Jan. 2, 1923.

C. KINDSTRÖM.

1,441,156

HOLLOW BUILDING BLOCK.

FILED NOV. 2, 1920.

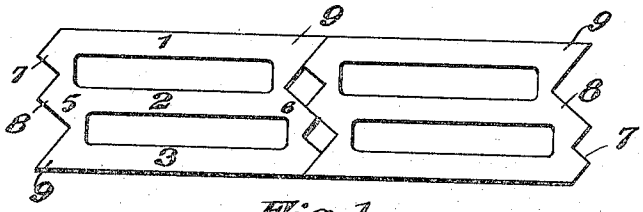

Fig. 1.

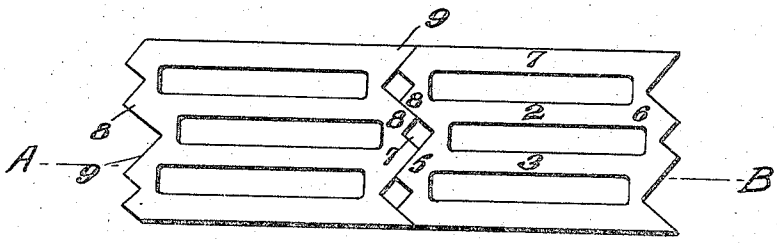

Fig. 2.

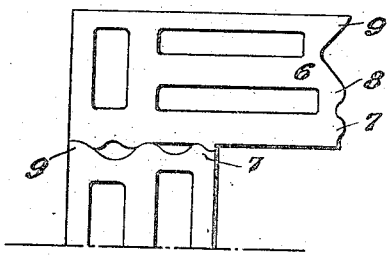

Fig. 3.

Inventor.

CARL KINDSTRÖM

By William C. Linton.

Atty.

Patented Jan. 2, 1923. 1,441,156

UNITED STATES PATENT OFFICE.

CARL KINDSTRÖM, OF STOCKHOLM, SWEDEN, ASSIGNOR TO AKTIEBOLAGET LEAN, OF STOCKHOLM, SWEDEN.

HOLLOW BUILDING BLOCK.

Application filed November 2, 1920. Serial No. 421,397.

To all whom it may concern:

Be it known that I, CARL KINDSTRÖM, a subject of the King of Sweden, residing at Stockholm, Sweden, have invented certain new and useful Improvements in Hollow Building Blocks; and I do hereby declare that the following is a full, clear, concise, 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 improvements in building blocks, having for an object to provide an improved hollow building block provided with means upon its opposite ends adapted to interengage with the congruent ends of juxtaposed blocks whereby to effect a positive connection as between the same and likewise, to provide air spaces between the connection of the juxtaposed blocks.

In hollow building blocks heretofore prevalent, wherein a plurality of spaced partitions or lamellæ are connected by vertical transverse neck portions substantially near each end of the block, these neck portions being shaped so as to form air spaces between two blocks arranged together in endwise relationship, the joint therebetween is comparatively weak, particularly when the projecting portions of the neck of one block abut against the corresponding portions of the opposite block. Efforts have been made with a view towards providing a more positive or tighter joint as by forming the end portions or engaging portions of said blocks with concavo-convex interfitting faces, but, as will be understood, blocks of such construction are irregular or unsymmetrical in shape and therefore, less practical in use.

The present invention relates to means in form of congruent extensions upon the adjacent or abutting ends of building blocks for strengthening the point of jointure therebetween by forming the extensions or recesses between the projecting portions of the extensions unequal in width, so that two projecting portions of one block will enter the wider recess between the extensions of the opposite block, and thus effect positive engagement; the vertical sides of said portions being plane and inclined at an angle to the axis of the block, or curved at the corresponding points forming the same angle to said axis, so that there will be formed broad contact surfaces between the respective projecting portions of the juxtaposed blocks.

In order that the invention and its mode of application may be readily understood by workmen skilled in the art, I have in the accompanying illustrative drawings and in the detailed following description based thereon, set out several possible embodiments of the same.

In these drawings:

Figure 1 is a top view of two blocks constructed in accordance with the invention and arranged in interengaged relationship;

Figure 2 is a similar view showing a slightly modified form of the improved blocks wherein their opposite extremities are formed to provide free air spaces therebetween when inter-engaged; and,

Figure 3 is a top view of another modification of the invention when the same is applied to a corner block, two vertical air spaces being provided therebetween.

