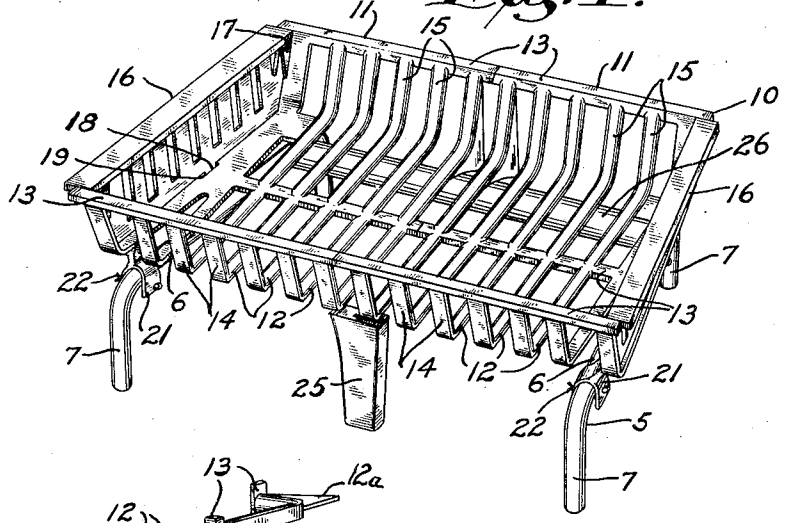
Aug. 22, 1950 H. W. KUTCHERA 2,519,482

FIREPLACE GRATE HAVING UPWARDLY SWINGABLE MEANS

Filed Jan. 22, 1949

Fig. 1.



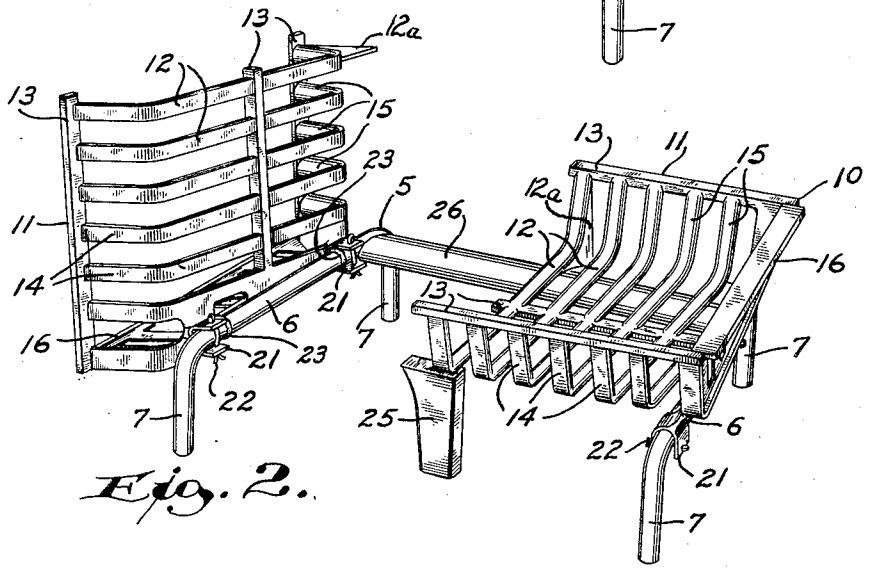


Fig. 2.

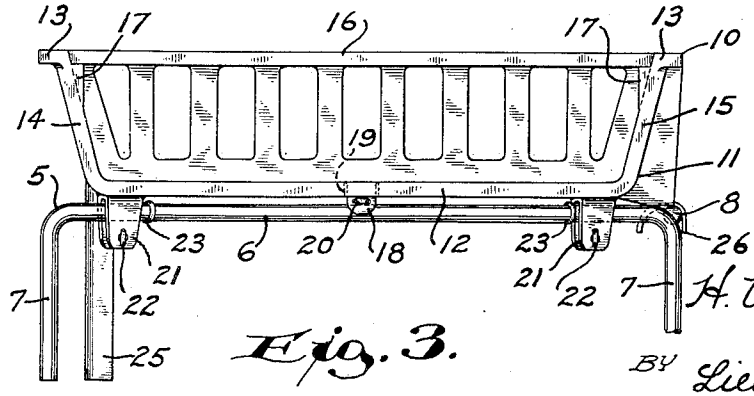


Fig. 3.

