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PATENTED NOV. 22, 1904.

A. F. KNOBLOCH.  
PAVING BRICK.

APPLICATION FILED JUNE 20, 1904.

NO MODEL.

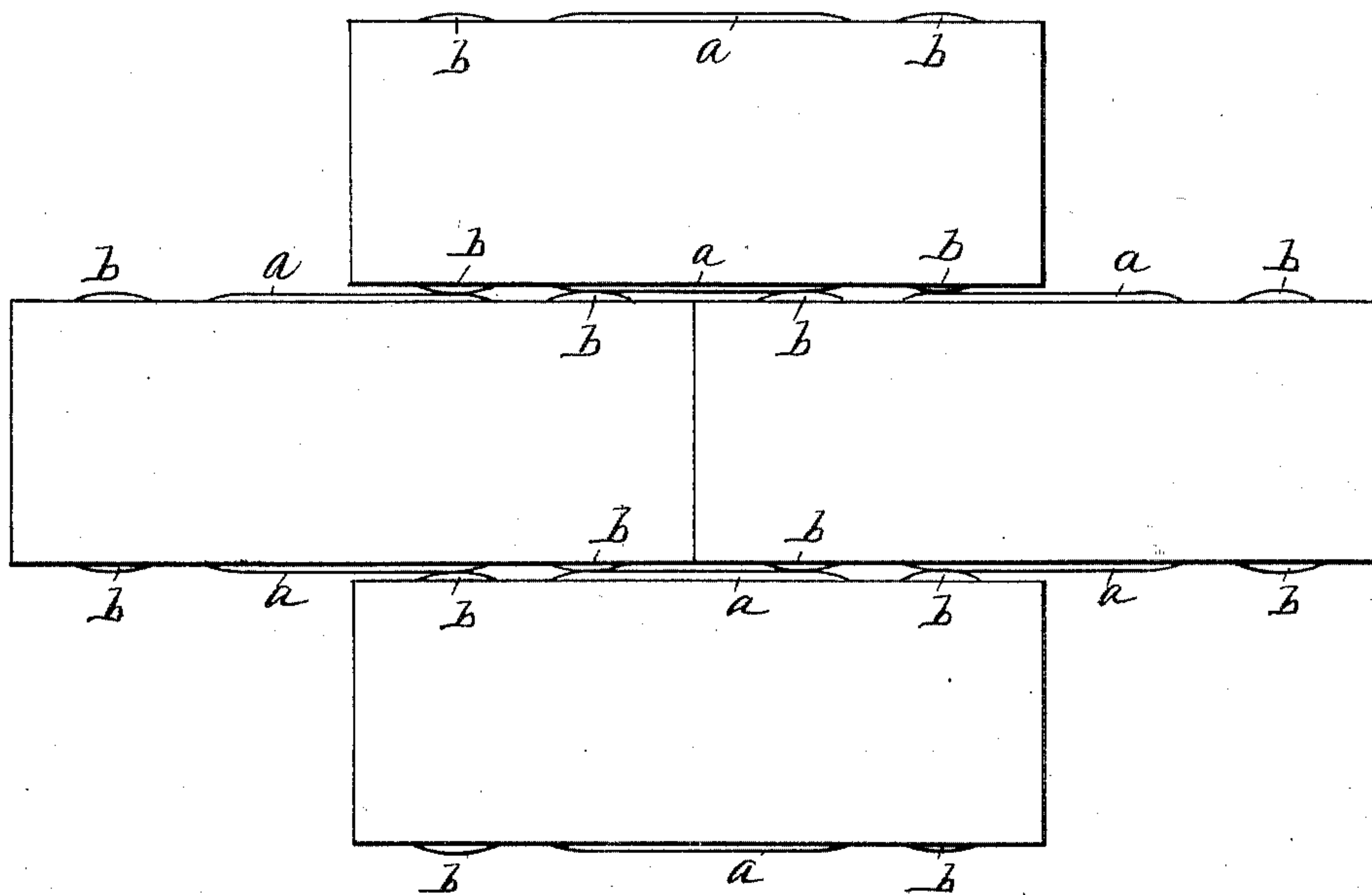


Fig. 1.

