

June 21, 1955

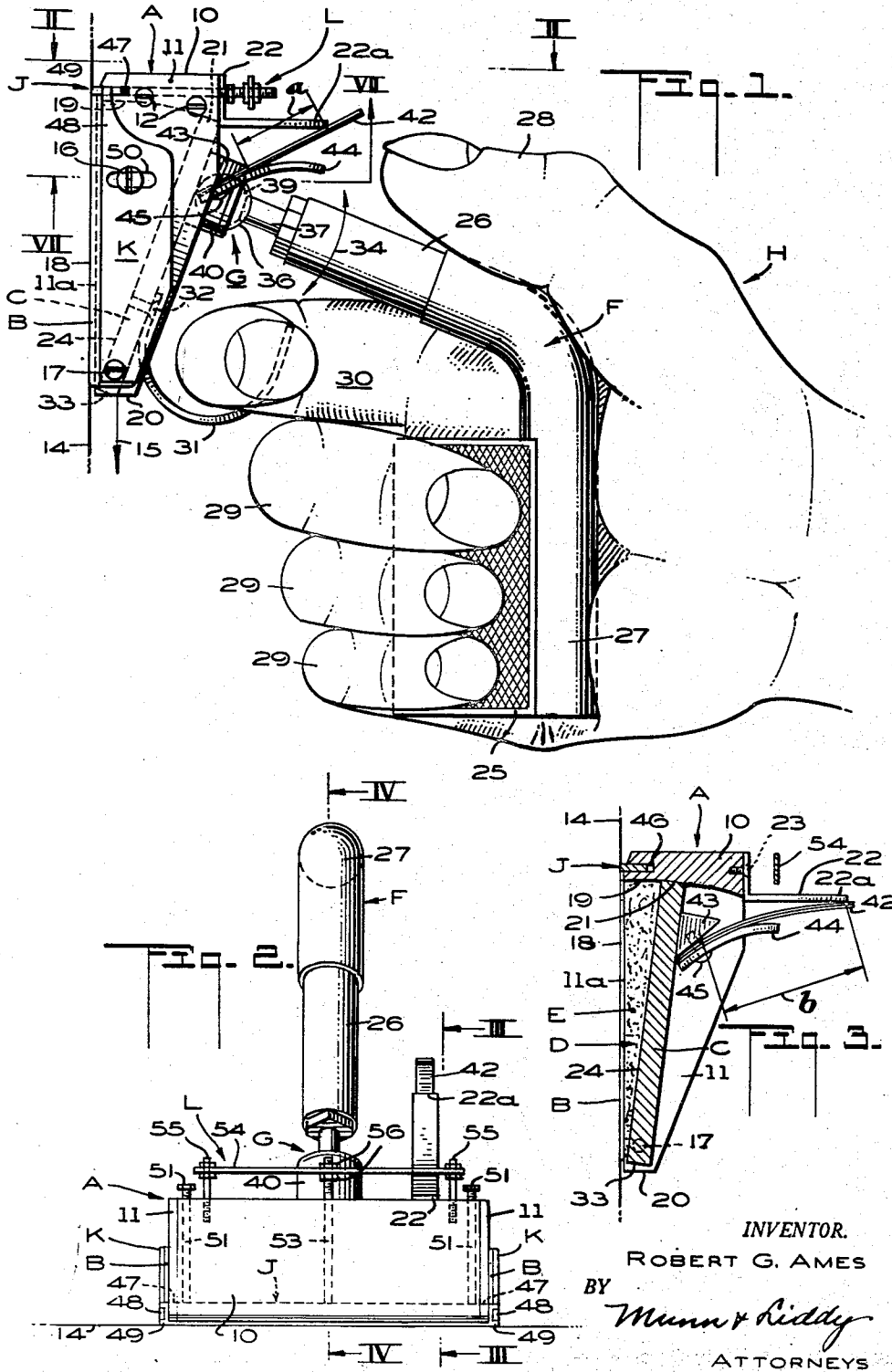
R. G. AMES

2,711,098

MASTIC-APPLYING AND SURFACING-FINISHING TOOLS

Filed April 21, 1952

4 Sheets-Sheet 1



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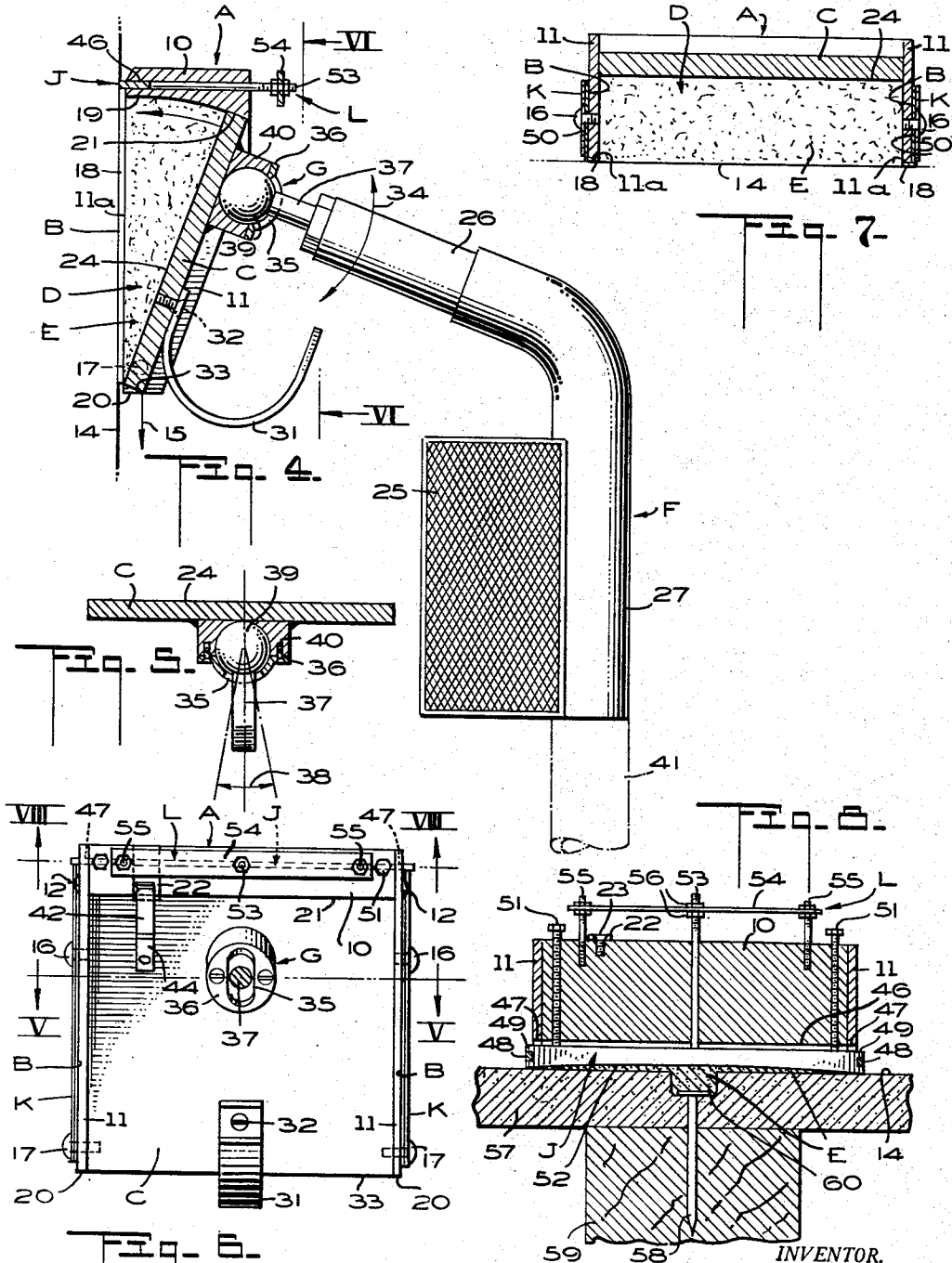
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MASTIC-APPLYING AND SURFACING-FINISHING TOOLS

