Oct. 14, 1958 G. K. MARR 2,855,690

METHOD AND APPARATUS FOR TRIMMING FLOOR TILE

Filed Jan. 11, 1954

FIG. 1

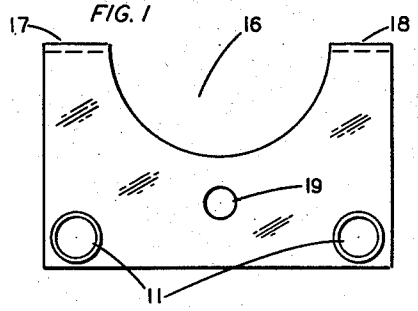


FIG. 3

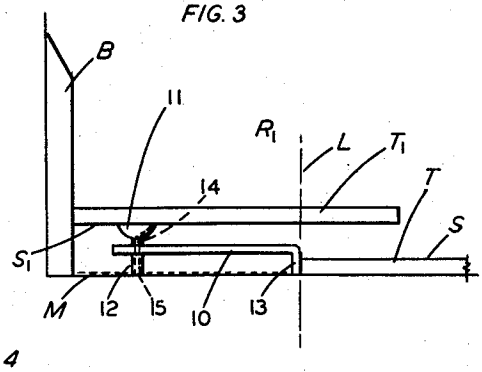
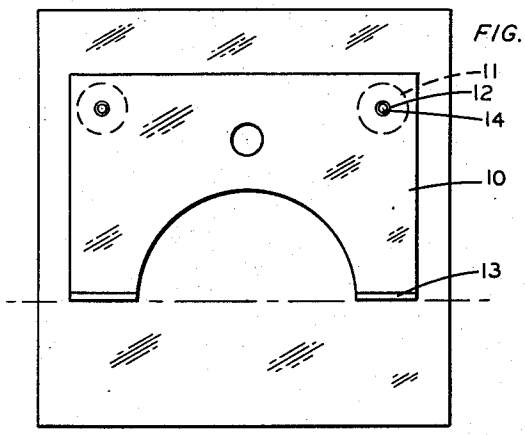


FIG. 4



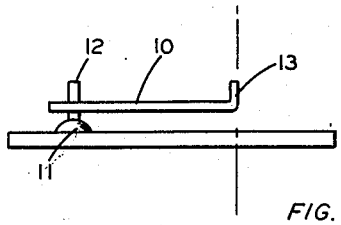


FIG. 2

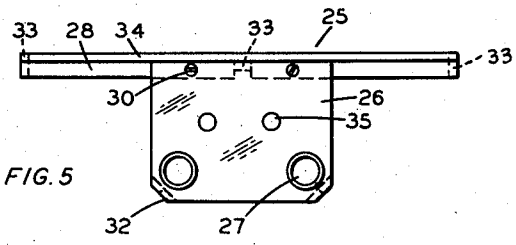
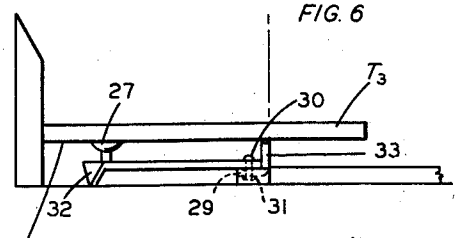


FIG. 5

FIG. 6



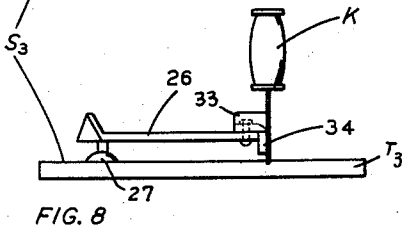


FIG. 8

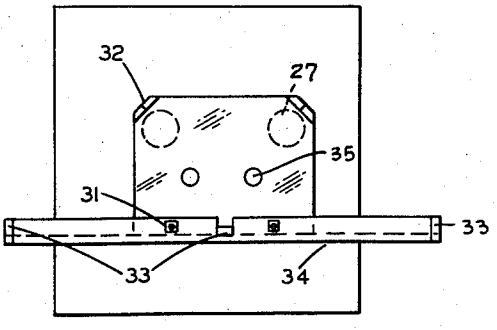


FIG. 7

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United States Patent Office 2,855,690 Patented Oct. 14, 1958

2,855,690

METHOD AND APPARATUS FOR TRIMMING FLOOR TILE

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Application January 11, 1954, Serial No. 403,239

10 Claims. (Cl. 33—174)

This invention relates generally to gages used in cutting materials and more specifically to a gage used to trim floor covering materials during installation.

The primary object of this invention is to provide a gage which will permit floor tile to be cut for tailored installation without the requirement that any measurements be taken or any markings be made.

Another object is to provide a gage which is simple and economical in construction and yet exceedingly accurate for the purpose intended.

A further object is to provide a gage which is foolproof in operation and can be employed by inexperienced persons to accomplish ordinarily difficult tile laying projects.

A still further object is to provide a gage which may be used with either a tile cutter or a linoleum knife by a simple conversion manipulation.

