Aug. 3, 1948. S. O. ORTHWIN 2,446,319

HEM-MARKER

Filed July 25, 1945 2 Sheets-Sheet 1

Fig. 1

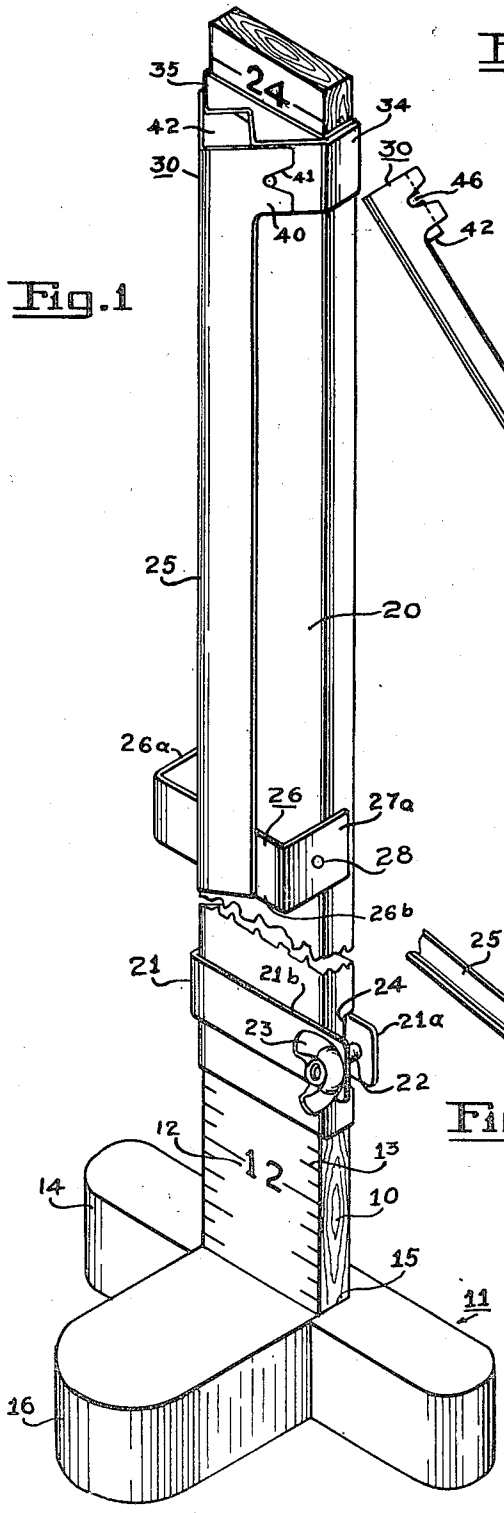


Fig. 2

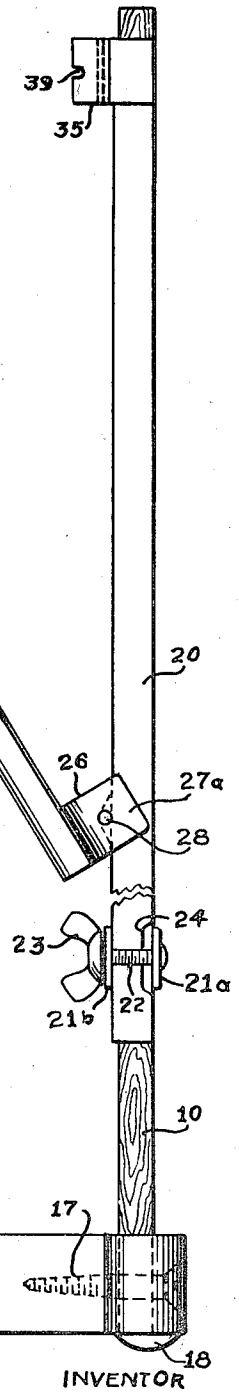
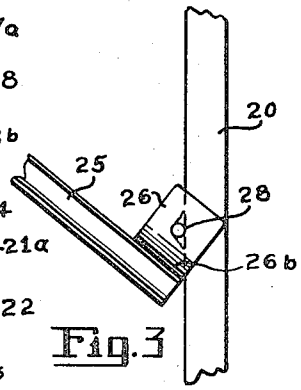


