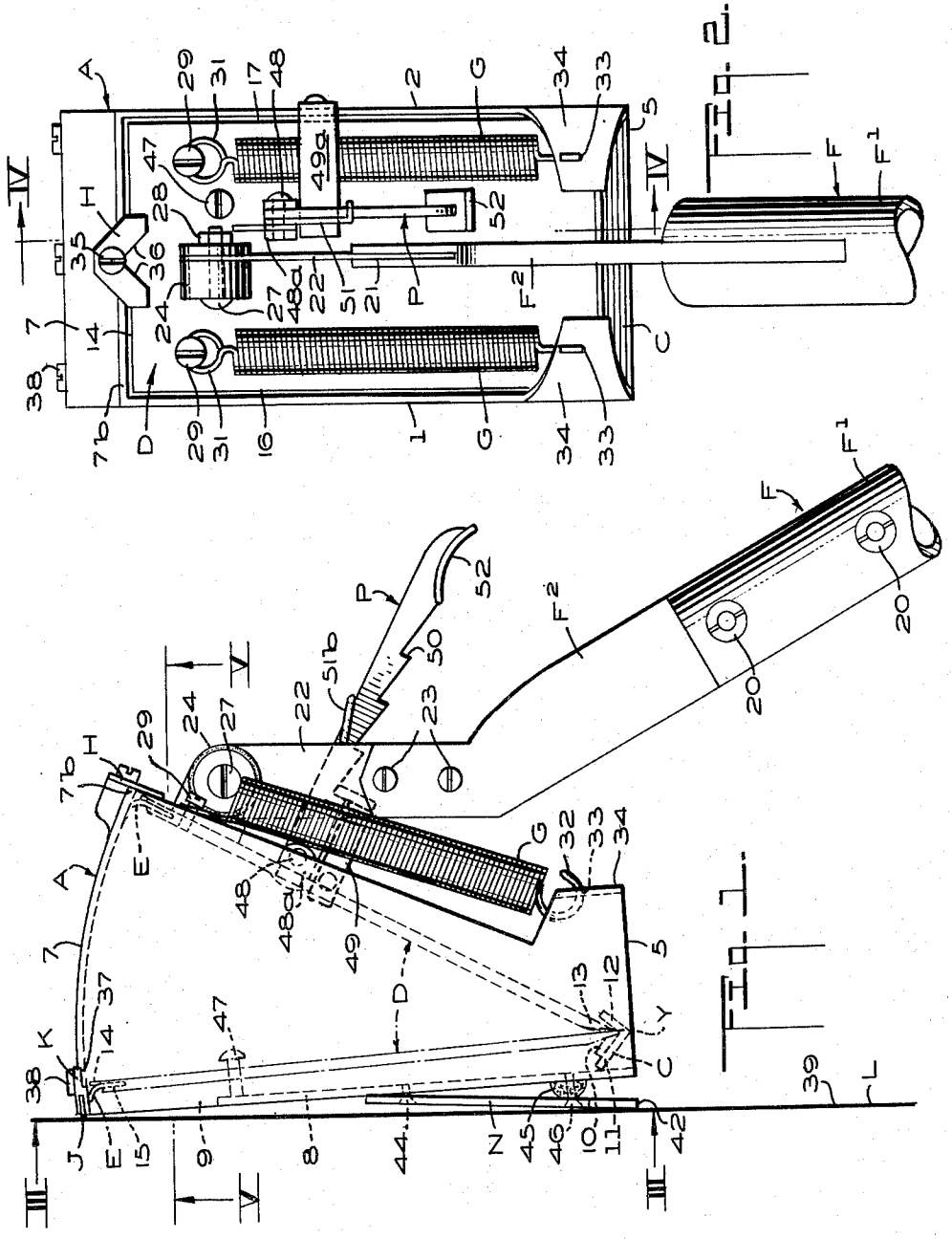
Oct. 15, 1957 R. G. AMES 2,809,513

RECESS-FILLING MASTIC APPLICATOR

Filed Aug. 17, 1953 4 Sheets-Sheet 1



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RECESS-FILLING MASTIC APPLICATOR

