July 12, 1955 E. T. HEARN 2,713,108

COMBINED COVE HEATER AND CUTTER GUIDE

Filed Oct. 7, 1953 2 Sheets-Sheet 1

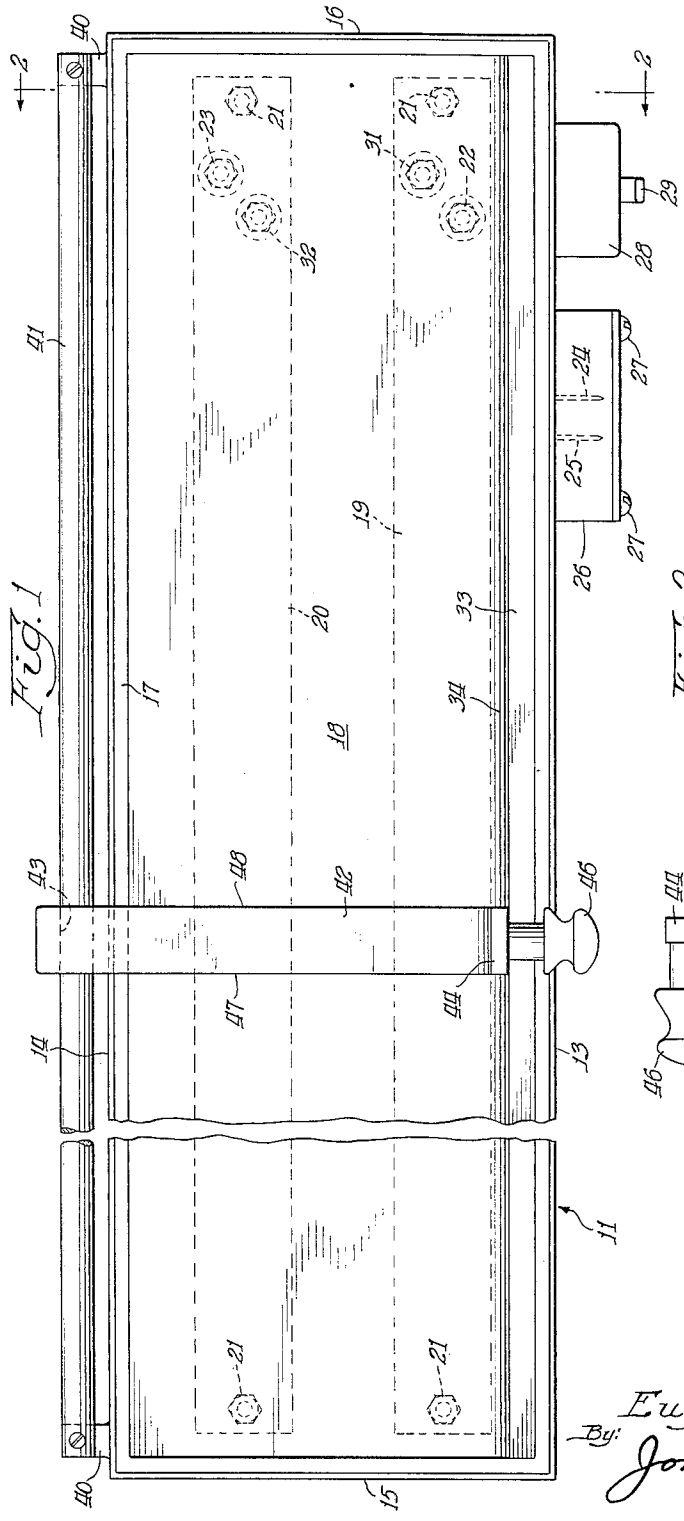


Fig. 1

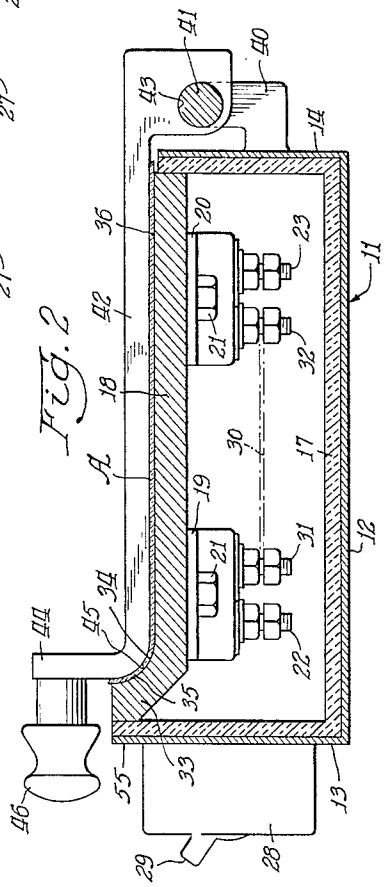


Fig. 2

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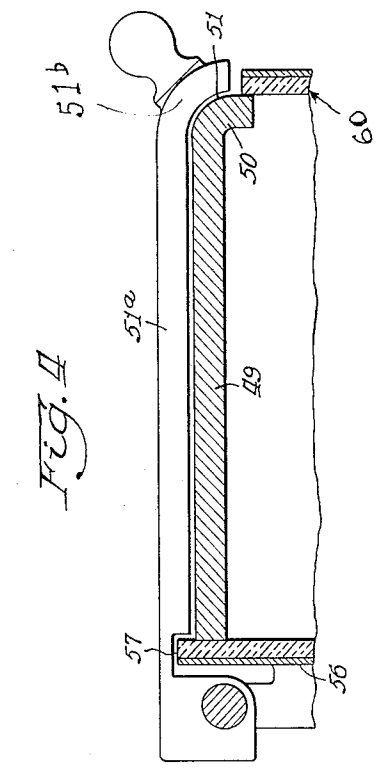