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4 Sheets-Sheet 2



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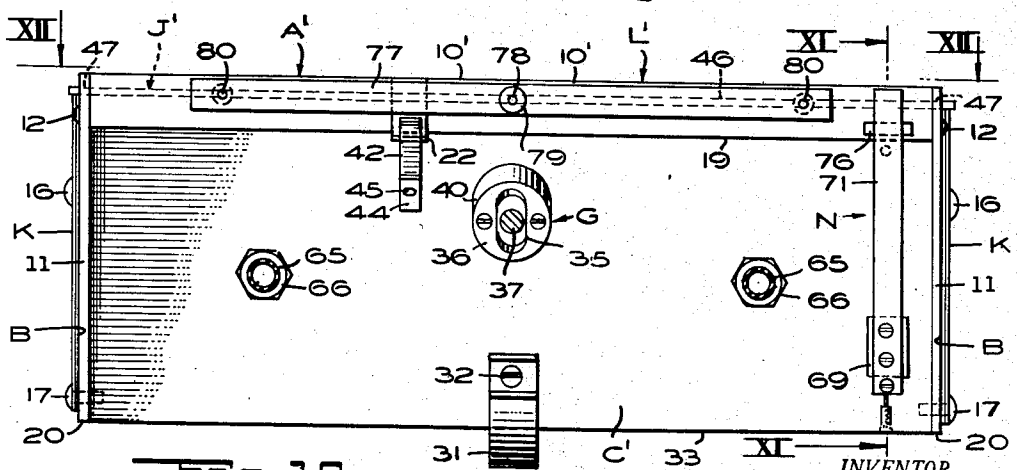
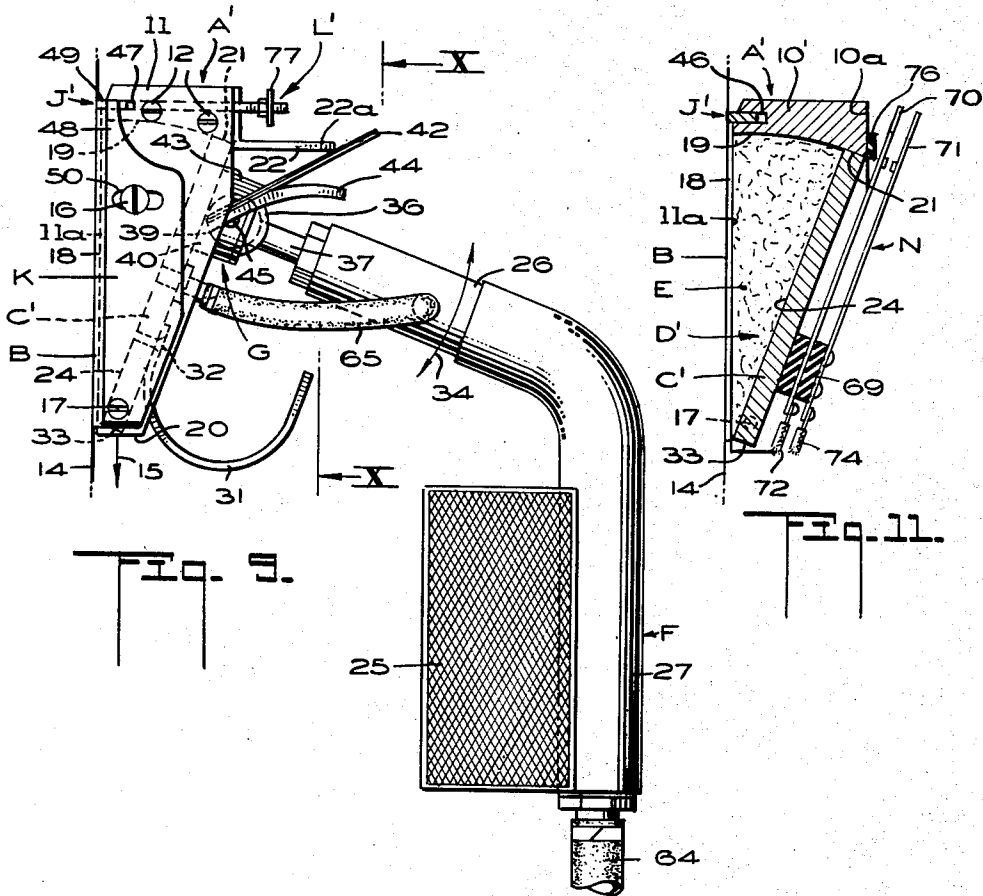
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MASTIC-APPLYING AND SURFACING-FINISHING TOOLS

