Feb. 25, 1958 R. G. AMES 2,824,442

MASTIC APPLICATOR AND FINISHING TOOL

Filed Aug. 17, 1953 4 Sheets-Sheet 1

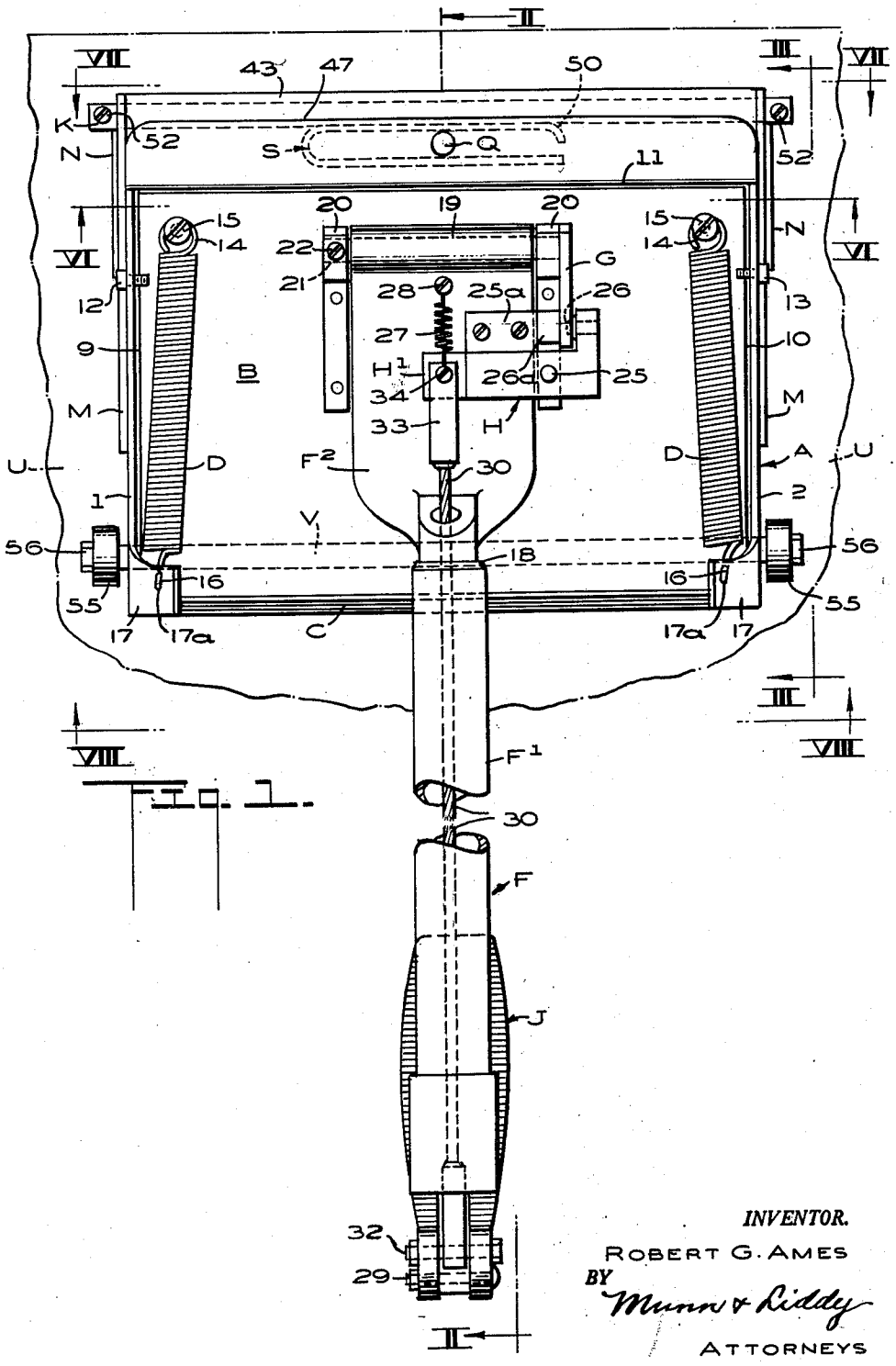

FIG. 1.

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MASTIC APPLICATOR AND FINISHING TOOL

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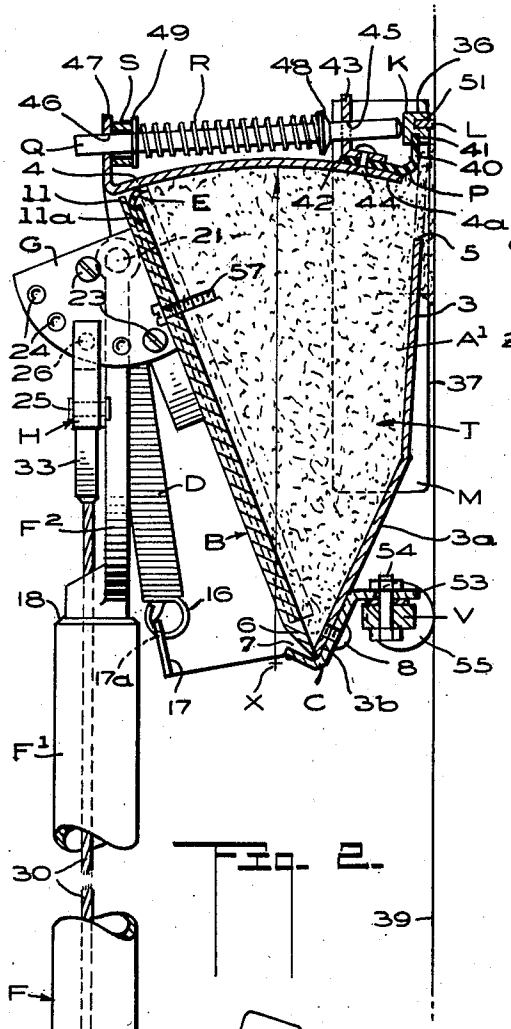


FIG. 2.

