

(No Model.)

W. H. BROCK.
BRICK CONSTRUCTION.

No. 595,988.

Patented Dec. 21, 1897.

Fig. 1.

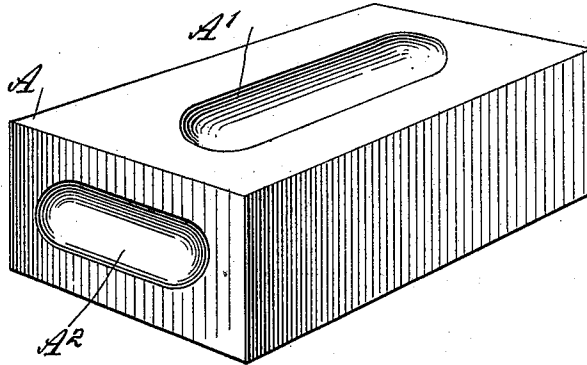


Fig. 2.

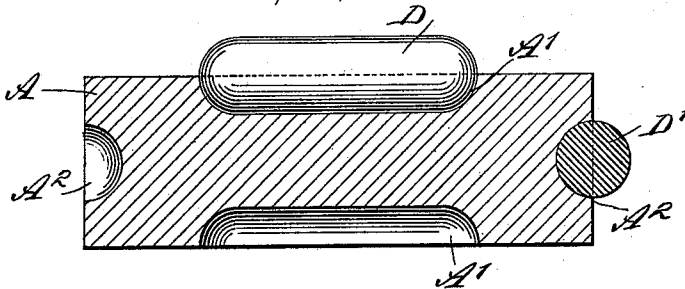
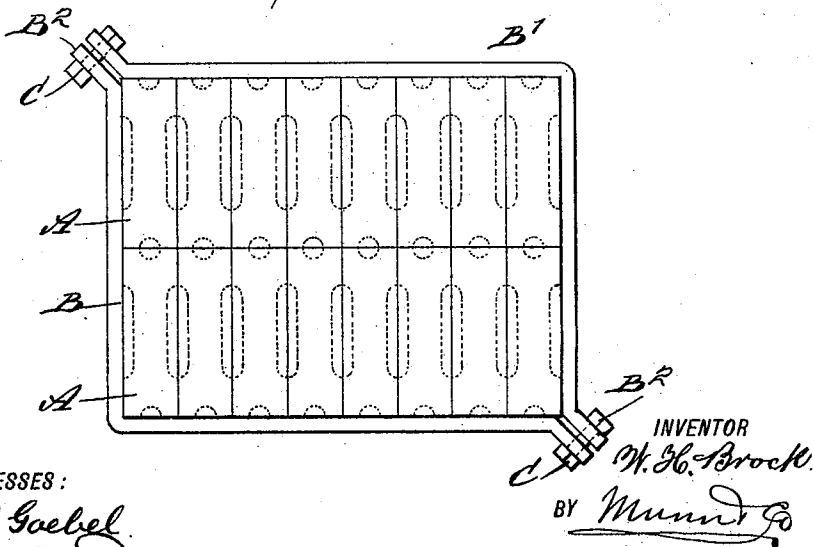


Fig. 3.



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BRICK CONSTRUCTION.

SPECIFICATION forming part of Letters Patent No. 595,988, dated December 21, 1897.

Application filed February 18, 1897. Serial No. 623,919. (No model.)

To all whom it may concern:

Be it known that I, WILLIAM H. BROCK, of Brooklyn, in the county of Kings and State of New York, have invented a new and Improved Brick Construction, of which the following is a full, clear, and exact description.

The invention relates to fire-bricks used in boiler-settings and the like; and its object is to provide a new and improved fire-cap or upper part of the setting which is simple and durable in construction and arranged to securely hold the fire-bricks in place notwithstanding their shrinkage owing to the high heating from the fireplace to which the bricks are subjected.

The invention consists principally of bricks formed at adjacent faces and ends with registering elongated recesses and keys of corresponding shape and each extending into and filling the corresponding registering recess of two adjacent bricks.

The invention also consists of certain parts and details and combinations of the same, as will be fully described hereinafter and then pointed out in the claims.

Reference is to be had to the accompanying drawings, forming a part of this specification, in which similar characters of reference indicate corresponding parts in all the figures.

Figure 1 is a perspective view of one of the bricks used for forming the fire-cap. Fig. 2 is a sectional side elevation of the same with some of the keys in place, and Fig. 3 is a plan view of the improvement.

The fire-cap, as illustrated in Fig. 3, is formed of a number of bricks A, arranged in rows, each row having the bricks fitted together at their faces, and the two or more rows abut one on the other at the ends of the bricks, as will be readily understood by reference to the said figure. The entire series of bricks is bound by a suitable frame, preferably made in two parts or bands BB', formed at their ends with flanges B², adapted to be engaged by bolts C, so as to securely fasten the two bands or sections together, preferably at opposite corners of the bricks, as indicated in Fig. 3. Each of the bricks A is made of the usual fireproof material and is formed in each of its faces with an elongated and longitudinally-extending recess A', rounded off at

the ends, as plainly indicated in Figs. 1 and 2. Similar recesses A² are formed in the ends of the bricks, but extend transversely thereon—that is, at right angles to the recess A in the faces of the bricks. Now when the bricks are placed in position, as before described, and shown in Fig. 3, then the faces of adjacent bricks have their recesses A' registering with each other, and in each such registering pair of recesses is placed a key D, filling both recesses by being of a similar shape to the same. In a like manner the abutting ends of the two rows of bricks have their recesses A² registering with each other, and in each pair of such registering recesses is placed a similarly-shaped key D', filling the two recesses by projecting partly into each recess.

Now it is evident by the arrangement described the keys D and D' securely hold the several bricks in the frame even if the bricks shrink to a considerable extent owing to the heat emanating from the fireplace, as the keys D and D' always engage two adjacent bricks, so that the same cannot fall apart. Thus when the cap is formed and is subjected to a high heat there is no danger of the bricks falling out of the frame, as the several keys D and D' securely hold the bricks in position. It is understood that the keys D and D' prevent lateral as well as vertical movement of adjacent bricks, as the keys are fitted as snugly as possible into the corresponding recesses and are also preferably made of fireproof material similar to that of which the bricks are made.

It will be observed that the key-receiving recesses terminate short of the edges of the bricks, forming shoulders which absolutely prevent any sliding movement of the bricks relatively to the keys, and consequently in relation to each other.

It will be understood that my improved bricks can be used with advantage in any construction in which a strong bond is desired.

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

1. A brick construction, comprising bricks provided in their adjacent faces with recesses having ends removed from the edges of the bricks and vanishing into the faces thereof,

forming shoulders, and individual keys fitted into the registering recesses of adjacent bricks and held against longitudinal movement by engagement with the said shoulders, substantially as described.

5 2. A brick construction, comprising bricks having elongated recesses in their adjacent faces, the recesses extending longitudinally in the sides of the bricks, and transversely in
10 the ends thereof, and keys fitted into the registering recesses of adjacent bricks, substantially as described.

3. A brick construction, comprising bricks provided in their adjacent faces with recesses
15 terminating short of the edges of the bricks,

and individual keys fitted in each two registering recesses, substantially as described.

4. A brick construction, comprising bricks provided in their adjacent faces with elongated recesses terminating short of the edges 20 of the bricks, said recesses extending longitudinally in the sides of the bricks, and transversely in the ends thereof, and longitudinal and transverse keys fitted into the registering recesses of adjacent bricks, substantially as 25 described.

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Witnesses:

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