

No. 750,323.

PATENTED JAN. 26, 1904.

B. TROUTMAN.
COKE OVEN DOOR.

APPLICATION FILED MAY 8, 1903.

NO MODEL.

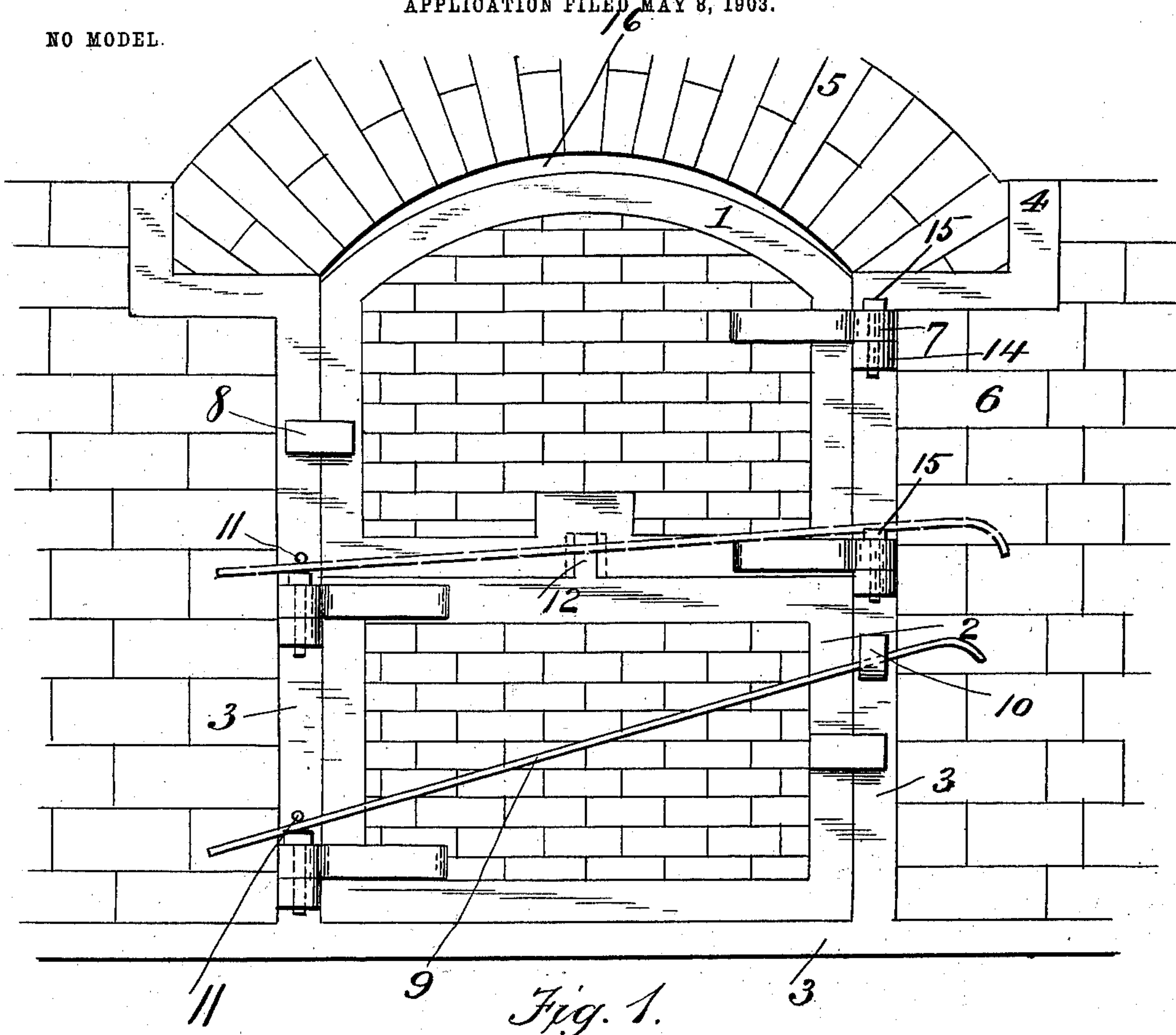


Fig. 2.