Filed Aug. 17, 1953 4 Sheets-Sheet 2

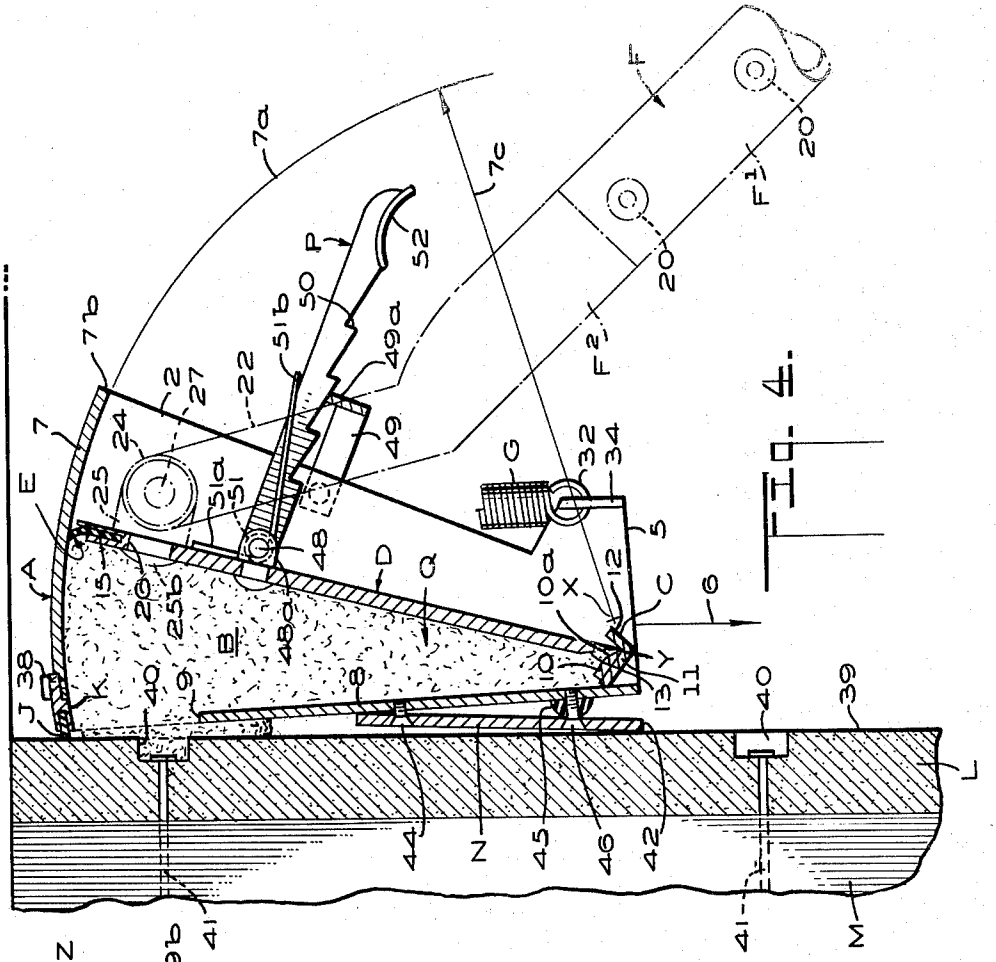

FIG. 4.

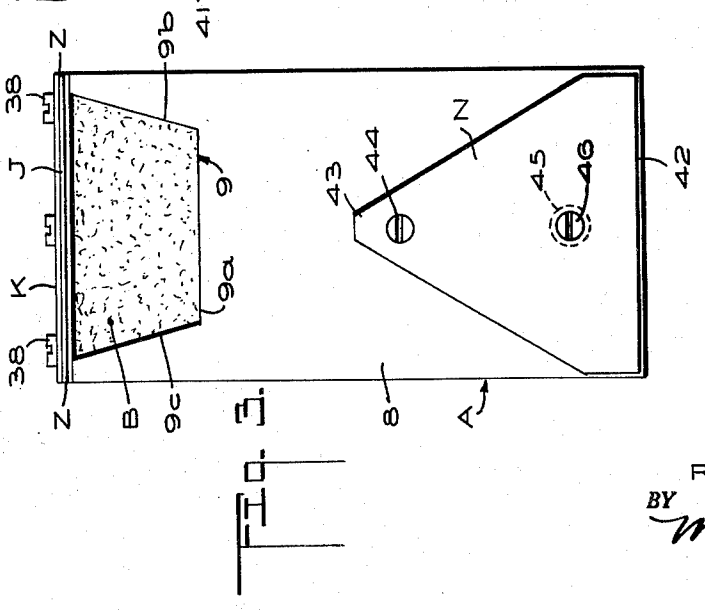

FIG. 5.

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RECESS-FILLING MASTIC APPLICATOR

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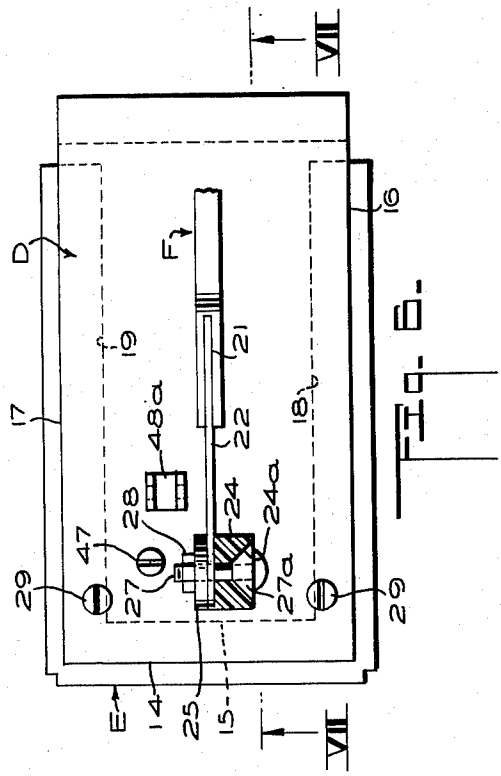

FIG. 6.

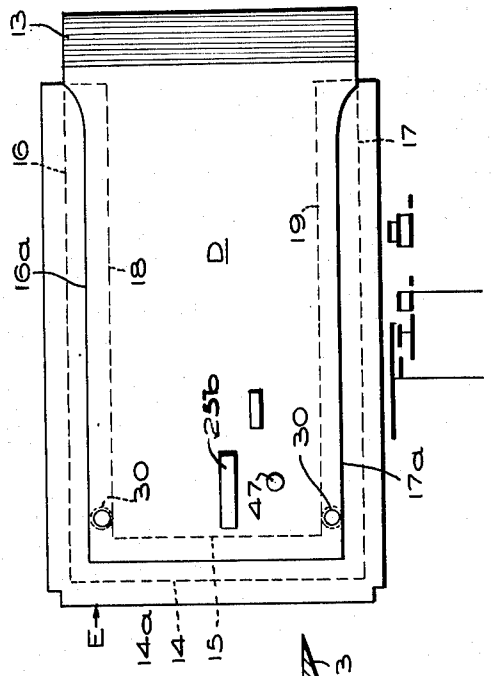

FIG. 8.

