No. 875,356. PATENTED DEC. 31, 1907.

H. KOPPERS.

CLOSURE FOR COKE OVENS AND SIMILAR DEVICES.

APPLICATION FILED MAY 25, 1907.

Fig. 1.

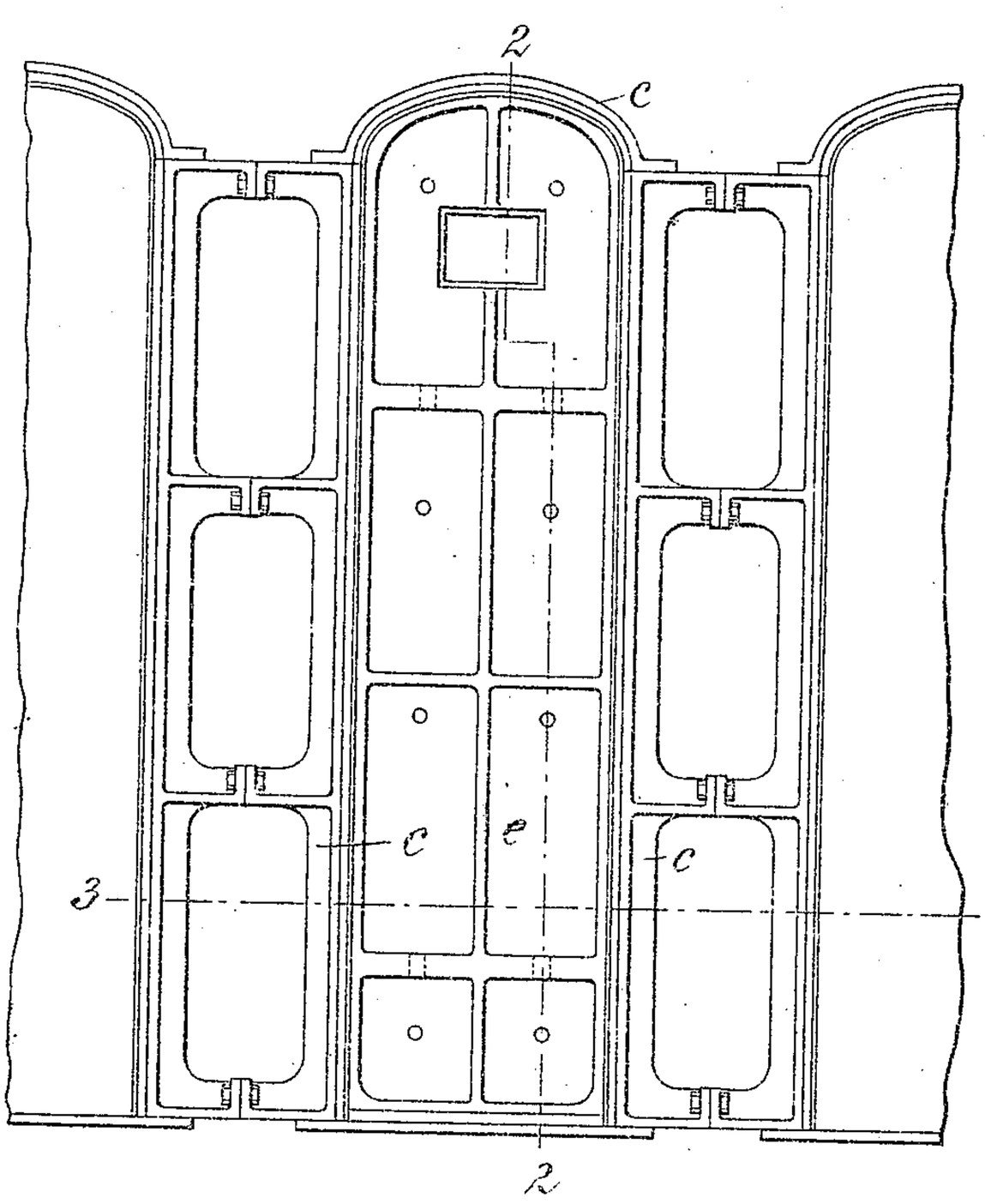


Fig. 2.

