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CREASING TOOL FOR BUILDING TAPE

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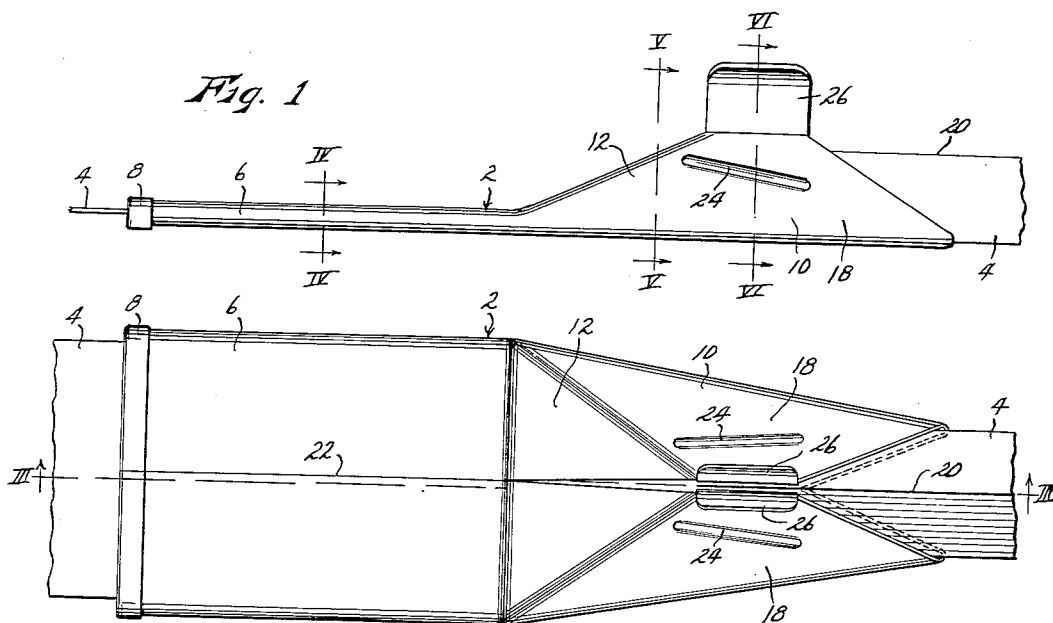


Fig. 2

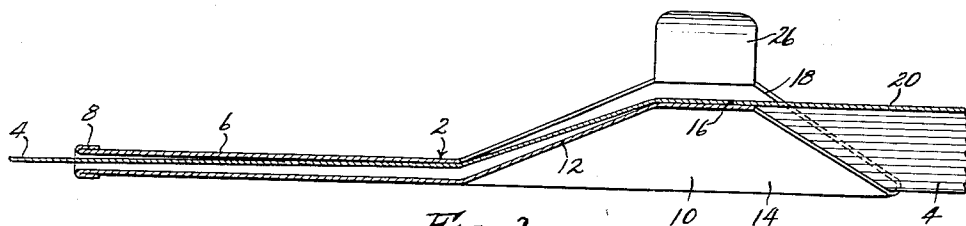


Fig. 3

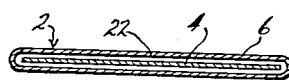


Fig. 4

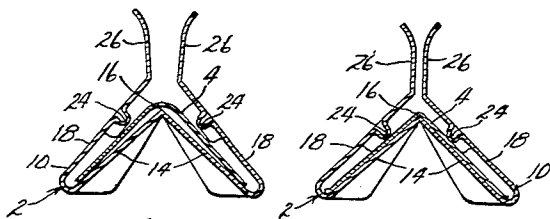


Fig. 7

Fig. 6

Fig. 5

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CREASING TOOL FOR BUILDING TAPE

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2 Claims. (Cl. 270—86)

This invention relates to new and useful improvements in tools for creasing pliable tape longitudinally, and has particular reference to the paper tape commonly known as building tape, such as is pasted or otherwise secured over the joints between sections of fiber wallboard or the like used in interior building wall construction, in order to conceal the joint and provide a smooth wall surface. It will be apparent, however, that my invention is not so limited, but has application generally to any tape made of paper or other foldable material.

It is apparent that in the application of building tape to the wall, it must be folded longitudinally, preferably along its midline, to fit in the corners between walls, or in the corners between the walls and ceiling, and it is desirable that this folding should be done before the tape is applied to the wall, since it may then be pressed more easily and more snugly into the angle of the walls. This folding is difficult to perform accurately and rapidly by hand, even though some tapes of this nature are sold with an indented line forming a fold line. Furthermore, the longitudinal edge portions of such tape are often tapered or feathered to a very thin edge, in order that said edges will not show in the finished wall, and this makes said edges quite flimsy and easily torn or deformed by manual handling.

The principal object of the present invention is, therefore, the provision of a tool which will perform this folding or creasing operation rapidly, accurately, and efficiently.

Another object is the provision of a tape creasing tool of the character described including a hollow tube of generally V-shaped cross-section through which the tape is manually pulled, the inner walls forming a creasing edge at the apex of the V, and the outer walls each having an internal rib which is engageable with the associated inner wall whereby to grip the edge portions of the tape therebetween, said ribs being inclined away from said creasing edge in the direction of travel of the tape, whereby said tape is pulled taut across the creasing edge.

Other objects are extreme simplicity and economy of operation, and ease and efficiency of operation.

