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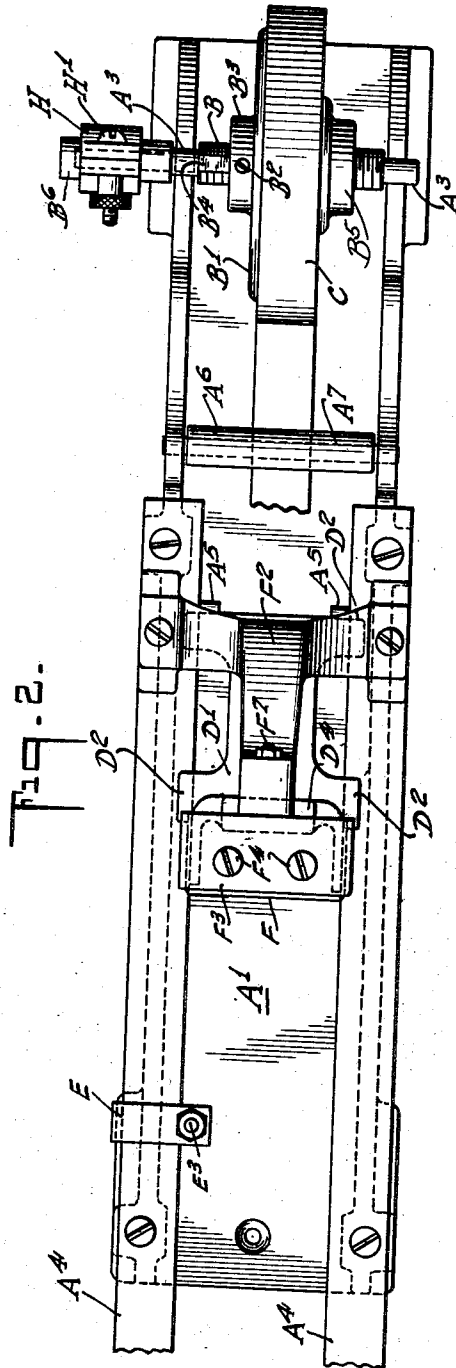
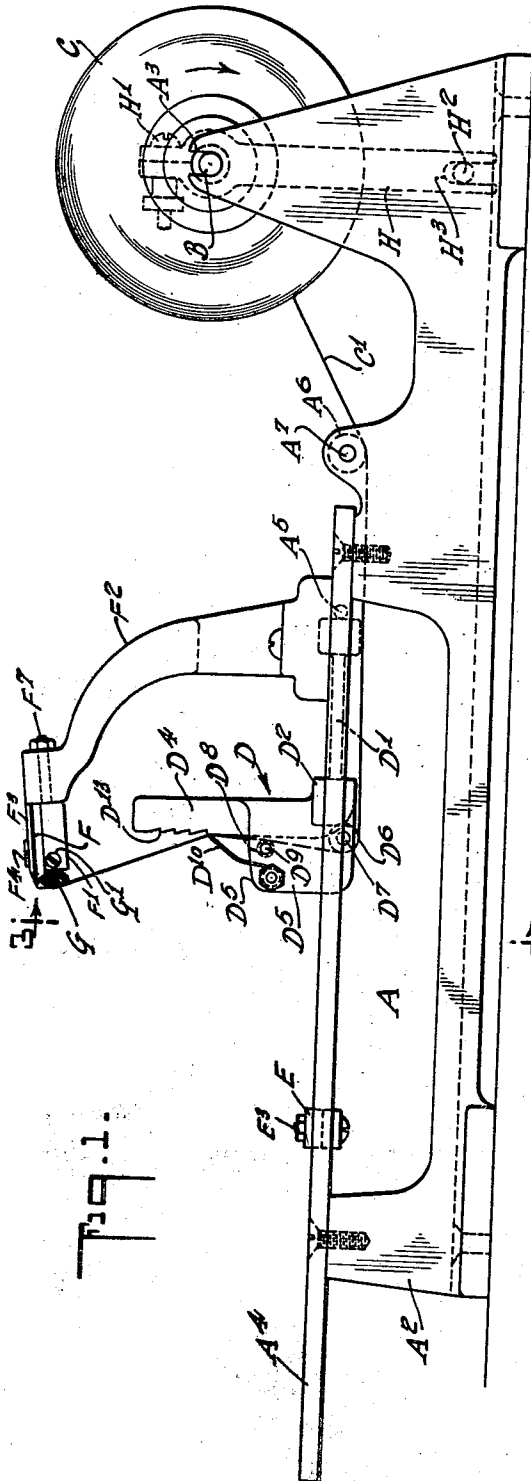
B. DE MATTIA

