

July 1, 1941.

J. M. CHRISTMAN

2,247,603

PUTTY APPLICATOR

Filed Nov. 4, 1938

3 Sheets-Sheet 1

FIG. 1.

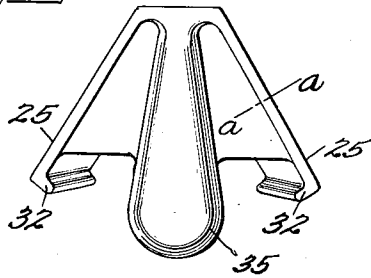


FIG. 2.

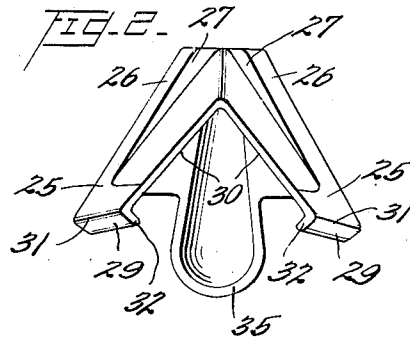


FIG. 3.

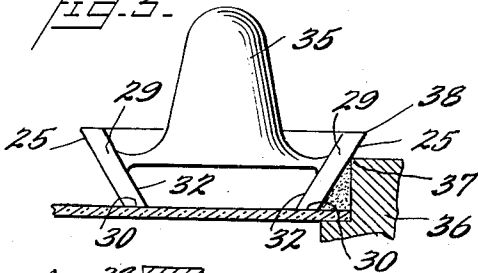


FIG. 4.

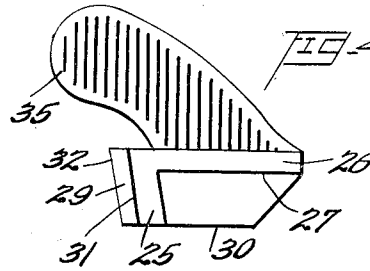


FIG. 3a.

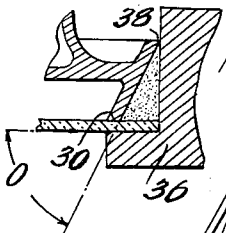


FIG. 5.

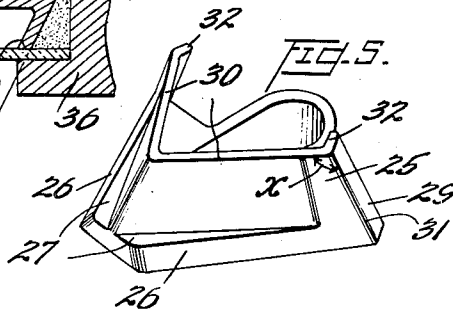


FIG. 6.

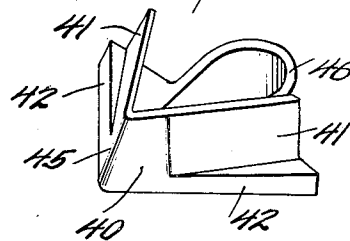


FIG. 8.

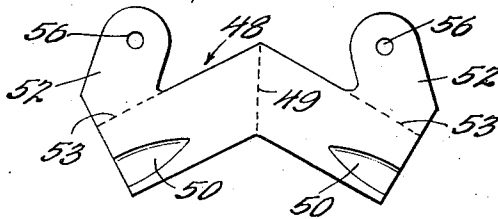
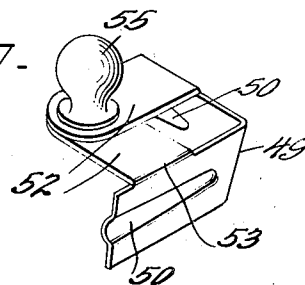


FIG. 7.



