

UNITED STATES PATENT OFFICE.

ALBERT S. NEWBY, OF KANSAS CITY, MISSOURI.

GRATE FOR COOK-STOVES OR RANGES.

SPECIFICATION forming part of Letters Patent No. 474,502, dated May 10, 1892.

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To all whom it may concern:

Be it known that I, ALBERT S. NEWBY, a citizen of the United States, residing at Kansas City, in the county of Jackson and State of Missouri, have invented certain new and useful Improvements in Grates for Cook-Stoves and Ranges; and I do hereby declare the following to be a full, clear, and exact description of the invention, which will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to the bottom grate of fire-boxes of cook-stoves and ranges; and its object is to provide for the shaking of said grate and also the ready dumping of its ashes into the ash-pit without seriously disturbing the fire and causing dust in the room.

My invention consists in a novel construction and combination of the bottom frame portion for the grate portion of the fire-box and of the bottom-grate portion, as will be hereinafter described and specifically claimed.

In the accompanying drawings, Figure 1 is a plan view of the bottom frame portion of a bottom grate for a fire-box of a stove or range, the improved bottom-grate portion being shown in dotted lines applied in connection therewith. Fig. 2 is a top view of the bottom-grate portion detached from its frame portion. Fig. 3 is a rear view of the bottom-grate portion. Fig. 4 is a section of the two portions together, the dotted lines illustrating the positions of the parts during both the shaking and the dumping operations. Fig. 5 is a section illustrating the grate portion as partially drawn out for dumping, and Fig. 6 is a section illustrating the position of the grate portion after it has been dumped.

In the drawings, A and B designate, respectively, the bottom grate and frame portions of a grate proper for the fire-box of a stove or range. The portion A may comprise the usual bars *a*, *b*^t, and *k*. On the rear corners of this portion lugs *b* are provided, and the same rest upon the side ledges, which are partly around the opening of the frame portion B, and thus prevent the grate portion A from dropping into the ash-pit when it is dumped, as will hereinafter appear. The grate portion A is further provided with lugs *b*^r on its under side, the office of which is to prevent the grate portion from being drawn

out too far and accidentally dumped during the operation of shaking it to remove the ashes only and not to dump the whole contents of the fire-box into the ash-pit. Near the front side, about central of the length of the grate portion A, a short bridge *e* is cast upon two bars *a*, the same occupying a place on top of said bars. Below this bar *e* and some distance forward of the same a broader connecting bar or plate *e*^r is cast, the same being between two of the bars *k*, and in the center of this plate a pintle for the reception of a perforated shaking-bar is provided. By this construction provision is made for the insertion of the shaking-bar when it is desired to shake or dump the grate portion A. The frame portion B of the grate is provided with lugs *c*^r, and upon the same the grate portion rests and also slides in both the shaking and the dumping operations.

The manner of operating the bottom-grate portion A is as follows: The shaking-handle (which may be an ordinary stove-cover lifter) is inserted between the bars *e* *e*^r, the hole in it admitting the pintle *f*, and the grate portion is drawn forward until the lugs *b*^r strike against the lugs *c* *c* and then is pushed back and again drawn forward, and so on, until the ashes are shaken down. When the grate portion A is to be dumped, it is drawn forward, as just stated, until the lugs *b*^r thereof come in contact with the lugs *c* *c* of the frame portion B. Then by pressure upon the handle or shaker in a downward direction and a forward pull with the handle upon the grate portion A the said grate portion will be raised and drawn forward, as illustrated in Fig. 5. By this action the lugs *b*^r are raised above and drawn over the lugs *c* *c*, and by continuing the forward movement of the grate portion A the lugs *b*^r are caused to come in contact with the lugs *c*^r, and thereupon by the withdrawal of the handle or shaker the grate portion will drop down to the position indicated in Fig. 6 and by dotted lines in Fig. 4, and in this position hang suspended by means of the lugs *b* upon the frame portion B, thus allowing all of the refuse of the fire-box to drop into the ash-pit.

What I claim as my invention is—

In a grate, a bottom-grate portion A, having lugs *b* projecting from its rear or inner end

corners upon the frame portion B of the fire-
box and having lugs *b'* projecting down-
wardly from the rear or inner corners, in com-
bination with a frame portion B, provided
5 with lugs *c c'*, projecting inwardly, upon
which said grate portion rests and upon which
it can be moved when drawn out to be

dumped, substantially as and for the purpose
set forth.

ALBERT S. NEWBY.

Witnesses:

MONROE M. CADY,
C. S. MOSELEY.