

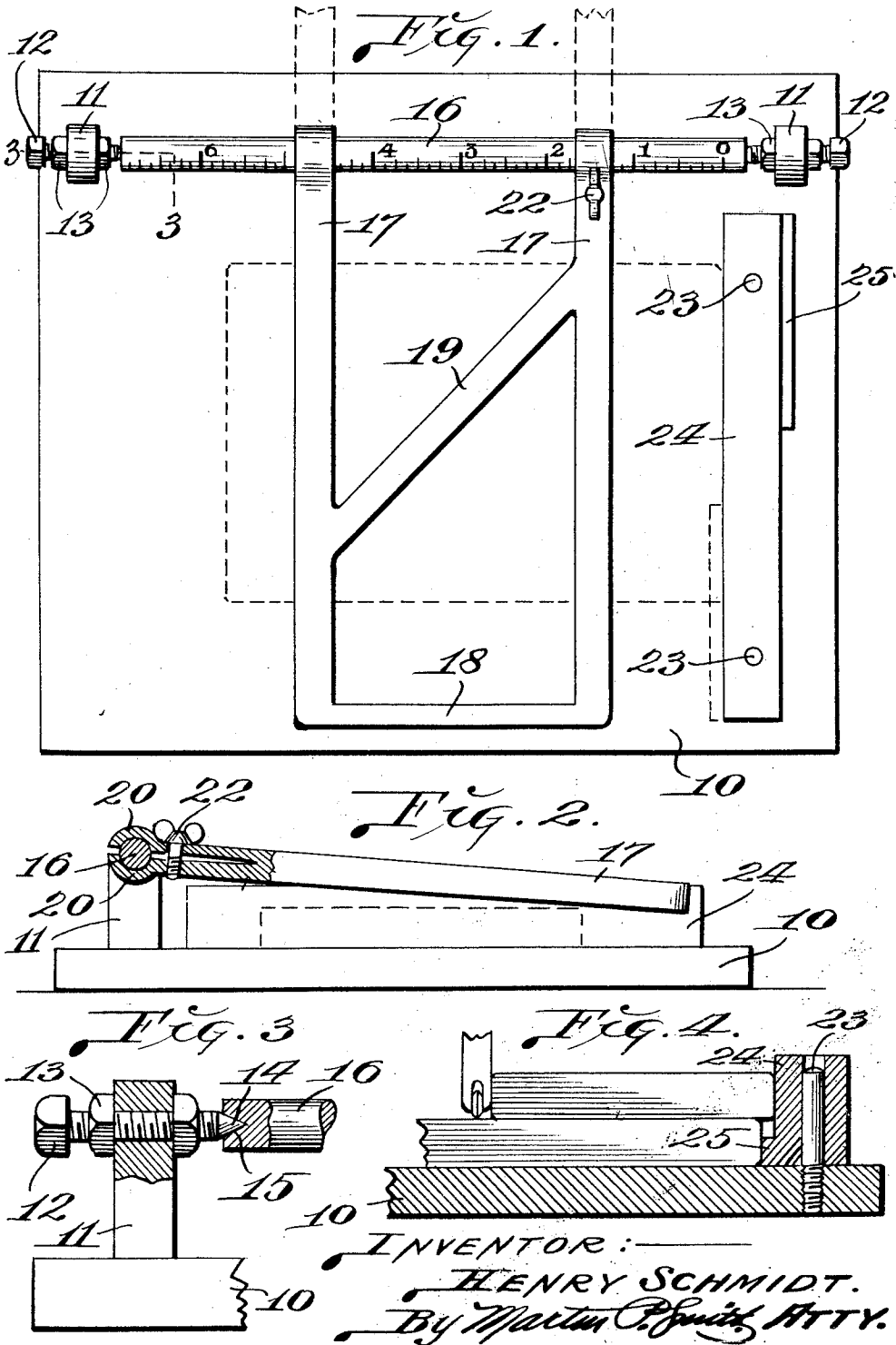
Aug. 14, 1928.

1,680,805

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TILE MARKING AND CUTTING GAUGE

Filed Oct. 1, 1927



UNITED STATES PATENT OFFICE.

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TILE MARKING AND CUTTING GAUGE.

Application filed October 1, 1927. Serial No. 223,256.

My invention relates to a tile marking and cutting gauge and has for its principal object the provision of a relatively simple, practical and inexpensive gauge that may be advantageously employed by workmen engaged in laying or setting tile in the floors, walls and other parts of buildings.