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4 Sheets-Sheet 3



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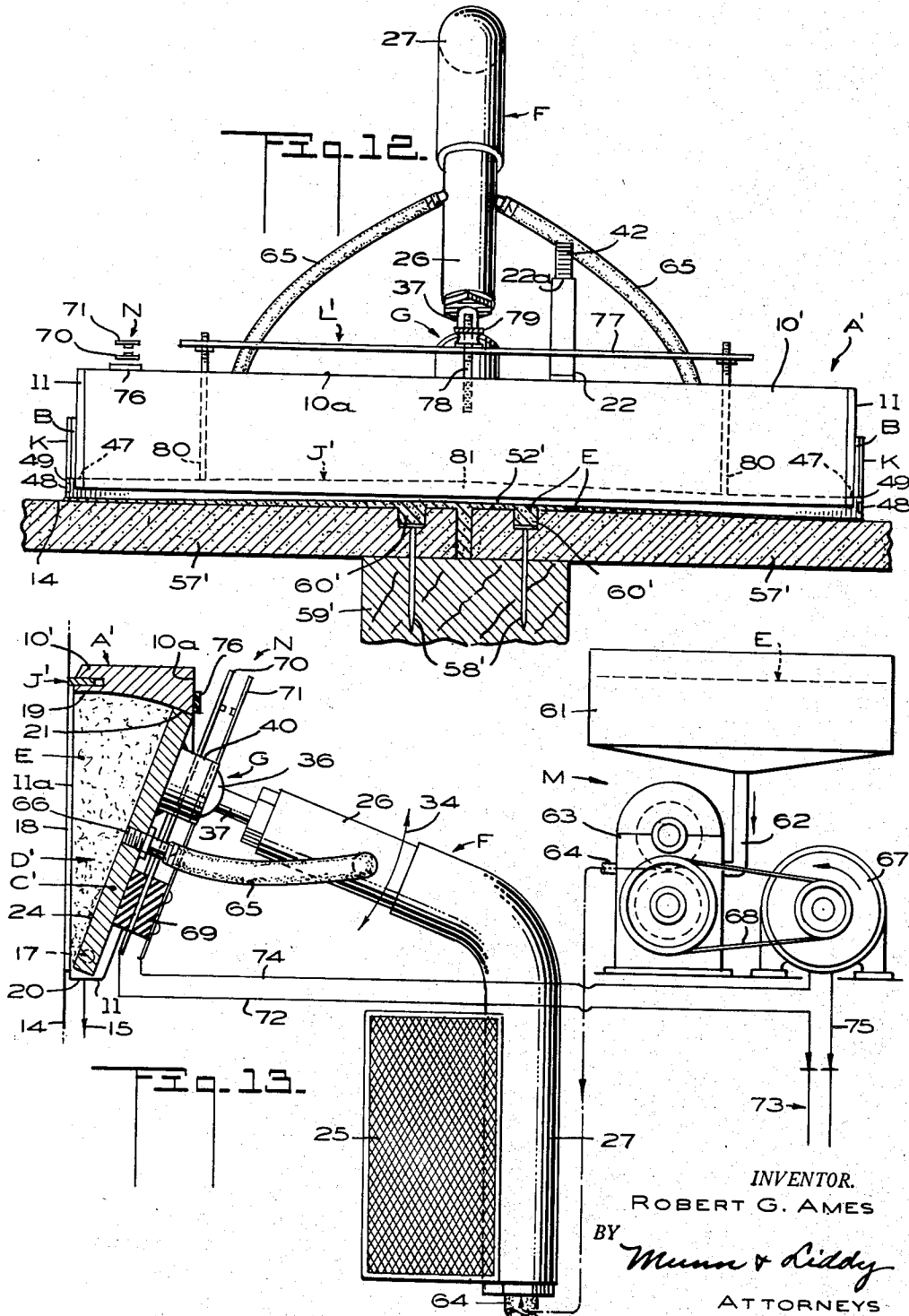
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MASTIC-APPLYING AND SURFACING-FINISHING TOOLS