Fig. 3



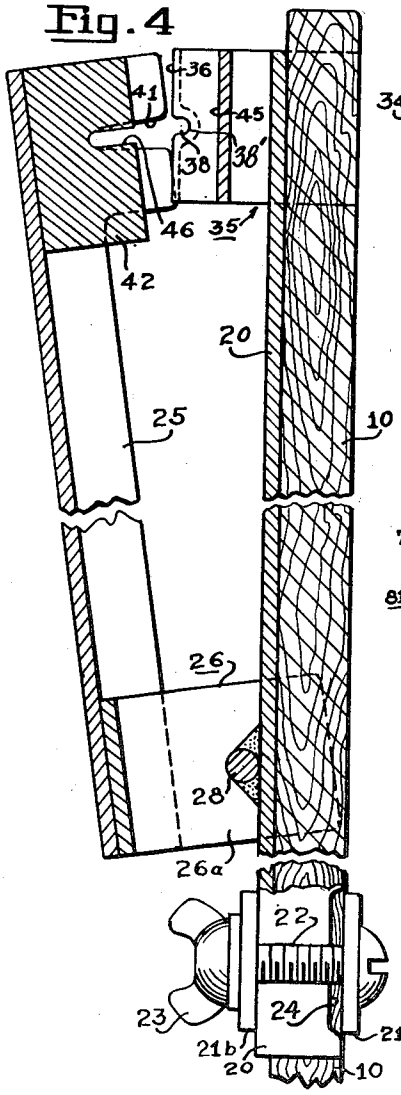
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Aug. 3, 1948. S. O. ORTHWIN 2,446,319

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Filed July 25, 1945 2 Sheets-Sheet 2

Fig. 4



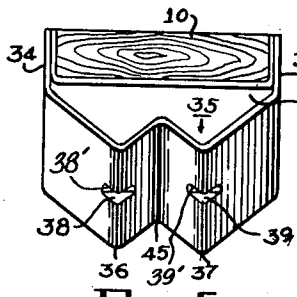


Fig. 5

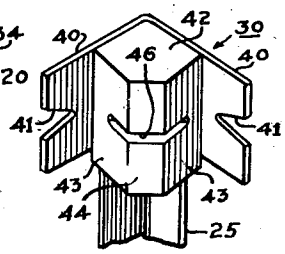


Fig. 6

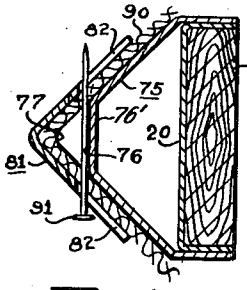


Fig. 10

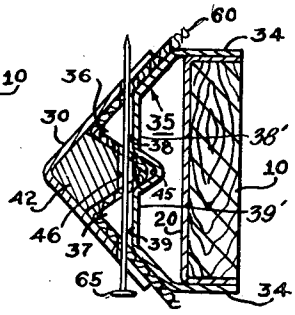


Fig. 7

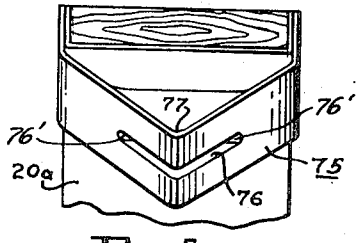


Fig. 8

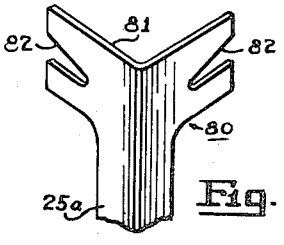


Fig. 9

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UNITED STATES PATENT OFFICE

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HEM MARKER

Sidney O. Orthwin, Dayton, Ohio

Application July 25, 1945, Serial No. 607,031

5 Claims. (Cl. 33—9)

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This invention relates to devices used for marking hems in women's skirts, dresses, coats and other items of wearing apparel wherein it is desired to establish a pre-determined hem line.

The devices of the prior art have not been entirely satisfactory for various and sundry reasons. One type of marking device for marking hems on women's wearing apparel is that wherein a chalk mark is established at the desired height on the wearing apparel, but these chalk marks are easily removed and brushed from many materials while on others it is extremely difficult to remove the chalk marks. Particularly, the chalk marks are difficult to see on light-colored materials, particularly white, and on dark-colored materials it is difficult to completely remove all traces of the chalk mark. Other devices such as a loop or partial loop has been proposed for marking hems, but these also have not been completely satisfactory.

