

(No Model.)

E. WEISS.
GRATE FOR STOVES OR RANGES.

No. 586,886.

Patented July 20, 1897.

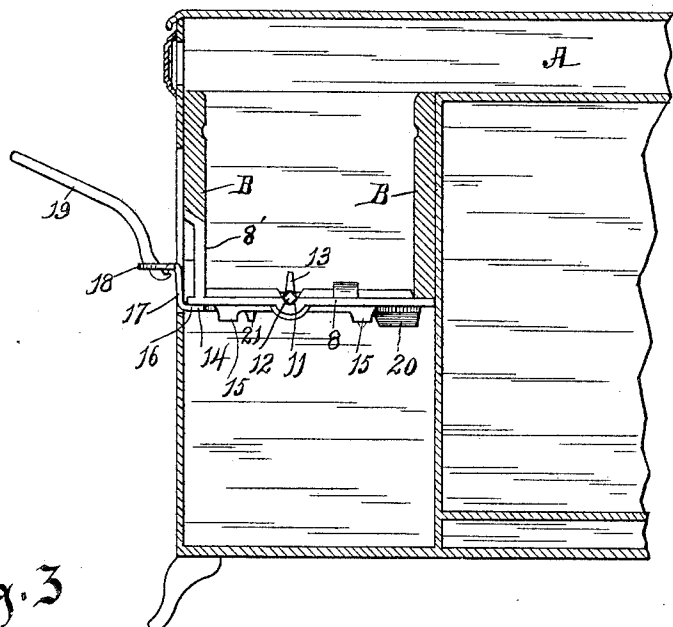


Fig. 1.

Fig. 3.

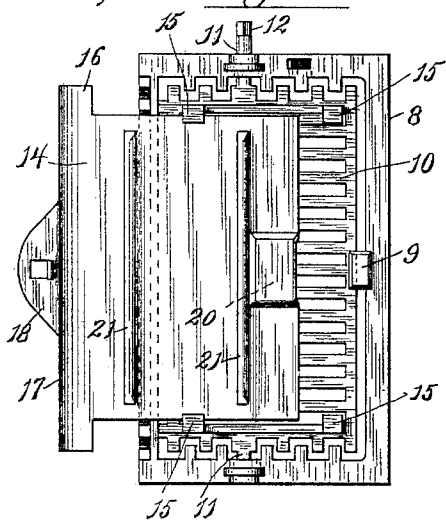


Fig. 2.

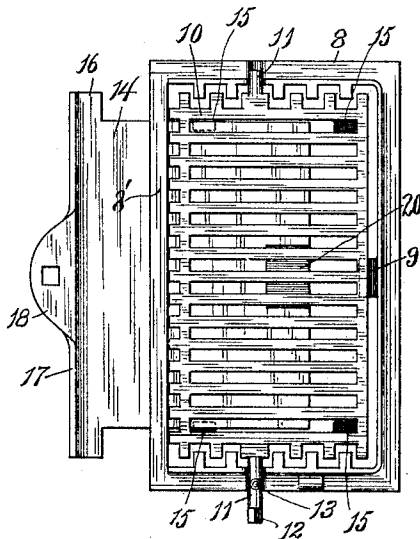


Fig. 4.



Fig. 5.

Witnesses.

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UNITED STATES PATENT OFFICE.

ENGELBERT WEISS, OF MILWAUKEE, WISCONSIN, ASSIGNOR OF ONE-HALF
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GRATE FOR STOVES OR RANGES.

SPECIFICATION forming part of Letters Patent No. 586,886, dated July 20, 1897.

Application filed March 5, 1897. Serial No. 626,049. (No model.)

To all whom it may concern:

Be it known that I, ENGELBERT WEISS, of Milwaukee, in the county of Milwaukee and State of Wisconsin, have invented a new and useful Improvement in Grates for Stoves or Ranges, of which the following is a description, reference being had to the accompanying drawings, which are a part of this specification.

My invention relates to a grate so constructed as to be adapted for use for burning either coal or wood thereon.

The object is to provide a simple, strong, and enduring grate that can be easily operated and readily transformed from a suitable coal-burning grate to a wood-burning grate.

The invention consists of the devices and combinations of devices, as hereinafter described and claimed, or their equivalents.

In the drawings, Figure 1 is a section of a fragment of an ordinary cooking-stove having my improved grate applied thereto, so as to be used in connection therewith. Fig. 2 is a top plan view of my improved grate, the parts being partially separated for convenience of illustration. Fig. 3 is an under side view of my improved grate, the parts being partially separated in the same manner as in Fig. 2. Fig. 4 is a rear edge view of the coal-burning grate. Fig. 5 is a transverse section of the auxiliary grate-bottom used for adapting the grate for burning wood.

