

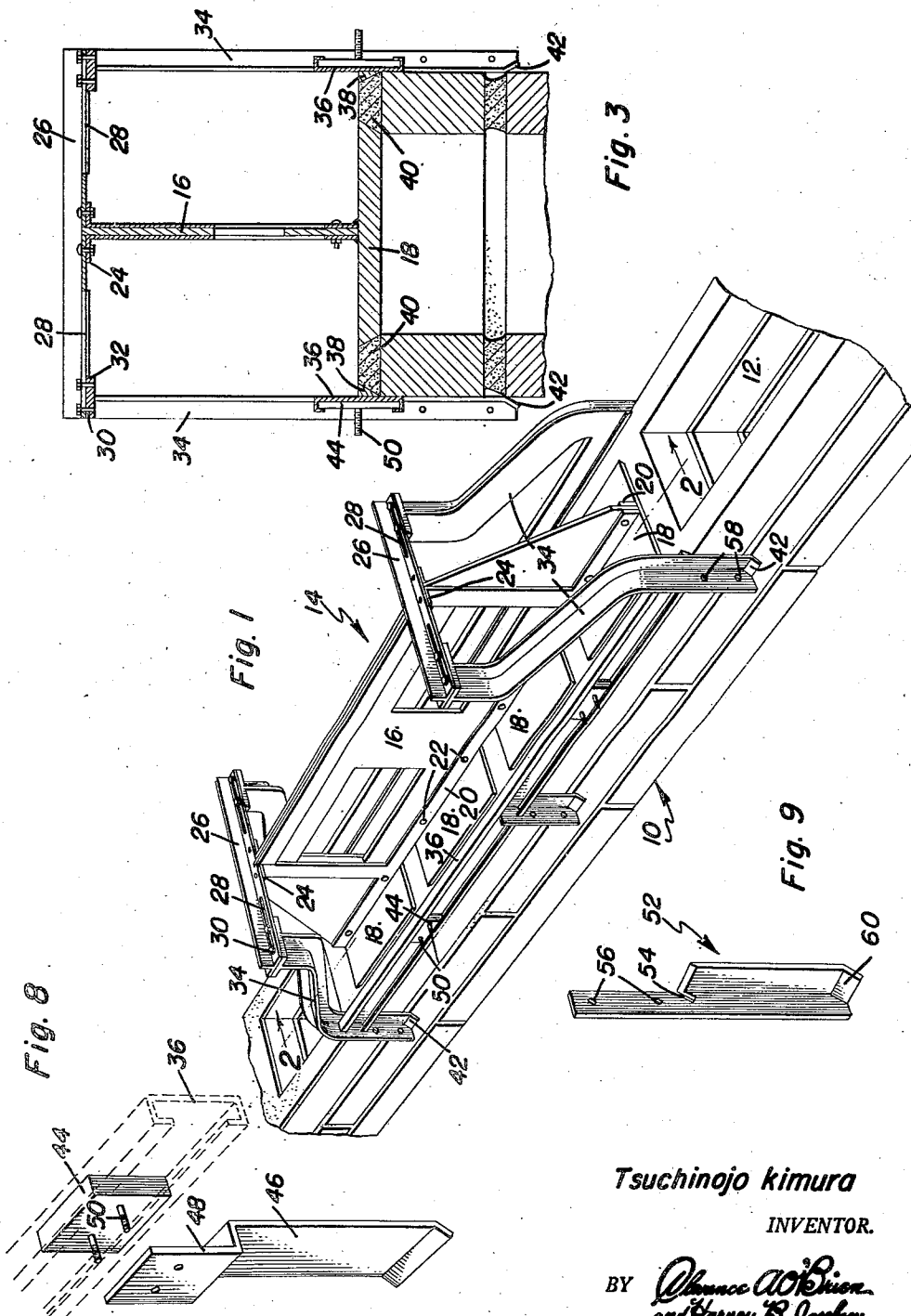
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T. KIMURA  
MORTAR SPREADER

