Nov. 30, 1948. P. L. McKEE 2,454,821

GLAZING AND CAULKING MATERIAL

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FIG. 1.

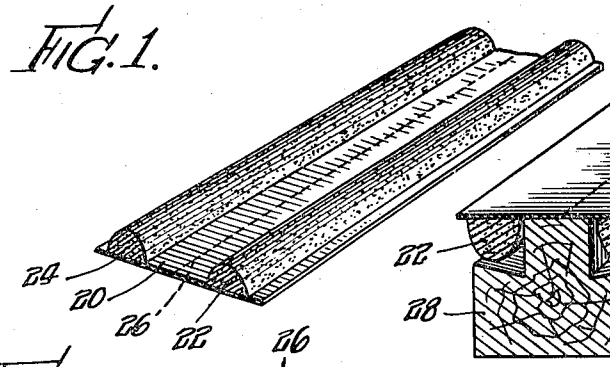


FIG. 2.

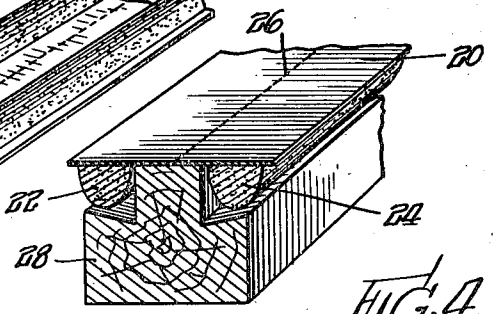


FIG. 3.

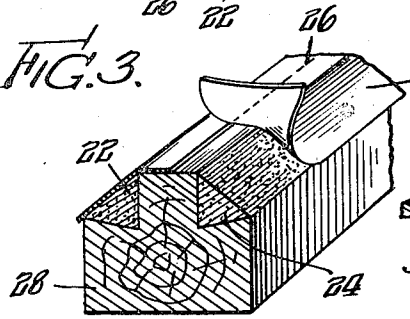


FIG. 4.

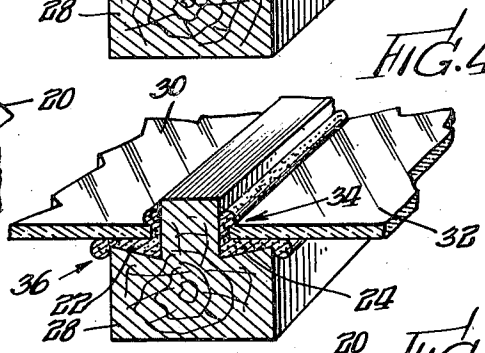


FIG. 5.

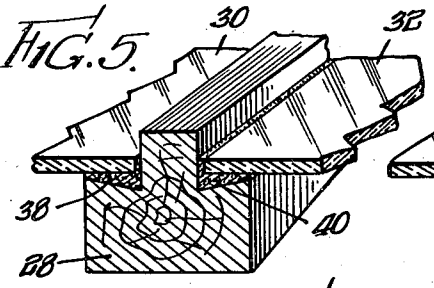


FIG. 6.

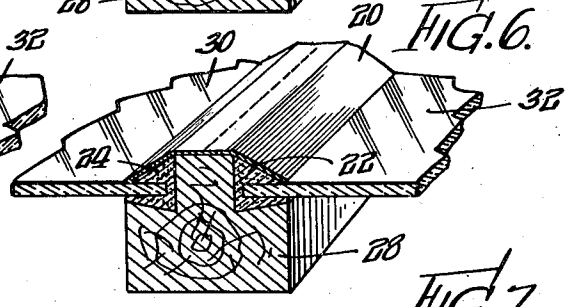


FIG. 8.