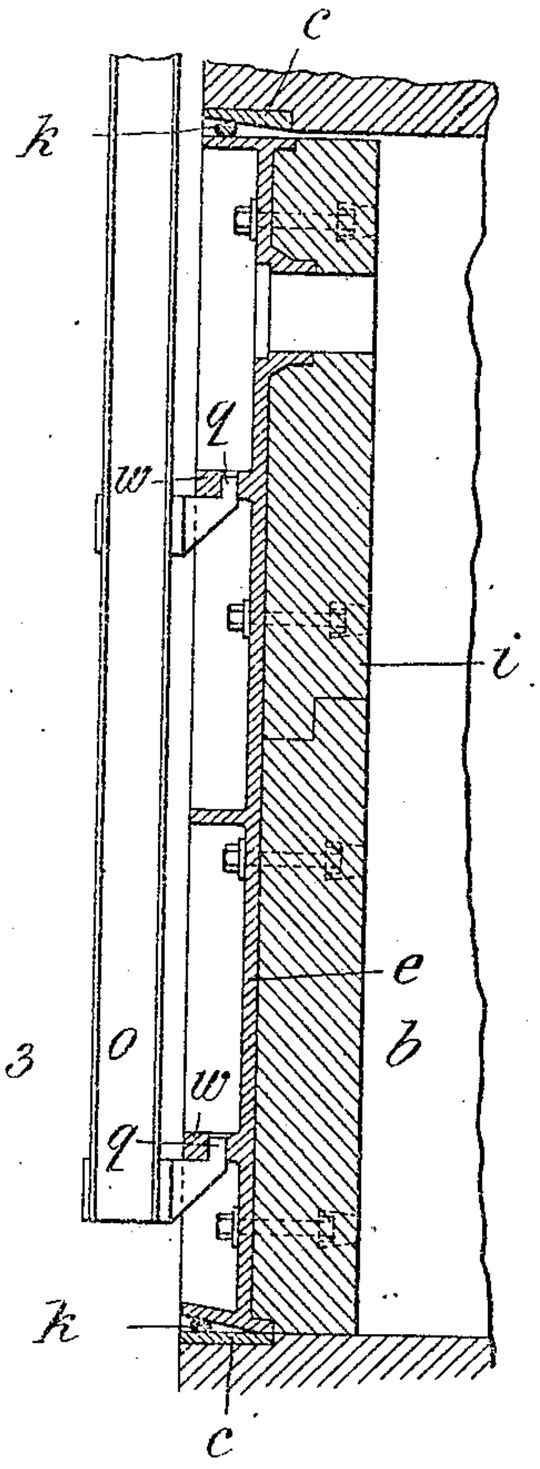
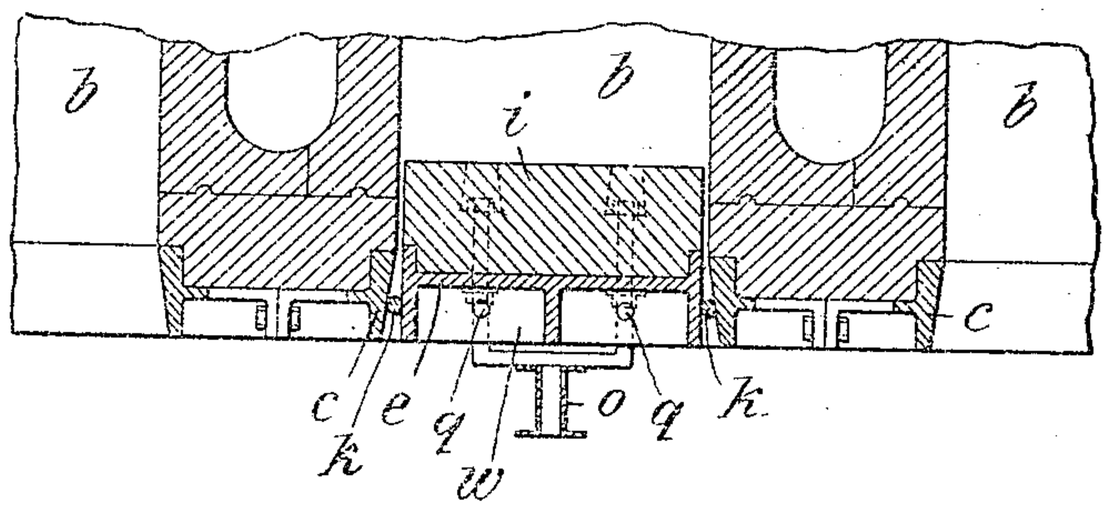


