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Patented July 18, 1911.

2 SHEETS--SHEET 1.



by

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STOVE.

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2 SHEETS—SHEET 2.

FIG. 7.

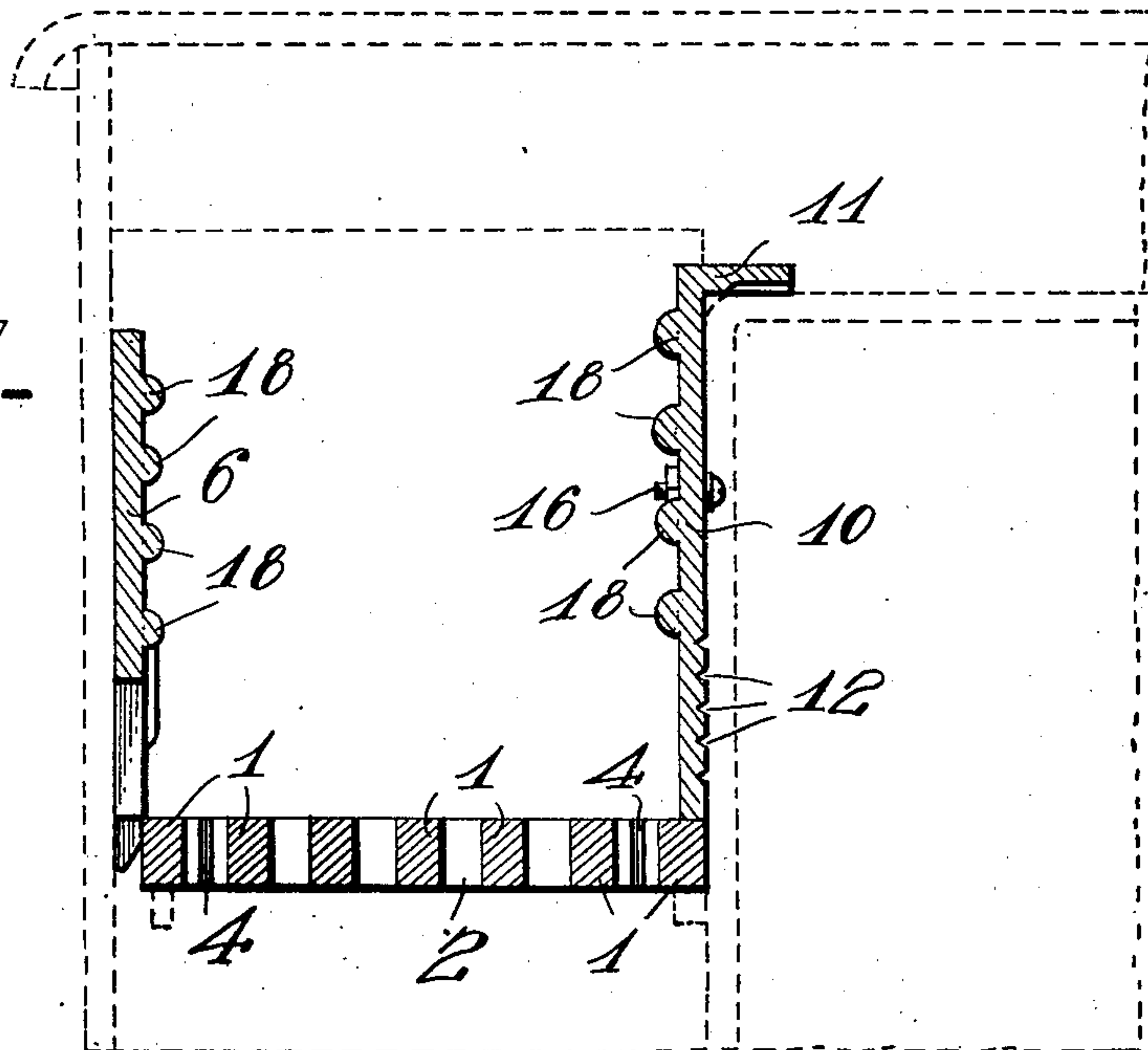
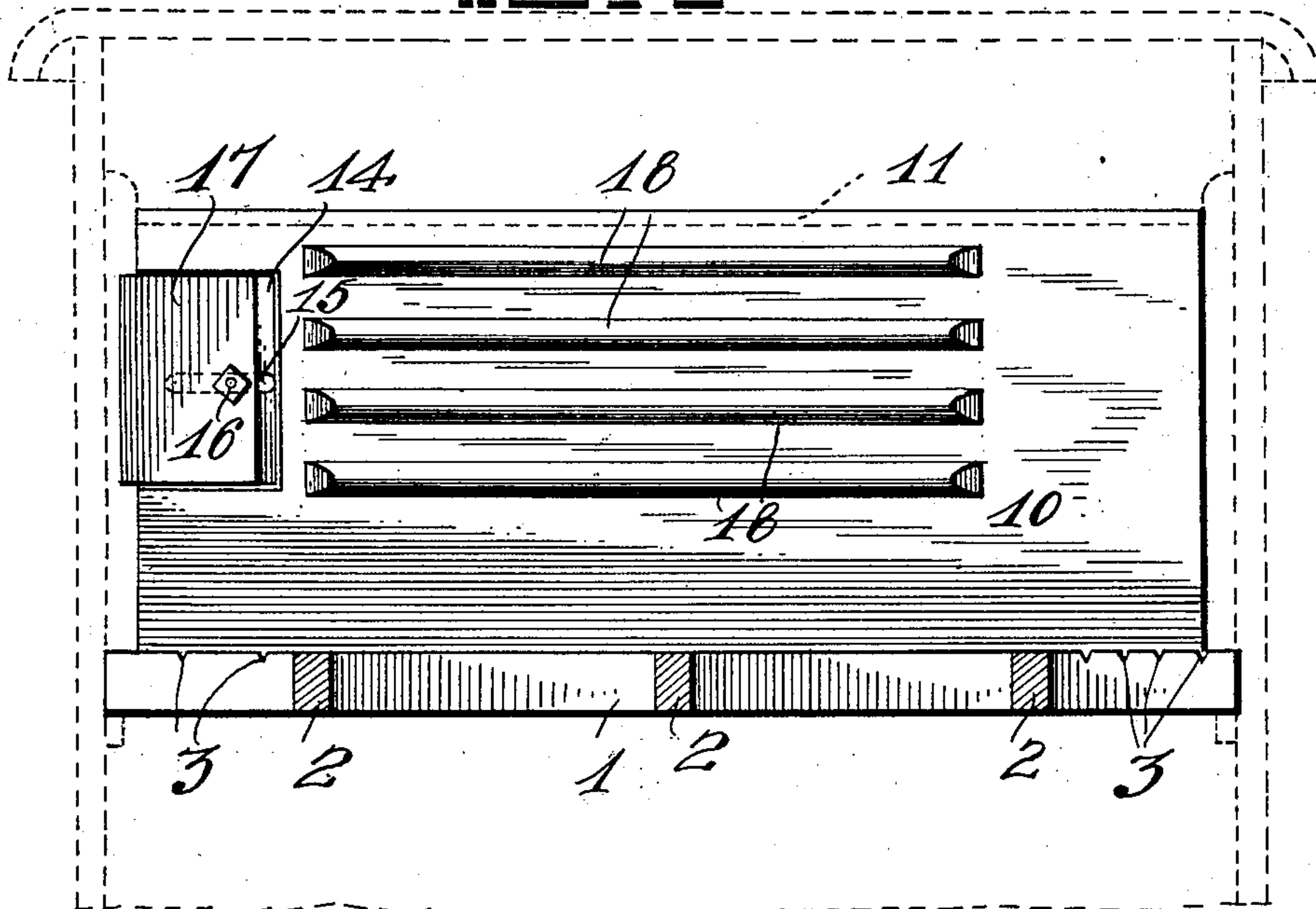