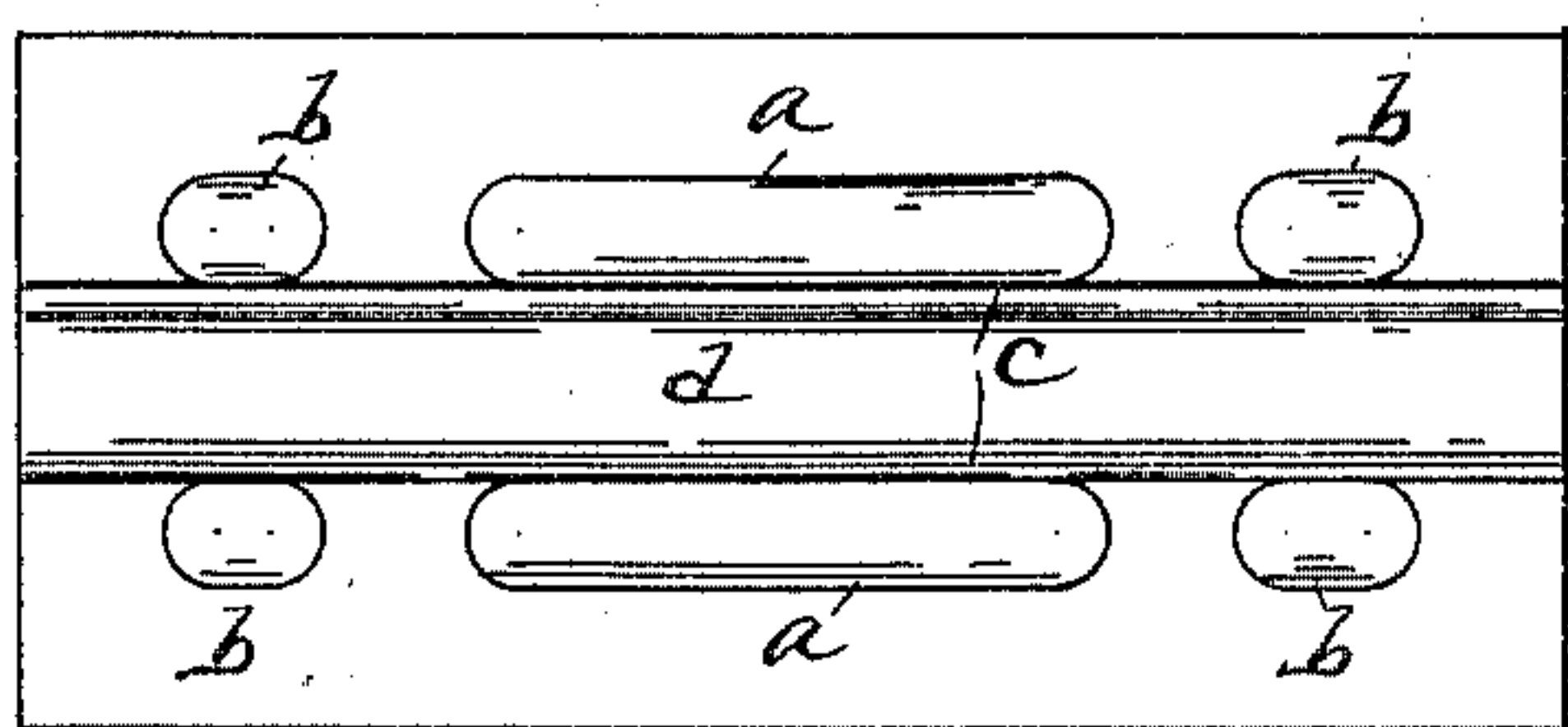


Fig. 2.

