W. E. HUENEFELD.

OVEN DOOR.

APPLICATION FILED MAR. 5, 1910.

965,906. Patented Aug. 2, 1910.

Fig. 1.

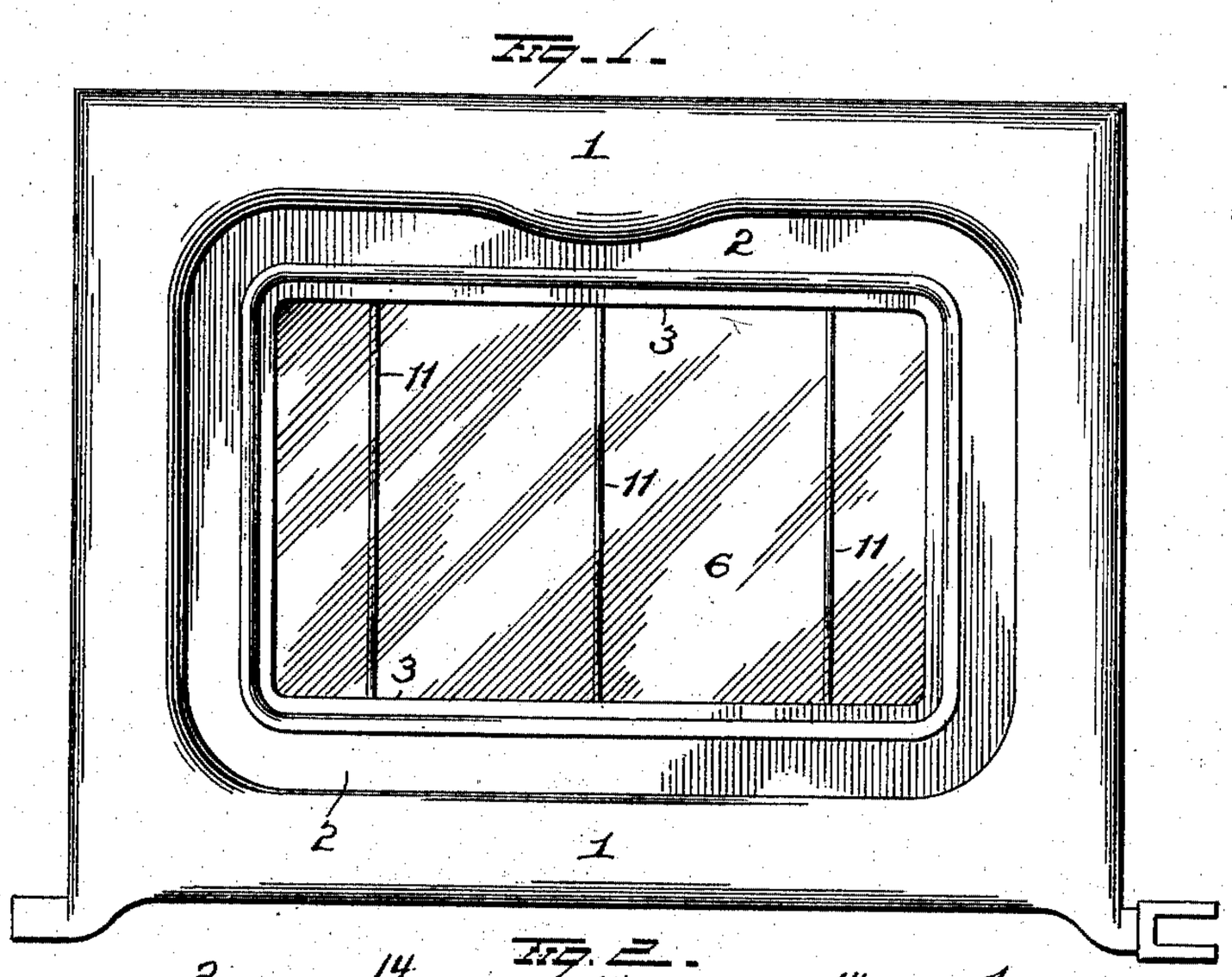
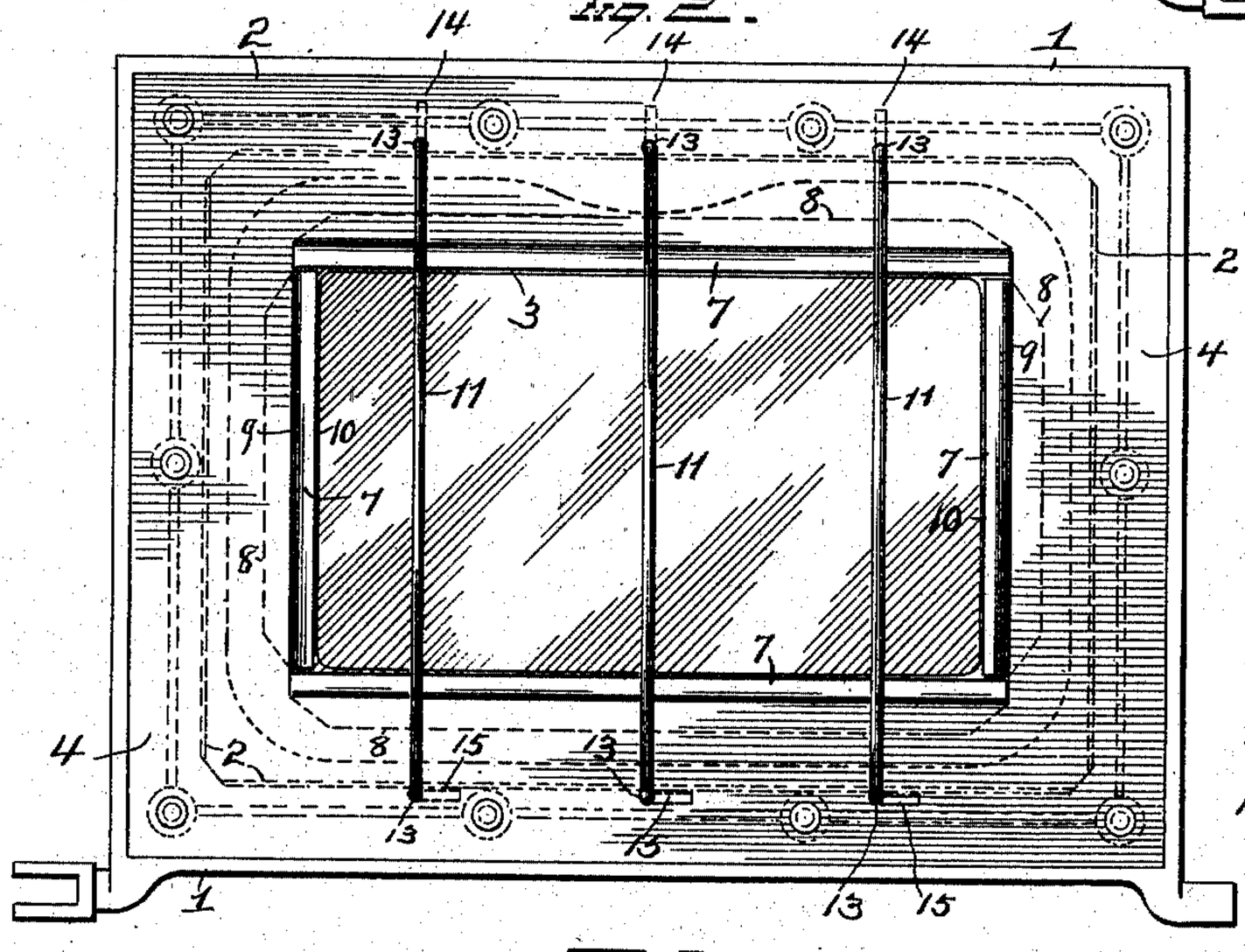