2,178,722

TAPE STRIPPING, MEASURING, AND SEVERING DEVICE

Filed Dec. 28, 1937

4 Sheets-Sheet 1



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C-126

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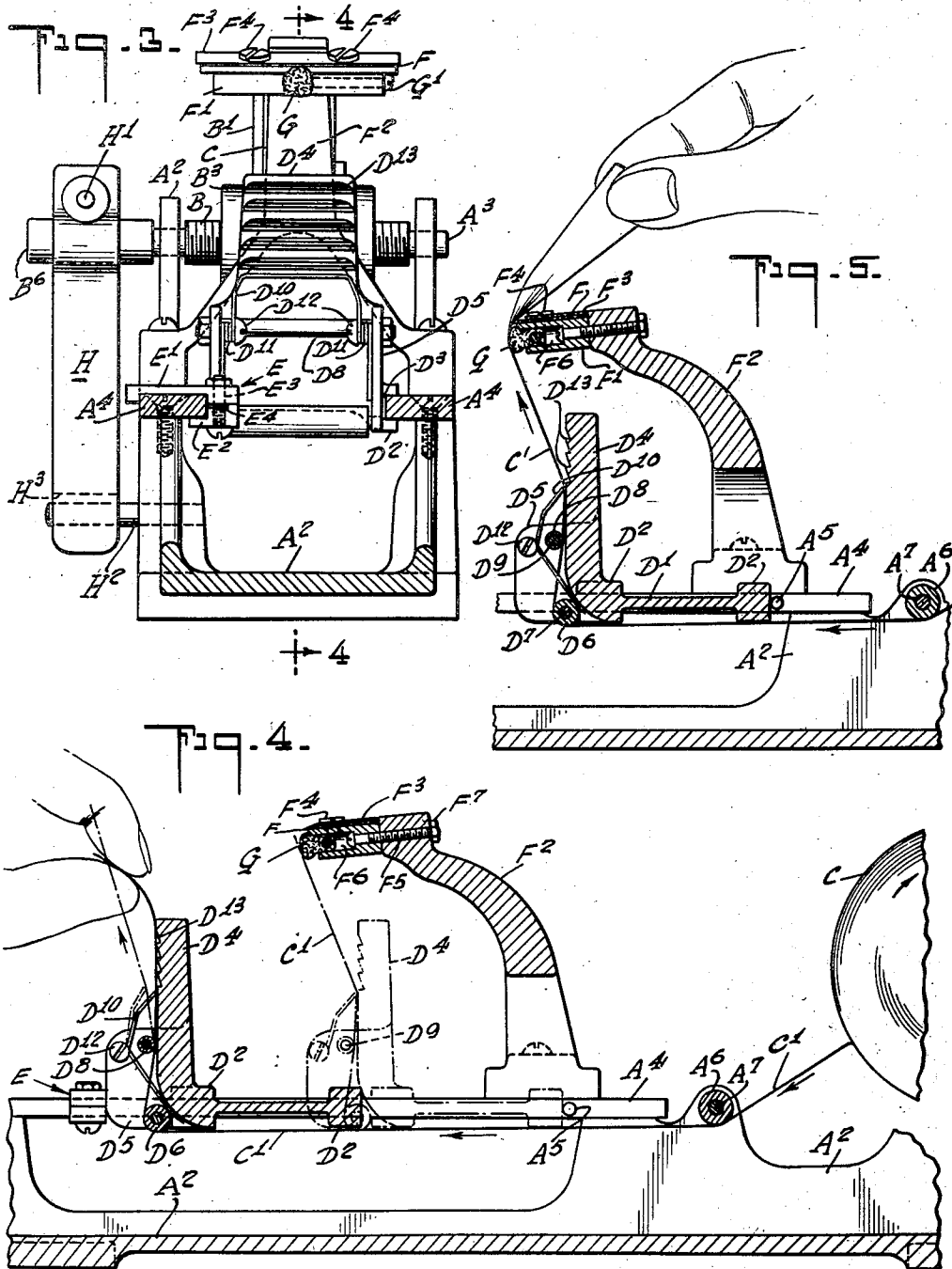
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TAPE STRIPPING, MEASURING, AND SEVERING DEVICE

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4 Sheets-Sheet 2



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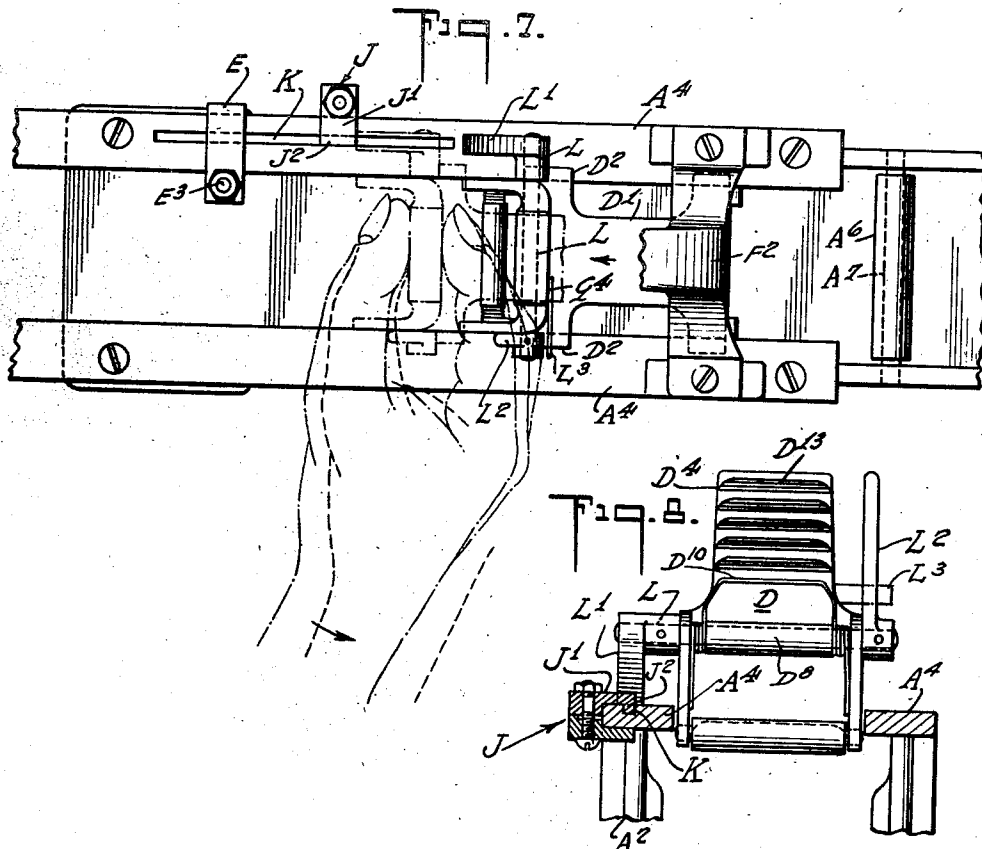
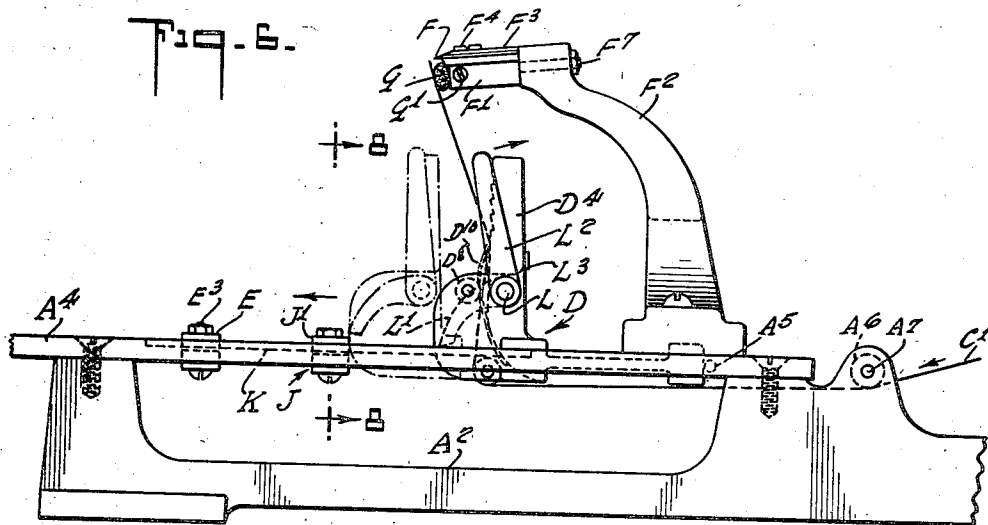
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TAPE STRIPPING, MEASURING, AND SEVERING DEVICE

