

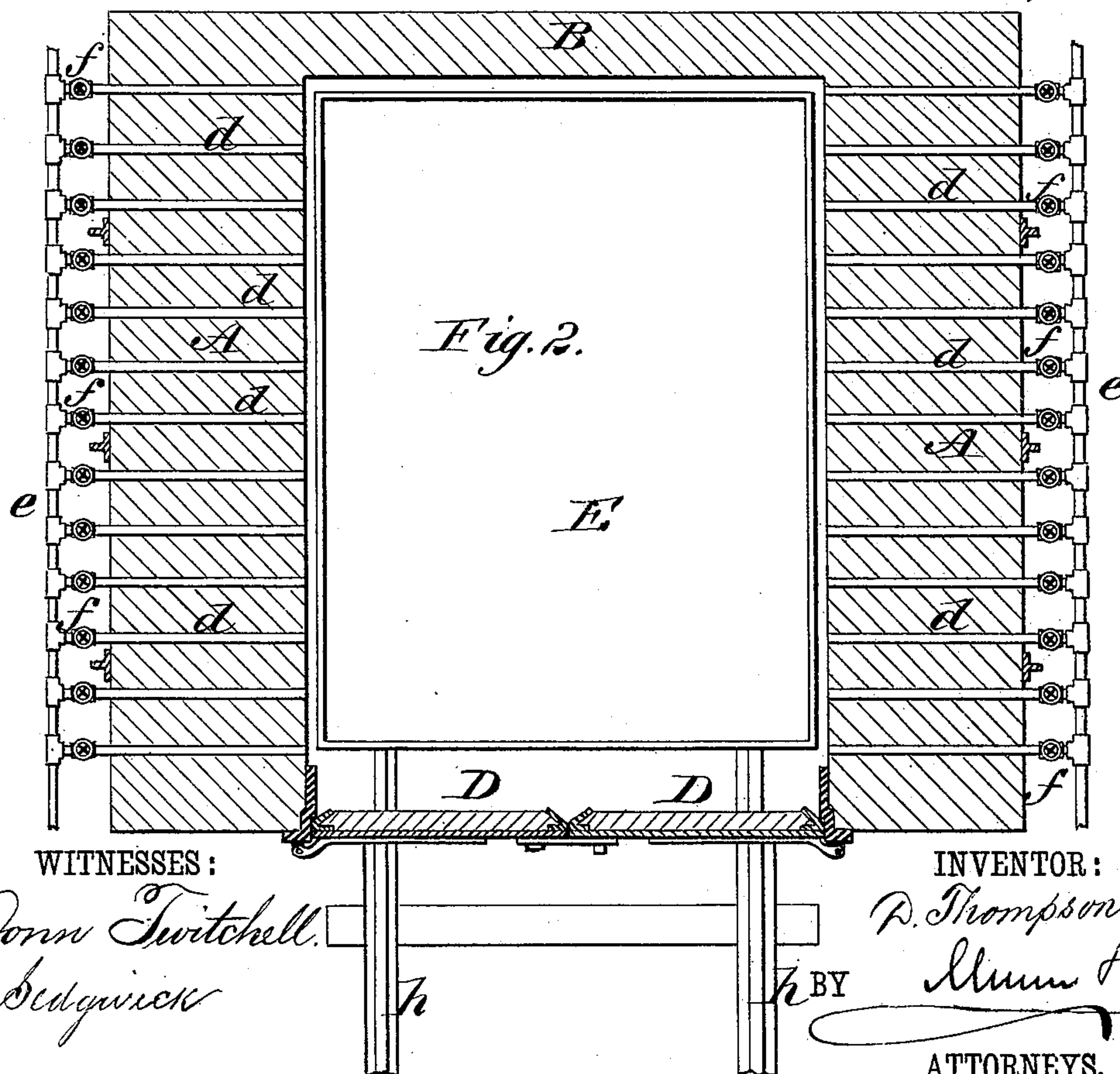
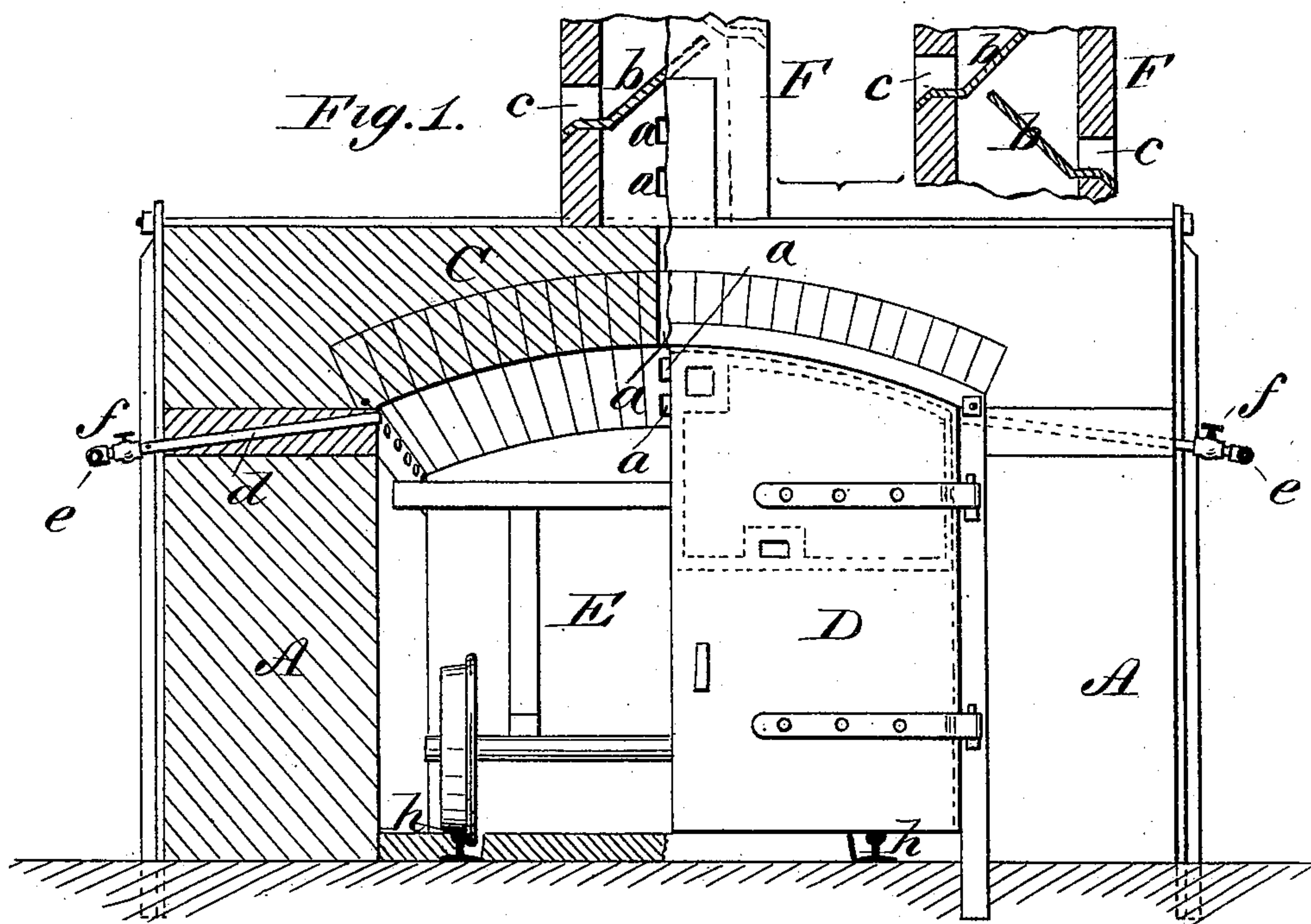
(No Model.)

