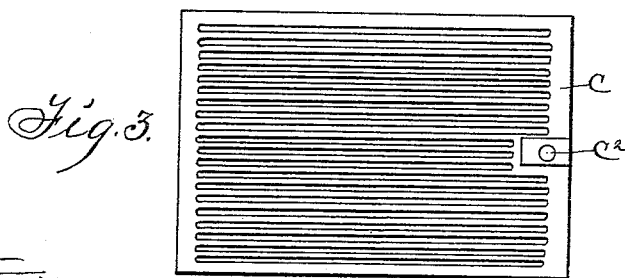
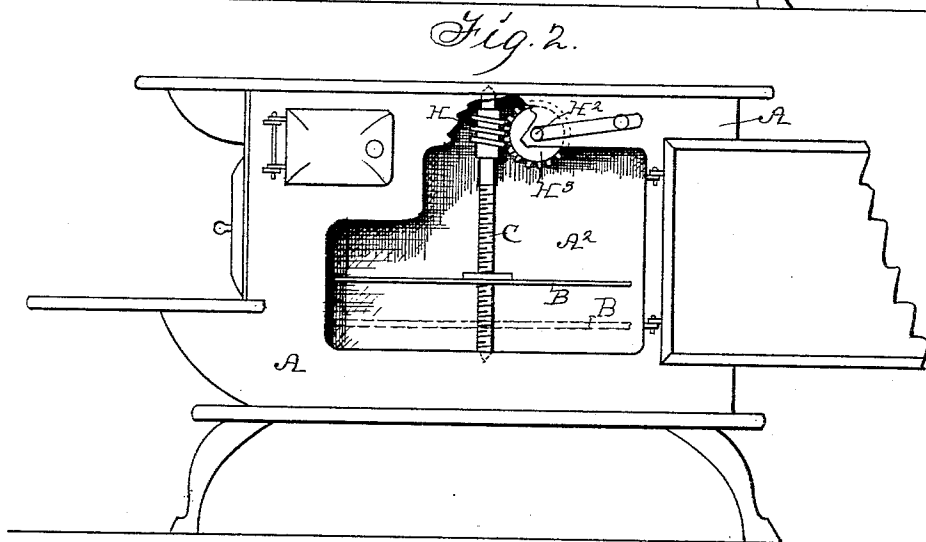
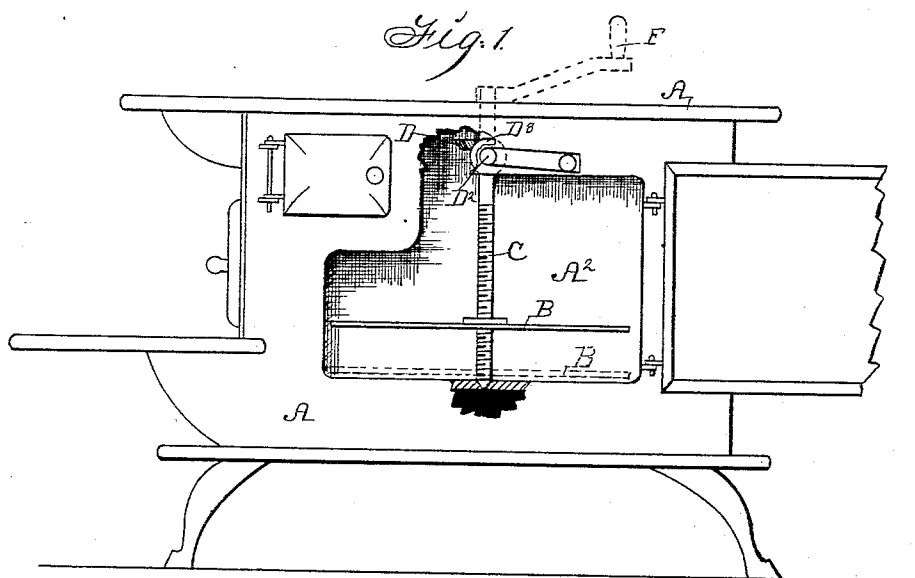


(No Model.)

