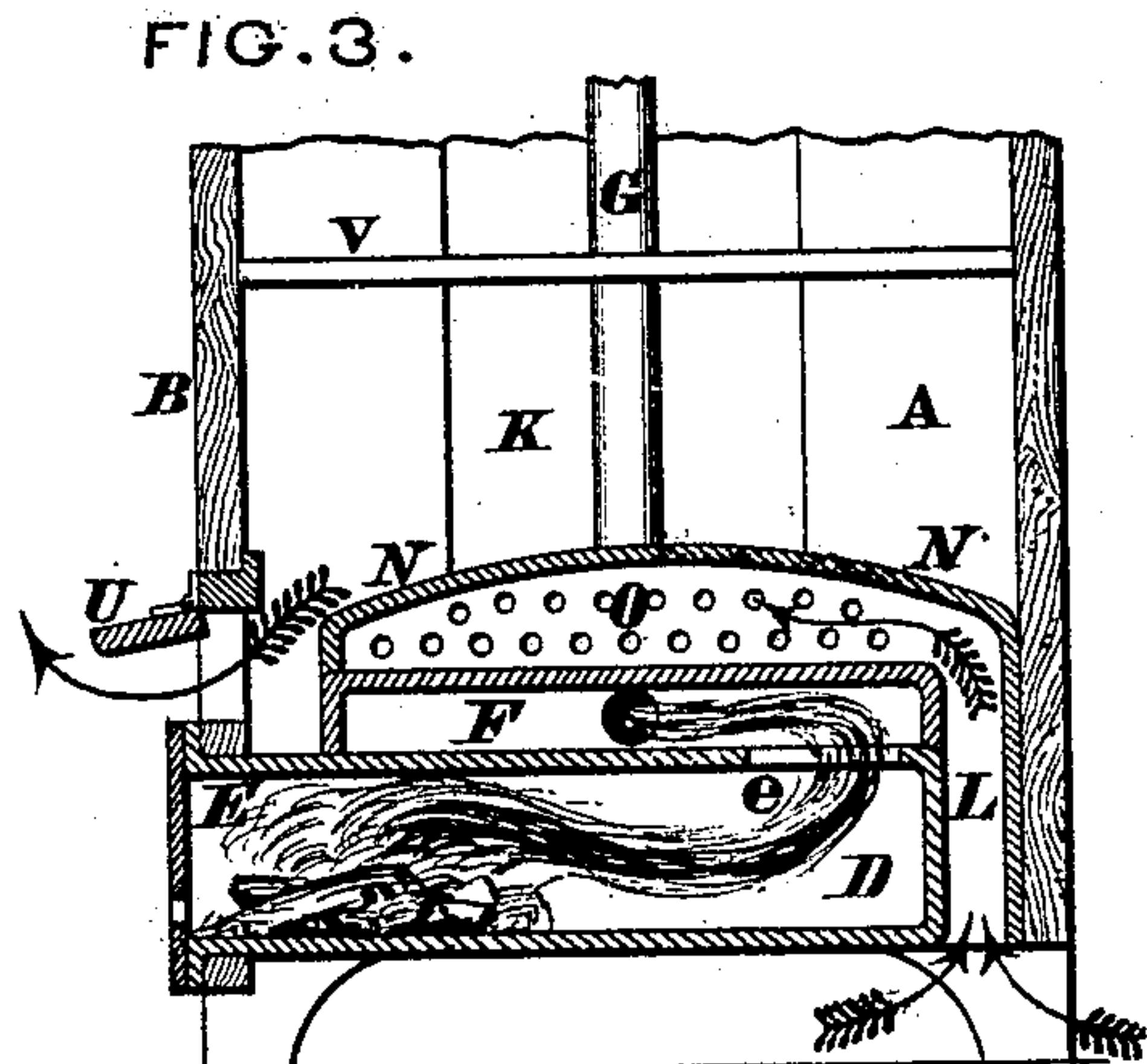