In the setting of tile and particularly the smaller sizes, it very frequently becomes necessary to cut the standard sizes of tile so that the same may be properly fitted or combined with the other tile, and it is one of the purposes of my invention to provide a convenient and compact device upon which the tile may be laid in order that they may be easily and quickly measured and marked, and the glazed surface of the tile cut with a glass cutter or the like in order that tile may be readily broken along the marked and cut line.

A further object of my invention is to provide a device of the character referred to that will be effective in saving much of the time and labor that is ordinarily involved in the accurate marking and cutting of tile.

With the foregoing and other objects in view, my invention consists in certain novel features of construction and arrangement of parts that will hereinafter be more fully described and claimed and illustrated in the accompanying drawing, in which—

Fig. 1 is a top plan view of the tile marking and cutting gauge constructed in accordance with my invention.

Fig. 2 is an end elevational view of the gauge with a portion thereof in section.

Fig. 3 is an enlarged cross section taken on the line 3—3 of Fig. 1.

Fig. 4 is a detail section showing the gauge rail or block of the device in reversed position as is required when marking and cutting tile under certain conditions.

Referring by numerals to the accompanying drawing, which illustrates a practical embodiment of my invention, 10 designates a base board or panel, which may be of any convenient size, but for all practical purposes about ten or twelve inches square; and said board being preferably constructed of compressed fiber or wood.

Fixed in any suitable manner near the corners of this base on one side thereof are short upright posts or standards 11 through the upper portions of which pass horizontally disposed bolts 12, on which are ar-

ranged lock nuts 13 for the purpose of locking the bolts after they have been adjusted in the posts or standards, and the inner ends of these bolts are tapered or made conical as designated by 14 in order to engage in recesses 15 of corresponding shape that are formed in the ends of a metal rod 16.

This rod is provided on the upper portion of its surface with a scale that is graduated to designate inches, and the divisions thereof up to eighths or sixteenths.

Mounted for sliding movement on the rod 16 are the ends of the parallel side members 17 of a frame that overlies the base 10, and the ends of the side members 17 opposite the ends that are mounted on rod 16 are connected by an integrally formed rail or bar 18.

Connecting the intermediate portions of the parallel side bars 17 of the sliding frame is an integrally formed rail or bar 19 that occupies an angular position of 45° relative to the axis of rod 16, and to the planes occupied by the edges of the bars or rails 17, and which latter it will be understood occupy positions at right angles or 90° relative to the axis of rod 16.

The end of one of the bars or rails 17 that is mounted on rod 16 is split lengthwise for a short distance, thereby forming a pair of clamping members 20 that engage above and below the rod 16, and in order to lock these clamping members to the rod 16 and thereby firmly retain the sliding frame in a set or fixed position a bolt 21 provided with a thumb screw 22 passes through the slotted end of the bar or rail adjacent to the clamping members 20 (see Fig. 2).

Seated in and projecting upwardly from the base 10 adjacent to one edge thereof are pins 23 that occupy a plane at right angles relative to the axis of the rod 16 and removably arranged on these pins is a gauge block or rail 24, the inner face of which is in direct alinement with the face or zero mark of the graduated scale on rod 16.

Formed on the lower portion of the outer face of this gauge block or rail 24 is a rib 25, the thickness of which is equal to the distance between one of the side faces of a glass cutter and the cutting wheel or diamond carried thereby, and when the block or rail 24 is reversed in position or turned end for end and re-positioned upon the pins 23, the rib 24 occupies a position on the inside of the gauge block or rail as illustrated by dotted

lines in Fig. 1, and as illustrated by solid lines in Fig. 4.

In the use of my improved gauge, the frame comprising the parts 17, 18 and 19 is swung upward, thereby permitting a tile to be placed on the base 10 with one edge against the inner face of the gauge block or rail 24, and the frame is now swung downward onto the top of the tile, after which said gauge is moved toward or away from the edge of the block or rail 24 so as to bring either one of the rails 17 into position so that the upper surface of the tile may be marked by moving an aluminum pencil or the like along the outer edge of one of the side rails of the frame.

Where the amount of the tile that is to be removed or broken away is known it is a comparatively easy matter to measure and mark the tile by placing one edge thereof against the block or rail 24 and then moving the sliding frame along the rod 16, and at the same time noting the graduations thereof so as to correctly position the frame so that one of the rails 17 may serve as a straight edge for the guidance of the pencil or member used in marking the tile.

When it is desired to fix the sliding frame in its adjusted position during measuring operations or when cutting the glazed surface of the tile with a glass cutter or the like, the thumb screw 22 is tightened so as to clamp the parts 20 on rod 16; such operation being very quickly accomplished.