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4 Sheets-Sheet 3



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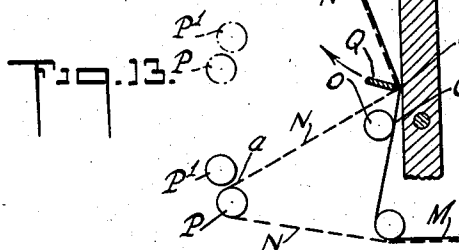
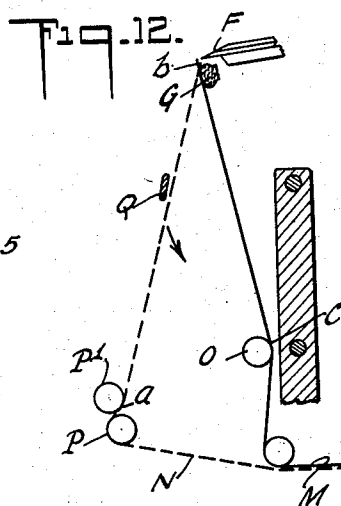
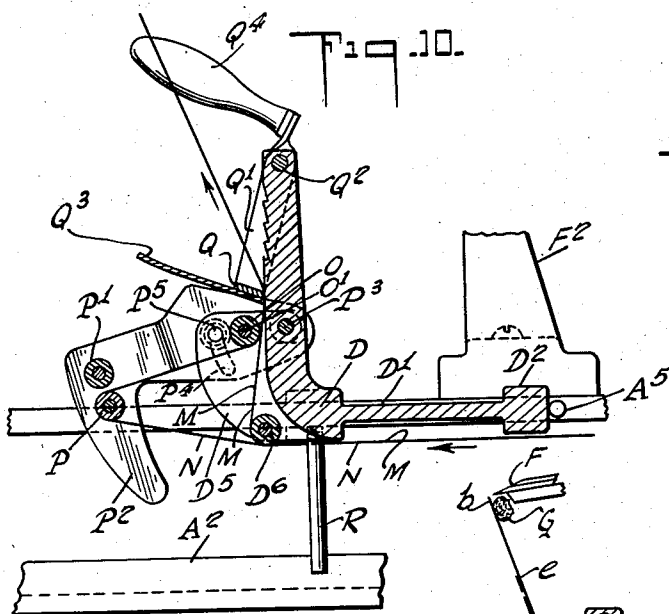
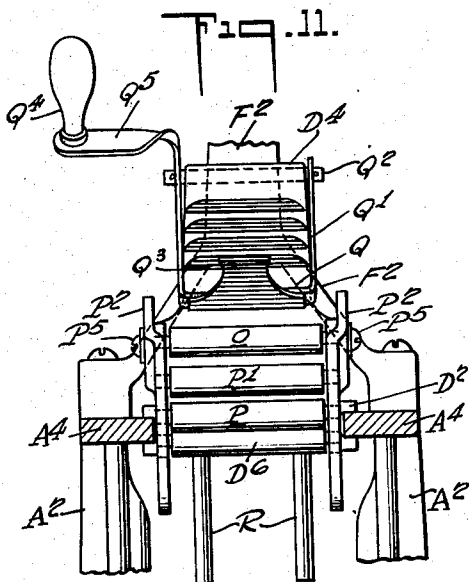
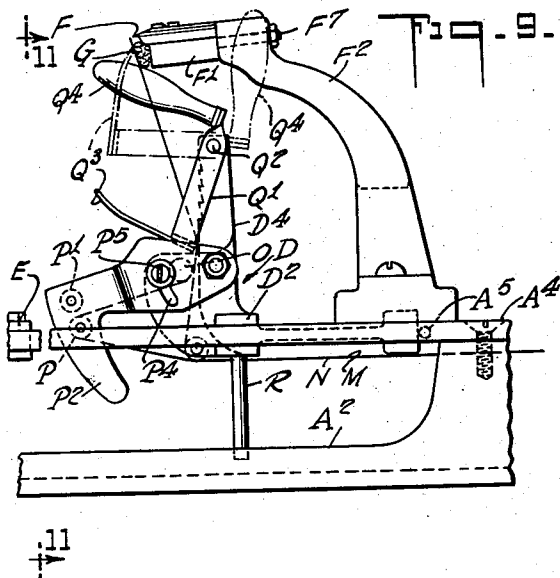
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TAPE STRIPPING, MEASURING, AND SEVERING DEVICE

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4 Sheets-Sheet 4



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UNITED STATES PATENT OFFICE

2,178,722

TAPE STRIPPING, MEASURING, AND SEVER-
ING DEVICE

Barthold De Mattia, Clifton, N. J.

Application December 23, 1937, Serial No. 182,041

23 Claims. (Cl. 164—84.5)

This invention relates to a device for stripping material from a roll and for measuring and severing it into predetermined lengths. Like the device disclosed in my co-pending application, Serial No. 131,310, filed March 17, 1937, it has particular utility in the manufacture of electrical apparatus where much material is sold to the industry in rolls, as for instance, adhesive tape, which in its ultimate use is required in short lengths, i. e., fractional parts of a foot. It eliminates in its entirety, the tedious effort and waste involved in cutting such lengths with ordinary scissors, a practice which heretofore has been followed almost universally.