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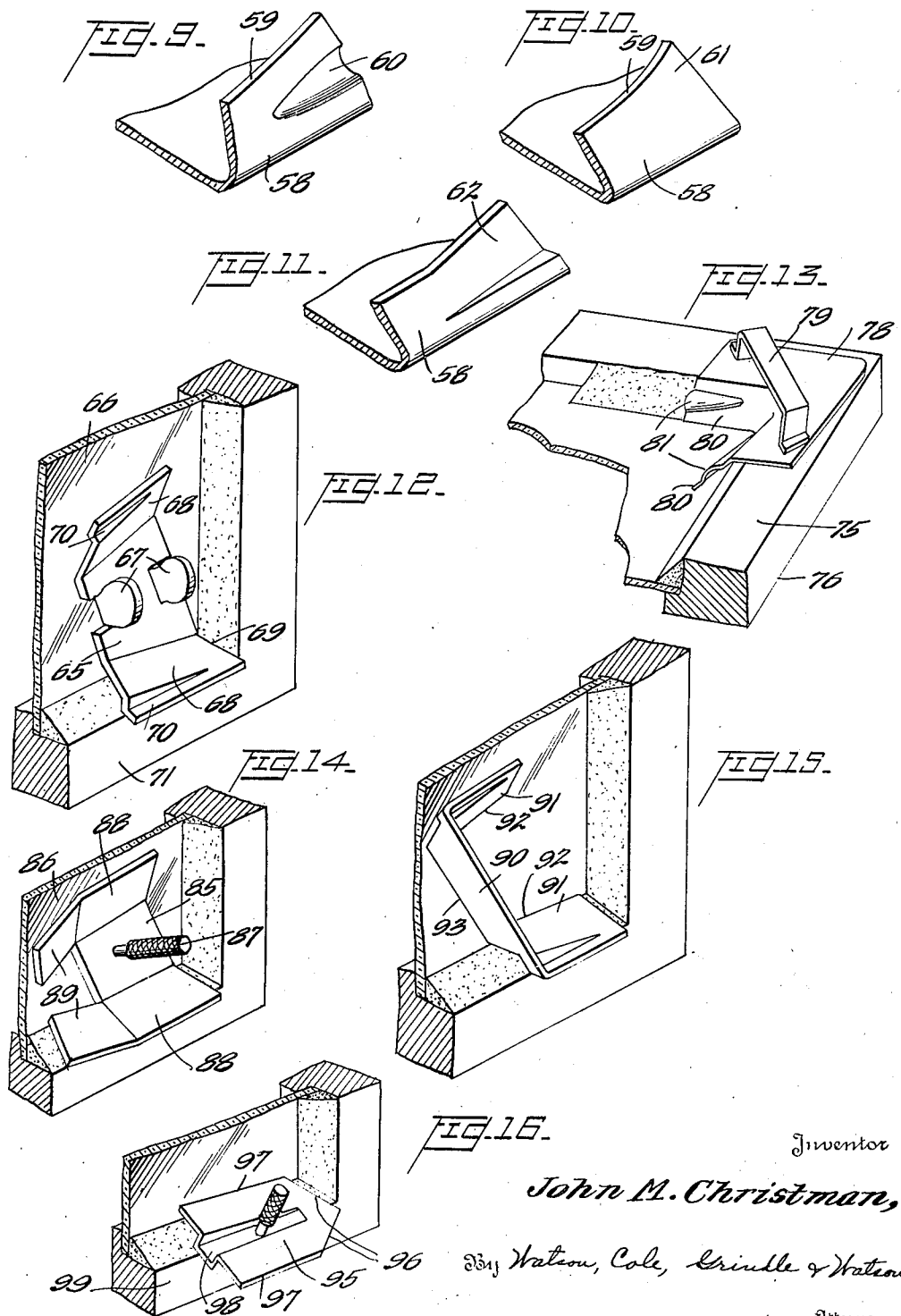
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3 Sheets-Sheet 2



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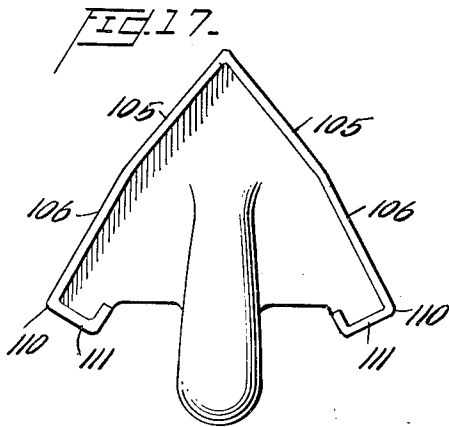
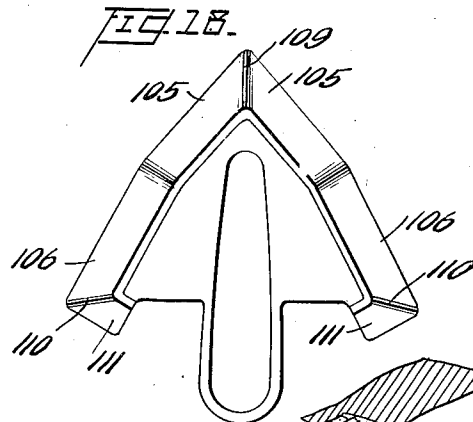
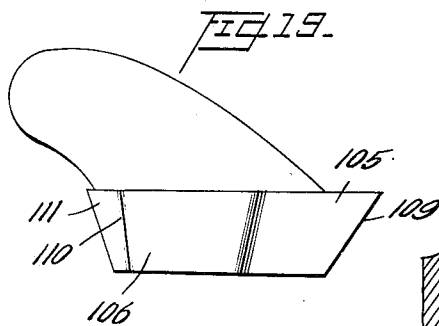
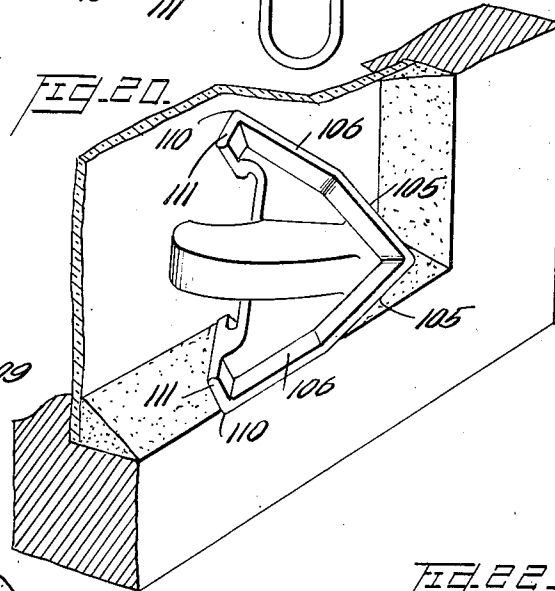
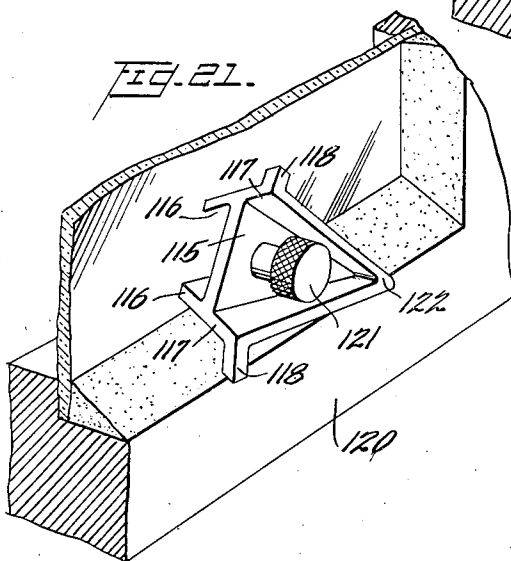
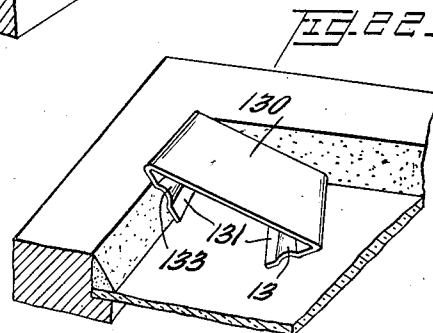
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PUTTY APPLICATOR

