

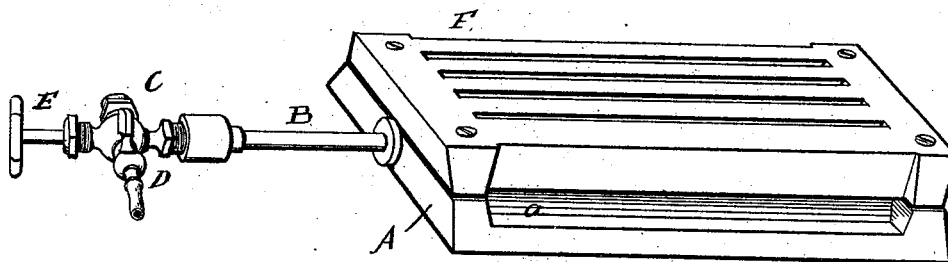
(No Model.)

G. KELLER.  
GAS GRATE.

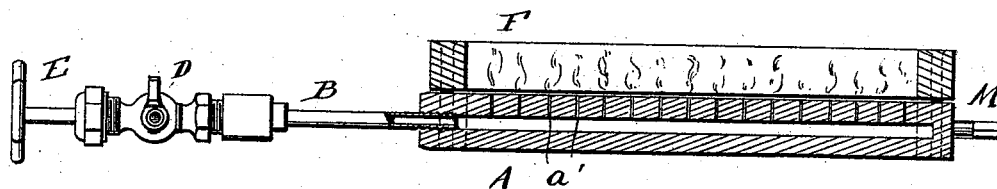
No. 526,973.

Patented Oct. 2, 1894.

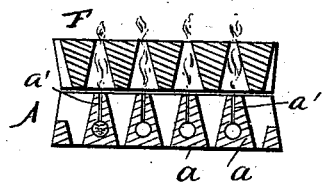
*Fig: 1.*



*Fig: 2.*



*Fig: 3.*



*Fig: 4.*



WITNESSES:

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# UNITED STATES PATENT OFFICE.

GOTTLIEB KELLER, OF WEST HOBOKEN, NEW JERSEY.

## GAS-GRATE.

SPECIFICATION forming part of Letters Patent No. 526,973, dated October 2, 1894.

Application filed December 26, 1893. Serial No. 494,751. (No model.)

*To all whom it may concern:*

Be it known that I, GOTTLIEB KELLER, a citizen of Switzerland, and a resident of West Hoboken, in the county of Hudson and State of New Jersey, have invented certain new and useful Improvements in Gas-Grates, of which the following is a specification.

The object of my invention is to provide a grate which can be placed in any ordinary range or cooking stove and can be used for burning gas or hydro-carbons and also for burning solid fuel.

The invention consists in a grate having hollow bars provided with burner apertures, a tube for conducting a mixture of gas and air to the hollow grate bars and a grate frame held on top of the perforated hollow grate bars.

The invention also consists in the construction and combination of parts and details, which will be fully described hereinafter and finally pointed out in the claims.

In the accompanying drawings, Figure 1 is a perspective view of my improved gas grate. Fig. 2 is a vertical longitudinal sectional view of the same, and Figs. 3 and 4 are vertical transverse sectional views of the same, drawn on a larger scale, Fig. 3 showing the grate adjusted for burning gas and Fig. 4 showing it adjusted for burning solid fuel.

Similar letters of reference indicate corresponding parts.

The grate A is constructed with the hollow grate bars *a*, which are tapered in the usual way from one face to the other and are provided in their narrower faces with burner apertures *a'*. A tube B connected with one end of the grate serves to conduct a mixture of gas and air to the hollow bars of the grate. The air is admitted into the tube B through the neck C and the gas is conducted to the tube B through a flexible tube applied on the corrugated neck of the gas-cock D. The valve E serves for regulating the amount of the mixture of gas and air passing into the hollow grate. Upon the grate A a second grate frame F is placed and is fastened thereon, the bars of which second grate frame F are so arranged that they are over the interstices between the hollow bars of the lower grate frame, as shown in Figs. 3 and 4.

The gas flames pass up between the bars of the second grate frame F and issue from the slots between said bars.

In case hydro-carbon is used as fuel, the same is admitted in small quantities into the tube B and mixed with air and then passes into the hollow burner tubes, which are preferably filled with asbestos, as shown at *e* in the left-hand side Fig. 3, and the flames of the same also pass up through the slots of the upper grate frame F.

In case it is desired to burn solid fuel, such as wood or coal, the grate is reversed so that the grate F is at the bottom and the coal or other solid fuel is placed on the wider faces of the bars of the grate A, as shown in Fig. 4, and the jets of flame from the gas pass from the bottom edges of the hollow bars of the grate A up through the slots between said bars and ignite the coal or other solid fuel on the grate. After the solid fuel has been ignited the mixture of gas and air is turned off so as to prevent a waste of gas.

All that is necessary to adjust the grate for use as a gas grate is to turn it on its pivots in the usual manner. M is one pivot of the grate and the tube B forms the other pivot.

Having thus described my invention, I claim as new and desire to secure by Letters Patent—

1. The combination, with a grate having hollow bars provided with burner apertures, of a pipe connected with said hollow grate bars, and an additional grate secured on top of the grate with the hollow bars, substantially as set forth.

2. The combination, with a grate, having hollow bars provided with burner apertures, of a pipe connected with said hollow grate bars, and an additional grate secured on top of the grate with the hollow bars, the hollow bars of one grate alternating with the bars of the grate above it, substantially as set forth.

In testimony that I claim the foregoing as my invention I have signed my name in presence of two subscribing witnesses.

GOTTLIEB KELLER.

Witnesses:

OSCAR F. GUNZ,  
K. R. BRENNAN.