

J. L. PFAU, Jr.
Heating Stove.

No. 102,036.

Patented April 19, 1870.

FIG. 1

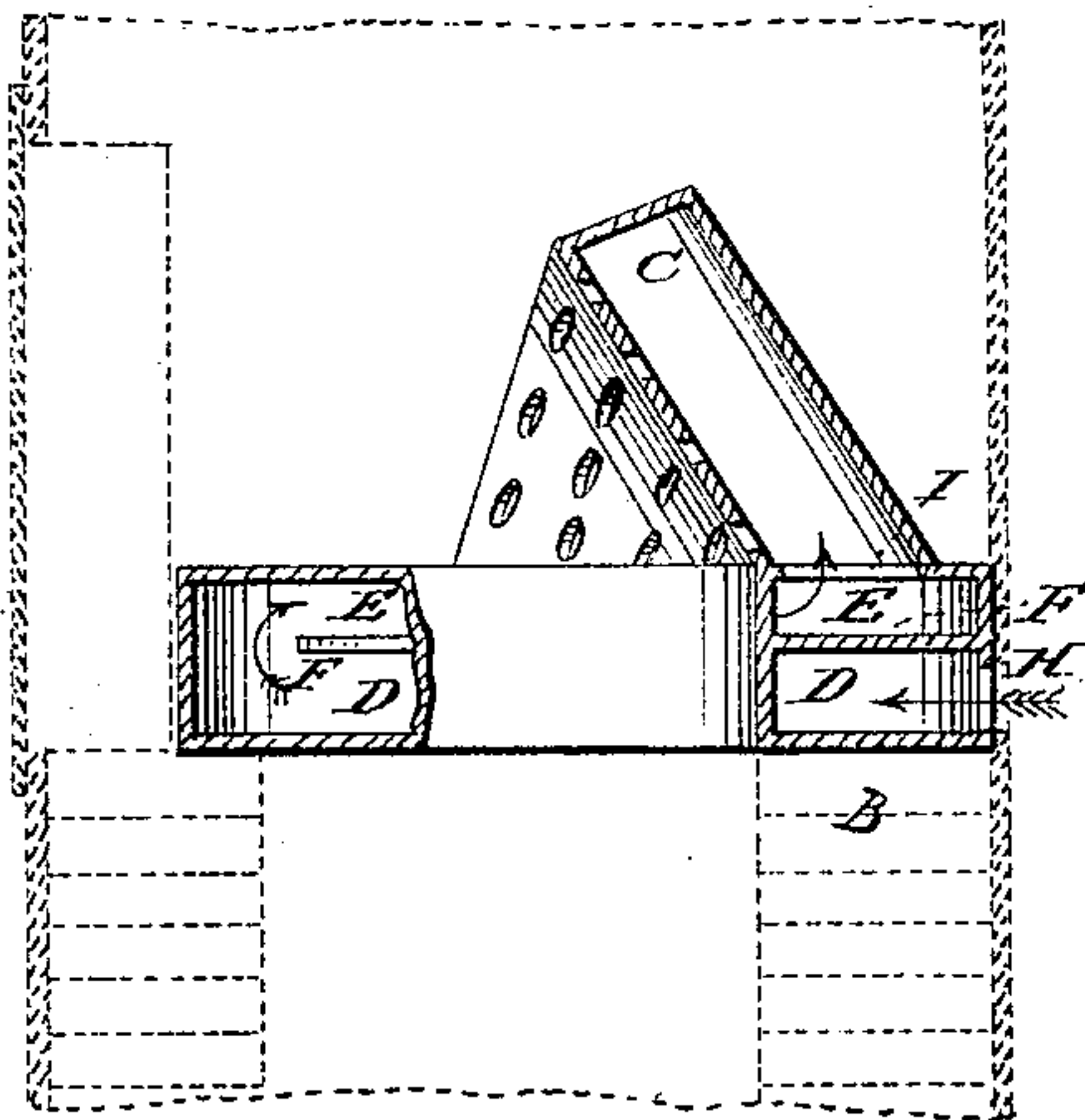
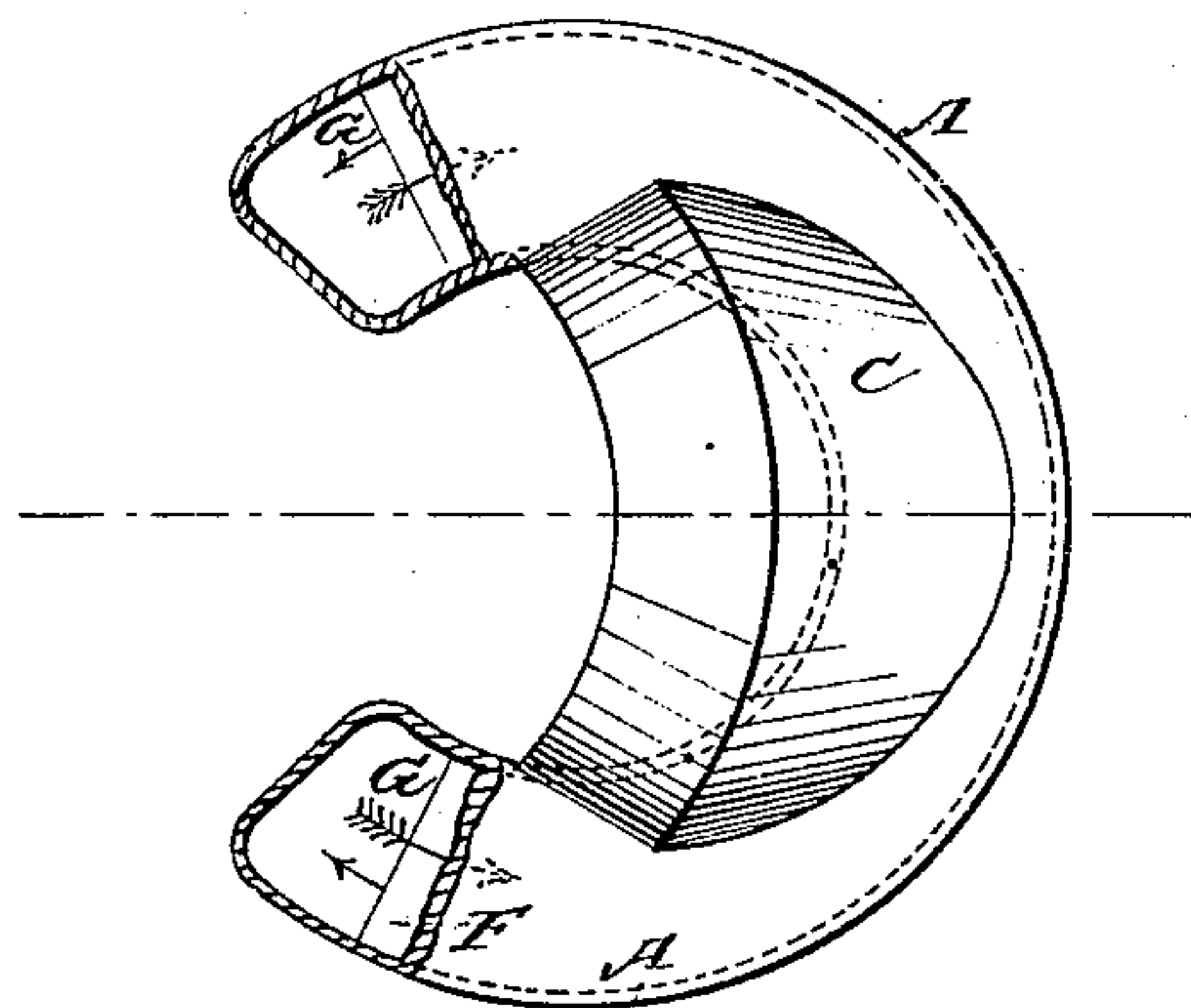