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3 Sheets-Sheet 3



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2,247,603

PUTTY APPLICATOR

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Application November 4, 1938, Serial No. 238,876

13 Claims. (Cl. 18—3.5)

This invention relates to improvements in devices for applying putty to window frames and the like, and has for its object the provision of a tool by means of which a uniformly dimensioned and smooth strip of putty may be readily applied by persons having little or no skill in this field.

In the application of putty to a window frame by the use of the conventional flat putty knife, it is essential that the knife should be held so as to engage both the pane and the adjacent portion of the sash, and the knife must be tilted at an angle to the plane of the applied putty strip so that the leading edge of the knife is spaced from the pane or the sash, or from both, the knife thus forming a tapered throat which compresses the putty into position, only the trailing edge of the knife serving to smooth the surface of the putty. It is obvious that when the knife is so held, there is no means whereby the angle of inclination of the putty surface to the pane may be accurately determined, and the degree of uniformity of inclination is therefore dependent wholly upon the skill with which the knife is used. Again, when the knife is held in this manner so as to properly compress the putty beneath the rearward edge of the same, it is exceedingly difficult to maintain line contact between the outer edge of the knife and the pane, and as the putty is compressed it is therefore often forced outwardly from under the knife onto the pane, so that an isolated and undesired strip of putty is left on the pane. This strip must then be carefully scraped off without disturbing the desired applied strip adjacent the sash, which is in itself a delicate operation.

In order to avoid the difficulties incident to the application of putty by the conventional knife in the hands of an unskilled person, and to substantially improve the appearance and efficiency of application of putty by those skilled in the art, it is proposed to provide a tool which is formed with means defining a positioning surface for engagement with a surface of the window, either the pane or the sash, whereby uniformity of the angle between the surface of the applied putty strip to the pane is assured. The tool is further provided with a surface adjacent the leading end thereof, i. e. that end which is foremost when the tool is moved in the desired direction, which is so formed as to afford a throat by means of which the putty may be compressed, the following end of the tool being formed with a surface of appreciable extent, preferably a plane surface, for smoothing the surface of the compressed putty. The tool is further preferably so formed

as to engage both the pane and the adjacent portion of the sash at the outer side of the applied putty strip over the entire length of the tool, so that as the throat of the tool moves over the putty strip, previously roughly positioned, a sufficient quantity of the putty will be crowded beneath the smoothing surface, and the undesired line of putty, resulting from the ordinary use of the conventional putty knife, will be eliminated. Surplus putty tends to adhere to the leading end of the tool, thereby avoiding unnecessary waste.