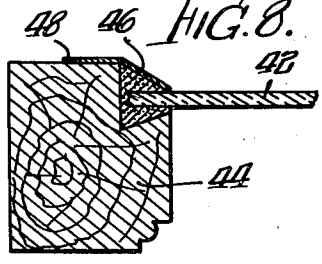
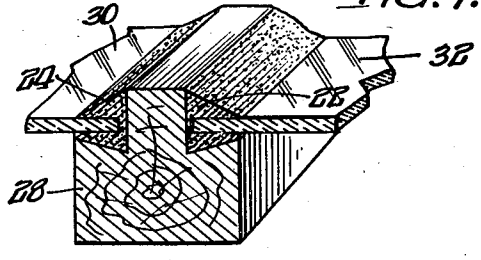


FIG. 7.



INVENTOR.
Philip L. McKee

By: Lyon, Moore, Olson & Tredlew
Attys.

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FIG. 9.

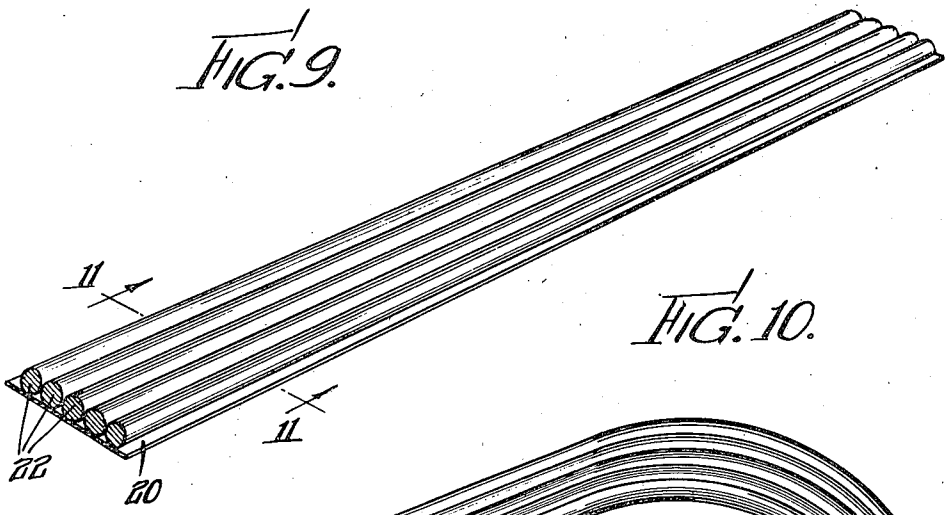


FIG. 10.

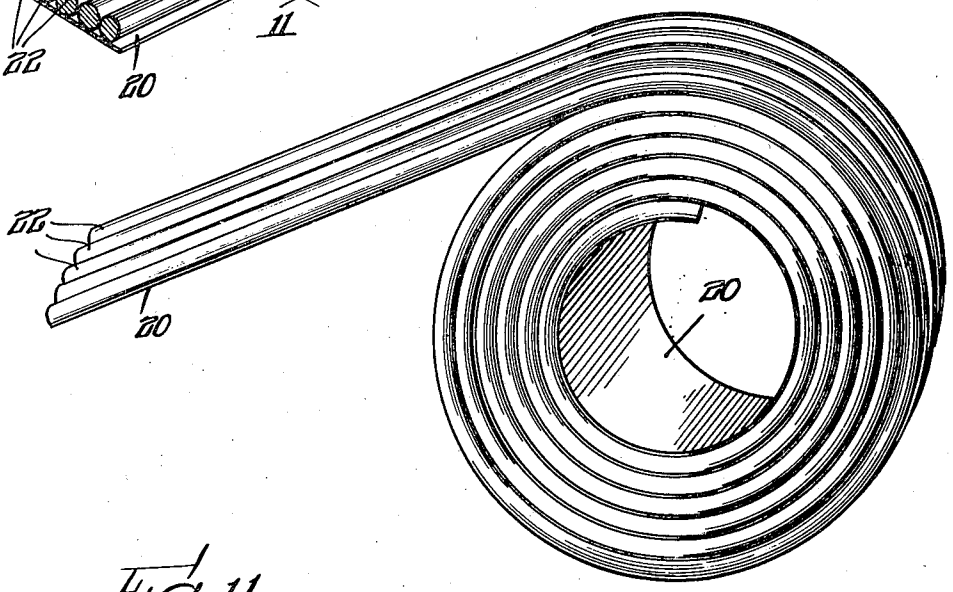


FIG. 11.

