Jan. 8, 1957 H. L. JERAND 2,776,493

FLOOR COVERING MECHANIC'S TOOL

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FIG_1_

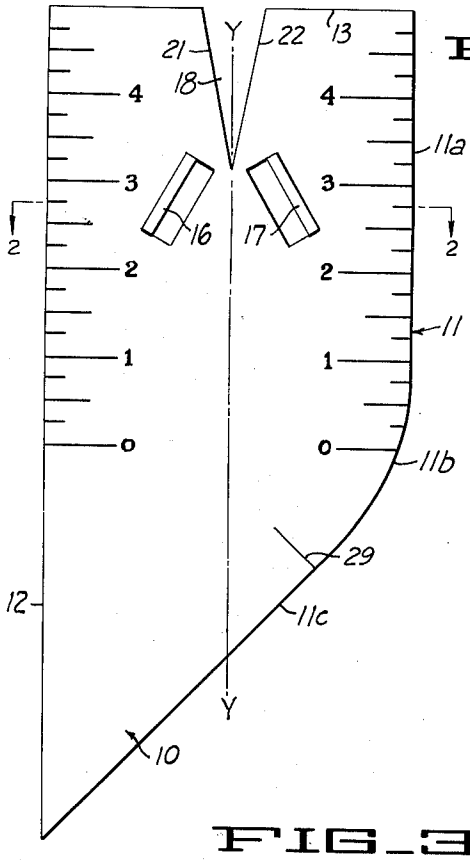


FIG_2_

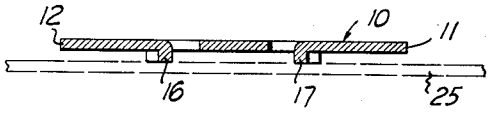


FIG_4_

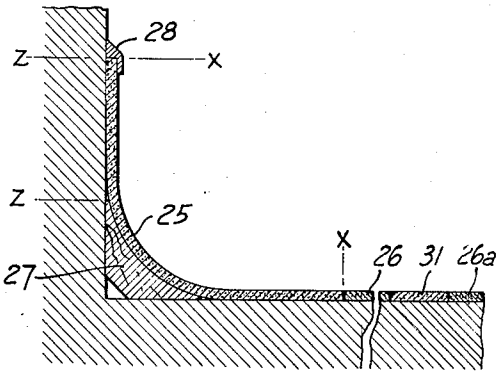
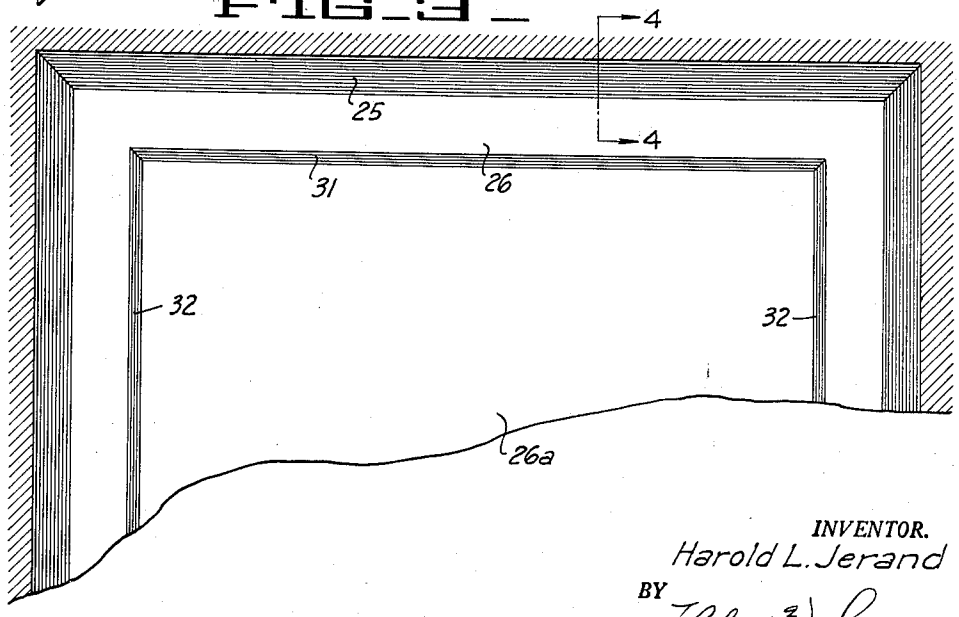