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FIREPLACE GRATE HAVING UPWARDLY SWINGABLE MEANS

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8 Claims. (Cl. 126—165)

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The present invention relates generally to improvements in fireplace equipment, and relates more particularly to improvements in the construction and operation of metal baskets or grates for fireplaces.

A primary object of the invention is to provide an improved and highly efficient fuel-supporting grate which is adapted for use with coal, wood or paper fires, which may be readily manipulated to permit easy cleaning and ash removal, and which may be manufactured and sold at moderate cost.

The usual fireplace construction is such that the ash dump is normally located midway between the side walls of the fireplace and near the rear wall thereof; and therefore when a metal basket or grate is utilized for confining and supporting the fuel within the fireplace in a manner such as to produce most effective drafts, access to the ash dump is ordinarily restricted and cleaning and ash removal is consequently rendered an extremely difficult and tedious task. In efforts to avoid the aforesaid objections and difficulties, several types of fuel supports have heretofore been proposed, none of which have proven entirely satisfactory for diverse reasons. In some instances, it has been proposed to mount the basket bottom grate for pivotal movement on a longitudinal axis located at either the rear, the center, the front, or the front and the rear of the fire basket. However, such devices, while facilitating cleaning of the basket or grate to some extent, obviously do not eliminate obstructions to the ash dump near the rear of the fireplace and under the basket and therefore likewise do not aid materially in facilitating cleaning of the fireplace floor and disposal of ashes. In other instances, it has been proposed to place the baskets on rollers for complete removal from the fireplace opening or to provide a removable bottom grate for the basket; but since these baskets and grates are rather heavy and bulky and become extremely dirty in use, there are definitely several obvious objections to these devices and the use thereof is accordingly limited.

It is therefore a more specific object of this invention to provide an improved fireplace basket which obviates all of the above-mentioned disadvantages of the known prior art devices.

Another specific object of my present invention is to provide an improved and highly efficient fireplace basket, the fuel-supporting grate of which is self-cleaning and readily swingable in a novel manner to a position facilitating cleaning of the fireplace floor and removal of ashes therefrom.

Another specific object of the invention is to provide an improved fireplace basket which may be readily manufactured and quickly assembled, and wherein the grate sections may be easily

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swung to positions affording unobstructed access to the usual fireplace ash dump without the necessity of removing any parts from within the fireplace and without the use of special tools.

Still another specific object of my present invention is to provide an improved fireplace basket assemblage of extremely durable construction and having a self-cleaning basket-forming grate which may be readily cast with integral bottom, front and rear walls and easily removable and insertable end walls.

An additional specific object of the present invention is to provide an improved fireplace basket comprising, a U-shaped supporting frame having substantially parallel opposite side members or rods interconnected by a rear rod, and a grate consisting of sections adapted to normally span the space between the rods, the sections being upwardly swingable away from the space.

These and other objects and advantages of the invention will be apparent from the following detailed description.

A clear conception of the several features constituting my present improvement, and of the mode of constructing and of utilizing a typical commercial embodiment of the invention, may be had by referring to the drawing accompanying and forming a part of this specification wherein like reference characters designate the same or similar parts in the several views.

Fig. 1 is a perspective front, top and end view of the improved basket with the grate sections in normal fuel-supporting position;

Fig. 2 is a similar perspective view of the basket with one of the grate sections swung to approximately vertical position for cleaning and ash removal; and

Fig. 3 is a somewhat enlarged end view of the improved basket.

While the invention has been shown and described herein as comprising a frame fabricated of rod stock and a two-section cast grate provided with removable end walls, it is not my desire or intent to unnecessarily restrict or limit the construction of the improved assemblage by virtue of such embodiment; and it is also contemplated that specific descriptive terms employed herein be given the broadest possible interpretation consistent with the disclosure.