The improved device contemplates mechanical means for stripping the material (hereinafter referred to as tape) from the roll in predetermined lengths, and comprises essentially a slidable measuring head arranged for reciprocating movement in a guide frame and beneath which the tape is threaded from a supply roll mounted upon a support that allows the tape to unwind as a pulling force is exerted on the end thereof. At the leading or front end of the slidable head, there is provided an upwardly extending vertical portion which is grasped by the operator and through which the head is manually actuated. The tape, upon leaving the supply roll, passes under a roller mounted in the machine frame, thence beneath the slidable head and around a roller mounted at the front end thereof near the bottom, and thence up past the vertical portion of the slidable head to a cutter arranged on a fixed standard secured to the frame of the device. In order to measure and sever a length of tape, it is only necessary for the operator to grasp the upstanding vertical portion of the slidable head and tape simultaneously and pull the slidable head forward until it is arrested by a stop, which measures the length of tape to be severed. The operator then grasps the end of the tape and draws it up past the cutter, this operation serving automatically to return the slidable head to its original position and determine the length of tape drawn past the cutter, which length will be the same as that previously measured on the initial stroke of the slidable head. Thereupon, the tape is severed by tearing it against the edge of the cutting tool. When the material handled by the machine is devoid of rigidity, as in the case with adhesive tape, the cutter head, just beneath the blade, is provided with a plug of material, to which the tape readily adheres and which serves automatically to tack the free end of the tape after a length has been severed, in an upright

position, such as will facilitate its being grasped by the operator simultaneously with the vertical portion of the slidable head. The slidable head is also provided with spring means for urging the tape into contact with the face of the vertical portion to prevent its sagging down and the machine from becoming unthreaded. The spring means is particularly useful where the tape is non-adhesive and has sufficient rigidity to obviate the necessity of using the plug for maintaining the tape in an upright position.

As the tape is being pulled past the cutting tool during the return stroke of the slidable head, it must be anchored at its opposite end so as not to alter or disturb the length of tape previously measured. Where the tape is possessed of adhesive qualities, the adhesion of the portion leaving the roll to the underlying convolution thereof will, as a rule, be sufficient to serve as the anchoring instrumentality roll. However, where the tape is not possessed of such adhesive qualities, or where the adhesiveness is not sufficient to prevent unwinding of the tape during this phase of operation, the supply roll is held against turning by a friction brake which can be suitably adjusted, depending upon the braking force required to prevent the roll from unwinding.

In another embodiment of the invention, there are provided means for securing two different lengths of tape without altering the setting of the machine. In accordance therewith, the measuring head is provided with a pawl arranged to cooperate with one or another of a pair of stops mounted on the frame and which serve to arrest the head at different positions in its forward movement. The pawl mechanism is so arranged that it can be allowed to remain in operative position when the operator moves the measuring head forwardly, in which case one length of tape will be measured, or by a slight movement of the hand, the operator can render the pawl inoperative as the head is moved forwardly, in which case a different length of tape will be measured off.

In still another embodiment of the invention, means are provided for measuring and severing lengths of tape which have a protective strip between the convolutions thereof and which must be removed when the tape is used. Rubber insulating tape is one example of a tape which usually comes with such a protective strip. In accordance with this embodiment of the invention, the tape and its protective strip are caused to take separate paths after they leave the anti-friction roller at the bottom of the sliding head,

thus causing the strip to be separated from the tape itself. Thereafter, both strip and tape are brought together again and in contact with the vertical portion of the sliding head, enabling them to be grasped simultaneously and held against this portion of the sliding head when the operator moves the latter forwardly to effect the measuring and the stripping operation. Both strips are then simultaneously pulled up past the cutting device and severed, the sliding head being returned to its normal position, as in the case of the other embodiments previously referred to. Bringing the strips together after separation will not cause them to adhere, since at this time they are in contact only over a relatively short portion of the measured length.

Rubber tape, of course, has a certain amount of stretch, whereas the protective strip will not, and accordingly, in this embodiment of the invention, means are provided to compensate for the stretch in the rubber when the strips are pulled past the cutting tool, so that ultimately the severed strips of rubber tape and protective material will be of substantially equivalent length. Furthermore, the mechanism for this purpose is adjustable, in order to compensate for tapes that have different stretching properties.

Referring to the drawings:

Fig. 1 is a side elevation of a tape stripping, measuring and severing device equipped with the present improvements;

Fig. 2 is a top plan view of the device illustrated in Fig. 1;

Fig. 3 is a transverse vertical sectional view taken on line 3-3 of Fig. 1;

Fig. 4 is a longitudinal vertical sectional view of a portion of the device shown in Fig. 1, and illustrating in dotted lines, the measuring head in its normal position, and in solid lines, the measuring head in its forward or advance position at the end of the measuring stroke;

Fig. 5 is a longitudinal vertical sectional view through a portion of the machine, and showing the movable head in its rearmost or normal position, where it has been returned by the pulling of the tape past the cutting element;

Fig. 6 is a side elevation of a portion of another embodiment of the device equipped with mechanism for arbitrarily measuring one length of tape or another as desired;

Fig. 7 is a top plan view of the device shown in Fig. 6, but with the cutting element standard broken away to illustrate the operation of the parts;

Fig. 8 is a vertical sectional view taken on line 8-8 of Fig. 6;

Fig. 9 is a side elevation of a portion of another embodiment of the device equipped for handling tape provided with a protective strip;

Fig. 10 is a longitudinal vertical sectional view through the measuring head shown in Fig. 9;

Fig. 11 is a transverse vertical sectional view taken on line 11-11 of Fig. 9;

Fig. 12 is a diagrammatic view, illustrating the operation of the mechanism which compensates for the stretch in elastic tape having a protective strip between the convolutions of a roll thereof; and

Fig. 13 is a diagrammatic view, similar to Fig. 12, but illustrating the parts in a different position of adjustment.

As shown in Figs. 1 and 2, the improved machine includes a main frame A having a base A¹ and spaced vertical side members A² projecting upwardly from the lateral edges thereof. At the

rear of the machine, the side frame members are relatively high and present at their upper ends, each a U-shaped journal A³ for the support of a mandrel B, on which is located a supply roll C of tape. The journals are open at the top to facilitate removing and replacing the mandrel when it is necessary to supply the machine with a new roll of tape. The machine is equipped to handle rolls of tape of different widths and, to this end, there is mounted on the mandrel, a backing plate B¹ for the roll of tape, and which is threaded on the mandrel so as to be adjustable to any desired position along the mandrel and held in its adjusted position by means of a set screw B² threaded through a centrally located boss B³ with which the backing plate is formed and into engagement with a flat or mutilated portion B⁴ of the threaded mandrel. The roll of tape is held in position against the backing plate by a collar B⁵ likewise threaded on the mandrel at the opposite face of the roll. This collar is substantially smaller in diameter than the backing plate and indeed, is no larger than the core member of the roll of tape, so that there will be no interference presented by the collar to the stripping of the tape from the roll. It might be stated here that the usual cardboard core on which the tape is wound can be supplemented by a wood core (not shown) fitting tightly into the cardboard core and having a hole at its center of a size properly to fit the mandrel.