The rather universal practice is, therefore, to use a ruler and measure the location of each pin that is placed in an item of wearing apparel to establish a hem line therein. Unless the pins are carefully placed in the material, they are many times lost, thus requiring considerable manual dexterity on the part of the operator to establish a proper hem line.

It is, therefore, an object of this invention to provide an improved form of a hem marking device wherein the device folds the material that is being worked upon in a suitable manner to receive a pin so that the pin will not readily drop from the material, and also wherein the marking device can be readily removed from the material without disturbing in the least the location of the pin.

Another object of the invention is to provide an improved hem marking device in accordance with the foregoing object wherein the position of each pin that is placed in an item of wearing apparel in which a hem line is being established is accurately measured from the floor line without requiring independent measurement on behalf of the operator.

It is another object of the invention to provide an improved form of hem marker wherein each pin that is inserted into an item of wearing apparel at the hem line is inserted in a true horizontal position, manual dexterity of the operator in locating the horizontal position of the pin being unrequired because the device automatically positions each pin in a true horizontal position.

Still another object of the invention is to pro-

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vide an improved hem marking device wherein an anvil is provided that cooperates with a movable head in such a manner that the fabric material being worked upon is properly folded between the head and the anvil to receive a pin through the folds of the material, and wherein the anvil and head each have means that cooperate to receive and guide a pin through the folded material in a true horizontal position.

Still another object of the invention is to provide an improved form of hem marking device wherein a formed anvil is placed on one side of a piece of fabric material and a cooperating formed head is placed on the opposite side of the fabric material so that when the head is brought into engagement with the anvil the fabric material will be folded in the proper manner to receive a marking pin through the same.

Still another object of the invention is to provide a device in accordance with the foregoing object wherein the anvil and the head each have a slot therein which cooperates with the slot in the cooperating part to provide an opening in which a pin is received and is properly guided through the folded material.

Still another object of the invention is to provide an improved form of hem marking device in accordance with any of the foregoing objects wherein the device is provided with jaws that open to receive the fabric material therebetween, one of the jaws carrying a formed anvil and the other cooperating jaw carrying a formed head that cooperates with the anvil to fold the fabric material therebetween.

Still another object of the invention is to provide a hem marker in accordance with the foregoing object wherein the jaws open automatically when they are released by the operator to permit the operator to move the hem marking device to a new position.

Still another object of the invention is to provide a hem marking device in accordance with any of the objects of this invention that can be manufactured at a reasonable cost, and will have a pleasing appearance and good sales appeal.

Another object of this invention is to provide a hem marking device that is adapted to mark an identical hem line in two or more pieces of fabric material simultaneously such as the outer material of a coat and the lining thereof, and if the coat has an inner lining to mark this member at the same time.

Further objects and advantages will become apparent from the drawings and the following description.

In the drawings:

Figure 1 is a perspective elevational view of a hem marking device constructed in accordance with this invention.

Figure 2 is a side elevational view of a hem marking device illustrated in Figure 1 showing the jaws thereof in open position.

Figure 3 is a partial side view of the device illustrated in Figure 2 showing the jaw in complete open position.

Figure 4 is an enlarged vertical cross sectional view of the hem marking device.

Figure 5 is a perspective elevational view of the anvil of the hem marker.

Figure 6 is a perspective elevational view of the movable head that cooperates with the anvil of Figure 5.

Figure 7 is a horizontal cross-sectional view taken through the head and anvil of the hem marker showing the manner in which fabric material is folded therebetween and a pin is inserted therein.

Figure 8 is a perspective elevational view of a modified form of anvil for the hem marking device.

Figure 9 is a perspective elevational view of a modified form of head for cooperating with the anvil of Figure 8.

Figure 10 is a horizontal cross-sectional view taken through the anvil and head of Figures 8 and 9 to illustrate the manner in which fabric material is folded therebetween and a pin inserted therein.

The hem marking device of this invention as particularly disclosed and described herein which constitutes a preferred form of the device, consists of a vertical standard 10 that is mounted upon a base 11. The standard 10 carries the indicia 12 to indicate the heighth of the pin marking slot that will be hereinafter described. The indicia 12 carried on the front face of the standard 10 are set forth in inches and suitable marks 13 are provided between the indicia that set forth the inches to indicate fractions of an inch. The standard 10 thus becomes a measuring rule.