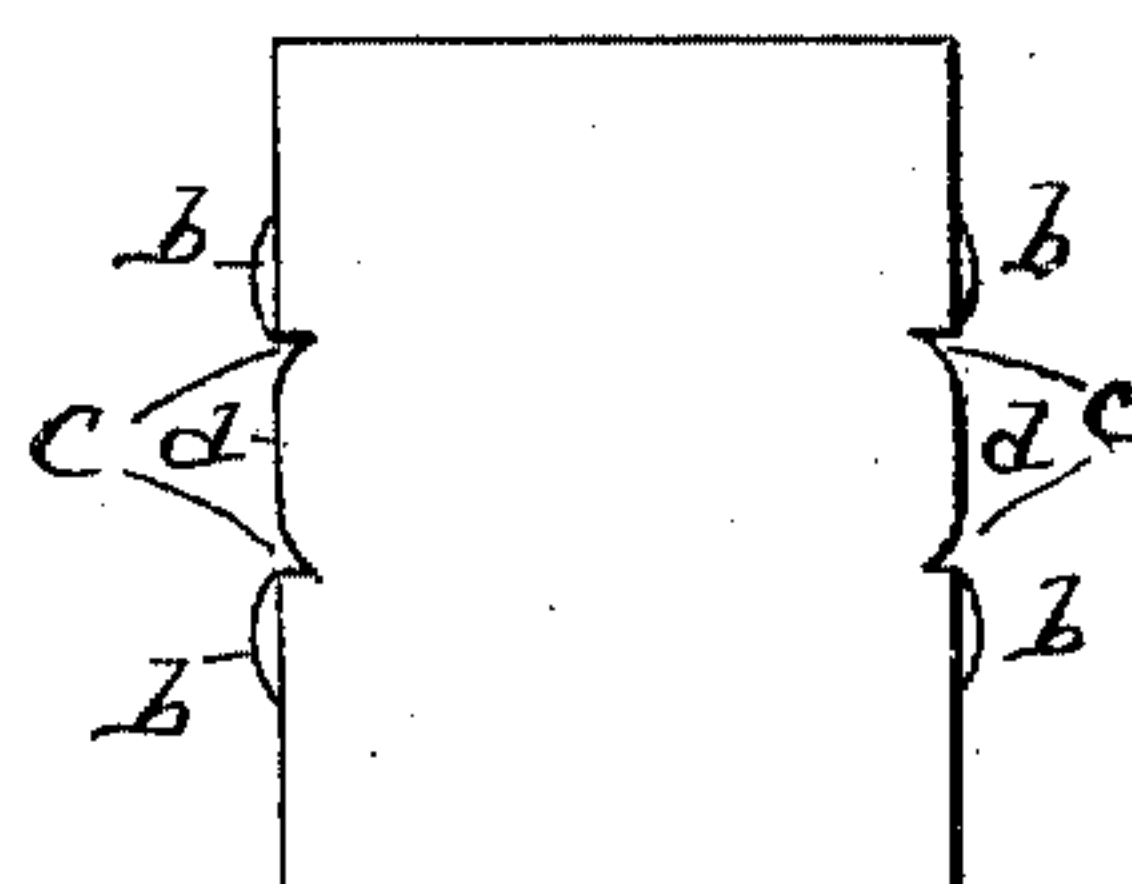


Fig. 3.

Witnesses:  
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# UNITED STATES PATENT OFFICE.

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## PAVING-BRICK.

SPECIFICATION forming part of Letters Patent No. 775,905, dated November 22, 1904.

Application filed June 20, 1904. Serial No. 213,424. (No model.)

*To all whom it may concern:*

Be it known that I, ALVIN F. KNOBLOCH, a citizen of the United States, residing at Detroit, county of Wayne, State of Michigan, have invented a certain new and useful Improvement in Paving-Bricks, of which the following is a specification, reference being had to the accompanying drawings, which form a part of this specification.

My invention has for its object a brick of novel construction as an article of manufacture, the same being adapted more particularly as a paving-brick, although I do not limit myself specifically to any use to which it may be applied.

My invention consists of the structure hereinafter described and claimed, and illustrated in the accompanying drawings, in which—

Figure 1 is a view in plan, showing several bricks in place as for paving purposes. Fig. 2 is a detail view of a brick in side elevation. Fig. 3 is a view of the same in end elevation.

I carry out my invention as follows: The essential features of my improved brick are more especially the construction of the brick having both of its lateral faces provided with lugs, lateral projections, or knobs arranged, essentially, as shown, there being two sets of the knobs, one set being located above the longitudinal center of the brick and the other set located therebelow, each lateral face of the brick being provided with similar sets of knobs, each of said sets consisting, essentially, of an elongated knob or lug *a* intermediate the ends of the brick, each set having two smaller lugs or knobs, (indicated at *b b*,) the lugs *b b* being located intermediate the ends of the adjacent lug *a* and the extremities of the brick. The lugs are preferably rounded, so as to leave no square corners, inasmuch as such a construction is less liable to breakage in the handling or shipment of the brick. It will be understood that both lateral faces of the brick are similarly constructed with the two sets of knobs or lugs. Intermediate the two sets of each face of the brick the brick is constructed with parallel longitudinally-extending grooves, (indicated at *c*,) the space between the two adjacent grooves *c* constituting an intermediate panel *d*. Upon one

of said panels may be located in depressed letters the trade-name of the brick, while the opposite panel might bear the name of the manufacturer.