Filed April 21, 1952

4 Sheets-Sheet 4



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2,711,098

MASTIC-APPLYING AND SURFACING-FINISHING TOOLS

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Application April 21, 1952, Serial No. 283,378

3 Claims. (Cl. 72-130)

The present invention relates to mastic-applying and surface-finishing tools. More particularly it embodies improvements over the finishing tool disclosed in my United States Letters Patent No. 2,571,096, dated October 16, 1951; and, also, includes further improvements with respect to my copending application on a mastic-applying and finishing tool, Serial No. 244,786, which was filed in the United States Patent Office on September 1, 1951, now Patent No. 2,666,323.

In constructing walls and ceilings from plaster boards and the like, it is necessary to fill spaces between adjacent boards with a suitable mastic. Also, it is a common practice to nail such boards to studs, and these nails are set into the boards. The heads on these nails form depressions in the applied boards, which must be filled with mastic to provide a finished surface.

Broadly speaking, I provide a tool body having a recess adapted to receive mastic, which may be placed therein manually or delivered thereto under pressure. This recess opens toward the board-engaging face of the tool to provide an outlet through which the mastic may be ejected as the tool is advanced over the boards to thereby fill spaces or depressions then existing in these boards. In connection with this body, there is provided a troweling bar disposed to smooth the mastic delivered to the boards, forming a desired crown on the troweled mastic.

This invention has reference to the mechanisms for supporting and ejecting the mastic from the tool body, in accordance with the requirements, and to withdraw any excess mastic that may have been delivered to the boards.

More specifically, this tool body has a swingably-mounted plate arranged in the mastic-receiving recess thereof. After the body has been moved into close contact with the boards to which the mastic is to be applied, this plate is moved so as to eject the proper amount of mastic into spaces or depressions defined in the boards, all excess mastic being troweled off as the tool is advanced.

As a still further object, it is proposed to attach a suitable handle to the swingable plate for moving the latter to eject mastic from the tool body, while at the same time controlling the pressure thus applied to the plate so that the body will be held firmly up against the surfaces of the wall boards.

Another object is to provide a tool of the character described, which may be conveniently held in one hand of an operator and readily manipulated while applying mastic to wall boards.

Other objects and advantages will appear as the specification continues. The novel features will be set forth in the appended claims.

DRAWINGS

For a better understanding of my invention, reference should be had to the accompanying drawings, forming part of this application, in which:

Figure 1 is a side elevational view of one form of the

2

tool, disclosing it being supported by one hand of an operator and used for applying mastic to a vertical surface;

Figure 2 is an elevational view looking at the trailing end of this same tool, as seen from the plane II—II of Figure 1;

Figure 3 is a longitudinal sectional view taken along the line III—III of Figure 2, illustrating the swingable plate partially depressed for ejecting mastic from the tool body;

Figure 4 is a central longitudinal sectional view taken along the plane IV—IV of Figure 2, disclosing the swingable plate in retracted position;

Figure 5 is a vertical view, partly in section, taken along the line V—V of Figure 6, omitting the tool body, and showing the limits of lateral movement of a ball-joint relative to the swingable plate;

Figure 6 is a sectional view taken along the plane VI—VI of Figure 4, looking at the back of the tool;

Figure 7 is a transverse sectional view taken along the plane VII—VII of Figure 1;

Figure 8 is a vertical sectional view taken along the line VIII—VIII of Figure 6, disclosing the mechanism for resisting upward curving of the troweling bar, and further showing a depression being filled with mastic;

Figure 9 is a side elevational view of a larger tool, in which mastic is fed thereto under pressure;

Figure 10 is a sectional view taken along the plane X—X of Figure 9, looking at the back of this larger tool;

Figure 11 is a sectional view illustrating a motor-controlling switch employed in the larger tool, this view being taken along the longitudinal plane XI—XI of Figure 10;

Figure 12 is a view taken along the plane XII—XII of Figure 10, looking at the trailing end of the larger tool, and illustrating mastic being applied to a joint between wall boards and in depressions in the latter; and

Figure 13 is a diagrammatic view showing a motor and pump for delivering mastic to the larger tool, and disclosing a wiring diagram.

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 annexed claims without departing from the spirit thereof.