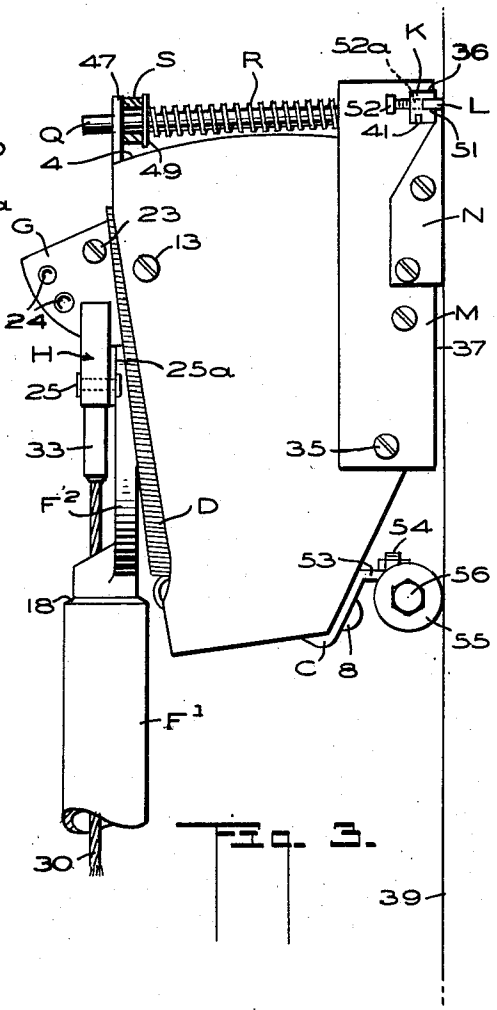
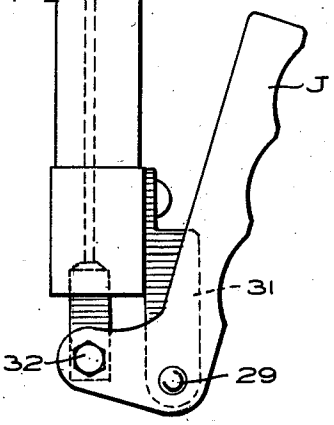


FIG. 3.



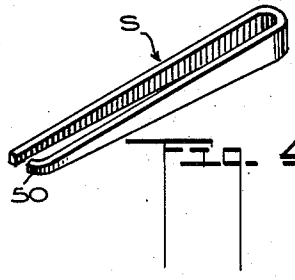


FIG. 4.

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MASTIC APPLICATOR AND FINISHING TOOL

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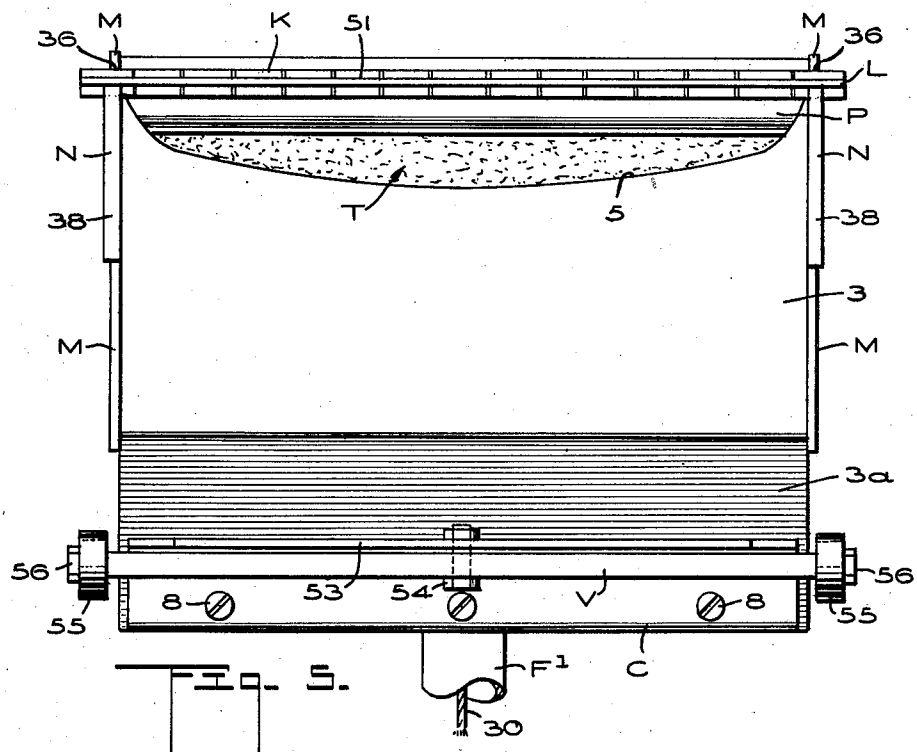

Fig. 5.