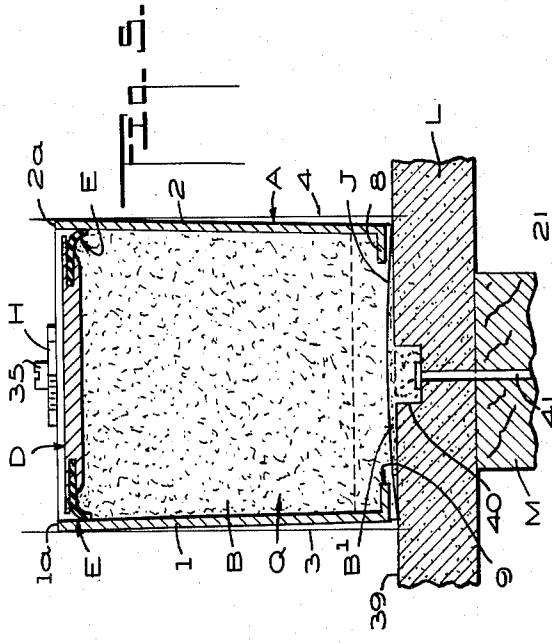

FIG. 5.

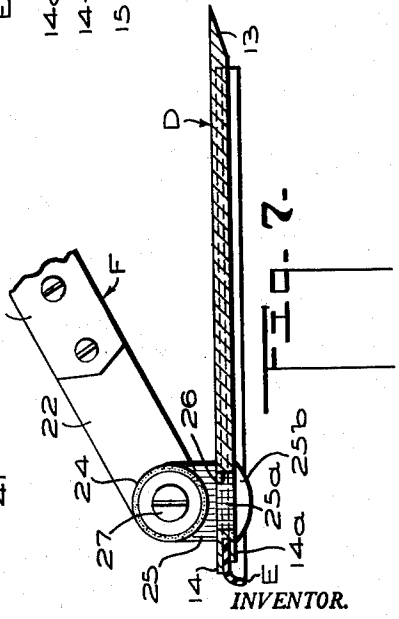

FIG. 7.

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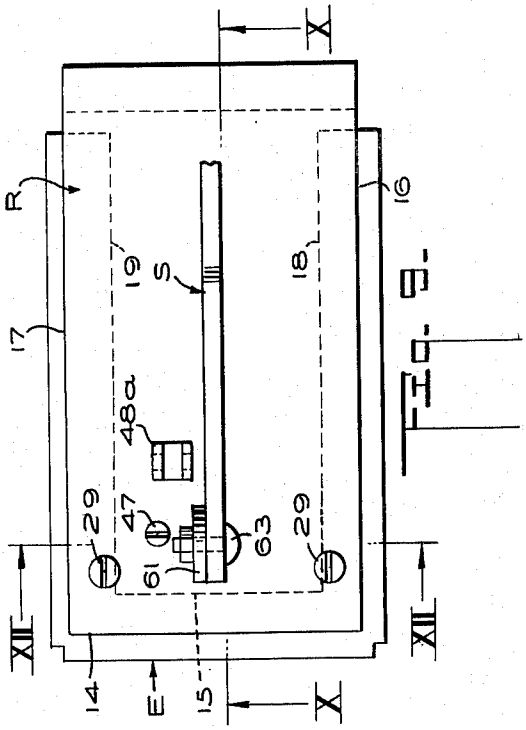

FIG. 9.

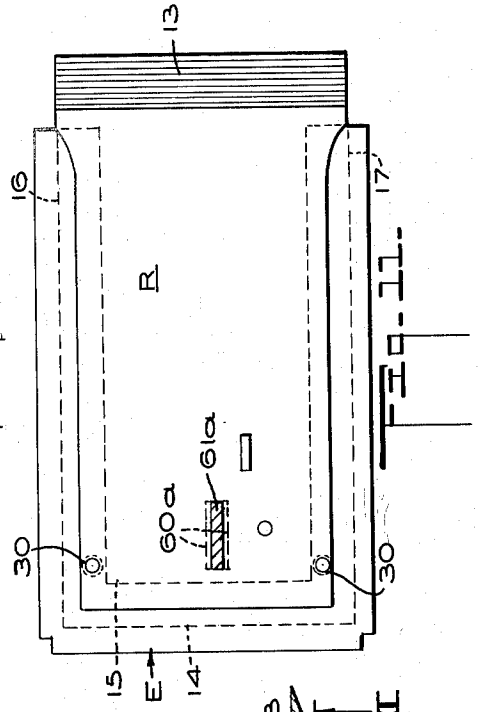

FIG. 11.

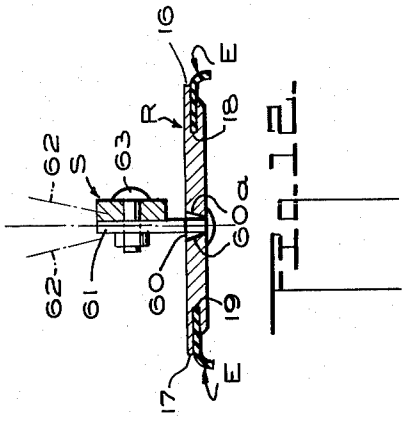

FIG. 12.

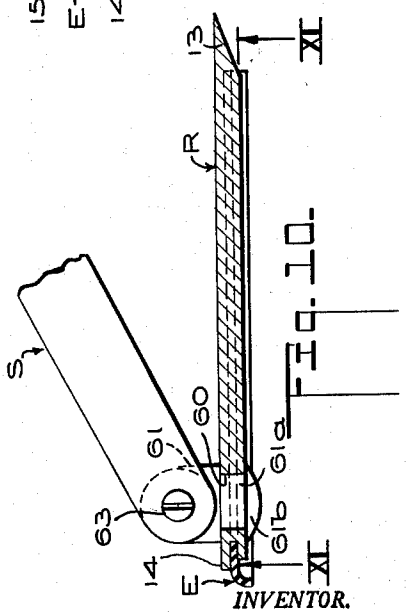

FIG. 10.

