

UNITED STATES PATENT OFFICE

2,041,899

COVE CONSTRUCTION FOR USE WITH
FLOOR OR WALL COVERINGS AND THE
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Application August 1, 1931, Serial No. 554,500

8 Claims. (Cl. 20—74)

This invention relates to a cove construction for floor or wall coverings and the like and is herein particularly illustrated and described as applied to the formation of a cove at the junction of a floor and a wall, although it is applicable for use at the junction of other room surfaces.

Considerations of sanitation and appearance make it desirable in many cases that the floor covering of a room, particularly if it is of the linoleum-felt base type, be extended at its edges for a short distance up the wall. The material, because of its character, cannot be bent sharply at the corner but must be turned on a radius. This requires the use of some backing member so as to form a cove which will be strong and of good appearance. It has heretofore been proposed in the relatively few cases where such construction is followed to employ a shaped wooden strip which is nailed into the corner before the floor covering is applied. This construction, however, is unsatisfactory because even though the wood is reduced to a feather edge, it is difficult to turn the floor covering over the wood without some break in the desired smooth curvature. This is particularly true because the wall and floor surfaces are never mathematically accurate but are subject to considerable irregularity. Such irregularities are usually not immediately apparent to the eye, but when it is attempted to fit a relatively rigid wood strip into the corner every slight difference in level of the floor boards introduces potential difficulty. The floor covering, by reason of such irregularities may not be properly cemented to the floor at certain points, thus causing a faulty installation, or there may exist a sufficient difference in level between the floor board and the edge of the wooden corner strip that there is danger of cracking of the floor covering at this point.

Another difficulty arises in that this type of cove construction is frequently desired in connection with a wall covering of tile or in simulation of tile. The eye follows the lines between tiles and if there is any irregularity in the installation of the floor covering adjacent its edges such irregularities become magnified to the eye and result in an inferior installation.

Because of these difficulties in existing methods the industry has had recourse to the use of preformed cove and base units or tiles which must be manually fitted into the corner between the wall and the floor. This procedure is slow and very expensive and introduces a large number of joints wherein the cement is always sub-

ject to attack by soap and water or other cleaning agents.

I provide a cove comprising a strip of sheet metal bent to provide skirts which lie along the two room surfaces as, for example, the floor and the wall. The skirts are banded by a curved portion over which the covering material may be placed. The cove unit is sufficiently strong to withstand the forces to which it is subjected by reason of traffic or cleaning, or by reason of expansion or contraction of the covering material cemented thereto. The skirts, nevertheless, are sufficiently flexible that they adapt themselves to irregularities in the floor and wall, thereby eliminating any danger of the floor covering being forced adjacent the edges of the cove member to levels so different from the adjacent level of the floor or wall as to preclude proper cementing or give rise to cracking. Instead of feathering the edge of the metal, as might be done, I prefer to use metal of a thickness substantially equal to the thickness of a layer of material intermediate the floor and the floor covering. It is common practice, for example, in the laying of linoleum to cement a layer of felt to the floor and then cement the linoleum to the felt. The felt layer is relatively thin and by using metal of a suitable gauge the top face of the cove skirt lies substantially flush with the top face of the felt layer. In practice a cove made of ordinary steel strip of 28 gauge will be found satisfactory for use.

I further make provision for binding the edge of the covering material. This may be done by turning over the edge of one of the skirts or striking up a binding strip thereon, or, if desired, a separate binding strip may be employed as hereinafter described. I may also secure the covering material to the skirt prior to installation of the cove. In certain cases this may prove advantageous. In such case I prefer to apply the floor covering to the cove strip while the same is flat, or, at any rate, possessed of materially less curvature than in its final form, and to bend the assembled strip to the desired profile. This puts the covering material under compression. It gives a tight joint particularly where an edge binding strip is employed, and if some slight bending of the cove strip becomes necessary in making the installation the initial compression of the linoleum permits of this without straining the cement and causing possible separation of the covering and the metal backing.

Provision is further made for joining adjacent pieces in such manner that a strong and water-

proof joint is obtained, and, in order to eliminate fitting at the corners, I prefer that corner units be also provided. This simplifies the joining for the layer as the corners may be fitted in and then straight pieces cut to length. The provision of a cove backing formed from sheet metal is highly desirable at the corners because in most building construction the walls are not exactly at right angles to one another, there being slight variations in angle. The metal corner units adapt themselves readily to such irregularities and insure a good appearing and satisfactory corner construction.

In the accompanying drawing illustrating various desirable forms of my invention,

Figure 1 is a perspective view, partly broken away so as to show an installation;

Figure 2 is a section through the cove backing;

Figure 3 is a view similar to Figure 2 but showing a modified form;

Figure 4 is a view showing the manner of forming a cove unit having the covering material applied thereto prior to installation;

Figure 5 is a similar view but showing a modification;

Figure 6 is a view corresponding to Figure 2 but showing a separate binder strip;

Figure 7 is a plan view, partly broken away, showing a joint;

Figures 8 and 9 are perspective views showing, respectively, outside and inside corner units; and Figures 10 and 11 are views similar to Figure 2 but showing modified forms of coves.