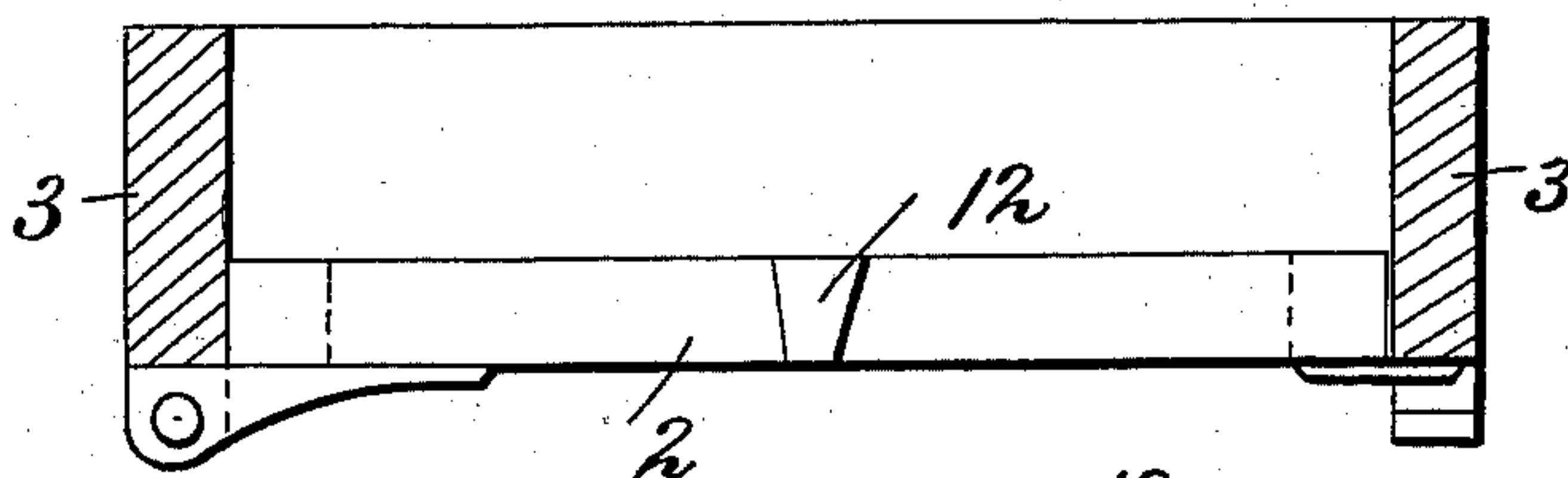


Fig. 4.