DETAILED DESCRIPTION

First embodiment

Referring now to the first form of my invention, as shown in Figures 1 to 8, inclusive, I have shown a tool body indicated generally at A. This body includes an elongated trailing wall 10 having a pair of parallel upright plates 11 secured to opposing sides thereof by screws 12, or other suitable fastening means. As clearly shown in Figure 6, the wall 10 and plates 11 form the body A into a channel-shaped structure, which may be moved toward a wall surface 14 in the manner suggested in Figures 1-4 and 7 of the drawings, and advanced thereover as indicated by the arrows 15 (see Figures 1 and 4). Broadly speaking, the side plates 11 and wear shoes B constitute runners, which are adapted to slide over a wall surface.

In order to prevent the bottom edges 11a of the side plates 11 from wearing as the tool is advanced over the wall surface 14, I make use of a pair of wear shoes B. These shoes are secured by screws 16 and 17 to outermost faces of the side plates. Flanges 18 are provided on the bottom of the shoes, and project inwardly under the edges 11a of the side plates, as clearly shown in Figure 7, to preclude these edges from contacting directly with the surface 14 of wall board or the like. These wear shoes may be made from hardened material so as

to withstand considerable use, and may be replaced from time to time.

It will be noted that a rectangular-shaped mastic-moving plate C is mounted in the channel defined by the trailing wall 10 and the parallel side plates 11. This plate C has a width coextensive with the distance between the innermost faces of the side plates and has a sliding fit with the latter, and a length to extend from an inner curved face 19 of the trailing wall 10 to leading edges 20 of the side plates.

Furthermore, the plate C is supported for swinging movement on the screws 17, the latter being arranged near the leading edges 20 provided by side plates 11. The curved face 19, previously mentioned, defines an arc, whose center coincides with the aligned axis of the opposing screws 17. Thus, when the plate C is moved toward or away from the wall surface 14 during use of the tool, a rear edge 21 of this plate will maintain a sliding contact with the curved face 19 at all times.

The trailing wall 10, side plates 11, and the plate C coact to define a mastic-receiving recess D, which has an outlet mouth opening toward the front of the tool so that mastic E disposed in this recess may be ejected therefrom against the wall surface 14 along which the tool is advanced. When the plate C is fully retracted, as in Figures 1 and 4, it extends upwardly and rearwardly from the pivot screws 17 in angular relation with respect to the wall-engaging flanges 18 of the wear shoes B. At this time, the rear edge 21 of the plate C abuts a limit stop 22, which is anchored by a screw 23 to the back of the trailing wall 10 (see Figures 3 and 8). This stop projects from the wall 10 so as to overlie the curved face 19 of the plate C, and prevents the latter from accidentally swinging rearwardly out of the recess D of the tool.

As shown in Figure 3, the plate C has been partially depressed, and thus part of the mastic E has been forced thereupon upon the wall surface 14. When this plate is fully depressed, its forward face 24 will be disposed substantially flush with the wear shoe flanges 18, resulting in ejecting practically all of the mastic from the recess.

For the purposes of supporting the tool and actuating the plate C, I have provided a handle, designated generally at F, which is fastened to this plate by a ball-joint G. This handle may be provided with a grip 25 so that it may be grasped in one hand H of an operator, as suggested in Figure 1. It will be observed that the inner section 26 of the handle, upon which the ball-joint G is mounted, extends at an angle relative to the outer section 27 to which the grip 25 is attached.

The entire handle F is proportioned so that it may be grasped firmly by the operator, and the tool body A moved up against the wall surface 14, followed by advancement of the tool in the direction of the arrows 15, all movements being under control of the operator.

As shown in Figure 1, the operator's thumb 28 may be placed on the inner section 26 of the handle, the fingers 29 wrapped around the grip 25, and the index finger 30 (or other digit) extended to engage with a curved bracket 31 projecting from the plate C. This bracket is secured by a screw 32 to the rear face of the plate C at a point ahead the joint G and adjacent to the leading edge 33 of the plate C.

Quite obviously, the operator may press on the handle F so as to depress the swingable plate C, and thereby eject mastic E from the recess D. Also, the operator may retract the plate C to withdraw excess mastic from the wall surface 14 upon which the mastic has been applied. The operator has complete control over the movement of the tool body A toward the wall surface, advancement of the tool over this surface, and depressing or retracting of the swingable plate, even though only one hand is employed for these combined steps.

The ball-joint G has been constructed in such a manner as to allow the handle F to be freely swung up and down with respect to the plate C, as suggested by the

arrows 34 in Figures 1 and 4. This is accomplished by providing an elongated slot 35 in a cap 36 through which a shank 37 on the handle section 26 projects. The length of this slot extends longitudinally in the direction of the trailing and leading edges 21 and 33, respectively, of the plate C (see Figure 6). However, the width of this slot permits only limited lateral swinging of the shank 37, as suggested by the arrow 38 in Figure 5. The ball 39 of this joint is confined in a socket member 40 by the cap 36, and this member in turn is fastened to the plate C by any suitable means, such as by welding.

It will be appreciated, of course, that an extension 41 (see Figure 4) may be provided on the handle F, if desired. This will allow the operator to reach upper portions of a wall or apply the tool A upon a ceiling, in the manner shown in my Patent No. 2,571,096 and the co-pending case, Ser. No. 244,786.