2,580,929

Filed July 17, 1950

2 SHEETS—SHEET 1



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2 SHEETS—SHEET 2

Fig. 2

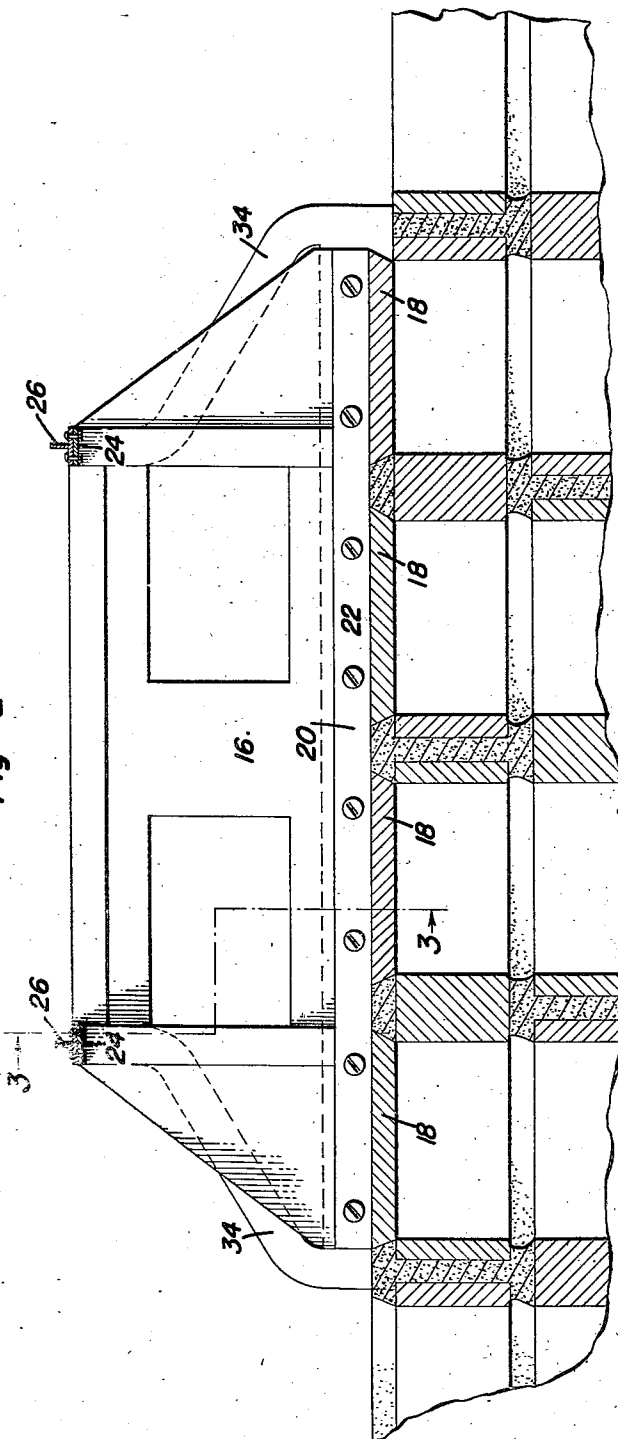


Fig. 7

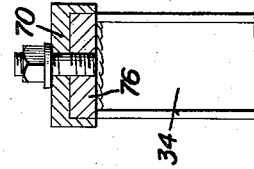


Fig. 6

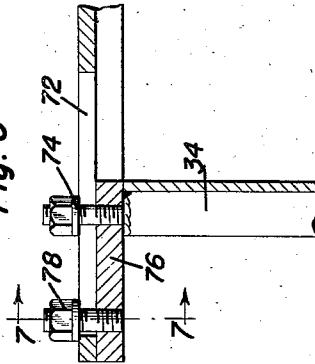


Fig. 4

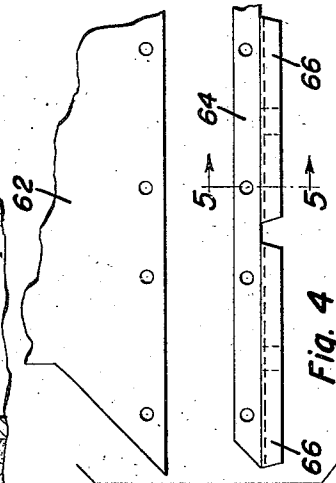
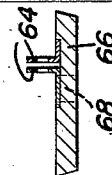


Fig. 5



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## UNITED STATES PATENT OFFICE

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## MORTAR SPREADER

Tsuchinojo Kimura, Los Angeles, Calif.

