

Oct. 1, 1957

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COMPOSITE TAPE FOR USE WITH MASKING PAPER AND
METHOD OF APPLICATION
Filed June 29, 1955

2,808,358

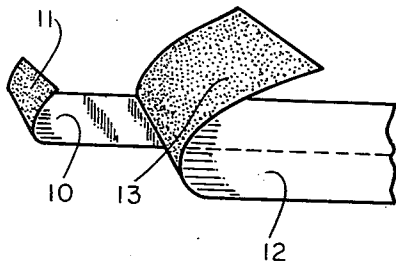


FIG. 1

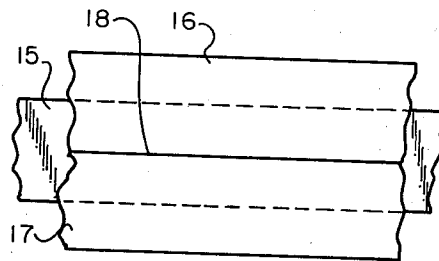


FIG. 2

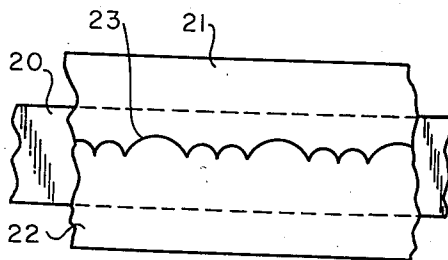


FIG. 3

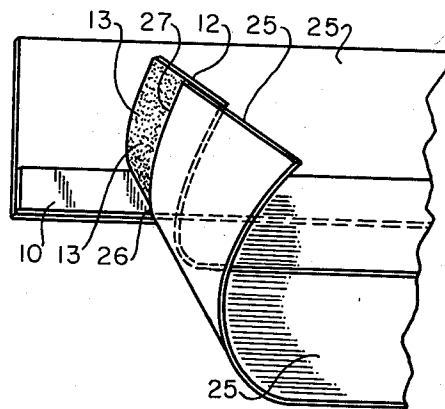


FIG. 4

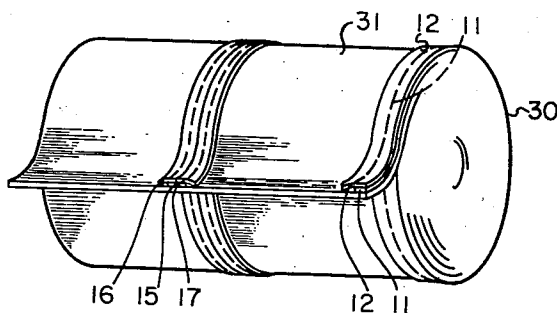


FIG. 5

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COMPOSITE TAPE FOR USE WITH MASKING PAPER AND METHOD OF APPLICATION

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Application June 29, 1955, Serial No. 518,787

12 Claims. (Cl. 154—118)

This invention relates in general to improvements in adhesive tapes and more particularly to an improved form of masking tape.

The usual practice of painting the body of an automobile, or a wall, or the like in two tones or colors is to apply one color to one area, and then to cover that area with masking paper while the other area is being painted. Ordinarily, a sheet of masking paper is cut to the size and shape of the area to be covered, and strips of masking tape are applied to the edges of the paper with approximately half of the width of the tape extending beyond the paper to provide an adhesive surface for attachment of the paper to the surface to be covered. It will be obvious that large sheets of paper with tape thus attached are difficult and clumsy to handle, but more important is the problem of properly aligning the tape with the edges of the paper. Under existing procedures of manually applying the tape to the paper, a common difficulty is that of getting too much or too little of the width of the tape secured to the paper with the consequence that the taped edge, which is intended to be a guide edge, is irregular. Oftentimes the irregularities are so extreme that it is necessary to apply a second strip over the first to obtain a suitably straight edge, resulting in increased costs in labor and material. Also, in the attempt to maintain a straight edge there is the tendency for the operator to make small folds in the masking tape in an effort to correct "run-outs" or "run-ons" of the tape relative to the edges of the paper. Under the influence of the high pressures of paint sprayers, these folds are prone to be opened and allow paint to flow under the masking tape consequently causing irregularities at the edge of the area intended to be masked.

It is an object of the present invention to provide an improved form of masking tape which eliminates the foregoing deficiencies of available masking tapes.

Another object of the invention is to provide a masking tape of a construction which automatically insures alignment of the tape with an edge of a piece of masking paper.

Still another object of the invention is to provide a masking tape the use of which eliminates the separate step of cutting the masking paper to the desired shape, this step being accomplished during the application of the present tape to the masking paper.

