

No. 732,832.

PATENTED JULY 7, 1903.

L. CUATT & W. J. ANNIS.
BUILDING BLOCK.

APPLICATION FILED OCT. 9, 1902.

NO MODEL.

Fig. 1.

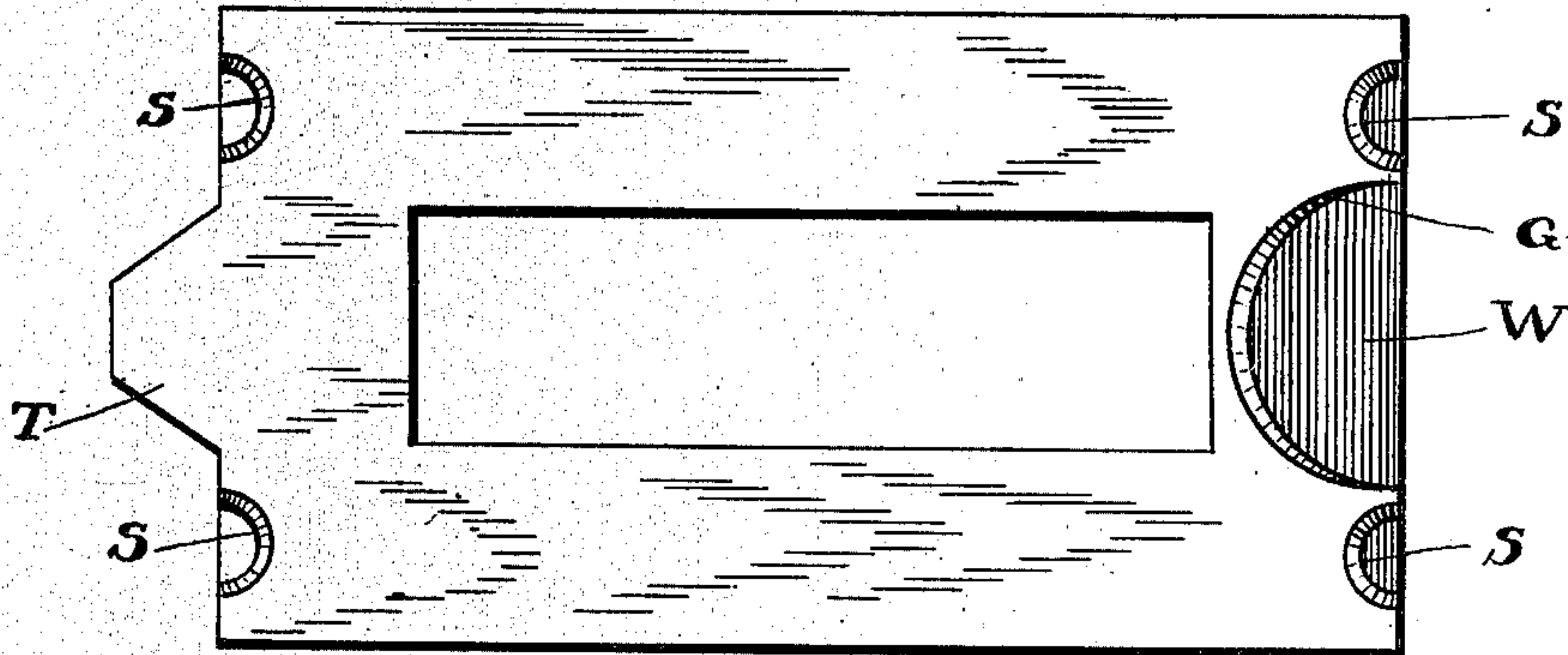


Fig. 2.

