

Aug. 2, 1960

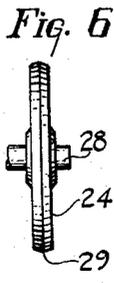
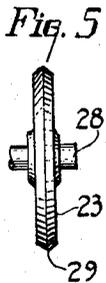
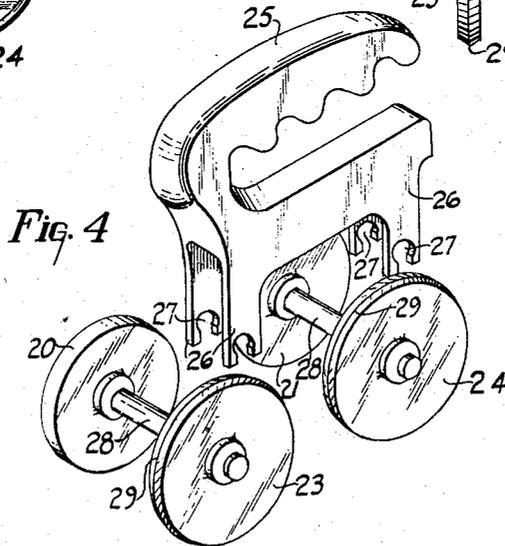
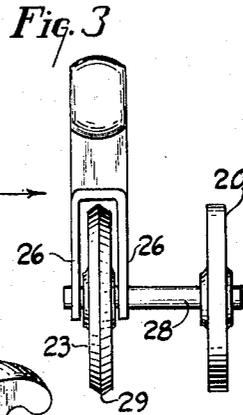
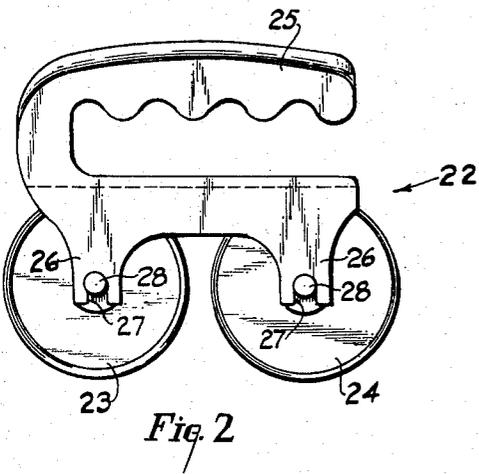
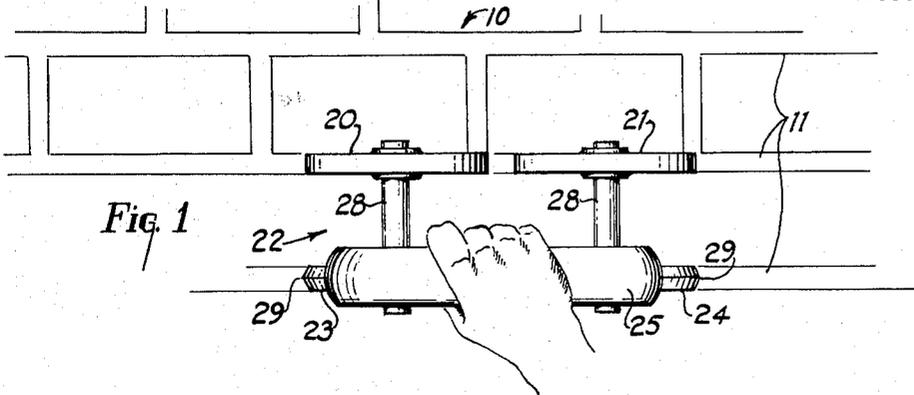
R. O. BILLINGS