The base 11 consists of a foot 14 that has a slot 15 therein to receive the lower portion of the standard 10. A second foot 16 is adapted to be received within the forward portion of the slot 15. A single wood screw 17 extends through the foot 14, the lower portion of the standard 10 and into threaded engagement with a hole in the foot 16 to secure the three elements 10, 14 and 16 together. A small button 18 is provided at each end of the foot 14 and at the outer extremity of the foot 16 to provide a three-point support for the standard 10, thus providing for stability of the standard even though a floor surface may be quite uneven.

The standard 10 is substantially rectangular in cross-section and is received within a channel-shaped body 20, the channel-shaped member 20 thus forming the main body of the hem marking device, and upon which the operating mechanism of the device is mounted. The body 20 is adapted to be clamped in position upon the standard 10 by means of the U-shaped clamp member 21. A bolt 22 extends between the open end of the U-shaped clamp member 21 and receives a thumb nut 23 that draws the ends of the clamp member 21 together to clamp the standard or measuring rule 10 between the channel-shaped body member 20 and the clamp 21. A recess 24 is provided in one edge of the channel-shaped body 20 adjacent the U-shaped clamp member 21 to permit relative movement of the arm 21A of the clamp member 21 to the arm 21B thereof.

The body 20 has an arm 25 pivotally mounted thereon, which arm 25 cooperates with the upper portion of the body 20 to form a jaw that can be opened and closed.

The arm 25 is preferably constructed of sheet material formed in the shape of a V or right angle member. The lower end of the arm 25 carries a U-shaped bracket 26 that is provided with aligned holes in the wings 26A and 27A thereof to receive a pivot pin 28. The pivot pin 28 is suitably secured to the body 20 in a horizontal position thereon by means of soldering, welding or any other suitable operation. The upper end of the arm 25 forms a head 30 that cooperates with an anvil 35 secured to the upper end of the body 20.

In the preferred form of the invention, the anvil 35 consists of a sheet metal member that is bent in the form of a double parallel V or W as particularly illustrated in Figure 5, or which may be serrated. The anvil 35 is thus provided with the apices 36 and 37 that are disposed in parallel relationship, and which lay in a common plane.

The apices 36 and 37 of the anvil 35 are each provided with a horizontal slot 38 and 39 respectively, this slot being of a little larger diameter than a common straight pin. The slots 38 and 39 are each provided with guiding walls 38' and 39' respectively for guiding the point of a pin after it has entered the slot means. The slot means 38 and 39 extend downwardly from opposite sides of the anvil 35 and particularly from the face of the anvil against which the fabric material is placed. The slots 38 and 39 may either be formed in the apices 36 and 37 by a suitable die forming operation, or a suitable solid backing member can be inserted in the rear portion of the apices 36 and 37 and the slots cut therein by a suitable milling operation.

The anvil 35 is provided with extending arms 34 that extend around the channel edges of the body 20, and are suitably secured thereto as with a spot welding operation.

The head 30, previously referred to, is more particularly illustrated in Figure 6 wherein the head 30 is illustrated as consisting of a V-shaped sheet metal portion 40 that is formed as an extension of the arm 25. The head portion or wing members or body portions 40 of the head 30 are elongated and are provided with the substantially V-shaped slots 41 therein. The V-shaped slots 41 cooperate with the slots 38 and 39 in the anvil 35 in a manner hereinafter referred to. The head 30 is provided with a solid member 42 therein that is substantially a square-shaped member so that the wings 40 of the head 30 and the surfaces 43 of the member 42 cooperate to form a substantially W-shaped or double V-shaped member that conforms to the double V-shaped or W shape of the anvil 35.

The member 42 has the front corner thereof cut off to form a flat surface 44 to prevent too much material from being pulled below the bottom of the slots 38 and 39 to avoid a deep crimp in the material. The anvil 35 can be modified to follow the contour of the head 30. The member 42 is also provided with a slot 46 therein that is of a diameter slightly larger than a common straight pin, and which slot 46 is in alignment with the slots 38 and 39 in the anvil 35 so that a pin can extend through the head 30 and the anvil 35.