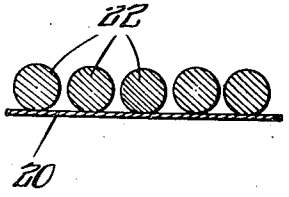
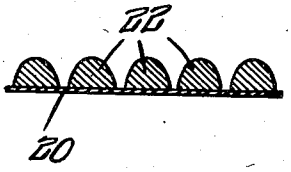


FIG. 12.



INVENTOR.
Philip L. McKee
By: Lyon, Moore, Olsen & Treyer
attys.

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UNITED STATES PATENT OFFICE

2,454,821

GLAZING AND CAULKING MATERIAL

Philip L. McKee, Pana, Ill., assignor to National Greenhouse Co., Pana, Ill., a corporation of Illinois

Application February 2, 1944, Serial No. 520,771

14 Claims. (Cl. 20—56.4)

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This invention relates to materials for use in glazing or caulking.

More particularly the invention relates to a somewhat mastic or putty-like material.

One of the objects of the present invention is to provide the glazing or caulking material in a convenient form or package for easy and quick application to a windowpane or other location to be glazed or caulked.

Another object of the invention is to provide a putty-like material preformed into proper shape for applying to window frames, cracks, crevices, and other places to be glazed or caulked.

Still another object is to provide a putty-like material in a form in which the handling and forming of the putty-like material during the application thereof to window sashes and the like is materially decreased.

Yet another object is to provide preformed strips of putty having various cross sectional shapes particularly adapted for the use to which the putty-like material is to be put.

Still another object is to provide preformed strips of putty-like material supported on a carrier so that the putty can be simultaneously applied to the adjacent lengths of a window frame with the minimum of effort, or alternatively a single-ply strip can be applied, as desired.

Yet another object of the invention resides in providing a convenient carrier or package of caulking of glazing material wherein a relatively flat, thin, and relatively long, tape-like carrier or support is provided, carrying on one surface a plurality of continuous parallel lengths of putty-like caulking or glazing material of appropriate cross section, all carried by and arranged on the tape, and extending longitudinally thereof in parallelism, the tape with the material mounted thereon being rolled up helically into a convenient package so that as the package is unrolled individually, or selectively more than one of the lengths of material may be detached from the tape and broken off from the remainder of the length provided by the helical roll, whereby the carrier or support thus helically wound up acts as a separating medium between the various convolutions of the helical coil of more or less sticky or mastic caulking material, and keeps the separate convolutions from sticking one to the other while at the same time enabling the material to be put up into a convenient package for direct use at the point of installation.

Yet another object of the invention resides in providing as an article of manufacture packaged, ready-to-use glazing or caulking material com-

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prising a plastic adherent material formed into an extruded, rope-like, elongated member of relatively small cross section as compared to its length, and coiled spirally into finally packaged form for convenient use.

Yet another object of the invention is to provide a glazing or caulking material packaged in a ready-to-use packaged form comprising relatively long strips of a plastic adherent material of relatively small cross section as compared to its length, the strips being arranged in parallel relation and coiled into a roll so that as the strips are uncoiled one or more thereof of any desired length may be detached from the remainder of the length of the strips in order selectively to provide a body consisting of one or a plurality of adjacently disposed parallel strips which may be utilized in caulking openings of varying width.

