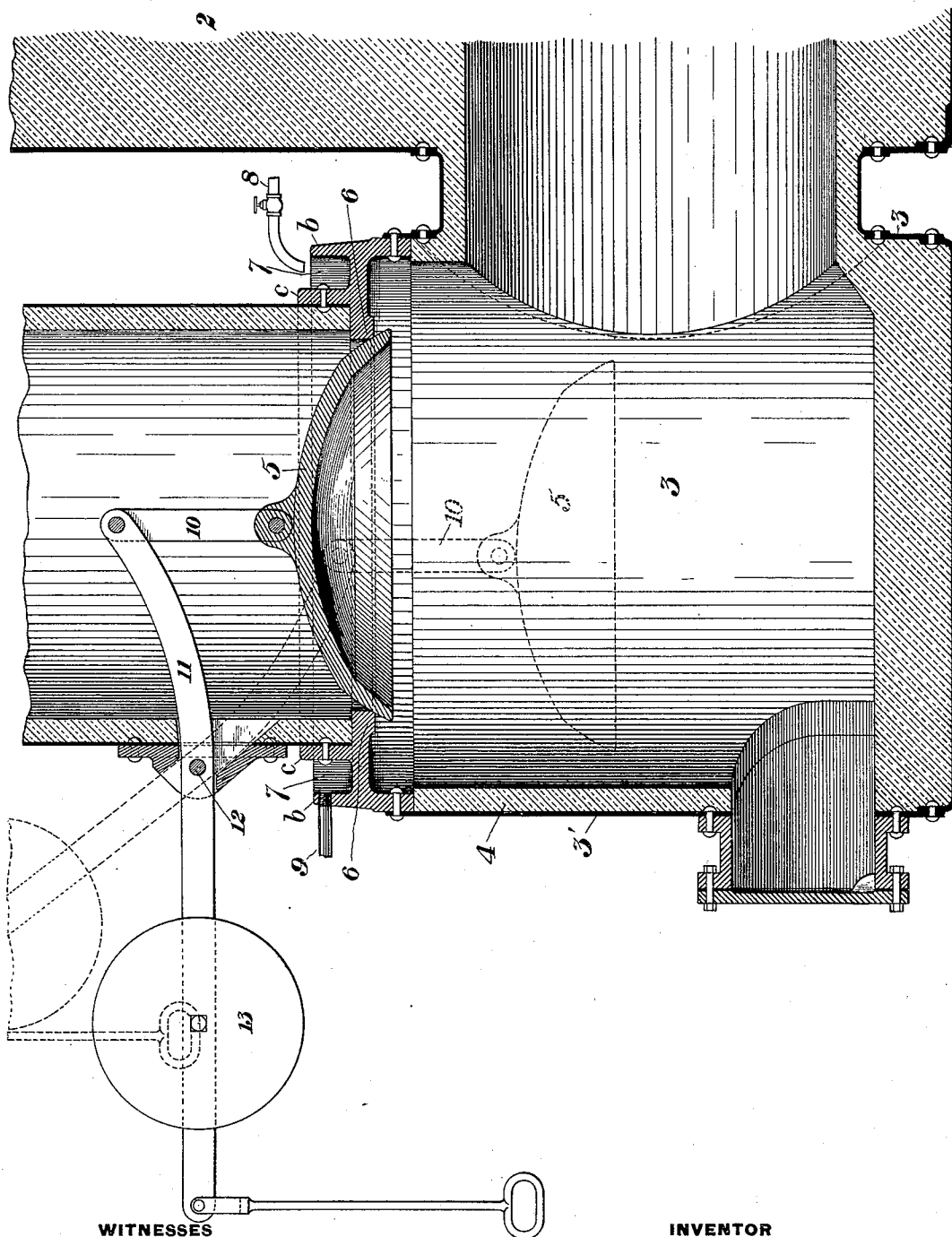


(No Model.)

J. KENNEDY.
VALVE FOR HOT BLAST STOVES.

No. 478,610.

Patented July 12, 1892.



WITNESSES

H. L. Gill
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UNITED STATES PATENT OFFICE.

JULIAN KENNEDY, OF LATROBE, PENNSYLVANIA.

VALVE FOR HOT-BLAST STOVES.

SPECIFICATION forming part of Letters Patent No. 478,610, dated July 12, 1892.

Application filed December 17, 1891. Serial No. 415,366. (No model.)

To all whom it may concern:

Be it known that I, JULIAN KENNEDY, of Latrobe, in the county of Westmoreland and State of Pennsylvania, have invented a new and useful Improvement in Valves for Hot-Blast Stoves, of which the following is a full, clear, and exact description, reference being had to the accompanying drawing, which shows in vertical central section a part of the chimney-flue, together with the valve and valve-seat, and illustrates my improvement.

The object of my invention is to improve the construction of the chimney-flue valve and valve-seat of hot-blast stoves and similar furnaces and to render these parts more durable and efficient.

In the drawing, 2 represents part of the wall of a hot-blast stove.

3 is the chimney-flue, having an outer metal casing 3' and an inner masonry lining 4.

5 is the valve, which operates vertically in connection with a valve-seat 6 to close and open the flue. The valve-seat consists of an annular casting, which is secured to the shell of the lower portion of the flue and is provided with upwardly-projecting annular flanges *b c*, forming a circular gutter 7. The upper section of the chimney-flue, which is of smaller diameter than the lower section, fits on the seat within the inner annular flange *c*, and its shell is fixed thereto.

8 is a water-supply pipe, which discharges into the gutter 7, and 9 is an outlet-pipe, by which the water after flowing through the gutter is led off to a suitable place of discharge. By maintaining a current of water through this gutter the valve-seat casting is cooled effectually without the expense and inconvenience which attend casting the seat

with water-cooling pipes or coils. The valve 40 5 is suspended by a link 10 from a lever 11, which extends through the wall of the flue and is pivoted at 12 and provided with a counter-weight 13. Part of this lever is curved or bent vertically, as shown, and the weight 45 and position of the counter-weight are so determined relatively to the weight of the valve that when the valve is seated, as shown by full lines, the leverage is sufficient to hold it to its seat, and when the lever is moved, as 50 shown by dotted lines, to unseat the valve the distance between the inner end of the lever and the vertical plane of the pivot is relatively greater than the distance of the counter-weight from such plane and the valve will 55 remain open of itself. I do not claim herein the arrangement and construction of this valve-lever.

I claim—

1. The combination, with a furnace-flue, of 60 an annular valve-seat casting having flanges affording an outer water-gutter fixed to the sections of the flue, substantially as and for the purposes described.

2. The combination, with a furnace-flue, of 65 an annular valve-seat casting fixed to one of the flue-sections and having upright flanges *b c*, forming an outer water-gutter, the flange *c* encircling and fixed to a second narrower section of the flue, substantially as and for 70 the purposes described.

In testimony whereof I have hereunto set my hand this 11th day of December, A. D. 1891.

JULIAN KENNEDY.

Witnesses:

ALBERT A. HEINER,
THOMAS W. BAKEWELL.