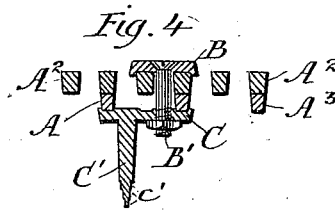
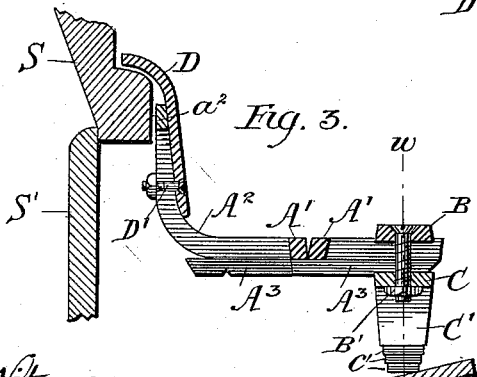
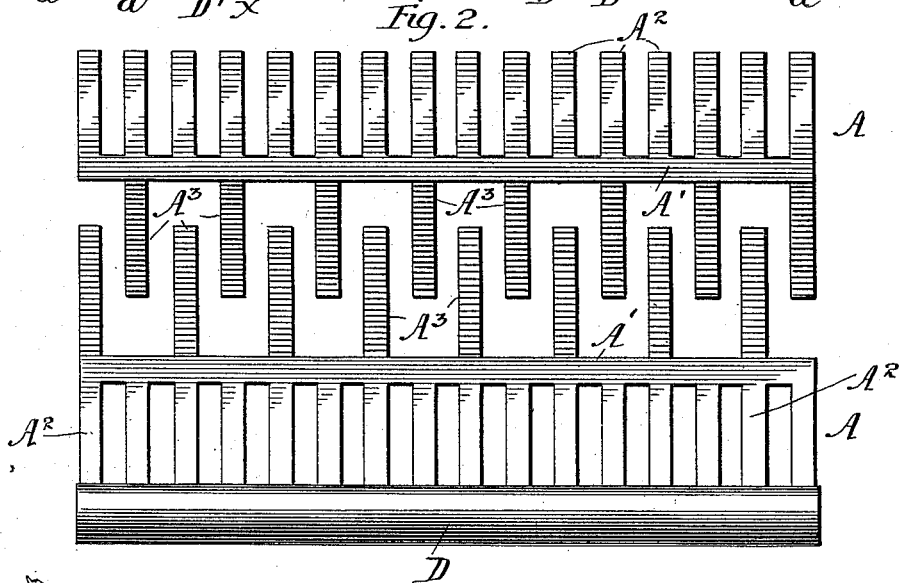
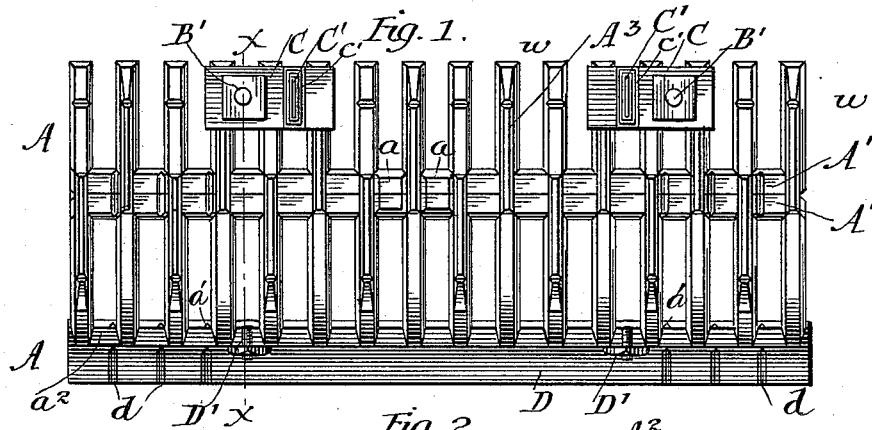


(No Model.)

W. C. METZNER.
STOVE GRATE.

No. 418,848.

Patented Jan. 7, 1890.



Witnesses:
Ambrose Rindon S^r W
J. L. Stevens.

Inventor:
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by Cyrus K. & Co
Attys.

UNITED STATES PATENT OFFICE.

WILLIAM C. METZNER, OF CHICAGO, ILLINOIS.

STOVE-GRATE.

SPECIFICATION forming part of Letters Patent No. 418,848, dated January 7, 1890.

Original application filed December 19, 1888, Serial No. 294,097. Divided and this application filed July 5, 1889. Serial No. 316,554. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM C. METZNER, a citizen of the United States, residing at Chicago, in the county of Cook and State of Illinois, have invented certain new and useful Improvements in Stove-Grates; and I do hereby 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, reference being had to the accompanying drawings, and to letters of reference marked thereon, which form a part of this specification.