With these objects in view, as well as other objects which will appear in the course of the specification, reference will be had to the drawing wherein:

Fig. 1 is a side elevational view of a tool for creasing paper tape embodying the present invention, shown with a length of paper tape in operative engagement therein.

Fig. 2 is a top plan view of the device as shown in Fig. 1.

Fig. 3 is a sectional view taken on line III—III of Fig. 2.

Fig. 4 is a sectional view taken on line IV—IV of Fig. 1.

Fig. 5 is a sectional view taken on line V—V of Fig. 6.

Fig. 6 is a sectional view taken on line VI—VI of Fig. 1, with the outer walls pressed inwardly to engage the tape.

Fig. 7 is a view similar to Fig. 6, with the outer walls released.

Like reference numerals apply to similar parts throughout the several views, and the numeral 2 applies to a hollow sheet metal tubular body member which is flattened to a thickness whereby to admit a paper tape 4 easily between the walls thereof. The tube has a substantially planar entry section 6 provided at its free end with a turned lip 8 providing easy insertion of the tape, and a section 10 at the opposite end of the tube which has substantially the form of an inverted V in cross-sectional contour, and a section 12 intermediate sections 6 and 10, in which the contour of the tube is changed gradually from the flat shape of the entry section 6, as shown in Fig. 4, to the V-shape of section 10, as shown in Figs. 6 and 7. Section 10 has a pair of inner walls 14 which converge at the apex of the V-shape to form a creasing edge 16, which should be as sharp as possible and still avoid possible cutting of the tape, and a pair of outer walls 18 spaced apart from walls 14.

The structure as so far described has been found satisfactory in many cases, the tape 4 merely being pulled through the tube from left to right as viewed in Figs. 1 to 3, whereby the tape is creased at 20 as it passes over creasing edge 16. However, for efficient creasing the tape obviously must be either pressing firmly against or stretched taut across the creasing edge 16. Hence, if the inner and outer walls 14 and 18 of the V-shaped section of the tube were spaced closely enough to hold the tape tightly against the edge 16, difficulty would be experienced in threading the tape through the tube initially, since it must be pushed through the tube until it can be grasped at the exit end of the tube.

To overcome this difficulty, applicant has provided that outer walls 18 are normally spaced apart from inner walls 14 a distance sufficient to permit the easy insertion of the tape therebetween, with the provision that said outer walls may be pressed inwardly to grip the paper firmly. This is accomplished by forming the body tube 2 of a strip of sheet metal with the longitudinal edge portions folded upwardly and inwardly to bring the edges into juxtaposition along the medial line of the upper surface of the tube. These edges may be secured together along the length of entry section 6, as indicated at 22, but are spaced apart along the lengths of the intermediate and V-shaped sections, as best shown in Fig. 2. The outer walls 18 are thus secured to inner walls 14 only along their lower edges, at the ends of the arms of the V-shaped section. Formed in each of outer walls 18 is a straight rib 24, said ribs being conveniently formed by indenting walls 18 as shown. Said rib is internal, confronting the associated inner wall 14, and is inclined downwardly from creasing edge 16, or away from said creasing edge in the direction of travel of the tape. The walls 14 and 18 are so formed that the resilience of the metal of which they are formed normally holds walls 18 and ribs 24 apart from inner walls 14 sufficiently to permit the easy insertion of tape 4 therebetween, as shown in Fig. 7. After the tape has been pushed through the tube sufficiently to project from the exit end thereof, walls 18 are manually pressed inwardly until the tape is gripped firmly between ribs 24 and inner walls 14, as shown in Fig. 6. Each wall 18 is provided at its upper edge with a finger tab 26 to facilitate this operation. The operator then grasps the tape end projecting from the right or exit end of the tube, and pulls any desired length of tape through the tube from left to right. Ribs 24, due to their inclination, tend to draw the tape frictionally downwardly along the surface of walls 14 away from creasing edge 16, thereby holding the tape taut and firm across said creasing edge and insuring efficient creasing.

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While I have shown and described a specific embodiment of my invention, it is apparent that minor changes of structure and operation could be made without departing from the spirit of the invention as defined by the scope of the appended claims.

What I claim as new and desire to protect by Letters Patent is:

1. A tool for creasing foldable material in tape form comprising a hollow tubular body member through which tape may be drawn longitudinally, said body member having a portion of substantially V-shaped cross-sectional contour, the inner walls of said V-shaped section converging to form an internal creasing edge extending longitudinally of the body member, and the outer walls of said V-shaped section each having a rib on the inner surface thereof, said outer walls being normally spaced apart from said inner walls to permit easy insertion of said tape therebetween, but being movably associated with said inner walls for movement toward said inner walls, whereby the tape is gripped frictionally between each of said ribs and the associated inner wall, said ribs being inclined away from said creasing edge in the direction of travel of the tape.

2. A tool for creasing foldable material in tape form

comprising a hollow tubular body member through which tape may be drawn longitudinally, said body member having a portion of substantially V-shaped cross-sectional contour, the inner walls of said V-shaped section converging to form an internal creasing edge extending longitudinally of the body member, and a rib carried on the inner surface of said outer walls, said outer walls being normally so positioned that said ribs are spaced apart from said inner walls sufficiently to permit the easy insertion of the tape therebetween, said outer walls being resiliently yieldable whereby to be manually movable toward said inner walls to grip said tape frictionally between said inner walls and said ribs, said ribs being inclined away from said creasing edge in the direction of travel of the tape.

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