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(54) **LEATHER TREATMENT PROCESS**

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(57) **ABSTRACT**

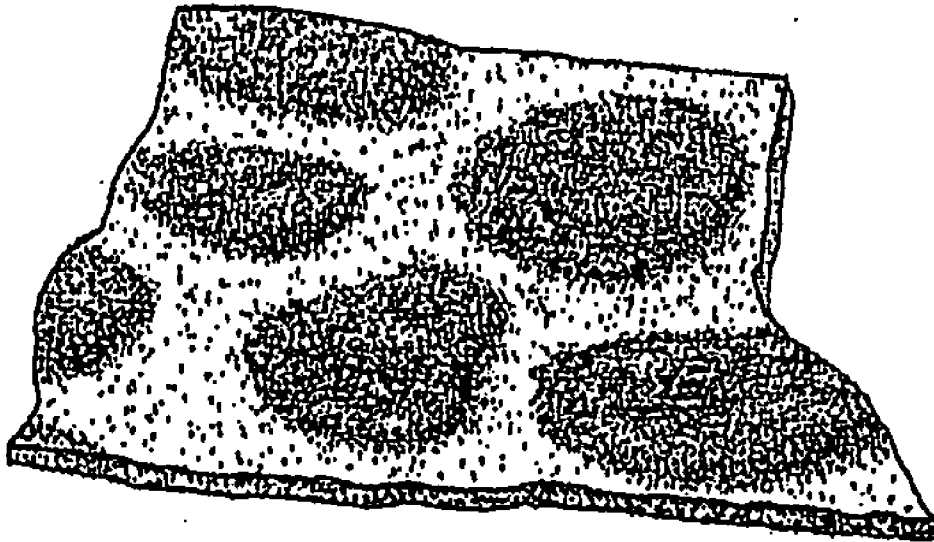
A process for treating leather is provided that contours leather fabric by applying a high heat, low oxygen, heat source capable of maintaining constant temperature, to leather at an angle that creates a valley in the leather at the point of application of the heat source and curls the leather surrounding the heat source upward. The process may further include blasting the leather with sand or beaded glass to lighten the color of the original leather fabric and create a worn or distressed look. The process may further involve dyeing the leather after the leather has been distressed. Optionally, the process may also include applying a light coating of lanolin oil to add moisture to the leather after it has been treated.

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(22) Filed: **Nov. 15, 2005**

Related U.S. Application Data

(63) Continuation of application No. 29/164,929, filed on Apr. 17, 2003.