Referring first to Figure 1 there is shown a floor F and a wall W which it is desired to cover with a hard surface material of the linoleum-felt base type. In this case there is shown a floor covering 2 of linoleum and a wall covering 3 of like material patterned to simulate tile. At the corner c between the wall and the floor there is inserted in metal cove backing 4 which is illustrated in detail in Figure 2. This cove comprises a skirt 5 adapted to lie along the floor, and a skirt 6 adapted to lie along the wall, which skirts are joined by a curved portion 7. Nail holes 8 are provided so that the unit may be fastened in place. The edge of the skirt 6 is turned over as indicated at 9 to form a binding for the edge of the linoleum 2.

Before applying the linoleum 2 and the wall covering 3 the cove is nailed in place as shown in Figure 1 and adapts itself to any irregularities which may be present in the floor or wall. A layer 10 of felt is then cemented to the floor, this layer terminating adjacent the edge of the skirt 5. The metal from which the cove backing is formed is approximately the same thickness as the felt so as to provide a flush joint. The linoleum 2 is then cemented over the felt and its margins 11 are laid over the cove and cemented thereto. The edges terminate in the binding strips 9 and are adequately protected thereby.

The wall covering 3 is extended upwardly from the binding strip 9 and when the exposed face 12 of such strip is painted the installation is complete. The painting may be done either before or after the surface coverings have been applied, or it may be done at the factory and prior to application of the cove strip to the room surfaces.

Figure 3 shows a modified construction wherein the metal of the skirts 5a and 6a has been doubled on itself to form binding strips 13 and 14. If desired, one binder strip alone may be thus formed. With the binder strip formed as illustrated in Figure 3, the installation will re-

quire a wall covering 3a, a floor covering 2a and a cove covering 15. Figure 4 shows a preferred method whereby the cove covering 15 may be put in place at the factory. The metal strip in flat form is shown at X in Figure 4, and the linoleum is cemented in place while flat. The strip is then bent up to shape as, for example, by passing it between forming rolls, thus compressing the linoleum, insuring tight edges and eliminating any possibility of the linoleum 15 becoming separated from the metal backing even though the skirts may be bent away from one another during installation. In cases where the thinner gauge linoleums are used the binding strips 13 and 14 may be eliminated. Thus the method illustrated in Fig. 4 may be employed with other embodiments of the invention which are not provided with such binding strips as are illustrated at 13 and 14. The adhesive used for cementing the linoleum or other facing material to the strip keeps the two together during bending of the cove. In the form of the invention illustrated in Figures 3 and 4 the skirt extensions 16 and 17 provide the nailing space.

Figure 5 shows a type of cove wherein a binder strip 18 has been welded to one of the skirts and pointed tongues 19 have been struck up to extend into the linoleum covering and hold it in place. Generally speaking, these tongues will be employed only where the linoleum and the metal strip are assembled together at the factory. Since it is contemplated that the linoleum which is engaged by the tongues 19 will be secured to the cove at the factory, such linoleum will generally be of limited width and will constitute a covering for the cove proper rather than a margin of the main wall or floor covering. It will be understood, however, that if desired a margin of the main wall or floor covering may be secured to the cove in this manner.

In Figure 6 there is shown a cove 4c having a cooperating binder strip 20. This separate binder strip is frequently desirable, particularly in installations where a pattern wall covering, such as a tile pattern, is employed. As has been previously stated, the eye follows the pattern lines and any departure of the edge of the linoleum from true parallelism therewith is quite marked. If, as frequently occurs, the floor should be not quite level, the effect would be bad. However, with the form of the invention shown in Figure 6, the cove 4c can be nailed into place and the binding strip 20 can be nailed in place above it, care being taken to adjust the level of the binding strip to bring it into conformity with the pattern of the wall covering. The binding strip 20 may be used in conjunction with any type of cove construction.

Figure 7 shows in plan view, partly broken away, an end of a covered cove unit. It will be noted that the metal backing terminates at 21, whereas the linoleum covering extends beyond this point, terminating at 22. If it becomes necessary to butt two strips together, an overlapping joint, such as illustrated in Figure 7, can be thus provided. This insures adequate support at the line of junction of the abutting pieces of linoleum.

Figures 8 and 9 show inside and outside corners. These are illustrated in their simplest form, but it will be understood that binding strips may be formed thereon or the covering may be preliminarily attached thereto, as desired. When using corners such as illustrated in Figures 8 and 9 these may be first nailed into place and

the intermediate cove strips simply have to be cut off square and to the right length, thus materially simplifying the problems of fitting. Any irregularities in the corners are automatically taken up by the inherent flexibility of the sheet metal corner units. In each of Figures 8 and 9 the cove is shown with an over-turned edge which binds the edge of the linoleum. Figure 8 shows a corner whose bottom portion has an offset similar to that shown in Figure 10 described below. It will be understood that this is an additional feature which may be dispensed with if desired.