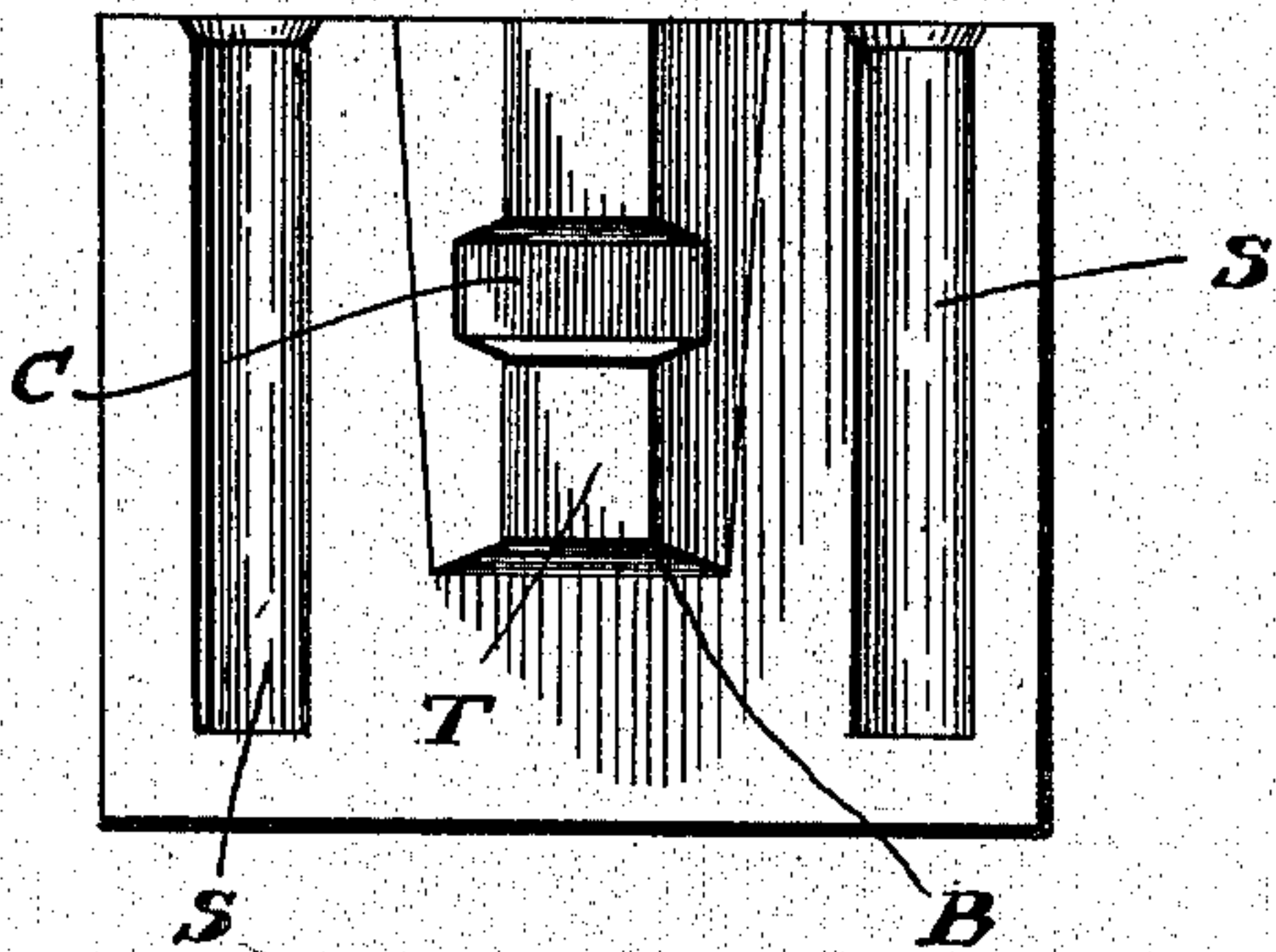


Fig. 3.