The arm 25 is mounted upon the body 20 by means of the pivot pin 28 in such a manner

that the center of gravity of the arm 25 is to the left of the pivot pin 28, as viewed in Figures 2 and 4. Thus, with the center of gravity of the arm 25 to the left-hand side of the pivot pin 28, the arm 25 will always tend to move in a counter-clockwise direction unless the operator manually holds the arm against such rotation. The arm 25, or jaw 25, will thus automatically open whenever the operator releases the arm. Counter-clockwise rotation of the arm 25 is controlled or regulated by means of the U-shaped bracket 26, the portion 26B of the bracket being adapted to engage the body 20 in the manner illustrated in Figure 3 to thus control the opening of the arm or jaw 25.

The above mentioned automatic opening of the jaws of the hem marker prevents an operator from dragging the hem marker across or around a skirt or dress being marked without opening the jaws, because when the operator releases the arm 25 to move the marker, the jaw will automatically open. When the slots 38 and 39 in the anvil 35 are in alignment with the slot 46 and the slots 41 in the head 30, an opening slightly larger than the diameter of a straight pin is provided through the cooperating head 30 and anvil 35. With the head 30 closed on the anvil 35, as shown in Figure 7, a maximum distance with the fabric material between the anvil and head, the rear portion of the slots 41 in the head cooperate with the ends of the slots 38 and 39 to form therewith openings of substantially the diameter of a pin. This construction is such that a pin passageway is provided for entering of a pin and after the point of the pin has entered the pin passage, the point of the pin is guided axially through the passageways provided by the cooperating parts of the anvil and head including the guiding walls indicated in the drawings by the primed numerals. The slots 46, 38 and 39 have their open ends toward one another so that when the head 30 is moved relative to the anvil 35, a pin extending through the opening provided by the cooperating slots will be released from the head 30 and the anvil 35.

The slots 41 are substantially V-shaped so that when a pin is positioned in the device, and is retained in the fold of a piece of fabric material being marked, the head of the pin can pass through the slots 41. The substantially V-shaped slots are provided on both sides of the head 30 so that a pin can be inserted in the device either from the left-hand or right-hand side thereof.

In using the hem marking device, the clamp 21 is released to permit movement of the standard 10 within the body 20 to adjust the height of the anvil from the floor, and thus locate the height of the slot 46 in the anvil 35 relative to the floor, the slot 46 thus establishing the height of a hem line to be marked above the floor level. The indicia 12 that appear on the face of the standard or rule 10 read in inch dimensions from the bottom of the rule to the top thereof. When the bottom edge of the body 20 is aligned with one of the indicating marks 13 on the rule 10, the rule will read directly in inches the distance between the slot 46 in the anvil 35 and the floor level.

When the device has been adjusted to establish the proper height of hem line by locating the anvil 35, the hem marker is ready for use. The hem marker stands in a vertical position, as illustrated in Figures 1 and 2, when a hem is being marked so that the arm 25 normally swings in a counter-clockwise direction to open the jaws of

the device as illustrated in Figure 2. The bottom edge of a skirt or other item of wearing apparel is then placed between the open jaws of the hem marking device consisting of the arm 25 and the body 20. The arm 25 is then moved toward the body 20 to close the head 30 upon the anvil 35.

When the head 30 closes upon the anvil 35, the fabric material that is positioned between the head and the anvil is folded or creased into the shape of the anvil and head in the manner illustrated in Figure 7, the fabric material being given the numeral 60. It will be noted that the fabric material 60 conforms to the W shape of the cooperating surfaces of the anvil 35 and the head 30.

With the head 30 closed upon the anvil 35, a straight pin 65 may then be placed through the slot 41 in the head 40 into the slot 39 of the anvil 35, and then pushed straight through the opening that is provided by the cooperating slots 46, 38, 39 and 41, in the manner illustrated in Figure 7. It will be noted that the pin passes through the fabric material four times, the material being given a double fold or double crease so that the pin is securely held in the fabric material 60.

