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N. R. DEPPE.

KILN DOOR.

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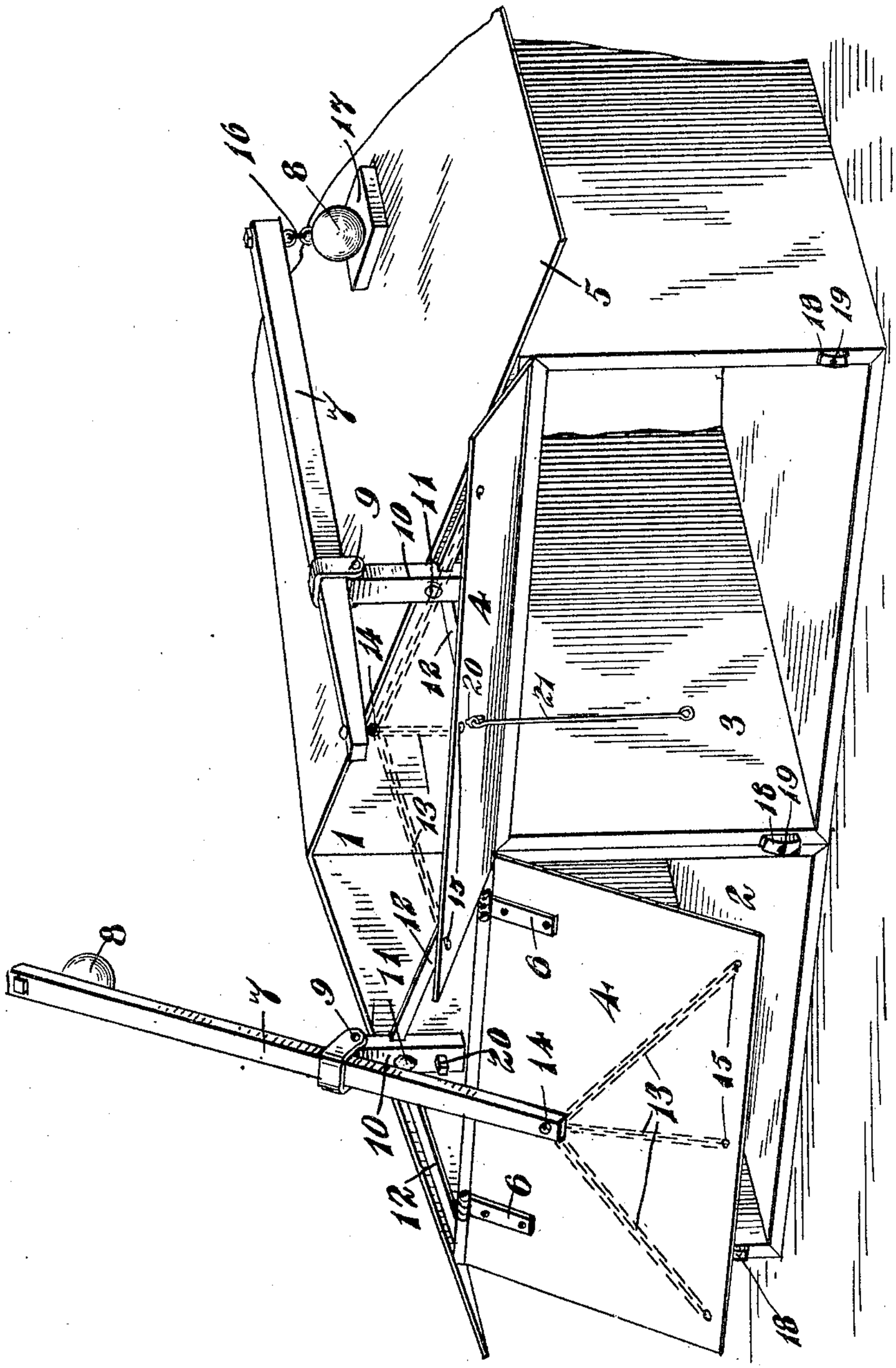

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UNITED STATES PATENT OFFICE.