Fig. 2.



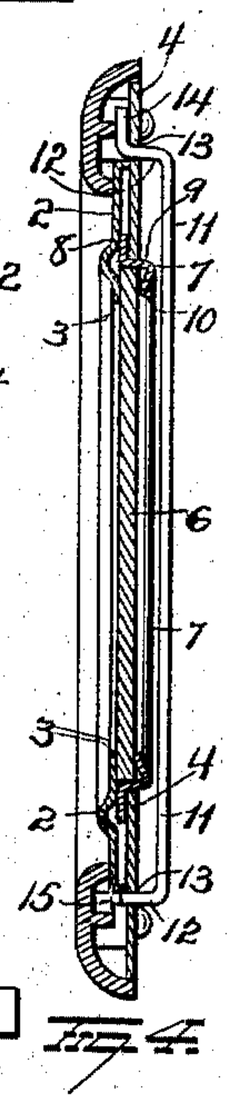
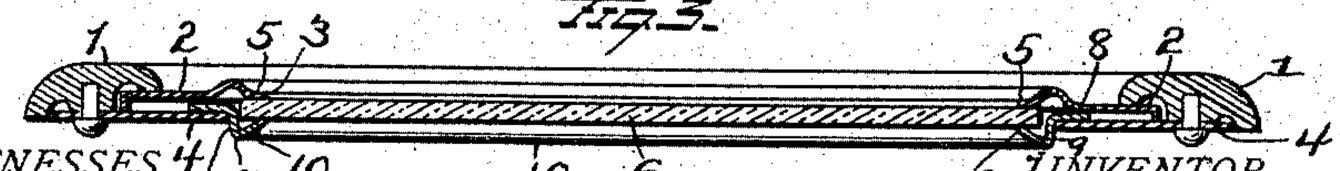


Fig. 4.

Fig. 3.