Referring to the drawing, the improved fireplace basket assemblage comprises, in general, a U-shaped supporting frame 5 formed by a pair of spaced substantially parallel opposite side members or rods 6 having the end portions thereof bent downwardly to provide supporting legs 7 and being rigidly interconnected at their rear ends by a rear member or rod 8; and a grate 10 consisting of a pair of sections 11 adapted to normally span the space between the members 6,

each of the sections 11 being formed of a plurality of spaced bars 12 having upwardly convex transverse cross-section and each of the sections being pivotally mounted on one of the members or rods 6 for upward swinging movement away from the space between the rods.

The spaced bars 12 forming each of the grate sections 11 may be rigidly united by any desired number of ribs or braces 13, and these bars are all of substantially like U-shaped formation with the bottom portions being provided with integral front and rear risers 14, 15, respectively, to form a fuel support. The open outer ends of each of the sections 11 may be closed by removable end members 16 which are retained in position by means of grooved flanges or ears 17 provided in the risers 14, 15, of the end bars 12 and by the lug 18 formed on each of the members 16 and receivable in grooves or slots 19 in the end bars 12, with a pin 20 or the like being insertable within each of the lugs 18 below the respective bars 12 for preventing displacement of the closure members 16. Each of the grate sections 11 may be pivotally mounted on one of the rods 6 in a convenient manner by provision of any desired number of depending flanges or ears 21 secured to, or formed integral with, the outer end bar 12 of each section, the flanges 21 being formed with grooves adapted to receive the rod 6 and with means such as a pin 22 being provided for each of the flanges 21 to prevent displacement from the rod 6; and each rod may be provided with an annular ridge or stop 23 cooperable with each pivot flange or hinge 21 to positively position the grate sections 11 in an obvious manner.

To provide additional support for the grate sections 11 and to add rigidity to the unit as a whole, either one of the sections 11 may be provided with a front leg 25 rigidly secured to the inner bar 12 thereof and cooperable with the other section as shown, or both of the sections 11 may be provided with independent legs in an obvious manner. If desired, the appearance of the assemblage may be enhanced and the rear member or rod 8 protected by a cover plate 26 upon which the grate sections 11 may rest when in normal fuel-supporting position shown in Fig. 1, and rear section supporting fins 12a may also be provided on the inner end bars 12, as shown.

In actual use, the improved basket assemblage is positioned within the fireplace with the rod 8 adjacent the rear fireplace wall, and with the side rods 6 adjacent the side walls of the fireplace. Obviously, in normal use, the grate sections 11 are in the position shown in Fig. 1, disposed in a horizontal plane and resting on the rod 8 or its cover 26 and on the leg 25 and spanning the space between the rods 6, and the fuel bed may be placed on the grate 10 in the usual manner for support thereby above the floor of the fireplace. As the fuel supported on the grate is burned, the resulting ashes, for the most part, automatically drop through the bars 12 of the grate onto the fireplace floor; and this automatic discharge of ashes is considerably aided by reason of the unique cross-sectional shape of the grate bars 12 of the improved unit, these bars being formed of upwardly convex transverse cross-section so that the convex portions provide the fuel-supporting surface. It is additionally noted that the end plates 16 may be readily removed, in a simple and obvious manner, by merely removing the pins 20 and lifting the plates upwardly from within the grooves in the lugs 17 when it is desired to burn logs or other fuel which might overhang the grate 10; and if it is desired to impart additional rigidity to the frame 5, the front portions of the side members 6 may be interconnected by a rigid or removable cross-piece in an obvious manner.

When it is desired to clean the fireplace and remove the accumulation of ashes therefrom, it is only necessary to tilt or swing the sections 11 about their respective pivots, formed by the flanges 21 coacting with the members or rods 6, to an approximately vertical position, as illustrated in Fig. 2 wherein the grate sections may rest against the side walls of the fireplace. With the sections 11 thus swung upwardly away from the space between the side rods 6 and away from the rear rod 8, it is apparent that unobstructed access to the usual fireplace ash dump is obtained, and the floor of the fireplace may be quickly and easily cleaned without interference of any portion of the basket assemblage. After cleaning, the grate sections 11 may again be swung to normal position; and the tilting or swinging of the grate sections may be accomplished by hand or with the aid of the usual fireplace poker or the like.

