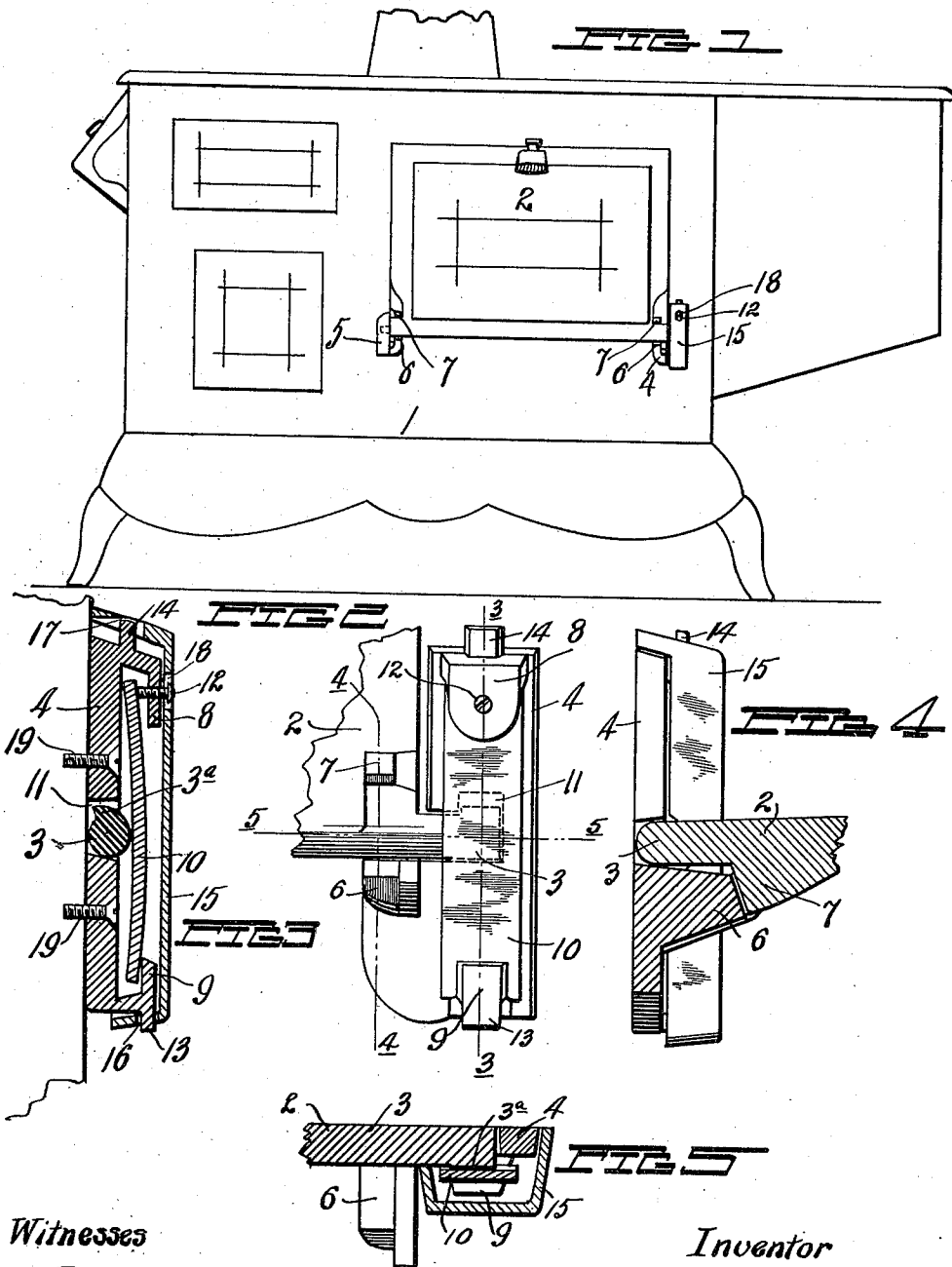


C. M. GENTHNER.
 STOVE DOOR HINGE.
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1,002,199.

Patented Aug. 29, 1911.



Witnesses

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UNITED STATES PATENT OFFICE.

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STOVE-DOOR HINGE.

1,002,199.

Specification of Letters Patent. Patented Aug. 29, 1911.

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To all whom it may concern:

Be it known that I, CHARLES M. GENTHNER, a citizen of the United States, residing at Peoria, in the county of Peoria and State of Illinois, have invented certain new and useful Improvements in Stove-Door Hinges, of which the following is a specification.

This invention has reference to a new and improved retarding means adapted to be used in connection with a stove door and its hinges, for holding the door in different and adjusted positions, when opened.

The object of the present invention is to provide a hinge for a stove door, preferably the oven door of cook stoves, which has associated with and bearing against one of its pivots, yielding means, such as a band spring, which will hold the door in different positions; and also to provide a stop which will prevent the door falling or being moved to a point below the horizontal, whereby, when the door is fully opened or let down it may serve as a platform.

The invention has for a further object to provide a spring member, preferably a band spring having an impinging relation with a pivot of the stove door to retard its movement and to hold it in adjusted positions, said pivot having a cam-lug adapted to ride against said spring member for increasing the friction between the pivot and spring member as the door is lowered so as to maintain a perfect balance.

A further object of the invention is a casing or closure adapted to cover the band spring and parts containing the same; said casing or closure adapted to be readily attached and detached, to enable a person to replace the spring when necessary.

