

S. S. SWIFT.
KEY AND LOCK BRICK.
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998,811.

Patented July 25, 1911.

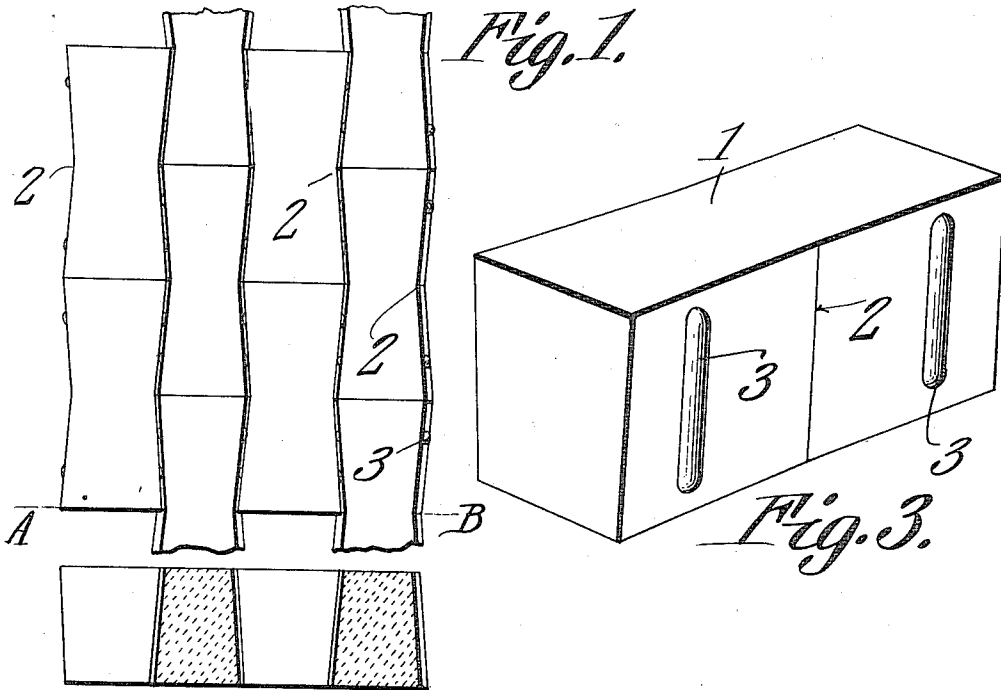
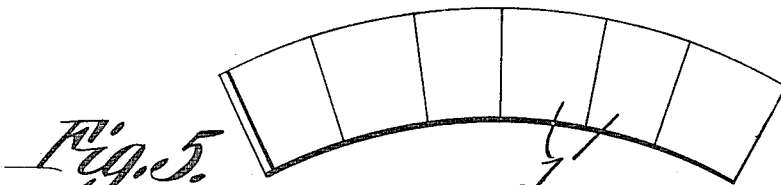
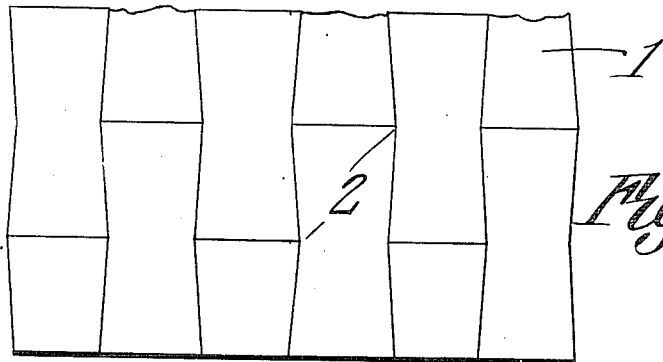


Fig. 2.



Witnesses

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UNITED STATES PATENT OFFICE.

SAMUEL S. SWIFT, OF WOODLAND, PENNSYLVANIA.

KEY AND LOCK BRICK.

998,811.

Specification of Letters Patent.

Patented July 25, 1911.

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To all whom it may concern:

Be it known that I, SAMUEL S. SWIFT, a citizen of the United States, residing at Woodland, in the county of Clearfield and State of Pennsylvania, have invented a new and useful Key and Lock Brick, of which the following is a specification.

This invention relates to bricks for use in paving streets and walks, and in constructing arches of furnaces, kilns and the like.

One of the objects of the invention is to provide a brick which is so shaped as to firmly interlock with adjoining bricks whereby longitudinal displacement of the various courses of brick is prevented, and it thus becomes possible to avoid the expense of providing a curb such as ordinarily used along streets and highways.

