Oct. 31, 1950 P. M. BURROWAY 2,527,985

BUILDING BLOCK SPACER

Filed July 15, 1946

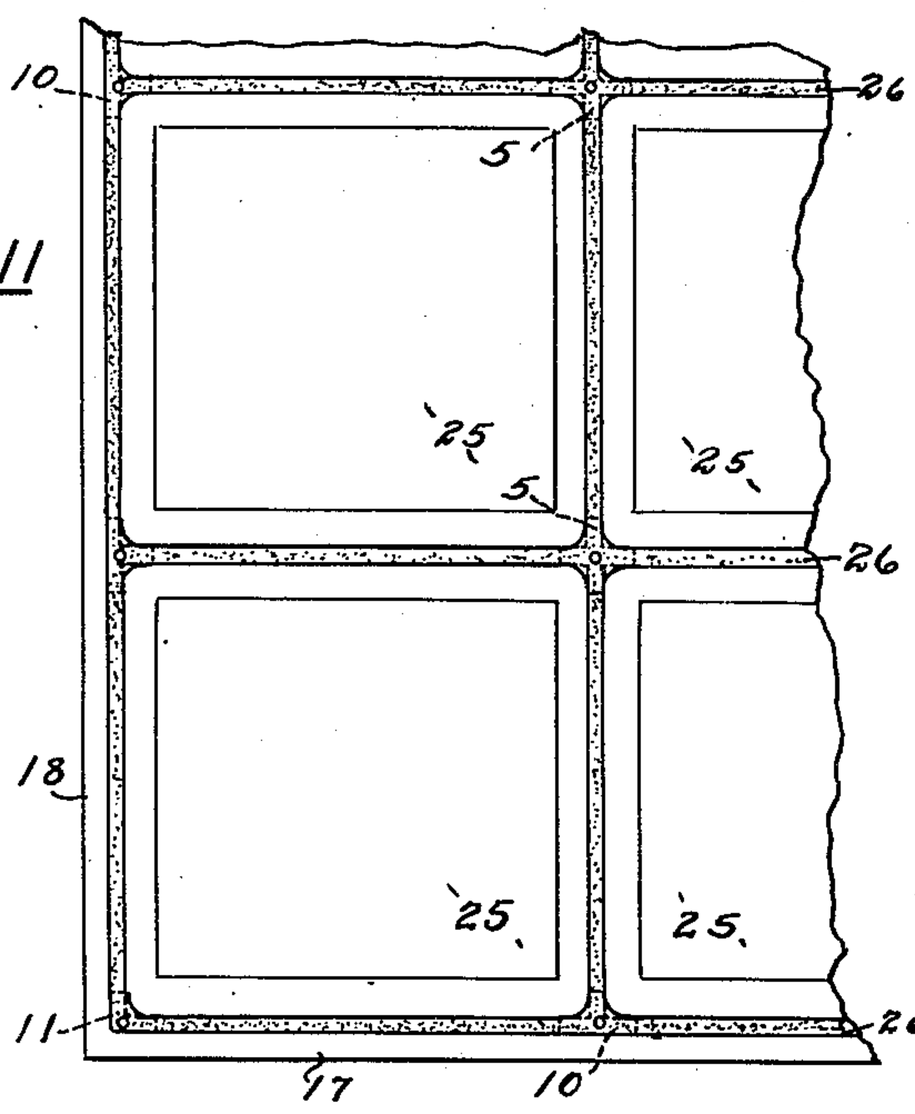

FIG 11

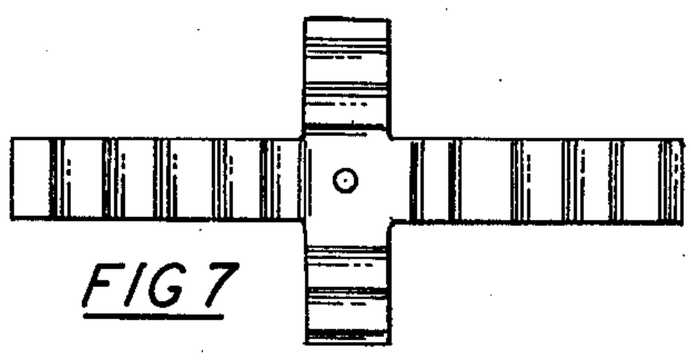

FIG 7

FIG 8

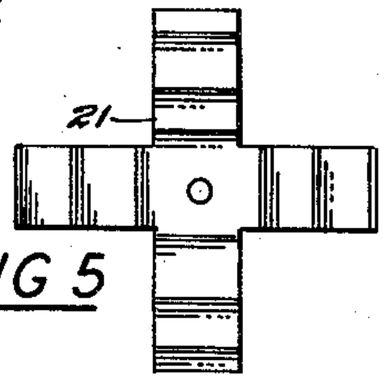