A chief object of my invention is to provide a brick by the construction of which the bricks will always be spaced when laid, so as to receive a suitable filler therebetween, as of tar or similar material. In laying the bricks the joints are always preferably broken, as indicated in Fig. 1, and in so doing with a brick of my improved construction the two smaller lugs *b b* on one side of a given brick will contact with the elongated lugs *a* upon the two adjacent bricks, the lugs *b b* at adjacent ends of two given bricks contacting with the elongated lug of an adjacent brick, as shown. This arrangement and the contacting of the lugs will of course take place between the two sets of the lugs—the one above the longitudinal center of the brick and the other therebelow. It will be seen that these elongated and smaller lugs are so placed, arranged, and shaped that when the bricks are laid it will be impossible for the bricks to be so shifted or moved longitudinally, but that there will always be two contacts at least between the bricks lying side by side, the two contacts occurring both above and below the longitudinal center of the brick. By this arrangement and construction, with the lugs on both sides of the brick and arranged in sets above and below the longitudinal center thereof, a space is always formed between the bricks when laid to receive the filler, the space between the bricks enabling the filler to be poured in between the bricks, and in no manner, as above set forth, can the bricks ever contact one with another in such a way that there will not always be formed this filler-space therebetween. The lugs are shown in the drawings somewhat enlarged proportionately, inasmuch as in a full-sized brick the intention is preferably to have the lugs each project about one-sixteenth of an inch, so as to form a filler-space between of essentially one-eighth of an inch, the lugs being also, preferably, about five-eighths of an inch in width. By forming each face of the brick with two sets of lugs shaped and arranged as



above described, the one set above the longitudinal center and the other therebelow, it is evident that the bricks cannot tilt the one toward the other either at the top or at the bottom, so that the filler-space will extend the entire width of the brick, or, in other words, from the top to the bottom.

Another advantage of bricks so constructed is in the fact that it is immaterial which face or edge of the brick is laid in a given direction, as the bricks may be laid with either edge uppermost or with either side toward the operator, the result in all cases being exactly the same whichever face of the brick is laid toward the operator or whichever edge is laid uppermost, in consequence of which no attention need be paid whatsoever to any particular manner of locating the bricks, when they are being laid, to secure the required filler-space. The depressed letters upon the panels, together with the longitudinal groove *c c*, help to furnish a lock when the filler has been poured in between the bricks, so that thereby the bricks are still more firmly held from slipping one against the other, although, as above observed, however much the bricks might possibly be moved, purposely or inadvertently, they will always be kept enough apart to provide a filler-space, as above set forth. Furthermore, by rounding the edges of the lugs they will come out of the mold-box more readily than if the edges of the lugs were formed square. The provision of the bricks with the lugs arranged on both lateral faces thereof is a matter of importance, as also the arrangement of the lugs in sets on both faces, above and below the longitudinal center of the bricks. Furthermore, the construction of the lugs in sets shaped and arranged as described, with the elongated central lug and smaller lugs toward the extremities of the brick from the centrally-elongated lug in each set of lugs, is also a matter of importance to insure the bricks always being kept apart to furnish the required filler-space.

I do not limit myself to the breaking of the joints at the center of any given brick, inasmuch as the joints might be broken at any desired point and still the result will be the same, in that, no matter in what position the bricks might be laid relative one to the other, the filler-space will always be maintained.

While I do not limit myself to any particular length, width, nor thickness of the lugs, yet in a nine-inch brick, for example, I have found it desirable to form the central lug or knob *a* three and one-half inches in length, while the lugs *b b* may be one inch in length. So, also, the intervening space between adjacent extremities of the lug may properly be one inch, the smaller lugs *b b* being spaced, for example, three-fourths of an inch each from the adjacent extremity of the brick.

What I claim as my invention is—

1. A brick having the body thereof formed

with vertical plane surfaces provided with portions projecting outwardly from said surfaces on opposite sides of the brick, each of said opposite faces having its longitudinal edges lying in the same plane, said portions projecting outwardly from the vertical plane surfaces beyond the longitudinal center of the brick.