I have found that it is essential to proper operation of a tool of this character that the throat, or the portion of the tool which compresses the putty beneath the smoothing surface, should be of substantial length in the direction of movement of the tool in order that it may function properly, for the same reason that the ordinary flat putty knife must be of substantial width in order that it may be effectively employed. In general the surface which effects crowding of the putty beneath the smoothing surface should be of a length, measured in the direction of movement of the tool, at least equal to the width of the face of the finished putty strip, and I prefer to so construct the tool that the major portion thereof will function as a compressing throat, a minor portion only of the length of the tool, measured in the direction of movement thereof, serving to smooth the surface of the compressed putty. With such an arrangement I am able to ensure that the putty will be tightly packed and pockets avoided, so that the life of the putty and the strength of the strip in resisting displacement of the pane is increased to the maximum.

The terms "relieved portion" or "relieved surface," or the terms "throat" or "throat portion," will be employed hereinafter in referring to the above described portion of the putty engaging surface which flares or diverges outwardly with respect to the line of intersection of the window pane and the sash, in the direction of movement of the tool, and which defines with the sash a restricted passage tapering toward that portion of the tool which serves to smooth the compressed putty. It will be appreciated that the putty is gradually compressed in this tapered passage as the tool is displaced along the sash.

It is a further object of the invention to provide a putty applying tool having a surface for engagement with the window pane, whereby the angular relation between the putty surface and the pane can be definitely established, in which the smoothing surface of the tool terminates in

an edge inclined at the same angle to the pane as is the line formed by the juncture of two perpendicularly disposed putty strips at the corner of the window frame, whereby this line of juncture can be sharply and accurately defined, or a neat radius can be formed in the corner of the putty by slightly rounding the nose on the tool.

It is a feature of the invention that the device is constructed so as to be readily grasped in the hand, for example by the provision of a handle, and when so grasped is not readily tilted or inclined from its proper position. Thus in a device constructed to afford a positioning surface for engagement with the pane, and provided with a handle whereby it may be moved along the sash, the handle is so disposed with respect to the positioning surface, and is sufficiently close thereto, to minimize the tendency of the tool to tilt when pressure is applied to the same to move it in the desired direction.

A further object of the invention is the provision of a tool of the character described which may be simply and cheaply made by a variety of methods and from widely varying materials.

Further objects and features of the invention will be apparent from the following description taken in connection with the accompanying drawings, in which:

Figure 1 is a plan view of a preferred form of device embodying the principles of the invention;

Figure 2 is a bottom plan view of the device shown in Figure 1;

Figure 3 is an end elevation of the same device;

Figure 3a is a sectional view on line a-a of Figure 1, corresponding to a portion of Figure 3 and illustrating the use of the tool with a slightly different sash construction;

Figure 4 is a side elevational view and Figure 5 is a perspective view of the device shown in Figures 1 to 4;

Figure 6 is an inverted perspective view of a slightly modified form of the device;

Figure 7 is a perspective view of a further modification;

Figure 8 shows a blank, partially formed, from which the device shown in Figure 7 can be produced;

Figures 9, 10 and 11 are fragmentary perspective views illustrating alternative methods of forming the putty-compressing throat of the tool;

Figures 12 to 16 inclusive are perspective views of further modified forms of the device;

Figure 17 is a plan view of a further modification;

Figure 18 is a bottom plan view of the device shown in Figure 17;

Figure 19 is a side elevation of the device shown in Figure 17;

Figure 20 is a perspective view of the same device, showing the method of use; and

Figures 21 and 22 are perspective views of still further modified forms of the invention.

In order to facilitate an understanding of the invention, reference will be made to the several embodiments thereof illustrated in the accompanying drawings and specific language will be employed. It will nevertheless be understood that various further modifications of the arrangements illustrated herein, such as would fall within the province of those skilled in the art to construct, are contemplated as part of the present invention.

The tool illustrated in Figures 1 to 5, inclusive, may be formed by molding a plastic material,

such as Bakelite, or by casting a metal. In either event the device is preferably an integral structure and is illustrated as symmetrical about a longitudinal vertical plane, the similar sides thereof being provided so that the tool may be moved in such direction as is convenient, and may be employed to finish the line formed by the juncture of two perpendicularly disposed putty strips at the corner of the window by application of the tool to each of these strips.

Thus the sides of the tool are formed so as to converge in the direction in which the tool is moved, the tool being generally V-shaped as viewed in plan. Each side of the tool is constructed to afford a plane surface 25 at the rear or following end thereof, this plane surface engaging and smoothing the surface of the putty strip and being extended forwardly to the leading end of the tool adjacent the upper edge thereof, as indicated at 26. That portion of each side face of the tool below the surface 26 is relieved as indicated at 27 to form a throat to effect crowding or pressing of the putty toward the pane and the sash and beneath the smoothing surface 25. In this form of the invention the side face of the tool is relieved by inclining the surface 27 inwardly and forwardly, the surfaces 27 and 26 converging rearwardly, and the surface 27 merging into the surface 25 adjacent the following end of the tool. It will be observed that the operative surface of the tool is thus relieved over a major portion of the length of the tool, so as to provide such a gradual compression of the putty beneath the smoothing surface as is required for effective application of the putty.