Forward of the roll mounting, the device is equipped with a pair of spaced parallel guide rails A⁴ fastened near their front and rear ends to upstanding portions of the side frames A². These rails are for the support and guidance of a slidable measuring head D, the function and operation of which will hereinafter be described. The head is formed with a base portion D¹ presenting four lugs D², two at the front and two at the rear, and which are equipped with grooves D³ into which the guide rails A⁴ project (see Fig. 3). The head is further formed at the front end of the base with an upstanding vertical portion D⁴ and with two forwardly projecting spaced apart flanges D⁵ at the lateral edges of said vertical portion.

The head D is arranged to slide along the guide rails A⁴ through predetermined strokes, its rearmost or normal position being determined by a pair of studs A⁵ projecting laterally and inwardly, one from each of the guide rails, and against which the head banks at its rear end. The foremost position of the head is determined by a stop E, against which one of the flanges D⁵ of the head banks at its front end. This stop, as shown best in Fig. 3, is an adjustable clamp which can be located at any desired position along the rail, thus providing for the head, any desired length of stroke within the limits of the machine. The clamp includes a top member E¹ recessed to fit over the guide rail, a bottom member E² presenting a portion which engages the bottom of the rail and a bolt E³ for drawing the members together to exert the clamping pressure, the bottom member being slightly recessed, as at E⁴, so that a proper purchase on the rail is obtained.

The tape C¹, as it leaves the roll C (see Figs. 1 and 2), passes, first beneath a guide roller A⁶ rotatably mounted on a cross pin A⁷ fixed at its ends in the side frame members A², thence, under the head D, and around another roller D⁶, rotatably mounted on a cross pin D⁷ fixed at its ends in the spaced forwardly projecting flanges D⁵. After passing around the roller D⁶, the tape is

threaded upwardly between the front face of the vertical portion D⁴ of the head and another roller D⁵ rotatably mounted upon a cross pin D⁶ likewise fixed at its ends in the flange members D⁵, and thence to a cutter or blade F having a fixed position overlying the measuring head. The tape being urged into contact with the vertical portion D⁴ of the head by a U-shaped wire spring D¹⁰ formed with a straight horizontal portion which engages the tape, and with two side portions terminating in spiral springs D¹¹ encircling a pair of bolts D¹² arranged one in each of the flange members D⁵ (see Fig. 3).

The cutter or blade F is mounted on a cross member F¹ secured to a standard F² in the form of an inverted Y-shaped element, the lower part of which bridges the space between the guide rails to which it is secured. The blade (see Figs. 3 and 4) is held in place on the cross member F¹ by a guard plate F³ and a pair of screws F⁴ passing through the guard plate and blade and threaded into said cross member. The cross member is secured to the standard F² at the top by means of a bolt F⁵ passing through a hole drilled in the base of a cylindrical recess F⁶ centrally located in the cross member and through a registering hole drilled in the standard, and having a nut F⁷ threaded thereon and reacting against the rear face of the standard. According to this arrangement, the knife F can be located in any angular position desired with respect to the travel of the tape, as will be readily understood.

The operation of the device, it is thought, will now be readily apparent from the following brief description, reference being had particularly to Figs. 4 and 5. Assuming that a length of tape has been severed so that there is a portion thereof extending upwardly from the vertical portion of the head D⁴ to the knife F; the operator merely grasps the tape and the head simultaneously by holding the tape in contact with the front face of the vertical portion of the head near the upper end thereof and placing one or more fingers on the rear face of said vertical portion, and then drawing the head forwardly until it is arrested by the banking of the head against the stop E. In other words, the head is moved from the position shown in dotted lines in Fig. 4 to the position shown in solid lines therein. During this operation, a length of tape will be stripped from the roll, the amount thereof depending upon the distance through which the head has travelled before being arrested by the stop E. Thereupon, the operator grasps the tape at the end thereof extending above the vertical portion of the head (see Fig. 4) and pulls it first in a slightly forward direction to break the adhesion between the tape and the head, and thence in an upward direction. As the tape is thus pulled and, since it is, in a sense, anchored at the point where it joins the main roll, by virtue of its adhesion to the underlying convolution thereof, the movable measuring head will be returned to its normal or original position, which, as previously stated, is determined by the banking of the head against the stop pins A⁵ (see Fig. 5). As the head, in its return movement, will travel through the same distance as it previously did during its forward movement, the length of tape drawn up past the cutting blade F will be the same as that measured by such forward movement of the head. The measured length of tape is then severed by tearing it against the cutting blade F.

Since ordinary adhesive tape has very little body and is substantially devoid of stiffness,

means are provided for holding the leading end of the tape C¹ at the blade position, so that it will not drop down before the operator has had an opportunity to grasp it for the next measuring and stripping operation. Such means includes preferably a rubber plug G, which can readily be made by rolling up a short length of tape (rubber or otherwise) and inserting it in the recess F⁸ located at the center of the cross member F¹. The plug G is held in place by a set screw G¹ threaded longitudinally through the cross member F¹ and embedded into the plug itself (see Fig. 3).

As the tape C¹ is pulled upwardly past the cutter F during the return movement of the measuring head, the spring D¹⁰ will yield so that the tape can be drawn past the vertical portion D⁴ of the head without contact therewith, but the strength of the spring is not such as to require a pulling tension on the tape that ordinarily will prevent the roll of tape C itself from acting as an anchor. The purpose of the spring is mainly to prevent the machine from becoming unthreaded. The vertical portion D⁴ of the head near its upper end and in its front face is provided with a series of ridges D¹³ presenting relatively narrow tape engaging edges, in order that the tape will not adhere too tightly to the head when it is pressed thereagainst by the operator during the measuring stroke.

In order that the machine can be adapted for measuring and severing tape that is not adhesive, or where the adhesiveness is so slight as to preclude the possibility of the roll acting as its own tensioning device, a brake mechanism has been provided which will facilitate placing any desired degree of tension on the tape. As shown in Figs. 1, 2 and 3, this braking mechanism includes an element H, preferably made of wood, and which is drilled near its upper end to receive an extension B² of the roll supporting mandrel B, projecting beyond the side frame of the machine. The diameter of this hole is slightly smaller than the diameter of the mandrel extension and, as the element H is split at the top above the hole and for about half its length below the hole and provided with a bolt and nut H¹ arranged to urge the split portions together, the frictional force exerted by the device on the mandrel can be varied to any extent desired, merely by tightening or loosening up on the nut, the latter being knurled to facilitate such adjustment. The braking device itself is prevented from turning with the mandrel by a pin H² projecting laterally from the frame of the machine near the bottom, and which extends into a slot H³ formed in the lower end of the element H for the purpose.