FIG_3_



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FIG_8_

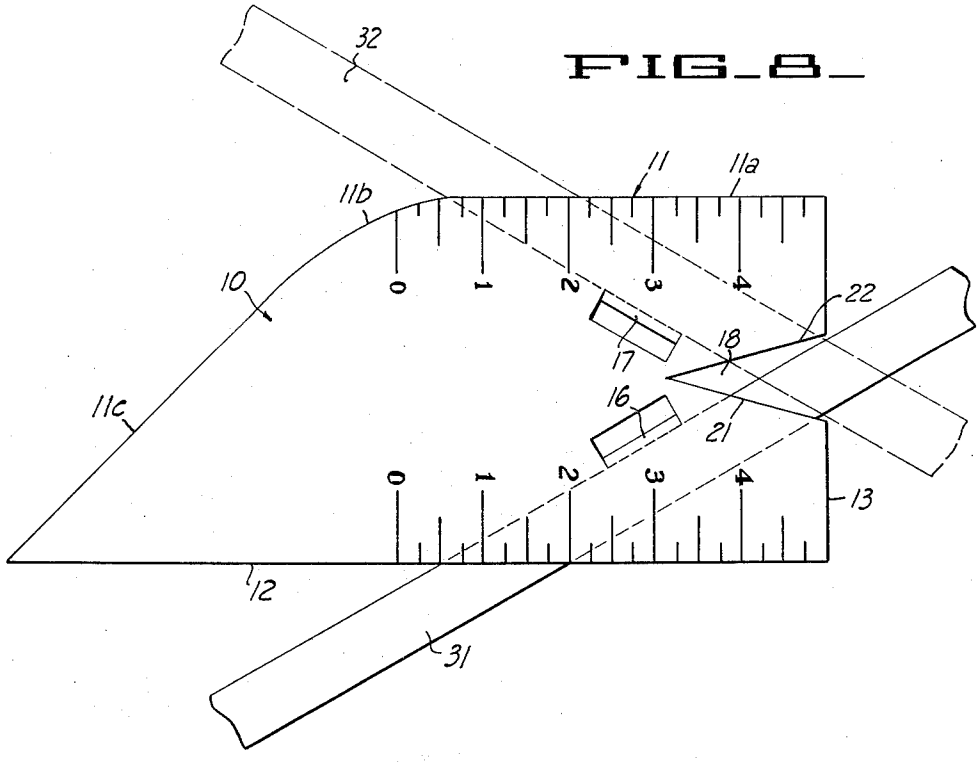
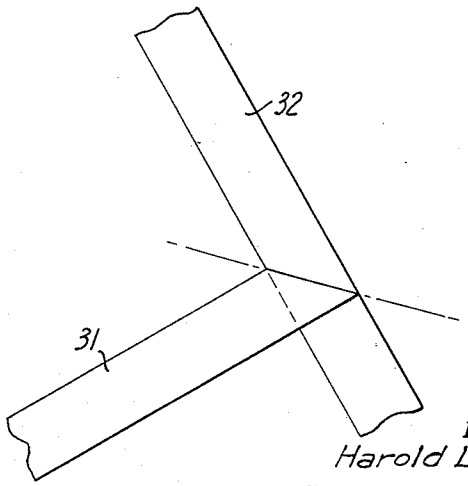


FIG_9_



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FLOOR COVERING MECHANIC'S TOOL

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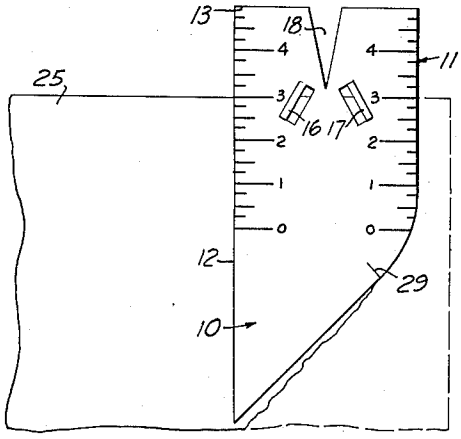