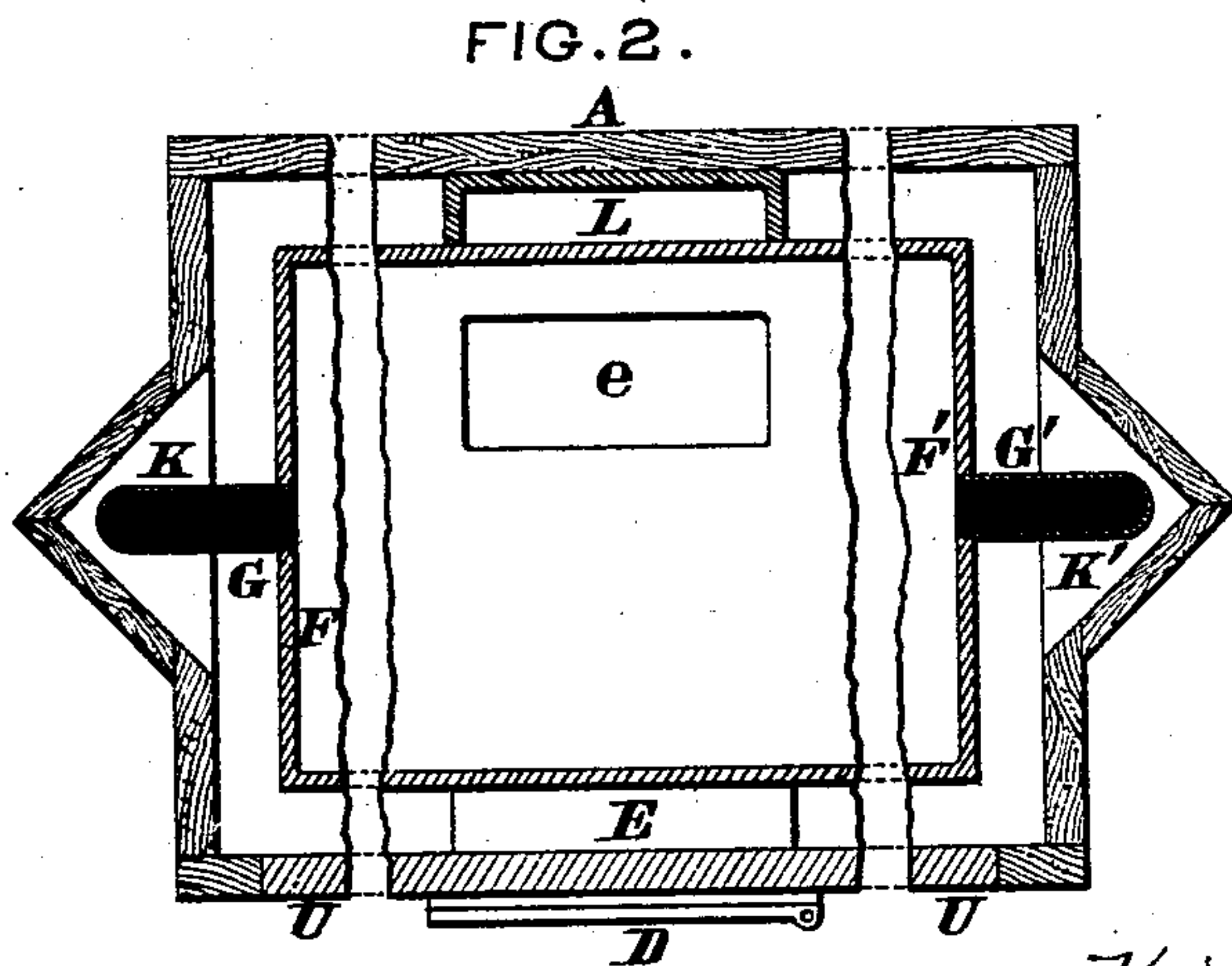
