Jan 6, 1931. A. BLUSTEIN 1,787,610

COUNTER AND METHOD OF MAKING THE SAME

Filed Aug. 21, 1929

Fig. 1

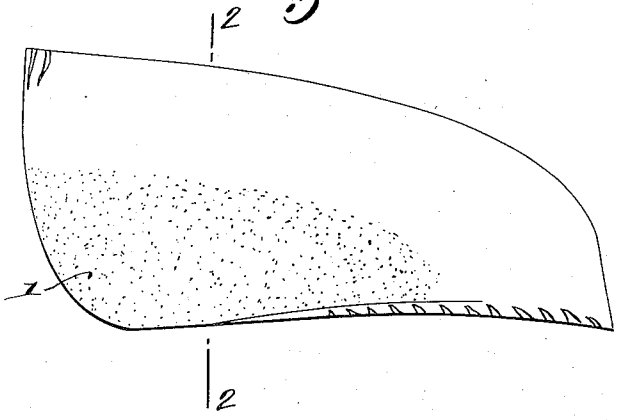


Fig. 2

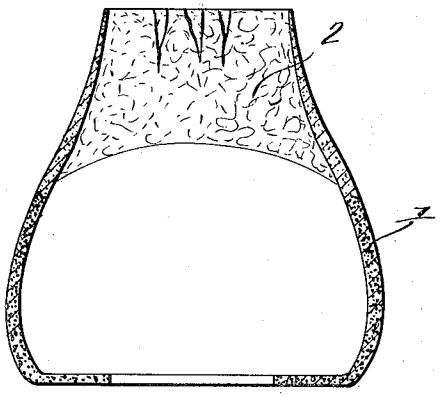
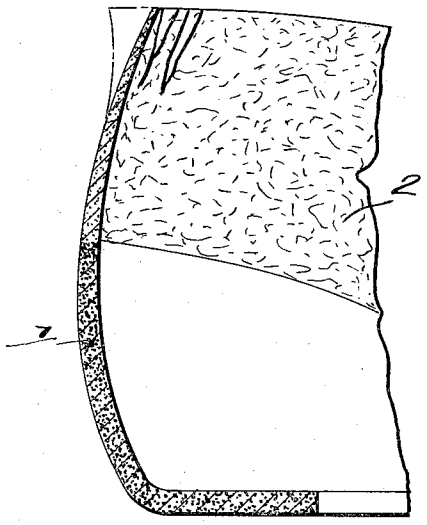


Fig. 3



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UNITED STATES PATENT OFFICE

ABRAHAM BLUSTEIN, OF HAVERHILL, MASSACHUSETTS, ASSIGNOR, BY MESNE ASSIGNMENTS, TO THE BROWN COUNTER COMPANY, OF HAVERHILL, MASSACHUSETTS, A COPARTNERSHIP CONSISTING OF HARRY BROWN AND ABRAHAM BLUSTEIN

COUNTER AND METHOD OF MAKING THE SAME

Application filed August 21, 1929. Serial No. 387,418.

This invention relates to an improved type of shoe counter, and more particularly to an article of this character which is formed of fibrous sheet material such as fiber board and to a method of manufacturing the same.

Counters have heretofore been formed of sheets of thin fiber board, i. e., a vegetable pulp product which preferably is treated with a suitable impregnating agent, or sizing; a piece of this fiber board being suitably cut, pressed and shaped to form the counter. During the shaping operation, wax or the like has been applied to the fiber board counter, and it was treated or shaped under pressure, so that the sizing or indurating agent may become solidified throughout substantially the entire extent of the sheet article to render the shaped counter comparatively stiff. Preferably, in order to prevent chafing of the foot and to permit the inner surface of the shoe to be comparatively smooth, a narrow marginal bevel has commonly been provided upon the upper portion of a counter of this character.

