINS.

Witnesses:

S. B. McCORKLE,
L. B. HEADRICK.