

March 31, 1959

C. F. CARRIGAN
PLEAT FORMING GUIDE

2,879,927

Filed April 22, 1957

Fig. 1

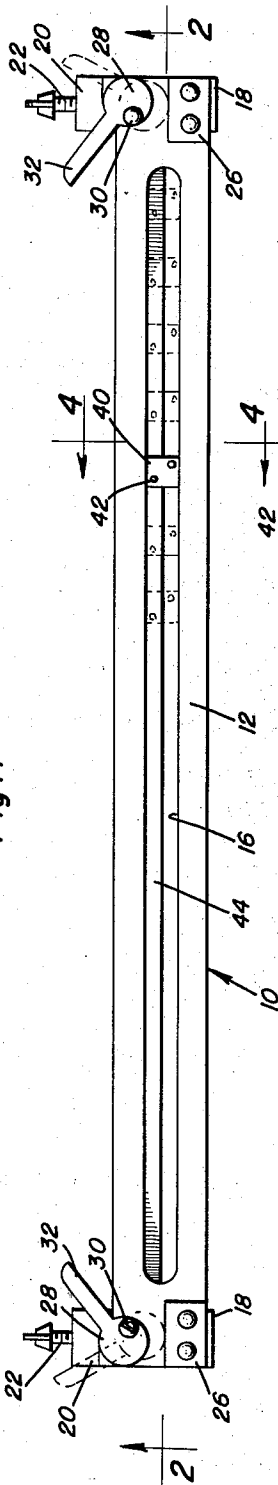


Fig. 2

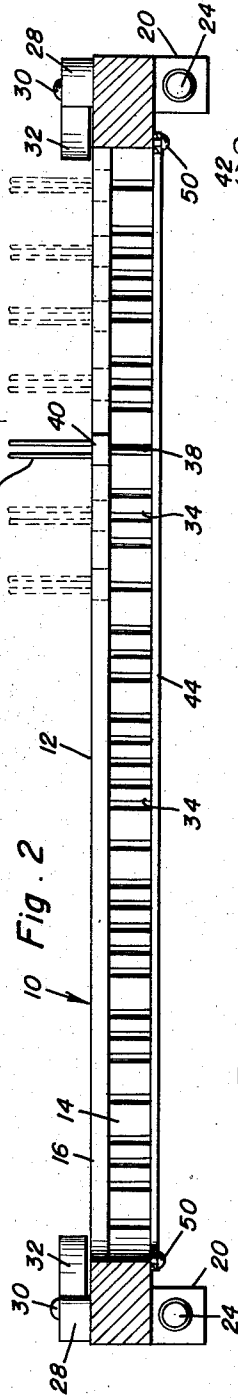


Fig. 3

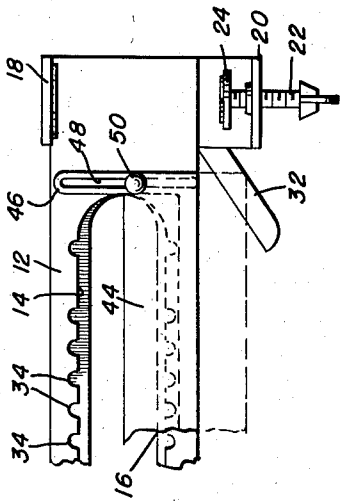


Fig. 4

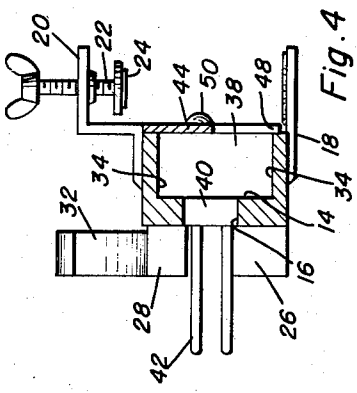
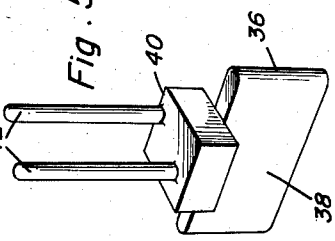


Fig. 5



Charles F. Carrigan
INVENTOR.

BY *Alvanice A. O'Brien*
and *Harvey B. Jacobson*
Attorneys

1

2,879,927

PLEAT FORMING GUIDE

Charles F. Carrigan, Washington, D.C.

Application April 22, 1957, Serial No. 654,171

4 Claims. (Cl. 223—34)

The present invention generally relates to a device used in the construction of garments and more particularly to a device used in forming pleats in ladies' skirts or other garments having a multiplicity of pleats formed therein.