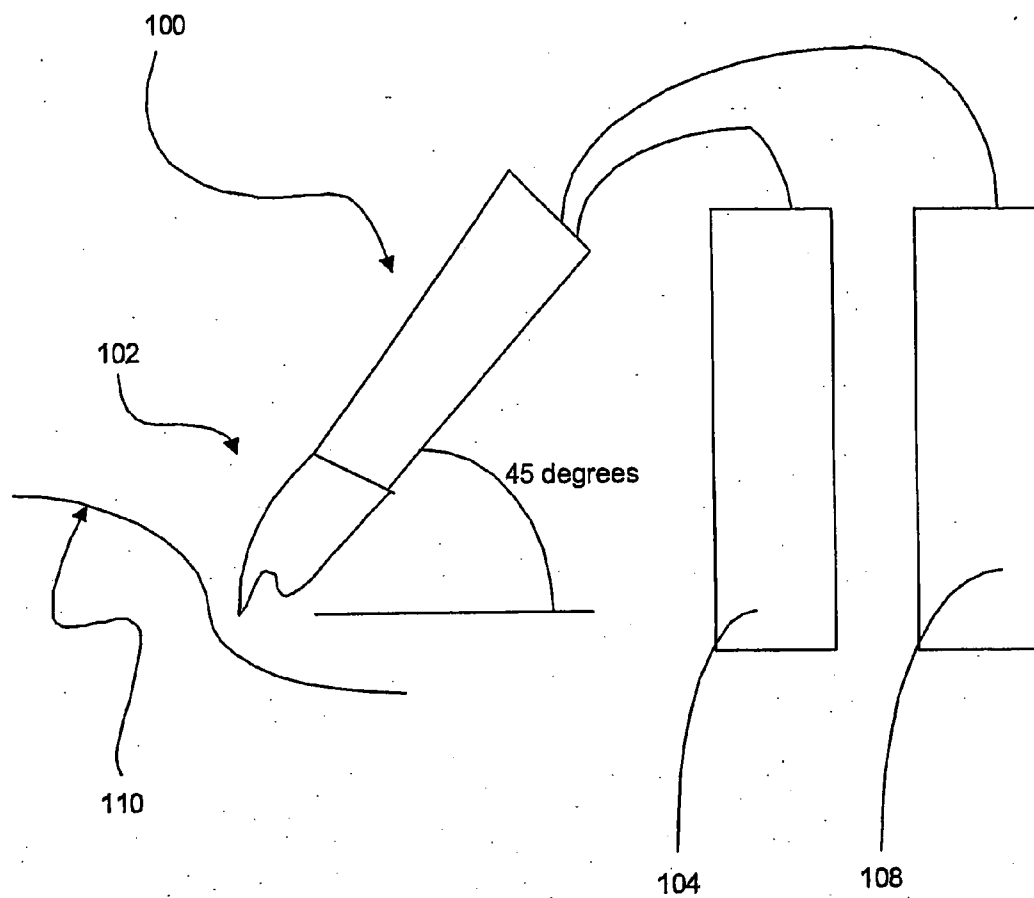


FIG. 1

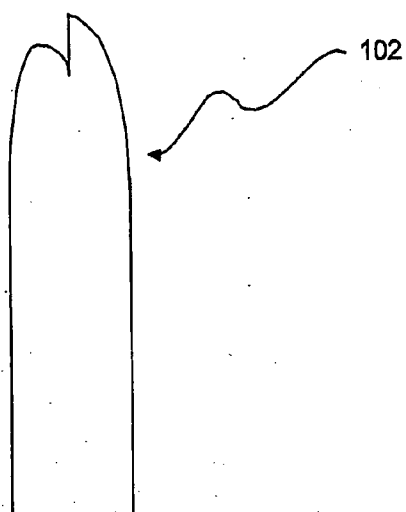


FIG. 2

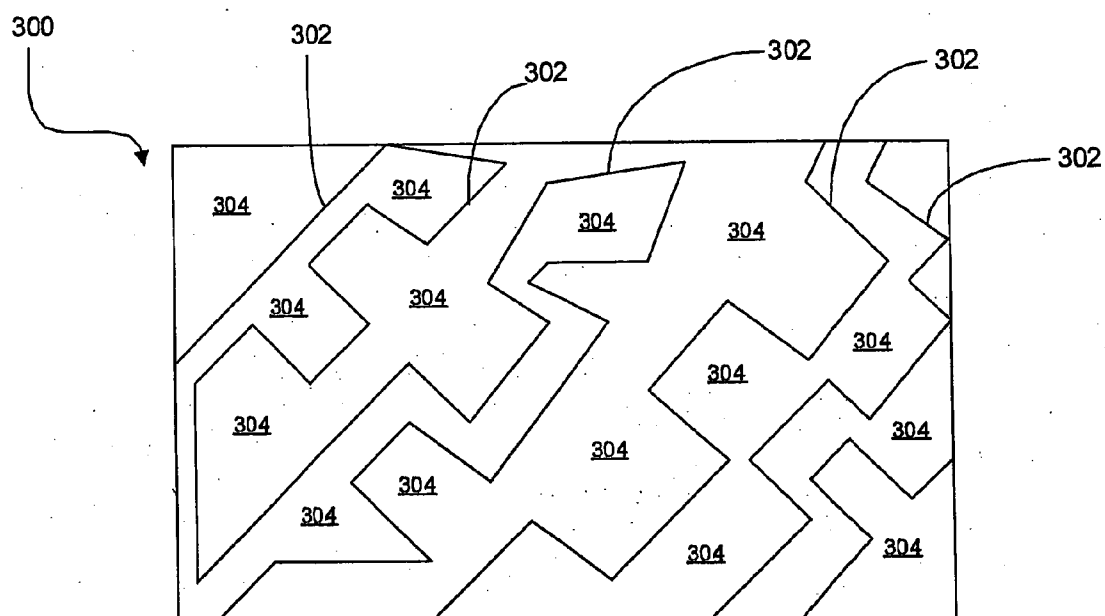


FIG. 3

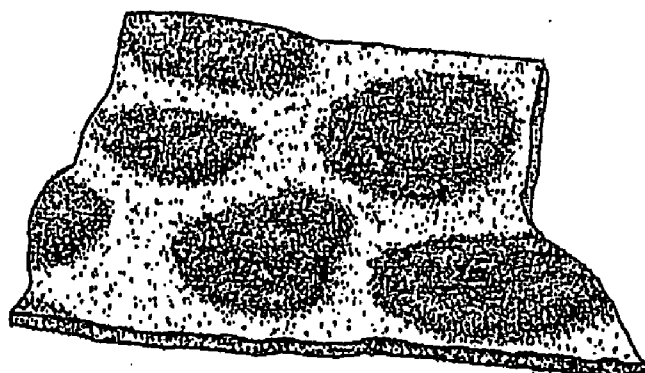


FIG. 4

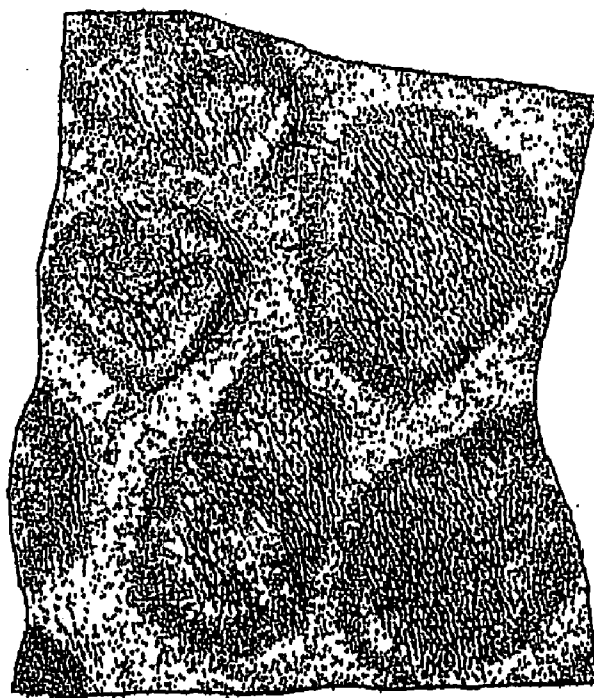


FIG. 5

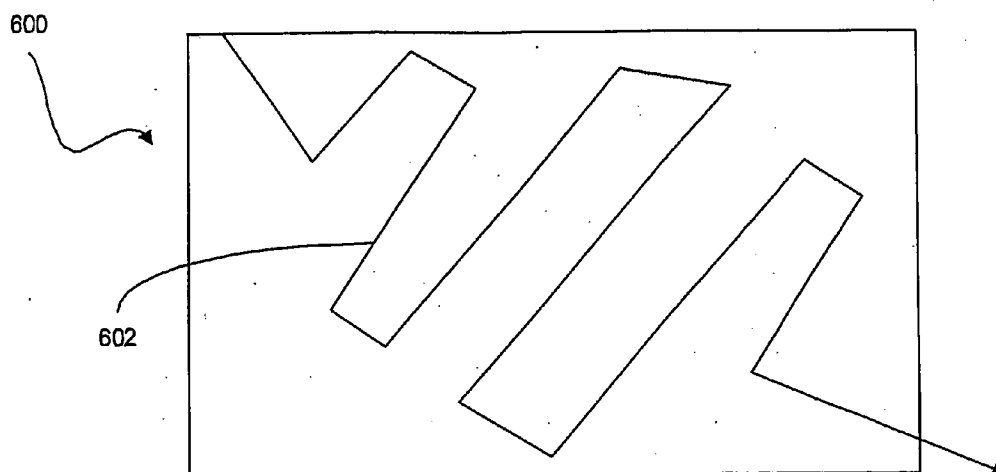


FIG. 6

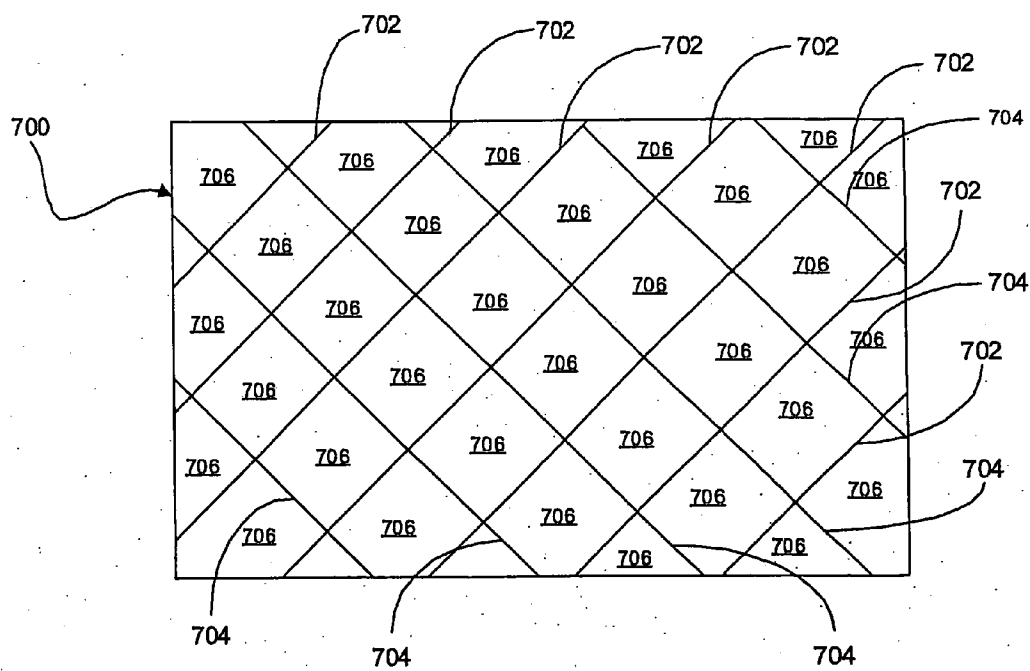


FIG. 7

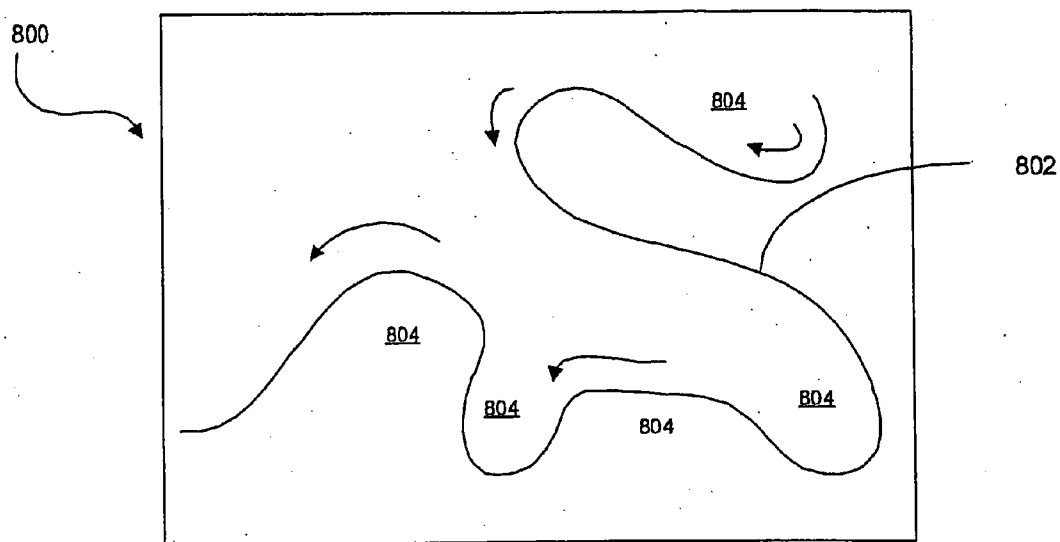


FIG. 8

LEATHER TREATMENT PROCESS

RELATED APPLICATIONS

[0001] This application is a continuation of U.S. Design patent application Ser. No. 29/164,929 titled "Fabric" filed Aug. 8, 2001, which is incorporated into this application by reference in its entirety.

BACKGROUND OF THE INVENTION

[0002] 1. Field of the Invention

[0003] This invention relates generally to a leather treatment process and, in particular, a thermal process for treating leather to create decorative effects.

[0004] 2. Related Art

[0005] Fashion is an important aspect in society. Fashion designers are under continually pressure to create and introduce new and desirable fashion designs. Thus, a continually need exists for new fabrics and new decorative designs to satisfy the demands of the fashion industry.