In the manufacture of shoes, particularly of the McKay type, the partially finished shoes are now ordinarily removed from the last when still moist or "green". Accordingly, there is a marked tendency for the uppers, including the counter portions of the shoes, to warp out of shape. With the conventional stiff fiber board counter, the subsequent leveling does not result in imparting the proper shape to the counter; accordingly, shoes, particularly of the McKay type, which include the conventional fiber board counters often have poorly formed back portions. On the other hand, leather counters are ordinarily sufficiently flexible or deformable so that they may be properly reshaped to impart the proper form to the rear portion of the shoe. While, due to their low cost, the fiber board counters have commonly been accepted by the shoe trade, leather counters have been recognized as being distinctly superior, particularly due to their greater flexibility and adaptability to high grade footwear. Accordingly, one of the characteristics by which the quality of shoes has been determined has been the type of counter employed, the leather counter being readily distinguishable by its greater flexibility or deformability to touch and affording a finished shoe of superior form. Furthermore, leather counters have been advantageous in use since they more readily conform to the shape of the foot and avoid undesirable chafing or blistering of the same. In contrast to the leather counters, the fiber board counters heretofore manufactured have been characterized by stiff marginal portions which are not readily deformable at the touch of the fingers and which render the back part of the shoe comparatively rigid, tending to cut the shoe lining and chafing or blistering the foot.

The present invention obviates these deficiencies in the fiber board counters and provides the same with qualities which have heretofore characterized the leather counters; accordingly a counter formed in accordance with this invention, when properly located within a shoe, is practically indistinguishable from a high priced leather counter and, in some respects, is superior to the latter. For example, counters of the type provided by the present invention may be employed in shoes employing very thin material for the outer portion of the upper without the margin of the counter being visible through the same as has ordinarily been the case, not only with the rigid fiber board as heretofore provided, but also with the leather counters as well. Therefore the present invention provides a comparatively inexpensive counter which has characteristics comparable to or better than those of the highest priced counters heretofore employed, permitting greater foot comfort and avoiding the provision of a rigid marginal portion that is liable to blister or injure the user's foot.

Furthermore, these flexible or readily deformable fiber board counters are particularly advantageous when employed in shoes of the McKay type since they may readily be shaped after lasting to give the back portion of the finished shoe the proper form, which has not heretofore been possible with the inexpensive fiber board counters.

I have found that a satisfactory fiber board counter may be formed by shaping the coun-

ter in the conventional manner but by confining the application of the stiffening treatment to the lower portion, i. e., substantially to the lower half or two-thirds of the counter, as the same is shaped. Accordingly, the lower portion of the counter upon which the higher strains are imposed is rendered substantially stiff and form retaining, while a comparatively wide marginal portion of the counter is left relatively flexible. This flexible portion of the counter may have a skive at least of the order of three-quarters of an inch in width, or in a typical counter it may have a minimum width that is at least a third of the maximum height of the counter. When the material of the counter wall is treated and formed in this manner, the resulting counter is adapted effectively to withstand the strains and wear of service and yet has flexibility which is comparable to that of a leather counter.

In the accompanying drawings:

Fig. 1 is a side elevation of a counter manufactured in accordance with this invention so that its margin may be readily deformed under finger pressure, the stiffened area of the same being indicated by dots;

Fig. 2 is a section on line 2—2 of Fig. 1; and

Fig. 3 is a sectional detail of the inner portion of the counter.

In accordance with the present invention, a thin sheet of fiber board is cut into blanks of a suitable size and shape to make the individual counters. Preferably this fiber board is formed of vegetable fibers, having a wood pulp base, and may be treated with a suitable sizing that may be rendered stiff by a suitable treatment such, for example, as the application of pressure.

In accordance with this invention, the blank which is to be formed into a counter, while in a mulled or softened condition, preferably is provided with a comparatively wide skiving 2 upon its marginal portion, which corresponds to the upper edge of the counter. For example, this skiving may be substantially three-quarters of an inch in width. The softened counter blank is then passed through the conventional rolling machine which applies pressure to the blank and gives it a well defined curvature. I have found that the interfitting forming elements of the rolling machine may be so shaped as to confine the direct application of pressure substantially to the lower half or two-thirds of the counter blank. For this purpose, for example, the outer element or cup member may have a portion of its surface ground away, so that it does not directly engage the corresponding portion of the counter blank. Thus upon the application of pressure the lower part of the back portion of the counter is impregnated with wax and subjected to pressure sufficient to cause the indurating or stiffening of the sizing. After this treatment, the counter blank may be disposed in the conventional molding machine which performs the final shaping operation. Due to the confinement of the stiffening treatment to the lower part of the counter, as designated by numeral 1, and due to the wide marginal skiving 2, the upper portion of the counter is rendered comparatively flexible, thus resembling a leather counter in this important respect.