Where the tape is sufficiently stiff, so that the portion thereof between the upper end of the vertical portion D⁴ of the head and the knife F can support itself, the rubber plug G can be dispensed with, if desired. It will further be noted that the clearance between the upper end of the head and the knife should be such as to permit the tape to extend sufficiently above the head to enable the operator readily to grasp the tape to effect the operation of pulling the same and guiding it past the cutting blade.

In Figs. 6, 7 and 8, the device has been illustrated with an attachment that will permit the operator arbitrarily to measure and sever one or another of two different lengths of tape without adjustment of the device.

In addition to a banking stop or clamp E, which is, in all respects, the same as that in the embodiment previously described, there is pro-

vided a second stop J, which, as shown in Fig. 8, comprises a clamp, the same as the clamp E, except that here the bolt is arranged beyond the outer lateral edge of the guide member A⁴, and the upper member J¹ thereof, instead of extending completely across the guide member, terminates substantially at the center line thereof, and is provided at this end with a depending lip J² engaging in a groove K in the upper face of the guide member A⁴ and extending longitudinally therealong.

The vertical portion D⁴ of the head in this instance is drilled transversely to receive a shaft L which, at both ends, extends beyond the side faces of the head. At one end of the shaft L, i. e., that which projects over the guide rail A⁴ equipped with the stops E and J, there is fixed a pawl L¹ extending downwardly to cooperate with the smaller clamping element J, that is, the first one nearer the head in the normal position thereof. At the other end of the shaft, there is pinned a bar L² extending upwardly to the top of the measuring head. This bar is tilted slightly in a forward direction, so that its weight, together with the weight of the pawl L¹, tends normally to rotate the unit forwardly, so that the pawl will engage the upper face of the guide rail A⁴. If the operator desires a short length of tape, he will, during the measuring stroke, grasp the tape and the vertical portion D⁴ of the measuring head in a manner so as not to disturb the bar L², thereby permitting the pawl L¹ to maintain its normal position. The position of the operator's hand, under these circumstances, is shown in dot and dash lines in Fig. 7. Consequently, the pawl L¹ will engage the first stop J, thus determining the length of tape to be severed. However, if the operator desires the longer length of tape, he merely moves his hand to the dotted line position shown in Fig. 7 during the measuring stroke, in which case, the bar L² is moved rearwardly to raise the pawl to the dot and dash line position shown in Fig. 6, wherein it clears the first stop J. The measuring stroke is then continued until the measuring head is arrested by banking against the second stop E in the same manner as in the embodiment previously described. Irrespective of the length of tape measured however, the measuring head D is returned to its normal position and the tape severed in the usual way. Both clamps or stops E and J, of course, are adjustable longitudinally along the guide rail A⁴, so that, by adjusting them to different locations, the machine can be set to measure any two lengths of tape as desired, within the limits of the machine. The first clamp J terminates at its inner end adjacent the center line of the guide rail in order to allow clearance for the guide lugs D² on the head during the measuring of the longer length of tape for which the machine is set. Furthermore, the vertical portion of the measuring head D is preferably provided with a stop L³ to limit the rearward movement of the pawl controlling bar L², so that the pawl will always tend to remain in its normal position. With the foregoing exceptions, plus the fact that the roller D³ is somewhat larger in diameter than the corresponding roller in the embodiment previously described, and that the tape retaining spring D¹⁰ is mounted on the shaft supporting the roller D³, the device is otherwise the same.

In Figs. 9, 10, 11 and 12, there is illustrated a measuring head equipped with an attachment for stripping, measuring and severing tape normally

marketed with a layer of protective material between the convolutions thereof. Rubber tape is an example of such a product, the protective material in such instances being paper, cloth, or some other suitable inextensible material. In threading the device, the tape M and its protective strip N are led from the supply roll which is supported as in the embodiments previously described, beneath the measuring head D to the anti-friction roller D⁴. At this point, the protective strip N is separated from the tape M, the tape passing upwardly between the front face of the measuring head D and an anti-friction roller O, mounted on a cross rod O¹ fixed at its ends in the forwardly extending flanges D⁵. The protective strip N, on the other hand, is led forwardly around the lower one of a pair of rollers P, P¹ rotatably mounted on transverse pins fixed in the side members and at the forward end of a bracket P² pivotally mounted at its rear end on a transverse pivot rod P³ extending through the vertical portion of the measuring head. After passing around the roller P, the protective strip is led back toward the vertical portion of the measuring head, where it passes beneath the cross bar Q of a U-shaped member, the side arms Q¹ of which are pivotally mounted at the ends of a transverse horizontal pin Q² extending through the vertical portion of the measuring head at the top. From this point, the tape and its protective strip are led up past the cutting tool, as in the previously described embodiments.

The tape is measured as in the embodiments previously described, that is, the operator presses the tape and its protective strip against the vertical portion of the measuring head and grasps the rear face of the latter with his fingers, pulling the head forwardly until it is arrested by the banking stop E. The operator then grasps the ends of the protective strip and tape simultaneously and pulls them up past the cutting tool. During this operation, the measuring head D is returned to its normal position; the tape will pass around the rollers D³ and O, while the protective strip will pass between the rollers P and P¹ at the forward end of the bracket P² and at the rear of the cross bar Q of the U-shaped member. The tension maintained on the protective strip during this operation will cause the cross bar Q to assume the position shown in Fig. 12, thus allowing the strip to follow a straight line path between the roller P¹ and the cutter.

When the measuring head D has been returned to its normal position, wherein it banks against the stops A³, the measured lengths of the tape and strip will have been drawn to the cutting position and are ready to be severed. During the severing operation of the tape and strip, which is accomplished by tearing the tape and strip against the cutter F, the tape and strip are positively held against a rubber plug G, similar to that in the machine first described, by a finger Q³ with which the cross bar Q is provided and which, at its outer edge, is pressed against the protective strip by the operator. This movement of the finger Q³ into operative engagement with the protective strip to anchor the strip and tape during the severing operation is readily accomplished by the operator through the medium of a handle Q⁴ provided at the end of a bar Q⁵, which is a continuation of and bent at right angles to, the left arm Q¹ of the U-shaped member itself. After the tape and the protective strip have been severed, the U-shaped member is turned back to its original position, wherein the cross bar Q

thereof holds the protective strip in contact with the tape and the tape in turn in contact with the vertical portion of the measuring head D.