Another object of the invention is to provide a masking tape which insures automatic alignment with an edge of a piece of masking paper and provides a decorative edge on the adhesive area of the tape which extends beyond the edge of the masking paper.

The tape in accordance with one embodiment of the invention consists essentially of a composite of two tapes, each having one adhesive surface, overlaid one on the other, with the adhesive surface of one joined to the non-adhesive surface of the other. The upper tape is wider than the lower tape by the width that it is desired the tape should engage the masking paper; thus, the underside of the composite tape presents the entire adhesive surface of the lower tape and a portion of the adhesive surface of the upper tape. More particularly, in one embodiment of

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the invention, the lower tape may consist of a transparent adhesive strip such as "Scotch" tape, which has a normally tacky and pressure-sensitive adhesive coating on one surface of the cellophane backing, the backing being relatively smooth and inactive to the adhesive coating. The upper tape may consist of ordinary masking tape, having either a cloth or paper backing and a normally tacky and pressure-sensitive adhesive coating on one surface. In an illustrative embodiment, the masking tape is approximately twice as wide as the "Scotch" tape, the tapes being overlaid with one edge of the masking tape coincident with one edge of the "Scotch" tape, the adhesive surface of the masking tape thereby completely covering the smooth backing of the "Scotch" tape and extending beyond the other edge of the "Scotch" tape an amount equal to the width of the "Scotch" tape. The adhesive coating of the masking tape is sufficiently tacky to adhere to the smooth backing of the "Scotch" tape to permit handling and rolling of the composite tape as a unit, yet is readily separable therefrom when pulled up and away from the "Scotch" tape by application of a force comparable to that encountered when unwinding a roll of tape.

In use, the tacky adhesive side of the composite tape is applied to a piece of masking paper, at any location thereon where a straight taped edge is desired, whereby both the "Scotch" tape and the area of the masking tape which extends therebeyond adheres to the paper, the adhesive coatings of both tapes, as is well-known, being such as to tenaciously adhere to paper. Then starting at one end of the composite tape, the masking tape is separated, or stripped, from the "Scotch" tape by pulling it upwardly and toward the inner edge of the "Scotch" tape, with the consequence, since both tapes strongly adhere to the paper, that the masking paper is cut or sheared along the edge of the "Scotch" tape. That portion of the masking paper to which the Scotch tape adheres is discarded, and the other portion has the masking tape evenly secured to the edge which was cut during the stripping process. The outer edge of the masking tape provides a perfectly straight edge for the paper, and the adhesive area, which was protected by the backing of the "Scotch" tape and which extends beyond the paper makes it ready for application to the surface to be masked.

In another embodiment of the invention, a single strip of "Scotch" tape is overlaid with two strips of masking tape, the width of the backing of the "Scotch" tape being divided between the two strips of masking tape, a portion of the width of the strips of masking tape respectively extending beyond the opposite edges of the "Scotch" tape. The adhesive qualities of the two types of tape are similar to that described above, and when the composite tape is applied across a piece of masking paper, the masking tape strips may be successively removed from the cellophane tape backing thus providing two pieces of masking paper with two straight edges taped and ready for attachment over an area to be masked.

A variation of the above embodiments consists in cutting a design along the edge of the masking tape which overlays the cellophane tape to provide a decorative edge when the masking tape is stripped from the cellophane tape.

Other objects, features and advantages of the invention will become apparent from the following detailed description when considered with the accompanying drawing in which:

Fig. 1 is a perspective view showing one form of the improved tape in accordance with the invention;

Fig. 2 is a plan view showing another form of the invention;

Fig. 3 is a plan view showing a variation in the construction of Fig. 2 to provide a decorative edge on the masking tape;

Fig. 4 is a perspective view illustrating the manner in which the tape is used with a piece of masking paper to achieve the objects of the invention; and

Fig. 5 is a perspective view of a partially unwound roll of masking paper illustrating two ways in which the tape in accordance with the invention may be attached to the paper.