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2,809,513

RECESS-FILLING MASTIC APPLICATOR

Robert G. Ames, San Mateo, Calif., assignor of one-half to George W. Williams, Redwood City, and one-fourth to Stanley Ames, Belmont, Calif.

Application August 17, 1953, Serial No. 374,721

5 Claims. (Cl. 72—130)

An object of my invention is to provide a recess-filling mastic applicator which is an improvement over the mastic applying and surface finishing tool disclosed in my copending application, Ser. No. 283,378, filed April 21, 1952 (now Patent No. 2,711,098, dated June 21, 1955). In the copending case, I provide a tool body that has a short handle permitting the tool to be held and manipulated with one hand. An extension handle could be applied to the short handle, permitting the tool to be used on ceiling surfaces while the operator stands on the floor.

A modified form of the tool disclosed in the above-mentioned copending application makes use of a hose connected to the handle for delivering mastic under pressure to a recess provided within the tool body. Automatic means controls the feeding of mastic into the recess for keeping it filled with mastic at all times. This automatic means shuts off further feeding of the mastic when the recess receives the desired quantity thereof.

In the present form of the device, the tool body is provided with a long handle that is pivotally connected to the swingable mastic-pressing plate which forms a part of the tool body. The pivotal connection between the handle and the swingable mastic-pressing plate exerts sufficient friction between the two parts, to hold the plate at a desired angular position with respect to the handle. The plate in turn is yieldingly maintained in an inoperative or normal position, by springs that are secured to the plate and to the tool body. Therefore the tool body can be swung into the desired angular position with respect to the handle and will hold this position until the tool body is brought into contact with the surface over which the body is to be moved. The frictional and pivotal connection between the handle and the mastic pressing plate will permit the tool body to change its angular position with respect to the handle as the body is moved over the wall-board surface by the handle.

In constructing walls and ceilings from plaster boards and the like, it is common practice to nail such boards to studs and these nails are set into the boards so as to provide recesses or depressions adjacent to the nail heads. These recesses must be filled and the purpose of the present tool is to fill the recesses with mastic.

Broadly speaking, the tool disclosed in my copending case and in the present application, has a body which is provided with a recess adapted to receive mastic. The recess opens toward the board-engaging face of the tool. In my copending case, the bottom of the recess is entirely open. I found that this opening was too large and therefore in the present tool, a rigid bottom wall forms a part of the tool body and this wall has an opening of the right size and is disposed adjacent to the trailing edge of the tool, through which the mastic may be forced by applying pressure to the swingable mastic-pressing plate.

The mastic is ejected from the recess in the tool as the tool is advanced over the boards in a direction that coincides with the line of nails whose recesses in the boards

are to be filled with mastic. The tool has a rigid troweling bar at the trailing end of the tool body for forming the proper transverse crown on the layer of mastic that extends over the line of nails being covered. The sides of the layer of mastic are feathered into the surface of the boards by the troweling bar and this is accomplished by forming the troweling bar with a board-contacting edge that is made slightly concave between its ends.

It is known that the surfaces of plaster boards and the like do not lie in an absolutely flat plane. Irregularities in the wall-board surface will appear when the wall-boards are secured to the studs by nails. I have found that the tool will do an efficient job in filling the recesses in the wall-board surface if the tool body contacts with the surface at not more than three points. Two of these three points of contact will be at the ends of the troweling bar. The third point of contact is provided by a triangularly-shaped shoe that is secured to the under surface of the rigid bottom wall of the tool body so as to have relative movement therewith. One side of the shoe constitutes a leading edge and it rides over the wall-board surface at a point which is near the leading end of the tool body.

The leading edge of the shoe is spaced from the rigid bottom wall of the tool body and the shoe is connected to the bottom wall so that it can fulcrum about a median line that extends longitudinally of the tool body. The leading edge of the shoe will be free to rock about the central fastening point as this edge moves over the uneven surface of the wall-board. The effect of this shoe construction is to provide the third point of contact between the tool body and the wall-board surface, this third point being disposed midway between the sides of the body and adjacent to the leading end thereof. In the present invention, a shoe is disclosed as constituting one of the three points of contact between the tool body and the wall-board surface. A copending application on a mastic applicator and finishing tool, Ser. No. 374,722, filed August 17, 1953, shows a lever pivoted at its center to the tool body and carrying a roller at each end that rides on the wall-board surface. The lever takes the place of the shoe. In case the friction of the shoe travelling over the wall-board surface becomes too great, the lever and rollers would be used.

Novel means is also mounted on the tool body for limiting the return swinging movement of the mastic-pressing plate to a short distance when the tool is removed from the wall-board surface. The small return movement of the plate will hold true regardless of how far the plate has been moved into the tool body. After the tool body has been removed from the wall-board surface, the plate retaining means can be actuated to permit the plate to swing back into normal or rest position.

All of the working parts are placed so as not to extend beyond either side of the tool body. The body is made narrow in order to fit into restricted places. Yet the tool body is wide enough to not only apply mastic to the recesses, but to cover the row of nails with a thin layer of mastic.

The handle has a flexible flat strip forming a part thereof to permit the handle or the tool body to rock laterally to a slight degree with respect to each other. There will be a slight rocking lateral movement between the tool body and the handle as the body is moved over the uneven surface of the wallboard.