Other objects will be apparent from a perusal of the following specification when taken in connection with the accompanying drawings, wherein:

Figure 1 is a perspective view of one embodiment of the invention;

Figure 2 is a view in perspective of a section of a window frame showing the putty in position for application;

Figure 3 is a view similar to Figure 2, showing the putty applied prior to positioning the glass and illustrating the way in which the paper support may be removed;

Figure 4 is a view similar to Figure 2, showing the glass in position in a bed of putty;

Figure 5 is a view similar to Figure 2, showing the appearance of the frame and glass after the excess of the bed putty has been removed;

Figure 6 is a view similar to Figure 2, showing the application of the face putty;

Figure 7 is a view similar to Figure 2, showing the appearance of the window after the face putty has been applied and the paper support removed;

Figure 8 is a view similar to Figure 6, illustrating the application of putty to a single frame instead of to a pair of adjacent frames as in Figure 6;

Figure 9 shows a part of a plurality of the strips of caulking material disposed upon a tape-like carrier or support.

Figure 10 shows the same rolled into spiral form to provide a ready-to-use package of caulking or glazing material;

Figure 11 shows a cross section taken on the line 11—11 of Figure 9; and

Figure 12 shows a similar cross section wherein

the ropes are formed substantially semi-cylindrical.

Referring now more particularly to Figure 1, it may be seen that an elongated, deformable, relatively thin support comprising preferably a strip or tape 20 of wax paper or any material which is only slightly adherent to putty or other similar caulking or glazing compound, is shown. The wax paper or tape 20 is shown as supporting two strips of the caulking or glazing material 22 and 24. The paper 20 is preferably perforated along the dotted line 26 along the interior, parallel with the strips of caulking and glazing material so that it may be readily torn into halves. The paper, in a direction transversely of its length, is substantially flat so that both faces lie in substantially common planes.

As above indicated, the strips of caulking and glazing material 22 and 24 may have any desired cross sectional shape, that shown in Figures 1, 2 and 12 being preferred however for most purposes. The distances between the strips of material 22 and 24 may also vary as desired. Preferably this distance is determined by the distance between adjacent frames in a window containing a number of panes of glass. In other instances, where a greater number of strips are mounted on the material they are extremely close together, as shown in Figures 9, 11 and 12.

The preferred distance between the strips of glazing or caulking material, as well as its purpose, is brought out in Figure 2 in which a glazing bar 28 is shown, upon which the wax paper 20 with the two strips of glazing material 22 and 24 has been positioned preparatory to laying the glazing material in place to receive the glass.

Figure 3 shows a glazing bar 28 after the two strips of glazing material 22 and 24 have been pressed down into position thereon. As illustrated in this figure, the wax paper or tape 20 can be very conveniently removed, after the glazing material is in place, by tearing off first one half thereof and later the other half, leaving the strips 22 and 24 in position to receive the panels of glass.

Figure 4 is a view showing the adjacent panes of glass 30 and 32 pressed into place and supported by the strips of glazing material 22 and 24 on the glazing bar 28. As may be seen, some of the glazing material is forced out over the edge of the glass panes 30 and 32 and over the edge of the glazing bar 28, as at 34 and 36, for example. After this excess glazing material which rolls out as at 34 and 36 is scraped off, the assembly appears as shown in Figure 5 with the glass panes 30 and 32 supported in beds of glazing material 38 and 40 lying on the glazing bar 28.

The assembly is now ready to receive the face of the glazing material which is applied in the same manner as the bed glazing material. A second strip of wax paper 20 with lengths of glazing material 22 and 24 thereon is laid in place on the glazing bar 28 and the two strips of putty or other glazing material are pressed down against the glass plates 30 and 32. After the strips of glazing material have been pressed down into place, the wax paper 20 is again torn away, as illustrated in Figure 3. The glass panes 30 and 32 are then firmly secured in place on the glazing bar 28 by the four strips of glazing material and the assembly appears as shown in Figure 7.

The perforation 26 down the center of the wax paper or tape not only serves to facilitate the removal of the wax paper where two strips of the glazing material are applied to support adjacent panes of glass, but also serves to permit the wax paper or tape to be torn in half prior to applying the glazing material where a single pane of glass is to be secured in place instead of two adjacent panes.