Where the tape is of rubber, it will stretch, and this property of the tape will be particularly

in evidence as the tape and protective strip are pulled past the cutting tool during the return movement of the measuring head and, if the ends of the tape and strip are in register when the pulling stroke is inaugurated, it is quite obvious that the rubber tape would be severed in a stretched condition. Consequently, the corresponding unstretched length of tape would be shorter than the severed length of protective strip. In order that the length of tape and protective strip severed be the same, means are provided to compensate for the elasticity in the rubber tape. It will be apparent that after the lengths of tape and protective strip are severed, if the end of the tape is anchored or tacked at the cutting blade by contact with the rubber plug G and the protective strip retracted so that its end will be somewhat lower than the end of the tape, the length of rubber tape extending beyond the end of the protective strip will compensate for the stretch in the rubber during the pulling operation. The manner in which the protective strip is retracted after a severing operation can best be illustrated by reference to the diagrammatic illustration of Fig. 12. In this figure, the tape M is shown in solid lines and the protective strip N in dotted lines and in their relative positions after the measuring head has been returned to its normal position and just prior to the severing action. It will be noted that the protective strip follows a line *ab* between the roller P and the knife F, since the cross bar Q of the U-shaped member is in a position remote from the face of the head D and at the same time the tape M will follow a straight line *cb* from the roller O to the knife F. After the tape and strip are severed, the U-shaped member, as previously stated, is turned back to its normal position, so that the protective strip (see Fig. 13) is again brought into contact with the tape and in contact also with the vertical portion of the measuring head D. The rubber tape will now assume the path *cdb*. There is very little difference in length between this path and the path *cb* which the tape originally followed, and consequently the tape, at its end, will not be drawn to any appreciable extent away from the knife, at least no more than what can be accommodated by the resiliency of the rubber plug, so that the tape will still remain in contact with the latter. The protective strip, on the other hand, will be caused to follow the path *adb* which, it will be noted, is considerably longer than the path *ab*. Since the protective strip is inextensible, the upper end thereof will be drawn down until it is at the position indicated by the letter *e*. Thus, it will be seen that the rubber tape now extends beyond the end of the protective strip by an amount equivalent to the distance *eb*, this amount compensating for the stretch in the rubber tape during the pulling-out operation, as previously described. Since rubber tape is usually in an uncured state, it may be that the severed length of tape will be somewhat longer than the severed length of protective strip, due to the fact that the rubber may take a permanent set. However, insofar as volume is concerned, the amount of rubber in the severed length will be the same as the amount in a piece of unstretched tape equivalent in length to the severed length of protective strip.

Since the total amount of stretch in different instances will vary, depending upon the length of the measured strip of tape and also because of variations in the stretching qualities of different tapes, provision is made for adjusting the extent to which the end of the protective strip is retracted downwardly to compensate for such variations. Thus, referring to Fig. 10, it will be seen that the bracket P² upon which the rollers P, P¹ are mounted is pivotally supported at its rear end, so that it can be swung through an arc, the length of which is determined by a pair of arcuate slots P⁴ provided in the opposed arms of the bracket P² in cooperation with a pair of bolts P⁵ extending one through each of the flanges D⁵ and through the corresponding arcuate slot, the arrangement being such that by loosening the bolts, the bracket can be swung to different positions which can be maintained by tightening-up again on the bolts. By this adjustment, the rollers P, P¹ can be caused to assume different positions with respect to the cutting blade and, the nearer the rollers to the blade, the greater will be the distance through which the end of the protective strip is retracted. That this is so is obvious from the fact that the bracket P² is pivoted at a point relatively close to the position *d* in Fig. 13, and consequently, irrespective of the position of the rollers P, P¹, the distance *ad* will always be of approximately the same length. Since the distance *bd* is constant, any decrease in the length *ab* will result in a corresponding decrease in the distance *de*. In other words, as the bracket P² is pivoted upwardly to shorten the distance *ab*, the length *be* through which the protective strip is retracted will be increased; whereas, when the bracket is pivoted downwardly, resulting in an increase in the distance *ab*, the distance *be* through which the protective strip is retracted will be decreased. It will also be noted that the instant head D is equipped with a pair of spaced pins R, depending from the base of the head, in order to act as a guide for the tape as it passes through the device. This expedient, of course, could be used, if desired, for any of the measuring heads herein described.

In the accompanying drawings, the invention has been shown merely by way of example and in preferred form, and obviously many variations and modifications may be made therein which will still be comprised within its spirit. It is to be understood, therefore, that the invention is not limited to any specific form or embodiment, except insofar as such limitations are specified in the appended claims.

Having thus described my invention, what I claim is:

1. A device for stripping material from a roll and severing it into predetermined lengths, and which includes, in combination, a support for the roll of material, a measuring device comprising an element movable longitudinally through predetermined strokes and in contact with which the material is held during such movement relatively near the leading end of the latter and at the same distance from such end irrespective of the length of material being stripped and severed, to strip the material from the roll and measure the length to be severed, and a cutter for severing the measured length.

2. A combination according to claim 1, where-

in means are provided for positively determining the length of said predetermined strokes.

3. A combination according to claim 1, wherein adjustable means are provided for varying the length of such predetermined strokes.

4. A device for stripping material from a roll and severing it into predetermined lengths, and which includes, in combination, a support for the roll of material, a measuring device including an element movable in one direction and in contact with which the material is held during such movement relatively near the leading end of the latter and at the same distance from such end irrespective of the length of material being stripped and severed, to strip the material from the roll and measure the length to be severed, and movable in the return direction to its original position preparatory to the stripping of the next length of material, and a cutter for severing the lengths of material thus measured.

5. A device for stripping material from a roll and severing it into predetermined lengths, and which includes, in combination, a support for the roll of material, a measuring device including an element movable in one direction and in contact with which the material is held during such movement, whereby the material is stripped from the roll and the length to be severed determined, and movable in the return direction to its original position preparatory to the stripping of the next length of material, and a cutter for severing the lengths of material thus measured, said return movement of the element being effected by pulling the measured length of material past the cutter prior to severance.

6. A device for stripping material from a roll and severing it into predetermined lengths, and which includes, in combination, a support for the roll of material, a measuring device including an element movable longitudinally in one direction and in contact with which the material is held during such movement relatively near the leading end of the latter and at the same distance from such end irrespective of the length of material being stripped and severed, to strip the material from the roll and measure the length to be severed, and movable longitudinally in the return direction to its original position preparatory to the stripping of the next length of material, and a cutter for severing the lengths of material thus measured.

