

Witnesses:  
C. O. Brown  
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# United States Patent Office.

JOHN A. PRICE, OF SCRANTON, PENNSYLVANIA.

Letters Patent No. 111,870, dated February 14, 1871.

## IMPROVEMENT IN COOKING-RANGES.

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 A. PRICE, of Scranton, in the county of Luzerne and State of Pennsylvania, have invented a new and useful Improvement in Ranges; and I do hereby declare the following to be a full, clear, and exact description of the same, reference being had to the accompanying drawing making part of this specification, in which—

Figure 1 is a longitudinal sectional elevation, and

Figures 2 and 3 are transverse sectional elevations.

This invention consists in the combination of certain of the flues of a range or stove with a chamber located below them in the base of the range, for the purpose of forming a soot-receptacle; and in the combination of such flues and chamber with a damper, forming, when closed, a partition across said chamber, and, when opened, serving to regulate the temperature of the oven, and also to facilitate the cleaning of the back flue.

Referring to the drawing—

*a* is the base of the range therein shown.

The space within the base, above the bottom *b*, I have divided, by two transverse partitions, *c* *d*, into three chambers, *e* *f* *h*, whereof the end chamber *e* is situated directly beneath the ash-pit *i*.

The middle chamber *f* is intended for a warming-closet or place in which articles of food can be placed and kept warm. Its door is to be provided with a full-sized register, which, when opened, will let out the heated air and transform the chamber into a store closet, wherein articles may be set away for protection.

The other end chamber *h* is situated beneath the vertical flues *r* that are located between the oven and the end of the range. The flues *n* and *r* all open at a common point into the chamber *h*.

Of the flues *r*, one conducts the products of combustion that flow from the fire-box over the oven downward to the connecting horizontal flue *n*, through which they pass forward beneath the oven to the front end of the other flue *n*, entering which they are led back to the other vertical flue *r*, up which they rise to the pipe that carries them to the chimney.

The office of the chamber *h* is to arrest and detain the soot that is mingled with the smoke and gases,

and thus prevent the flues from becoming foul. That portion of the soot that is not deposited at the descent of the current, but is borne with it through the flues *n*, is almost certain to sink into the receptacle *h* when it arrives at the foot of the rear flue *r*, where the current begins its ascent.

The fouling of the flues is another of the mischiefs in the use of the ordinary range, and this the chamber *h* almost entirely prevents, and that part of the soot which it does not catch it affords a ready means of clearing from the flues, especially the back flues, which are very difficult of access in ranges of the common construction.

A damper, *s*, is placed at the middle of the chamber *h*, said damper forming a continuation of the partition *t* that separates the vertical flues *r*.

A handle, *u*, jointed to the damper *s* near its lower side, extends thence through the base and in front of the range to a suitable distance. By means of the handle *u* the damper may be raised, and when this is done the current that passes down the front flue *r* will flow under the damper directly into the rear flue *r*, without going around through the flues *n*, and will consequently communicate much less of its heat to the oven. By means of the damper *s*, therefore, the heat of the oven may be regulated at pleasure.

A similar effect is produced by opening the door of the chamber *h*, and thus admitting external air. The damper *S* has also to be raised when the chamber *h* and flues are cleared of soot.

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

1. The combination of the flues *r* with the chamber *h*, located beneath the flues in the base of the range, for the purpose of forming a soot-receptacle, as set forth.

2. The combination of the flues *r*, chamber *h*, and damper *s*, for the purpose of regulating the temperature of the oven, as explained.

3. The arrangement of the ash-chamber *e*, heating-closet *f*, and soot-receptacle *h*, within the base *a*, as specified.

Witnesses:

JOHN A. PRICE.

S. A. ARMSTRONG,  
ANDREW COWAN.