Having more particular reference to the drawings, in connection with which like characters of reference will designate corresponding parts throughout, and referring in particular to the construction shown in Figure 1, the several blocks shown therein are of the usual hollow tile type, comprising longitudinal partitions or lamellæ 1, 2 and 3, connected by transverse vertical necks 5 and 6, which necks, in turn, are provided with longitudinal extensions or projections 7, 8 and 9 of equal length and in the same number as the lamellæ 1, 2 and 3. The vertical sides of these projections are inclined in relation to the lamellæ and by reason of this, provide recesses therein, which, as will be noted, are inclined in relation to the lamellæ. These recesses, also, are in line with the corresponding air spaces in the blocks, but are of different widths, so that one lateral projection, for instance, the projection 7 is nearer to the central projection 8 than the other projection 9. At the opposite ends of the blocks, the projections and recesses between them are arranged in a corresponding manner, but inversely, so that the wide recess in one end of one of the blocks is aligned with the narrow recess in the other end thereof. Consequently when two blocks constructed in accordance with the invention are placed end to end, the two projections separated by the narrow recess in one block will enter the wider recess in

the opposite block, and the inclined faces of the projections of one block will come into overlapping engagement with the corresponding faces of the opposite block. By reason of this engagement as between the projections on the adjacent ends of the blocks, air spaces will be provided between the same, each being formed by the wide recess in the end of one block and the narrow recess in the adjacent end of the opposite block; the centers of the air spaces between the two blocks thus being out of alignment.

In the Figure 2, I have shown a slightly modified form of the invention, wherein when a pair of blocks constructed in accordance therewith is arranged in endwise relationship, three air spaces will be provided therebetween. In these particular blocks, the three air spaces are presented thereby due to the arrangement of the lamellæ and the transverse vertical neck portions 5 and 6. The arrangement of the projections 7, 8 and 9 upon the ends of the blocks corresponds to the arrangement shown in connection with the Figure 1, that is, wide recesses being formed between certain of said projections alternating with narrow recesses between the other projections. Thus, in effect, by reason of the forming of the blocks with three air spaces, it will be understood that this embodiment corresponds with one block with two air spaces and a part of a second block with a single air space, as indicated by the dotted line A—B according to the construction shown in the Figure 1.

In the Figure 3, I have shown the invention applied to a corner block, one end of which is constructed in accordance with that form of block shown in the Figure 1, having the projections 7, 8 and 9 on that end adjacent the block in the next rectangular course, which latter, as will be noted, is provided with projections upon one of the longitudinal sides thereof and disposed so as to have overlapping engagement with the adjacent end of the previously mentioned juxtaposed block. In this modification, the ends of the projections and the bottoms of the recesses are shown rounded or curved, which arrangement is preferable in view of facilitating the moulding of the blocks.

It is to be understood that the blocks herein shown and described are given as examples only, since the characteristic features of the invention reside in the forming of blocks having recesses in their opposite ends differing in width and depth and of such shape, that two adjacent recesses and intermediate portions and intermediate portions of the neck at one end of the block are congruent to two adjacent recesses and intermediate portions in the other end of the block, and that the lateral faces of the recesses and intermediate portions at every corresponding point form an equal angle to the axis of the block.

I claim:

1. In a hollow building block having inclined vertical projections formed on its opposite ends, the projections on one of said ends providing recesses of different widths and depths and the projections on the opposite end of the block being inversely congruent to the projections on the opposite end thereof.

2. In a hollow building block having inclined vertical projections formed on its opposite ends, said projections being formed to provide vertical recesses therebetween alternating in width and depth, and the projections on the remaining end of the block being inversely congruent to said first projections, the side faces of the recesses formed between said projections forming an equal angle to the axis of the block at every corresponding point.

3. In a hollow building block having the opposite ends thereof formed with vertical inclined projections, said projections upon the opposite ends of the block being of different widths and arranged whereby the wide recess between the projections on one end of the block is in alignment between the projections upon the opposite end of the block, as and for the purpose set forth.

In witness whereof I have hereunto set my hand.

CARL KINDSTRÖM.