Figure 8 illustrates the use of the single strip of glazing material to mount the pane of glass 42 on a window sash 44. The view in Figure 8 corresponds to that in Figure 6, showing the appearance of the assembly just after the facing strip of glazing material 46 has been applied and prior to the removal of the half section of wax paper 48. After the wax paper 48 is removed, as described above and illustrated in the other figures, the glazing operation is complete.

It will be apparent that the invention is capable of considerable variation, since a wide variety of supports for the glazing and caulking material may be used in place of the wax paper 20, and so also since the cross sectional shapes of the strips of glazing and caulking material may be varied depending upon the use to which they are to be put. Every strip of glazing and caulking material is relatively narrow compared to the width of the tape or to the length of the strip of glazing or caulking material when coiled for use, but in cross section the thickness of each strip of glazing or caulking material, in a direction transversely of its length, is relatively large as compared to the thickness of the tape upon which it is mounted.

Furthermore the invention is not limited to the placing of two strips of caulking or glazing material in parallelism on one paper. There is however a decided advantage connected with the placing of a plurality of strips of the caulking or glazing material on a single support since the utility of the product is thereby substantially increased not only where the supporting material is perforated between the strips of material as heretofore described, but also for the further reason that one or more strips may be utilized at a time where it is desired to secure a caulking or glazing material of a selective width to correspond to the width or thickness of the opening to be caulked or the pane to be glazed.

The strips of caulking or glazing material are readily applied to whatever supporting material may be employed, by extruding the material through an opening of the desired cross section and then placing the extruded body or bodies in the proper position with respect to each other whereby they are arranged in parallelism for subsequent coiling and/or for subsequent use. Preferably they are extruded directly onto the support or tape 20. Usually no special means for causing the caulking or glazing material to adhere to this support or tape will be necessary in view of the more or less adhesive nature of the material itself. The caulking or glazing material may be applied continuously in this manner to long strips of the supporting material or tape and these long strips with the material on them may be cut into portions of any desired length or alternatively the long strips with the caulking or glazing material on them, in the manner shown in Figures 9 and 10, may be formed into rolls to provide a ready-packaged caulking or glazing material for convenience in handling them during distribution to users.

In this coiled-up form it will be noted that because of the plurality of strips of caulking or glazing material extending in parallel rela-

tion and in coiled form, the plurality of parallel strips, in a direction transversely of the length of the coiled material, tends inherently to resist lateral deformation whereby to make a firmer package and whereby to assist in the coiling and uncoiling operation of the separate strips, and in addition facilitates the use of the material so that when uncoiling the strips from the coiled roll one or more of them may be used to provide variant widths of caulking or glazing material, as well as variant lengths, as they may be detached either individually to provide individual ropes, or to provide variant thicknesses and lengths of ropes of the caulking and glazing material.

Many of the advantages of this invention will be apparent from the foregoing description. Putty in the form described herein may be used for all the purposes for which putty is commonly employed, but with much more facility. As indicated by the above description and drawings, putty may be readily applied to new windows to provide a bed for the glass, and another strip may then be placed outside the glass as face putty. By means of any flat, rounded, or other object, the putty is smoothed into place by pressing on the outside of the support, and the support is then pulled off leaving the putty surface exposed and completing the operation. By way of illustration, the supported strips of putty may also be used for caulking cracks and crevices around window frames or other places that require sealing.

The supported putty strips have advantages both in the hands of the skilled and the unskilled operator. In the hands of the skilled operator, the mess and bother of handling putty in bulk form is avoided, and considerable time is saved due to the fact that the putty is preformed into a desired shape for its intended use such as in glazing. As is well known, putty, being rather oily in nature, is messy to handle and is not easy to form into appropriate shapes for applying it to window frames, glazing bars, etc. All these difficulties are avoided by the present invention.