FIG 5

FIG. 6.

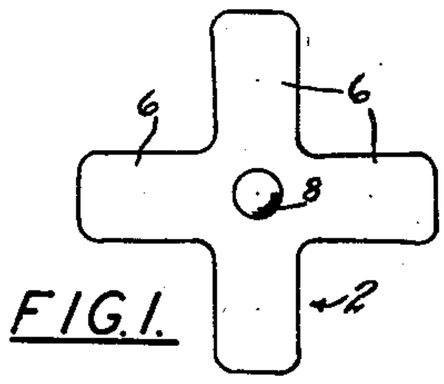

FIG. 1.

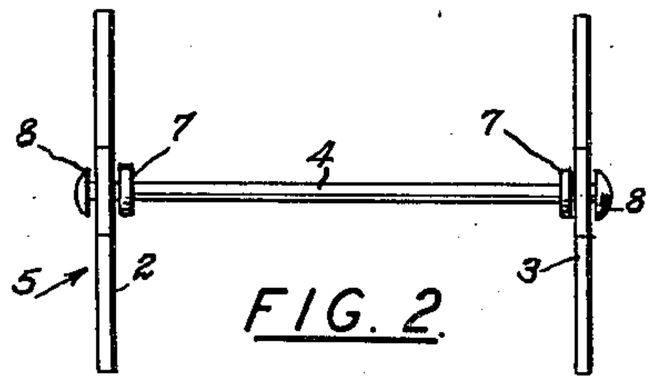

FIG. 2.

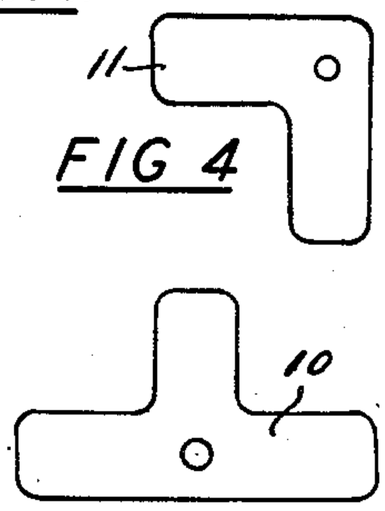

FIG. 4

FIG. 3.

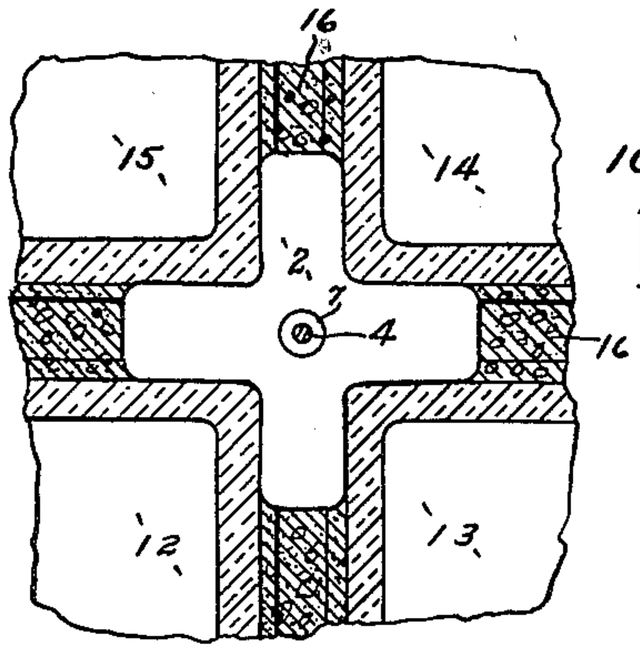

FIG. 10.