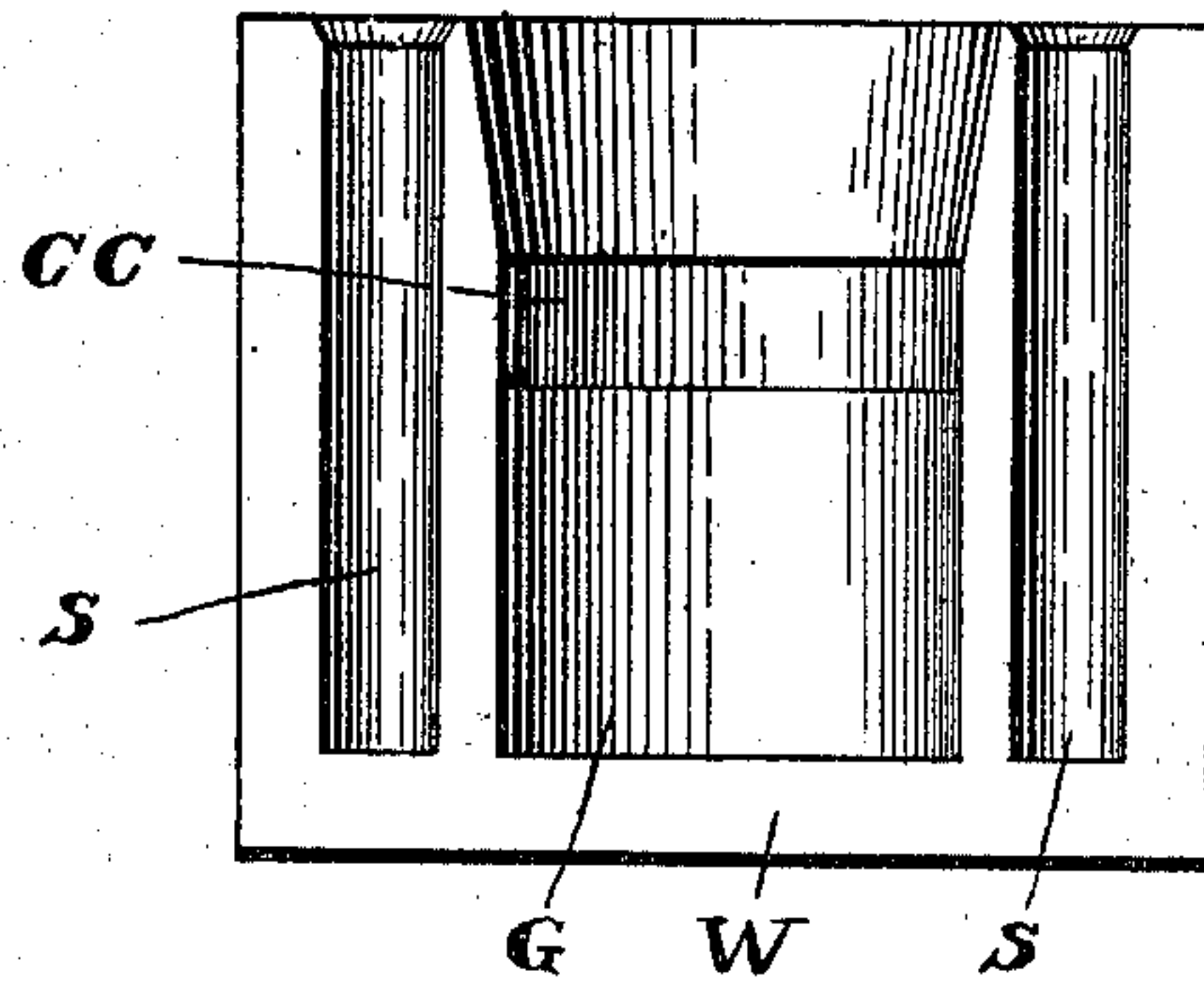
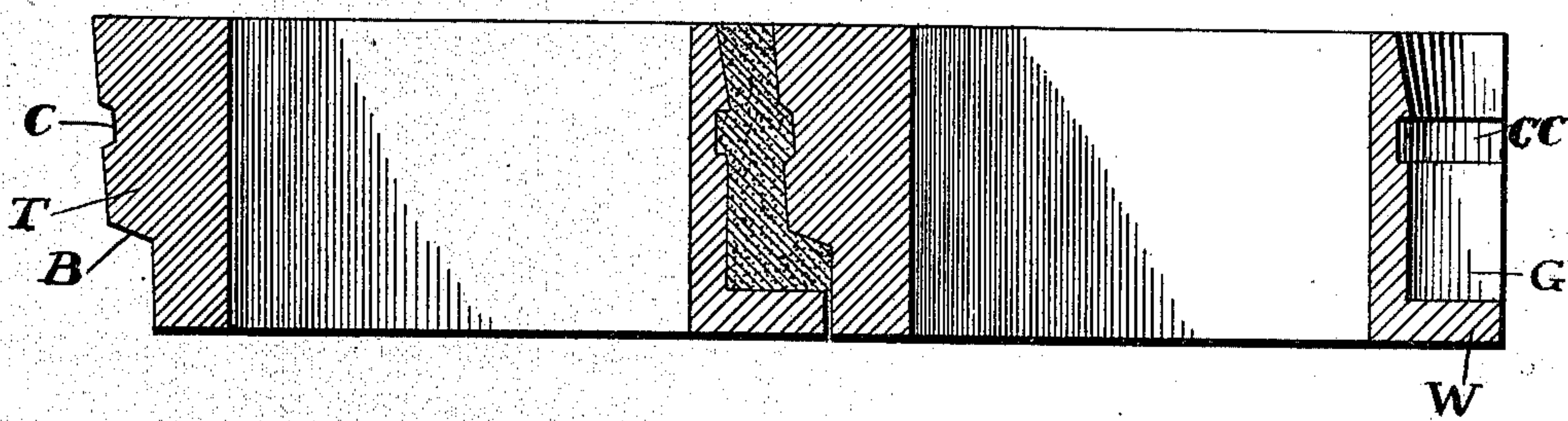


Fig. 4.



