

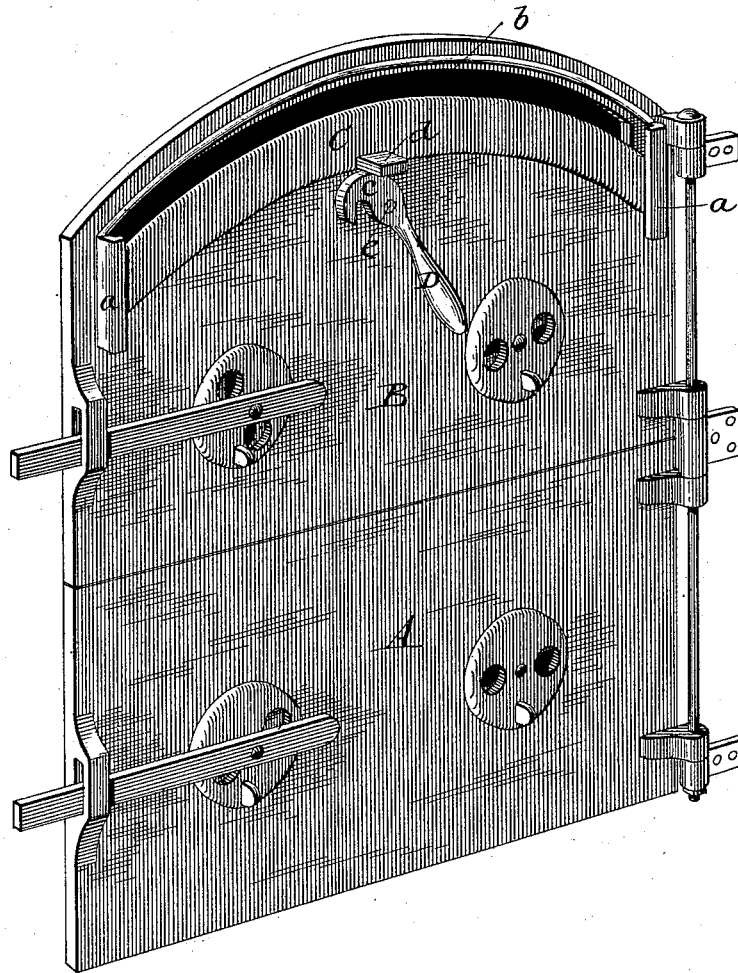
(No Model.)

W. H. BECKWITH.

COKE OVEN DOOR.

No. 307,258.

Patented Oct. 28, 1884.



Attest.

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Inventor.

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UNITED STATES PATENT OFFICE.

WILLIAM H. BECKWITH, OF LATROBE, PENNSYLVANIA.

COKE-OVEN DOOR.

SPECIFICATION forming part of Letters Patent No. 307,258, dated October 28, 1884.

Application filed January 12, 1884. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. BECKWITH, of Latrobe, in the county of Westmoreland and State of Pennsylvania, have invented certain Improvements in Coke-Oven Doors, of which the following is a specification.

My invention relates to doors for coke-ovens and like furnaces, and is designed as an improvement upon that for which Letters Patent were granted to me bearing date November 20, 1883, and numbered 288,761, to which reference is hereby made for any details or explanations not found herein.

The present invention consists in a novel construction and mode of operating the air-inlet door at the top of the furnace or oven front.

The drawing shows a perspective view of my improved oven door or front, in which A indicates the lower door or section for the insertion and withdrawal of the charge; B, the upper section to permit the leveling of the charge, and C the air-inlet door or slide, which is made to extend entirely across the upper section, B, from side to side, and is guided at its ends by upright ribs or guides *a*, formed upon the body of door B. The damper-slide or door C is made of approximately straight form from end to end, or slightly higher at the middle than at the ends, and the air-inlet *b* is of like form, so that when the slide is moved back from over the inlet-opening a body or stratum of air of uniform depth may enter the oven from side to side, thereby affecting all parts of the charge alike. In this way the slow combustion or oxidation of the coking process can be much more perfectly regulated than with doors moving in a horizontal plane, which throw the air to one side and tend to produce unequal combustion at different points. This feature is one of great

importance in coke-ovens, as will be readily understood, and insures a more perfect product. The required amount of air may also be admitted nearer to the crown of the oven under this plan than under the former construction.

For the purpose of actuating the slide and holding it at any desired elevation, I provide a lever, D, which is formed with an eccentric or cam-shaped head, C, and pivoted to the door B as shown, the head C being arranged to bear against a lug or projection, *d*, midway between the ends of the slide, and consequently to raise or lower both ends of the slide equally and simultaneously. The lug being vertically in line with pivot *e* of the lever D, the slide will remain at whatever adjustment may be given it, and its weight will prevent the lever from changing its position.

I do not in this application claim anything embraced in my former patent, above referred to.

I do not claim, broadly, a vertically-moving damper, my invention and claim being confined to the combination, with such damper, of the means shown and described for operating the same and retaining it in position.

Having thus described my invention, what I claim is—

In combination with an oven-door provided with guides *a* and air-inlet *b*, slide C, having its ends mounted in said guides, and provided with lug *d*, and lever D, pivoted to the door, and having eccentric head *c* bearing against the lug, substantially as and for the purpose set forth.

WILLIAM H. BECKWITH.

Witnesses:

ALEX. Y. DOUGLASS,
GEO. N. BECKWITH.