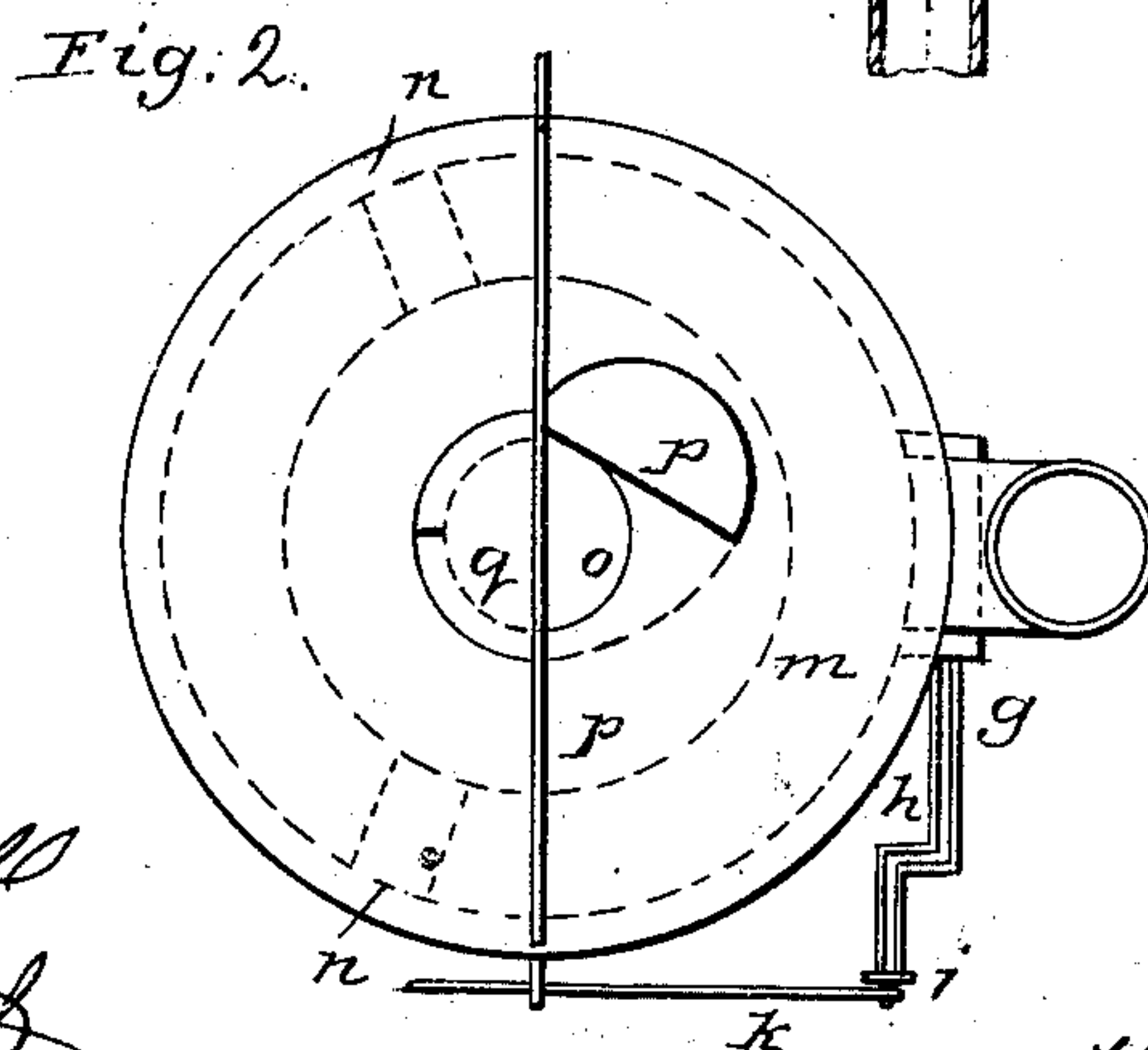