An object of the present invention is to provide a pleat forming guide having a plurality of interchangeable elements which enable pleats of varying sizes to be made with the same guide.

Another object of the present invention is to provide a pleat forming guide including means for securely clamping the same to a convenient support and means for conveniently clamping the cloth while the pleats are being formed.

Still other objects of the present invention will reside in its extreme simplicity of construction, efficiency of use, adaptation for its particular purposes and its relatively inexpensive manufacturing cost.

These together with other objects and advantages which will become subsequently apparent reside in the details of construction and operation as more fully hereinafter described and claimed, reference being had to the accompanying drawings forming a part hereof, wherein like numerals refer to like parts throughout, and in which:

Figure 1 is a front elevational view of the pleat forming guide of the present invention;

Figure 2 is a longitudinal, vertical sectional view taken substantially upon a plane passing along section line 2—2 of Figure 1 illustrating the structural details of the device;

Figure 3 is a fragmentary enlarged rear elevational view of one end of the device showing the details of the clamp mechanism and the locking plate for the interchangeable element;

Figure 4 is a transverse, vertical sectional view taken substantially upon a plane passing along section line 4—4 of Figure 1 illustrating the structural arrangement of the elongated body and the removable inserts therein; and

Figure 5 is a perspective view of one of the removable inserts.

Referring now specifically to the drawings, the numeral 10 generally designates the pleat forming guide of the present invention which includes an elongated bar-like member 12 of generally rectangular cross-section as shown in Figure 4 with an elongated recess being formed in the rear thereof with the recess being designated by the numeral 14. An elongated slot 16 is provided in the front of the member 12 with the slot 16 extending through to the recess 14. The member 12 is provided with a flat outer surface forming a working face.

Extending rearwardly from the upper and lower surfaces of the member 12 is a pair of clamp plates 18 and 20 with the clamp plate 20 having a thumb screw 22 threaded therethrough and provided with cushioning material 24 on the clamp plate for conveniently clamping

2

the member 12 to a cover plate for a sewing machine or to the edge of any suitable support.

At each end of the front surface of the elongated member 12 is provided an outwardly extending block or abutment 26 for coaction with a cam clamping member 28 pivotally mounted on pivot pin 30 and provided with a handle 32 for manipulation thereof whereby the end of the cloth to be employed is clamped between the cloth engaging surface of the block 26 and the cam clamping member 28 with the cloth engaging surface being parallel to the longitudinal axis of the elongated member and perpendicular to the working face thereon.

The top and bottom walls of the recess 14 are provided with a plurality of transverse grooves 34 for slidably receiving the end edges 36 of an insert plate 38. The insert plate 38 is provided with a square adapter 40 on the upper edge thereof for reception within the slot 16. Extending upwardly from the square adapter 40 is a pair of projecting pegs or pins 42 which extend forwardly and generally perpendicularly from the working face of the member 12 as shown in Figures 1 and 2.

For securing the insert plates 38 in the recess 14, a sliding lock plate 44 is provided with the lock plate extending over substantially one-half of the length of the insert plates 38. The ends of the lock plate 44 project alongside of the ends of the recess 14 as designated by numeral 46 with an elongated slot 48 being provided in the projecting portion thereof with the slots 48 being slidably mounted in an upstanding headed pin 50 whereby the pin 50 may be in the form of a clamp screw engaged with elongated member 12 for clamping the lock plate 44 in locking position in overlying relation to the rear edges of the insert plates 38. The end edges of the insert plates 38 actually form lateral extensions having the inner end edge thereof abutting against the shoulder defined by the inner limits of the recess inasmuch as the recess is wider than the slot. The engagement of the end edge of the lateral extensions formed by the insert plates 38 prevents movement of the insert in one direction, that is in the direction towards the working face of the elongated member 12. When the pins are arranged in the desired position, they are arranged in two longitudinal rows of pins with the pins in each row being equally spaced longitudinally. Also, the pins in one row are longitudinally offset in relation to the pins in the other row thus providing two rows of staggered pins.

The spacing of the grooves 34 is such that by positioning the insert plates 38 in certain predetermined grooves, the pins 42 will be disposed in such a manner that predetermined size pleats may be provided. Indicia may be stamped on the back surface of the elongated member 12 for indicating into which grooves the insert plates go for forming certain size pleats. Also, instructions may be provided as to the manner in which the cloth is threaded over and under and partially around the pins and the sequence in which the pins are engaged for forming left hand pleats such as employed in ladies' garments.