The bottom of the tool is constituted by the lower edges 30 of the side walls, these edges constituting intersecting straight lines and thereby defining a plane surface which may be engaged with the window pane to properly position the tool. The bottom of the tool may alternatively be constituted by a flat surface extending between the side faces of the tool, but this is obviously not essential.

The surfaces 25 and 26 define a plane which is angularly disposed with respect to the plane surface defined by the bottom of the tool, and the angle in question, indicated at θ in Figure 3a, is that selected for the putty strip. For example, if it is desired that the surface of the putty strip shall form an angle of 60° with the window pane, the surfaces 25 and 26 will of course bear the same angular relation to the bottom of the tool and therefore to the window pane.

The following end of the tool at each side is turned inwardly to form a flange 32, the outer face 29 of the flange defining a plane surface disposed in approximately perpendicular relation to the surface 25. The line of intersection 31 of the surfaces 25 and 29 forms an angle with the bottom of the tool which is precisely equal to the angle formed at the intersection at the corner of the window frame of two perpendicularly disposed strips of putty, and may therefore be employed to properly shape the putty at such corner. The angular disposition of the line of intersection 31 of these surfaces may be readily calculated after the angular relation of the surfaces 25 and 26 to the bottom of the tool is decided upon. Thus the desired relationship is given by the formula $\cotangent\ of\ X = \cosine\ of\ \theta$, where X is the angle between the line of intersection 31 and the adjacent lower edge 30 of the tool, measured in the plane of the surface 25 as shown in Figure 5, and θ is the angle between the plane

defined by the surfaces 25 and 26 and the tool bottom, as shown in Figure 3a. Otherwise expressed, the cotangent of angle θ is equal to the width of the putty divided by the height of the putty, the width being measured on the pane and the height on the sash.

It is desirable that the outer face 29 of the tool be properly dimensioned for most efficient results. Thus if this face has a width, measured in the direction of the length of the putty strip, which is too great, putty may be pulled away from the strip by adherence to this face when the tool is removed from the putty after being used to form the line of intersection between two adjacent putty strips. On the other hand, if the width of the surface 29 is too small, pressure applied to the tool in forming the corner may produce a bulge in the putty outwardly of the surface 29 which is difficult to smooth out by a further operation on the deformed strip of putty.

The device is further formed to provide an upstanding handle portion 35, of such shape as to be conveniently grasped, and projected outwardly of the tool only a short distance, so that any tendency to tilt the tool as it is propelled along the edge of the window sash is minimized as hereinbefore explained.

The mode of operation of the device will be readily understood from the foregoing explanation. The tool is held firmly against the pane, with the tool bottom resting squarely thereon, and is propelled along the edge of the sash 36, putty having been first roughly placed in position by the fingers as is customary. The tool is held so that the surfaces 25 and 26 of one side face thereof are maintained firmly in engagement with the adjacent corner 37 of the sash, and owing to the relieving of the leading end of the side face of the tool, the putty is compressed and crowded beneath the smoothing surface 25 at the following end of the tool.

It will be observed that in the construction shown in Figures 1-5 inclusive of the drawings, the throat portion of the tool is of considerable length, extending over a major part of the working face, and this is in general desirable for effective operation. Nevertheless, this throat portion can be shortened to a very considerable extent, particularly if care is taken to so construct the throat as to maintain contact with the pane over the entire length of the throat, as is done with this form of tool. In any event, it is of importance to so construct the throat, regardless of the length thereof, as to prevent the forcing of putty by the compressing action of the throat beneath that portion of the tool which contacts with the pane, and further to prevent the extrusion of putty by this compressing action laterally of the tool so as to leave an undesired putty strip on the pane. Actually the throat may be made quite short when it is thus properly extended into contact with the pane.

It will be appreciated that in the event the sash is constructed so as to project further from the pane than in Figure 3, it will be necessary to guide the tool by engagement of the upper edge 38 of the side face thereof with the adjacent face of the sash 36, as indicated in Figure 3a. The depth of the side wall of the tool should be constructed, when intended for use with a relatively deep sash, of such a depth that the desired amount of putty will be applied.

The modified form of the device, shown in inverted position in Figure 6, is quite similar to that illustrated in Figure 5, with the exception

that the side walls of the tool are relieved to form the compressing throat toward the divergent rather than the convergent ends of these walls. Thus in this figure the smoothing surface is indicated at 40, the relieving surface which forms the throat at 41, the sash engaging surface, which is co-planar with the smoothing surface, is shown at 42, and the trailing edge 45, employed to shape the putty at the corners of the sash, is defined by the intersection of the smoothing surfaces 40 provided by the opposite faces of the device. The handle is indicated at 46.

It will be noted that in the forms of the invention shown in Figures 5 and 6, the nose of the tool is slightly rounded, and the line of juncture between adjacent putty strips is therefore formed with a fillet of small radius presenting a neat and finished appearance.