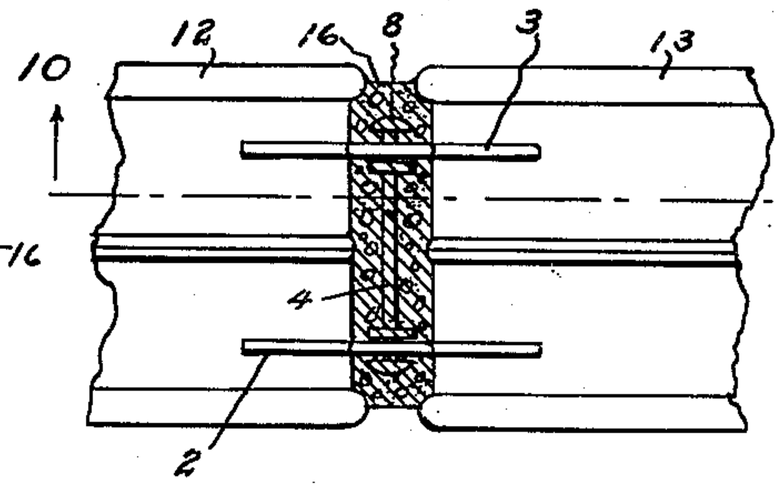

FIG. 9.

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BUILDING BLOCK SPACER

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3 Claims. (Cl. 72—101)

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This invention pertains to a building block spacer for use in and as a part of wall construction wherein glass blocks are set in mortar to produce a translucent wall of desirable qualities.

In laying up glass blocks more care is needed than with brick or other similar building material. This is due to the fact that glass blocks are heavy and since they do not absorb water from the mortar, as is the case with brick or concrete block, the mortar should be used in a firmer mix to support the weight of the block.

Further, since the mortar sets slowly, only a few courses can be laid up at a time. Otherwise the weight of freshly laid blocks will press out mortar in the lower courses. Special fast setting mortar is sometimes used in order to combat this condition, but since it requires extra labor and equipment on the job, it is frequently found inconvenient to use.

Glass blocks are laid up in straight courses and tiers rather than overlapping, and for this reason some type of mortar reinforcing is necessary, and it is important that the blocks be evenly spaced, both horizontally and vertically.

In view of the foregoing, one of the objects of my invention is to provide spacers, which may be inserted in the mortar, between blocks, as they are laid up which will afford a semi-rigid support in addition to and in conjunction with the mortar, and so that the horizontal and vertical tiers may be accurately spaced and alined.

Another object is to provide a spacing device for use in laying up glass blocks which will act as both a horizontal and vertical spacer for the blocks as they are laid, provide extra reinforcing to the wall, and which will have sufficient resilience and adjustment movement to allow for the variations in dimensions of blocks incident to quantity manufacture.

Other objects will appear hereinafter.

I attain the foregoing objects by means of the devices shown in the accompanying drawing in which,

Figure 1 is an end view of one form of my block spacer;

Figure 2, a side view thereof;

Figure 3, an elevational view of a different shaped end element;

Figure 4, an elevational view of a slightly different shaped end element;

Figure 5, an end elevational view of a modified form of spacer;

Figure 6, a side view thereof;

Figure 7, a plan view of a further modified form of spacer;

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Figure 8, an elevation thereof;

Figure 9, a plan view of a fragmentary portion of a wall incorporating one of my spacers;

Figure 10, an elevation of a fragment of a wall incorporating my spacer, taken substantially on line 10—10 of Figure 9;

Figure 11, a semi-diagrammatic view of a portion of a wall illustrating the use of the various shaped spacers with the mortar between the blocks removed to show the positioning of various spacers.

Similar numerals refer to similar parts in the several views.

In the form shown in Figures 1 and 2, the spacer consists of the cross shaped end pieces 2 and 3 held together by the tie bar 4. The end pieces may be stamped from sheet metal such as aluminum, galvanized iron, or light sheet steel, or from stiff fiber, plastic or other similar material.