WITNESSES

J. L. Ormand
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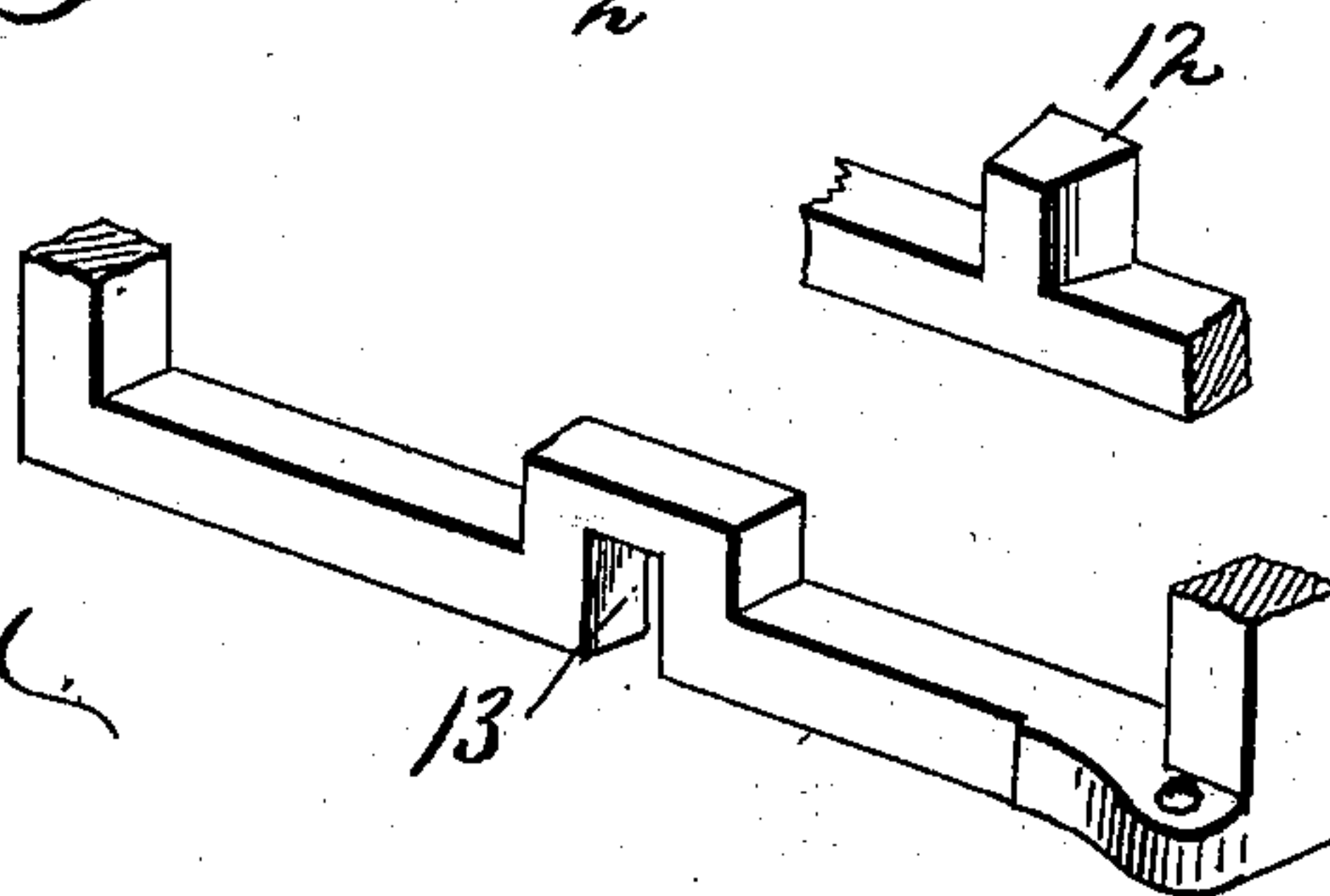


Fig. 3.

INVENTOR

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UNITED STATES PATENT OFFICE.

BIRDINE TROUTMAN, OF SAXTON, PENNSYLVANIA.

COKE-OVEN DOOR.

SPECIFICATION forming part of Letters Patent No. 750,323, dated January 26, 1904.

Application filed May 8, 1903. Serial No. 156,207. (No model.)

To all whom it may concern:

Be it known that I, BIRDINE TROUTMAN, a citizen of the United States, residing at Saxton, in the county of Bedford and State of Pennsylvania, have invented certain new and useful Improvements in Coke-Oven Doors, of which the following is a specification.

My invention relates to coke-oven doors and frames; and the object thereof is to so construct the same that it will be simple, inexpensive, durable, and efficient, may be quickly opened and closed, will permit contraction and expansion without departing from its relative position with regard to the frame, the parts operating together, and, furthermore, to construct the doors of the oven with an upper and lower section, so that the upper section may be operated independently of the lower.

In the drawings forming a part of this specification, and in which like symbols of reference represent corresponding parts in the several views, Figure 1 is a view of my oven-door and adjacent parts. Fig. 2 is a plan view of the lower-door section. Fig. 3 is a view of the lug or leveling-pin formed on the lower door, and Fig. 4 is a view of the lower part of the upper-door section.

1 represents the upper-door frame, 2 the lower, and 3 the oven-frame, the parts being preferably formed of cast-iron. 4 is an elbow or angle formed on the frame for supporting the arch 5, and 6 is the front of the oven. These frames, &c., are lined, as usual, with fire-brick.

7 represents eyes on the doors, 14 eyes on the frame, and 15 bolts connecting said eyes, the same forming hinges for the doors. 8 represents lugs on the doors for operating and holding same.

9 is a locking or watering bar; 10, hook to support watering-bar; 11, pin or hook located over hinge-lugs to hold watering-bar; 12, locking and leveling pin; 13, a recess formed in upper-door section to receive pin 12, and 16 an air-space over upper door, the same formed by elevating arch up about two inches above said door.

The doors are hinged to opposite sides of frame to equalize weight.

The operation of my oven is as follows: When the oven is drawn, just shut the lower door. The charge of coal is then put in and leveled down by using top of door as a guide and placing implement against leveling-pin, using the same as fulcrum. After filling push top door shut and place the usual loam on door-joints. The leveling-pin, being beveled, and recess in upper corresponding to same acts also to lock the lower door when the upper door is closed. The watering-bar, as before described, is used for locking lower door and may also be used, as shown in dotted lines, for locking upper door. It also possesses the additional function of supporting hose when watering oven and in such case is placed on upper hinge-lugs, as shown in dotted lines.

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

1. In a device of the character described, the combination with the doors, of a lug formed upon the lower door, and the upper-door frame having a recess within which the lug is adapted to be received and lock the lower door, said pin also acting as a fulcrum for the coal-leveling implement.

2. In a device of the character described, the combination with the doors, formed of metallic skeleton frames and fire-brick, of a wedge-shaped lug formed upon the lower door and the upper door formed with a converging recess, so that the lower door is locked when the upper is closed.

3. In a device of the character described, the combination with the doors composed of upper and lower sections formed of metallic skeleton frames, of interlocking means for the sections, and a metallic skeleton frame having the sill extending beyond the jambs to receive the brickwork and an angular upper portion to receive the arch.

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

BIRDINE TROUTMAN.

Witnesses:

G. W. ROSS,
JAMES GILLUC.