From the foregoing detailed description, it is apparent that the present invention contemplates provision of an improved fireplace basket assemblage which is simple and durable in construction, which may be readily manufactured and assembled and which may be merchandised at moderate cost. The U-shaped frame 5 may be fabricated in an obvious manner from suitable rod stock with the rods 6 rigidly united to the rod 8 by welding or the like; and the grate sections 11 may be readily cast with the hinge flanges 21 integral therewith or rigidly secured thereto in any suitable manner. If desired, the end plates 16 may be formed integral with the grate sections, but the unit is rendered more flexible by making these parts separable; and the cover 26 for the rear rods 8 may be omitted, if desired. The legs 7, 25 may obviously be made of any desired height, and the grate 10 and frame 5 may also be furnished in any desired lengths and/or widths with any number of the legs 25 being provided. The particular cross-section of the fuel-supporting grate bars 12 provides an important and desirable self-cleaning feature; and since the grate sections are swingable away from the space between the frame 5 and about the side rods 6 thereof, cleaning of the fireplace and removal of ashes therefrom are obviously greatly facilitated without removal of dirty soot-covered parts from within the fireplace.

It should be understood that it is not desired or intended to limit this invention to the exact details of construction or to the precise mode of use, herein shown and described, for various modifications within the scope of the appended claims may occur to persons skilled in the art to which this invention pertains.

I claim:

1. A fireplace grate comprising, a U-shaped supporting frame formed by substantially horizontal opposite side members and an interconnecting rear member, means for supporting said frame above a floor, and a fuel-supporting grill consisting of sections spanning the space between said members and supported by said frame, at least one of said sections being upwardly swingable away from said space about one of said side members.

2. A fireplace grate comprising, a U-shaped supporting frame formed by substantially hori-

zontal opposite side members and an interconnecting rear member, means for supporting said frame above a floor, and a fuel supporting grill consisting of sections spanning the space between said members and supported by said frame, one of said sections being provided with a supporting leg spaced from said rear member and cooperable with the other of said sections in normal position, and at least one of said sections being upwardly swingable away from said space about one of said side members.

3. A fireplace grate comprising, a U-shaped supporting frame formed by substantially parallel opposite side members and an interconnecting rear member, means for supporting said frame above a floor, and a fuel-supporting grill consisting of sections spanning the space between said members and supported by said frame, each of said sections being pivotally mounted on one of said side members for upward swinging movement away from said space.

4. A fireplace grate comprising, a U-shaped supporting frame formed by substantially parallel opposite side rods and an interconnecting rear member, means for supporting said frame above a floor, and a fuel-supporting grill consisting of sections spanning the space between said rods and supported by said frame, each of said sections being formed of a plurality of spaced bars having upwardly convex transverse cross-section with the convex portions thereof providing the fuel-supporting surface, and at least one of said sections being upwardly swingable away from said space about one of said side rods.

5. A fireplace grate comprising, a U-shaped supporting frame formed by substantially parallel opposite side rods and an interconnecting rear member, and a fuel-supporting grill consisting of sections spanning the space between said rods and supported by said frame, each of said sections being formed of bars having bottom portions provided with integral front and rear risers, and said sections being upwardly swingable away from said space about said side rods.

6. A fireplace grate comprising, a U-shaped supporting frame formed by substantially parallel opposite side rods and an interconnecting rear member, a fuel-supporting grill consisting of sections spanning the space between said rods and supported by said frame, each of said sections being formed of bars having bottom portions provided with integral front and rear risers with the end portions of said sections being open, and said sections being upwardly swingable away from said space about said side rods, and a closure for the outer open end of each of said sections.

7. A fireplace grate comprising, a U-shaped supporting frame formed by substantially horizontal opposite side members rigidly united at their rear ends by a rear member, means for supporting said side members above a floor, and a fuel-supporting grill consisting of sections spanning the space between said side members and supported by said frame, said sections being upwardly swingable away from said space about said side members.

8. A fireplace grate comprising, a U-shaped supporting frame formed by substantially parallel horizontal opposite side members rigidly interconnected by a rear member, means for supporting said side members above a floor, and a fuel-supporting grill having two sections spanning the space between said side members and supported by said frame, said sections being upwardly swingable away from said space and from said rear member about said side members.

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