FIG_5A_

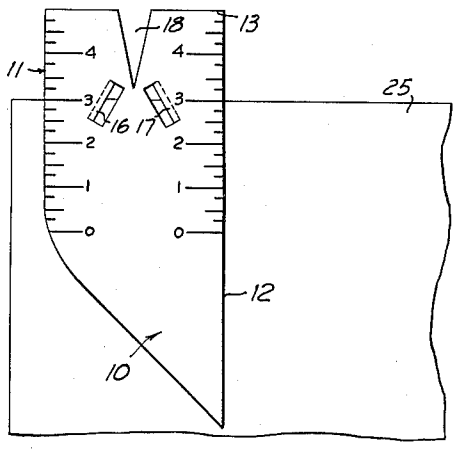


FIG_5B_

FIG_6_

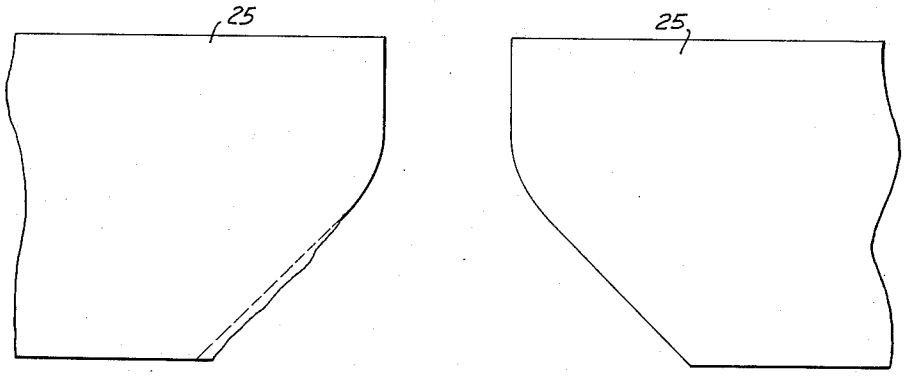
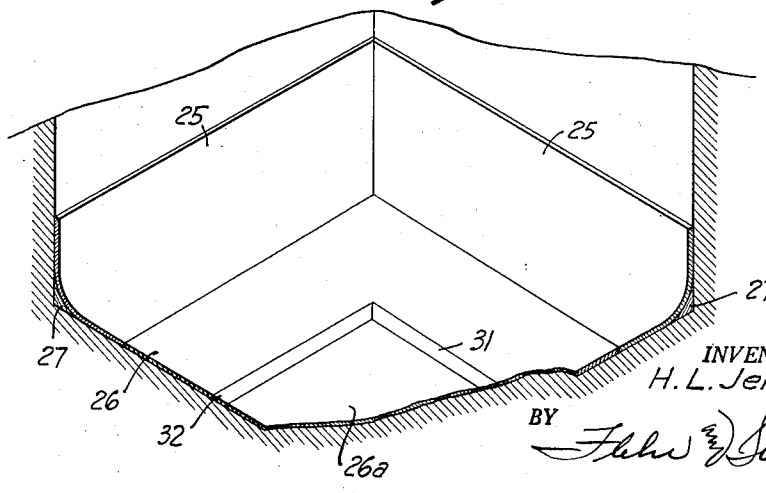


FIG_7_



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2,776,493

FLOOR COVERING MECHANIC'S TOOL

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Application August 3, 1953, Serial No. 371,976

3 Claims. (Cl. 33—174)

This invention relates generally to tools which are used by floor covering mechanics and more particularly to tools of this type which facilitate the cutting of corners in floor covering material.

In covering floors with materials such as linoleum, asphalt and rubber tile, the floor covering mechanic must cut the floor covering material so that it will fit properly into the corners. Conventionally, the mechanic merely used a straight edge to guide his knife as he was cutting the material. In using this method, it is very difficult to get a good fit at the corners because of the difficulty in estimating the angles.

The difficulty of making perfect corners arises particularly in the installation of feature strips and cove bases. For example, in cutting miters in feature strips, it is difficult to keep the feature strips from slipping while they are being cut. In making cove base corners it is particularly difficult to cut the material with the proper angles and curves.

In general it is an object of the present invention to provide a tool which can be used to facilitate accurate cutting of corners in floor covering material to eliminate the above mentioned difficulties.

Another object of this invention is to provide a tool to facilitate making inside corners in cove bases.

Another object of this invention is to provide a tool to facilitate the forming of miters in feature strips.

