June 23, 1953 W. J. SCHELL, JR 2,642,674

IMPLEMENT FOR USE IN LAYING SQUARE TILE

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Fig. 1

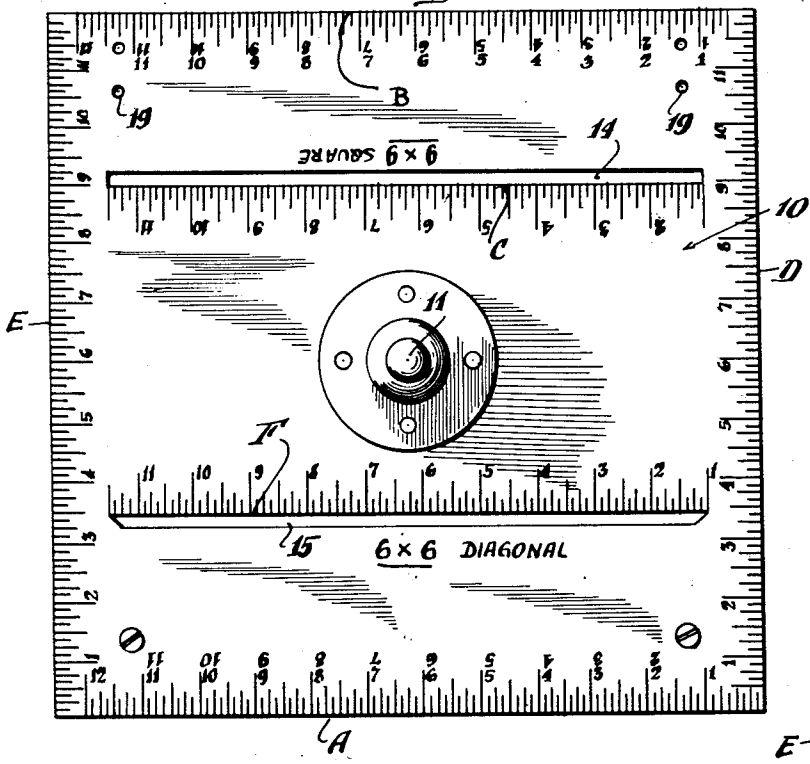


Fig. 3

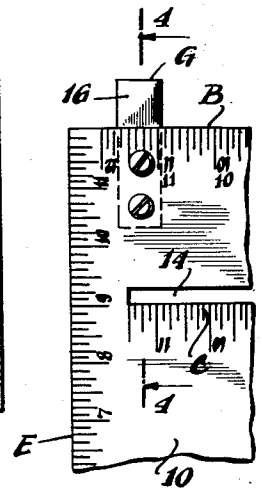


Fig. 2

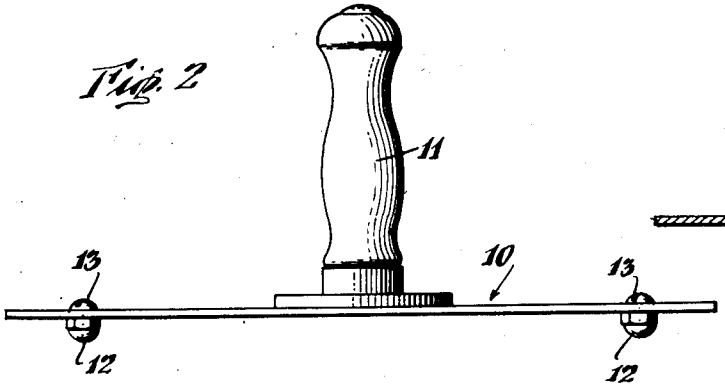
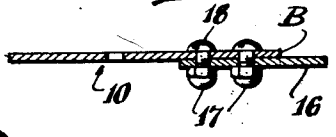