7. A device for stripping material from a roll and severing it into predetermined lengths, and which includes, in combination, a support for the roll of material, a measuring device including an element movable longitudinally in one direction and in contact with which the material is held during such movement, whereby the material is stripped from the roll and the length to be severed determined, and movable longitudinally in the return direction to its original position preparatory to the stripping of the next length of material, and a cutter for severing the lengths of material thus measured, said return movement of the element being effected by pulling the measured length of material past the cutter prior to severance.

8. A device for stripping material from a roll and severing it into predetermined lengths, and which includes, in combination, a support for the roll of material, a measuring device including a slidable head beneath which the material is led from the roll and having a portion against which the material rests, whereby the material and portion can be grasped simultaneously by the op-

erator and pulled through a predetermined distance to strip a measured length of material from the roll, a cutter for severing the length of material thus measured, and means on the head cooperating with the strip of material and adapted as the material is pulled past the cutter prior to severance to return the slidable head to its original position.

9. A combination according to claim 8, wherein the means on the slidable head which cooperates with the strip of material in returning the head to its original position, includes anti-friction devices.

10. A combination according to claim 8, wherein there is provided a spring associated with the portion of the slidable head against which the material rests and which urges the material into contact therewith after a measured length has been severed.

11. A device for stripping material from a roll and severing it into predetermined lengths, and which includes, in combination, a support for the roll of material, a pair of guide rails, a measuring head mounted on said guide rails and movable therealong, and in contact with which the material is held during such movement relatively near the leading end of the latter and at the same distance from such end irrespective of the length of material to be stripped, banking stops associated with the rails for limiting the movement of the measuring head and thus determining the length of material to be severed, and a cutter for severing the measured length.

12. A device for stripping material from a roll and severing it into predetermined lengths, and which includes, in combination, a support for the roll of material, a stripping and measuring device comprising a movable element in contact with which the material is held during the stripping operation and a plurality of banking devices for determining the degree of movement of said element, means operable at the will of the operator for rendering one or another of said banking devices operative, and a cutter for severing the measured length.

13. A combination according to claim 12, wherein the means operable at the will of the operator includes a pawl carried by the movable element and normally arranged to cooperate with the banking device, but adapted to be rendered inoperative, whereby another banking device is rendered active for determining the degree of movement of said element.

14. A device for stripping material from a roll and severing it into predetermined lengths, and which includes, in combination, a support for the roll of material, a measuring device comprising an element movable longitudinally through predetermined strokes and in contact with which the material is held during such movement, whereby the material is stripped from the roll and the length to be severed determined, and a cutter past which the measured length is manually pulled and against which the material is torn to sever the measured length, said cutter being arranged in spaced relation with said element, whereby there is provided a free portion of material at the end extending beyond the element and capable of being grasped by the operator for guidance past the cutter.

15. A device for stripping material from a roll and severing it into predetermined lengths and which material is provided with a protective strip between the convolutions thereof, said device including a support for the roll of material,

means for simultaneously stripping lengths of material and protective strip from the roll, a cutter past which the material and strip can be drawn for simultaneous severance, and means for causing the material and protective strip to follow different paths through the device so as to separate them one from another.

16. A device for stripping material from a roll and severing it into predetermined lengths and which material is provided with a protective strip between the convolutions thereof, said device including a support for the roll of material, a measuring device including an element movable through predetermined lengths for stripping an equivalent length of material with its protective strip from the roll, a cutter past which the material and strip can be drawn for simultaneous severance, and means on said element for causing the material and strip to follow different paths through the device so as to separate them one from another.

17. A device for stripping a stretchable material from a roll and severing it into predetermined lengths and which material is provided with a protective strip between the convolutions thereof, said device including a support for the roll of material, a measuring device for stripping a length of material with its protective strip from the roll, a cutter past which the material and strip is drawn for simultaneous severance, and means for compensating for the stretch in the material as the material and strip are drawn past the cutter, whereby the amount of material severed is substantially equal to the amount of material stripped from the roll by the measuring device.

18. A device for stripping a stretchable material from a roll and severing it into predetermined lengths and which material is provided with a protective strip between the convolutions thereof, said device including a support for the roll of material, a measuring device for stripping a length of material with its protective strip from the roll, a cutter past which the material and strip is drawn for simultaneous severance, and means for retracting the protective strip a predetermined distance from the end of the material after a length of the material and its protective strip have been severed to compensate for the stretch in the next length of material as it is drawn past the cutter for severance.

19. A device for stripping a stretchable material from a roll and severing it into predetermined lengths and which material is provided with a protective strip between the convolutions thereof, said device including a support for the roll of material, a measuring device including an element movable through predetermined lengths

for stripping a length of material with an equivalent length of the protective strip from the roll, a cutter past which the material and strip is drawn for simultaneous severance, and means for compensating for the stretch of the material as the material and strip are drawn past the cutter, whereby the amount of material severed is substantially equal to the amount of material stripped from the roll by the measuring device, said means being adjustable to vary the amount of said compensation, as desired.

20. A device for stripping a stretchable material from a roll and severing it into predetermined lengths and which material is provided with a protective strip between the convolutions thereof, said device including a support for the roll of material, a measuring device for stripping a length of material with its protective strip from the roll, a cutter past which the material and strip is drawn for simultaneous severance, and means including a bar movable after a length of material with its protective strip has been severed to retract the strip a predetermined distance from the end of the material in order to compensate for the stretch in the material when the next length of material with its protective strip is drawn past the cutter.

21. A device for stripping a stretchable material from a roll and severing it into predetermined lengths and which material is provided with a protective strip between the convolutions thereof, said device including a support for the roll of material, a measuring device including an element movable through predetermined lengths for stripping a length of material with its protective strip from the roll, a cutter past which the material and strip is drawn for simultaneous severance, and means pivotally mounted on the measuring device and including a bar for retracting the strip a predetermined distance from the end of the material in order to compensate for the stretch in the material when the material and strip are drawn past the cutter for severance.

22. A combination according to claim 4, wherein the cutter is angularly adjustable so as to permit severing the material at various angles with respect to its direction of feed.

23. A device for stripping and severing material from a roll and which includes, in combination, a device movable to strip a length of tape from the roll, a stationary cutter for severing such length of material, and means carried by said movable device and adapted when manually moved into engagement with the material in the region thereof where the stripped length is to be cut to facilitate the cutting of such stripped length.

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