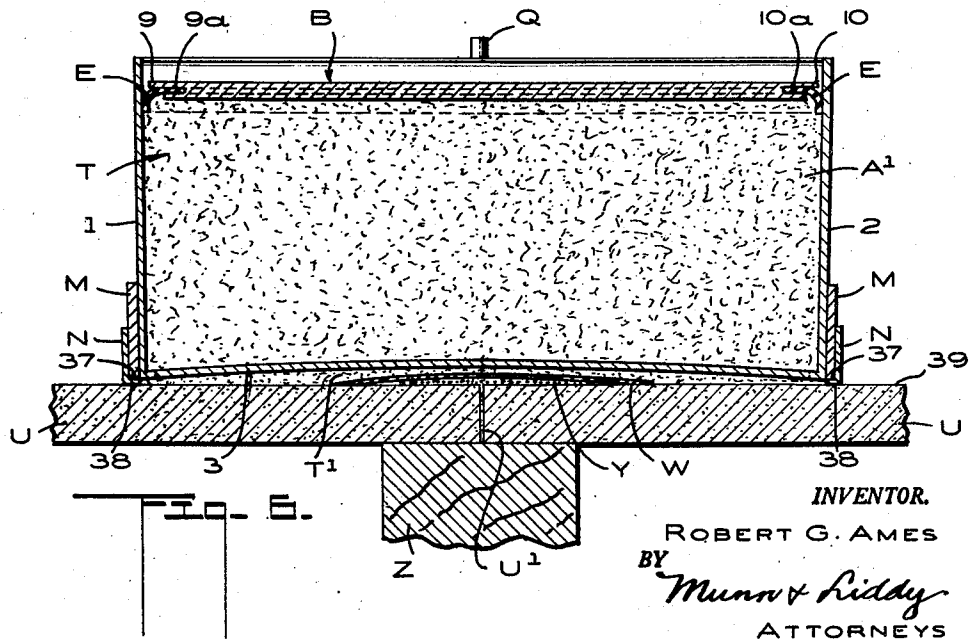

Fig. 6.

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MASTIC APPLICATOR AND FINISHING TOOL

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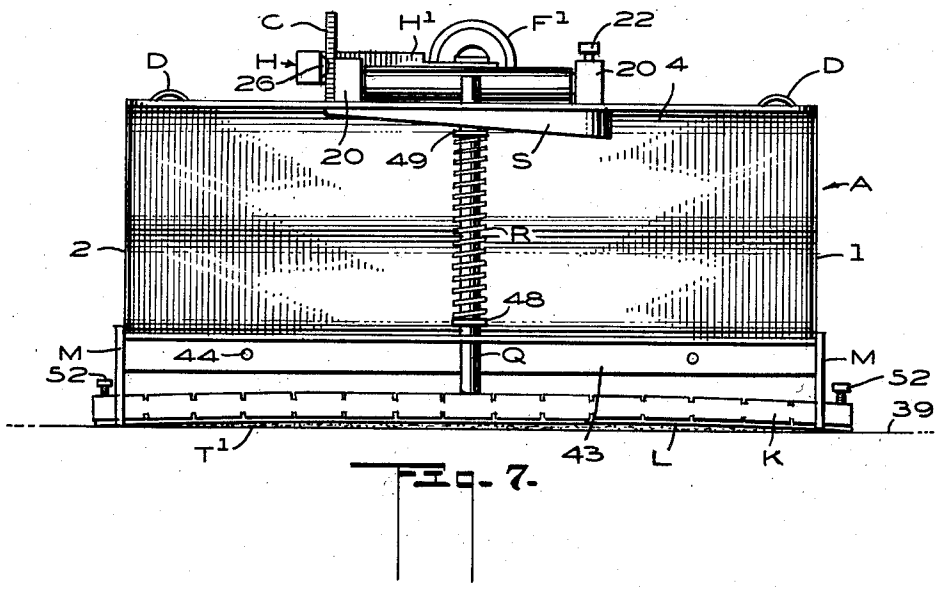

FIG. 7.

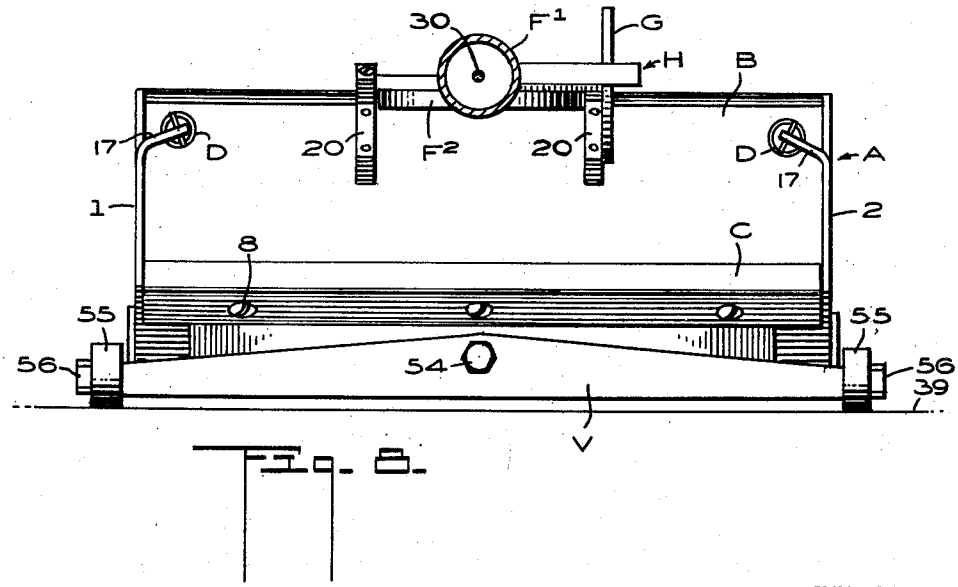

FIG. 8.