Fig. 4



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Fig. 5

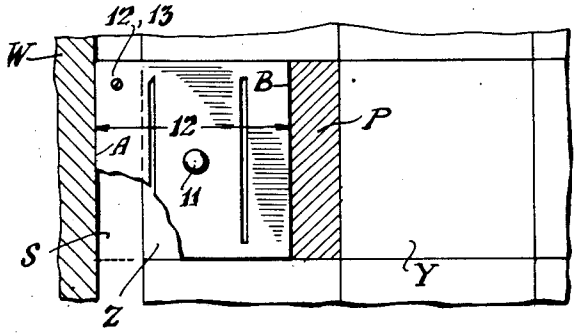


Fig. 8

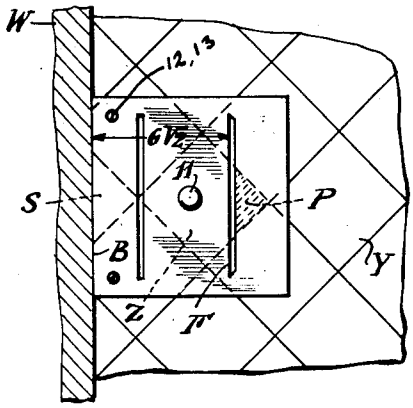


Fig. 6

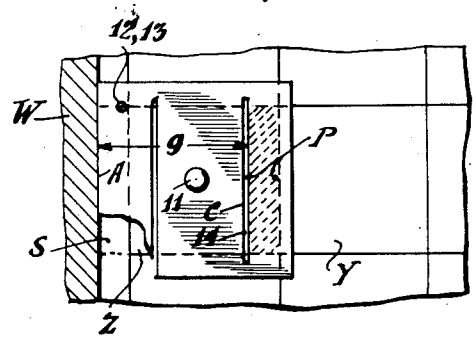


Fig. 9

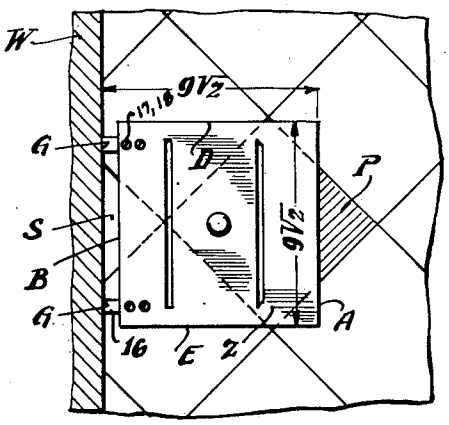
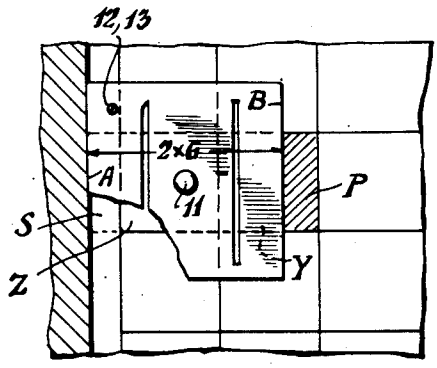


Fig. 7



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IMPLEMENT FOR USE IN LAYING SQUARE TILE

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Application September 1, 1950, Serial No. 182,847

4 Claims. (Cl. 33—185)

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The present invention relates to the art of laying square tile, and more particularly, to an implement for use in laying such tile.

Where square tile is laid parallel or perpendicularly with respect to a marginal straight edge, such as a wall, bounding the zone in which the tile is laid, an unfilled rectangular space frequently is left between the last laid whole tile and the marginal edge, which space is of a smaller area than that of the tile being laid. This necessitates that a tile be severed to provide a part which fits into such space. To accomplish this, the common practice has been to butt a tile against the wall in overlapping relation to the last laid tile, score a line across the last laid tile at the overlapping edge of the tile butted against the wall, removing the last laid tile, and severing it along the line to provide a part equal in area to the space to be filled, substituting a whole tile for the last laid tile, and laying the severed part in the space.

Where square tile is laid diagonally to the wall, an unfilled space is left between last laid whole tiles, which space may be triangular or generally rectangular with a triangular portion removed. Such spaces frequently are difficult to fill, particularly when the space is of greater or smaller area than that of a part provided by cutting a whole tile diagonally across opposite corners.

Accordingly, an object of the present invention is to greatly simplify the laying of square tile and to eliminate the prior difficulties in fitting a part of a whole tile in the space between the last laid tile or tiles and the wall or marginal edge bounding the zone in which the tile is laid.

Another object is to provide a simple, practical implement for readily determining the size and shape of the part of tile to be fitted into the space.

Another object is to provide such an implement which is economical in construction.

Another object is to provide such an implement which can be utilized in connection with laying square tile of a number of standard sizes parallel with, perpendicular to, or diagonal to the marginal edge.

Another object is to provide such an implement which does not require any great skill on the part of the user.

A further object is to provide such an implement which is particularly adapted for use in laying square floor tile formed of asphalt, rubber, linoleum, ceramic material, wood, or cellulosic or plastic material, although it is likewise adapted for laying square or rectangular tile, blocks or the like on ceilings or walls.

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Other and further objects will be obvious upon an understanding of the illustrative embodiment about to be described, or will be indicated in the appended claims, and various advantages not referred to herein will occur to one skilled in the art upon employment of the invention in practice.

