To all whom it may concern:

Be it known that I, Emil Bösebeck, a citizen of the German Empire, residing at Barmen, Germany, have invented certain new and useful Improvements in Machine-Braided Torchon Laces and Methods of Making the Same, of which the following is a specification.

My invention relates to the manufacture of leaflets in torchon lace, that is, in lace in which the relatively wide-meshed ground is replaced at certain places by a small-meshed ground, on which latter the leaflet is produced.

Such leaflets have hitherto been made by selecting a number of threads from the ground threads of the lace and arranging them substantially in the longitudinal direction of the leaf figure and simultaneously leading another selected ground thread to and fro in transverse direction and interbraiding it with the longitudinal threads. The leaflets formed in this manner are connected with the ground at the two ends of the leaflet only, in consequence of which the leaflet is merely loosely superimposed upon the ground, does not contribute to the tenacity of the lace, and being in such loose connection with the lace proper, is easily torn loose.

The object of the present invention is to produce on a single-thread lace braiding machine of well known construction leaflets which will stand out in bold relief from both sides of the lace and which are intimately incorporated in the undisturbed small-meshed ground all around their circumference, adding thereby greatly to the beauty and also to the strength of the lace at a minimum expenditure of material and labor.

The invention consists in the improved method of producing these leaflets by interbraiding three sets of ground threads against only two sets employed in the prior art. The invention includes lace produced by the new method.

A characteristic of the new lace is that each leaflet is connected to the circumjacent small-meshed ground all around its circumference which makes for great strength of the lace due to the stability of the leaflet in the ground, as contrasted with the rather sparingly connected leaflets in the prior art.

The double-sided strong relief effect is obtained by closely concentrating the three kinds of interbraided threads within the confines of the figure, as explained in detail in the following description in connection with the accompanying drawing, in which Fig. 1 shows a piece of the new lace; Fig. 2 shows a lace fragment on an enlarged scale, clearly illustrating the disposition of the various threads in the making of a leaflet, and Fig. 3 is a section through a leaflet and adjoining ground on line 3—3 of Fig. 1.

Referring now to Fig. 1, the lace comprises a wide-meshed net consisting of two groups of diagonally intercrossing braided bars or pillars b, b' interconnected at their respective crossing points a. At certain places this wide-meshed net is, as usual in torchon lace, replaced by a small-meshed net c worked in a so-called "half-stitch" or loose mesh, the threads from the braided bars b, b' entering the loose meshed groundwork, some of them in the diagonal, and some of them in the transverse direction of the fabric, as shown.

To the loose-meshed groundwork c, leaflets d are applied. To form said figures, a number of threads, three for instance, are selected from the groundwork threads and enter one end of the figure, and take the course now to be described. As more fully illustrated in Fig. 2, two of the selected threads f, f run substantially in the longitudinal direction of the figure d, whilst the third selected thread g is led continuously to and fro in the transverse direction of said figure between the two longitudinal threads f, f in such a manner that the thread g, at each of its return places, loops around a longitudinal thread f. Now according to this invention, the threads f, f and g are, during the formation of the figure, worked into the groundwork which remains uninterrupted at the place where a figure is to be formed. To this end the threads h, i, k which form part of the groundwork c are led substantially transversely through the figure d and braided with the longitudinal threads f, f as well as with the thread g which runs to and fro in the figure, as clearly shown in Fig. 2. By these means a heavy accumulation of threads in the figure is obtained as a result of which the leaflet stands out in strong relief from the groundwork of the lace, and what is more, stands out in relief from both sides of the latter. Consequently, the range of application of
the new lace is greatly increased, since it may be applied to advantage to curtains and similar articles which as a rule are viewable from both sides and should therefore show the pattern alike on both faces. Furthermore, from the feature that the leaflet is firmly worked into the ground all around its circumference it is readily understandable that the new lace is of exceeding firmness and durability.

What I claim is:

1. The described method of producing in machine-braided torchon lace leaflets standing out in relief from both sides of the ground and incorporated therein all around their circumference, which method comprises causing each leaflet to be formed in the uninterrupted small-meshed ground portions by using certain of the small-meshed ground threads, extending lengthwise of the leaflet to be made, to form the leaflet skeleton, interbraiding with these skeleton threads other selected small-meshed ground threads substantially transversely intercrossing said skeleton threads, and, further, respectively loopingly and intercrossingly interweaving with said skeleton and said transverse threads a selected transversely meandering filling thread, likewise taken from the small-meshed ground, and closely aggregating the said three sets of small-meshed ground threads within the confines of the leaflet to produce the desired double-faced relief effect.

2. A machine-braided torchon lace, presenting leaflets standing out in relief from both sides of the ground and incorporated therein all around their circumference, in which each leaflet is formed by a plurality of skeleton threads taken from the small-meshed ground and extending lengthwise of the leaflet, by other selected small-meshed ground threads substantially transversely intercrossing said skeleton threads, and, further, by a transversely meandering small-meshed ground thread respectively interwoven with the said skeleton and said transverse threads, and all three sets of ground threads being closely aggregating within the confines of the leaflet defined by said skeleton threads.

In testimony whereof I affix my signature.

EMIL BÖSEBECK.