The present invention makes use of a fixed troweling blade that can be removed from the tool body when it becomes worn and a new one substituted. In my Patent 2,571,096, on a finishing tool, issued October 16, 1951, the tool body is much wider and the troweling bar is made flexible. Clips are mounted on the bar for securing a

flexible wall portion to the bar that forms a part of a mastic-receiving recess. In another application on a mastic-applying and finishing tool, Serial No. 244,786, filed September 1, 1951 (now Patent No. 2,666,323, dated January 19, 1954), a flexible troweling bar is removably mounted in a flexible troweling bar guide strip. The guide strip has a groove therein for receiving an edge of a flexible wall portion that forms a part of the mastic-receiving recess. Here again the troweling bar and the troweling bar guide strip are both made flexible because the tool body is much wider than that shown in the present case.

Other objects and advantages will appear in the following specification, and the novel features of the device will be particularly pointed out in the appended claims.

My invention is illustrated in the accompanying drawings forming a part of this application, in which:

Figure 1 is a side elevation of the tool;

Figure 2 is a top plan view;

Figure 3 is a bottom plan view when looking in the direction of the arrows III—III of Figure 1;

Figure 4 is a longitudinal section taken along the line IV—IV of Figure 2;

Figure 5 is a transverse section taken along the line V—V of Figure 1;

Figure 6 is a top plan view of the mastic-pressing swingable plate;

Figure 7 is a longitudinal section taken along the line VII—VII of Figure 6;

Figure 8 is a bottom plan view of Figure 6;

Figure 9 is a top plan view of a modified form of the mastic-pressing swingable plate;

Figure 10 is a longitudinal section taken along the line X—X of Figure 9;

Figure 11 is a bottom plan view of Figure 9; and

Figure 12 is a transverse section taken along the line XII—XII of Figure 9.

While I have shown only the preferred forms of my invention, it should be understood that various changes or modifications may be made within the scope of the appended claims without departing from the spirit and scope of the invention.

In carrying out my invention I provide a tool body or housing indicated generally at A, see Figures 1 and 2. This housing has side walls **1** and **2** of the shaped illustrated in Figures 1 and 5. It will be noted that the side walls have their top edges **1***a* and **2***a* spaced further apart than their lower portions. In Figure 5, vertical lines **3** and **4** are drawn so that they contact with the outer surfaces of the sides **1** and **2** adjacent to the top edges **1***a* and **2***a*. It will be seen from this figure that the sides **1** and **2** are inclined toward each other and therefore the lower portions of the sides will be spaced nearer each other and inwardly from the vertical lines **3** and **4**. The purpose of this structure will be presently set forth.

The tool body or housing A has a leading or front end at **5**, in Figures 1 and 4, and an arrow **6** in Figure 4 illustrates the direction of movement of the tool when it is operated. The trailing end of the tool body is in the form of an arcuate wall **7** and the center from which the arc is formed is illustrated at X in Figure 4. The same figure illustrates an arcuate line **7***a* extending beyond the upper edge **7***b* of the arcuate wall **7** and a radius line **7***c* extends from the center X to the arcuate line **7***a*.

The bottom of the tool body A is closed for the greater portion of its area by a rigid bottom wall **8** that is illustrated in Figures 3 and 4. These figures show the bottom wall as extending between the sides **1** and **2** and being integral therewith. The bottom wall also extends from the leading end **5** of the tool body to the trailing arcuate wall **7**. In Figure 3, I show the rigid bottom wall as having an opening **9** through which mastic B may be forced. The opening **9** has a leading edge **9***a* that extends at right angles to the planes of the body sides **1** and **2**. The opening **9** also has side edges **9***b* and **9***c* that flare away from each other as they extend from the leading edge **9***a* to the arcuate trailing wall **7**.

I provide novel means for forcing mastic B from the interior of the tool body out through the opening **9** as required. At the leading end **5** of the tool body and between the sides **1** and **2**, I mount a fulcrum bar indicated at C in Figure 4. This fulcrum bar has a side **11** on which a positioning member **10** is placed. The positioning member has a chamfered edge **10***a* that cooperates with the inner face of the other side **12** of the fulcrum bar C to form a trough-like fulcrum support for a mastic-pressing plate shown at D in the same figure. I have found that if the usual hinge were provided between the mastic-pressing plate D and the tool housing A, of the type shown in my copending case Ser. No. 283,378 (now Patent No. 2,711,098, dated June 2, 1955), the abrasive effect of the mastic would wear the hinge and a new hinge would have to be substituted from time to time. The mastic-pressing plate D has a chamfered edge **13** at the leading edge of the plate and this forms a V-shaped leading edge that will rock in the trough-like fulcrum formed by the bar C and the positioning member **10**. Such a fulcrum support for the plate D will offer little wear due to the presence of mastic.

In Figure 6 I show a plan view of the mastic-pressing plate D and in Figures 7 and 8, the chamfered edge **13** is illustrated. The longitudinal section of the mastic-pressing plate D illustrated in Figure 7 shows the trailing edge **14** provided with a groove **15**, while both Figures 6 and 8 show the sides **16** and **17** of the plate D provided with grooves **18** and **19**, respectively. A flexible wiping member shown at E in Figures 6 and 8, and preferably made of fabric, is placed in the grooves **15**, **18** and **19**. It will be noticed from both Figures 7 and 8 that the lower walls of the grooves **15**, **18** and **19** are shorter than the opposite walls for the same grooves. The shorter walls **14***a*, **16***a* and **17***a* can be likened to lips that, after they receive the wiper E, may be peened or forced against the wiper E to secure it to the plate.