This invention relates to stove-grates made of overlapping adjustable sections, whereby the dimensions of the grate may be varied, and the subject-matter of this application is taken, as a division, from an application for Letters Patent filed by me December 19, 1888, Serial No. 294,097. The grate herein shown is a stationary grate to be placed in the fire-pot of cook-stoves and having at its front an upward extension.

In the accompanying drawings, Figure 1 is a bottom view of a grate embodying my invention. Fig. 2 is a top view of the section of the grate shown in Fig. 1, the sections being separated. Fig. 3 is a section in line *xx* of Fig. 1, the grate being right side up and in its relation to the front wall and bottom of the fire-chamber. Fig. 4 is a section in line *ww* of Fig. 3, the grate being right side up.

A A in the several figures are the sections of the grate. Each such section has a longitudinal mid-rib *A'*. On the outer side of each such mid-rib there is a series of transverse ribs *A²*, and on the inner side of such mid-rib there is a series of transverse ribs *A³*, one standing opposite every alternate rib *A²*, and the ribs *A³* of one section alternating in spacing with those on the other section, as shown in Fig. 3. These ribs *A³* are all set downward far enough to bring their upper faces even, horizontally, with the lower faces of the ribs *A²* and mid-rib *A'*. The ribs *A³* of one section may, therefore, extend between the mid-ribs *A'* and ribs *A²* of the other section. The said sections may be moved back and forth upon each other for adjustment for the width of the grate, and said sections may

be secured firmly together in any manner. The rear of the grate is supported on two feet, and in front the grate is extended upward and rests against the front wall of the fire-pot. A cap *B* lies upon the upper surface of the ribs *A²* of the rear section *A* near each corner of the grate, and a bolt *B'* extends through said cap *B* between the ribs *A²* and *A³* and through a plate *C*, applied to the lower side of said ribs below the plate *B*, and from the bottom of which projects a foot *C'*. Said bolt when tightened draws said cap and plate together, and the sections *A* are thus bound to each other and the grate is made a firm body. Said caps, bolts, and plates may, obviously, be placed wherever it is desired to have the feet *C'*. The lower ends of said feet may be provided with breaking-grooves *c'*. At the front the ribs *A²* are extended forward and upward and united by a transverse web *a²*, and said web is provided with breaking-notches *a'* to correspond with similar breaking-notches on the mid-ribs *A'*. A curved face-plate *D* is applied to the inner face of the upward extensions of the ribs *A²* by means of bolts *D'*, passing through said plate and between said ribs, the heads or the nuts of the bolts engaging said ribs *A²*. Said bolts may be moved up or down between said ribs to raise or lower said plate to fit it to the fire-pot. Said plate *D* may also have breaking-notches *d* at its ends.

S, Fig. 3, is a portion of the front wall of the fire-pot.

S' is a portion of the door-opening in front of the lower portion of the grate.

S² is a portion of the bottom of the fire-chamber. Said figure shows how the grate is supported. At the rear the foot *C'* rests upon the floor S² and supports the rear portion of the grate. At the front the face-plate *D* forms a support for the grate. Said plate rests against the front wall *S*, as shown by the figure. From an inspection of said figure it will appear that both these supports of the grate are adjustable and that the body of the grate is also adjustable as to width. In placing the grate into position in the fire-pot these three adjustments may be used.

Breaking-grooves have been heretofore used

in stove parts; hence I do not lay claim to the same broadly.

I claim as my invention—

1. In an adjustable stove-grate, the combination of the sections A A, each having on the side adjacent to the other the ribs A³, said ribs of one section alternating in spacing with those on the other section and extending beneath the other section, and one of said sections being extended forward and upward, feet for supporting the rear of said grate, and bolts for securing said feet and sections to each other, substantially as shown and described.

2. In a stove-grate, the combination of two horizontally-adjustable grate-sections constituting the main portion of the grate, adjustable feet forming an adjustable support at the rear of the grate, and an adjustable face-plate at the front of the grate for the support

of the front of the latter, substantially as shown and described.

3. In an adjustable stove-grate, the combination of the sections A A, each having on the side adjacent to the other the ribs A³, said ribs of one section alternating in spacing with those on the other section and extending beneath the other section, bolts to secure said sections to each other, one of said sections having an upward extension, and a face-plate bolted adjustably to the upper portion of said upward extension, substantially as shown and described.

In testimony whereof I affix my signature, in presence of two witnesses, this 21st day of June, in the year 1889.

WILLIAM C. METZNER.

Witnesses:

EDWARD J. HRDLICKA,

FRANK L. STEVENS.