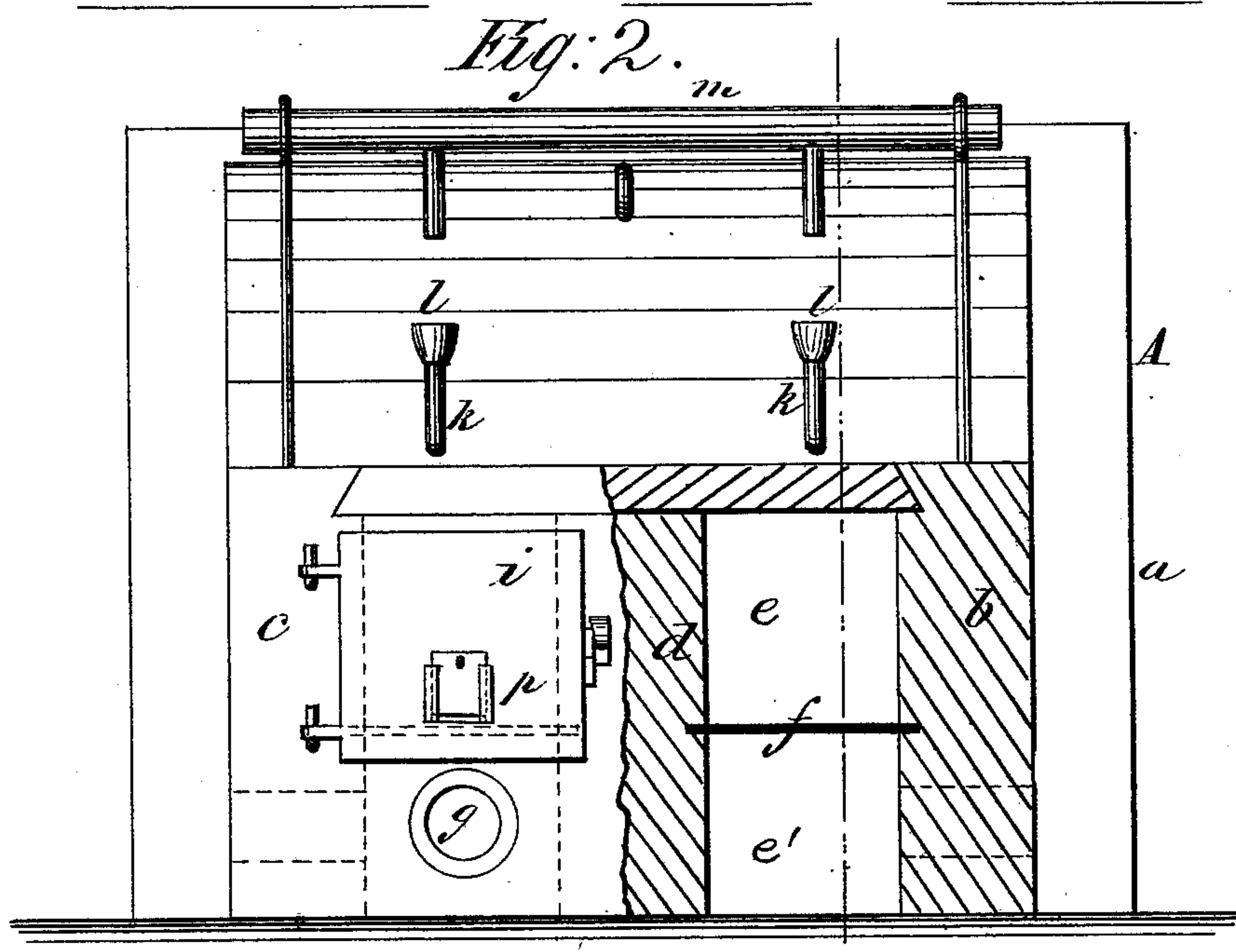
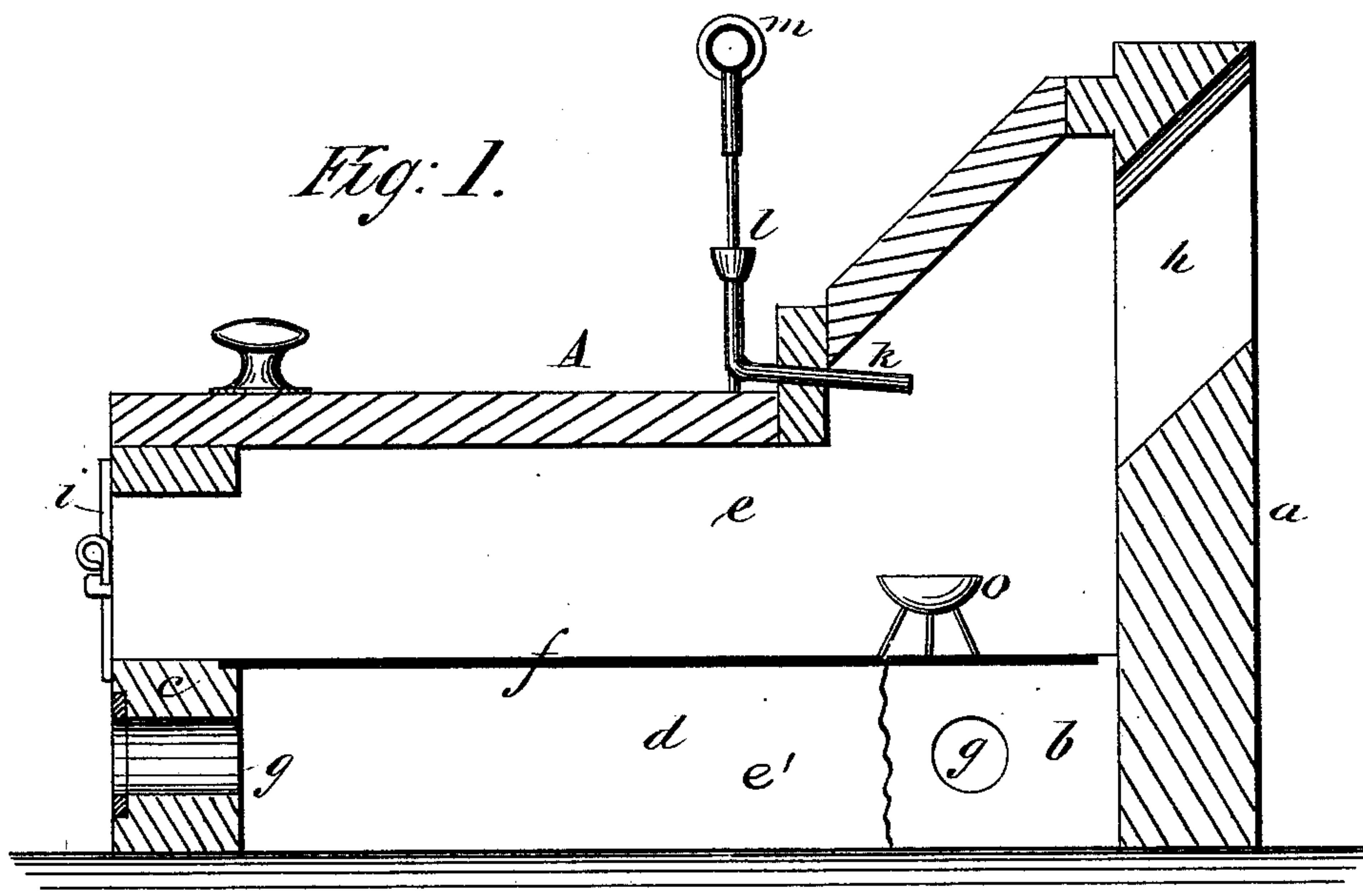