In order to facilitate the clamping engagement of the cloth by the cam clamping member 28, an axial spring may be connected to the cam clamping member 28 and pin 30 for continuously urging the cam clamping member 28 against the block 26. Also, if it is desired, the device may be made more compact by providing a central hinge for permitting the device to be folded into overlying sections which will facilitate the storage thereof in the usual sewing machine drawers. The device may be constructed of any suitable material such as plastic or metal and sizes may be altered as desired. On the top surface of the body, a 12 inch scale graduated in 1/8 inch increments may be provided and pegs may be distinguishably

colored to facilitate the instructions for use of the device and more clearly distinguishing the pegs that has the cloth positioned over and under for forming the pleats. The present device easily solves the problem of the cloth length to be selected for pleats of various sizes and also may be employed for forming double pleats normally used when extra cloth is employed in a skirt for providing an enlarged hem portion or a full skirt.

The foregoing is considered as illustrative only of the principles of the invention. Further, since numerous modifications and changes will readily occur to those skilled in the art, it is not desired to limit the invention to the exact construction and operation shown and described, and accordingly, all suitable modifications and equivalents may be resorted to, falling within the scope of the invention as claimed.

What is claimed as new is as follows:

1. A guide for forming pleats in the edge of a piece of cloth comprising an elongated bar-like member having an outer surface defining a flat working face, cloth clamping means on each end of said member, each of said cloth clamping means including an abutment having a cloth engaging face extending in parallel relation to the longitudinal axis of the member and in perpendicular relation to the working face of the bar-like member and clamping means carried by the bar-like member for lateral movement in relation to the cloth engaging face of the abutment for clamping the piece of cloth with the cloth disposed in parallel relation to the longitudinal axis of the bar-like member and in perpendicular relation to the working face thereon, two transversely spaced longitudinal rows of pins extending perpendicularly to the working face of the bar-like member, the inner ends of the pins being mounted on the bar-like member and the outer ends being free of obstructions enabling the piece of cloth to be threaded between, and wrapped partially around certain of the pins, the pins in one row of pins being longitudinally offset in relation to the pins in the other row of pins, the cloth clamping means at one end of the bar-like member being adapted to hold the end edge of the cloth while the cloth is threaded over and partially around the first pin in the row of pins spaced the greatest longitudinal distance from the cloth clamping means at said one end of the bar-like member and subsequently threaded under and partially around the first pin in the other longitudinal row of pins with such a pin being located closer to the cloth clamping means at said one end of the bar-like member than the first pin in the first mentioned row of pins, the cloth being threaded over and under subsequent pins in the

rows of pins thereby forming pleats in the cloth for subsequent stitching.

2. The device as defined in claim 1 wherein said bar-like member is provided with a longitudinally extending slot defined by parallel side edges, a plurality of inserts disposed in said slot, each of said inserts including lateral extensions in engagement with the inner surface of the bar-like member adjacent the edges of the slot thereby limiting the insertion of the inserts in one direction, retaining means movably mounted on the inner surface of the bar-like member for engaging said inserts and preventing movement of the inserts in the other direction thereby retaining the inserts in the slot with the lateral extensions held against the inner surface of the bar-like member, each of said inserts having a pin from each longitudinal row of pins rigidly secured thereto.

3. The device as defined in claim 2 wherein said retaining means includes an elongated lock plate, said lock plate including a transverse slot at each end, a headed pin extending through each of the slots and rigidly attached to the bar-like member thereby slidably mounting the lock plate on the bar-like member for lateral movement into and out of engagement with the inner ends of the inserts.

4. The device as defined in claim 3 wherein said bar-like member is provided with a longitudinal recess in the inner surface thereof, the width of the recess being greater than the width of the slot thereby defining shoulders along both ends of the slot, said lateral extensions having one end disposed against the shoulders with the other end terminating flush with the inner surface of the bar-like member whereby said lock plate overlies a portion of the said other ends of the extensions when in retaining position, each of the side walls of the recess having a plurality of longitudinally spaced grooves slidably receiving the side edges of the lateral extensions thereby locating the inserts in predetermined longitudinally spaced relation with the lock plate facilitating the placement of the inserts in different longitudinally spaced relation.

References Cited in the file of this patent

UNITED STATES PATENTS

336,999	Henderson	Mar. 2, 1886
1,042,715	Mrock	Oct. 29, 1912
1,088,456	Schefer	Feb. 24, 1914
1,733,353	Maulsby et al.	Oct. 29, 1929
1,892,077	Reardon	Dec. 27, 1932
1,987,159	Rasmussen	Jan. 8, 1935