Figures 7 and 8 illustrate a modified construction which is convenient in the event the device is to be formed of sheet metal or the like. A blank 48 of the configuration shown in Figure 8 is first stamped or cut from the metal. Indentations or depressions 50, tapered in depth inwardly from the ends of the blank, are pressed out during the formation of the latter. The wings 52 at each end of the blank are bent at right angles to the body of the blank along the lines 53, the blank is bent along the line 49 to form an edge, either sharp or slightly rounded, which can be employed to produce a well defined corner at the intersection of two putty strips, and the whole is secured in the desired shape by means of a handle 55 provided with a pin, not shown, passing through the apertures 56 in the wings 52 of the blank.

It will be observed that this form of the invention is one which may be very cheaply constructed and which may be used in much the same manner as the device illustrated in the figures hereinbefore described. The principal difference, so far as function is concerned, resides in the method of relieving the smoothing surface to form the throat, the tapering indentations 50 serving this purpose. It may be pointed out that this same type of putty compressing throat may be satisfactorily employed in connection with the forms of the invention heretofore described.

Figures 9, 10 and 11 are fragmentary inverted views introduced for the purpose of illustrating a few of the various ways in which the putty compressing throat of a tool of the character described herein may be formed. Figure 9 is illustrative of the method employed in the form of the invention shown in Figures 7 and 8, the smoothing surface being indicated at 58, the plane positioning surface of the device for engagement with the window being partly defined by the lower edge 59 of the side wall, and the compressing throat which merges into the smoothing surface 58 being indicated at 60 and constituted by a rearwardly tapered indentation in the side wall of the device. In Figure 10 the throat is formed simply by flexure of the lower portion of the leading end of the side wall, as indicated at 61, the surface thus formed, which is warped away from the adjacent sash edge, merging gradually into the plane smoothing surface 58 at the following end of the device. In Figure 11 is shown a construction in which the throat of the device is deflected outwardly from the adjacent sash edge, as in Figure 10, but is constituted by a plane surface 62 inclined at an angle with respect to the smoothing surface

58 in much the same manner as is disclosed in the form of the invention shown in Figures 1 to 5 inclusive. It will be observed that in all of these constructions the throat portion may be described as generally flared outwardly from the plane divided by the smoothing surface of the tool.

Figure 12 shows a further embodiment of the invention which may be readily produced from sheet metal. In this construction the central portion of the device 65 constitutes the positioning member, the underside thereof being formed with a flat surface for engagement with the window pane 66. Flanges 67 are struck up from this central portion to afford a convenient handle for manipulation of the device, and wings 68 are bent upwardly at each end of the central portion to provide the throat and smoothing surfaces for engagement with the putty. The device is shown with the trailing edge 69 thereof, which is inclined to conform to the angle of the line of intersection between the surfaces of adjacent putty strips, in engagement with such line of intersection, and in readiness for movement toward the left to compress and smooth the previously roughly applied putty. The leading end of the side wall 68 is relieved in the manner disclosed in Figure 11 and the outer portion 70 of the side wall 68 is shown in engagement with the adjacent edge of the sash 71.

In the devices hereinbefore described, proper positioning of the device is secured by engagement with the window pane. I have found such constructions highly desirable since the pane affords an absolutely flat surface and ensures uniformity of movement of the device and accurate relationship thereof with the adjacent sash edge. Nevertheless it may sometimes be desirable to employ some other window surface for positioning and guiding the device, and the term window surface is used herein to designate any surface, either of the pane or of the sash, extending generally parallel to the direction of movement of the device in applying the putty. Thus in Figure 13 the positioning surface of the device is engaged with the outer surface 75 of the sash 76, this outer surface being frequently sufficiently smooth to permit of accurate manipulation of the tool. The tool is formed in this instance from sheet metal, the main portion 78 being substantially flat for engagement with the sash surface 75. A handle 79 is welded or otherwise secured to the portion 78 and the putty compressing and smoothing portions of the device are constituted by inwardly bent wings 80, which are relieved as indicated at 81 in the manner described more particularly in connection with Figure 9 to provide a compressing throat. This form of device is not as advantageous as those previously described since it is not only dependent upon the existence of a smooth and flat sash surface for accurate distribution of the putty, but must be designed for use with a sash of given dimensions, in order that the lower edges of the wings 80 may contact with the pane 82 so as to prevent lateral extrusion of the putty. It will nevertheless be apparent that a tool of the character shown herein forms a straight putty line on the surface of the glass, regardless of the fact that the corner of the sash engaged by the tool is slightly nicked or irregular, since the tool contacts with the sash corner at a plurality of spaced points.

In Figure 14 is shown a further modification formed from sheet metal, the central portion 85

serving to engage with the pane 86 and being provided with a handle 87 suitably secured thereto. The putty smoothing portions are constituted by wings 88 which are bent up from the central portion 85 at either side thereof, and the throats are constituted by forwardly directed extensions 89 of the wings 88, these throat portions being preferably distorted or curved as disclosed more particularly in Figure 10.