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United States Patent Office 2,824,442
Patented Feb. 25, 1958

2,824,442

MASTIC APPLICATOR AND FINISHING TOOL

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. 374,722

8 Claims. (Cl. 72—130)

An object of my invention is to provide a mastic applicator and finishing tool that is an improvement over the mastic-applying and finishing tool, shown in my Patent No. 2,666,323, issued January 19, 1954; and the mastic-applying and surface-finishing tool, shown in my copending application, Ser. No. 283,378, filed April 21, 1952, now Patent No. 2,711,098.

In the Patent No. 2,666,323, I disclose a flexible trowelling guide strip in which I mount a flexible trowelling bar. Yielding pressure is applied at two spaced points on the flexible trowelling guide strip to determine the amount of crown effect the flexible trowelling bar will give to the layer of mastic as the tool is moved over a joint where the edges of two pieces of wall-board abut. The ends of the flexible trowelling bar are held in place by bar-retaining plates that are adjustably secured to the sides of the tool body.

In the copending application, Ser. No. 283,378, the flexible trowelling bar has yielding pressure applied thereto at the center of the bar in one of the forms of the tool disclosed. The present application illustrates a manually slidable wedge for varying the spring pressure exerted on on a rod that bears against the central portion of a flexible trowelling guide strip. The flexible trowelling guide strip in turn carries a flexible trowelling bar and the ends of the guide strip project beyond the sides of the body. Screws are mounted in the projecting ends for advancing the trowelling bar as wear takes place. Wear shoes placed at the sides of the body, support the ends of the trowelling guide strip.

A further object of my invention is to provide a device of the type described that has a body for holding mastic and means is provided for causing the body to make only a three-point contact with the surface over which the tool body is moved. In a copending application on a recess-filling mastic applicator, Ser. No. 374,721, filed August 17, 1953, I show the ends of the trowelling blade as constituting two of the three points, and a triangular shoe as constituting the third wall-board surface contact point. In the present case, the ends of the trowelling blade are again two of the points, while the third point of contact is changed to a lever that has its center pivoted to the front center of the body. A roller is mounted at each end of the lever and the two rollers ride on the surface over which the body is moved.

Another novel feature of the device is that the body is pivotally secured to a supporting handle and I provide means for holding the body at the desired angular position with respect to the handle. This feature becomes important when the tool body is to be moved along a ceiling. The operator stands on the floor when moving the body along the ceiling. Since the body is pivoted to the handle, it will swing into different angular positions as the handle is raised for placing the body against the ceiling. It is necessary to hold the bottom wall of the body substantially parallel to the plane of the ceiling just prior to moving the body into contact with the ceiling. This is accomplished by swinging the body into the desired angular position on the handle at which it should be when contacting the ceiling and actuating the body holding means for preventing any angular swinging of the body on the handle during the upward movement of the handle in applying the body to the ceiling.

It is also important to prevent the body swinging on the the handle when the body is moved over a wall-board surface and reaches a window or a door opening. The leading end of the body will reach an edge of a window or door opening ahead of the trailing end and since one of the three points of contact between the body and the wall surface is at the leading end of the tool, some means must be provided for maintaining the trailing end on the wall surface after the leading end reaches the window or door opening. By rigidly holding the body against pivotal movement with respect to the handle at a time just prior to the leading end of the body reaching the window or door opening, I am able to maintain the trailing end in contact with the wall surface so that mastic will be applied to the surface right up to the edge of the opening.

I also provide a rigid bottom wall for the tool body in the present case and the mastic is pressed against this wall by the mastic-pressing plate during the use of the tool. An opening is made in the bottom wall at a point adjacent to the trailing end of the tool. Mastic is forced through this opening as the tool body is moved over the wall board surface and the size of the opening is such that a proper amount of mastic will be applied to the wall-board surface during the movement of the tool. I have found that where too great an area of mastic is in contact with the wall surface, it requires more force to move the tool body over the surface.

In my Patent No. 2,300,398, issued November 3, 1942, on a pressure plastic applicator, I disclose a plate held at an angle to the wall surface by triangularly shaped side members. The mastic-receiving cavity thus provided, caused too great an area of mastic to bear against the wall surface. This was partially corrected in my Patent No. 2,571,096, issued October 16, 1951, on a finishing tool. In this patent the bottom of the mastic-receiving recess was covered by a baffle for the greater portion thereof. However, the baffle was made of a thin flexible metal and therefore the pressure of the mastic against the baffle caused it to bow downwardly and contact with the wall surface.

A rigid horizontal flange is disclosed in my Patent No. 2,666,323, on a mastic-applying and finishing tool, and this flange constitutes the bottom of the mastic-receiving recess. But the horizontal flange carries a leading resilient runner that contacts with the wall surface and extends throughout the width of the body. In the present case, the rigid bottom wall is spaced above the wall surface when the tool is used and the size of the outlet opening is made of an area so that only the right amount of mastic will pass through the opening and press against the wall surface as the tool is moved thereover. It is easier to move the tool over the wall-board surface when less mastic presses thereagainst, and the operator may use his force in moving the mastic-pressing plate downwardly into the tool body for delivering mastic as needed, rather than consume his energy in dragging a large body of mastic over the wall surface where too large an area of the mastic is in contact with the wall surface.

Another advantage is obtained by providing the rigid bottom plate for supporting the greater amount of the mastic in the body and forming an opening at the trailing end of the bottom plate, through which mastic may be forced. The mastic-pressing plate is fulcrumed at the leading end of the tool body and coil springs connect the training end of the plate with the leading end of the body. Where less mastic is in contact with the wall surface during the use of the machine, due to the greater portion of the body of mastic resting on the rigid bottom

plate, less force need be exerted on the mastic-pressing plate to move mastic out through the opening in this plate. The operator is not fighting the pressure exerted by a large body of mastic contacting the wall. Therefore the springs that return the plate back to normal position at the end of the operation of the tool, need not be as strong as they would otherwise have to be. Less pressure need be exerted by the operator on the handle for swinging the mastic-pressing plate downwardly into the recess that carries the mastic, for exuding the mastic from the tool body. The pressure of the mastic on the bottom wall of the body, tends to hold the body against the wall surface rather than force the body away from the wall.