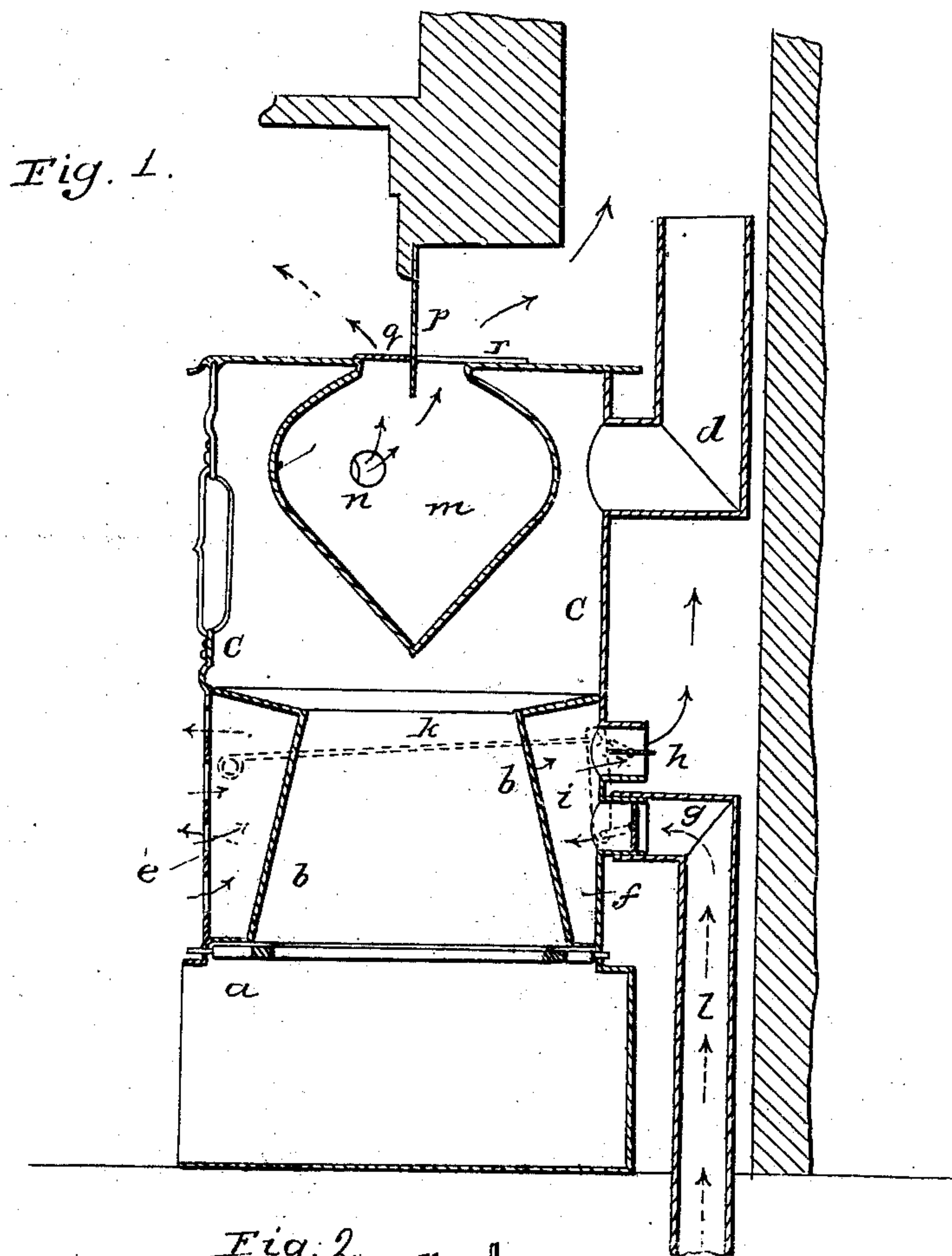