D. THOMPSON.

KILN FOR TREATING GLASS, TILES, POTTERY, &c.

No. 251,319.

Patented Dec. 20, 1881.



WITNESSES :

Donn Twitchell.  
to Sedgwick

INVENTOR:

*R. Thompson*  
*Mum & Co*  
**ATTORNEYS.**



# UNITED STATES PATENT OFFICE.

DAVID THOMPSON, OF LEEDS, COUNTY OF YORK, ENGLAND.

## KILN FOR TREATING GLASS, TILES, POTTERY, &c.

SPECIFICATION forming part of Letters Patent No. 251,319, dated December 20, 1881.

Application filed August 15, 1881. (No model.) Patented in England April 20, 1881.

*To all whom it may concern:*

Be it known that I, DAVID THOMPSON, of Leeds, in the county of York, England, have invented certain new and useful Improvements in Kilns for Treating Glass, Tiles, Pottery, &c., of which the following is a specification.

My improvements relate to apparatus and machinery for bending, burning, staining, and annealing glass, burning art-tiles and pottery, and for other similar purposes.

The object of the invention is to so improve the combined use and application of gas and air—that is, ordinary illuminating gas and atmospheric air—to the above purposes as to enable me to produce a more uniform, safe, and certain result with less labor, time, cost, and liability to damage than heretofore, and this without the employment of additional or mechanical force or pressure to either the gas or the air which has heretofore been considered necessary.

In the accompanying drawings, Figure 1 is a front elevation and partial vertical section of a kiln or furnace embodying my invention, and Fig. 2 is a horizontal section of the same.

Similar letters of reference indicate corresponding parts.

The kiln or furnace consists of side walls, A, rear walls, B, and the arched top C. At the front are the doors D D, which are preferably lined with fire-brick and arranged to close as air-tightly as possible.

In the crown of the arch are flues *a*, placed at uniform distances apart, and as numerous as required. These flues all communicate with the uptake or chimney F, and above the point of connection of the flues *a* there are inclined louver-boards *b*, secured in the chimney. These are inclined in opposite directions alternately, and in the sides of the chimney at the base of

the boards there are openings *c*. These louvers allow a free upward draft from the flues *a*, and excessive or irregular draft is prevented by the openings *c* and louvers. At the same time downward gusts are deflected out at the openings.

*d d* are the gas-supply tubes entering through the sides A of the furnace, near the top, and *e e* are the pipes supplying gas and air to the several tubes *d*.

*f f* are cocks on the tubes *d*, which allow regulation of the gas and air entering the furnace by each tube, so that the extent of heat and intensity of heat can be regulated.

The cocks *f* may be of the ordinary character used with Bunsen burners, to allow inlet of air to the gas-tubes.

*h h* are the rails, and E the carriage, which is of ordinary construction, for sustaining the glass to be bent, burned, stained or annealed.

The gas is supplied from ordinary gas-mains or other source without mechanical force or pressure.

It will be seen that the heat of the furnace can be regulated locally as required, and a uniform result will be therefore obtained.

The apparatus is also adapted for burning tiles and pottery-ware, and other purposes requiring intense heat under control.

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

A kiln or furnace provided with flues *a* and pipes *d*, for supply of gas and air to the interior, substantially as shown and described.

DAVID THOMPSON.

Witnesses:

GEO. D. WALKER,  
C. SEDGWICK.