In accordance with the invention the foregoing objects can be accomplished by providing an implement so constructed that it is adapted for use in determining the size and shape of the piece of a whole tile to be fitted in the space by first superposing a whole tile on the last laid tile, and abutting the implement against the wall or aligning one edge thereof with the aforementioned marginal edge with a proper edge of the implement extending across the superposed tile to determine a line parallel to and spaced from the marginal edge at which the superposed tile is to be severed.

A preferred embodiment of the invention has been chosen for purposes of illustration and description as is shown in the accompanying drawing, forming a part of the specification, wherein:

Fig. 1 is a plan view of an implement in accordance with the invention.

Fig. 2 is an end elevational view of the implement shown in Fig. 1.

Fig. 3 is a fragmentary plan view, illustrating a modified implement.

Fig. 4 is a sectional view taken along the line 4—4 on Fig. 3.

Figs. 5 to 9 are schematic plan views illustrating the use of the device in connection with laying square tiles of several sizes both in parallel-perpendicular and in diagonal arrangement.

Referring to the drawings in detail and more particularly to Figs. 1 and 2, there is shown an implement comprising a generally rectangular plate 10, a manually engageable handle 11 extending upwardly from and secured to the upper surface of the plate at about the middle thereof, and feet, each comprising a nut 12 having a closed, rounded end and a screw 13, at the lower surface of the plate adjacent one edge thereof.

The plate 10 is so constructed and dimensioned that it is adapted to be used in laying square tile of various given dimensions both in parallel and diagonal arrangement. For example, the plate, as shown in Fig. 1, is primarily arranged for use in laying square tiles having widths of 9 and 12 units of length in parallel relation, and for laying square tiles having widths of 6 and 9 units of length in diagonal relation. The plate is also adapted to be used for laying square tiles hav-

ing widths of 2, 3, 4 and 6 units of length in parallel relation, and for laying square tiles having a width of 3 and 4.5 units of length in diagonal relation. The units of length, for example, generally are inches, but since the present invention is concerned with providing an implement for laying tiles of sizes having a predetermined relation, and not necessarily any absolute dimension, the sizes will be referred to herein by numeral only.

In order to lay 12 by 12 tile in parallel relation, the plate has a pair of straight edges A and B at parallel sides thereof spaced apart 12 units of length.

In order to lay 9 by 9 tile in parallel relation, the plate has a slot 14 formed therein which is provided with a straight edge C parallel to the edge A and spaced therefrom a distance of 9 units of length.

In order to lay 9 by 9 tile in diagonal relation, the plate has a pair of straight edges D and E at parallel sides thereof spaced apart $9\sqrt{2}$ units of length.

In order to lay 6 by 6 tile in diagonal relation, the plate has a slot 15 formed therein which is provided with a straight edge F parallel to the edge B and spaced therefrom a distance of $6\sqrt{2}$ units of length.

The various edges in addition to having legend A, B, C, D and F respectively applied thereto to readily identify the same, have numerical indicia represented in units of length to facilitate use of the implement. Also, to readily identify the slots 14 and 15 and to associate them mentally with the purpose they are provided for, the slot 14 has ends parallel to each other or in other words perpendicular to the straight edge C, and the slot 15 has ends diagonal to the straight edge F.

In Figs. 3 and 4, a modified implement is shown wherein the plate 10 has a pair of extension members 16 (only one of which is shown) secured thereto by nuts 17 and screws 18 which are longer than screws 13, and extending outwardly beyond the edge B. The free ends of these members have an edge G spaced from the edge A a distance equal to $9\sqrt{2}$ units of length, whereby the edges A and G may be used in laying 9 by 9 tile in diagonal relation.

It will also be appreciated that the extension members 16 may extend outwardly even further, for example, so that the edges A and G are spaced apart a distance equal to $12\sqrt{2}$ units of length whereby these edges may be used in laying 12 by 12 tile in diagonal relation.

The various manners in which the implement is used in laying tile to measure and provide a piece or portion of a tile of an area less than a whole tile is shown in Figs. 5 to 9. In these views, W represents a wall or boundary of the zone in which the tile is laid, Y the next-to-last laid, tile, Z the last laid tile, S the space between the last laid tile Z and the wall W which is of smaller area than a whole tile, and P the portion of tile to be severed from a whole tile and fitted into the space S.

In Fig. 5, the laying of 12 by 12 tile in parallel relation is illustrated. After the last laid tile Z is cemented in place, a tile is superposed thereon and the edge A of the implement 10 is butted against the wall W. The feet 12 rest on the surface to be covered and by being about equal to two thicknesses of tile serve to level the plate and at the same time space it above the surface to be covered and thereby prevent the underside surface from being soiled by cement, while the edge B extends across the superposed tile and defines the portion of the tile P, represented by the shaded area. A line or mark is made along the edge B on the superposed tile which is then removed and severed to provide the part P. The part P is then cemented in the space S making the tile come out even with the wall or boundary W.