As an important structural feature of my improved tool, a leaf spring 42 is secured by a lug 43, a curved guard 44 and screw 45 to the back of the plate C (see Figure 3). This spring projects rearwardly from the plate C, and abuts against the outer end 22a of the limit stop 22 when the plate C is fully retracted, as in Figure 1. As shown in this view, the spring 42 extends at an angle relative to the plate C, and yieldingly urges the latter into retracted position whenever pressure is relaxed on the handle F. The purpose of the guard 44 is to bear against and support the spring, preventing the latter from breaking as the plate C approaches the bottom of its stroke.

Comparison of Figures 1 and 3 will disclose the fact that the leaf spring 42 is stiffer, or stronger, during initial depressing of the plate C than it will be in the latter part of the movement of the plate C toward the wall surface 14. This may be readily understood by observing the lever *a* existing along the length of the spring from the lug 43 to the point of contact between the spring and the outer end 22a of the stop 22 in Figure 1, and then noting a relatively longer lever *b* along the length of the spring in Figure 3.

Accordingly, as pressure is applied initially to the handle F, the greater part of this pressure will be utilized in holding the tool body A up against the wall surface 14, and precluding the mastic E from escaping from underneath the tool body. However, as further pressure is applied to the handle, the spring 42 will become progressively weaker and a greater portion of this pressure will be exerted upon the mastic.

After the tool has been advanced in the direction of the arrow 15 for a predetermined distance, it may be raised away from the wall surface 14. As the handle F is retracted, the plate C will return therewith, and this will draw any excess mastic back into the recess D from the wall surface. This is aided by the spring 42, and is accomplished before the wear shoe flanges 18 clear the surface of the walls so as to preclude smearing of the mastic.

Any suitable means may be employed for placing the mastic E in the recess D. For instance, the open face of the tool onto which the recess opens may be scooped into a supply of mastic or the latter placed therein by using a trowel. Furthermore, mastic may be delivered to this recess under pressure, in the manner to be set forth in detail with reference to the embodiment of the invention shown in Figures 9 to 13, inclusive. As a further method, a quantity of the mastic may be placed on the wall board, and then the tool employed for containing and spreading this mastic.

At the trailing end of the tool body A I provide an elongated troweling bar indicated generally at J. This bar is accommodated in a groove 46 extending transversely of the trailing wall 10 in the forward surface of the latter. Furthermore, the bottom edges 11a of the side plates 11 are fashioned with notches 47 through

which the end section of this bar projects (see Figures 1 and 2).

For the purpose of adjustably anchoring the troweling bar to the side plates 11, the latter are provided with bar-retaining plates K of the shape shown in Figures 1 and 7. These plates are butted flatwise against the outermost surface of the wear shoes B, and have fingers 48 adapted for fitting into bifurcated ends 49 of the troweling bar (see Figures 1, 2 and 8).

In Figures 1 and 6, I show the screws 16 and 17 as passing through the bar-retaining plates K and into the side plates 11. As clearly shown in Figures 1 and 7, the screws 16 are inserted through slots 50 formed in the plates K. The screws 16—17 may be loosened so that the plates K can be tilted for the purpose of projecting the troweling bar J to a greater or less extent relative to the trailing wall 10. Thus, this bar may be adjusted to compensate for wear thereon. Upon tightening the screws 16—17, the ends of the troweling bar are held in position relative to the side plates 11, while the intermediate portion of the bar may be flexed upwardly.

As a further means of regulating the troweling bar from time to time, I make use of a pair of adjusting screws 51, which are threaded forwardly through the trailing wall 10 so as to bear against end sections of this bar (see Figures 2, 6 and 8). These screws are adapted to be turned so as to project the troweling bar as the latter wears down.

The troweling bar J is semi-flexible and may be flexed under pressure so as to produce a crown 52 on the troweled mastic (see Figure 8). However, in order to reduce the amount of curvature on this crown, I provide a bar-pressure-regulator L. The latter included a slidable pressure-adjusting pin 53 arranged to apply forward force to the bar J at the center of the latter to resist rearward curving of intermediate portion of this troweling bar (see Figures 2, 4, 6 and 8).

For varying the amount of forward pressure exerted upon the pin 53, and thereby control the flexing of the troweling bar, a leaf spring 54 is mounted to extend lengthwise of the bar J, and is positioned rearwardly beyond the trailing wall 10. Posts 55 extend from this trailing wall and adjustably support the ends of the spring 54. Also, nuts 56 are mounted on the pin 53 to adjust the latter relative to the spring 54 (see Figures 2 and 8).

While I do not wish to be limited with respect to the many uses to which this tool may be placed, reference to Figure 8 will disclose one use by way of example. As shown therein, a wall board 57 has been secured by a nail 58 to a wall stud 59. The head of this nail has been set below the board surface 14, which has resulted in forming a depression 60 in the board. However, advancement of the tool has filled this depression with mastic E. At the same time, the troweling bar J has provided a crowned surface on this mastic, which feathers laterally into the surface 14 of the wall board without interruption.

SUMMARY OF OPERATION

First embodiment

Assuming that the recess D of the tool body A has been filled with mastic E, as disclosed in Figure 4, an operator grasps the handle F in one hand H (see Figure 1), and then moves the open face of the tool against the wall surface 14 upon which the mastic is to be applied. This will bring the flanges 18 of the wear shoes B and the troweling bar J firmly against the surface of the wall board.

