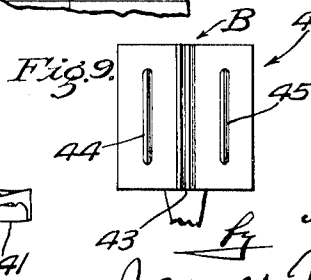
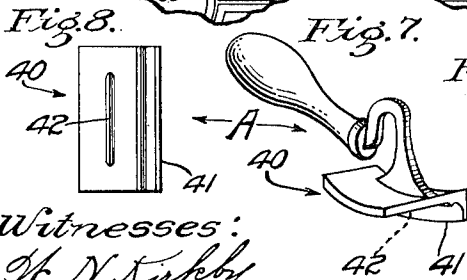
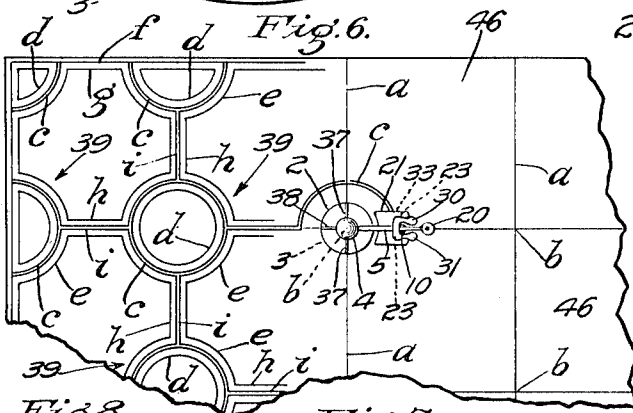
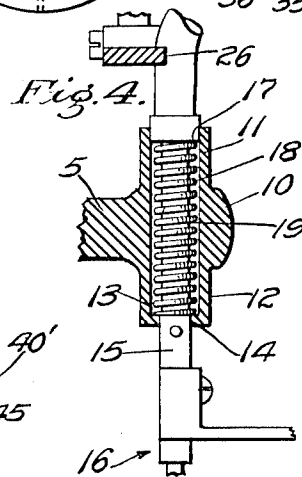
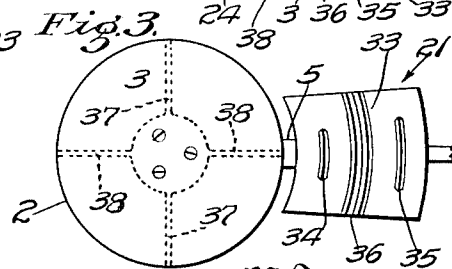
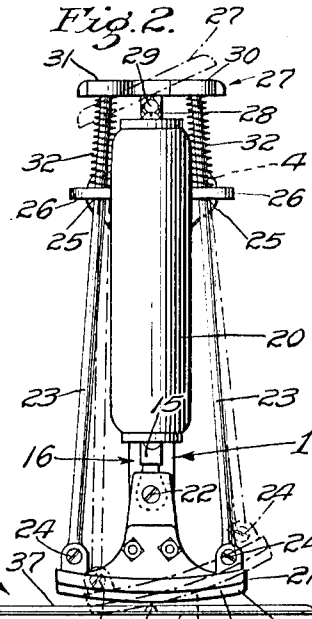


1,064,133.

Fig. 5. Fig. 1.



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UNITED STATES PATENT OFFICE.

MEHO DERVOZ, OF LOS ANGELES, CALIFORNIA.

CEMENT-FINISHING TOOL.

1,064,133.

Specification of Letters Patent.

Patented June 10, 1913.

Application filed April 22, 1912. Serial No. 692,522.

To all whom it may concern:

Be it known that I, MEHO DERVOZ, a subject of the Emperor of Austria-Hungary, residing at Los Angeles, in the county of Los Angeles and State of California, have invented a new and useful Cement-Finishing Tool, of which the following is a specification.

An object of this invention is to provide means whereby a cement worker may mark plastic cement surfaces with ornamental designs including circles, semi-circles and various arcs connected by right lines and rectangular figures.