A further object of this invention is to provide a single tool which facilitates the making of inside corners in cove bases and the forming of miters in feature strips.

Further objects and advantages of the invention will appear from the following description taken in conjunction with the accompanying drawing.

Referring to the drawing:

Figure 1 is an elevation view of the tool constituting my invention.

Figure 2 is a cross-sectional view of this tool taken along the line **2**—**2** of Figure 1.

Figure 3 is a plan view of a room with a typical floor covering installed which incorporates the use of a feature strip and a cove base.

Figure 4 is a cross-sectional view taken along the line **4**—**4** of Figure 3.

Figures 5A and 5B are views showing the placement of the tool constituting my invention in cutting corner edges in cove material.

Figure 6 is a view showing the corner edges after they have been cut in the cove material.

Figure 7 is an isometric view of a corner of a room after the corner edges shown in Figure 6 have been installed.

Figure 8 shows the placement of the tool constituting my invention in cutting miters in feature strips.

Figure 9 illustrates two feature strips after a miter has been cut in one of them.

The embodiment of my device shown in the drawing consists of a flat plate **10** which is provided with means

for facilitating cutting of inside corners in cove bases and means for facilitating cutting feature strip miters.

The means for facilitating cutting inside corners in cove bases consists of an edge **11**, having three portions **11***a*, **11***b* and **11***c*. Portion **11***a* extends rectilinearly for a substantial distance parallel to the axis of symmetry Y—Y of the plate **10**. Portion **11***c* inclines rectilinearly with respect to portion **11***a*, and forms an obtuse angle of 135° with respect to portion **11***a*. Portions **11***a* and **11***c* are joined by the curved portion **11***b*.

The plate **10** is also bounded by edges **12** and **13**. Edge **12** extends rectilinearly for a substantial distance parallel to the axis Y—Y and forms an acute angle of 45° with respect to portion **11***c* of edge **11**. Edge **13** extends rectilinearly perpendicular to the axis Y—Y and forms angles of 90° with respect to portion **11***a* of edge **11** and edge **12**.

The plate **10** may be of any suitable size and material. One size found to be satisfactory had sides where edge **12** was 10 inches long and edge **13** was 4 inches long. Aluminum plate ⅛ of an inch in thickness has been found to be a suitable material.

The top portion of edge **12** and the portion **11***a* of edge **11** can be provided with scales having suitable graduations such as inches. Both sides of the flat plate **10** are provided with identical scales.

The means for facilitating the cutting of miters in feature strips consists of a pair of abutment shoulders **16** and **17** which extend rectilinearly for a substantial distance and are provided on one side of the flat plate **10**. These shoulders are formed symmetrically about the axis Y—Y and form acute angles of 30° with respect to this axis. They can be formed or mounted on the plate **10** in any suitable manner such as by stamping, welding or by fastening them with screws or rivets. For example, I have found it satisfactory to merely cut the plate **10** and to bend the plate to form the shoulders **16** and **17** as shown in Figures 1 and 2.

A V **18** is cut into the upper portion of the plate **10** in such a manner that the axis Y—Y bisects the acute angle formed by the edges **21** and **22** of the V **18**.

When using the tool hereinbefore described to cut corner edges in cove material **25**, it is used as follows: Assuming that the field **26** has already been laid and that the floor covering mechanic now wishes to lay the cove base, the mechanic first places a cove stick **27** along the walls and touching the floor of the room. A cove cap **28** is then placed at a proper height along the walls above the cove stick **27** after the mechanic has determined how wide his cove base is going to be. For instance, in one case the width of the cove base might be 6½". This is the distance along the cove base between X—X in Figure 4.

After the cove cap **28** has been put in place, the mechanic measures the distance from the cap to the cove stick **27** which is the distance between Z—Z in Figure 4. For example, this could be 3". The mechanic then takes the tool and places it on the cove material as shown in Figure 5A with the 3" mark on edge **11** at the top of the cove material. He squares the tool by checking to see that the scales on the edges **11** and **12** are exactly in the same position with respect to the top edge of the cove material.

After the tool has been squared with the cove material, the mechanic holds the tool firmly in place and cuts the cove material along the edge **11**. Normally, this cutting is accomplished by making a finished cut from the top edge of the cove material to the stopping point **29** and a rough cut from this point to the bottom of the cove material as shown in Figure 5A.