As the operator continues to apply forward pressure to the handle, that is, toward the left in Figure 1, the leaf spring 42 will commence to yield and the plate C will swing toward the wall surface 14, forcing mastic E against the latter. However, during the forward

movement of the plate C, the shoe flanges 18 and troweling bar will be maintained in contact with the wall board.

Now the tool is advanced over the wall board, as suggested by the arrows 15 in Figures 1 and 4. This will result in forming a crown 52 on the troweled mastic and at the same time filling any depressions 60 with mastic, as in Figure 8. The curvature of the crown may be controlled by adjusting the leaf spring 54 of the bar-pressure-regulator L on the pin 53 and posts 55. The troweled mastic will be feathered laterally, merging into the wall board surface.

As further pressure is exerted upon the plate C by the operator pressing against the handle F, thereby moving the front face 24 of this plate toward the wall board surface 14, the effect of the leaf spring 42 will lessen, bringing greater pressure upon the mastic E and less upon the tool body A. However, the flanges 18 and the troweling bar J are held flush up against the wall board surface, preventing the mastic from escaping under the side plates 11.

From time to time the bar-retaining plates K and the screws 51 may be adjusted so as to project the troweling bar J from the trailing wall 10 to compensate for wear on this bar. It is desired that the troweling bar be made of sufficiently resilient material that it will yield prior to the leaf spring 42.

When reaching the end of a stroke, pressure may be relaxed upon the handle F. The spring 42 will cause the plate C to retract, thereby removing any excess mastic from the surface of the wall board.

The tool may be moved over a row of depressions 60, which have been formed by nails 58, and all of these depressions filled with mastic, as shown in Figure 8. Of course, other spaces in a wall board may be filled in a similar manner.

Second embodiment

In Figures 9 to 13, inclusive, I have shown a modified form of my mastic-applying and surface-finishing tool. This embodiment differs from the first principally by the addition of a mastic-feeding mechanism M (see Figure 13), which is actuated by a motor-controlling switch N (see Figures 10—12) so as to feed mastic automatically to the tool, and by the substitution of a different type of troweling bar-pressure regulator L'. Also, in the second embodiment, the tool body A', the swingable plate C' and troweling bar J' are somewhat wider than in the form previously described in connection with Figures 1—8.

The side plates 11, wear shoes B, handle F, bar-retaining plates K and spring 42 are identical in both tools. Accordingly, like numerals have been employed to designate corresponding parts in the two embodiments of the invention.

As shown in Figure 13, a hopper 61 is provided for holding a supply of the mastic E. The latter is conveyed from the hopper through a conduit 62 to the intake of a pump 63. A flexible hose 64 connects the outlet of this pump with the interior of the handle F. The sections 26—27 defined by this handle are hollow so that mastic may be conveyed therethrough to branch hoses 65. The latter lead to fittings 66, which are threaded into the plate C' so as to discharge mastic under pressure to the enlarged recess D' of the modified tool.

It will be noted that the pump 63 is operated from an electric motor 67 by a belt and pulley drive 68. Whenever this motor is rotating, mastic E will be withdrawn by the pump 63 from the hopper 61, and forced through the hose 64, handle sections 27—26, branch hoses 65 and fittings 66 to the mastic-receiving recess D'.

For the purpose of operating the motor 67 so that mastic will be delivered automatically to the recess D' at the proper pressure, the switch N is mounted on an insulated block 69 carried by the back of the swingable plate C'. Generally speaking, the switch is opened when the plate C' is retracted, as in Figures 11 and 13. How-

ever, when the plate C' is depressed for ejecting mastic from the recess D', the switch is closed so as to set the motor in motion and thereby replenish the supply of mastic in this recess.

In its structural features, the switch N includes a pair of resilient terminal strips 70 and 71, which are separated one from the other when the switch N is opened. Figure 13 shows the strip 70 as being connected by a wire 72 to one side of a source of electrical current 73, while the strip 71 has a wire 74 leading therefrom to the motor 67. Another wire 75 runs from this motor to the other side of the current source 73, thus completing the circuit. Obviously, the switch N must be closed in order to set the motor in operation and thereby deliver mastic under pressure to the recess D' of the modified tool.

Referring to Figures 10 to 13, inclusive, it will be seen that an insulated block 76 is mounted on the rear face 10a of the trailing wall 10'. The free ends of the terminal strips 70—71 overlie and normally are spaced from the block 76 when the swingable plate C' is fully retracted, as in Figures 11 and 13. However, during initial depressing of the plate C' to eject mastic from the recess D', the block 76 will cause the strips 70—71 to move into contact with one another, and hold the switch N closed during further depressing of the plate C'. Accordingly, mastic will be delivered to the recess D' until such time as the plate C' has been retracted sufficiently to allow the terminal strips 70—71 to separate and open the electrical circuit.

With respect to the bar-pressure-regulator L' for controlling the flexing of the troweling bar J', I make use of a resilient lever 77, which is arranged to extend substantially parallel to the troweling bar J' and the rear face 10a of the trailing wall 10'. This lever is slidably mounted on a centrally-disposed post 78, and may be adjusted toward or away from the face 10a by a nut 79 threaded onto this post (see Figure 12).

