(No Model.)

# F. V. KNAUSS.

## OVEN DOOR FOR COOKING STOVES OR RANGES.

No. 526,974. Patented Oct. 2, 1894.

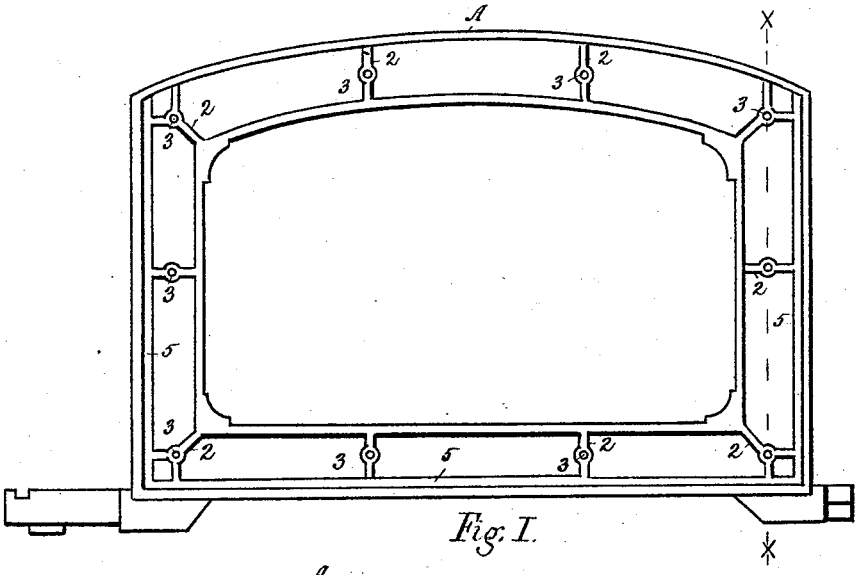


Fig. I.

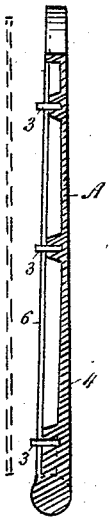


Fig. II.

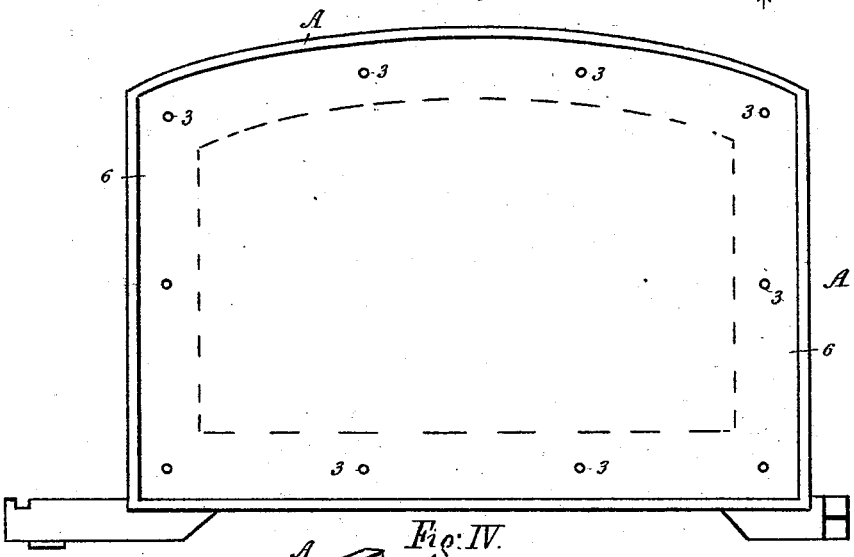


Fig. IV.

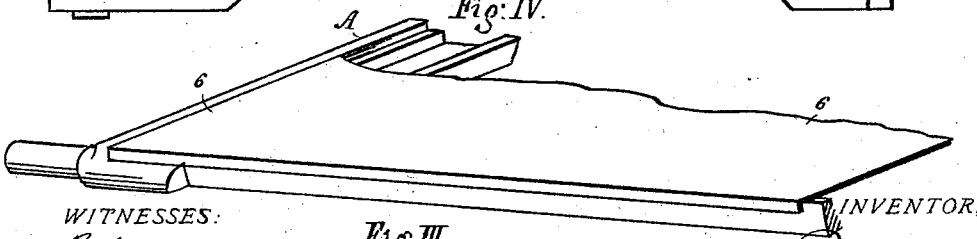


Fig. III.

WITNESSES:
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# UNITED STATES PATENT OFFICE.

FRANK V. KNAUSS, OF PORTSMOUTH, OHIO.

## OVEN-DOOR FOR COOKING STOVES OR RANGES.

SPECIFICATION forming part of Letters Patent No. 526,974, dated October 2, 1894.

Application filed February 17, 1894. Serial No. 500,567. (No model.)

*To all whom it may concern:*

Be it known that I, FRANK V. KNAUSS, a citizen of the United States, residing at Portsmouth, in the county of Scioto and State of Ohio, have invented a new and useful Improvement in Oven-Doors for Cooking Stoves or Ranges, which improvement is fully set forth in the following specification and accompanying drawings, in which—

Figure I is an elevation of the inner side of the skeleton frame of my improved oven door for cooking stoves, ranges, &c.; Fig. II, a section on line *x x* of Fig. I; Fig. III, a modified form of attaching the stay plate to the frame, and Fig. IV an elevation of the door in complete form.

My invention relates to improvements in the construction of oven doors for cooking stoves and ranges, and its purpose is to provide a simple and practical remedy for a defect which has interfered with the general adoption of the doors adapted to swing vertically on trunnions or hinges attached to their lower edges, and which may be opened or closed by a lever operated by the foot. When thrown open in that manner, their entire weight falls upon brackets which stop them at a horizontal position and they frequently give way and break at or near the trunnions. Attempts have been made to correct the evil by the use of malleable iron for the doors, but it has been discovered that while they resist fracture, they will bend and be thus unfitted to close the oven.

My invention consists in constructing the doors in such a manner that their strength will be greatly increased and their weight materially diminished.

The peculiar advantages of the device will be readily understood by referring to the accompanying drawings in which A designates the frame or skeleton of the door, which may be made of cast metal having flanged edges united at intervals by integral ribs 2 which are centrally enlarged for rivets 3. These are preferably fixed in the mold previous to the casting process and will not disfigure the face of the frame which is highly polished and nickel plated. In order to resist the strain which is generally confined to the lower corners of the door, or the adjoining parts, the metal is reinforced as at 4. The side and lower rails of the frame are rabbeted as at 5 to receive a steel plate 6 which is perforated for the rivets 3 by which it is securely clamped upon the frame. If preferred, the lower edge of the plate may be flanged and adapted to engage the lower rail of the frame as shown in Fig. 3.

It is obvious that the steel plate may be readily cut by a suitable die and accurately fitted in the frame and that it operates as a stay or tie which will successfully resist any force that may be brought to bear upon the door.

It is also evident that while this invention is applicable to all oven doors of the class referred to, it will prove a convenient adjunct to the device described in my Patent No. 483,117, issued September 20, 1892.

What I claim as new is—

In an oven door for cooking stoves, ranges, and other similar objects, the combination with the frame formed with flanged edges and strengthening ribs with apertures therein, and the side and lower rails rabbeted and the metal in this frame reinforced at 4, of the plate and the rivets passing therethrough and through the apertures in the ribs, substantially as described.

In testimony that I claim the foregoing I have hereunto set my hand, this 31st day of January, 1894, in the presence of witnesses.

FRANK V. KNAUSS.

Witnesses:
W. S. TODD,
IDA A. MERCER.