

COTTINGHAM & STAFFORD.

Heating Stove.

No. 112,555.

Patented Mar. 14, 1871.

Fig. 1.

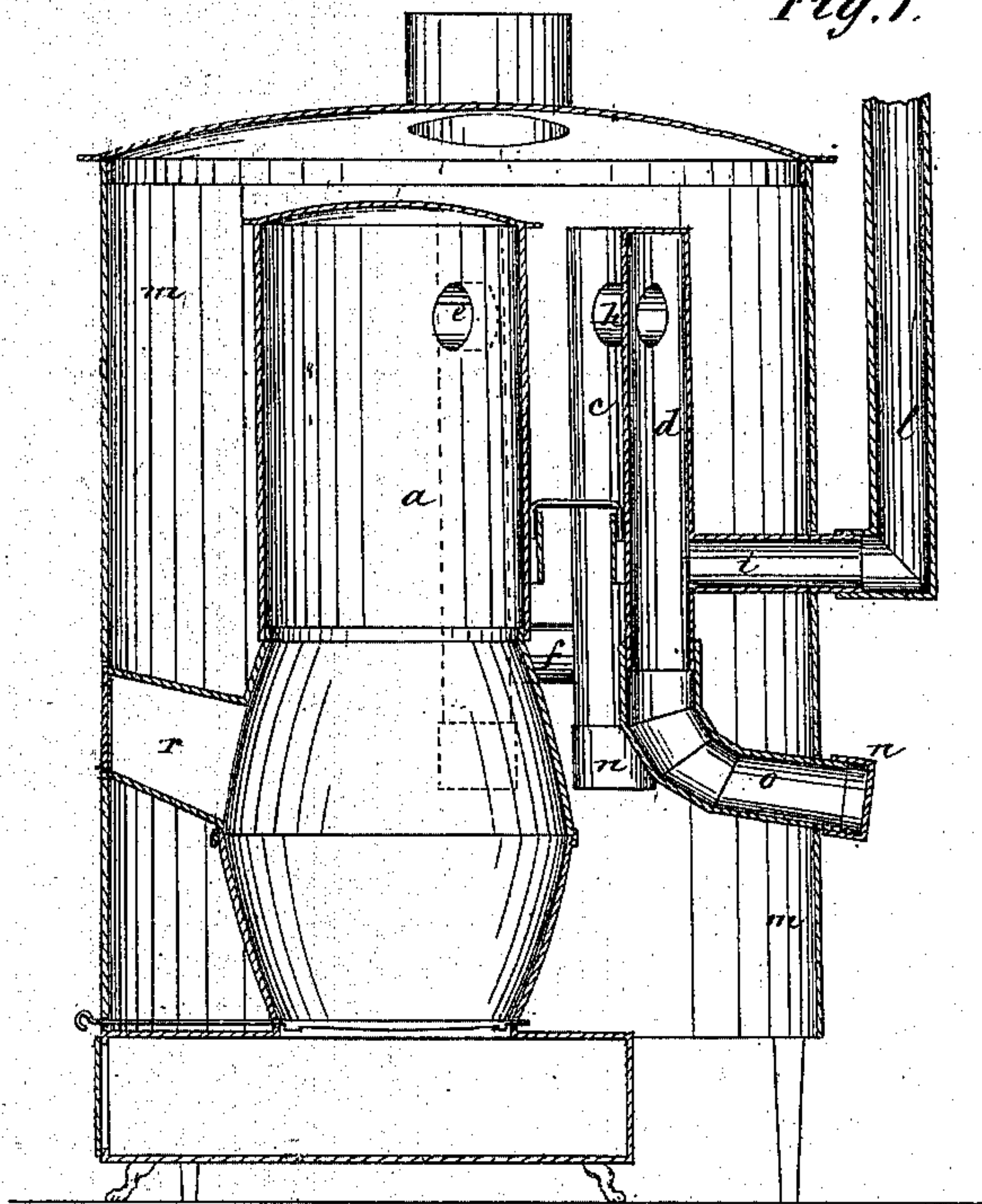
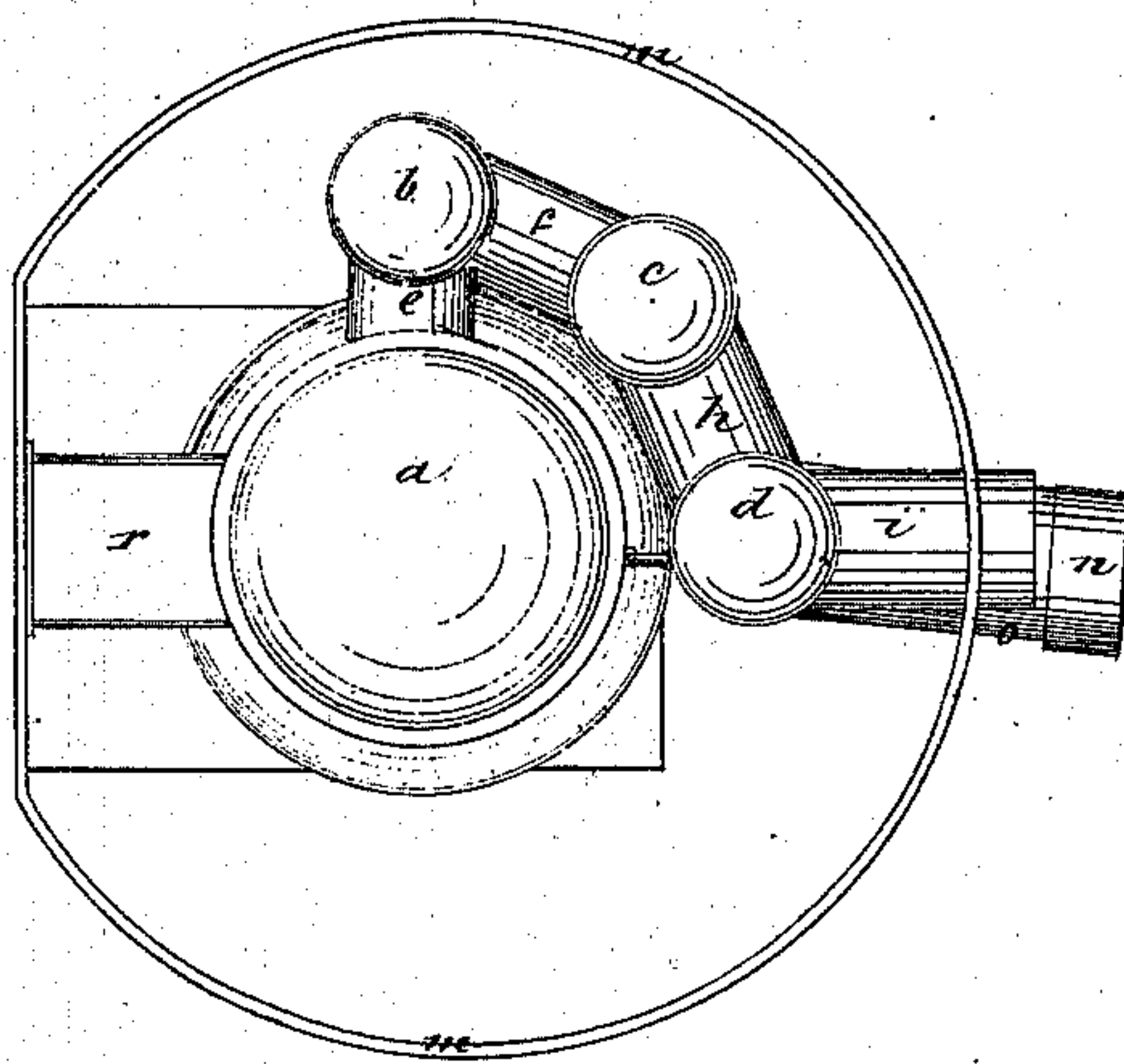


