T. H. PARKER.

Heating Drum.

No. 5,692.

Patented Aug. 1, 1848.

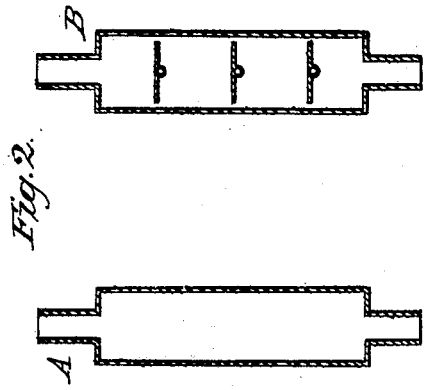

Fig. 2.

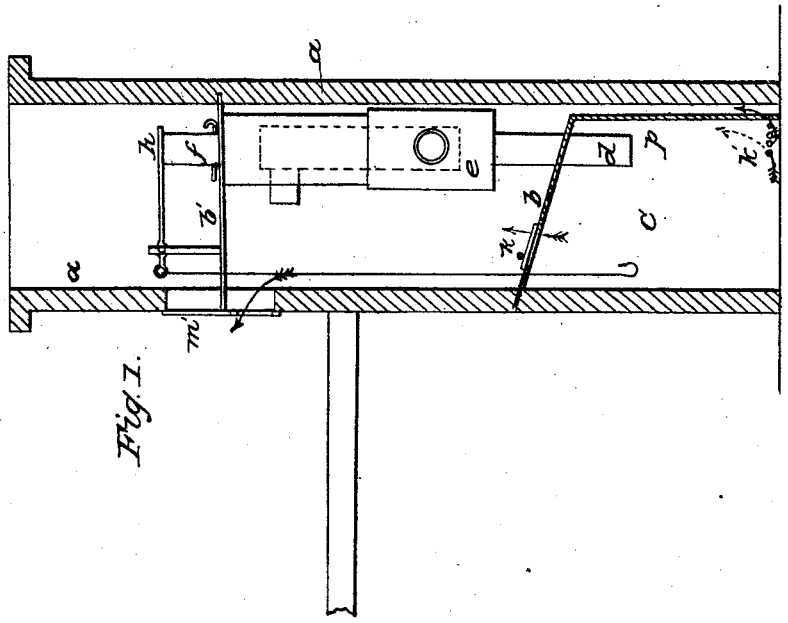

Fig. 1.

UNITED STATES PATENT OFFICE.

T. H. PARKER, OF YORK, PENNSYLVANIA.

HEATING APARTMENTS.

Specification of Letters Patent No. 5,692, dated August 1, 1848.

To all whom it may concern:

Be it known that I, T. H. PARKER, of York, in the county of York and State of Pennsylvania, have invented certain new and useful Improvements in Heating Several Rooms by One Fire, and that the following is a full, clear, and exact description of the principle or character which distinguishes them from all other things before known and of the usual manner of making, modifying, and using the same, reference being had to the accompanying drawings, which form a part hereof, in which—

Figure 1 is a side elevation showing the flue in section. Fig. 2 shows the drums detached.

The nature of my improvements consist in placing within an ordinary chimney stack, a drum or enlarged stove-pipe between two partitions that are placed across the flue and form a chamber therein, which I use as a hot air chamber—and through which the products of combustion from the fire pass within the drum above named by which more than one room can be heated by the same stove, and no projection made into the rooms more than is required by the ordinary chimney stack, while the draft is materially improved, and a radical cure for smoky chimneys is thus effected; thus I obtain all the advantages of a furnace for heating buildings within a limited range, without the great expense attendant thereon, and without disfiguring any portion of a common house, already built, and by which I greatly economize fuel.

The construction is as follows:—In an ordinary chimney flue (*a*, *a*,) Fig. 1, two partitions are placed; the lower one (*b*) is fitted into the fire place in the room where the fire is to be made, and completely cuts off the flue at that point, with the exceptions hereafter mentioned. Within this recess, or fireplace, (*c*) a stove (not shown in this drawing) is to be placed, which may be of any known construction. A pipe (*d*) leads from said stove up through a hole in the partition (*b*) and connects with a drum (*e*) above it. This drum is situated between the partitions (*b*) and (*b'*) being below the latter, which extends entirely across the chimney above the floor of the room to be heated, which is situated above that where the stove is; a pipe (*f*) from the drum (*e*) extends up through the partition (*b'*) and opens into the chimney flue. I place a damper (*h*) upon the top of the pipe (*f*) which can be opened or closed by a wire (*i*) from below for the purpose of shutting in the heat within the drum and at the same time checking the draft in the stove, and consequently reducing the consumption of fuel, while any heat that escapes from the fires shall be retained within the hot air chamber. There are two, more or less, openings (*k*) in the partition (*b*) through which air can be admitted, from the room in which the stove is situated, to the hot air chamber, formed between said partition and that lettered (*b'*). These openings can be regulated by dampers of any ordinary construction.

In order more perfectly to economize fuel, instead of extending the partition (*b*) out to the brick work at the back and sides of the fire place I leave a space between them, and from the back and side edges of said portion I extend down a plate of metal (*p*) to the hearth, leaving an air space all around between the back and sides of the fire place, which forms an extension downward of the air chamber, and serves more effectually to heat the air therein contained, and prevents loss of heat by radiation backward, to create a circulation within this space, and thereby keep the air pure within the chamber. I perforate the plate (*p*) near the bottom, with holes (*k'*) which admit air from the lower room up into the air chamber. The air within the hot air chamber is drawn from it through any opening (*m*) near the top, into such room or rooms as are adjacent thereto. The exit of the air from this point it is obvious can be regulated by a register. Two doors should be made into the chimney; one (*m*) above the partition (*b'*), and one (*m*) below it, these are for the purpose of getting at the apparatus, to clean or repair it, in the lower door (*m*) the hot air register may be situated, as is the case in the drawing.

The drum (*e*) may be a plain hollow cylinder, as shown at A, Fig. 2 or it may have partitions in it, with a space all around them, so as to throw the heat to the outside, as shown at B. Fig. 2. A third modification is shown at Fig. 1 where there is an inclosed cylinder within the drum, designated by red lines, having an opening into the air chamber through the side of the drum at top and bottom.

An apparatus thus fixed will warm two or more rooms sufficiently with no greater expenditure of fuel than is ordinarily used in a stove, and all the heat may be saved that now passes off in the flue, while at the same time there is no disfigurement of the building; and it can be applied to any ordinary chimney already built at a comparatively small cost.

Having thus fully discribed my improvements, what I claim therein as new, and for which I desire Letters Patent, is—

1. Placing a drum within a common chimney substantially in the manner and for the purpose described—that is to say, by forming an air chamber in the flue by means of the partitions (*b*, *b'*) between which the drum is situated, said parts being combined and arranged as herein set forth.

2. I also claim, in combination with said drum and hot air chamber, the valve (*h*) for the purpose of economizing heat, as above specified.

T. H. PARKER.

Witnesses:
J. J. GREENOUGH,
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