2,947,084

LINE MARKING TOOL

Filed Aug. 8, 1957

2 Sheets-Sheet 1



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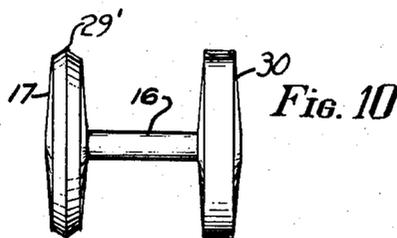
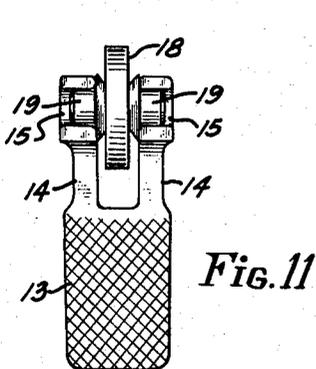
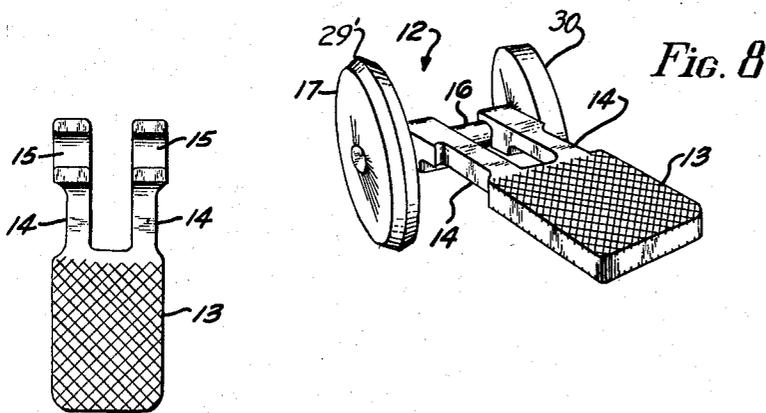
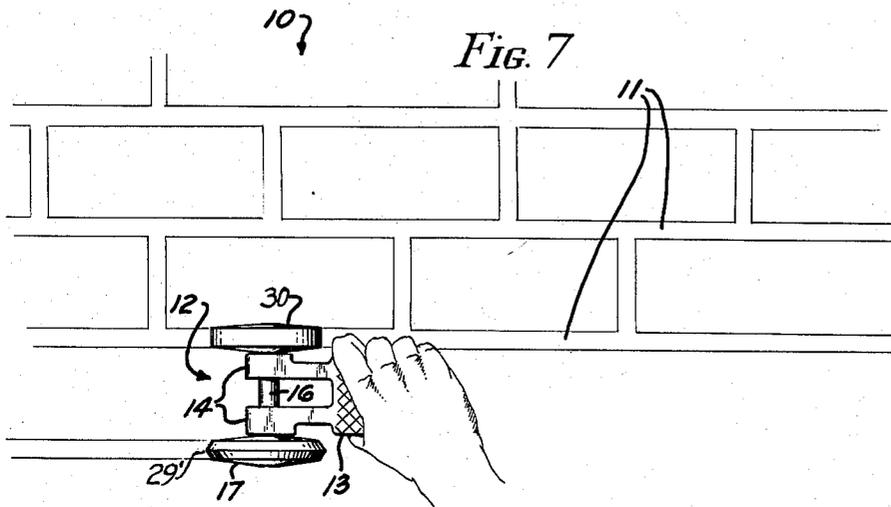
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R. O. BILLINGS
LINE MARKING TOOL

2,947,084

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2 Sheets-Sheet 2



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2,947,084

LINE MARKING TOOL

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2 Claims. (Cl. 33—32)

This invention relates to improvements in the art of simulating mortar lines on building walls.

The present invention relates in general to an improved method of making an artificial brick surface on building walls by applying a cementitious material to the wall and subsequently grooving it to produce a brick pattern.

Heretofore the conventional procedure for obtaining a brick-like effect on walls has been by using either a masking tape which is pulled off after the cementitious coating is applied to the wall, and which has limitations, or by the more common method of using a marking trowel which is pushed or slid along the surface to produce the groove. The latter method requires accurate and laborious marking out of each line and is difficult to do properly.

One of the problems attendant with the simulating of mortar lines on walls is that grooves must be put into the cementitious material before the material has an opportunity to harden, or within a short time period. Consequently, only a small area of the wall can be covered with the material at one time inasmuch as the method commonly used requires a time-consuming laying out of each horizontal line before the grooves can be formed. Additional small patches of material are thereafter applied to the wall and the laborious laying out and grooving procedures repeated, until the entire wall is completed. This method is inefficient and time-consuming.

It is a general object of the present invention to provide an improved method of simulating mortar lines on building walls wherein novel procedural steps are utilized to eliminate the necessity of laying out each mortar line, the procedure of creating the mortar-simulating grooves being thereby greatly accelerated. The present improved method permits the applicator to apply cementitious material to a larger area of wall than was previously possible and the time-consuming drawbacks and inefficiencies of prior methods are effectively reduced.