FIG. 2



WITNESSES:

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JOHN L. PFAU, JR., OF QUINCY, ILLINOIS.

Letters Patent No. 102,036, dated April 19, 1870.

ATTACHMENT FOR HEATING-STOVES.

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, JOHN L. PFAU, Jr., of Quincy, in the county of Adams and State of Illinois, have invented a new and useful Improvement in Stoves; and I do hereby declare that the following is a full, clear, and exact description thereof, which will enable others skilled in the art to make and use the same, reference being had to the accompanying drawing forming part of this specification.

This invention relates to improvements in stoves and furnaces for burning coal, and more particularly cylindrical stoves; and consists in an air and gas-mixing apparatus arranged for resting on the top of the fire-brick, above the fire, and receiving the air through the side of the stove, heating it and finally delivering it to the gas arising from the fire below in a distributed way, calculated to facilitate the burning of the same and the smoke more effectually than when the cold air is admitted directly to the gas, as in the common arrangements.

Figure 1 is a sectional elevation of my improved mixer and a part of a cylinder stove, the latter being shown in dotted lines.

Figure 2 is a plan view of the said mixer.

Similar letters of reference indicate corresponding parts.

I make a hollow circular case, A, with a section about as wide as the opening for the door of the stove removed, of cast metal, fire-clay, or other suitable substance, of the size of the interior of the stove above the fire-brick lining B, adapted to rest on the top of said lining, and provided with a hollow hood, C, at the upper side, the under wall of which is perforated

and arched over about half of the vertical hollow space through the case A.

I divide the latter with lower and upper chambers, D E, by a horizontal dividing-plate, F, made shorter than the case, and admitting the air to pass up from D to E at the ends G.

The lower chamber D receives the cold air through the opening H, and conducts it around to the front of the case to chamber E; thence it is conducted back and up through openings I to the hollow hood C, from which it is delivered, through the overhanging perforated wall K, to the gas arising from the fire, in a highly-heated state, calculated to produce the most perfect combustion of the gas and smoke.

These mixers may be made separately from the stoves, to be put in and taken out when required, and will be found much more effective than the double-walled stoves now used for admitting the air to the gas through small perforations at the top of the lining, which are very liable to become obstructed, and cannot be readily reopened, especially when the space below becomes filled.

Having thus described my invention,

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

An air-heating and mixing device for stoves and furnaces, consisting of the case A, with dividing-plate F, and the hollow perforated hood C, arranged for application and operation, substantially as specified.

JOHN L. PFAU, JR.

Witnesses:

WARREN F. PITNEY,
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