In addition to the foregoing advantages as respects use by a skilled operator, putty in the form described herein has the advantage in the hands of the unskilled operator that it enables him to do a much better job than he would be able to do with putty in bulk form. Being easily handled due to the support, and being preformed to the desired cross section, the unskilled operator will have much less difficulty applying putty than he would if he were called upon to use putty in bulk form.

It is understood that the expression "flexible tape treated with petroleum product" is interpreted broadly to mean any type of material to which putty or plastic adhesive is but slightly adherent, and that in place of oil-proofed paper or glassine paper, any type of material may be used which will have the function of these materials.

A still further advantage is that the putty can be more quickly applied, particularly to two adjacent frames, two strips of putty being laid in place at the same time.

It is apparent that many widely different embodiments of this invention may be made without departing from the spirit and scope thereof and therefore it is not intended to be limited except as indicated in the appended claims.

This application comprises a continuation-in-part of my subsequently abandoned prior application Serial No. 396,729, filed June 5, 1941, for Glazing material.

The invention is hereby claimed as follows:

1. An article of manufacture comprising a support and a pair of parallel strips of plastic adhesive carried thereby and spaced apart thereon a distance substantially equal to the width of a standard glazing bar separating two windowpanes, said support being perforated along a line parallel with the plastic adhesive strips and lying therebetween to permit the support to be readily separated into two parts, each of which carries a strip of plastic adhesive.

2. An article of manufacture comprising a relatively long, narrow strip of oil-proof paper carrying a pair of parallel strips of plastic adhesive extending lengthwise of said paper, said strips being spaced apart a distance substantially equal to the width of a standard glazing bar separating two windowpanes, said strips of plastic adhesive being preformed to a desired uniform cross sectional shape and said paper being perforated along a line parallel with the plastic adhesive strips and lying midway therebetween to facilitate separation of the paper support into two portions, each of which carries a strip of adhesive.

3. An article of manufacture comprising a relatively long, narrow strip of flexible material to which plastic adhesive is but slightly adherent carrying a plurality of parallel strips of plastic adhesive extending lengthwise of said flexible material, said strips of plastic adhesive being preformed to a desired uniform cross sectional shape and said flexible material between said strips of plastic adhesive for a distance substantially equal to the width of a standard glazing bar separating adjacent panes being free of plastic adhesive.

4. A strip sealing material for glazing windows comprising a flat, non-resilient backing tape which is relatively narrow as compared with its length, and plastic adhesive on said tape comprising marginal regions of preformed cross section disposed in parallelism thereon, said regions of plastic adhesive in cross section being many times the thickness of the tape whereby the plastic adhesive may be suitably deformed to fill a recess similar to the preformed cross section or of a different cross section many times the thickness of the tape.

5. An article of manufacture comprising a deformable, relatively thin, elongated, flat tape, which is relatively narrow compared to its length, and a strip of glazing or caulking material in plastic state and of preformed cross section adherently mounted upon and extending longitudinally of said tape, the thickness or cross section of said strip of caulking material being substantially greater than the thickness of the tape.

6. An article of manufacture comprising a deformable, flat and thin tape, and a plurality of spaced, substantially parallel strips of plastic adhesive, each of preformed cross section adherently carried by and extending longitudinally of said tape, the thickness of each strip in transverse cross section being many times the thickness of the tape, the plastic adhesive of which each strip is composed normally maintaining its form and being readily deformable whereby to fill in a recess or crevice of a desired cross section which is many times that of the thickness of the tape.

7. An article of manufacture comprising a flexible, non-resilient, elongated tape and a plurality of spaced strips of plastic adhesive ad-

herently carried thereby, said strips of adhesive being of preformed cross section and extending therealong in parallel spaced relation, the remainder of said tape being free from adhesive, said strips of adhesive being deformable and in cross section being many times the thickness of the tape, and said strips being capable of bodily removal from the tape.

8. An article of manufacture comprising a flexible tape treated with petroleum product, and a plurality of substantially parallel strips of putty adherently carried thereby, said putty strips being of preformed cross section and the spaces of said tape between said putty strips being free of putty.