In the drawings, A is a section of a fragment of an ordinary cooking-stove with which my improved grate may be used. When used with a stove of this character, the grate is located at the bottom of the fire-box, and fire-bricks B B are used to line the sides and ends of the fire-box above the grate with reference to using the grate for burning coal thereon.

For supporting the movable parts of the grate a frame 8 of suitable form and size is provided, which frame fits into and rests on suitable supports in the stove at the bottom of the fire-box. This frame has a central opening and is provided at its respective ends with journal-bearings and at one side with a ledge 9, adapted to support one side of the movable grated or barred member of the grate thereon. Also, the front of this frame 8 is turned and carried upwardly a distance, forming a

front or guard 8', the lower edge of which is advisably toothed or grated to correspond with the grating of the member 10, herein-after described.

A tiltable and reciprocable barred or grated member 10 is provided with trunnions or journals 11 11 at its respective ends, which journals are located opposite each other in a straight axial line a little at one side of the longitudinal center of the grated member, which journals rest and are movable revolvably and endwise in the bearings therefor in the top surface of the frame 8.

The rear edge of the member 10, which is the edge of the major part of the grated member as divided by the axis of the journals, rests on the ledge 9. This construction adapts the member for being tilted downwardly at its front and for being reciprocated endwise limitedly, the grated member being located within the central aperture of the frame 8 and being of such less length than the aperture as to permit of its movement endwise limitedly. One of the journals 11 is of sufficient length to project through the stove and is squared or faced at 12 to receive thereon a handle for tilting it. This journal is also provided with a laterally-projecting stud or pin 13, adapted to take a handle thereon for reciprocating it endwise. This barred or grated member is adapted for burning coal thereon in the stove, but for burning wood a less open or entirely closed bottom is desirable for the fire-box.

To adapt the grate more satisfactorily for use for burning wood thereon, I provide an auxiliary member 14, consisting of a closed or non-open sheet-metal plate fitted to the under surface of the grated member 10 and supported and slidable on lugs 15, integral with the member 10. This member 14 is of such size and form as to close the apertures through the grated member 10 when it is in place beneath that member. This member 14 is preferably extended near the front laterally at 16 16, and the front margin of the member 14 is turned up at 17, thereby adapting the portions 16 and 17 to cover and close apertures along the front edge of the grated member 10 and along the lower edge of the upturned portion 8' of the frame. The mem-

ber 14 is also provided with a lip 18, having an aperture therein adapted to receive a handle 19 for inserting the member 14 in the grate and withdrawing it therefrom. The member 14 is also provided with a depression or recess 20, adapted to receive and inclose the ledge 9 when the member 14 is in place. Also, there are strengthening-ribs 21 21, advantageously formed on the bottom of the plate member 14.

A door-opening in the front of the stove provides for inserting the member 14 and withdrawing it when desired. This tight or plate member 14 when inserted in the grate forms a substantially closed or tight bottom to the fire-box, thus adapting it for burning wood thereon. In starting a wood fire the plate member 14 can be pulled out slightly, the stove-door being open therefor, thus providing draft-apertures above the member 14 along the front lower edge of the fire-box.

In the use of my invention for burning coal it will be understood that the plate member 14 is dispensed with entirely. When, however, it is desired to burn wood, the coal-grate is first tilted in the usual manner, so as to dump the coal and ashes, and then the plate member 14 is slid into place. The wood is then deposited on the grate, and in order to afford an initial draft after the fire has been ignited the plate member 14 is pulled out slightly. After the fire is well under way said member 14 can then be pushed into its normal fully-closed position.

What I claim as my invention is—

1. In a stove or furnace grate, the combination, of a frame, provided at its outer edge with a grated guard, consisting of an up-

wardly-turned portion, a grated member mounted on the frame, and a non-grated member adjustably supported with respect to the grated member, so as to close or open the apertures of the grated member, said non-grated member provided at its outer edge with an upwardly-turned portion disposed in front of the upwardly-extending grated guard of the frame.

2. In a stove or furnace grate, the combination, of a frame provided at its outer edge with a grated guard, consisting of an upwardly-turned portion, a grated or open member mounted on the frame, and a non-grated member adjustably supported with respect to the grated member so as to close or open the apertures of the grated member, the non-grated member provided at its outer edge with an upwardly-turned portion formed or provided with a forwardly-extending lip, said upwardly-turned portion disposed in front of the upwardly-extending grated guard of the frame.

3. In a stove or furnace grate, the combination with a frame, of a tiltable and reciprocable open or grated member mounted on the frame and provided with lugs or ways on its under side, and a non-grated or tight plate member fitted to and slidable on said ways under the grated member and adapted to be removed therefrom at one side when desired.

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

ENGELBERT WEISS.

Witnesses:

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