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 top plan view of the device;

Figure 2 is a longitudinal section taken along the line II—II of Figure 1, with portions being shown in elevation;

Figure 3 is a side elevation of the tool body;

Figure 4 is an isometric view of the wedge used for varying the spring pressure exerted on the flexible guide that carries the trowelling bar;

Figure 5 is a bottom plan view of the tool body;

Figure 6 is a transverse section taken along the line VI—VI of Figure 1;

Figure 7 is a rear elevation of the trailing end of the tool body; and

Figure 8 is a transverse section taken along the line VIII—VIII of Figure 1 and shows the leading end of the tool body.

While I have shown only the preferred form 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 that comprises a housing indicated generally at A in Figures 1, 2 and 3. The housing has side walls **1** and **2**, a rigid bottom wall **3** of the shape shown in Figure 2 and an arcuate-shaped trailing end wall **4** shown in the same figure. The rigid bottom wall **3** has an outlet opening 5 and Figure 5 shows this opening as covering a small part of the area of the rigid bottom wall **3**. The purpose for this will be described hereinafter.

A mastic-pressing plate indicated generally at B in Figure 2 has a bevelled front edge **6** that extends between the sides **1** and **2** and is fulcrumed in a V-shaped recess **7** formed by a transversely-extending fulcrum plate C. The plate C is secured to an upwardly inclined portion **3***a* of the rigid plate **3**, by screws **8**, or other suitable fastening means. The leading edge **3***b* of the bottom wall **3** acts as a positioner for the leading edge **6** of the mastic-pressing plate B. The plate C performs another function which will be set forth hereinafter in the specification.

The side edges **9** and **10** of the mastic-pressing plate B are disposed close to the sides **1** and **2** of the housing A, see Figure 1. The plate B has a trailing edge **11**, see Figure 2, that is disposed close to the inner surface **4***a* of the arcuate-shaped trailing end wall **4**. Stop screws **12** and **13**, see Figure 1, are mounted in the side walls **1** and **2** of the housing A and hold the plate B from any further counter-clockwise swinging, in Figure 2, when the plate reaches the "rest" or normal position shown in this figure. Coil springs D, see Figures 1 and 2, have their looped ends **14** passed around screws **15** that are mounted in the plate B, and have their other looped ends **16** passed through openings **17***a* that are provided in ears **17**, which in turn are integral with the sides **1** and **2** of the housing A. The tendency of the coil springs D is to yieldingly hold the mastic-pressing plate B in contact with the stops **12** and **13**.

Figures 2 and 6 show the mastic-pressing plate B provided with grooves **9***a* and **10***a* in the edges **9** and **10**, and with a groove **11***a* in the edge **11**. A flexible wiping member E is mounted in the grooves **9***a*, **10***a*, and **11***a*, see Figures 2 and 6, and the outer edges of this member yieldingly press against the inner surfaces of the walls **1** and **2** of the housing A and the inner surface **4***a* of the arcuate trailing end wall **4**. The center point X for the radius that describes the arcuate trailing end wall **4**, is shown in Figure 2 and this point is spaced above the fulcrum groove **7**. The purpose of this is to cause the portion of the strip E, contacting the inner surface **4***a*, to flex to a greater extent as the plate B is moved downwardly into the recess A1 that receives the mastic in the housing A. The side walls **1** and **2** of the housing A are inclined inwardly at a slight angle from the top to the bottom of the housing, as illustrated in Figure 6, so that the side portions of the strip E that contact with these walls will be flexed to a greater extent as the plate B is moved downwardly into the mastic-receiving recess A1. This feature has been described in detail in my copending application on a recess-filling mastic applicator, Ser. No. 374,721 filed August 17, 1953. Therefore, no further description need be given in this application.

A handle F is provided for the tool body A and this handle has a tubular portion F1, see Figure 2. A flat hinge member F2 is secured to the end **18** of the tubular handle portion F1 and is provided with a transversely-extending bore **19**, see Figure 1. Brackets **20** are mounted on the mastic-pressing plate B and the flat hinge member F2 is placed therebetween. A pivot pin **21** extends through the bore **19** in the flat hinge member F2 and has its ends received in the brackets **20**. A set screw **22** is mounted in the left-hand bracket **20** in Figure 1 and holds the pivot pin **21** in place. It will be seen from this construction that the handle F is free to swing about the pivot pin **21** with respect to the mastic-pressing plate B.

I provide a novel means for anchoring the handle F to the mastic-pressing plate B so that the handle will be held from swinging with respect to the plate. The purpose of this will be explained hereinafter. A quadrant G is mounted on the righthand bracket **20**, see Figures 1 and 2, and is held in place by any suitable fastening means, such as screws **23**. This quadrant has an arcuate row of recesses **24** and the center of the arcuate row is at the axis of the pivot pin **21** for the handle F. Figure 1 illustrates a bell-crank lever H that is pivoted at **25** on a plate **25***a*, which in turn is mounted on the flat hinge member F2. The bell-crank H carries a projection **26** that is designed to enter any desired one of the recesses **24**, see Figures 1 and 2. A coil spring **27** connects the end H1 of the bell-crank lever H to a screw **28** that is mounted on the flat hinge member F2. The spring **27** yieldingly holds the projection **26** out of the row of recesses **24** and therefore the handle F will normally be free to swing with respect to the mastic-pressing plate D.

