

I. A. SHEPPARD.

STOVE-GRATE.

No. 184,917.

Fig 2 Patented Nov. 28, 1876

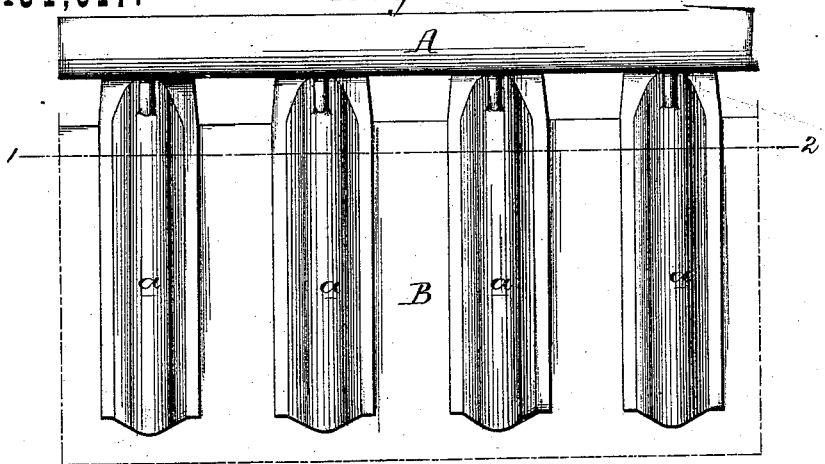


Fig 3

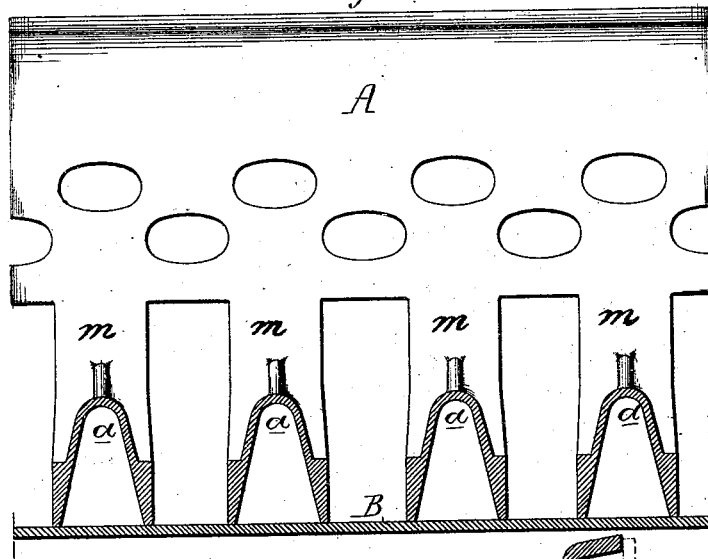
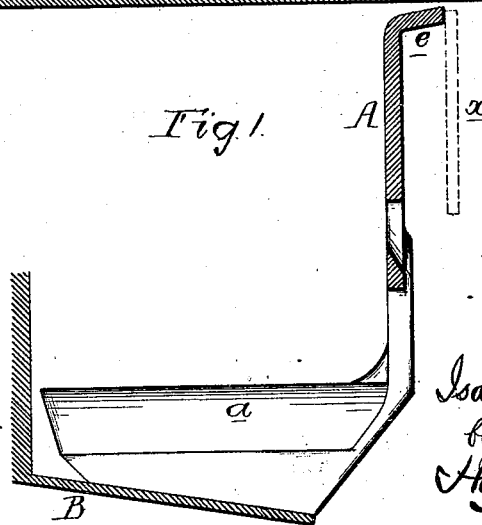


Fig 1



Witnesses
Henry Houston for
Harry Smith.

Isaac A. Sheppard
by his Attorneys
Houston and son

UNITED STATES PATENT OFFICE.

ISAAC A. SHEPPARD, OF PHILADELPHIA, PENNSYLVANIA.

IMPROVEMENT IN STOVE-GRATES.

Specification forming part of Letters Patent No. **184,917**, dated November 28, 1876; application filed October 5, 1876.

To all whom it may concern:

Be it known that I, ISAAC A. SHEPPARD, of Philadelphia, Pennsylvania, have invented an Improved Grate for Wood-Burning Stoves, of which the following is a specification:

My invention relates to that class of cooking and heating stoves in which wood is used as fuel; and the object of my invention is to prevent the rapid destruction of the grate-bars in stoves of this class.

In the accompanying drawing, Figure 1 is a vertical section of my improved grate for wood-burning cooking-stoves; Fig. 2, a plan view, and Fig. 3 a transverse section on the line 1 2.

A represents the front plate, *a a* the bars cast to the plate A, and B the bottom plate of the fire-place, the usual doors (indicated by the dotted line *x*) bearing against the flange *e*.

It has been a common practice to arrange the bottom plate B at a short distance from the under edges of the bars, the consequence of which is, that particles of the ignited fuel gain access to the space beneath the bars, where, under the influence of strong currents of air necessarily introduced for supporting the combustion of fuel, the particles become sufficiently hot to cause the rapid destruction of the said bars.

To obviate this difficulty hollow bars, resting on the bottom plate of the fire-place, have been adopted, as in the patent of M. L. Horton, No. 24,559, June 28, 1859, air passing into the bars from below, and escaping into the flue of the stove.

My invention is based on this plan, and

consists in casting the hollow bars on the vertical bars of the front grate, so as to form part of the same.

The front plate A has the usual vertical bars *m*, and on the latter are cast the horizontal or nearly horizontal bars *a*, which are recessed on the under side, so as to form, with the bottom plate B of the stove, channels open at the front and at the rear for the free passage of air.

The hollow bars are of the same width as the vertical bars, so that the former can offer no impediment to the free raking of the ashes from between the latter.

By making the hollow bars continuations of the vertical bars *m*, and casting the whole in one piece, simplicity and economy of construction are insured.

For reasons above given I do not desire to claim, broadly, the combination of the bottom plate of a stove with recessed bars resting on the plate; but

I claim as my invention—

The combination of the front plate A and its vertical bars *m* with the hollow bars *a*, the latter forming continuations of the said bars *m*, and the whole being cast in one piece and adapted to a wood-burning stove, as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ISAAC A. SHEPPARD.

Witnesses:

HENRY HOWSON, Jr.,
HARRY SMITH.