The tie bar can be made of similar material. The end pieces are punched to the cruciform shape shown with the arms 6 having a width which determines the spacing required between the adjacent faces of the blocks, and a length ordinarily somewhat greater than the width.

The tie bar 4 is first made with swedged inner shoulders 7. The end pieces are then set in place and the ends 8 peened over. The end pieces are not riveted tightly in place, but are free to rotate on the bar.

The end forms 10 shown in Figure 3 are used where a joint abuts a flat surface, those shown in Figure 4 indicated by numeral 11 are for use in corners.

The spacer ends 21 shown in Figures 5 and 6 have the arms corrugated to provide a better hold in the mortar and are advantageous in certain installations. Those shown in Figures 7 and 8 are particularly useful where blocks are laid upon a curve or arc.

In use blocks 25 are laid in the usual manner, but after spreading a mortar bed 26 for the next course of blocks, the separators or spacers are inserted into the mortar so that one of the vertical arms of each end piece is positioned between each group of adjacent blocks. The horizontal arms then rest on the upper faces of the adjacent blocks as shown in Figures 9 and 10 ready to receive and support the lower faces of the next course. When installed the spacers occupy the position shown in Figure 10, with their end pieces contacting the edges of each of the four blocks 12, 13, 14 and 15, and with the bar 4 imbedded in the mortar in the center of the

joint. The end pieces are set in from each wall face a sufficient distance so as to be adequately imbedded in the mortar **16**, and the bar spaces the pieces sufficiently as shown in Figure 9 so that block and wall support is in two spaced vertical planes sufficient to provide lateral stability.

The use of the various shaped end pieces is illustrated in Figure 11, where the form **11** shown in Figure 4 rests in the lower left hand corner between the block **25** and sill **17** and frame **18**; the form **10** shown in Figure 3 rests along the sill or frame and the adjacent blocks, and the forms **5**, shown in Figures 1 and 2 are placed between the several blocks **25**.

It is not intended that the material of the spacers be so heavy as to be entirely rigid but it should be light enough to provide a semi-rigid or resilient support.

Where the wall is subject to more than usual wind stress, or vibration, end pieces of the corrugated form shown in Figures 5 and 6 may be used. The installation and function of this form is the same as with the other forms above mentioned except that this type provides additional holding power in hardened mortar. Where courses are laid on a curved plan the forms shown in Figures 7 and 8, having curved and corrugated side arms is used.

From the foregoing it will be seen that I have provided a device which is easily installed, affords support and proper spacing for building blocks, of the type concerned and in no way mars the appearance of the finished wall. The spacers are completely embedded in the mortar. At the same time they re-enforce the wall. While the spacing devices are particularly adapted to the laying of glass blocks in straight courses and tiers in a single thickness wall, it will be readily understood that some of the various forms shown might be used with other types of masonry.

Having now fully described my invention and explained its use I wish to be limited only by the following claims.

I claim:

1. A spacer for embedding in mortar joints between blocks of wall block construction comprising, in combination, a pair of end pieces of thin semi-resilient metal having four arms extending

outward in cruciform manner, said arms being corrugated to strengthen the bond when embedded in hardened mortar, and a transverse spacer bar having swedged stops forming inner shoulders near each end thereof, and continuing there-beyond to provide journals, said journals being loosely fitted in the center of each of said end pieces, and peened over at the ends to retain said end pieces thereon, substantially at right angles to the axis of said bar.

2. A spacer for imbedding in mortar forming joints between wall block construction, comprising in combination, a pair of end pieces of thin semi-resilient sheet metal having four arms extending outward from the center in cruciform manner, and a transverse spacer bar having swedged shoulders forming stops near each end, with the end portions of each bar extending beyond said stops and loosely journalled in the center of each of said end pieces, and peened over at the ends to retain said end pieces thereon, substantially at right angles to the axis of said bar.

3. A spacer for embedding in mortar between blocks of wall block construction, comprising in combination, a pair of end pieces of thin semi-resilient metal having four arms extending outward in cruciform manner, and a transverse spacer bar having swedged stops forming shoulders, and with the bar extending there-beyond at each end and loosely journalled in the center of each of said end pieces and peened over at the ends to retain said end pieces thereon transversely of the bar between the shoulders and the peened ends.

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