Referring to the drawings, and more particularly to Fig. 1, one embodiment of applicant's improved tape (of which only a fragmentary portion is shown) comprises two overlaid strips of tape, the lower one preferably being of the type known as "Scotch" tape having a cellophane backing 10 and an adhesive coating 11 on one surface of the backing, and the upper one being ordinary masking tape having a paper or cloth backing 12 and an adhesive coating 13 on one surface of the backing. Preferably, for optimum utility, the cellophane backing 10 is slightly thicker and thus stiffer than that of "Scotch" tape used for wrapping purposes to provide an improved cutting edge for the masking paper. In the manufacture of the tape, the normally tacky and pressure-sensitive adhesive surface 13 of the masking tape is laid over the smooth backing 10 of the cellophane tape, the characteristics of the adhesive 13 being such as to adhere thereto. One edge of the masking tape coincides with one edge of the cellophane tape, the masking tape being wider than the cellophane tape by the amount that it is desired the masking tape engage the masking paper. For example, the cellophane tape may be $\frac{1}{2}$ inch wide and the masking tape one inch wide whereby when used with a piece of masking paper, $\frac{1}{2}$ inch of the masking tape will engage the paper and $\frac{1}{2}$ inch will extend beyond the edge of the paper for attachment to the surface to be masked. It will be understood, of course, that these dimensions are illustrative only, and that any combination of widths of cellophane and masking tapes may be used without departing from the spirit of the invention. It will also be appreciated, when the operation of the tape on a piece of masking paper is understood, that it is not imperative that corresponding edges of the overlaid tapes be coincident, but this arrangement is generally to be preferred as a manufacturing expedient.

Before describing the alternative forms of the invention illustrated in Figs. 2 and 3 the manner in which the tape of Fig. 1 is used with masking paper will be described with the aid of Fig. 4. The operator first selects a piece of masking paper of any area large enough to cover the area to be masked and generally determines, or may lay out on the paper the shape of the area. A strip of the composite tape of Fig. 1 equal to the length of one side of the area is then unwound from a roll and applied to the surface of the paper in a position where a taped straight edge is required and with the single thickness edge of the tape directed toward the wanted masking paper area. That is, the tape is simply laid on a piece of paper 25, not necessarily along the edge, as shown, and upon slight application of pressure, the adhesive surface 11 of the cellophane tape and the exposed adhesive coating 13 of the masking tape securely adhere to the paper 25. Then, starting at one end (the left in Fig. 4) of the tape, the masking tape is separated from the cellophane tape by pulling the masking tape upwardly and toward the edge of the cellophane tape with the consequence that the paper 25 is sheared along the inner edge of the cellophane tape as at 26. Both the cellophane tape and the exposed width of the masking tape tenaciously adhere to the paper 25, but the adhesive coating 13 on the masking tape is readily stripped from the smooth cellophane backing of the cellophane tape, making the stripping and cutting operation very easy. Thus, the paper to be used is provided with a straight edge 27, and the masking tape is evenly placed along that edge with part of the width of its adhesive surface 13 securely adhered to the paper 25 and the remainder of the adhesive surface extending beyond the

edge ready for attachment of the paper to the area to be masked. That portion of the masking paper to which the cellophane tape adheres is discarded. The other edges of the laid-out area are then prepared in a similar manner, and the paper is then ready for attachment to the surface to be covered. Thus it is seen that the cutting of the paper is accomplished concurrently with the application of the tape, and the masking tape is automatically aligned with the cut edge of the masking paper.

Referring now to Fig. 2, there is shown in plan view another embodiment of the invention consisting of two strips of masking tape 16 and 17 overlaid on a single strip of cellophane tape 15. The inner edges of strips 16 and 17 abut each other along line 18, which is preferably equidistant from the edges of strip 15. The strips of masking tape 16 and 17 are each of approximately the same width as the cellophane tape 15 with the consequence that each extends about one-half of its width beyond the corresponding edge of the cellophane tape. It will be understood that the composition and adhesive characteristics of the masking and cellophane tapes are similar to those described in connection with Fig. 1.

In using the tape of Fig. 2, it would be placed upon a piece of masking paper, and masking strips successively removed from the cellophane tape 15 in the manner described in connection with Fig. 4. The result is two pieces of masking paper having straight, evenly taped edges with the expenditure of one strip of cellophane tape and the discard of a strip of masking paper only as wide as the cellophane tape.

Fig. 3 illustrates a variation of the construction of Fig. 2, where instead of the masking tapes abutting along a straight line they abut along an irregular edge 23, shaped to provide a decorative design. In the manufacture of this embodiment, a single strip of masking tape is overlaid on a single strip of cellophane tape 20, with the masking tape extending equidistantly beyond the edges of the cellophane tape. The composite tape is then passed through a suitable cutting machine which cuts through the masking tape, but not the cellophane tape 20, to describe a pattern represented by line 23 and dividing the strip of masking tape into two strips 21 and 22 each having a decorative edge. The composite tape is used in the manner described above, but it will be apparent that the adhesive surface of the masking tape which extends beyond the edge of the paper will be provided with a decorative edge.