Witnesses

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UNITED STATES PATENT OFFICE.

LEWIS CUATT, OF UNION CITY, AND WILLIS J. ANNIS, OF TEKONSHA,
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BUILDING-BLOCK.

SPECIFICATION forming part of Letters Patent No. 732,832, dated July 7, 1903.

Application filed October 9, 1902. Serial No. 126,503. (No model.)

To all whom it may concern:

Be it known that we, LEWIS CUATT, residing at Union City, in the county of Branch, and WILLIS J. ANNIS, residing at Tekonsha, in the county of Calhoun, State of Michigan, citizens of the United States, have invented certain new and useful Improvements in Building-Blocks; and we do hereby 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.

This invention relates to masonry, and more especially to that class of articles known as "building-blocks," which are usually made of composition and serve in the place of bricks; and the objects of the same are to improve the construction of such a block, so as to cause it to hold the mortar or cement better than devices of this kind now on the market, so as to cause two such blocks to be self-locking and so as to present very neat exposed surfaces with little or no mortar appearing at the joints.

To this end the present invention consists in a block constructed as more specifically set forth below and as illustrated in the accompanying drawings, wherein—

Figure 1 is a plan view of one of these blocks. Fig. 2 is an elevation of the tongue end. Fig. 3 is an elevation of the groove end. Fig. 4 is a central vertical section through two of these blocks cemented together end to end.

The block or brick shown in the accompanying drawings may be made of any suitable material, but preferably of clay or cement, pressed or burned and finished on its exterior in any way desired. For the sake of lightness we have shown a large opening through the center of the block; but we desire to be understood as intending to build the block with or without this opening or with a number of openings, if preferred, this feature forming no part of the present invention. The sides of this block are perfectly plain and smooth, as also are the top and bottom, with the exception of the fact that the open-

ings just referred to are here visible. The gist of the present invention lies in the construction of the ends of this block, and in building a wall with our invention these ends will come together in a joint which preferably will stand beneath the center of the block in the row above, as is usual in building a brick wall. In such arrangement the sides of the block will finally be disposed at the two sides of the wall, as is clear.

Coming now more particularly to the gist of this invention, one extremity of the block, which we call the "tongue" end, is best seen in Fig. 2, and the other extremity, which we call the "groove" end, is best seen in Fig. 3. A feature common to both ends is upright side grooves S, cut in the end of the block and extending from its upper face downward nearly, but not quite, to its lower face, so as to leave a wall. When the two blocks come together, these side grooves register with each other and the walls at their lower ends form the bottom of a pocket. Hence it is best to lay the bricks without putting mortar upon them as they are laid, because the mortar or cement can be poured into these pockets afterward. As the blocks come tightly together a very nice side joint is formed, and it is clear that little or none of the cement will ooze out, thus not only saving cement, but forming a neat joint.

Between the side grooves at one end of each block is a tongue T, projecting beyond the end of the block and extending from its upper face downward for about two-thirds of its height, its lower end preferably being beveled slightly, as at B. This tongue could be of semicircular contour in plan view; but we prefer to make it angular, about as shown. It may be well to have two side faces converge outwardly and merge into a flat front face. In the other extremity of each block is formed a large groove G, extending from the upper face of the block downward nearly, but not quite, to its lower face and terminating in a wall W, similar to the walls at the lower ends of the side grooves. This large groove G may well be semicircular in contour in plan view,

preferably enlarged at its upper end, although it could be of other shape; but it is necessary that the groove be larger than the tongue and that its bottom wall stand some little distance
 5 below the beveled lower end B of the tongue when the two blocks come together. In some cases we also form a cross-groove C in the outer portion of the tongue and a corresponding cross-groove C C in the bottom of the
 10 large groove G and at a point where it will come opposite the cross-groove in the tongue when two blocks are brought together.