However, when it is desired to rigidly hold the handle F at any angular position with respest to the plate D, a hand grip member J, pivoted to the free end of the handle F at **29**, see Figure 2, is swung toward the tubular portion F1 of the handle as shown in the full line position of Figure 2. This movement will pull on a cable **30** that connects the member J to the bell-crank lever H and thereby swing the bell-crank lever into the recess-receiving position shown in Figure 1 where the projection **26** will enter the registering recess **24**. The plate **25***a* has an unstanding projection **26***a* that is in line with the projection **26**, but is disposed on the opposite side of the quadrant G from the projection **26**. The tubular portion F1 of the handle has a bracket **31** to which the

hand grip member J is pivoted at **29**. One end of the cable **30** is pivoted to the hand grip member J at **32**, see Figure 2, and the other end of the cable is connected to a clevis **33**, see Figure 1. The clevis is pivotally mounted at **34** on the arm H1 of the bell-crank lever H. When the operator urges the hand grip member J toward the tubular portion F1 the handle F will be prevented from swinging with respect to the quadrant G. The quadrant will be gripped between the projections **26** and **26***a* and therefore no lateral strain will be brought to bear against the quadrant G.

In Figures 2, 3, 7 and 8, I show a flexible guide K for a flexible trowelling bar L. In Figures 3 and 7, I show frame members M that are secured to the outer surfaces of the sides **1** and **2** by screws **35** or other suitable fastening means. The frame members M extend beyond the arcuate-shaped trailing end wall **4** and are provided with rectangular recesses **36**, see Figures 2 and 3, that receive the ends of the flexible guide K. The recesses **36** open at the lower edges **37** of the member M.

Wear shoes N are secured to the outer surfaces of the frame members M, see Figure 3. These shoes have angle-shaped portions **38**, see Figure 6, that underlie the lower edges **37** of the frame members M and also extend under the ends of the flexible guide K as clearly shown in Figures 3 and 5. In this way, the wear shoes N perform a double function, in that they not only constitute friction members that ride on the wall-board surface **39**, but in addition they hold the flexible guide K in the recesses **36** and prevent accidental displacement of the guide from the members M.

A flexible wall portion P, see Figure 2, forms a part of the mastic-receiving recess A1 and has one edge **40** received in a longitudinally extending groove **41** provided in the flexible guide K. The other edge **42** of the flexible wall P is secured to the outer surface of the arcuate trailing wall **4** by a transversely-extending angle-shaped member **43**. Rivets **44** or other suitable fastening means hold the angle-shaped member **43** and the edge **42** of the flexible wall portion P, tightly against the lower portion of the arcuate wall **4**. The construction permits the flexible guide K to be flexed and the flexible wall portion P will permit such flexing. A connection between the flexible guide K and the arcuate wall **4** is made at all times.

Referring to Figure 7, it will be seen that I provide a central rod Q that is slidably mounted in an opening **45** provided in the angle-shaped member **43** and the upper end of the rod is slidably mounted in an opening **46** in a lip **47** that is integral with the top of the wall **4**. Both Figures 2 and 7 show the rod Q carrying a washer **48** that is disposed above the angle-shaped member **43** and is integral with the rod. A coil spring R is mounted on the rod Q and has its lower end bearing against the fixed washer **48**. A slidable washer **49** is mounted on the rod Q, and bears against the upper end of the coil spring R. A U-shaped wedge of the type shown at **8** in Figure 4 encloses the rod Q as clearly indicated in Figure 1. One leg of the wedge has its outer end curved at **50** so as to prevent the accidental removal of the wedge from the rod.

Figure 7 shows how the wedge S bears against the under surface of the lip **47** and will remain in the position into which it has been moved. The wedge may be manually moved for altering the compressive force of the coil spring R. When the tool is used, the mastic T in the recess A1 that is forced out through the opening **5** and upon the wall-board surface **39**, will form a layer T1 whose upper surface will be given a slight crown effect. This is accomplished by a slight flexing of the flexible guide K as shown in Figure 7 and a similar flexing of the trowelling bar L. The mastic itself, as it leaves the housing recess A1 through the opening **5**, will flex the central portions of the guide K and bar L away from the surface **39** in the manner shown in Figure 7. The amount of compression of the coil spring R and the consistency of the mastic T will determine the crown effect given to the top of the layer T1 of mastic.

The trowelling blade L is prevented from falling out of the groove **51** formed in the guide K and this is accomplished by curving the trowelling blade L longitudinally in a direction which is at right angles to the side walls of the groove **51**. The trowelling bar will have its sides frictionally engaged with the adjacent side walls of the groove and be held against accidental dropping out from the groove.

In Figure 7, I show both ends of the flexible guide K projecting beyond the sides of the frame members M and the projecting ends have set screws **52** therein that may be adjusted for feeding the trowelling bar L out from the groove **51** as wear takes place, see also Figure 3. The screws **52** are received in threaded openings **52***a* that open into the groove **51**. A turning of the screws **52** will feed the trowelling bar L as wear takes place.

It is desirable to have the housing A contact with the wall-board surface **39** at only three points, because this will accommodate the moving of the housing over an uneven wall-board surface provided at the joining of two sections of wall-board indicated at U1 in Figure 6. In the same figure, I show the rigid bottom wall **3** of the housing A curved inwardly so that no portion of this wall will contact with the wall-board surface **39**. The frame members M are prevented from contacting with the wall-board surface because they carry the wear shoes N and Figure 6 shows the angle-shaped portions **38** of these shoes as extending under the lower edges of the frame members M and as contacting with the wall-board surface **39**. In Figure 7 the two ends of the trowelling bar L are shown contacting with the wall-board surface **39**, and these two ends constitute two of the three points of contact with the wall-board surface.