And yet another object is to provide a gage for accurately cutting floor tile to be laid adjacent a wall which gage may be operated with great accuracy over a wide range of sizes and under poor lighting conditions.

An additional object of this invention is to provide a method for trimming floor tile which will permit a whole tile to be cut for laying into a space smaller than a whole tile without requiring the operator to measure or mark the tile.

These and other objects and advantages will be apparent from an examination of the following specification and drawing in which:

Fig. 1 represents a top plan view of one tile gage of this invention.

Fig. 2 represents an elevation of the tile and tile gage in position for being cut.

Fig. 3 represents a side elevation showing the tile gage in operation.

Fig. 4 represents a plan view of the tile gage and attached tile preparatory to the cutting operation by a standard floor tile cutter.

Fig. 5 is a top plan view of a second embodiment of this invention.

Fig. 6 is a side elevation showing the tile gage in operation.

Fig. 7 is a plan view of this tile gage and attached tile preparatory to the cutting operation.

Fig. 8 is a side elevation of this tile gage and attached tile in the process of being cut by a linoleum knife.

In the art of floor tile laying one of the difficulties of efficient and speedy installation is the fitting in of the last tile adjacent a wall or base board. This last tile is virtually never a whole tile and must be cut to the exact size for a neat appearing job. In the past this operation has been accomplished largely by laying a whole tile over the space to be covered and making a pencil mark at each side of the tile to indicate the cut line. This placing of the pencil mark is itself subject to great inaccuracies, and again the cutting operation in a standard tile cutter is again subject to error. Both these inaccuracies are greatly exaggerated when the tile layer is working

under poor lighting conditions which is frequent since in many instances the floor tile is laid in a new building before the lighting circuit is ready for operation. So that the problem which has been present in this art is that of obtaining a means for laying the last tile which does not depend upon either the skill of the operator or upon his eyesight. It is believed the instant invention provides the answer to this problem.

Referring now more particularly to the characters of reference in the drawing, in Figs. 1–4 the complete tile gage **9** consists essentially of a main body including a flat plate **10**, a pair of upwardly facing suction cups **11** and downwardly extending supports **12**. The measuring end of plate **10** includes a depending lip **13** which keeps plate **10** and cups **11** in a horizontal attitude during use. Many conventional suction cups are provided with a stud **14** which engages the threaded hole **15** of support **12** which may itself be the conventional nut which is provided for suction cup installation. Consequently the support **12** serves the dual purpose here of securing suction cup **11** in place and preventing plate **10** from lying in the matrix M which is applied to a floor during tile laying. If plate **10** were permitted to engage the matrix M an extremely messy condition would result, whereas with only a very small area such as the bottom of support **12** the condition is negligible. In addition to the underturned lips **13**, plate **10** is cut out as at **16** so that two spaced points **17** and **18** are provided as the gage surface which reduces the error which might occur if only a continuous surface were present. Hole **19** provides a convenient means for lifting, placing, and handling the trim gage.

In operation, the gage is placed in the space between the last whole tile T and the wall or base board B as shown in Fig. 3. A new whole tile T, is abutted against base board B and pressed into engagement with cups **11** with its smooth surface S, adjacent the cups. Since the rough surface R, will not adhere to cups **11** it is impossible to place the rough surface down. The tile T, immediately adheres to the gage and the two are picked up as a unit and transferred to a standard blade type cutter. The point **17** and **18** abut a stationary portion of the cutter and the cutter blade cuts tile T, along the line indicated at L. After the tile T is cut, as indicated, it may be laid in place over the matrix M.

The embodiment shown in Figs. 5–8 is particularly useful when a linoleum knife is employed in place of a tile cutter. With this embodiment unskilled persons can lay tile with equally accurate results to those obtained by a highly skilled operator using conventional methods. The tile gage indicated generally at **25** consists essentially of a rectangular plate **26** having a pair of suction cups **27** near one side, and having a relatively long metallic strip **28** attached to the opposite side. Holes **29** through plate **26** and strip **28** permit bolts **30** and nuts **31** to releasably secure the strip and plate together. It will be noted that removal of strip **28** permits this gage to function identically to trim gage **9**. At the corners of plate **26** near suction cups **11** lips **32** are turned down to engage the floor. Strip **28** also includes depending lips **33** one at each end and one centrally located so that plate **26** will set horizontal when being used. A long ridge **34** on strip **28** provides a guide for linoleum knife K when tile T_3 is being cut. Holes **35** provide a useful means of handling gage **25** before attachment to tile T_3. The length of strip **28** extends beyond a standard tile so that a full cut with knife K may be made. Since the smooth surface S_3 is the only surface which will adhere to cups **27** it is impossible here again to cut the wrong side of tile T_3.

The trim gage **25** will have especial appeal to home owners who wish to lay their own tile floors, since it

changes the heretofore most difficult task of a floor laying job to a simple mechanical operation.

From the foregoing description it will be readily seen that there has been produced a device as substantially fulfills the objects of the invention as set forth herein.

While this specification sets forth in detail the present and preferred construction of this invention, still in practice such deviations from such detail may be resorted to as do not form a departure from the spirit of the invention as defined in the appended claims.