Fig. 2.



Witnesses:

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WILLIAM COTTINGHAM AND JOHN W. STAFFORD, OF TROY, OHIO.

Letters Patent No. 112,555, dated March 14, 1871.

IMPROVEMENT IN 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 we, WILLIAM COTTINGHAM and JOHN W. STAFFORD, of Troy, in the county of Miami and State of Ohio, have invented a new and improved Heating-Stove; and we do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making a part of this specification, in which—

Figure 1 is a sectional elevation, and

Figure 2 is a plan of the central and side drums, with the top of the jacket removed.

This invention relates to a combination of drums placed within an inclosing jacket, and provided with peculiar facilities for supplying the main drum with fuel and for cleaning the smaller side drums, the whole forming a furnace that can be made to radiate as much or as little heat as required, and is very simple and cheap.

Referring to the drawing—

a is the main drum, and

b c d are smaller side drums, placed parallel to the main drum and to each other, the first of the series, *b*, being connected with the main drum by a short pipe, *e*, placed near the top of both, through which the products of combustion escape from the larger to the smaller drum.

f is a pipe that connects the drums *b* and *c*, and is placed lower than the pipe *e*.

h is a pipe that connects the drums *c* and *d*, and is placed either higher or lower than the pipe *f*.

i is the pipe through which the products of combustion escape from the last drum of the series into the smoke-pipe *l*, outside the jacket *m*, which incloses all the drums.

By the series of small drums the smoke and gases are delayed during their passage from the main drum to the smoke-pipe, and thus made to give out more heat than as though they passed straight away. The greater the number of the side drums the greater is the quantity of heat thus saved. The number of side drums combined with any one main drum is varied according to the amount of heat desired to be produced.

The side drums are open at their lower ends, and

furnished with caps *n*, which can be taken off and put on again with ease. The caps catch the soot which naturally falls to the bottoms of the chambers, and afford a convenient means of cleaning the latter.

In case the furnace is inclosed within a brick wall, crooked elbows *o* are attached to the bottoms of the side drums, instead of the caps *n*, which elbows pass out through the jacket *m* and through the wall, and have caps *n* on their outer ends, which can be taken off so as to allow the cleaning of the drums without getting inside the wall.

The elbows *o* may be made to project from the drums in any direction, so as to accommodate the shape of the wall.

The feed-collar *r*, whose inner end opens into the main drum at the door, and whose outer end opens through the jacket *m*, is inclined downward, as shown in fig. 1. This arrangement not only facilitates the throwing of fuel into the drum, but also renders it easier to get at the fire to rake or adjust it.

We are aware it is not, broadly, new to provide a stove or drum with a series of smaller drums arranged concentrically therewith to form an extended flue or passage for the products of combustion, for the purpose of economizing fuel, and we lay no claim to such an arrangement.

Having thus described our invention,

What we claim as new, and desire to secure by Letters Patent, is—

The improved furnace herein described, consisting of the jacket *m*, the feed-collar *r*, leading into the main drum and fire-box *a*, the concentric drums *b*, *c*, and *d*, provided with caps *n n*, and communicating with the flue *l* by means of pipe *i* and the connecting-pipes *e f h*, each of said parts being constructed and arranged as herein shown and described.

To the above specification of our improvement we have set our hands this 4th day of December, 1869.

WILLIAM COTTINGHAM.
JOHN W. STAFFORD.

Witnesses:

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