When it is desired to cut a number of the tile to equal size, one tile is first cut to proper width and this tile serves as a gauge for cutting the remaining tile. After the first or gauge tile has been provided the block or rail 24 is disengaged from the pins 23, turned end for end and re-positioned upon said pins, thereby positioning the rib 25 on the inner face of the gauge block or rail.

The tile to be cut is now positioned on the base 10 with its edge against the rib 25 as illustrated in Fig. 4, and the previously cut tile, which serves as a guide or gauge for cutting the other tile is now positioned on top of the underlying tile, and the edge of the overlying tile bearing against the inner face of the block or rail 24 above the rib 25 will be offset with respect to the corresponding edge of the underlying tile and such offset corresponds to the distance between the side face of the glass cutter and the diamond or wheel carried thereby, so that when the glass cutter is used as illustrated in Fig. 4, the underlying tile will be cut on a line slightly offset from the corresponding edge of the upper or gauge tile, and thus the tile that is cut will equal the width of said gauge tile.

By proper manipulation of the sliding frame and by using the diagonally disposed rail 19 as a straight edge the tile may be

marked on 45° lines so as to obtain accurate miter joints between the tile when properly assembled and laid.

The form of gauge illustrated in the drawings is designed for the use of right handed workmen, and for left handed workmen the pins 23 that receive the block 24 are located adjacent to the left hand edge of the base 10.

Thus it will be seen that I have provided a tile marking and cutting gauge that is relatively simple in construction, inexpensive of manufacture, capable of being conveniently used and which will be effective in saving much of the time and labor ordinarily involved in tile marking and cutting operations.

It will be readily understood that minor changes in the size, form and construction of the various parts of my improved tile marking and cutting gauge may be made and substituted for those herein shown and described without departing from the spirit of my invention, the scope of which is set forth in the appended claims.

I claim as my invention:

1. A tile marking and cutting gauge comprising a base, a rod supported thereupon, a gauge block arranged on the base at right angles to said rod, a frame mounted for sliding and swinging movement upon said rod and which frame includes a pair of spaced approximately parallel straight edges that lie parallel with said gauge block when said frame rests upon said base, and a diagonally arranged straight edge between said parallel straight edges.

2. A tile marking and cutting gauge comprising a base, a rod supported thereupon, a gauge block arranged on the base at right angles to said rod, a frame mounted for sliding and swinging movement upon said rod, which frame includes a pair of spaced approximately parallel straight edges that lie parallel with said gauge block when said frame rests on the base, a diagonally disposed straight edge arranged between said parallel straight edges, and means for clamping said frame to said rod.

3. In a tile marking and cutting gauge, a base, a rod supported thereupon, a gauge block arranged on said base at right angles to said rod, a frame mounted for sliding and swinging movement upon said rod, said frame having a straight edge portion that lies approximately parallel with said gauge block when said frame rests on said base, and said frame including a straight edge member that occupies an angular position of 45° relative to said gauge block and to said rod.

4. In a tile marking and cutting gauge, a base, a rod supported thereupon, and a frame arranged for sliding and swinging movement upon said rod which frame includes a

straight edge portion that occupies a position at right angles relative to the axis of the rod when said frame rests upon said base and a straight edge portion that occupies an angular position of 45° relative to the axis of said rod.

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5. In a tile marking and cutting gauge, a base, a rod supported thereupon, a frame arranged for sliding and swinging movement upon said rod which frame includes a straight edge portion that occupies a position at right angles relative to the axis of the rod and a straight edge portion that occupies an angular position of 45° relative to the axis of said rod when said frame rests upon said base, and means for clamping said sliding frame to said rod.

6. In a tile marking and cutting base, a rod supported thereupon, a straight edge frame mounted for sliding and swinging movement upon said rod, a gauge block re-

versibly mounted on the base and occupying a position at right angles to the axis of said rod, and a rib formed on the lower portion of one side of said gauge block.

7. In a tile marking and cutting gauge, a base, a rod supported thereon, a frame arranged for sliding and swinging movement upon said rod, means for clamping said frame to said rod said frame having straight edge portions arranged at right angles to the axis of the rod and also having a straight edge portion arranged at an angle of 45° relative to said rod when said frame rests on said base, and a gauge block reversibly mounted upon said base and occupying a position at right angles to the axis of the rod, which gauge block is provided on the lower portion of one of its side faces with a rib.

In testimony whereof I affix my signature.
HENRY SCHMIDT.