Referring to Figures 1, 4 and 5, it will be seen that the fulcrum line Y is spaced from the center X which is used for describing the arc **7***a* and forming the arcuate wall **7**. The placing of the fulcrum line Y to the left of the center line X in Figure 4 will cause the plate D as it swings from the dotted line position in Figure 1 to the dot-dash line position in the same figure, to move the trailing edge **14** of the plate nearer the inner surface of the arcuate wall **7**. The wiping member E will have a normal flex or curvature formed therein when the plate D is in its normal or "rest" position, as indicated in Figure 1 by the dotted lines. When the plate D is moved inwardly into the interior of the tool body to the dot-dash line position in the same figure, the edge **14** of the plate will be positioned nearer the arcuate trailing wall **7** due to the spaced-apart points X and Y, and therefore the wiping strip E will be flexed to a greater extent and will exert a greater wiping action against the inner surfaces of the arcuate wall **7**. In this way, I assure the inner surface of the arcuate trailing wall **7** of being thoroughly cleaned by the wiping strip E as the plate D is moved.

In Figure 5, the wiping strip E has its side portions contacting with the inner surfaces of the walls **1** and **2** when the plate D is in its uppermost or "rest" position. As the plate D is moved downwardly into the housing A, the sides **16** and **17** of the plate D will move nearer the inner surface of the sides **1** and **2** of the tool body due to the inclination of these sides. This will cause the curved side portions of the strip E that contact with the sides **1** and **2**, to flex to a greater extent and therefore a clean wiping action of the strip on the sides will be effected. When the plate D is in normal or "rest" position, the side portions of the strip

E will be flexed to a lesser extent than when the plate is moved downwardly into the interior of the body.

I provide a handle F for the tool body, see Figures 1 and 2. The handle is made long enough so that an operator can move the tool body A across the surface of a ceiling while still standing on the floor. The wooden or metal portion of the handle is indicated at F1 and this is secured to a rigid metal part F2 by screws 20 or other suitable fastening means, see Figure 1. The free end of the metal part F2 is bifurcated at 21 and a resilient metal strip 22 has one end placed in the bifurcated portion 21 and secured thereto by screws 23, or other suitable fastening means. The resilient metal strip 22 is shown in Figure 6 as being placed between a nylon washer 24 and a bracket 25. Figure 1 illustrates how the bracket has a reduced portion 25*a* that is received in a slot 26 provided in the mastic-pressing plate D. The portion of the bracket that extends below the under surface of the plate D, is upset at 25*b* or peened for securing the bracket rigidly to the plate.

The resilient metal strip 22 has an opening for pivotally receiving the shank of a bolt 27. The bolt is carried by the bracket 25 and has an integral conical portion 27*a* that is received in a conical recess 24*a*, provided in the nylon washer 24. The shank of the bolt 27 is screwed into the threaded bore in the bracket 25 and a lock nut 28 is mounted on the shank for holding the bolt from becoming loosened accidentally.

The construction is such that sufficient friction is created between the nylon washer 24 and the bracket 25, to grip the resilient metal strip 22 and hold the handle F in any position into which it is swung with respect to the plate D. If, for example, when the operator wishes to use the tool on a ceiling, he can swing the tool body and the mastic pressing plate D about the bolt 27 as a pivot for positioning the bottom of the plate 8 substantially parallel with the plane of the ceiling prior to placing the tool body against the ceiling. The tool body A will not swing about the bolt 27 as a pivot during the lifting of the handle for placing the body against the ceiling, because the friction between the nylon washer 24 and the bracket 25 will prevent such accidental swinging. However, when the tool body contacts the ceiling and is moved thereacross by the handle, the bottom wall 8 will remain substantially parallel with the ceiling surface during this movement and therefore the angle made by the handle F with the tool body will constantly change during this movement.

The mastic-pressing plate D is yieldingly held in its normal or "rest" position by coil springs G, see Figure 2. The plate D has upstanding posts 29 which may be in the form of headed screws that are threaded into openings 30 in the plate D, see Figure 8. The ends 31 of the coil springs are formed into loops, see Figure 2, and these loops receive the screw shanks 29. The other ends of the coil springs G are hook-shaped as at 32, see Figure 1, and these are received in openings 33 that are provided in upstanding inwardly curved ears 34 that are integral with the sides 1 and 2 of the tool body, and are disposed adjacent to the leading end 5 of the tool body A, see Figure 2.

The tendency of the coil springs G is to raise the trailing end of the mastic pressing plate D and hold this end against a V-shaped stop H, see Figure 2. The stop is secured to the upper edge 7*b* of the arcuate wall 7 by means of a screw 35. The stop H has a V-shaped recess 36 therein for receiving the resilient metal strip 22 when the handle F presses the plate D inwardly into the housing and the angle made by the handle and the plate D is such as to bring the resilient metal strip 22 within the confines of the V-shaped recess 36. The springs G yieldingly hold the trailing edge of the plate D against the stop H when the plate is at normal position.

The tool makes use of a fixed troweling blade that is

indicated at J in Figure 4. The blade has a length that is coextensive with the width of the tool body A when the blade is received in a holder K. The holder has a cross sectional shape as indicated in Figure 4. The length of the holder K is the same as the width of the tool body A. The arcuate trailing wall 7 has a transversely-extending recess 37 for receiving a flange of the holder K. Screws 38 removably secure the holder K to the lower edge of the arcuate wall 7. The troweling bar J is disposed in a groove in the holder and is rigidly secured thereto. The troweling bar J is designed to ride upon a wall-board surface 39 of a wall-board L, or other structural material.