Having thus described the invention, what is claimed as new and useful and is desired to be secured by Letters Patent is:

1. A trim gage for floor tile comprising: a plate having an external outline smaller in all directions than a floor tile with which it is to be used, a suction cup attached to said plate and facing upward therefrom, and a gaging edge having a fixed length and being integrally associated with said plate whereby said trim gage may be placed between previously laid tile on a floor and a wall with said suction cups facing up and in the opposite direction from said floor, whereby a tile to be cut may be placed over said laid tile and said gage and engaging said suction cup whereby said gaging edge accurately identifies the cutting line necessary to fit said cut tile between said previously laid tile and said wall.

2. A trim gage as in the next preceding claim characterized by the inclusion of means under said plate to hold said plate off the floor.

3. A trim gage as in the next preceding claim wherein said means includes a support between said plate and said floor and including a depending lip on said plate; said support and said lip being located on the opposite side of said plate from said suction cup and being of substantially equal length to each other cooperating to hold said plate off the floor and to maintain said plate in a horizontal position.

4. A trim gage for floor tile including a one-piece body, a suction cup attached to said body and facing outward therefrom, and a gaging edge integral with said body, said body including a cut out intermediate the ends of said gaging edge thus forming two aligned gaging edges, whereby said gage may be placed in a floor area for which a tile is to be cut, and a whole tile pressed into engagement with said suction cup and when said gage and tile are picked up as a unit said gaging edge identifies the cutting line on said whole tile required to cause it to fit said floor area.

5. A trim gage for floor tile including a body and a removably attached gaging strip; said body comprising a plate having a flat edge adjacent said strip, means between said strip and plate for attaching same together, said plate including bent-down corners at the edge opposite said flat edge for supporting said plate from the floor, said strip including bent-down lips to support it from the floor whereby said corners and lips cooperate to support said plate and strip from the floor in a substantially horizontal position; suction cups attached to the top side of said plate, whereby when a smooth faced floor tile is depressed onto said cups, said gaging strip identifies a cutting line on said tile.

6. An economical method for gaging a whole floor tile to be cut by a linoelum knife to the exact size to be laid into a space adjacent a wall and smaller than a whole tile comprising placing a gage having upward facing means for adhering to a flat tile in said smaller space and abutting the next adjacent laid tile, and laying

a whole tile inverted over said space and engaging said gage in adhering relation by applying downward pressure and lifting said gage and whole tile out of said space and turning said tile and gage right side up for cutting said whole tile along the line indicated by said gage.

7. A method for gaging a flat tile to be cut by a remote and separate cutting device to fit a space having a smaller dimension than said tile comprising placing a gage totally within said space, said gage having tile adhering means and a straight edge, said gage abutting at least one previously laid tile, and laying a flat tile over said space and gage in adhering relation by applying downward pressure and lifting said gage and tile out of said space and cutting said tile along said straight edge.

8. A trim gage for floor tile including: a body, at least one suction cup attached to said body and facing outward therefrom, and a flat gaging edge on said body, and means adjacent said gaging edge to removably attach a supplemental gaging strip, a gaging strip attached by said means, said gaging strip comprising: a strip of material longer than the width of tile to be cut, a flat edge on said strip, means to attach said strip to said gage, a gaging edge opposite said flat edge including an underturned lip, the opposite lengthwise ends of said strip including depending lips facing in a direction opposite to said underturned lip.

9. A trim gage for floor tile comprising: a plate, a suction cup attached to said plate and facing upward therefrom, and a gaging edge associated with said plate whereby said trim gage may be placed between previously laid tile on a floor and a wall with said suction cups facing up and away from said floor, whereby a tile to be cut may be placed over said laid tile and said gage and engaging said suction cup, and whereby said gaging edge accurately identifies the cutting line necessary to fit said cut tile between said previously laid tile and said wall, means under said plate to hold said plate off the floor, said means including an edge of said plate turned down in the direction of said floor.

10. A trim gage for floor tile comprising: a plate, a suction cup attached to said plate near one end and facing one direction therefrom, a gaging edge rigidly attached to the other end of said plate, the extreme side of said edge being a fixed distance and opposite direction from the suction cup end of said plate, means on said plate near said suction cup end and facing the other direction to support said plate from the floor when said gage is in the floor space between a previously laid tile and the wall in which the floor tile is to be inserted after being cut, means on said plate at said gaging edge end facing in said other direction and adapted to abut the end of a laid floor tile, whereby when a whole tile is laid over the top of said tile gage in said space and said whole tile snugly and simultaneously engages the wall and said suction cups then the gaging edge properly locates the cutting line required to permit said whole tile to be accurately cut for insertion into said floor space without measurement.

References Cited in the file of this patent

UNITED STATES PATENTS

950,696	Herman	Mar. 1, 1910
1,619,091	Rieser	Mar. 1, 1927
1,859,371	Laukhuff	May 24, 1932
2,608,255	Mitchell	Aug. 26, 1952
2,619,173	Crain	Nov. 25, 1952