In laying these blocks the mason will begin, as usual, at the corner of the foundation, lay-
 15 ing the first block with the tongue toward the side of the wall. The next block is then laid against the first, end to end, which causes the tongue T to enter the groove G, but not to fill it, and which also causes the two side
 20 grooves to register with each other and form pockets. The entire row of blocks across the wall may be laid in this manner. The mason or his attendant or assistant may then pour liquid mortar or cement into the openings left
 25 at the ends of the blocks. The cement obviously fills the two side pockets, and it also fills the groove G around the sides and beneath the tongue T, and if the cross-grooves are employed it forms a fin projecting into
 30 them in a manner which will be clear. In a short time the cement hardens or sets, and the work is done; but even before the cement is set the next row of blocks can be laid upon the first row, preferably breaking joint as
 35 usual. In laying the second row a little cement may be put upon the top of the first row, as usual in laying bricks. It will thus be seen that a wall built of these blocks will present a neat appearance in side view. The
 40 blocks come almost, if not quite, into full contact with each other at their extremities and the cement is hidden. To make an extremely nice piece of work, any that oozes out should be wiped or scraped off before it sets. The
 45 advantage of the side grooves is well known in building-blocks of this character, and the tongue-and-groove principle is of course well known; but we are not aware that the tongue
 50 has heretofore been made so much smaller than the groove as to permit the cement and mortar to be poured in after the blocks have been laid. We also consider the walls which close the lower ends of the openings points of considerable advantage, because they cause
 55 the grooves to form pockets to retain the liquid or cement rather than permitting it to run out and be wasted. Obviously if the blocks in the row beneath had the large central openings shown in the drawings and were
 60 laid so as to break joint this opening would come beneath the tongue and groove, and without the wall W the cement would run through.

What is claimed as new is—

65 1. A building-block having in each ex-

trinity a plurality of independent grooves adapted to register only with like grooves in the extremities of the adjacent blocks, said grooves being upright and each extending
 70 from the upper face of the block nearly but not completely to its lower face and there terminating in a flat wall, as and for the purpose set forth.

2. A building-block having in one end a groove extending from its upper face down-
 75 ward nearly but not completely to its lower face and there terminating in a wall, and having on its other end a tongue adapted to enter the groove in the next block adjacent, said tongue having a cross-groove in its outer
 80 face; substantially as described.

3. A building-block having in one end a groove extending from its upper face down-
 85 ward nearly but not completely to its lower face and there terminating in a flat wall, and having on its other end a tongue smaller in contour than said groove, and whose side faces converge outward from the block to-
 90 ward each other whereby it is adapted to enter but not to fill the groove in the next block adjacent; substantially as described.

4. A building-block having in one end a groove extending from its upper face down-
 95 ward nearly but not completely to its lower face and there terminating in a flat wall, and having on its other end a tongue smaller in contour than said groove, extending from the upper face of the block downward to less dis-
 100 tance than does the groove and beveled at its lower end, whereby the tongue is adapted to enter but not to fill the groove in the block
 105 next adjacent nor to touch its flat wall; substantially as described.

5. A building-block having in one end a groove of semicircular cross-section extend-
 110 ing from its upper face downward nearly but not completely to its lower face and there terminating in a flat wall, and having on its other end a tongue angular in contour and adapted to enter but not to fill the groove in
 115 the next adjacent block; substantially as described.

6. A building-block having in one end a groove and on the other end a tongue adapted
 120 to enter the groove in the block adjacent, the tongue having a cross-groove in its outer face and the groove having a cross-groove in its rear wall at a point adapted to come opposite the cross-groove in the tongue when the blocks
 125 are laid.

7. A building-block having in one end a groove and on the other end a tongue smaller
 130 than the groove so that it is adapted to enter but not to fill the groove on the next block adjacent, the outer edge of the tongue and the rear wall of the groove being provided with cross-grooves which register when the blocks are brought together, end to end.

8. A building-block having in each end near
 135 each side an upright groove, the block also

having at the center of one end a large groove
and at the center of its other end a tongue
adapted to enter the center groove in the
block adjacent, all said grooves and the tongue
5 extending from the upper face of the block
downward nearly to but not completely to its
lower face, as and for the purpose set forth.

In testimony whereof we affix our signatures in presence of two witnesses.

LEWIS CUATT.
WILLIS J. ANNIS.

Witnesses:

GEO. STYLES,
STEPHEN A. WARREN.