Fig. 4

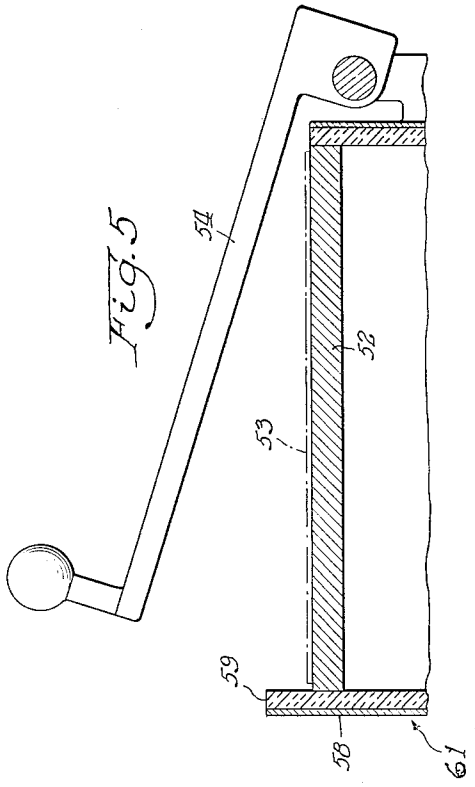


Fig. 5

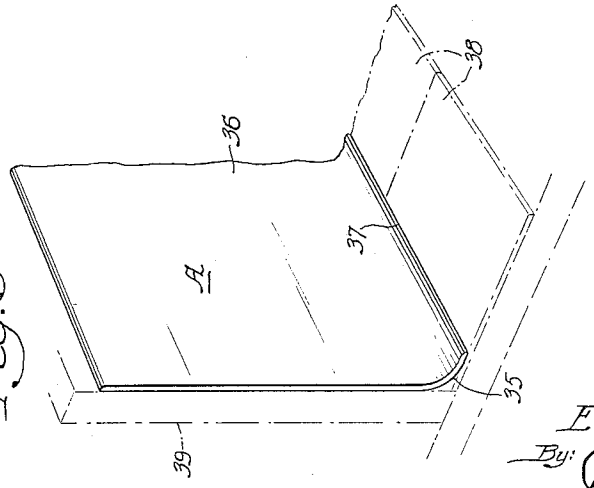


Fig. 3

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COMBINED COVE HEATER AND CUTTER GUIDE

Eugene T. Hearn, Fairfield, Ill.