After one corner edge has been completed, the tool is turned over and squared on the cove material as shown

in Figure 5B so that both of the 3" marks are again at the top of the cove material. The same method is used in cutting this corner edge except that the cove material is accurately cut all along the edge 11. To secure a neater fit, the mechanic may desire to bevel the edge of this corner edge by holding the knife at an angle of 60° from the vertical.

The two completed corner edges are shown in Figure 6. These two corner edges are then assembled as shown in Figure 7. First the top portions of the edges are fastened to the wall and then to get an exact fit on the bottom portion of the corner, the portion of the edge which has been roughly cut, is cut to fit exactly with the other edge by using it as a guide for the knife. By using this method in conjunction with my tool, it is possible to obtain perfectly fitting corners in cove bases.

When it is desired to cut miters in feature strips, my tool may be used as follows: Assuming that the inner portion **26***a* of the field **26** has been laid and that the feature strips **31** and **32** have also been laid, but that they have not been joined at the corners, the mechanic will wish to cut miters in the strips **31** and **32**. He does this by taking my tool, and depending upon which feature strip he has picked, firmly places either abutment shoulder **16** or **17** against the inside edge of the feature strip. Assuming that he has picked feature strip **31**, he would place abutment shoulder **16** against the edge of the feature strip **31** in a position so that the edge **21** of the V **18** would allow the cutting of the feature strip **31** to form a 45° miter at the corner as shown in Figure 8.

After my tool has been properly positioned, the tool is held firmly in place to hold the feature strip **31** and then the mechanic cuts along the line formed by the edge **21**. It should be noted that the abutment shoulder **16** is of less height than the thickness of the feature strip so that the feature strip will be held in place by the tool when the tool is pressed down upon it.

After the mechanic has completed cutting a miter in one feature strip, the other feature strip is cut by using the feature strip which has been mitered as a guide as shown in Figure 9. This insures a perfect fit.

The mechanic can cut the first miter in either feature strip merely by using the abutment shoulder **16** or **17**. For example, feature strip **32** could be mitered as shown in Figure 8 instead of feature strip **31**.

It will be apparent from the foregoing that I have provided a tool which will be of great use to a mechanic when he is laying floor coverings of linoleum, asphalt and rubber tile, and the like. This tool makes possible the saving of time in laying floor coverings and at the same time helps to improve the workmanship of the mechanic.

I claim:

1. In a tool adapted to be used as a template by floor covering mechanics in cutting inside corners in substantially flat pieces of bendable floor covering material to form a cove base, said pieces having upper and lower straight edges, the tool comprising a substantially flat plate, said plate having one straight edge extending for a substantial distance parallel to the longitudinal axis of symmetry of said plate, a second edge having three portions, the first portion being straight and extending for a substantial distance parallel to the first named edge, a

second portion inclined to an angle of 45° with respect to said first named edge and meeting said first named edge to form a point, and a third curved portion joining said first and second portions, and a plurality of equally spaced graduations on said plate adjacent said first named edge and the straight portion of said second edge, said grauations being in registration with lines perpendicular to the longitudinal axis of symmetry of said plate whereby when said graduations are aligned with the upper edge of one of said flat pieces of material said tool will be squared with respect to said piece of floor covering material.

2. A tool as in claim 1 together with a pair of abutment shoulders formed in said plate and extending a substantial distance along the surface of said plate, said shoulders being spaced symmetrically about the longitudinal axis of symmetry of said plate to form angles of 30° with respect to said axis, and a V cut in said plate, said V having edges symmetrically spaced about said axis, each of said edges forming an angle of 15° with respect to said axis, said shoulders being of a height less than the thickness of said feature strips to facilitate retention of the feature strips while they are being cut.

3. In a tool adapted to be used as a template by floor covering mechanics in cutting miters in feature strips, the feature strips having straight and parallel upper and lower edges, the tool comprising a flat plate, a pair of abutment shoulders formed on said plate and extending a substantial distance along the surface of said plate, said shoulders being spaced symmetrically about the longitudinal axis of symmetry of said plate to form angles of 30° with respect to said axis, and a V cut in said plate, said V having edges symmetrically spaced about said axis, each of said edges forming an angle of 15° with respect to said axis, said shoulders being of a height less than the thickness of said feature strip to facilitate retention of said feature strips while they are being cut.

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