The other point of contact between the housing A and the wall-board surface **39** is accomplished by a lever V, see Figure 8, and the center of this lever is pivotally secured to a flange **53** that is integral with the transversely-extending fulcrum plate C. The center connecting point for the lever consists of a bolt **54**, see Figures 2 and 8, that extends through the center of the lever and is carried by the flange **53**. I mount a roller **55** at each end of the lever V and these rollers are rotatably mounted on the shanks of cap screws **56**, which in turn are screwed into threaded bores provided in the ends of the lever. The rollers **55** ride on the wall-board surface **39**, and as shown in Figure 8, they will follow the surface of the wall-board even though it may be uneven. The only contact between the lever V and the housing A is through the pivot bolt **54** and this will constitute the third point of contact between the housing A and the wall-board surface.

The mastic-pressing plate B carries a screw **57**, see Figure 2, that will strike the inner surface of the bottom wall **3** before the trailing edge **11** of the plate reaches the flexible wall portion P of the mastic-receiving recess A1. The plate B and the flexible wiping member E will therefore not contact the flexible wall portion P at any time. This will free the flexible wall portion P to conform to the changing shape of the flexible guide K. The screw **57** acts as a stop for the inward swinging of the mastic-pressing plate B.

From the foregoing description of the various parts of the device, the operation thereof may be readily understood.

When using the device, the mastic T is fed into the recess A1 through the outlet opening **5**. When the recess receives the desired quantity of mastic, the tool is applied to the wall surface **39** as indicated in Figures 2 and 6, and a layer T1 of mastic is formed over the tape indiacted at W in Figure 6 and the layer of mastic Y covered by the tape. The joint between the two sections

of wall-board U is shown at U1 and this joint is normally placed at a stud Z.

The operator presses on the handle F for moving the mastic pressing plate B down into the recess A1 for forcing the mastic T out through the opening 5 as the body A is moved over the surface. The wedge 8 has previously been adjusted to compress the spring R to the desired extent. The density of the mastic determines the curvature of the trowelling blade L and the force of the spring R also determines the crown effect given to the layer of mastic T1 that overlies the tape Y. The housing A can move over the wall-board surface 39 even though the plane of this surface is irregular because the housing will contact with the surface at the three points already mentioned, i. e., the two ends of the trowelling blade L and the rollers 55 which are connected to the housing at the single point 54.

When the operator wants to apply mastic to a ceiling joint, he swings the housing A into the desired angular position with respect to the handle F and then he moves the hand grip member J toward the handle for causing the projection 26 on the bell-crank lever H to enter the registering recess 24. This will hold the handle in a rigid position with respect to the mastic pressing plate B, and since this plate is held in its normal position by the coil springs D, the housing A will be held at a fixed angular position with respect to the handle F. The operator now raises the handle for moving the housing up against the ceiling. He has previously adjusted the angle between the housing and the handle so that the frame members M will extend substantially parallel to the plane of the ceiling when the handle is raised and the housing is moved adjacent to the ceiling. As soon as the housing is moved into contact with the ceiling for delivering the layer of mastic to the joint, the operator releases the hand grip member J and now the housing is free to swing with respect to the handle as the operator moves it over the ceiling surface.

The hand grip member J is also used where the housing is applying mastic to a joint that extends to a door or a window opening. In this instance the roller 55 will reach the window or door opening before the mastic discharge opening 5 in the housing reaches the same opening. If the handle F were free to pivot about the quadrant G, the housing A would tilt with respect to the wall-board surface as soon as the rollers 55 moved clear of the surface and entered the window or door opening. This of course would move the opening 5 of the housing A away from the wall-board surface with disastrous results.

I overcome this disadvantage by the hand grip member J which may be swung toward the handle F by the operator immediately before the rollers 55 reach the window or door opening. This will lock the handle to the quadrant G so that the housing A will remain rigidly connected to the handle. The operator is free to move the housing by means of the handle until the opening 5 reaches the window or door opening. An even layer of mastic T1 will therefore be applied to the tape W right up to the end of the joint.

The outlet opening 5 for the mastic in the housing is reduced to a size which is just sufficient to feed the desired quantity of mastic to form the layer T1. The rest of the body of mastic remaining in the recess A1 will bear against the rigid bottom wall 3. By reducing the outlet opening 5, I am able to make the tool easier to operate because a less quantity of mastic will be in direct contact with the wall-board surface 39 and the greater quantity will bear against the rigid bottom wall 3 that is bowed inwardly as shown in Figure 6 so as to keep this wall from contacting with the wall-board surface. The springs D need not be as strong as they would otherwise be were the entire recess A1 open on the bottom that faces the wall-board surface. The tool is easier to handle and requires less force to operate because only a small portion of the mastic bears against the wall-board surface. The greater amount of the operator's force is exerted in moving the tool over the wall-board surface, rather than in pressing the plate B against the mastic in the housing recess A1.

The mastic in the recess A1 acts as a connecting link between the handle F and the bottom plate 3 of the housing and therefore will aid in holding the housing against the wall-board surface. The screws 52 for adjusting the trowelling blade L, see Figure 7, are placed outside of the housing A so that they may be readily adjusted for feeding the troweling bar as wear takes place. The blade I is replaceable and this plus the wear shoes N are the only parts of the tool that need replacing from time to time.