The tape illustrated in Fig. 1 is also susceptible to having a design formed along the edge of the masking tape by cutting through the masking tape, but not the cellophane tape, in the manner just described. In the interest of providing a suitably wide exposed area of masking tape after removal from the cellophane tape, the decorative edge would preferably be cut near the edge which is coincident with the edge of the cellophane tape.

While in the foregoing examples the tape is described as being dispensed from a roll and then applied to the masking paper, it may be preferred to attach the composite tape to the paper during the manufacture thereof. For example, while the masking paper is being wound onto rolls, the tape may be applied to the paper, using suitable dispensing machinery, and the tape stored with the paper in the roll. Fig. 5 illustrates a roll 30 of masking paper 31 thus prepared, with a tape of the form illustrated in Fig. 1 affixed along the right-hand edge of the paper, and the composite tape of Fig. 2 applied somewhat centrally of the width of the paper. The thickness of the strips making up the composite tape, and the thickness of the paper, have been greatly exaggerated to illustrate their positions relative to the paper. It will be noted that the tape of Fig. 1 is applied with the cellophane backed tape 11 at or near the edge of the paper 31 so that in the stripping process described in connection with Fig. 4 a minimum of masking paper is dis-

carded, and the masking tape 12 is affixed to the edge of a piece of paper of substantial width. The "double" tape of Fig. 2 (or Fig. 3) would ordinarily be attached at some point intermediate the edges of the paper 31 so that upon successive removal of masking tapes 16 and 17 from their associated cellophane tape 15, each will be secured along the edge of a piece of paper of substantial width. It will be understood, however, that the illustrated locations of the tape are exemplary only, and that the disposition of the tape, as well as the type of tape used at any particular location, may vary with the requirements of the user.

From the above discussion it will be seen that applicant has provided an improved masking tape that is simple in construction, inexpensive to manufacture, and very effective in performing the functions for which it is intended.

It will be understood that minor changes in the size, form and construction of the parts of the composite tape may be made and substituted for those herein shown without departing from the spirit of the invention. For example, the cellophane backed tape of course isn't limited to the "Scotch" brand, as any tape of that type having a comparable adhesive coating and a relatively smooth back surface is suitable, and the masking tape, likewise, may be any of a variety of forms which are commercially available. It is the intention therefore that the invention be limited only by the appended claims.

What is claimed is:

1. As a new article of manufacture, a composite tape comprising a strip of thin flexible cellophane film backing having a normally tacky pressure-sensitive adhesive coating and a strip of flexible paper backing also having a normally tacky pressure-sensitive adhesive coating, a portion of the width of said last mentioned strip overlaying at least a portion of the width of said film backing with the adhesive coating of said paper backing joined to the uncoated side of said film backing, the adhesive coating on said paper backing being of such kind that the film backing is inactive thereto to a degree permitting easy stripping of the paper backing from the film backing.

2. As a new article of manufacture, a composite tape comprising a strip of thin flexible cellophane backing having a normally tacky pressure-sensitive adhesive coating and a strip of masking tape having a paper backing and a normally tacky pressure-sensitive adhesive coating, a portion of the width of said strip of masking tape overlaying at least a portion of the width of said cellophane backing with the adhesive coating of said masking tape joined to the uncoated side of said cellophane backing, the adhesive coating on said masking tape being of such kind that the cellophane backing is inactive thereto to a degree permitting easy stripping of the masking tape from the cellophane backing yet being strongly adherent to masking paper.

3. A composite tape adapted for use with masking paper to insure accurate alignment of a strip of masking tape along an edge of the masking paper comprising, a strip of thin flexible cellophane film backing having a normally tacky pressure-sensitive adhesive coating and a strip of masking tape having a normally tacky pressure-sensitive adhesive coating, a portion of the width of said strip of masking tape equal to the extent it is desired said masking tape should extend beyond the edge of said masking paper overlaying at least a portion of the width of said cellophane backing with the adhesive coating of said masking tape joined to the uncoated side of said cellophane backing and the remainder of the width of said masking tape extending beyond one edge of said cellophane backing by the amount it is desired said masking tape should engage said masking paper, the adhesive coating on said masking tape being of such kind that the cellophane backing is inactive thereto to a degree

permitting easy stripping of the masking tape from the cellophane backing yet being strongly adherent to masking paper.

4. A composite tape adapted for use with masking paper to cut the masking paper along a desired edge and to insure accurate alignment of a strip of masking tape along said desired edge comprising, a narrow strip of thin flexible cellophane film backing having a pressure-sensitive adhesive coating and a strip of masking tape of approximately twice the width of said cellophane backing and having a normally tacky pressure-sensitive adhesive coating, half the width of said masking tape overlaying said strip of cellophane backing with its adhesive coating joined to the uncoated side of said cellophane backing and the remainder of the width of said masking tape extending beyond one edge of said strip of cellophane backing, the adhesive coating of said masking tape being of such kind that the cellophane backing is inactive thereto to a degree permitting easy stripping of the masking tape from the cellophane backing yet being strongly adherent to masking paper.