Application October 7, 1953, Serial No. 384,695

4 Claims. (Cl. 219—19)

This invention relates to combined cove heater and cutter guide for dealing with plastic coves and cove pieces which are located between the wall and the floor of a building to fill and close the space thereat, such coves commonly having a curved lower margin or foot which desirably meets the floor covering member in a close joint.

It has been found that due to irregularities in the floor and wall juncture, the cove such as an asphalt cove base, does not always form a close joint and it is then advantageous to heat the cove so that it may be molded to a degree to meet the local condition and thus provide the desired close joint. The present invention aims to provide a device for quickly and easily heating the cove.

Although the device has utility as a cove heater primarily, I have found that the asphalt cove piece when so heated is more readily cut, when that may be required to reduce its length, and the invention therefore advantageously combines a cutter guide bar with the heater in a simple, unitary structure that may be expeditiously handled and moved from place to place on the floor laying job while being adapted to be plugged in to any convenient and accessible electrical outlet.

An important object of the invention is to provide such a unitary device which is simple and sturdy and which is conformed to the shape of the cove so as to minimize labor and handling of the latter on the building job.

These and other objects and advantages will be apparent from the following description, taken together with the accompanying drawing, showing illustrative embodiments of the invention, and in which drawings—

Figure 1 is a plan view of a combined cove heater and cutter guide device embodying my invention;

Figure 2 is a cross section, slightly enlarged, taken on the line 2—2 of Fig. 1, with a cove in position;

Figure 3 is a perspective view, broken away to save space, of a cove piece for which the present invention is adapted;

Figure 4 shows a modification of the invention; and

Figure 5 shows another modification.

Referring in detail to the illustrative construction shown in Figs. 1 and 2 of the drawings, the device includes a box-like casing 11 which may be of any suitable strong and rigid material and which has a bottom wall 12, side walls 13 and 14, and end walls 15 and 16. The side wall 13 constitutes a front wall of the device and the side wall 14 a back wall. The bottom, side walls and end walls are lined with a heat insulating and fire resistant material 17 such as asbestos. The top of this box-like casing, which would otherwise be open, is closed by a heat transfer plate or buck 18 that is preferably made of cast iron and is of substantial thickness and preferably substantially thicker than the material of the walls of the casing.

Carried on the underface of the heat transfer plate 18 are in this instance, two elongated resistance heater elements 19 and 20 which may be formed, as is well known in the art, of the usual asbestos strips enclosing insulated wires having relatively high electrical resistance and which strip heater elements may be clamped to the plate 18 as by screws 21. The leads 22 and 23 of the elements 19 and 20 may be appropriately wired, as need not be here described in detail, to the terminals 24 and 25 of the plug connector 26 secured on the front of the casing as by screws 27. In this circuit may also be interposed a switch device 28 having a switch lever 29, the switch device also being suitably secured on the front of the casing convenient to the hand of the operator. To place the heater elements 19 and 20 in series, a circuit may be completed by a connector 30 across the terminals 31 and 32 of the heater elements 19 and 20.

In accordance with the form of the invention shown in Figs. 1 and 2, the buck or heat transfer plate 18 has its margin upturned as at 33 adjacent the front of the device, to provide a concave curve 34 that accommodates and receives the curved foot 35 of the cove 36, a section A of which is shown in perspective in Fig. 3, and which foot is intended to make a close joint as at 37 with the floor tiles 38 which may also be of the asphalt plastic type, the upright portion of the cove being suitably secured to a wall such as 39.