The head 30 of the hem marking device may now be moved away from the anvil 35, the operator releasing the arm 25 to allow it to rotate in a counter-clockwise direction. The shape of the slots 46, 38, 39 and 41 are such that when the head 30 moves away from the anvil 35, the pin 65 will be released from the head 30 and the anvil 35 without causing any pull upon the pin or displacement through the folds of the fabric material 60. The hem marking device can now be placed at another location around the skirt, or other item of wearing apparel that is being marked, so that other pins can be inserted in the material to establish the desired hem line.

In Figures 8, 9 and 10 there is illustrated a slightly modified arrangement of the head and anvil of the hem marking device of this invention wherein the head and the anvil are provided with a single V-shaped surface in place of the double V or W-shaped cooperating surfaces heretofore referred to. In these figures there is illustrated a substantially V-shaped anvil 75 that may be attached to the body 20A of the hem marking device. The V-shaped anvil 75 is provided with a slot 76 transversely across the apex 77 thereof which is also provided with a guiding wall 76' to guide the point of a pin through the slot. This slot 76 compares with the slots 38 and 39 in the apices of the anvil 35, and can either be press formed into the anvil 75 or can be cut therein by a milling operation in the same manner as heretofore disclosed and described with regard to slots 38 and 39. The anvil 75 may thus be substituted for the anvil 35.

A head 80 is adapted to cooperate with the V-shaped anvil 75, and consists of a V-shaped member 81 that cooperates with the V-shaped surface of the anvil 75. Slots 82 are provided in each side of the V-shaped member 81 and are adapted to be in alignment with the slot 76 in the anvil 75 when the head 80 is positioned against the anvil 75 so that an opening slightly larger than the diameter of a common straight pin is provided heretofore referred to and illustrated in Figure 7.

The head 80 may be carried upon the arm 25A of the device and be substituted for the head 30 heretofore disclosed and described.

When the head 80 is placed against the anvil 75 with a piece of fabric material 90 therebetween, as illustrated in Figure 10, a V-shaped fold is provided in the fabric material 90. The

slots 82 and 76 permit entry of a pin 91 through the folded fabric material 90 in the manner illustrated in Figure 10 so that when the head 80 is moved away from the anvil 75 the pin will remain through the fold or crease in the fabric material 90.

In so far as the general operation of the hem marker is concerned, utilizing the modified anvil 75 and the modified head 80, the operation is the same as heretofore described with reference to the principal form of the invention.

It will be noted that in using the device of this invention, regardless of type of head and anvil provided thereon, that the pin will be guided in a horizontal position through the folds of the material, and that each pin will be absolutely horizontal regardless of any manual dexterity on the part of the operator, thus eliminating a point of difficulty in establishing even hem lines in that when pins are placed in a hem in a position angular to the horizontal, a seamstress does not know what point through the pin is the desired hem position. The device of this invention eliminates this difficulty because each pin will be placed in the folds of the material in a true horizontal position, thereby accurately guiding a seamstress in referring to the exact position of a desired hem line.

Also, two or more pieces of fabric material can be marked simultaneously with the device of this invention. This feature is particularly advantageous when marking the hem line in coats having an inner lining and a lining. In this instance the coat material, the lining and/or inner lining are all placed between the head and the anvil of the device simultaneously so that a pin can be inserted through them simultaneously, or if desired each item can be marked separately.

While the apparatus disclosed and described herein constitute preferred forms of the invention, it will be understood that the device is capable of mechanical alteration without departing from the spirit of the invention, and that all modifications that fall within the scope of the appended claims are intended to be included herein.

Having thus fully described my invention, what I claim as new and desire to secure by Letters Patent, is:

1. A hem marking device that includes in the combination, a vertical standard, and a marking device movable thereon which includes; an anvil member having sides, a movable head member cooperable with said anvil to receive a fabric material therebetween and having body portions thereof positionable at opposite sides of said anvil to produce a fold in the fabric material placed between said head and said anvil, one of said members having slot means in the fabric folding portion thereof positioned angularly to the fold of the fabric material placed between the said members, said slot means extending inwardly from opposite sides of said one member in longitudinal alignment and having a vertical dimension in the transverse cross section thereof substantially the same as a pin received therein and forming unobstructed passage means to receive a pin projected through the said slot means, and said other member having notches in the said body portions aligned longitudinally with said slot means at opposite sides of the said members and forming with said slot means a pin passageway having a horizontal dimension of substantially the same size as the said vertical dimension of said slot means when one member is moved toward the other member its maximum distance with fabric material between the said members, said slot means including a wall for guiding the point of the pin axially after it has entered said pin passageway.