FIG. 8.



Witnesses
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UNITED STATES PATENT OFFICE.

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STOVE.

998,121.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that we, DANIEL J. ROGERS and STUART A. DAY, citizens of the United States, residing at Staunton, in the county of Augusta and State of Virginia, have invented certain new and useful Improvements in Stoves; and we do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

Our invention relates to stoves and particularly to the construction of the front and bottom grates and the fire back.

The principal object of the invention is the production of a grate or fire back having means whereby it may be reduced in size longitudinally or transversely or both whereby either one of these parts may be made to fit stoves having different sized fire boxes.

A further object of the invention is to provide means whereby the expansion and contraction of the fire back may be accommodated without damaging the plate by bulging, as frequently occurs when the fire is extremely hot.

With the foregoing and other objects in view, the invention consists of certain novel features of construction, combination and arrangement of parts as will be more fully described and particularly pointed out in the appended claim.

In the accompanying drawings, Figure 1 is a top plan view of the bottom grate; Fig. 2 is a detail side elevation thereof; Fig. 3 is a front elevation of the upper or front grate; Fig. 4 is a front elevation of the fire back; Fig. 5 is a detail rear elevation thereof; Fig. 6 is a detail vertical section on the line 6-6 of Fig. 4. Fig. 7 is a transverse section of the grate with the parts assembled. Fig. 8 is a longitudinal section of the same.

Referring more especially to the drawing, we have shown a bottom grate composed of longitudinal bars 1 and cross bars 2, which are integrally connected therewith and, as usual, the grate is made of a single casting. The ends of the longitudinal bars extend considerably beyond the end cross bars 2 and are provided with transverse notches 3, which weaken the ends and provide spaces whereby a cold chisel may be used to cut the bars off to the desired length. Between the first two longitudinal bars on either side,

the cross bar is notched at 4 and each outside longitudinal bar is notched, as at 5, for a similar purpose. In this manner the grate may be reduced in size so that it will fit any fire box and will be reversible therein having no revolving pintles on its end to prevent the adjustment mentioned.

The front grate is shown at 6 and at each end is provided with longitudinal notches 8 and transverse notches 9, whereby the depth and length of this member may be adjusted as described for the bottom grate. The back is shown at 10, and is provided with a lateral flange 11 on its upper side which will overhang the oven of the ordinary cook stove. The back of this member is provided with longitudinal notches 12 and transverse notches 13 for the purpose described for the bottom grate. The longitudinal notches are spaced from the bottom of the back and the transverse notches are arranged at one end only and extend throughout the overhanging flange in continuation of the transverse notches on the bottom.

At the opposite end of the back, we provide a recessed seat 14 intermediate the width of which we provide a longitudinal slot 15 adapted to receive a securing bolt 16, whereby an extension plate 17 may be secured in the seat and project beyond the end of the back, if necessary. In operation, the back is cut off to the required degree to properly fit the stove and the extension plate is applied to the seat and engaged behind the lug on the stove, so that disengagement is permitted. This plate is preferably made out of some thin sheet material such as steel, which will have sufficient flexibility to compensate for the expansion and contraction of the back 10, so that, when the latter is acted upon by the heat, the plate 17 will flex and thereby prevent the bulging of the back 10.

Each of the members 6 and 10 are provided with ribs 18 on their face which prevent the coal from crowding in the fire box and thus afford a means whereby the draft through the stove can be properly maintained.

From the foregoing description taken in connection with the accompanying drawings, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Having thus described our invention, what we claim is:—

5 A structure of the character described comprising a bottom grate with longitudinal and transverse cross bars each having breakable oppositely disposed end portions, a front grate provided with intersecting longitudinal and transverse breakable end portions to adapt it for adjustment to fit the
10 bottom grate, a solid back plate having an overhanging flange to connect with the oven of a stove, said back plate being also provided with continuous longitudinal breakable portions having intersecting trans-
15 verse breakable portions at one end thereof, and having at its other end an enlarged transverse recessed seat formed therein provided with a longitudinal slot, an exten-

sion plate having inclined edges slidably mounted in said recessed seat and flush with 20 the surface of the back plate, a bolt inserted through the slot and extension plate so as to adjust the extension plate longitudinally of the back plate, said extension plate being longer than the recess so as to project there- 25 from, and said back plate having ribs on its outer face.

In testimony whereof we have hereunto set our hands in presence of two subscribing witnesses.

DANIEL J. ROGERS.
STUART A. DAY.

Witnesses:

NEWTON ARGENBRIGHT,
H. ARGENBRIGHT.

Copies of this patent may be obtained for five cents each, by addressing the "Commissioner of Patents, Washington, D. C."