The edge of the bar or blade J that actually contacts with the wall-board surface 39 is given a slight concave shape, see Figure 5, so that a crown will be formed on the layer of mastic B1 that is applied to the wall-board surface. The tool is designed to fill recesses 40 with mastic, these recesses being formed in the wall-board by finishing nails 41 which are hammered into the wall-board and then into the studs M for securing the wall-board to the studs. A row of nails 41 will be placed along each stud and therefore a row of recesses 40 will be formed and should be filled with mastic. When the wall-board is secured in place and it is desired to fill the recesses 40 with mastic, the tool body A is placed on the wall-board surface 39 and moved along the row of recesses 40 in the direction of the arrow 6 in Figure 4. During this movement pressure is applied by the operator on the handle F for forcing the mastic pressing plate D down into the tool body A with sufficient power to force mastic from the mastic retaining recess Q, out through the opening 9, see Figures 3 and 4. The mastic will form the layer B1 on the wall-board surface 39, see Figure 5, and this layer will have a slight crown to it. The mastic layer B1 will also fill the row of recesses 40.

I have designed a tool to give it a three-point contact on the wall-board surface 39 when it is moved thereover in the act of filling the recesses 40 with mastic. As already stated, the troweling blade J has a concave under edge that rides over the wall-board surface 39 and therefore the two ends of the blade or bar J will constitute two of the three points of contact between the body A and the wall-board surface. These two points of contact are indicated at Z in Figure 3.

A triangularly-shaped shoe N is secured to the bottom 8 of the tool body and it has a leading edge 42 that parallels the leading edge of the bottom plate 8, see Figures 3 and 4. The apex end 43 of the shoe N has a screw 44 passed therethrough and this screw enters the bottom plate 8 as illustrated in Figure 4 so as to secure the shoe N to the plate and yet permit a lateral swinging of the shoe. A resilient rounded knob 45, see Figure 4, is secured to the bottom plate 8 by a screw 46, and this same screw holds the triangular shaped shoe N to the rubber knob 45. The construction is such that the leading edge 42 of the shoe will rock as the shoe N fulcrums on the rounded resilient knob 45. The screw connections 44 and 46 with the shoe N are such as to permit this relative lateral rocking of the shoe with respect to the tool body.

Figure 4 shows the leading edge 42 of the shoe riding on the wall-board surface 39, and although the entire leading edge will contact with the surface, the real point of contact is at one point and that is where the rounded resilient knob 45 contacts with the shoe N. The purpose of permitting play between the shoe and the plate 8 is to permit the shoe to follow the irregularities in the wall-board surface as the tool body is moved thereover. The knob 45 constitutes the third point of contact between the tool body A and the wall-board surface 39. In a three-point contact between the tool body and the surface, these irregularities will be "smoothed out" as the tool is moved over the wall-board surface. Should the tool body rock slightly in a lateral direction as it is moved over the row of recesses 40, the resilient metal strip 22 will permit such

rocking between the tool body A and the handle F. Sufficient pressure is placed upon the plate D by the handle F to force the mastic B from the tool body recess Q and on to the surface 39 for covering the recesses 40 and for forming a strip of mastic B1 that will have a slight crown effect. The tool body A cannot wobble on the surface 39 if it has only three points of contact with this surface.

I provide novel means for limiting the return movement of the mastic-pressing plate D when the tool body is lifted off from the wall-board surface 39 and the plate has been previously moved into the interior of the body for a considerable distance. In Figure 1, I show the plate D at its two extreme positions and it will be seen that a set screw 47 is carried by the plate and it will contact with the inner surface of the bottom wall 8 when the plate D reaches its lowermost position. In Figure 4, I show the mastic-pressing plate D in an intermediate position. An adjustable stop bar or rack is indicated generally at P in Figure 4 and this rack is pivoted on a bolt 48 to the upper surface of the mastic pressing plate D. A bracket 48*a*, see Figures 2 and 6, secures the bolt 48 to the plate D.

A stop member 49 is secured to the side wall 2 of the tool body A and has its upper end curved inwardly so as to project over the right hand coil spring G when looking at Figure 2. The stop member 49 has an end portion 49*a* that is designed to be engaged by any one of a plurality of teeth 50 that are formed on the pivoted rack bar P, see Figures 1 and 4. A spring 51 has a coil portion mounted on the pivot bolt 48 and has one end 51*a* pressing on the outer surface of the plate D, and has its other end 51*b* pressing against the rack bar P, see Figures 2 and 4. It will be seen that the rack bar P is therefore yieldingly held against the stop portion 49*a* of the stop member 49.

As the plate D is swung inwardly into the tool body by the handle F to reduce the size of the body recess Q and force mastic therefrom, the pivoted rack bar P will ride along the stop member 49 and the teeth 50 on the bar will successively pass the stop portion 49*a* during the inward swinging motion of the plate. If now the tool body A is removed from the wall-board surface 39 after completing the filling of a row of recesses 40 with mastic, the coil springs G will act upon the plate D to swing it back toward its normal or rest position, shown by the dotted lines in Figure 1. However, before this position can be reached by the plate, the tooth 50 on the pivoted rack bar P that is disposed nearest the stop portion 49*a*, will contact with this portion and prevent further return movement of the plate D. This slight return movement of the mastic pressing plate D is sufficient to create a suction within the mastic receiving recess Q to remove any excess mastic from the wall-board surface and to draw this excess mastic back into the recess Q that has thus been enlarged.

Should the mastic-pressing plate D be free to move all of the way back to its starting position, when the plate has been moved well down into the interior of the tool body, this return movement would be too great and the effect of the springs G in returning the plate to its starting position would cause the plate to strike the V-shaped stop H with sufficient force to tend to swing the tool body A about its pivotal connection with the handle F. Such a tendency is obviated by limiting the return movement of the plate D to a short distance regardless of how far the plate has been moved into the interior of the tool body.