An object of this invention is to produce a tool of this character which can be easily operated and which will produce smooth and accurate work.

An object is to provide a cement marker that will enable the workman to accurately join parallel lines at the corners of the figures that constitute the ornamental designs.

Other objects and advantages may appear from the subjoined detail description.

The accompanying drawings illustrate the invention.

Figure 1 is a perspective view of a cement marker constructed in accordance with this invention. Fig. 2 is an elevation of the appliance shown in Fig. 1, the view being taken in line with the tool carrier and the supporting axis. Fig. 3 is an inverted plan of Fig. 2, the alining marks on the foot-plate being indicated in dotted lines. Fig. 4 is a fragmental sectional detail on an enlarged scale of the resilient support means for the marking tool. Fig. 5 is a fragmental detail of one of the split journals in place on the axis. Fig. 6 is a reduced plan showing the cement marker on a cement pavement which is partly finished. Fig. 7 is a perspective view of an edge marking tool constructed in accordance with the principle of this invention relative to joining the lines at the corners. Fig. 8 is a plan of the working face of the tool shown in Fig. 7. Fig. 9 is a view of the working face of the tool for marking the lines at the corners of the inside figures.

The axis 1 is fixed at right angles to the end plate 2 having a supporting face 3 that is flat and smooth and preferably polished and is adapted to rest upon the plastic cement surface that is to be finished. Said axis is provided with a handle 4 by which

the operator may hold the axis and the plate in proper position on the plastic cement surface.

A revoluble support 5 is journaled by split boxes 6 in annular peripheral grooves 7 on the axis, the outsides of said boxes being provided with threaded tips 8 drawn toward each other by the wing nut 9. The outer end of the support is provided with a box 10 having a vertical bore with upper and lower sleeve extensions 11, 12, the lower end of said bore being provided with an internal shoulder 13 and with a central angular perforation 14 through which the lower angular section 15 of the tool-carrying rod 16 is non-rotatably mounted to move in parallelism with the axis 1 at right angles to the produced plane of the supporting face 3.

The tool-carrying rod 16 is provided with a cylindrical shoulder 17 adapted to fit the bore of the sleeve 11 and to slide in and out therein and a helical spring 18 is seated on the shoulder 13 and encircles the intermediate body 19 of the tool-carrying rod inside said bore. The lower and upper ends of said spring engage the shoulders 13 and 17 respectively, thus forming a resilient support for the tool-supporting rod 16 which is provided with a handle 20 fixed to the outer side of said rod.

The arc marking tool 21 is pivoted by a pin as the bolt 22 to the foot of the tool carrying rod 16, the axis of said bolt 22 being radial to the central axis 1 and in parallelism with the plane of the supporting surface 3. Tilting rods 23 are pivoted by pins 24 to the opposite ends of the marking tool 21 and their upper portions slide through guides 25 fixed to the supporting rod 16. Said guides are formed by the guide-bar 26. A tilting lever 27 is pivoted on the upper portion 28 of the marking tool supporting rod by a pin 29 parallel with the pin 22 and with the produced plane of the supporting face 3, and is provided with finger-pieces 30 and 31 on opposite sides of the vertical plane in which the axis of the pins 22 and 29 extend. Helical springs 32 are interposed between the guides 25 and the ends of lever 27, to normally hold the lever level. Said spring encircles the tilting rods 23 which are engaged at their upper ends by the opposite ends of the tilting lever that may alternately depress said rods as the lever is oscillated. The lever is thus

connected with the tool 21 through the rods 23.

The marking face of the arc marking tool plate 21 is constructed in the segment of a cylinder, and is provided with segmental ribs 33, 34, 35, the larger of which ribs 33 is provided with a groove 36, so that said rib comprises semi-circular ridges on opposite sides of a groove. The grooved rib 33 extends from edge to edge of the marking plate 21; and the minor ribs 34 and 35 terminate inside the border thereof, so that when the marking tool plate is tilted and the end of the main marking rib cuts into the surface, the minor ribs 34, 35 will be above the surface to be marked.