I claim:

1. In a mastic applicator and finishing tool: a tool body movable over a surface and having a leading end and a trailing end; said body being provided with side walls, a bottom wall, and an arcuate trailing end wall that has an upper edge; said bottom wall having an edge facing the leading end of the body and an opening disposed adjacent to the trailing end wall; a mastic-pressing plate having a leading edge fulcrumed at the leading edge of the bottom wall and having a trailing edge disposed adjacent to the inner surface of the arcuate trailing end wall; spring means for yieldingly holding the trailing edge of the fulcrumed plate adjacent to the upper edge of the end wall; said side walls, bottom wall, end wall and fulcrumed plate forming a mastic-receiving recess; a quadrant mounted on the fulcrumed plate and adjacent to the trailing edge thereof and having an arcuate row of recesses therein; a handle pivoted to the fulcrumed plate; said spring means also yieldingly rocking the body and plate about the handle pivot point for urging the bottom wall toward the surface over which the tool is moved; a latch pivotally carried by the handle and having a projection adapted to enter any one of the recesses in the quadrant; a hand grip control pivotally secured to the outer end of the handle and operatively connected to the latch for causing the projection on the latch to enter the desired recess in the quadrant when the hand grip control is moved; whereby the handle will be rigidly connected to the fulcrumed plate to prevent the body from freely swinging about the pivot between the handle and plate; and spring means for urging the latch away from the quadrant when the hand grip control is released.

2. In a mastic applicator and finishing tool: 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 trowelling bar placed at the trailing end of the body and forming an edge for the opening in the bottom wall; said trowelling 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 support between the body and the surface; a third point of support between the body and the surface and being placed near the leading end of the body; the third point of support including a lever pivotally secured intermediate its ends to the body midway between the sides of the tool body; and rollers mounted at the ends of the lever and adapted to ride on the surface; the axis of the pivot for the lever substantially paralleling said surface when the tool is applied thereto.

3. In a mastic applicator and finishing tool: a tool body movable over a surface and having a leading end and a trailing end; said body being provided with side walls, a bottom wall, and an arcuate trailing end wall; said bottom wall having an edge facing the leading end of the body and having an opening disposed adjacent to the trailing end of the body; a mastic-pressing plate having a leading edge fulcrumed at the leading edge of the bottom wall and having a trailing edge disposed adjacent to the inner surface of the arcuate trailing end wall; said side walls, bot-

tom wall, end wall and fulcrumed plate forming a mastic-receiving recess; a handle swingably connected to the plate for swinging the plate into the recess for forcing mastic through the opening in the wall; a flexible guide extending transversely across the body at the trailing end and constituting a trailing edge for the opening in the bottom wall; a flexible trowelling bar carried by the flexible guide; said arcuate trailing end wall having a flexible portion extending across the body and connected to the flexible guide for permitting the flexible guide to flex with respect to the arcuate trailing end wall; and a stop carried by the fulcrumed plate and striking the bottom plate when the fulcrumed plate is moved into the recess to its inner limit of travel for preventing the trailing edge of the fulcrumed plate from reaching the flexible portion of the trailing end wall.

4. The combination as set forth in claim 3; and in which a flexible wiping member extends around the side and trailing edges of the mastic-pressing plate, said stop preventing the portion of the flexible wiping member on the trailing edge of the fulcrumed plate, from striking the flexible portion of the trailing end wall.

5. In a mastic applicator and finishing tool: a tool body movable over a surface and having a leading end and a trailing end; said body having a mastic-receiving recess including an arcuate trailing end wall that has an upper flange with an opening therein; and a rigid bottom wall that has a mastic-dispensing opening disposed near the end wall; means for forcing mastic from the recess out through the opening; a flexible guide extending transversely across the body at the trailing end and constituting a trailing edge for the opening; a flexibile trowelling bar carried by the flexible guide; a pressure rod having its upper end slidable in the flange opening and its lower end bearing on the middle portion of the flexible guide; a coil spring mounted on the rod and having its lower end fixed to the rod; and a manually-slidable wedge active on the upper spring end and bearing against the flange; said wedge being adjustable for varying the compression of the spring; said flexible guide and flexible trowelling bar constituting the trailing edge for the mastic-dispensing opening.

6. The combination as set forth in claim 5: and in which the body has side walls with the flexible guide having its ends extending beyond these side walls; frame members secured to the side walls and having recesses for receiving the ends of the flexible guide; and feed screws carried by the projecting ends of the flexible guide and

bearing against the flexible trowelling bar for advancing this bar as wear takes place.

7. The combination as set forth in claim 6: and in which wear shoes are mounted on the frame members and have portions underlying the frame members and extending under the flexible guide for holding it against accidental removal.

8. In a mastic applicator and finishing tool: a tool body movable over a surface and having a leading end and a trailing end and a mastic-receiving recess; said recess having a bottom wall with an opening disposed near the trailing end and having a pressure cover plate swingable toward the bottom wall for forcing mastic out through the opening; a handle pivoted to the pressure plate for supporting the body and for urging the plate into the recess; spring means connecting the plate with the body for returning the plate to its starting position and for yieldingly rocking the body and plate about the handle pivot point for urging the bottom wall toward the surface over which the tool is moved; a trowelling bar carried by the body near the trailing end and adjacent to the opening for providing a crown effect to the mastic forced out of the opening and applied to the surface; the trowelling bar being arched so that the two outer ends thereof slidably contact with the surface over which the tool is moved, thereby providing two points of support between the tool body and the surface; and a transversely-extending lever pivoted intermediate its ends to the tool body near the leading end; the axis of the pivot for the lever substantially paralleling the surface when the tool is applied thereto; the lever having rollers positioned to ride over the surface; said pivot providing a third point of support for the tool body; whereby a three-point support is maintained between the tool body and the surface so that the tool body can accommodate itself to any irregularities in the surface.

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