With the present method a straight horizontal line is first laid out at the top of a freshly coated wall area to be marked. A wheeled double marking device is then run along the wall with the top or tracing wheel or wheels on and following the line. The wheels are laterally spaced apart the width of a brick and the effect on the wall after the marking tool has been drawn over the wall surface is that of two parallel-mortar lines. Then, by dropping the marking device down so that the top wheel or wheels are in the lowermost groove, last formed, the marking device can be mutually propelled across the wall surface again so that another horizontal mortar line is produced by the bottom, or cutting wheel or wheels. Thereafter the process is easily and quickly repeated until the wall is completed.

At corners and other areas where space is limited, and

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for vertical mortar lines, smaller, two-wheel or single-wheel grooving devices, which are hereinafter more fully described, or other suitable hand tools, may be used in lieu of the four-wheel marking device, the latter being preferred for the majority of the work.

A further object of the invention is to provide a method as above described wherein a four-wheel marking tool is used, the two bottom or cutting wheels of which have their peripheries V-shaped in cross-section and at different angles. The lead, or front wheel has relatively sharp angles for deep and easy cutting, and the edge of the second or following wheel is blunter to produce a wider, flatter groove. The V-shaped peripheries of the cutting wheels also tend to prevent the wheels from sticking to and picking up particles of the cementitious material being grooved. The top, or tracing wheels of the four-wheel marking tool have flat peripheral faces in order to flatten the grooves previously formed by the cutting wheels and to effectively direct the cementitious material to each side so that the material is higher on each side of the line than on other portions of the surface. This tends to make the grooves appear deeper and gives a third-dimensional effect which adds to the appearance without requiring the use of large quantities of material to obtain deep grooves.

A further object of the present invention is to provide an improved method as above described wherein a four-wheel marking tool is utilized which has an offset, detachable handle mounted over the bottom, or cutting wheels. This novel offset arrangement allows pressure to be applied directly over the cutting or grooving wheels where it is desired, and it has the further advantage of permitting vision over the handle of the upper, or tracing wheels as the tool is being propelled across a wall.

The detachable nature of the wheels and handle of the marking tool provides for simple assembly and permits the quick and efficient cleaning and packing of the unit. The wheels being detachable and reversible, it is also possible to reverse the normal position of the angled cutting wheels for use of the tool by a left-handed operator.

A further object is to provide an improved method wherein the four-wheel marking tool utilized has two wheels in line with each other performing the functions of grooving or tracing. The following of the second wheel in the path of the first, as the tool is being propelled across a wall, assures an absolutely straight horizontal line.

A further object of the present invention is to provide a method as above described wherein a modified marking tool may be used which consists of a handle and a double-wheel unit, there also being an interchangeable single-wheel unit. The double-wheel unit may be used with the handle for marking horizontal mortar lines, and is especially suitable where there is not enough space to permit use of the larger four-wheel tool heretofore described. Where the space is insufficient for use of even the double-wheel unit, the same may be replaced in the handle with a single marking wheel which is suitable for close work. The single-wheel unit may also be used as a paint applicator and is adapted to be dipped in paint and used to paint the grooves a desired color.

With the above and other objects in view, the invention consists of the improvements in the art of simulating mortar lines on building walls, and all of its parts, combinations, steps and tools, as set forth in the claims, and all equivalents thereof.

In the accompanying drawings, illustrating a form of the four-wheel marking tool utilized in the present invention, and a form of the modified double-wheel marking tool together with an interchangeable single wheel, in which drawings the same characters indicate the same parts in all of the views:

Fig. 1 is a fragmentary elevational view of a wall showing a four-wheel marking tool being used in carrying out the improved method;

Fig. 2 is a side view of the four-wheel marking tool;

Fig. 3 is an end view of the four-wheel marking tool;

Fig. 4 is an exploded perspective view of the four-wheel marking tool;

Fig. 5 is an elevational view of the lead, or front, cutting wheel, showing the angled periphery;

Fig. 6 is an elevational view of the second, or following, cutting wheel, showing the angled periphery;

Fig. 7 is a fragmentary elevational view of a wall showing a modified two-wheel marking tool being used in carrying out the improved method;

Fig. 8 is a perspective view of a double-wheel marking tool;

Fig. 9 is an inverted plan view of the handle of the double-wheel marking tool;

Fig. 10 is an elevational view of the axle-mounted tandem wheel; and

Fig. 11 is an inverted plan view of the marking tool showing the axle and tandem wheel replaced in the holder by a single paint-applying or single marking wheel.

Referring more particularly to the drawings, the numeral 10 designates a wall surface which has been freshly coated with a settable cementitious material. Referring to Fig. 1, the top wheels 20 and 21 of the four-wheel marking tool 22 are being pushed along the lowermost of the completed horizontal grooves or mortar lines 11. The bottom wheels 23 and 24 are, at the same time, creating a new groove underneath, and parallel to the groove being followed by the top wheels. Upon completion of the new groove, the marking tool is dropped down so that the top wheels are in the newly completed lowermost groove and the process is repeated.