In Fig. 6, the laying of 9 by 9 tile in parallel relation is illustrated. The same procedure is followed as described in connection with Fig. 5, except that the line or mark defining the area P is made along the edge C.

In Fig. 7, the use of the device for laying tiles in parallel relation having widths evenly divisible into 12 units of length is illustrated. For example, in laying 6 by 6 tile, a tile is superposed on the next-to-last laid tile Y and the edge B is utilized to define the portion P on this superposed title, which portion thereafter is fitted and secured in the space S.

In Fig. 8, the laying of 6 by 6 tile in diagonal relation is illustrated. A tile is superposed on last laid tile Z and the edge B of the implement is butted against the wall W with the edge F of slot 15 defining the line along which this tile is to be severed to provide the portion P. In this instance, the feet 12, 13 are removed from adjacent the edge A and placed in openings 19 adjacent the edge B, in other words, the feet should always be present in the space S being measured. As noted from the drawing, the space S is triangular and the portion P is triangular and of equal area whereby the portion P can be accurately fitted into the spaces.

It will be understood, without further illustration, that the edges B and F can also be utilized for laying tile in diagonal relation having a width evenly divisible into 6 units of length. For example, in laying 3 by 3 tile, a tile is superposed on the next-to-last laid tile and the edge F is utilized to define the portion P on this superposed tile.

In Fig. 9, the laying of 9 by 9 tile in diagonal relation is illustrated utilizing the implement shown in Figs. 3 and 4. There the edges G are butted against the wall W and the edge A defines the portion P. Alternatively, the edges D and E could be utilized. The laying of 4.5 by 4.5 tile in diagonal relation can be accomplished by severing the portion P from a tile superposed on the next-to-last laid tile.

It will also be understood that in laying 12 by 12 tile the implement would be used in the same manner, as shown in Fig. 9, except that the extension members 16 would provide a distance of $12\sqrt{2}$ units of length between the edges A and G.

In laying tile in diagonal relation, it will be observed that the distance between the wall and the indexing edge for defining the portion P is equal to the maximum diagonal dimension of the tile being laid. For example, for 3 by 3, 6 by 6, 9 by 9 and 12 by 12 tile this diagonal distance would be $3\sqrt{2}$, $6\sqrt{2}$, $9\sqrt{2}$ and $12\sqrt{2}$, respectively.

From the foregoing description, it will be seen that the present invention provides a simple, practical and useful implement adapted to be utilized in connection with the laying of square tile of a plurality of standard sizes, either in parallel or diagonal relation. No high degree of skill is required to utilize the implement whereby the end spaces can be accurately filled even by unskilled or inexperienced persons.

As various changes may be made in the form, construction and arrangement of the parts here-

in, without departing from the spirit and scope of the invention and without sacrificing any of its advantages, it is to be understood that all matters herein are to be interpreted as illustrative and not in any limiting sense.

What is claimed is:

1. An implement for use in laying square tile of given dimensions, comprising a generally rectangular plate having a pair of straight edges at parallel sides thereof spaced apart a distance equal to the width of a given size of tile and having a second pair of straight edges at parallel sides thereof spaced apart a distance equal to the maximum diagonal dimension of another size of tile, and fixed extension means on said plate at one of said edges of said first pair of edges providing a dimension between the free end of said extension means and said other straight edge of said first pair of straight edges equal to the distance between said second pair of straight edges.

2. An implement for use in laying square tile having widths equal to 6, 9, and 12 units of length, comprising a generally rectangular plate having a pair of straight edges at parallel sides thereof spaced apart a distance equal to 12 units of length, said plate having a slot therein parallel to said straight edges providing a straight edge spaced from one of said first mentioned edges a distance equal to 9 units of length and having a second slot therein parallel to said straight edges providing a straight edge spaced from the other of said first mentioned straight edges a distance equal to $6\sqrt{2}$ units of length, said plate having a second pair of straight edges at parallel sides thereof spaced a distance equal to $9\sqrt{2}$ units of length.

3. An implement according to claim 2, wherein said first slot has ends perpendicular to its straight edge and said second slot has ends diagonal to its straight edge.

4. An implement according to claim 2, wherein said plate has fixed extension means at one edge of said first mentioned pair of edges providing a dimension between the free end of said extension means and said other edge of said first mentioned pair of edges equal to $9\sqrt{2}$ units of length.

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