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5 Claims. (Cl. 72-128)

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This invention relates to the class of tools and more particularly to a mortar spreader for use in constructing walls of hollow cementitious building blocks.

An object of this invention is the provision of a mortar spreader which will enable the application of mortar in a convenient and rapid manner to a hollow building block so that the mortar will not fall into the air spaces or hollow portions of the building block when being applied thereto in the erection of a building wall, partition wall, or like structure.

Another object of the invention is the provision of a mortar spreader which is capable of adjustment so that it may be used with varying sized hollow blocks when constructing a masonry wall.

Still another object of the invention resides in the provision of laterally adjustable arch handle posts which arch handle posts provide means for retaining mortar that is positioned between adjacent building blocks in the same course of building blocks.

Still another object of the invention resides in the provision of U-shaped channel plates for reception of a slide to which there is attached suitable mortar retaining means for retaining the mortar which is positioned between adjacent building blocks in the same course of blocks.

Still another object of this invention resides in the provision of detachably mounting extension legs for the mortar spreader which may be used for preventing mortar from oozing between adjacent building blocks.

Still another object of this invention resides in the provision of the bevelled surfaces on this mortar spreader which enable the various functions of the device to be accomplished with a minimum of effort and which also enables the device to be readily removed from engagement with the building blocks on which it is used.

Still further objects of the invention reside in the provision of a mortar spreader that is strong, durable, highly efficient in operation, simple in construction and manufacture, capable of being readily applied to various sized building blocks having various size cores, and which mortar spreader may be inexpensively produced.

These, together with the various ancillary objects of the invention which will become apparent as the following description proceeds, are attained by this mortar spreader, preferred embodiments of which have been illustrated in the accompanying drawings, by way of example only, wherein:

Figure 1 is a perspective view of a preferred form of mortar spreader comprising the present invention;

Figure 2 is a vertical sectional view as taken along the plane of line 2-2 in Figure 1;

Figure 3 is a vertical sectional view as taken along the plane of line 3-3 as in Figure 2;

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Figure 4 is a partial exploded view of an alternate form of securing the core covers to a central spine member;

Figure 5 is a vertical sectional detail as taken along the plane of line 5-5 as in Figure 4;

Figure 6 is a sectional detail of an alternate form of securing the central spine member and adjustably securing the arch handle post to the central spine member;

Figure 7 is a vertical sectional detail as taken along the plane of line 7-7 as in Figure 6;

Figure 8 is an exploded perspective detail showing the construction of the slide and the mortar retaining means which are slidably mounted relative to the side frame members of the invention; and

Figure 9 is a perspective detail showing the construction of extension legs which are adapted to be detachably secured to the arch handle posts.

With continuing reference to the accompanying drawings, wherein like reference numerals designate similar parts throughout the various views, reference numeral 10 generally designates a wall formed from hollow building blocks having cores 12 which extend vertically through the building blocks.

The device comprising the present invention, which is generally indicated by reference numeral 14, is adapted to provide means for preventing mortar from falling into the cores 12 and to provide means for preventing mortar from oozing from between the mortar joints formed between adjacent hollow building blocks in the same course.

The mortar spreader 14 includes a central spine member 16 which is longitudinally extending and which has secured thereto core covers 18. The core covers 18 are, in fact, secured to parallel upwardly extending flanges 20 between which the spine member 16 is received, and bolts 22 are used to detachably secure the covers to the spine member.

Secured to the side faces of the spine member 16 are attaching plates 24 to which there are attached cross bars 26 which are T-shaped in cross-section. Each of the cross bars 26 is provided with a plurality of slots 28 therein through which bolts 30 extend, which bolts are threadedly engaged in plates 32 secured at the upper ends of arch handle posts 34 which are substantially Z-shaped and T-shaped in cross-section. Terminally secured between arch handle posts 34 are side frame members 36. To the side frame members there are attached triangular shaped flanges 38 which form an important element of the invention in that they permit ready removal of the mortar spreader from the wall being constructed and also enable a trapezoidal shaped mortar deposit, as indicated at 40, to be readily emplaced on one of the blocks comprising the wall. To enable the ready removal and

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easy replacement of the mortar spreader on the wall to be constructed, the arch handle posts have their lowermost portions provided with an outwardly extending flange or bevel 42.