W. L. HINDS.
ADJUSTABLE GRATE FOR STOVE OVENS.

No. 504,836.

Patented Sept. 12, 1893.



Witnesses:
J. Ralph Orwig.
R. H. Orwig.

Inventor: William L. Hinds.
By Thomas G. Orwig, attorney.

UNITED STATES PATENT OFFICE.

WILLIAM L. HINDS, OF DES MOINES, IOWA.

ADJUSTABLE GRATE FOR STOVE-OVENS.

SPECIFICATION forming part of Letters Patent No. 504,836, dated September 12, 1893.

Application filed April 3, 1893. Serial No. 468,815. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM L. HINDS, a citizen of the United States of America, residing at Des Moines, in the county of Polk and State of Iowa, have invented an Adjustable Grate for Stove-Ovens, of which the following is a specification.

The object of my invention is to provide a grate or shelf for supporting articles within an oven, and to so arrange the support for said grate that all of the top surface may be utilized, and to provide simple, strong, and easily operated means whereby said grate or shelf may be vertically adjusted as required to control the distances between articles placed upon the grate and the top of the oven as required to regulate the degree of heat to which such articles are subjected.

To this end my invention consists in the combination with an oven grate or shelf of a screw-threaded post extended vertically through a screw-threaded bore in one end of said shelf and having bearings in the top and bottom of the oven, and provided with means for rotating it from a point outside of the stove as hereinafter set forth, pointed out in my claims, and illustrated in the accompanying drawings, in which—

Figure 1 is a side elevation of a stove, showing the oven door open and the grate therein supported upon a screw-threaded post and one device for operating said rod shown in solid lines and a modified device shown in dotted lines. Fig. 2 is a like view showing a modified form of gearing for operating the grate or shelf-supporting post. Fig. 3 is a top or plan view of the grate or shelf.

Referring to the accompanying drawings the reference letter A is used to designate a cook stove of the ordinary kind having an oven A². B designates a grate or shelf in said oven and provided at the central portion of one of its ends with a screw-threaded bore B².

A screw-threaded post 6 is extended vertically through the oven and the screw threaded bore of the grate or shelf and has its bearings in the bottom and top of the stove oven, so that a rotation of the said post will either elevate or lower the grate or shelf and a strong support for the shelf be provided. My preferred means for rotating this post is shown in Fig. 1 and consists of a bevel gear D fixed to the said post a crank shaft D² extended

through the side of the stove and having a bevel gear D³ on its inner end in mesh with the gear D. A cheaper method of operating said post is illustrated by dotted lines in the same figure and consists in extending the post upwardly through the top of the stove and detachably connecting a crank F therewith.

In Fig. 2 is shown another manner of rotating the post D, which consists in fixing a worm gear H on the post and extending a crank shaft H² through the side of the stove and provided with a gear wheel H³ on its inner end to engage the worm gear H.

In practical use it will be obvious that by having the support for the shelf at one end, the whole surface of the shelf may be utilized, and when a shelf of this kind is supported from one end a strong support is necessary, and for this reason the said shelf has bearings both above and below the shelf.

What I claim as new, and desire to secure by Letters Patent of the United States, therefore, is—

1. Improved means for vertically adjusting a grate in a stove oven, comprising the following elements in combination, to wit:—a screw threaded post having bearings in the top and bottom of the stove, a shelf or grate, having a vertical screw threaded bore in one of its ends to receive said post, and mechanism at the top of the stove for rotating said post, for the purposes stated.

2. Improved mechanism for vertically adjusting a grate in a stove oven, comprising the following elements in combination, to wit:—a screw threaded post extended vertically through one end of the stove oven and having bearings both at its top and bottom for the purposes stated, a bevel gear wheel fixed to the top of said post, a shaft extended through the side of the stove at the top of the oven, and provided with a gear on its inner end to mesh with the aforesaid one, and a crank on its end, a rectangular shelf or grate within the oven and having the screw threaded bore near its end to admit the said post, all arranged and combined, substantially in the manner set forth for the purposes stated.

WILLIAM L. HINDS.

Witnesses:

R. H. ORWIG,
THOMAS G. ORWIG.