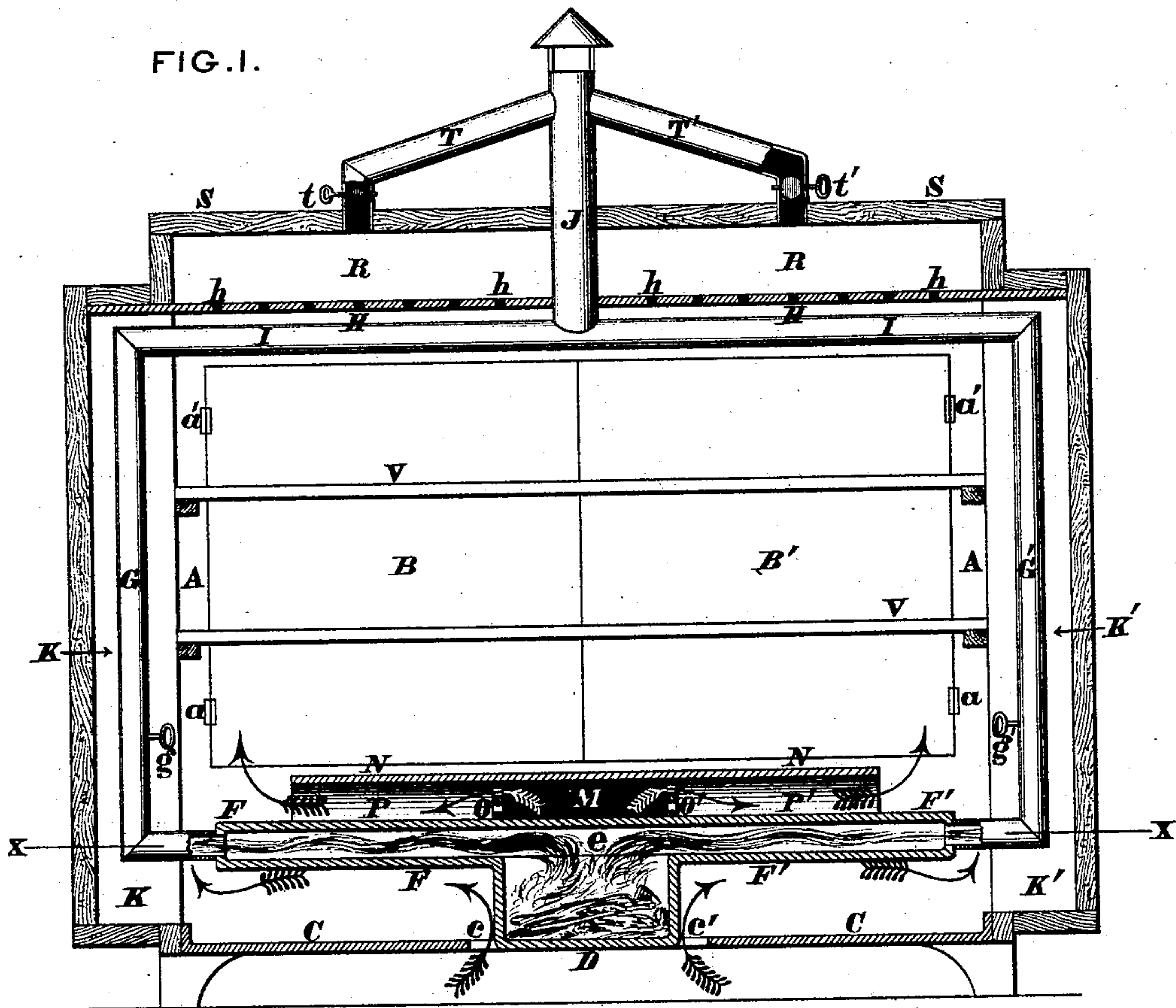