Slidably engaged in the side frame members 36 are slides 44 which have secured thereto legs 46 which are provided with offset portions 48 adapted to be secured onto bolts 50 by suitable nuts. These members 46 are adapted to be positioned over joints between adjacent blocks and to maintain mortar from oozing therebetween, especially when hollow cores for the blocks are mutually formed by the adjacent ends of the adjacent blocks.

As indicated in Figure 9, there are provided extensions for the arch handle posts, generally designated by reference numeral 52, which have slots 54 therein for reception of the flanges 42 at the bottom of the arch handle posts 34. Further, the extensions 52 are provided with apertures 56 through which suitable bolts may be passed for securing the extensions to the arch handle posts through which suitable apertures 58 have been formed. These extensions are provided with flanges 60 similar to the flanges 42 so that the device may be readily removed and easily emplaced on the wall with the extensions 52 thereto attached.

Referring now to Figures 4 and 5, it will be seen that another form of the invention comprises the concept of providing a central spine member, as indicated by reference numeral 62 which is adapted to be positioned between the upwardly extending flanges of angle iron members 64 which are secured to the core covers 66. It is to be noted that the angle iron members 64 are offset from the longitudinal axis of the core covers 66 in order that the core covers may be readily interchangeable and yet permit the reinforcing rods to pass through apertures as indicated at 68 in the core covers. These reinforcing rods may be positioned in the cores 12 when it is desired to fill selected cores so as to reinforce the entire wall structure.

Referring now to Figures 6 and 7, it will be seen that there is shown another form or manner of securing the arch handle posts 34 to the cross-bars, which, in this form of the invention, are preferably of U-shape in cross-section and are indicated by reference numeral 70. The cores are provided with transverse slots 72 through which bolts 74 extend, the bolts 74 being secured in plates 76 which are attached to the arch handle posts 34. Nuts 78 are provided for securing the arch handle posts relative to the cross-bars 70 after the device has been adjusted to the proper size.

Since, from the foregoing, the construction and advantages of this adjustable mortar spreader are readily apparent, further description is believed to be unnecessary.

However, since numerous modifications will readily occur to those skilled in the art after a consideration of the foregoing specification and accompanying drawings, it is not intended to limit the invention to the precise embodiment shown and described but all suitable modifications and equivalents may be readily resorted to which fall within the scope of the appended claims.

Having described the invention, what is claimed as new is:

1. A mortar spreader comprising an opposed pair of side frame members, a longitudinally extending spine member, a plurality of core cov-

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ers attached to said spine member, means adjustably mounting said spine member and core covers between said side frame members, said side frame members being substantially U-shaped in cross-section, slides slidably mounted in said side frame members, and mortar retaining legs secured to said slides.

2. A mortar spreader comprising an opposed pair of side frame members, a longitudinally extending spine member, a plurality of core covers attached to said spine member, means adjustably mounting said spine member and core covers between said side frame members, said means including transverse bars attached to said spine and arch handle posts secured to said side frame members, said transverse bars having slots formed therein, said arch handle posts having means adjustably slidably received in said slots, said side frame members being substantially U-shaped in cross-section, slides slidably mounted in said side frame members, and mortar retaining legs secured to said slides.

3. A mortar spreader comprising an opposed pair of side frame members of substantially U-shaped cross-section, a longitudinally extending spine member, a plurality of core covers attached to said spine member, means adjustably mounting said spine member and core covers between said side frame members, said means including transverse bars attached to said spine and arch handle posts secured to said side frame members, said transverse bars having slots formed therein, said arch handle posts having means adjustably slidably received in said slots, and mortar retaining legs slidably carried by said side frame members.

4. A mortar spreader comprising an opposed pair of side frame members, a longitudinally extending spine member, a plurality of core covers attached to said spine member, means adjustably mounting said spine member and core covers between said side frame members, said means including transverse bars attached to said spine and arch handle posts secured to said side frame members, said side frame members being substantially U-shaped in cross-section, slides slidably mounted in said side frame members, and mortar retaining legs secured to said slides.

5. A mortar spreader comprising an opposed pair of side frame members, a longitudinally extending spine member, a plurality of core covers attached to said spine member, means adjustably mounting said spine member and core covers between said side frame members, said transverse bars having slots formed therein, said arch handle posts having means adjustably slidably received in said slots, said side frame members being substantially U-shaped in cross-section, slides slidably mounted in said side frame members, and mortar retaining legs secured to said slides.

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