That the invention may be more fully understood reference is had to the accompanying drawings, in which:—

Figure 1 is a front elevation of a cook-stove, on a greatly reduced scale, showing my invention applied thereto; Fig. 2 is an enlarged front elevation of a portion of the stove door, its pivot and spring bearing against the pivot, the casing or closure removed; Fig. 3 is a vertical section on the line 3—3 of Fig. 2; except that the cover is shown as attached; Fig. 4 is a vertical section on the line 4—4 of Fig. 2, except that the cover is shown as attached, and Fig.

5 is a horizontal sectional view on the line 5—5 of Fig. 2, except that the cover is shown as attached.

Like numerals indicate corresponding parts throughout the figures.

In the drawings 1 denotes generally a stove and 2 the oven door thereof, said door provided with pivots or pintles 3 that project in opposite directions from the opposite sides of the door and at the lower edge thereof, said pivots or pintles 3 having a bearing in brackets secured to the front of the stove. The bracket to the right of the door, looking at Fig. 1 is designated 4, while the one on the left hand side of the door is designated 5, the left hand pivot or pintle 3 engaging a recess in said bracket 5, as indicated in Fig. 1. Each bracket has a lug 6 forming a stop to be engaged by lugs 7 on the door, which will prevent the door dropping or being lowered to a point below the horizontal, whereby when the door 2 is in such position, seen in Fig. 4, said door may serve as a shelf or platform, on which to place articles as they are introduced into or removed from the oven.

The bracket 4 is provided with the depending ear 8 and the upwardly extending ear 9, located respectively at or near the upper and lower ends of said bracket and spaced from the body of the bracket, substantially as shown in Fig. 3.

10 designates, preferably a band spring which is carried by the bracket 4 and with its upper and lower ends placed between the ears 8 and 9 and the body of the bracket. The arrangement of the band spring 10 is such that when the pivot 3 is journaled in the bracket 4, preferably in an opening 11 provided for that purpose, the rear face of the band spring 10 will constantly bear against the pivot 3, as seen in Figs. 3 and 5; the pivot is shown provided with a cam-lug 3^a, which is adapted to ride against said band spring 10 for increasing the friction between said pivot and band spring as the door is lowered so as to maintain a perfect balance. To cause the band spring 10 to bear firmly against and have an impinging relation with the pivot 3, so as to retard the movement of the door when it is open and also to hold it open in adjusted positions, an adjusting screw 12 is provided, adjustable in the ear 8, and which may be ad-

justed to cause the spring to bear more or less against the pivot 3, the result of which is apparent.

Depending from the ear 9 is a lug 13 and extending upwardly from the upper end of the bracket 4 is a lug 14.

15 15 denotes a casing or closure which is adapted to cover or inclose the main body portion of the bracket 4, its ears 8 and 9 and the spring 10. The lower end of the casing or closure 15 has an opening 16 through which is inserted the lug 13 of the ear 9 and the upper end of the casing or closure has an opening 17 into which is inserted the lug 14 when the upper end of the closure or casing is pushed into position covering the bracket 4, when so adjusted the lugs 13 and 14 prevent the casing or closure from becoming dislodged, although it may be easily and quickly removed or detached by raising the casing slightly, sufficiently to allow the upper end of the casing to be drawn forward releasing it from the lug 14. In the front wall of the casing is provided a slot 18 which coincides with the screw 12 and permits of the adjustment of said screw without removing the casing. The bracket 4 may be attached to the stove in any suitable manner, although I show it attached by means of screws 19, see Fig. 3.

It will be observed that the spring 10 is unattached throughout its entire length and held from displacement in one direction by the lugs 8 and 9 and sidewise by the casing or covering 15, which has the function of being both ornamental and useful in holding the spring in place. In the event of the spring wearing out it is an easy matter to replace the same, by removing the casing, removing the spring and inserting a new one and all without the use of any tools.

What I claim is:—

1. In a stove, in combination, a bracket secured to the stove, said bracket provided with a pair of ears spaced from the body of the bracket and also having upper and lower lug extensions, a door having a pivot journaled in the bracket, a band spring carried by the bracket between its ears and main body portion and adapted to have an impinging relation with the pivot, and a cover for the bracket and band spring, said cover having a locking relation with the lug extensions of said bracket.

2. In a stove, in combination, a bracket secured thereto, a door having a pivot journaled in the bracket, a band spring carried by said bracket, and unattached thereto and adapted to have an impinging relation with the door pivot, and a covering having a detachable relation with the bracket and forming a closure to retain the spring on the bracket.

3. In a stove, in combination, a bracket secured thereto, said bracket provided with a depending ear at its upper end and an upwardly extended ear at its lower end, both of said ears spaced from the body of the bracket, a door having a pivot journaled in the bracket, a band spring carried by said bracket, its upper and lower ends between the body of the bracket and its ears, but unattached to said bracket, and adapted to have an impinging relation with the door pivot, and a cover for covering the spring and preventing sidewise movement thereof.

4. In a stove, in combination, a bracket secured thereto, said bracket having a pair of oppositely extending ears spaced from the body of the bracket, a door having a pivot journaled in the bracket, a band spring carried by said bracket, being unattached thereto and having portions thereof disposed between the ears and body of the bracket, a cover covering the spring and preventing sidewise movement thereof, said cover having an opening, and a screw for causing said band spring to bear more or less against said pivot, said screw operable through the opening in the cover.

5. In a stove, in combination with a door having a pivot, a bearing for said pivot, consisting of a bracket formed with upper and lower ears spaced from the body of the bracket forming a seat, a spring adapted to fit said seat and bear against said pivot, said bracket also being provided with lugs extending from the upper and lower ends thereof, and a cover for said bracket, said cover having openings in its upper and lower walls to receive the upper and lower lugs of the bracket.

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

CHARLES M. GENTHNER.

Witnesses:

J. G. ODELL,
A. R. ROBINSON.