WITNESSES

E. L. Nottingham

G. F. Downing.

INVENTOR

W. E. Huenefeld

By H. A. Seymour

Attorney

UNITED STATES PATENT OFFICE.

WALTER E. HUENEFELD, OF CINCINNATI, OHIO, ASSIGNOR TO THE E. H. HUENEFELD COMPANY, OF CINCINNATI, OHIO.

OVEN-DOOR.

965,906. Specification of Letters Patent. **Patented Aug. 2, 1910.**

Application filed March 5, 1910. Serial No. 547,566.

To all whom it may concern:

Be it known that I, WALTER E. HUENEFELD, of Cincinnati, in the county of Hamilton and State of Ohio, have invented certain new and useful Improvements in Oven-Doors; and I do hereby declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

This invention relates to improvements in oven doors and more particularly to that type which comprises in its structure a cast metal frame and a glass panel.

The object of my present invention is to so construct an oven door having a cast metal frame and a glass panel that the latter can be readily placed in position and securely held with yielding pressure after the various members of the door shall have been assembled, and so that a broken glass panel can be easily removed and readily replaced by a new one without the necessity of dismembering the door structure *per se*.

With this object in view the invention consists in certain novel features of construction and combinations of parts as hereinafter set forth and pointed out in the claims.

In the accompanying drawings, Figure 1 is a front face view of an oven door embodying my improvements. Fig. 2 is a rear face view, and Figs. 3 and 4 are sectional views.

1 represents a door frame of cast metal provided at its lower corners with suitable projections to permit the door to be hinged to an oven. A sheet metal plate 2 is placed against the rear face of the cast metal frame 1 and this sheet metal plate is made with an opening 3 which is of somewhat less dimensions than those of the interior of the cast metal frame. A back plate 4 is fitted within the cast metal frame and securely fastened to the latter. The back metal plate 4 is made with an opening having somewhat greater dimensions than the opening afforded by the sheet metal plate 2. The edges of the sheet metal plate which project inwardly beyond the edges of the back plate 4 afford seats 5 for a glass panel 6. This glass panel is held in place against said seats by means of a series of retaining strips 7. Each retaining strip 7 consists of sheet metal and comprises a flange or member 8 which is inserted between the sheet metal plate 2 and the back plate 4, a shoulder 9 disposed approximately at right angles to the flange or member 8 and in position when the strip is inserted, to lie parallel with the adjacent edge of the glass panel, and said strip also comprises an inclined lip or member 10 which projects inwardly from the free edge of the shoulder portion 9 and engages with yielding pressure, the face of the glass panel opposite the seat against which the panel rests. These retaining strips operate to hold the glass panel against displacement and the glass panel operates to prevent displacement of the retaining strips.

A series of guard bars 11 extend across the glass panel so as to protect the latter. Each guard bar 11 is provided at its respective ends with short arms 12 to enter holes 13 in the back plate 4. The arm 12 at one end of each guard bar is provided with a tongue 14 disposed in a plane parallel with that of the guard bar and adapted to lie between the back plate 4 and the door frame. The other end of each guard bar is provided at the end of the arm 12, with a tongue 15 which is disposed at right angles to the guard bar and also lies between the back plate 4 and the door frame. By thus constructing the guard bars they can readily be inserted and will be retained permanently in position.

By the construction and arrangement of parts above described I am enabled to replace a broken glass panel with a new one without taking apart the door structure or removing the guard bars. It is apparent that when a glass panel has become broken, the broken pieces can be readily removed and thus the retaining strip will be released. A new panel can then be easily placed in position and secured in the manner above explained.

Having fully described my invention what I claim as new and desire to secure by Letters-Patent, is,—

1. An oven door, comprising a cast metal frame, a sheet metal frame, and a back plate permanently secured together, a glass panel yieldingly supported at its edges by said sheet metal frame and retaining strips inserted between said sheet metal frame and back plate and yieldingly engaging the glass panel opposite the seat afforded by the sheet metal frame.

2. An oven door comprising a cast metal frame, a back plate and a sheet metal frame interposed between said cast metal frame and back plate, a glass panel seated against said sheet metal frame and a series of retaining strips each having a member inserted between the back plate and sheet metal frame, each retaining strip also having a shoulder disposed parallel with the adjacent edge of the glass panel and each retaining strip also having a lip bearing against the glass panel near the adjacent edge thereof, whereby the glass panel is yieldingly sustained between said sheet metal frame and retaining strips.

3. In an oven door, the combination with a main frame, of a back plate permanently secured to said main frame, a glass panel, removable retaining means for said glass panel, said back plate having a series of holes, a series of guard bars extending across the glass panel and having arms passing through the holes in the back plate, and tongues at the free ends of said arms and disposed between the main frame and the back plate.

In testimony whereof, I have signed this specification in the presence of two subscribing witnesses.

WALTER E. HUENEFELD.

Witnesses:

A. N. MITCHELL,

GEO. F. DOWNING.