On top of the foot-plate 2 are provided radial centering index ribs 37, 38 spaced ninety degrees apart, being radial of the plate and extending to the rim of the plate, so that the workman may accurately center the plate over the center of the place at which the ornamental design 39 is to be located.

When the springs 18 and 32 are free, they hold the marking plate 21 slightly elevated above the level of the contact surface 3 of the supporting and centering plate 2, as shown in Fig. 2.

The free hand marking tools shown in Figs. 7, 8 and 9 correspond to the marking tool 21 in that each comprises a plate having a main rib running from end to end of the plate and a short rib terminating between the ends of the plate; that is to say, within the border of the plate so that when the tool is tipped to cause the end of the main rib to cut into the plastic cement surface, the minor rib or ribs will not contact with surface of the cement; but when the tool is held more nearly level, said minor ribs, as well as the main rib may be caused to mark the plastic surface.

In Figs. 7 and 8 the plate 40 is provided with an ogee grooved rib or blade 41 at one edge extending from end to end of the plate and with a minor rib 42 between said grooved rib and the other edge of the plate.

In Fig. 9 the main central rib 43 extends from end to end of the plate 40' at the mid-line thereof and minor ribs 44, 45 are provided on opposite sides of said main rib between said main rib and the opposite edge of the plate.

The plastic cement surface 46 may be marked with construction lines *a* intersecting each other at right angles at the center *b* around which it is desired to locate the ornament. The workman will then place the end-plate 1 over said center *b* with the top ribs or indicators 37 and 38 thereof aligned with the lines *a*; and then he will grasp the handle 20 and by depressing one of the thumb pieces of the tilting lever he will depress one end of the marking plate

21, so that by depressing the handle 20 one end of the main marking rib 36 will cut into the plastic surface. He will then swing the handle 20 around the axis 1 thereby causing the ends of the main marking rib 36 to mark a circular groove *c*. The end of the marker serves to smooth the surface over which the marker passes, so that when the tool has been swung around the circle the surface remains smooth excepting for the seam-like, circular, double groove *c*. The workman may then bring the marker plate 21 into position with its edge alined with one of the construction lines *a*; and then freeing the tilting lever so that the springs 32 may act thereon to return the plate 21 to a horizontal position parallel with the produced plane of the supporting plate, he may again depress the handle 20, thus forcing the ribs 44, 44' into the plastic surface and thereupon will move the handle 20 until said edge of the blade 21 is alined with the next construction line *a*. During this movement the marking ribs 34, 35 will mark the surface with the arcs *d* and *e* which are spaced apart from the construction line *a*. In this way the spaces between the construction lines will all be marked. The workman may then remove the tool from the plastic surface and he may repeat the operation as required. By means of the edging tool A shown in Figs. 7 and 8, the workman may then mark the border line *f*. This is preferably done by tilting the tool so as to bring the inner end of the main ogee blade or rib 41 into the plastic cement at the place desired, and at the same time bringing the blade 40 to a level position to cause the rib 42 to cut into the plastic surface; and by starting the blade at the line *a* and drawing it along at an angle thereto he will produce the border line and the inner figure *g* parallel therewith, the ends of said line being spaced apart from the construction line *a*. Then by taking the tool B shown in Fig. 9 parallel ornamentation lines *h*, *i* may be drawn; the tool B being held aslant to mark the line *h* alone, and being held level to mark both lines simultaneously, thus enabling the workman to joint the straight lines to the curved lines to complete the ornamental design.

I claim:—

1. A cement marker comprising an axis; an end plate fixed on the axis at right angles thereto and having a supporting face; a handle on the axis; a revoluble support journaled on the axis; and a marker on the support; said marker being adapted to extend to the produced plane of said supporting face.

2. A cement marker comprising an axis; an end plate fixed on the axis having a supporting face transverse to the axis; a revoluble support journaled on the axis; and a

marker mounted on the support and movable toward and from the produced plane of said supporting face.