Figures 10 and 11 illustrate cove constructions with which it is possible to use a floor covering thicker than the cove covering material. In Figure 10 the skirt 5d has an offset portion 23 to compensate for the difference in thickness of the floor covering 2d and cove covering 15d. Figure 11 is similar to Figure 10 except that the offset portion 23e of the skirt 5e has a reverse curve so that the offset distance may be varied to take care of varied differences in thickness of the floor covering and the cove covering. As a result of this construction the joint between the floor covering and the cove covering material may be made flush regardless of the difference in thickness between the two. The coves shown in Figures 10 and 11 may have prongs such as those shown at 19 in Figure 5 or may be provided with binding strips such as those shown at 13 and 14 in Figure 3, but generally the linoleum used with the constructions illustrated in Figures 10 and 11 will be of such thickness that cement alone will be sufficient to hold the linoleum in place. In making the coves of Figures 10 and 11, the metal strip will be given an additional bend at 23 or 23e so as to provide the desired offsetting. This is a simple metal forming operation which may be done by a break if forming strips of limited length, or by forming rolls in a continuous process. The offset, as illustrated in Figs. 10 and 11, is applied to the particular form of cove which is provided with an integral binding strip. It is obvious that the offset feature is applicable to other embodiments of the invention such, for example, as the one illustrated in Fig. 6.

All of the embodiments of my invention described result in improved constructions possessing marked advantages over all prior art practices. The use of metal is particularly advantageous in that the metal strips may be nailed in place and the surface covering will conceal the unsightly nail holes. The construction when complete is securely held in place and yet no marks mar the finished appearance of the structure. The metal used may be any of the well known corrosion-resisting or tarnish proof metals. The metal is of such thinness that it may extend in back of the surface covering without causing any unsightly bulge at its extremity.

While I have illustrated and described present preferred embodiments of the invention, it will be understood that it is not thus limited but may be otherwise embodied or practiced within the scope of the following claims.

I claim:

1. In the method of making a cove for use at the junction of two room surfaces, the steps consisting in securing a facing of the linoleum-felt base type to a metallic strip and then bending the strip to shape.

2. In the method of making a cove for use at the junction of two room surfaces, the steps consisting in securing a facing of the linoleum-felt base type to a metallic strip, confining the edges of the facing, and then bending the strip to shape.

3. A preformed, laminated cove for use at the junction of two room surfaces comprising a strip of relatively flexible sheet metal bent to provide skirts adapted to lie along such surfaces with an intermediate curved portion, and a facing of a covering material of the linoleum-felt base type adhesively secured to said strip, the cove having sufficient flexibility to conform to irregularities in the room surfaces.

4. A preformed, laminated cove for use at the junction of two room surfaces comprising a strip of relatively flexible sheet metal bent to provide skirts adapted to lie along adjacent angularly related room surfaces and conform to irregularities in such surfaces, said strip having a curved portion between the skirts, and a facing of a covering material of the linoleum-felt base type adhesively secured to the metal strip, one of the skirts having an offset portion adapted to compensate for differences in thickness between the cove facing and a covering material on one of the room surfaces.

5. In combination, a preformed, laminated cove for use at the junction of two room surfaces comprising a strip of sheet metal bent to provide skirts having an intermediate curved portion and a facing of a covering material of the linoleum-felt base type adhesively secured to the strip, and a separate cooperating binder strip adapted to lie alongside one of the skirts and engage an end of the facing, the cove being sufficiently flexible to conform to irregularities in the room surfaces.

6. A cove construction comprising two adjacent angularly related room surfaces and a preformed, laminated cove lying along such surfaces and conforming to irregularities therein, said cove comprising a strip of relatively flexible sheet metal bent to provide skirts with an intermediate curved portion and a facing of a covering material of the linoleum-felt base type adhesively secured to said strip.

7. A cove construction comprising two adjacent angularly related room surfaces, a preformed, laminated cove lying along such surfaces and a separate binder strip lying along the cove and engaging an edge thereof, said cove conforming to irregularities in the room surfaces and comprising a strip of relatively flexible sheet metal bent to provide skirts with an intermediate curved portion and a facing of a covering material of the linoleum-felt base type adhesively secured to said strip.

8. A cove construction comprising two adjacent angularly related room surfaces, a preformed, laminated cove lying along such surfaces, said cove comprising a sheet metal backing and a facing, one edge of the cove having an offset portion adapted to compensate for differences in thickness between the cove facing and a covering material on one of the room surfaces, and a separate binder strip lying along the other edge of the cove and engaging the facing thereon, the cove being sufficiently flexible to conform to irregularities in the room surfaces.

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