2. A hem marking device that includes in the combination a vertical standard, and a marking device movable thereon which includes; an anvil member having sides forming a V, a movable head member cooperable with said anvil to receive a fabric material therebetween and having body portions therefor forming a V positionable at opposite sides of said anvil to produce a fold in the fabric material placed between said head and said anvil, one of said members having slot means extending across the apex of the V in the fabric folding portion thereof positioned angularly to the fold of the fabric material placed between the said members, said slot means extending inwardly from opposite sides of said one member in longitudinal alignment and having a vertical dimension in the transverse cross section thereof substantially the same as a pin received therein and forming unobstructed passage means to receive a pin projected through the said slot means, and said other member having notches in the said body portions aligned longitudinally with said slot means at opposite sides of said one member and forming with said slot means a pin passageway having a horizontal dimension of substantially the same size as the said vertical dimension of said slot means when one member is moved toward the other member its maximum distance with fabric material between the said members, said slot means including a wall for guiding the point of the pin axially after it has entered said pin passageway.

3. A hem marking device that includes in the combination, a vertical standard, and a marking device movable thereon which includes; an anvil member having a serrated surface, a movable head member cooperable with said anvil to receive a fabric material therebetween and having a serrated surface positionable on the serrated surface of said anvil to produce folds in the fabric material placed between said head and said anvil, one of said members having slot means in the fabric folding portion thereof positioned angularly to the fold of the fabric material placed between the said members, said slot means extending inwardly from opposite sides of said one member in longitudinal alignment and having a vertical dimension in the transverse cross section thereof substantially the same as a pin received therein and forming unobstructed passage means to receive a pin projected through the said slot means, and said other member having notches in the said body portions aligned longitudinally with said slot means at opposite sides of the said one member and forming with said slot means a pin passageway having a horizontal dimension of substantially the same size as the said vertical dimension of said slot means when one member is moved toward the other member its maximum distance with fabric material between the said members, said slot means including a wall for guiding the point of the pin axially after it has entered said pin passageway.

4. A hem marking device that includes in the combination a vertical standard, and a marking device movable thereon which includes; an anvil member having sides forming a V, a movable head member cooperable with said anvil to receive a fabric material therebetween and having body

portions therefor forming a V positionable at opposite sides of said anvil to produce a fold in the fabric material placed between said head and said anvil, one of said members having slot means extending across the apex of the V in the fabric folding portion thereof positioned angularly to the fold of the fabric material placed between the said members, said slot means extending inwardly from opposite sides of said one member in longitudinal alignment and having a vertical dimension in the transverse cross section thereof substantially the same as a pin received therein and forming unobstructed passage means to receive a pin projected through the said slot means, and said other member having notches in the said body portions aligned longitudinally with said slot means at opposite sides of the said one member and forming with said slot means a pin passageway having a horizontal dimension of substantially the same size as the said vertical dimension of said slot means when one member is moved toward the other member its maximum distance with fabric material between the said members, said slot means including a wall for guiding the point of the pin axially after it has entered said pin passageway, the sides of said anvil member being parallel to the corresponding cooperating sides of said body portions when said members have been moved in fabric engaging position.

5. A hem marking device that includes in the combination, a vertical standard, and a marking device movable thereon which includes; an anvil member having a W-shaped surface, a movable head member cooperable with said anvil to receive a fabric material therebetween and having a W-shaped surface positionable on the W-shaped surface of said anvil to produce folds in the fabric material placed between said head and said anvil, one of said members having slot means

extending across the apex of the W in the fabric folding portion thereof positioned angularly to the fold of the fabric material placed between the said members, said slot means extending inwardly from opposite sides of said one member in longitudinal alignment and having a vertical dimension in the transverse cross section thereof substantially the same as a pin received therein and forming unobstructed passage means to receive a pin projected through the said slot means, and said other member having notches in the said body portions aligned longitudinally with said slot means at opposite sides of the said one member and forming with said slot means a pin passageway having a horizontal dimension of substantially the same size as the said vertical dimension of said slot means when one member is moved toward the other member its maximum distance with fabric material between the said members, said slot means including a wall for guiding the point of the pin axially after it has entered said pin passageway.

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