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UNITED STATES PATENT OFFICE.

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WALL CONSTRUCTION FOR KILNS AND THE LIKE.

1,040,422.

Specification of Letters Patent.

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To all whom it may concern:

Be it known that I, ERNST RUEBEL, a citizen of the United States of America, residing in the city of St. Louis and State of Missouri, have invented certain new and useful Improvements in Wall Construction for Kilns and the Like, of which the following is a specification.

This invention relates to kilns and the like, and has for its primary object to provide an improved construction, combination and arrangement of parts in devices of this character whereby the side wall can be more simply and durably made and rendered more economical and serviceable in use.

One of the objects of the present invention is to provide an improved interlocking construction and connection between the tiles.

Another object is to provide improved means for preserving the upper edges of the tiles bordering the slot through which the rabbling bar projects.

Other and further objects will appear in the specification and be specifically pointed out in the appended claims reference being had to the accompanying drawings exemplifying the invention, and in which,

Figure 1 is a fragmentary vertical section of a kiln provided with my improved wall construction. Fig. 2 is a perspective view, from above, of one of the tiles. Fig. 3 is a perspective view, from below, of the same. Fig. 4 is a fragmentary top plan view taken on the line IV—IV, Fig. 1.

Referring more particularly to the drawings, the foundation 1 may be constructed of any suitable material, and in any suitable manner, a suitable anchor or support for the fire proof tiles being provided in the form of an upright I-beam 2 embodied within the foundation 1. Said I-beam projects a short distance above the upper surface of the foundation 1, and by its disposition is adapted to fit into an I shaped recess 3 (see Fig. 3) formed in the bottom of alternate tiles 4. Each of the tiles 4 is enlarged toward one face thereof, preferably by making them wedge-shaped, as shown in Fig. 4. When these tiles are disposed in position upon the foundation 1, the recess 3 covers the upper end of the I-beam 2, and is held thereby against lateral displacement in any direction. Intermediate of the wedge-shaped tiles 4, are other wedge-shaped tiles 5 which, as shown

in Fig. 4, are securely mounted in position and held against lateral displacement by their interlocking connection with the tiles 4.

Referring now more especially to Figs. 2 and 3, each of the tiles 4 (as well as the tiles 5, as shown in Fig. 4) is recessed along one corner to form a portion of the hearth of the kiln, see reference character 6 in Fig. 1. Ordinarily, the upper surface of the tile 4 would be the face 7; but in order to provide simple and efficient means for retaining in position a layer of ordinary inexpensive brick so as to avoid wear upon the upper surface of the tiles, an upwardly projecting ledge 8 is provided along its upper outer corner. This ledge 8 serves as an abutment for the protecting elements or bricks 9, which extend in a series beneath a rabble bar 10 of well-known construction.

What I claim is:

1. In a wall for kilns and the like, the combination with spaced tiles enlarged outwardly, of an intermediate tile enlarged outwardly to interlock with said spaced tiles, and means for anchoring said spaced tiles.

2. In a wall for kilns and the like, the combination with a pair of spaced wedge shaped tiles having enlarged edges disposed outwardly, of an intermediate wedge shaped tile with its enlarged edge disposed inwardly, and means for anchoring said spaced tiles.

3. In a wall for kilns and the like, the combination with rigidly mounted beams, of tiles provided with recesses fitting the ends of said beams, said tiles being wedge-shaped to form an outwardly narrowed space, and a wedge-shaped tile fitting said space.

4. In a kiln or the like, the combination with a foundation, of vertically disposed beams having their lower ends embedded in said foundation, wedge-shaped tiles provided with recesses into which the upper ends of said beams project to retain said tiles against lateral displacement, and wedge-shaped tiles disposed intermediately of said recessed tiles.

5. In a kiln or the like, the combination with a foundation, of vertically disposed beams having their lower ends embedded in said foundations, wedge-shaped tiles provided with recesses into which the upper ends of said beams project to retain said tiles against lateral displacement, and

wedge-shaped tiles disposed intermediately of said recessed tiles, said tiles being provided with brick retaining ledges. their outer face to form a protecting brick receiving recess.

6. A refractory fire tile provided with a hearth forming recess and a second recess above and to one side of the first recess, the second recess being adapted to receive a protecting member. 8. A fire proof tile having one corner thereof recessed to form a portion of the hearth of a kiln or the like, and a ledge projecting from its upper surface along one edge. 15

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7. In a kiln or the like, a wall comprising tiles forming a corner of the hearth, said tiles being provided with a ledge along

In the presence of—

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