5. A composite tape in accordance with claim 4 wherein said strip of masking tape has a design cut therein in the portion which overlays the cellophane backing thereby to provide a decorative edge on said strip of masking tape upon being stripped from said cellophane backing.

6. A composite tape adapted for use with masking paper to cut the masking paper along a desired edge and to insure accurate alignment of a strip of masking tape along said desired edge comprising, a narrow strip of thin flexible cellophane film backing having a pressure-sensitive adhesive coating and two strips of masking tape each of approximately the same width as said strip of cellophane backing and each having a normally tacky pressure-sensitive adhesive coating, half the width of each of said strips of masking tape overlaying half the width of said strip of cellophane backing with their adhesive-coated side joined to the uncoated side of said cellophane backing and the remainder of the width of said strips of masking tape respectively extending beyond opposite edges of said strip of cellophane backing, the adhesive coating on said strips of masking tape being of such kind that the cellophane backing is inactive thereto to a degree permitting easy stripping of the masking tape from the cellophane backing yet being strongly adherent to masking paper.

7. A composite tape in accordance with claim 6 wherein the inwardly directed edges of said strips of masking tape have a design cut therein to provide a decorative edge on said strips of masking tape when they are stripped from said cellophane backing.

8. A method for accurately aligning a strip of adhesive masking tape along an edge of a piece of masking paper comprising the steps of laying said strip of masking tape over a strip of cellophane-backed adhesive tape with a portion of the width of the masking tape extending beyond one edge of the cellophane-backed tape and the adhesive coating of the masking tape joined to the uncoated side of the cellophane tape, applying the composite tape thus formed to a piece of masking paper, and starting at one end of the composite tape, stripping the masking tape from the cellophane-backed tape by pulling it upwardly and toward the edge of the cellophane-backed tape whereby said masking paper is sheared along said one edge of the cellophane-backed tape and said strip of masking tape is aligned along the thus sheared edge of the paper.

9. A composite tape adapted for use with masking paper to cut the masking paper along a desired edge and to accurately align a strip of masking tape along said desired edge comprising, a cellophane tape having a pressure-sensitive adhesive coating on one face thereof and at least one strip of masking tape having a normally tacky pressure-sensitive adhesive coating on one face

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thereof joined to said cellophane tape with the coated face of said masking tape overlaying such portion of the width of the uncoated face of said cellophane tape as it is desired that said masking tape should extend beyond the desired edge of said masking paper and the remaining portion of the width of said masking tape extending beyond one edge of said cellophane tape, the adhesive coating on said masking tape being of a kind that said cellophane tape is inactive thereto to a degree permitting easy stripping of the masking tape yet being strongly adherent to masking paper.

10. A composite tape comprising, a cellophane tape having a pressure-sensitive adhesive coating on one face thereof and a relatively wider strip of masking tape having a normally tacky pressure-sensitive adhesive coating on one face thereof overlaying said cellophane tape in such lateral alignment that a portion of the width of said masking tape is joined to said cellophane tape and the remaining portion of the width of said masking tape extends beyond one edge of said cellophane tape, the adhesive coating of said masking tape being joined to the uncoated face of said cellophane tape and of a kind that said cellophane tape is inactive thereto to a degree permitting easy stripping of the masking tape from the cellophane tape yet being strongly adherent to masking paper.

11. As a new article of manufacture, a composite tape comprising a first strip of thin flexible cellophane film backing having a normally tacky pressure-sensitive adhesive coating and a second strip of flexible backing also having a normally tacky pressure-sensitive adhesive coating, a portion of the width of said second strip overlay-

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ing at least a portion of the width of said first strip with the adhesive coating of said second strip joined to the uncoated side of said first strip, the adhesive coating on said second strip being of such kind that the cellophane film backing of said first strip is inactive thereto to a degree permitting easy stripping of the second strip from the first strip yet being strongly adherent to masking paper.

12. As a new article of manufacture, a composite tape comprising a first strip of thin flexible cellophane film backing having a normally tacky pressure-sensitive adhesive coating and a second strip of flexible backing material also having a normally tacky pressure-sensitive adhesive coating, a portion of the width of said second strip overlaying at least a portion of the width of said cellophane film backing with the adhesive coating of said second strip joined to the uncoated side of said film backing.

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