A. W. COX.

Drier.

No. 102.230.

Patented April 26, 1870.



ATTEST.
Jas. H. Layman.
F. L. Reeves

Knight, Bros.
Attys. for Cox

United States Patent Office.

ALBERT W. COX, OF INDIANAPOLIS, INDIANA.

Letters Patent No. 102,230, dated April 26, 1870.

DRIER

The Schedule referred to in these Letters Patent and making part of the same.

I, ALBERT W. COX, of Indianapolis, Marion county, Indiana, have invented an Improved Drier, of which the following is a specification.

Nature and Objects of the Invention.

This invention relates to that class of apparatus, either portable or stationary, employed for the purpose of drying clothing, fruits, vegetables, &c., by means of the heat which is radiated from a suitable stove or furnace with a properly-ventilated case or chamber; and

My improvement consists principally in arranging the stove, the flues, and the hot-air pipes in such a manner as to produce the most effectual drying of the articles in the shortest possible time, and with the least consumption of fuel.

General Description with Reference to the Drawings.

Figure 1 is a longitudinal section of my improved drier.

Figure 2 is a horizontal section at the line *x-x*, a portion of the apparatus between the stove and either end being removed.

Figure 3 is a vertical section through the lower portion of the drier.

A represents the outer wall or casing of the drier, having hinged to it at *a a'* the doors B B', by which access is had to the interior of the apparatus.

The casing A has a floor, C, preferably of metal, and seated upon this floor, and at the midlength of the drier is a stove or furnace, D, whose top plate E has, near its inner end, an opening, *e*, through which the products of combustion pass into two large flat drums or flues F F', that extend from the side of the stove toward the ends of the casing.

Attached to the ends of these drums are the smoke-pipes G G', which extend vertically through the drier almost to the ceiling H, where they are united to the horizontal pipe I, from which projects the exit-pipe J.

The vertical smoke-pipes G G', instead of being located within the body of the drier, and thereby encroaching on valuable space, are situated within coves or recesses K K', at the ends of the casing.

The pipes G G' are provided with dampers *g g'*, for regulating the draught.

Situated in the rear of the stove D is a cold-air duct, L, which communicates with a passage, M, that is formed by the top of flues F F', covering N, and perforated partitions O O'.

Between the covering N and flues F F' are chan-

nels P P', along which the heated air flows after passing through the perforated partitions O O'.

The ceiling H is pierced with perforations, *h*, that permit vapor and steam to escape into a chamber, R, which is located between said perforated ceiling and the roof S of the drier.

Projecting from the roof of the drier, and communicating both with the chamber R and exit-pipe J, are side pipes T T', which serve to conduct into the chimney all the vapor that collects in said chamber, the escape of vapor being regulated or entirely cut off, as may be desired, by means of the valves or dampers *t t'*.

Hinged to either the front or rear side of the drier is a shutter or flap, U, which, when opened as shown in fig. 3, allows the escape of warm air into the room in which the drier is situated, thereby enabling the apparatus to be employed as a hot-air furnace in addition to its ordinary use as a drier.

V are trays, racks, or shelves, upon which the articles to be dried are placed.

The entire heating-surface of the stove and flues being situated above the floor C, operates to effectually warm the cold air which flows in through the slots *c c'* in the floor, or, in other words, the cold air which enters through the slots *c c'* in the floor, by impinging against the sides of the stove D, and against the bottom, sides, and top of the flues F F', becomes warmed and escapes upward through and among the articles on the shelves V, while at the same time another volume of heated air is flowing in through duct L, passage M, and channels P P', as indicated by arrows in figs. 1 and 3.

Instead of the broad flat flues F F', a number of pipes may be substituted.

The cover N may be detachable from the heater proper, or it may be hinged thereto so as to permit of its being raised by its front edge, for the purpose of cleaning the air passages.

Claim.

I claim as new and of my invention—

A drier, whose vertical smoke-pipes G G' are located within coves or recesses K K' in the sides of the casing or chamber, as and for the object stated.

In testimony of which invention I hereunto set my hand.

Witnesses:

ALBERT W. COX.

GEO. H. KNIGHT,

JAMES H. LAYMAN.