Figure 15 shows a very simple embodiment which may be stamped or pressed from sheet metal and in which the central portion 90 serves as a handle. Wings 91 bent substantially at right angles to the central portion 90 form the putty compressing and smoothing surfaces, the throat portions being illustrated as formed in much the same manner as suggested in Figure 11. In this type of device the lower edges 92 of the wings 91 and the lower edge 93 of the central portion 90 serve to position the device, these three edges defining a common plane surface for engagement with the window pane.

The device shown in Figure 16 may also be conveniently formed from sheet metal. It will be observed that the tool is here constituted by a flat plate, indicated at 95, having the trailing edges 96 thereof inclined with respect to the side edges 97 to conform to the line of juncture between adjacent putty strips at the corner of the sash, in order that this line may be accurately formed by the edges 96. Either of the edges 97 is engaged with the window pane, and the central portion of the plate is pressed inwardly to provide a rearwardly tapering trough 98, the lower face of which engages with the edge of the sash 99, the putty being compressed beneath the flat portion of the plate 95. While this construction is very simple and inexpensive, it does not define the angle of inclination of the putty surface as well as those previously described, since it has only line contact with the window pane.

In Figures 17 to 20 inclusive is illustrated a form of the invention which is generally similar to that disclosed in Figures 1 to 5 inclusive, but permits the propulsion of the tool in either direction without reversing the position thereof. Thus each side face of the tool is formed to provide two active sections 105 and 106, slightly inclined with respect to each other, either of which sections may be employed for the compression and smoothing of the putty strip. The edge 109, formed by the intersection of the sections 105 at the nose of the tool, is so inclined as to enable the use of this edge to form and shape the putty at the corners of the sash, and the edges 110, formed by the juncture of the inturned flanges 111 with the sections 106, are similarly inclined for the same purpose. The construction is otherwise similar to that hereinbefore described and illustrated in Figures 1 to 5 and need not be discussed in detail.

As will be observed from Figure 20, the section 106 at one side of the tool may be engaged with the previously roughly applied putty, and the tool be propelled in the direction of the nose thereof, or to the right as viewed in that figure. If it is desired to move the tool in the opposite direction, it is rocked slightly to engage the section 105 thereof with the putty, when it may be displaced toward the left as viewed in Figure 20. Obviously other methods of relieving the surface of the tool to form the throat associated with each of the active surfaces may be employed.

In Figure 21 is shown a tool which may be readily molded or cast, the tool consisting of a

central plate portion 115 having legs 116 depending therefrom for engagement with the window pane. The sides of this tool which are effective for compression and smoothing of the putty are formed by these legs 116 and by outward extensions 117 thereof, and the tool is supported at the correct angle to afford a throat extending over substantially the entire length thereof by means of legs 118, which are adapted to engage the adjacent edge of the sash 120. A handle 121 is suitably secured to the central plate portion 115, and the nose 122 of the device, formed by the intersection of the side walls thereof, defines an angle such that the corners of the putty may be accurately formed thereby.

In Figure 22 is illustrated a further modification which may be formed of sheet metal, the central flat portion 130 of the device being adapted to be grasped by the fingers and the lateral wings 131, bent inwardly from this central portion, functioning to compress and smooth the putty. It will be observed that the inner edges of both of these wings may be engaged with the pane to accurately position the device, and that each of the wings is relieved by a tapered depression 133, in the manner suggested in Figure 9, to afford a putty compressing throat of the desired length. The rearward or following edges of the wings 131, not shown in Figure 22, are employed for forming the putty at the corners of the sash in the manner hereinbefore described.

It will be appreciated that the purpose in providing two separate putty engaging surfaces is to permit the shaping of a given putty strip by movement of the tool in either direction, the throat and smoothing portions being so relatively disposed in the respective surfaces that the smoothing portion of one surface can engage the putty strip adjacent one corner, and the smoothing portion of the other surface can engage the same putty strip at the opposite corner. If such an arrangement were not provided, the putty strip adjacent one corner could be engaged only by the throat portion thereof and could not be properly smoothed.

It is of course possible to apply the principles of the invention to a tool which is employed only for the purpose of accurately defining the line of intersection between two adjacent putty strips at a corner of the sash, a different tool being employed for the proper application of the putty strip over the major portion of the length of the sash. It is of course preferred, however, to provide a single tool which will conveniently and effectively perform the entire putty applying operation.

It is further contemplated, as a part of the invention, that the several methods of relieving the surface of the tool to form a throat for compressing the putty may be applied to a tool which does not employ a further plane surface for engagement with a flat window surface, even though such a tool does not lend itself as well to use by unskilled persons. For example, the ordinary putty knife may be modified by the provision in the leading edge thereof of an indented portion, such as shown for example in Figure 9, and with no further alteration, the knife can be much more easily manipulated and the proper angle of the putty much more readily determined than is possible with the conventional flat blade.

It is found that the tool constructed as described herein is effective in applying the putty uniformly regardless of the type of putty em-

ployed, and satisfactory results can be obtained even though the consistency of the putty varies over a considerable range.