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KILN-DOOR.

No. 812,728. Specification of Letters Patent. Patented Feb. 13, 1906.

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To all whom it may concern:

Be it known that I, NELSON REIHNARD DEPPE, a citizen of the United States, residing at Deppe, in the county of Onslow and State of North Carolina, have invented certain new and useful Improvements in Kiln-Doors; and I do declare the following to be a full, clear, and exact description of the invention, such as will enable others skilled in the art to which it appertains to make and use the same.

My invention relates to improvements in doors for dry-kilns and the like.

The object of my invention is to provide a door of this character which will be simple in construction, durable in use, efficient in operation, and comparatively inexpensive to manufacture.

With this and other objects in view, the invention consists of certain novel features of construction, combination, and arrangement of parts, as will be more fully described, and particularly pointed out in the appended claim.

In the accompanying drawing the figure is a perspective view of a front portion of a dry-kiln equipped with my improved doors, one of the latter being in its open position and the other in a partially-open position.

Referring to the drawing by numerals, 1 denotes the front portion of a dry-kiln or any other suitable structure formed with two door-openings 2 and 3, which are adapted to be closed by my improved doors 4. The kiln structure and the door-opening may be of any suitable size, form, or construction; but, as shown, said openings 2 and 3 are rectangular in form and occupy the entire front of the kiln, the latter having a gable-roof 5, as here shown.

Since the doors 4 are similar in construction and operation, a description of one will suffice for both. As illustrated, the door 4 is rectangular and constructed, preferably, of galvanized sheet-iron. Its upper edge is secured by two or more hinges 6 to the upper portion of the front of the kiln, so that said door is adapted to swing upwardly and outwardly, as illustrated in the drawing. In order to facilitate opening and closing of this door, I counterbalance the same by mounting upon the upper portion of the kiln a lever 7, one end of which is connected to the door and the other end to a counterbalance-weight 8. Said lever may be mounted in any desired manner; but I preferably pivot or fulcrum it intermediate its ends, as shown at 9, upon the upper end of a vertically-disposed post 10, mounted centrally over the door-opening. Said post is secured by bolts 11 upon the front of the kiln and is strengthened by diagonal braces 12. Any loose or flexible connection may be provided between the front end of the lever 7 and the said door; but, as illustrated in the drawing, I have provided three chains 13, each of which has one of its ends secured to an eyebolt 14 upon the end of said lever and its other end to the door, as shown at 15. The counterbalance-weight 8 may be of any suitable form; but it is here shown in the form of a metal ball, which is loosely connected to the rear end of the lever 7, as shown at 16. In order to prevent the weight from injuring the roof when the door is swung to its open position, I provide upon the roof a block 17 of wood or other suitable material. Any suitable means may be provided for securing the doors in their closed positions; but, as clearly shown in the drawing, I provide at each side and at the center of the kiln turn-buttons 18, which are pivoted at 19. When said buttons are turned to the position shown, said doors may be readily opened or closed. In order to limit the downward movement of the outer end of the lever, I provide upon the post 10 a forwardly-projecting stop 20.

In order to close the doors 4 when in their elevated position, I provide upon the inner face of each a ring or eye 20′, with which a hooked rod 21 may be engaged to lower the door.

From the foregoing description, taken in connection with the accompanying drawing, the construction and operation of the invention will be readily understood without requiring a more extended explanation.

Various changes in the form, proportion, and the minor details of construction may be resorted to without departing from the principle or sacrificing any of the advantages of this invention.

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

A kiln or the like having a door-opening and a vertically-disposed post above said opening, a door for said opening hingedly mounted upon said structure to swing upwardly and outwardly, at the bottom, a lever

fulcrumed intermediate its ends upon said post, chain connections between one end of said lever and said door, a counterbalance-weight upon the other end of said lever, a protecting-block upon said kiln for said weight, and a fastening device for securing said door in its closed position, substantially as described.

In testimony whereof I have hereunto set my hand in presence of two subscribing witnesses.

NELSON REIHNARD DEPPE.

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