Appropriately fastened to the rear wall 14 of the casing 11 and adjacent each end thereof is a bracket 40 that mounts a cylindrical rod 41 parallel with but spaced from the wall 14. The rod 41 serves as a track or guide for the cutter guide bar 42 which has one end perforated as at 43 to snugly but slidingly and rotatively receive the rod 41 therethrough. At its other end, the guide bar 42, as best seen in Fig. 3, is turned outwardly as at 44 to provide a convex surface 45 of a curvature corresponding to the concave face 34 of the heater plate 18. At the end of the outwardly turned portion 44, the guide bar 42 has a knob 46 that serves as a handle by which the bar 42 may be moved longitudinally of the track rod 41 or swung transversely thereof toward and away from the heater plate 18.

So constructed and arranged, a cove section A, which coves commonly come in lengths of two feet or more, may be laid on the outer face of the buck or heater plate 18 with the cove foot 35 lying in and conforming to the curvature 34 of the heater plate, the smooth or finished sides of the cove facing outward and the rough side thereof in intimate contact with the plate. The switch lever 29 may then be actuated to energize the resistance heater element and heat the plate 18. Since the cove is in intimate contact with the face of the heater plate, it will be quickly warmed sufficiently so that by reason of its thermoplasticity it may be shaped or molded to conform with the floor joint 37 to provide a close fit at that point regardless of variations and irregularities at the juncture of the floor and the wall 39.

When it is desired to shorten the heated cove piece, to fit its place in the wall, this advantageously may be done while the cove piece is still warm on the plate 18, by running a knife, razor blade, or other cutting edge across the cove coincident with one of the edges 47 or 48 of the cutter guide bar 42, which may be located in any selective, appropriate position for this purpose lengthwise of the casing 11.

In the modification shown in Fig. 4 the heater plate 49, functioning otherwise similarly to the heater plate 18, has its margin 50 turned downwardly to provide a convex surface 51 to accommodate the cove portion of the cove where it is desired to heat the cove in a face downward position, as for example where it may be desired to convey the greatest amount of heat to the outer or finished face of the cove. In this form the

cutter guide bar 51*a* is curved toward the heater plate to conform to the convex surface 51 of the heater plate 49 as at 51*b*.

In the construction shown in Fig. 5, the heater plate 52 defines an entirely plane surface, being flat and having no turned margin, this being advantageous where the piece to be heated such as 53 is flat and has no cove portion. In the form shown in Fig. 5 the cutter guide bar 54 is flat without a curved margin adjacent its knob.

The casings 60 and 61 in Figs. 4 and 5 respectively are otherwise similar to casing 11.

In each form of the device, one wall of the casing 11 is desirably higher than the other to provide a locating abutment for the cove piece. In Figs. 1 and 2 the front wall 13 is higher as at 55. In Fig. 4 the rear wall 56 is higher as at 57. In Fig. 5 the front wall 58 is higher as at 59.

The device is desirably of a length to receive the entire cove piece.

The invention may be used as a heater device or as a cutter device, or as both, and such changes may be made as fall within the scope of the appended claims without departing from the invention.

What is here claimed is:

1. A combined cove heater and cutter guide device, comprising, a heat transfer plate adapted to have the cove piece laid thereon, said plate along one longitudinal edge thereof having an abutment for a longitudinal edge of the cove piece, a cutter guide rod carried by the device parallel with and spaced from the other edge of said plate, a cutter guide bar slidable at one end on said rod along the last mentioned edge and also swingable on the rod toward and away from the plate, said cutter guide bar having a portion formed to cooperate with said abutment to hold the cove piece when the bar is swung onto the plate with the cove piece between the plate and the bar, a handle at the other end of the bar whereby the cove piece may be cut transversely along said guide bar, and electrical means carried by the device for heating the plate.

2. The structure of claim 1 wherein the plate is curved concavely.

3. The structure of claim 1 wherein the plate is curved convexly.

4. The structure of claim 1 where the plate is flat.

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