A pair of pressure-adjusting pins 80 are interposed between the lever 77 and the troweling bar J' at separated points along the length of the latter, thus resisting rearward curving of the troweling bar. It will be noted from Figure 12 that these pins are slidably mounted in the trailing wall 10', with the innermost or lower ends of the pins abutting the outer sections of the troweling bar.

When this tool is advanced over a wall surface 14, the intermediate portion 81 of the troweling bar will yield, causing a crown 52' to be fashioned on the mastic E, as in Figure 12. For the purpose of illustration, this mastic has been shown as filling and covering a joint provided between two adjacent wall boards 57'. Also, the mastic disclosed in Figure 12 fills depressions 60', which have been formed by nails 58' used for securing these wall boards to a stud 59'. The curvature of the crown 52' is such that the applied mastic feathers laterally into the surface 14 of the boards. This curvature may be controlled by regulating the adjusting nut 79 to meet the requirements.

Summary of operation—second embodiment

In applying mastic E to the surface 14 of wall boards 57', for instance, the operator grasps the handle F in the same manner as shown in Figure 1, and moves the flanges 18 of the wear shoes B up against the wall surface. As the handle F is pushed toward the wall, the leaf spring 42 will yield, allowing the swingable plate C' to be depressed and thereby forcing mastic from the tool recess D' upon the wall boards. During the initial depressing of this plate, the switch N is closed automatically, resulting in starting the motor 67 and thereafter pumping additional mastic E to the recess D' to replenish and maintain the proper supply of mastic therein. When the plate C' is retracted, the switch N will open, cutting off further delivery of mastic to the tool at this time.

When this tool is advanced over the joint formed by the adjacent wall boards 57', for instance, the mastic will

be delivered to fill the space between these boards and any depressions 60' in the board surfaces, and at the same time provide a crowned surface 52' on the delivered mastic. The pressure-regulator L' may be adjusted to impart the desired curvature to the troweled mastic.

Of course, the length of the handle section 27 may be extended, if desired, to permit an operator to reach high points on walls and ceilings. Quite obviously, the mastic-feeding mechanism M, and the tubular handle F, together with its branch hoses 65 and fittings 66, could be applied to the tool shown in Figures 1—8. In this event, an end elevation of such a tool would be exactly the same as that shown in Figure 9 of the drawings.

I claim:

1. In a mastic-applying and surface-finishing tool of the character described: a tool body movable over a surface and having a leading end and a trailing end; this body being provided with a recess adapted for receiving mastic; the recess having an outlet mouth opening toward the surface when the tool body is placed against the latter; a movable plate disposed in this recess, and having a leading edge hinged to the leading end of the body and being depressible to eject mastic against the surface as the tool body is advanced thereover; a limit stop secured to the tool body to extend therefrom, and having an outer end; and a leaf spring having an inner end connected to the movable plate to move therewith and having an outer section bearing against the outer end of the limit stop; the portion of the leaf spring extending from the inner connected end to the part that contacts with the outer end of the stop, constituting a lever for returning the plate into a retracted position away from the outlet mouth when depressing pressure on the plate is relaxed; the length of the lever existing along the leaf spring from the inner end of the spring to that portion that contacts with the stop, increasing as the plate is depressed, thereby rendering the spring progressively weaker.

2. In a mastic-applying and finishing tool: a tool body movable over a surface and provided with a recess for receiving mastic; the recess having an outlet mouth opening toward the surface when the tool body is placed against the latter; a swingable plate disposed in the recess and having leading and trailing edges; means pivotally mounting the leading portion of the plate to the tool body for swinging of the plate toward the surface to thereby eject mastic below the plate and through the outlet mouth and against the surface as the tool body is advanced thereover; the plate having a rear face; a handle swingably connected to the rear face of the plate to extend rearwardly therefrom; the handle being disposed entirely to the rear of the tool body and spaced from the surface for unobstructed grasping by an operator for depressing the plate as the tool body is advanced over the surface; and yielding means connected only between the plate and the tool body for returning the plate to retracted position away from the outlet mouth when the depressing pressure on the plate is relaxed; the swingable connection between the handle and plate permitting the plate to swing in the body without the handle swinging with the plate as a rigid unit.

3. In a mastic-applying and surface-finishing tool: a tool body movable over a surface and provided with a recess for receiving mastic; the recess having an outlet mouth opening toward the surface when the tool body is placed against the latter; a swingably mounted plate disposed in the recess and being depressible to eject mastic against the surface as the tool body is advanced thereover; a handle dimensioned to be grasped in one hand by an operator; the plate having a rear face; said handle being connected to the rear face of the plate to extend rearwardly therefrom; the handle being disposed entirely to the rear of the tool body and spaced from the surface for unobstructed grasping by an operator for depressing the plate as the tool body is advanced over the surface; yielding means connected only between the plate and the

tool body for returning the plate to retracted position away from the outlet mouth when the depressing pressure on the plate is relaxed; and a curved bracket fixed to the plate to move therewith and positioned for engagement by an extended digit of the operator's same hand; the swingable connection between the handle and plate permitting the plate to swing in the body without the handle swinging with the plate as a rigid unit.

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