Fig. 3.



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HEINRICH KOPPERS, OF ESSEN-ON-THE-RUHR, GERMANY.

CLOSURE FOR COKE-OVENS AND SIMILAR DEVICES.

No. 875,356. Specification of Letters Patent. Patented Dec. 31, 1907.

Application filed May 25, 1907. Serial No. 375,585.

To all whom it may concern:

Be it known that I, HEINRICH KOPPERS, a citizen of Germany, residing at Essen-on-the-Ruhr, Germany, have invented new and useful Improvements in Closures for Coke-Ovens and Similar Devices, of which the following is a specification.

This invention relates to a closure for coke ovens and similar devices which permits the ready manipulation of the door, supports the door in its closed position and insures a tight packing between door and door-frame, though the parts have become warped by heat.

In the accompanying drawings: Figure 1 is a front view of a coking chamber embodying my invention; Fig. 2 a vertical section on line 2—2, Fig. 1; Fig. 3 a horizontal section on line 3—3, Fig. 1.

In Figs. 1—3, there is fitted into the front of a coking chamber *b*, a metal door-frame *c*. The door *e*, having a suitable lining *i*, is entirely disconnected from frame *c*, and is closed by pushing it into the frame to be telescoped thereby, until it is substantially flush therewith. The door is of such a size that when closed, a clearance is formed between all of its four sides, and the four inner sides of the frame. This clearance is closed by means of a rope or other packing *k*, which entirely surrounds the door and thus assumes the additional function of sustaining the door in position. If desired, either the door, or the frame, or both the door and frame may be beveled, the drawing showing the frame to be beveled on the top and sides, while the door is beveled at the bottom. By means of this lower bevel, the door is directly supported upon the frame, while the clearance or recess required for the reception of the packing is nevertheless provided. To manipulate the door, there is provided a lifting bar *o*, having hooks *q*, which are adapted to engage perforated ribs *w*, of door *e*, the means for operating said bar being not shown.

It will be seen that by my invention effective means are provided for properly sustaining the retort door in position and for simultaneously packing the joint between such door and its frame. Should the door or the door-frame warp, a tight closure will still be maintained by the packing, because any slight horizontal displacement of the door within the frame, does not affect the tightness of such packing.

I claim:

1. In a device of the character described, a coking chamber having a door-frame, combined with a door disconnected from said frame and adapted to be telescoped thereby, and with a packing that surrounds the door and engages the inner sides of the frame, said packing being adapted to sustain the door in position, substantially as specified.

2. In a device of the character described, a coking chamber having a door-frame, combined with a door disconnected from said frame and adapted to be telescoped thereby, one of said parts being beveled to form an intervening recess, and a packing within said recess, said packing being adapted to sustain the door in position, substantially as specified.

Signed by me at New York city, (Manhattan,) N. Y., this 21st day of May, 1907.

HEINRICH KOPPERS.

Witnesses:

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