3. A cement marker comprising an axis; an end plate fixed at right angles to the axis and having a supporting face; a revoluble support journaled on the axis; a marker on the support; and resilient means on said support to carry the marker.

4. A cement marker comprising an axis; a plate on the axis and provided with a supporting face transverse to said axis; a revoluble support on said axis; said support being provided with a box having a vertical bore, and the lower end of said bore being provided with an internal shoulder; a tool-carrying rod slidable in the bore and provided with a shoulder; a spring between the shoulder of the bore and the shoulder of the rod, to support the rod; a handle on the rod, and a tool at the lower end of the rod.

5. A cement marker comprising an axis; a plate on said axis provided with a supporting face transverse to said axis, a support revolubly mounted on the axis, a rod, a marking tool pivotally mounted on the rod, means to move the rod in parallelism with the axis and means to tilt the tool on the rod.

6. A cement marker comprising an axis, a supporting plate for the axis, a support journaled on the axis, a tool-carrying rod mounted on said support to move in parallelism with said axis, a marking tool pivoted to the tool-carrying rod, means to resiliently support the tool-carrying rod, connecting rods connected with the marking tool, a lever connected with said rods and adapted to depress said rods alternately, and resilient means to hold the lever and the marking tool normally parallel with the plane of the supporting plate.

7. A marking tool comprising an axis, a plate on the axis, a support mounted to revolve around the axis, a tool supporting rod in slidable relation to the support, a spring on the support to support the rod, a marking tool pivoted to the support, guides on said supporting rod, tilting rods pivoted to the marking tool and extending through the guides, a lever pivoted to the tool-supporting rod and extending over the ends of the tilting rods and adapted to depress said rods alternately, and resilient means to normally act upon the lever and the tilting rods to hold the marking tool in normal position.

8. The combination with a support, of a tool-carrying rod slidable in said support, a spring for supporting said rod, guides fixed to the support, a marking tool pivotally connected to the rod and provided with a rib extending to the edge of said tool,

rods pivoted to the tool and extending through the guides, and means for alternately depressing said rods.

9. In a cement marker, an axis; a plate on the end of the axis; said plate being provided with radial index ribs spaced 90° apart; a support revoluble on said axis; and a tiltable marking tool connected with said support and provided with a convex face, a main marking rib extending on said face to the end of the marking tool and other marking ribs terminating short of the edge of said marking tool.

10. A cement marker provided with a tiltable blade having a smooth convex face, a main marking rib extending on said face to one edge thereof, and a marking rib terminating at a distance from such edge.

11. A cement marker provided with a tiltable blade having a smooth convex face; a main rib on said face extending from edge to edge of said face and a rib terminating short of said edges.

12. A cement marker comprising an axis; a transverse plate on the end of the axis; a marking tool having a marking face provided with a marking rib; an arm mounted to revolve on the axis and means yieldingly supporting the marking tool above the plane of the supporting face of the transverse plate and allowing said tool to be depressed to such plane.

13. A cement marker comprising a marking tool rod; an axis supporting the rod; a marking tool pivoted to the rod and provided with a smoothing face and with a rib on such face; a handle for the rod; guides on the rod; tilting rods pivoted to the tool and extending through the guides; a tilting lever pivoted to the rod and contacting with the ends of the rod; and spring means to normally hold the tool level.

14. The combination with a rod; of an axis supporting the rod; a handle on the rod; a tool pivoted on the rod; a tilting lever on the rod, and means between the tilting lever and the tool to tilt the tool when the lever is moved.

15. The combination with a rod; of an axis supporting the rod; a handle on the rod; a tool pivoted on the rod; a tilting lever on the rod; means between the tilting lever and the tool to tilt the tool when the lever is moved; and resilient means to return the tool to normal position.

In testimony whereof, I have hereunto set my hand at Los Angeles, California, this 15th day of April, 1912.

MEHO DERVOZ.

In presence of—

JAMES R. TOWNSEND,
L. BELLE RICE.