

(No Model.)

W. MILLER.
GRATE OR LINING FOR STOVES.

No. 466,504.

Patented Jan. 5, 1892.

FIG. 1.

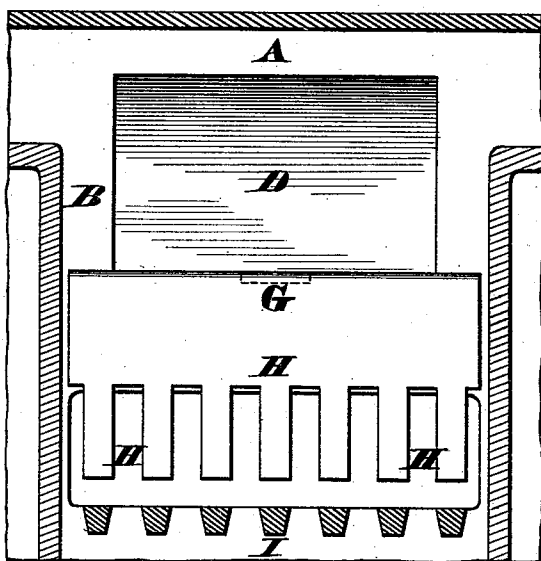


FIG. 2.

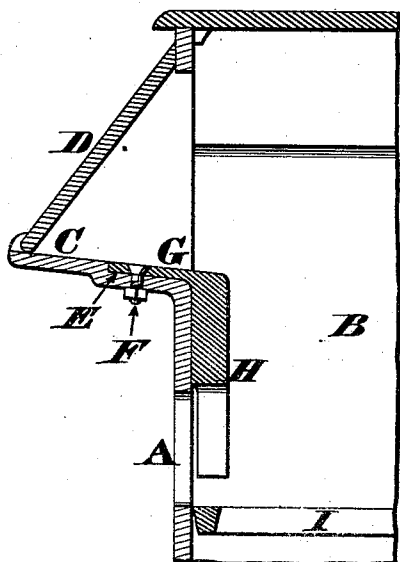


FIG. 3.

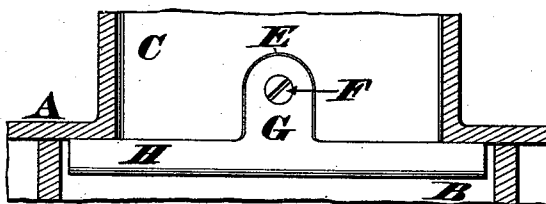
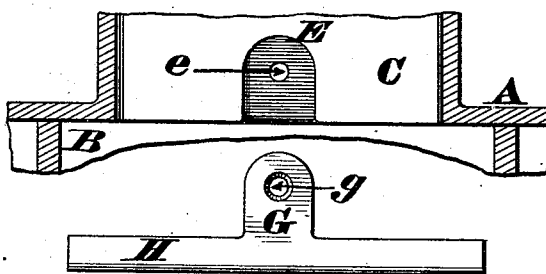


FIG. 4.



Attest,

Arthur Moore
Samuel M. Loring

Inventor.
William Miller.
By James H. Layman.
Atty.

UNITED STATES PATENT OFFICE.

WILLIAM MILLER, OF CINCINNATI, OHIO.

GRATE OR LINING FOR STOVES.

SPECIFICATION forming part of Letters Patent No. 466,504, dated January 5, 1892.

Application filed April 6, 1891. Serial No. 387,811. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM MILLER, a citizen of the United States, residing at Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Grates or Linings for Stoves, Ranges, &c.; and I do hereby declare the following to be a full, clear, and exact description of the invention, reference being had to the annexed drawings, which form part of this specification.

My invention comprises a special construction of pendent grate or lining to be inserted within the fire-box of a stove or range or other heating or cooking apparatus. This grate or lining is a single casting and is secured to the fire-box or supporting-frame wholly by a top attachment consisting of a lateral projection or lug that enters a socket of said box or frame and is fastened therein by a screw or bolt or rivet. Furthermore, the lower edge and opposite ends of the lining are out of contact, respectively, with the bottom grate and side plates of the fire-box, thus leaving said pendent lining at liberty to expand freely in three directions—to wit, laterally, longitudinally, and vertically—as herein after more fully described.

In the annexed drawings, Figure 1 is a transverse section of the fire-box of a range provided with my improved grate. Fig. 2 is a vertical section of the same. Fig. 3 is a horizontal section of the fire-box, taken directly above the grate. Fig. 4 is a plan of the grate and its supporting-frame, the grate being detached from the latter.

A represents a portion of the front plate of the fire-box B of a stove or range or furnace or other cooking or heating apparatus, and C is a projecting part or frame of said plate, to which the fire-door D is hinged or otherwise applied. This projecting plate or frame C has a socket E, pierced at *e* to admit a screw or bolt or rivet F, which fastener also traverses a perforation *g* of a lug G, that is usually integral with the end grate or lining H, the latter being a single cast-

ing, whose length is somewhat less than the width of the fire-box B, as more clearly seen in Fig. 1.

I is an ordinary bottom or horizontal grate applied to the fire-box in any suitable manner that will prevent it coming in contact with the lower edge of the pendent front grate H. The lug G of grate H is seated within the socket E of the supporting frame or plate C, and after the fastener F is applied said grate is at once secured in place within the fire-box and without employing any other attachment. As the lug G and fastener F are the sole means for uniting the two members C H, and as said lug is situated at or near the mid-length of the grate, it is evident the latter, being a single casting, is free to expand in every direction. It is also evident that after expanding the grate can come back to its original shape, thereby avoiding bowing or buckling and preventing any injurious straining of the supporting-plate C, which free expansion and contraction cannot take place with those grates having a number of attachments.

The drawings show the grate applied to the end of a fire-box; but it is evident the grate can be as readily secured to the sides of a box or otherwise arranged to produce the same result—to wit, free vertical, lateral, and longitudinal expansion from the central point of attachment.

I am aware it is not new to make the linings of fire-boxes of several sections and then bolt or otherwise secure them together in their proper places; but I know of no instance where such a lining consists of a single casting that is out of contact with the side plates and bottom grate of the box and is suspended therein by a single attachment applied at or near the top of the lining. Therefore my claim is not to be construed broadly, but is expressly limited to the specific construction of grate or lining herein shown and described.

I claim as my invention—

A stove or range having a fire-box B, fuel-

door D, and projecting door-plate C, provided with a socket E, perforated at e, in combination with the lining II, consisting of a single casting having at top one outwardly-
5 projecting integral lug G, perforated at g, which lug rests within said socket and is secured in place by a fastener F, the arrangement of these parts being such as to keep said lining entirely out of contact with the side

plates, bottom grate, and front of said fire- 10
box, all as herein described

In testimony whereof I affix my signature in presence of two witnesses.

WILLIAM MILLER.

Witnesses:

JAMES H. LAYMAN,
SAMUEL M. QUINN.