9. An article of manufacture comprising a relatively long, relatively narrow strip of deformable, relatively thin sheet material, and a plurality of parallel, relatively narrow strips of deformable plastic adhesive mounted lengthwise of said material and removably adherent thereto, said strips of plastic adhesive being preformed to a desired cross section, each cross section being many times the thickness of the strip of sheet material, and the distance between said strips of adhesive being such as to permit the simultaneous application of two of said strips of adhesive to marginal portions of adjacent windowpanes with the material of the sheet overlying and being in contact with the top surface of the glazing bar lying between said windowpanes.

10. As an article of manufacture, packaged, ready-to-use glazing material comprising a length of flat, flexible, relatively wide paper strip treated with petroleum compound, and a plurality of substantially parallel strips of plastic adhesive adherently mounted upon the obverse face of the paper strip lengthwise thereof, said strips of plastic adhesive being preformed to a desired cross section the width of which in extent is relatively small as compared to the width of the paper strip, the adherence of said strips of plastic adhesive to said obverse face of said paper strip being such that while said adhesive strips are mounted upon and adherently carried by said obverse face they may be easily detached therefrom, said paper strip with the strips of adhesive carried thereby being compactly coiled helically so that the reverse face of the paper strip throughout its length faces and lies in non-adherent juxtaposition to peripheral wall portions of said coiled strips of adhesive so mounted upon said obverse face of the strip, whereby said roll of paper may be uncoiled and a predetermined length of said paper with the adhesive strips adherent only to the obverse face of said strip of paper may be cut off from said roll so that a plurality of identical lengths of adhesive strips may be quickly detached from said cut-off length of paper for glazing use, or alternatively whereby said roll of paper may be uncoiled and a selectively desired length or a plurality of variant lengths of adhesive strips corresponding to the length of paper uncoiled may easily be removed from said paper strip for glazing use.

11. An article of manufacture comprising packaged, ready-to-use glazing material comprising a length of flexible paper tape flat transversely of its length and treated with petroleum compound or the like, and a plurality of substantially parallel strips of putty adherent to the obverse face of the paper tape lengthwise thereof, the peripheral wall portions of the putty which are not in adherent contact with the obverse face of the paper tape being of arcuate conformation in a direction transversely of the length of putty strips and said strips of putty in cross sectional width being relatively small in extent as compared with the width of the paper tape and relatively great compared to the thickness of the paper tape, said paper tape with the strips of putty thereon being compactly coiled helically so that the reverse face of the coiled tape throughout its length faces and lies in juxtaposition to the curved peripheral wall portions of said coiled strips of putty so mounted upon said obverse face whereby as said roll of paper is uncoiled desired lengths of individual strips of putty may be detached from said paper tape and from the remainder of the lengths of said putty strips.

12. An article of manufacture comprising a spirally wound roll of plastic weatherstripping formed of a plurality of parallel uniformly tacky strands of inelastic putty-like insulating material and a carrier having surfaces common to adjacent strands and adhesively securing the strands in lateral juxtaposition, and said roll being releasably held in spiral form by adhesion of each individual strand of an inner winding with an outer winding of the roll, whereby an end strand may be entirely detached without unwinding the companion strands.

13. As an article of manufacture, a package of putty-like material, which material has an inherently low tensile strength, comprising a plurality of separate beadings of the material arranged in parallel plane spirals of indefinitely continuous lengths all located parallel upon a single ribbon-like spiral separator, said separator being of tensile strength enough to protect the beadings of putty-like material against breakage and lateral deformation during winding and unwinding.

14. As an article of manufacture, a package of putty-like material, which material is of inherently low tensile strength, comprising a plurality of relatively thick portions of said material forming parallel beadings respectively located in parallel planes of spiral loops and wound with a ribbon-like spiral separator, said ribbon-like separator being axially tangential to and locally contacting said beadings, whereby lateral deformations of said beadings are minimized.

PHILIP L. McKEE.

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