2. A brick having the body thereof formed with vertical plane surfaces provided with portions projecting outwardly from said surfaces toward the opposite ends and toward the upper and lower edges thereof, and on opposite sides of the brick, each of said opposite faces having its upper and lower longitudinal edges lying in the same plane, said portions projecting outwardly from the vertical plane surfaces beyond the longitudinal center of the brick and arranged to always contact with similar portions upon an adjacent brick.

3. A brick having the body thereof formed with vertical plane surfaces provided with lugs projecting outwardly from said surfaces on each of the lateral faces of the brick, the lugs on each lateral face of the brick arranged in sets the one set above, the other set below the longitudinal center of the brick, and each set of lugs comprising a central elongated lug projecting outwardly from the face of the brick, and smaller lugs located toward each extremity of the brick and spaced from the ends of the intermediate elongated lug, and from the extremities of the brick, said lugs arranged to form a filler-space between the adjacent surfaces of the bodies of adjacent bricks.

4. A brick having the body thereof formed with vertical plane surfaces provided with lugs projecting outwardly from said surfaces on each of the lateral faces of the brick, each of said lateral faces of the brick provided with longitudinal parallel grooves projecting inward from the surfaces of the body of the brick forming a central longitudinal panel between said grooves, the lugs on each face of the brick arranged in sets, the one set above, the other set below the central panel, said lugs arranged to form a filler-space between the lateral faces of the bodies of adjacent bricks.

5. A brick having the body thereof formed with plane surfaces provided with lugs projecting outwardly from said surfaces on each of the lateral faces of the brick, each face of the brick provided with longitudinal parallel grooves forming a central longitudinal panel between said grooves, the lugs on each face of the brick arranged in sets, the one set above, the other set below the central panel, each set of lugs comprising a central elongated lug, and additional lugs located toward each extremity of the brick, and spaced from the ends of the intermediate elongated lug, and from the extremities of the brick, said lugs arranged to form a filler-space between the faces of the bodies of adjacent bricks.



6. A brick having the body thereof formed with vertical plane surfaces provided with lugs projecting outwardly from said surfaces on each of the lateral faces of the brick, said lugs arranged in sets toward the upper and the lower edges of the brick, each of said sets comprising a central elongated lug, and additional lugs located toward each extremity of the brick and spaced from the ends of the intermediate elongated lug, and from the extremities of the brick.

7. A brick having the body thereof formed with vertical plane surfaces provided with lugs projecting outwardly from said surfaces on each of the lateral faces of the brick, said brick provided with parallel grooves intermediate the upper and lower edges forming a central longitudinal panel between said grooves, said lugs arranged in sets the one above and the other below said panel, each of said sets comprising a central elongated lug and smaller lugs located toward each extremity of the brick and spaced from the ends of the intermediate elongated lug, and from the extremities of the brick, the edges of said lugs being rounded, the faces of the body of the brick above and below said panel being on the same plane.

8. A brick having the body thereof formed with vertical plane surfaces provided with lugs projecting outwardly on both the lateral faces of the brick, said lugs arranged in sets located toward the upper and lower edges of the brick, each of said sets comprising a central elongated lug and additional lugs located toward each extremity of the brick, and spaced from the ends of the intermediate elongated lug,

and from the extremities of the brick, said lugs set inward from the adjacent longitudinal edges of the brick and arranged to form a filler-space between two adjacent bricks, said filler-space extending continuously from the top to the bottom of the brick.

9. A brick having the body thereof formed with vertical plane surfaces provided with portions projecting outwardly from said surfaces on opposite sides of the brick, said portions arranged both above and below the longitudinal center of the brick on opposite faces of the brick said portions projecting outwardly from the vertical plane surfaces beyond the longitudinal center of the brick to form a filler-space extending continuously from the top to the bottom of the adjacent surfaces of the brick.

10. A brick having the body thereof formed with vertical plane surfaces provided with portions projecting outwardly from said surfaces toward the opposite ends, and toward the upper and lower edges thereof and on opposite sides of the brick, each of said opposite faces having its upper and lower longitudinal edges lying in the same plane, said portions projecting outwardly from the vertical plane surfaces beyond the longitudinal center of the brick.

In testimony whereof I have signed this specification in the presence of two subscribing witnesses.

ALVIN F. KNOBLOCH.

Witnesses:

N. S. WRIGHT,  
M. L. SIMMONS.