I provide a thumb-receiving portion 52 at the end of the rack bar P, see Figure 4, so that after the tool has been removed from the wall-board surface, the operator may place his thumb against this portion and rock the rack bar P away from the top portion 49*a* and permit the springs G to return the plate D to its starting position. It is possible to replenish the mastic in the recess Q before the tool is used again and the mastic is fed into the recess through the opening 9 by any means desired.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood. The operation of the tool has been set forth during the description of the various parts of the device. Therefore, a brief statement of the operation at this time will suffice. The tool is filled with mastic through the opening 9 in the bottom plate 8. The housing A is then applied to the surface 39 of the wall-board and moved in the direction of the arrow 6 in Figure 4 and over the row of recesses 40. Figure 5 illustrates how these recesses are filled with mastic as pressure is applied on the handle F to swing the plate D into the mastic-holding recess Q to exude mastic through the opening 9. A layer of mastic B1 will extend over the row of recesses and the concave edge of the blade J will provide a slight crown to this mastic layer.

In Figures 9 to 12, inclusive, I show a slightly modified form of mastic-pressing plate R and handle S. Where portions of the plate R are the same as the mastic pressing plate D, corresponding reference numerals will be used. The plate R has a slot 60, see Figure 10, that receives a reduced shank 61*a* of a bracket 61. The free end of the shank 61*a* is peened or upset at 61*b* so as to provide a projection which will contact with the underside of the plate R.

The opposed longitudinal sides 60*a* of the slot 60 are flared outwardly from the lower to the upper surface of the plate R at an angle of about 6°, as clearly shown in Figure 12. This permits the bracket 61 to swing laterally between the two positions shown by the dit dash lines 62 in Figure 12, with respect to the plate R. In other words the bracket 61 has a limited swing laterally on the plate R.

The rigid metal part F2 of the handle shown in Figures 1 to 8, inclusive, is supplanted by a rigid metal part S that is not bifurcated at 21, as is the case with the part F2, see Figure 2. The part S is pivoted to the bracket 61 by means of a bolt 63, see Figure 9. The friction exerted between the handle part S and the bracket 61 is sufficient to hold the handle in the angular position it is swung with respect to the bracket. If desired, the nylon washer 24 may be mounted on the bolt 63 to obtain the desired friction between the parts.

The resilient metal strip 22 is not used in the modified form and substantially the same advantage is obtained by providing the limited lateral swinging of the bracket 61 in the slot 60. In either construction, the housing A can tilt laterally with respect to the handle as the housing is moved over the uneven surface of the wallboard.

I claim:

1. In a recess-filling mastic applicator: a tool movable over a surface and having a leading end and a trailing end; said body having side walls, an arcuate-shaped trailing wall, and a bottom wall forming a mastic-receiving recess; the bottom wall having an opening through which mastic may be moved; a mastic-pressing plate having its forward edge swingably mounted at the leading end of the body and its rear edge movable along the inner surface of the arcuate trailing wall; a handle connected to the plate for swinging it into the recess for forcing mastic out through the opening in the bottom wall; spring means for returning the plate to its starting position; a rack bar pivotally mounted on the plate and having a plurality of teeth; a stop carried by the body and adapted to be engaged by the teeth; and a spring for yieldingly urging the rack bar against the stop; whereby a releasing of the plate after it has been moved into the recess for exuding mastic, will permit the spring means to start to return the plate to its starting position; the spring-urged rack bar being held against the stop for bringing one of its teeth into engagement with the stop for preventing further movement of the plate with respect to the body.

2. The combination as set forth in claim 1; and in which the rack bar has a finger-receiving portion that may be contacted for freeing the bar from the stop and permitting the plate to return to its starting position.

3. In recess-filling mastic applicator: a tool body mov-

able over a surface and having a leading end and a trailing end; said body having side walls, an arcuate-shaped trailing wall, and a bottom wall forming a mastic-receiving recess; the bottom wall having an opening through which mastic may be moved; a mastic-pressing plate having its forward edge swingably mounted at the leading end of the body and its rear edge movable adjacent to the inner surface of the arcuate trailing wall; the arc of the trailing wall being a portion of a circle with its center line disposed near the leading end of the body; the plate when in normal position, extending at an angle to the bottom wall; the pivot line for the plate being spaced from the center line for the arcuate trailing wall in a direction which will cause the edge of the plate disposed nearest the arcuate trailing wall, to move nearer the arcuate wall as the plate is swung toward the bottom wall; and a flexible wiping strip carried by the plate and having its free edge contacting with the arcuate trailing wall when the plate is in normal position to form a slight arc to the strip; the arc in the strip becoming more pronounced as the plate is swung toward the bottom wall.

4. The combination as set forth in claim 3; and in which the side walls of the body are flared outwardly at a slight angle from the bottom wall; the flexible wiping strip having portions extending along the side edges of the plate, these portions having their free edges contacting with the side walls when the plate is in normal position to form slight arcs to these portions; the arcs in the side portions of the strip becoming more pronounced as the plate is swung toward the bottom wall.

5. In a recess-filling mastic applicator: a tool body movable over a surface and having a leading end and a trailing end; said body having a mastic-receiving recess therein and a bottom wall for the recess with an opening near the trailing end through which the mastic may be moved; a troweling bar placed at the trailing end of the body and forming an edge of the opening in the bottom wall; said troweling bar being coextensive with the width of the body and having a concave edge that faces the surface over which the body is moved; whereby the ends of the bar will constitute two points of contact between the body and said surface; a third point of contact between the body and the surface and being placed near the leading end of the body; the third point of contact including a knob projecting from the underside of the bottom wall; a triangularly-shaped shoe having one edge positioned near the leading end of the body and constituting a leading edge that contacts with the surface over which the body moves; a screw rockably securing the shoe to the knob with freedom of permitting the ends of the leading edge of the shoe to move toward or away from the bottom wall; and a second screw securing the shoe to the bottom plate at a place near the apex of the triangular shoe while still permitting the shoe to rock on the knob.

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