Another object is to provide a brick which can be readily manufactured and which can be easily manipulated without danger of reducing its efficiency as a result of chipping.

A still further object is to provide bricks which can be stored in a compact space and which, when properly nested, will not occupy any more room than ordinary bricks of the same bulk.

With these and other objects in view the invention consists of certain novel details of construction and combinations of parts hereinafter more fully described and pointed out in the claim.

In the accompanying drawings the preferred forms of the invention have been shown.

In said drawings, Figure 1 is a plan view of a portion of a pavement formed of bricks constituting the present improvement. Fig. 2 is a section on the line A—B of Fig. 1. Fig. 3 is a perspective view of one of said bricks. Fig. 4 is a plan view of a portion of an arch constructed of the bricks. Fig. 5 is an end elevation of the parts shown in Fig. 4.

Referring to the figures by characters of reference 1 designates the body of the brick the same being wider at the top than at the bottom and the sides thereof converging toward said bottom face, thus giving the brick, in end view, the appearance of a keystone. The sides of the brick, in addition to converging toward the narrow face of the brick, are extended toward each other along converging lines to points equidistant from the ends of the brick and which have been indicated at 2, substantially V-shaped re-

cesses being thus formed in the two sides of the brick. When the brick is used for paving purposes, a rib 3 may be provided upon each side thereof adjacent the ends of the brick, these ribs constituting spacing means.

In building a pavement of bricks such as herein described, one course is laid with the broad faces of the brick uppermost and the next course is laid with the narrow faces uppermost, the bricks of this latter course being arranged to lap the ends of the first laid bricks so as to occupy the staggered relation disclosed in Fig. 1, the ends of the bricks of one course lying in the angles in the sides of the bricks of the adjoining course. This arrangement is followed throughout the extent of the pavement and the ribs 3 constitute efficient means for spacing the bricks apart sufficient distances to permit sand or other suitable filling material to be lodged between the bricks. It will be seen that alternate courses of bricks are supported by the remaining interposed courses and a more solid pavement is thus obtained than where all of the courses bear directly on the sand or other bed provided for the bricks.

By extending the courses of brick from one side to the other of the street or pavement, it becomes unnecessary to utilize the curbs such as ordinarily employed because the bricks will be held against longitudinal displacement by reason of their own peculiar contours.

While the bricks herein described are particularly designed for use in constructing streets and walks, it is to be understood that they may be also used in the construction of arches in furnaces, kilns, sewers and the like. When used for these purposes the same are made without the ribs 3 and instead of arranging the courses with the broad and narrow faces of the bricks alternately uppermost, all of the courses are disposed with the wide faces of the bricks outermost. In other respects the construction is the same as that heretofore described, it being obvious of course that with the narrow faces innermost an arch is thus obtained as shown in Fig. 5.

Inasmuch as all of the bricks are arranged with their broad ends located within the V-shaped recesses in the bricks of the adjoining courses, it will be apparent that none of the bricks can be shifted longitudinally with relation to the adjoining bricks.

By referring particularly to Fig. 1 it will be noted that the ribs on each of the bricks project between the ribs on the next adjoining bricks, there being spaces thus formed
5 between the ribs on the respective bricks and by filling the spaces between the ribs with dirt or any other suitable material, it will be apparent that the bricks will be locked against longitudinal displacement
10 relative to each other. This is an especially advantageous arrangement for holding in place the end bricks of the various courses because it eliminates the necessity of utilizing any abutment therefor.

15 It is of course to be understood that various changes may be made in the construction of the brick without departing from the spirit or sacrificing any of the advantages of the invention.

20 What is claimed is:

A structure consisting of parallel courses of similar bricks, each course consisting of bricks placed end to end, each brick having

flat parallel ends perpendicular to the longitudinal axis of the brick and having parallel
25 flat upper and lower faces, each side of the brick being made up of flat faces converging inwardly to a single line located midway between the ends of the bricks, said bricks
30 being key-stone shaped in cross section, the bricks of one course being inverted relative to the bricks of the adjoining courses, there being ribs upon the flat faces at each side of
35 each brick, the ribs on each brick being disposed between the ribs on the adjoining bricks of the next course, the spaces between the ribs on the adjoining bricks being adapted to receive a filling material.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature
40 in the presence of two witnesses.

SAMUEL S. SWIFT.

Witnesses:

N. G. STEWART,
H. C. GRAHAM.