An elongated base member of flat material, such as plastic, formed to have spaced, parallel webs extending from said base member and of a dimension thinner than the base member. Each said web is divided into a plurality of teeth of uniform dimensions by the formation of equally spaced slots extending through the webs to their juncture with the base member. Each such slot is so disposed in said web, as to open upon the longitudinal center of a tooth formed in the opposing web. That is, the slots are so staggered in the respective webs as to create teeth having a staggered relationship to the opposite teeth of said respective webs. Cloth or other sheet material to be pleated is drawn or positioned between the opposed webs, and drawn or "threaded" inwardly and outwardly through the slots forming said teeth, whereby said sheet material encases each tooth to a predetermined length thereof, and after such sheet material has been predisposed as desired, a stitch or seam is made parallel to the ends of said teeth to fix the pleat as formed.

2 Claims, 4 Drawing Figures
DEVICE FOR FORMING BOX PLEATS

CROSS REFERENCES TO RELATED APPLICATIONS

There are no known related applications filed by or with the knowledge of applicant.

1. Field of Invention

The invention lies in the field of patterns, or templates, to assist in the formation of various folds or pleats in sheet material to be sewn or seamed, as, for example, into garments, drapes or curtains.

2. Description of Prior Art

There has been some activity in the prior art, as is evidenced by the below identified patents, but no patents were discovered in the course of a preliminary search which would appear to preclude issuance of a patent on the hereinafter described disclosure. The said patents are:

- E. Nickerson 187,299
- C. A. Bishue 1,166,174
- M. D. Dickman 1,231,139
- L. McKenna 1,257,903
- J. J. Claesys 3,000,533

SUMMARY OF INVENTION

Invention resides in the provision of opposed parallel webs so slotted as to form teeth disposed alternatively to each other, wherein a slot between two teeth in one web is opposed to the longitudinal center of a tooth formed in the opposing web. This formation affords the disposition, or "threading" of a length of sheet material through the teeth. The end result, prior to forming a stitch or seam, is that each tooth is enclosed by the material to the extent to which the material is slid toward the juncture of said teeth with the base member. Thus, box pleats are formed upon the pleater, a stitch or seam is applied along the edge of the teeth, and the box pleats are then retained in their formation, by said stitching. The teeth, of course, are of uniform length.

An object of the invention is to provide an inexpensively constructed device, including two spaced and opposed webs of flat material, so slotted as to form teeth, so that the teeth of one web are staggered relative to the teeth of the opposing web.

These and various other objects are achieved in the invention hereinafter described and illustrated in the accompanying drawings, wherein:

FIG. 1 is a top plan view of the device showing the teeth end on and taken on line 1—1 of FIG. 2.

FIG. 2 is a front elevational view of the device illustrating the staggered teeth and slots of the two opposed webs, taken on line 2—2 of FIG. 1.

FIG. 3 is a vertical, sectional view taken on line 3—3 of FIG. 1.

FIG. 4 is a perspective view illustrating the formation imparted to a piece of sheet material, such as cloth, by threading it through the space between the two webs, and through the slots forming the aforesaid teeth.

In these views the reference character 1 designates an elongated base of flat material having end faces 2. Due to its shape, said base has, of course, two parallel edges 3 and 4. Upstanding from the edge 4, are two webs 5 which may be spaced apart by a slot 6 extending longitudinally of the device. If desired, the device may be formed of three sheets of material, 1, 1a, and 1b, with the latter two elements being extended (upwardly in FIGS. 1, 3 and 4) to form the hereinafter described webs.

As may be clearly seen from the drawings, each web 5 has formed therein a plurality of slots 7 and 8, which slots are so staggered on the respective webs as to produce two parallel opposed rows of teeth 9 and 10. To obtain consecutively uniform expanse of each pleat, it is desirable that each slot of one web fall in the longitudinal center of the tooth of the opposed web.

If desired, or indicated by the material used in the device, a groove 11 can be formed on each side of the device, just at the juncture of the teeth 9 and 10 with the base 1, to render the area from which the material is removed more flexible, so as to facilitate the insertion of the sheet material to be stitched, or seamed.

The letter A indicates folds of sheet material drawn in phantom line, as such material would appear upon insertion in the device, and prior to stitching, or seaming. As is obvious from the drawings, the teeth are uniform in length, and lend themselves as a guide to a sewing machine "foot" or the like, whereby a stitch or seam may be applied to the fabric in a straight line to maintain the formation of the box pleats after the fabric is removed from the pleating device.

What I claim is:

1. A device for forming pleats in thin, flexible material, including in said device, an elongated flat base of approximately rectangular shape, having longitudinal edges, two rows of opposed flat teeth projecting laterally from one of said edges, slots separating the respective teeth of the respective rows, whereby material to be pleated may be inserted between said rows of teeth, and woven in and out of said slots, to prearrange sheet material in pleats as desired.

2. In a device as set forth in claim 1, said slots being so disposed as to result in one row of teeth being offset, or staggered, relative to the opposed row of teeth.

* * * * *