H. B. WINSLOW.
 Apparatus for the Manufacture of Lamp-Black.
 No. 222,337. Patented Dec. 2, 1879.



WITNESSES:
Acphilles Schehl.
C. Sedgwick

INVENTOR:
H. B. Winslow
 BY *Mum Ho*
 ATTORNEYS.

UNITED STATES PATENT OFFICE.

HENRY B. WINSLOW, OF MARBLEHEAD, MASSACHUSETTS, ASSIGNOR TO
EDWARD T. HUMPHREY, OF SAME PLACE.

IMPROVEMENT IN APPARATUS FOR THE MANUFACTURE OF LAMP-BLACK.

Specification forming part of Letters Patent No. **222,337**, dated December 2, 1879; application filed
March 5, 1879.

To all whom it may concern:

Be it known that I, HENRY B. WINSLOW, of Marblehead, in the county of Essex and State of Massachusetts, have invented a new and Improved Apparatus for the Burning of Oil in the Manufacture of Lamp-Black, of which the following is a specification.

My invention relates to a furnace for burning oil for the production of lamp-black; and consists in a certain novel construction, whereby the use of water is dispensed with and the character of the production improved.

My furnace is shown in the accompanying drawings, wherein—

Figure 1 is a vertical longitudinal section. Fig. 2 is a front elevation, partially in section.

Similar letters of reference indicate corresponding parts.

I prefer to build the furnace A double, as shown. It is to be built of brick lined with fire-brick, with a rear wall, *a*, that divides the furnace-room from the condensing-room, side walls, *b b*, front *c*, and central dividing-wall, *d*, that divides the furnace into two long and narrow fire-spaces, *e e'*.

The bottom of the fire-spaces *e* is formed by a sheet-iron plate, *f*, that is supported by the walls, and the space *e'* below plate *f* serves as an air-space through which air may circulate by openings *g* in the front and side walls, this circulation of air tending to keep the plate *f* cool.

The rear of the fire-space *e* extends upward and communicates by an opening, *h*, through the wall with the condensing-room. In the front wall, *c*, there is an opening to each fire-space *e*, and a door, *i*, to each opening.

The oil or other liquid is to be supplied by pipes *k*, that enter from the outside near the rear of the fire-spaces. The outer end of each

pipe *k* is fitted with a cup-shaped receptacle, *l*, into which the oil will run from the vertical branch of the main supply-pipe *m*, so that the amount of oil running into each pipe *k* may be observed and regulated by a cock. The pipe *m* will supply the oil to one or more furnaces and the supply of material to each furnace will be separately regulated.

No burners are employed, but I prefer to place in the fire-spaces beneath pipes *k* shallow cast-iron drip-pans *o* to receive the oil, and the oil running in faster than it will burn will drop while on fire to the pans *o*; and be spattered into small particles. These pans are to be changed frequently, access to them being obtained by doors *i*.

p is a slide and *i* a door, both of which close air-tight, while by opening the slide more or less the ingress of air may be regulated.

By constructing the fire-space *e* long and narrow the plate *f* is more readily kept cool, and the space in front of the point of combustion renders the smoke less liable to escape by the doors.

The products of combustion pass through the opening *h* to the condensing-room, which will be lathed and plastered, and if the room is sufficiently large a number of furnaces, A, may be fitted to discharge into the same room.

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

A lamp-black furnace having walls *a b c d*, with openings *g*, spaces *e e'* separated by metallic plate *f*, and oil-supply pipes, all arranged as shown and described.

HENRY BAGLEY WINSLOW.

Witnesses:

BENJ. F. PIERCE,
JOS. D. EVANS.