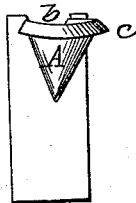


J. PEDDER.  
Heating Stove.

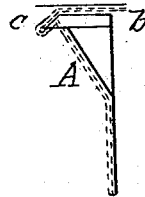
No. 4,214.

Patented Sept. 30, 1845.

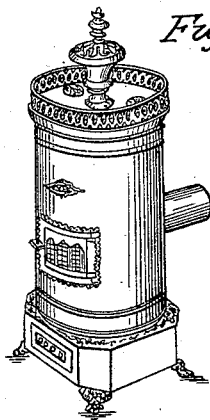
*Fig. 1*



*Fig. 2*



*Fig. 3*



*Fig. 4*



# UNITED STATES PATENT OFFICE.

JAMES PEDDER, OF PHILADELPHIA, PENNSYLVANIA.

## PARLOR-STOVE.

Specification of Letters Patent No. 4,214, dated September 30, 1845.

*To all whom it may concern:*

Be it known that I, JAMES PEDDER, of the city and county of Philadelphia and State of Pennsylvania, have invented a new and  
5 useful Smoke and Gas Consumer for Stoves on the Principle of Reverberation; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying draw-  
10 ings, in which—

Figure 1 is a perspective view of said smoke consumer; and Fig. 2 a section of the same. Fig. 3 is a view of my kind of stove, to which I contemplate affixing said appar-  
15 ratus, and Fig. 4 a vertical section thereof.

The nature of my invention consists in constructing a flange *c*, upon the upper edge of the hood or smoke muzzle or back plate A of a stove, &c., which shall incline down-  
20 ward over the fire at an angle of 45° more or less, and of a suitable width for the purpose required, both of which vary somewhat with the amount of draft and the form of the structure to which my said improvement is  
25 attached.

The hood, muzzle or back plate A, may be of any consistent form, square, round, or oval, and of any size to suit the stove; but the aperture *b* above it for the escape of  
30 smoke and the flanch *c* must be of the precise admeasurement to suit the construction of the stove and chimney, and the degree of draft afforded by it; the angle of the flanch being also determined by the  
35 same circumstances, as a feeble draft requires said flanch to be set at a more acute angle with the line of the hood than a strong draft.

The purpose of the above described im-  
40 provement is to deflect or reverberate the smoke, &c., back on to the fire, so as to per-

fectly consume all the noxious gases, and diminish the consumption of coal or wood; it also has a tendency to prevent the burning out of the fire-pot and grate, as well as the  
45 vitrification of the coal, the effect being to keep up a high temperature of heat at the top of the fire, while the lower part is comparatively cool.

This hood it is to be understood should  
50 be so placed as to project from and below the escape flue that conducts the smoke and other products of combustion from the fire chamber to cause them to reverberate over the fire there to meet the atmospheric air  
55 which enters the open front, if a fire place, or the fissures around the door, &c., if a stove, so that the combustible gases may unite with the oxygen of the atmospheric air while at a sufficiently high temperature  
60 to effect such union, which effect could not be attained if the reverberation were carried from the fire instead of toward it.

I do not claim simply the employment of a reverberator in a stove or fire place as this  
65 has heretofore been done but for a different purpose and in a different manner, and

Therefore what I claim as my improvement and desire to secure by Letters Patent, is—

The combination of a flange, or rever-  
70 berator, with the hood or muzzle of a stove under the eduction pipe or aperture and projecting in front thereof and inclining downward whether of a greater or less  
75 width, or set at a greater or less angle, substantially in the manner and for the purpose set forth.

JAMES PEDDER.

Witnesses:

D. O. PROUTY,  
J. J. GREENOUGH.