As is best shown in Figs. 2, 3 and 4, the four-wheel marking tool comprises a handle 25 formed of wood, plastic, metal or other suitable material, with two pairs of arms or holders 26, the arms of each pair being spaced laterally apart to receive between them a cutting wheel 23 or 24, said arms being bifurcated to provide bearing portions having open-sided recesses 27 for removably receiving, immediately adjacent the hubs of the cutting wheels, revoluble axles 28 rigidly carrying the cutting wheels 23 and 24 and, at a lateral distance approximating the width of a brick, the tracing wheels 20 and 21.

Referring more particularly to the four-wheel marking tool, as is best shown in Figs. 5 and 6, the cutting periphery of the forward cutting or grooving wheel 23 is V-shaped with the sides of the V approximately a 35° angle from the horizontal, in order to facilitate deep and easy cutting. The following wheel 24 is angled to a lesser degree, in this case at approximately an 18° angle from the horizontal, in order to produce a wider, flatter groove than that cut by the lead wheel. Both wheels have aligned circular cutting lines 29 at the apexes of the V-shaped cross-section. The tracing wheels 20 and 21 have flat peripheries in order to further flatten the grooves previously formed by the cutting wheels and to force the cementitious coating material to each side and above the line, thereby giving the groove a third-dimensional effect.

The cutting wheel 17 of the modified double-wheel marking unit, as is best shown in Fig. 10, also has a periphery angled from the apex 29', in this case at 25°, to facilitate the grooving action. The periphery of the tracing wheel 30 in the double-wheel tool is flat.

Referring more particularly to the double-wheel marking tool, as illustrated in Figs. 7 through 10, the tool 12 comprises a handle 13 formed of wood, plastic, metal or other suitable material, with spaced arms or holders 14 formed with end bearing portions having open-sided recesses 15 providing bearings for removably receiving a revoluble axle 16 rigidly carrying two wheels 17 and 30 laterally spaced apart the approximate width of a brick. As is shown in Fig. 7, the double-wheel marking tool can be used in much the same manner as the four-wheel tool hereinbefore described, and it is better suited for working in areas of limited size and accessibility.

Referring to Fig. 11, the numeral 18 designates a single paint-applying wheel which may replace the double wheels in the same handle unit 13 used in the double-wheel marking tool, the open-sided recesses 15 of the holders 14 forming bearings for removably receiving trunnions 19 projecting from the wheel. After the grooves have been completed this wheel is used to paint the grooves a contrasting color. The single wheel is also adapted for grooving in close quarters but is especially suitable for painting the completed grooves, the interchangeable nature of the double-wheel marking unit with the single wheel painting unit providing further means for carrying out the method of the present invention in a novel, efficient and expeditious manner.

Various changes and modifications may be made without departing from the spirit of the invention, and all of such changes are contemplated as may come within the scope of the claims.

What I claim is:

1. A decorating tool comprising a handle having a projecting bearing portion with an open end recess, said bearing portion being forked and comprising spaced arms, an axle having a wheel rigidly connected to each end thereof, with the axle projecting beyond the wheel on at least one side of the tool, said axle and projecting end being removably and rotatably positioned in the bearing portion with the adjacent wheel within the fork whereby said handle is located over one wheel and is at one side of the tool and is offset a predetermined substantial distance from the other wheel on the other side of the tool so as not to obstruct vision and to permit the latter wheel to be used as a tracing wheel on a previous line while the wheel beneath the handle is forming a new line, the spacing of said fork arms being such as to accommodate said wheel while permitting rotation of the wheels and axle as a unit.

2. A decorating tool comprising a handle having longitudinally aligned and spaced downwardly projecting bearing portions with open bottomed bearing recesses, each bearing portion being forked and comprising spaced arms, a pair of axles each having wheels rigidly connected to opposite ends thereof with the axles projecting beyond the wheels on at least one side of the tool, said axles and projecting ends being removably and rotatably positioned in the spaced bearing portions with the adjacent wheels within the forks whereby said handle is on one side of the tool and located over said wheels and is offset a predetermined substantial distance from the other wheels so as not to obstruct vision and permit the latter wheels to be used as tracing wheels on a previously formed line while the set of wheels below the handle is forming a new line, the spacing of said fork arms being such as to accommodate said wheels while permitting rotation of the wheels and axles.

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