H. L. BUDD.

Heater.

No. 41,256.

Patented Jan. 12, 1864.



Witnesses:

Lemuel W. Scrull  
Chas H Smith

Inventor:

Henry L Budd

# UNITED STATES PATENT OFFICE.

HENRY L. BUDD, OF NEW YORK, N. Y., ASSIGNOR TO HIMSELF AND GEORGE H. THORP, OF SAME PLACE.

## IMPROVEMENT IN HEATERS.

Specification forming part of Letters Patent No. 41,256, dated January 12, 1864.

### *To all whom it may concern:*

Be it known that I, HENRY L. BUDD, of the city and State of New York, have invented, made, and applied to use a certain new and useful Improvement in Fire-Place Heaters; and I do hereby declare the following to be a full, clear, and exact description of my said invention, reference being had to the annexed drawings, making part of this specification, wherein—

Figure 1 is a vertical section of said heater as in place for use, and Fig. 2 is a plan of the same.

Similar marks of reference denote the same parts.

The nature of my said invention consists in a jacket surrounding the rear part of the fire-pot, in combination with inlet and outlet apertures and dampers arranged in such a manner that a current of air can be introduced from behind the heater to circulate around the fire-pot and come out in the room in which the heater is located; or a current of air can be made to pass from such room around the fire-pot, and thence by hot-air flues to a room or rooms above; thus in either case a circulation of air is maintained around the fire-pot to prevent its cracking by too great heat, and the heat so taken from the fire-pot is conveyed into the room containing such heater, or into the other portions of the building, as may be desired; and I provide a hollow conical air-vessel over the fire, through which I cause a circulation of air and direct the heated air into the hot-air flues, or into the room, at pleasure.

In the drawings, *a* is the base of the heater; *b*, the fire-pot; *c*, the casing of the heater; and *d* the flue for escape of gases, all as usual. Around the fire-pot, below the casing *c*, is a perforated screen or open ornamental work, *e*, extending about half-way around the heater, and at the rear part of the fire-pot is the closed case *f*. In this closed case *f* are two openings provided with dampers *g* and *h*, the rods of which extend to the side of the heater and terminate as cranks, as seen by the red lines, Fig. 1, and these cranks are connected to each other by a link, *i*, and act-

uated by a rod, *k*, coming out at the side of the heater. These dampers are so formed that one is open while the other is shut, and being connected together they cannot both be closed at one time; hence when the damper *g* is open cold air passes from a pipe, *l*, into the space around the fire-pot *b*, and comes out into the room, the damper *h* being shut; but if this damper *h* is opened (*g* being shut) the air in the room passes in through the perforated work *e* and out at the damper-opening *h*, ascending, with the heated air from the upper part of the stove, through a flue or hot-air pipe to a room above. By this arrangement a circulation of air around the fire-pot is always maintained. Above the fire I introduce the hollow vessel *m*, into which air-passages are provided, as at *n*, and an opening, *o*, is provided in the top, out of which the heated air passes. Across this opening *o* I place a plate, *p*, which is attached to the breast of the chimney, half the stove or heater being in the chimney and the other half projecting into the room. Over the opening *o* two half-covers, *q* and *r*, are provided, which are united together or formed in one piece, the parts diverging from each other, so as to leave an acute angle between them; hence when one of the covers is over its side of the opening *o* the other cover is back out of the way, so that by this arrangement all the heat from *m* may be passed into the room, or be caused to circulate up through the hot-air flue into the rooms above, and if the covers *q* and *r* are each partially turned into position the hot air from *m* is divided in its ascent by the plate *p*.

The arrows show the direction of the currents of heated air, and the dotted arrows represent the direction of those currents if the dampers were changed.

What I claim, and desire to secure by Letters Patent, is—

1. The case *f* at the rear of the fire-pot, in combination with the dampers *g* and *h*, and pipe *l*, as and for the purposes specified.

2. The plate *p* across the opening *o* of the vessel *m*, through which the air circulates,



and is by said plate divided and caused to enter the room or pass away by the hot-air flue, as specified.

3. The half-covers *q* and *r*, united together and acting as specified, in combination with the plate *p*, to direct the heated air, as set forth.

In witness whereof I have hereunto set my signature this 17th day of October, 1863.

HENRY L. BUDD.

Witnesses:

LEMUEL W. SERRELL,  
CHAS. H. SMITH.