Having thus described the invention, what is claimed as new and desired to be secured by Letters Patent is:

1. A device for applying putty to a window, said device being formed to provide means defining a positioning plane surface for engaging a window surface, means defining a putty smoothing surface inclined at an obtuse angle to said positioning surface, and means defining a surface extending from said smoothing surface in the direction in which the device is moved, and of greater length than the width of the applied putty strip, said last named surface being deflected outwardly in the direction of movement of the device to afford a gradually divergent throat, whereby the putty is crowded beneath said smoothing surface.

2. A device for applying putty to a window, said device being formed to provide means defining a positioning plane surface for engaging a window surface, means defining a putty smoothing surface inclined at an obtuse angle to said positioning surface, and a throat portion intersecting said positioning plane surface, said throat portion communicating with said smoothing surface and gradually diverging therefrom in the direction of movement of the device, for packing the putty beneath the smoothing surface.

3. A device for applying putty to windows, said device being formed to provide a plane surface for engagement with the window pane, and a putty engaging surface, said putty engaging surface including a plane portion, angularly disposed with respect to said pane engaging surface, for smoothing the putty, and a flared portion, forming a throat tapering toward said plane portion, for compressing the putty, said flared portion intersecting said plane surface over a substantial part of the length of said flared portion.

4. A device for applying putty to a window, said device being formed to provide means defining a positioning plane surface for engaging a window surface, and means defining a putty smoothing surface inclined with respect to said positioning surface, said last named surface being provided with a recess in the leading end thereof tapering toward the opposite end thereof for compressing the putty.

5. A tool for applying putty to windows, said tool being formed to provide a positioning surface for engagement with a window pane and two separate putty engaging surfaces, each of said putty engaging surfaces comprising a putty smoothing portion and, in advance of the latter, a throat portion for compressing the putty beneath said smoothing portion as the tool is moved along the window sash, the two putty smoothing portions of said surfaces being disposed intermediate the two throat portions of said surfaces, whereby the putty may be applied by movement of the tool in reverse directions along the sash.

6. A tool for applying putty to windows, said tool being formed to provide a positioning surface for engagement with a window pane and two separate putty engaging surfaces, each of said putty engaging surfaces comprising a putty smoothing portion and, in advance of the latter, a throat portion for compressing the putty beneath said smoothing portion as the tool is

moved along the window sash, the two putty smoothing portions of said surfaces being disposed intermediate the two throat portions of said surfaces, whereby the putty may be applied by movement of the tool in reverse directions along the sash, each of said putty smoothing portions terminating in an inclined edge adapted to shape the line of intersection of adjacent putty strips at the corners of the sash.

7. A tool for applying putty to windows, said tool being generally V-shaped in plan and formed to provide a positioning surface for engagement with a window pane and two separate putty engaging surfaces intersecting at an angle and defining the two sides of the V, each of said putty engaging surfaces comprising a putty smoothing portion and, in advance of the latter, a throat portion for compressing the putty beneath said smoothing portion as the tool is moved along the window sash, the two portions of said putty engaging surfaces being so relatively disposed as to adapt the respective surfaces to movement in opposite directions along the sash.

8. A tool for use in applying putty to a window, said tool being formed to provide a positioning surface for engagement with a window, and with intersecting plane surfaces which are so inclined with respect to each other and to said positioning surface as to lie flush against the respective putty strips at the corner of the sash, said putty engaging surfaces merging so as to be continuous, whereby the intersecting edge of said putty engaging surfaces may be employed to shape the intersection of the putty strips.

9. A tool for applying putty to windows, said tool being formed of sheet material bent into generally U-shaped configuration, each leg of the U being formed to provide a putty engaging and smoothing surface, and the base of the U being formed to provide a plane surface for engagement with the window pane, each said putty engaging surface having a relieved throat

portion one edge of which is adapted to engage the window pane.

10. A tool for applying putty to windows, said tool being formed of sheet material bent into generally U-shaped configuration, each leg of the U being formed to provide a putty engaging and smoothing surface, each said putty engaging surface having a relieved throat portion one edge of which is adapted to engage the window pane.

11. A putty applying tool formed to provide a putty engaging surface having an elongated indentation in the forward portion thereof, said indentation tapering toward and merging into the rearward portion of said surface to provide a throat for the compression of the putty.

12. A putty applying tool formed to provide a putty engaging surface having a putty smoothing plane portion and a putty compressing relieved portion, said relieved portion diverging gradually from said smoothing portion in the direction of movement of the tool, said relieved portion having a length, measured in the direction of movement of the tool, at least equal to the width of the applied putty strip.

13. A device for applying putty to a window, said device being formed to provide means defining a positioning plane surface for engaging a window surface, and means defining a putty smoothing surface inclined at an obtuse angle to said positioning surface, said putty smoothing surface being relieved, adjacent the leading end of said device, over a major portion only of the length thereof in the direction of movement of said device, the relieved portion of said smoothing surface forming a throat converging gradually toward and merging into the remaining portion of said smoothing surface to ensure pressing of the putty beneath said smoothing surface.

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