I have found that a leather counter may readily be distinguished from fiber board counters of the type heretofore manufactured by the fact that the margin of the leather counter is readily deformable to the touch of the fingers; while if the margin of an ordinary fiber board counter is grasped between the thumb and forefinger of the hand, it affords a comparatively stiff opposition to deformation. On the other hand, the margin of a leather counter or in a counter constructed in accordance with my invention is readily deformable when engaged by the thumb and finger, as indicated by dot and dash lines in Fig. 3, such a counter being characterized by a skived marginal portion which may have a width at least substantially of the order of three-quarters of an inch or substantially three-eighths of the maximum height of the counter, i. e., the height of the back of the same. Preferably the stiffening treatment or application only extends upward to the intermediate part of the counter so that the upper half or third of the same is substantially free from the stiffening treatment.

I have found that a counter made in this manner is practically indistinguishable, when located within a shoe, from a high priced leather counter. Low priced shoes manufactured with a counter of this character may thus more closely resemble high priced shoes of exclusive make and, furthermore, the "feel" of the counter to the foot of the wearer may be substantially the same as that permitted by a leather counter, the objectionable marginal stiffness of the fiber board counters heretofore employed being absent.

Especially shoes of the McKay type may be advantageously provided with counters made in accordance with the present invention, and may be properly shaped under the conditions of commercial manufacture so that the warping, which normally results from removal from the last when the uppers are still green, does not adversely affect the shape of the ultimate shoe. Furthermore, even when the material of the upper is very thin, the edge of my counter does not form a perceptible irregularity beneath the same. The flexibility of a counter of this type permits it to conform somewhat to the shape of the foot of wearer and avoids the objectionable cutting of the shoe lining or chafing of the feet which often accompanies the use of the conventional stiff fiber board counters.

I claim:

1. A shoe counter formed of thin fiber board, treated with an impregnating agent, the lower portion of said counter being rendered stiff by a suitable treatment of the impregnating agent, the upper third of the counter including said agent but being substantially free from the stiffening treatment, and a skive upon the upper margin of the counter having a minimum width which is of the order of three-quarters of an inch, whereby the margin of the counter is readily deformable under finger pressure.

2. A shoe counter formed of thin fiber board, treated with an impregnating agent, the lower portion of said counter being rendered stiff by a suitable treatment of the impregnating agent, a region of the order of three quarters of an inch in width at the top of the counter including said agent but being substantially free from the stiffening treatment, and a skive upon the upper margin of the counter having a minimum width which is of the order of three-quarters of an inch, whereby the margin of the counter is readily deformable under finger pressure.

3. The method of making a deformable fiber board counter which comprises impregnating a sheet of thin fiber board with material that may be rendered stiff, shaping the sheet to counter form and treating the impregnating material in the lower part of the counter to make that part stiff, while leaving the upper third of the counter substantially untreated and deformable.

4. The method of making a deformable fiber board counter, which comprises impregnating a sheet of thin fiber board with a material that is rendered stiff upon application of pressure, shaping the sheet under pressure, confining the direct application of pressure to a region spaced substantially three-quarters of an inch from the top of the counter blank so that a wide marginal portion of the counter is left free from the stiffening treatment and so that the lower part of the counter is stiff.

5. The method of making a deformable counter which comprises cutting a blank of thin fiber board, providing the blank with a marginal skive with a width of the order of three-quarters of an inch, shaping the blank to counter form while treating the lower part thereof to render the same stiff and leaving the skived region substantially free from stiffening.

6. A shoe counter formed of thin fiber board, treated with an impregnating agent, the lower portion of said counter being rendered stiff by a suitable treatment of the impregnating agent, the upper portion of the counter including said agent but having a marginal zone extending for substantially a third of the height of the counter, which zone is free from the stiffening treatment, and a skive upon the upper marginal zone of the counter, whereby the marginal zone of the counter is readily deformable under finger pressure.

Signed by me at Boston, Massachusetts, this 19th day of August 1929.

ABRAHAM BLUSTEIN.