SUMMARY

[0006] A process for treating leather is provided that contours leather fabric by applying a high heat, low oxygen, heat source capable of maintaining constant temperature, to leather at an angle that creates a valley in the leather at the point of application of the heat source and curls the leather surrounding the heat source upward.

[0007] The process may further include blasting the leather with sand or beaded glass to lighten the color of the original leather fabric, creating a worn or distressed look. Optionally, the leather may be dyed after it is distressed. Additionally, the process may further include applying a light coating of lanolin oil to add moisture to the leather after it is treated.

[0008] Other systems, methods, features and advantages of the invention will be or will become apparent to one with skill in the art upon examination of the following figures and detailed description. It is intended that all such additional systems, methods, features and advantages be included within this description, be within the scope of the invention, and be protected by the accompanying claims.

BRIEF DESCRIPTION OF THE FIGURES

[0009] The components in the figures are not necessarily to scale, emphasis instead being placed upon illustrating the principles of the invention. In the figures, like reference numerals designate corresponding parts throughout the different views.

[0010] **FIG. 1** illustrates an example of a heat source that may be used to contour leather in accordance with the present invention.

[0011] **FIG. 2** is an enlarged view of the tip of the heat source of **FIG. 1**.

[0012] **FIG. 3** illustrates one example of a heat application pattern that may be used to apply the heat source and indicates where the raised areas will develop following this pattern.

[0013] **FIG. 4** illustrates a perspective view of one example of the appearance of leather fabric after application of the heat source.

[0014] **FIG. 5** is a top view of the leather fabric illustrated in **FIG. 4**.

[0015] **FIG. 6** illustrates another example heat application pattern that may be followed to apply the heat source, indicating where the raised areas will develop using this pattern.

[0016] **FIG. 7** illustrates yet another example heat application pattern that may be followed when applying a heat source and the resulting contour.

[0017] **FIG. 8** illustrates another example heat application pattern that may be used to apply the heat source and the resulting contour.

DETAILED DESCRIPTION

[0018] A new redesigned leather fabric is created from an existing cowhide, buffalo, goat, sheep or lambskin. The applied technology will sculpt and contour the leather to create a reversible bubble leather design ready for use in the marketplace.

[0019] As illustrated in **FIG. 1**, a thermal source **100** may be used as the contouring element and be a curved torch **102** with a very consistent heated tip **102**. Store bought tips **102** maybe used by altering the configuration of the tips **102** so that the tips **102** are angled to approximately a 45 degree angle. At this angle, the heat flows from the tip **102** and discharges the flame (not shown) as a side split flame, thereby allowing the leather to be curled and then bonded. **FIG. 2** illustrates an enlarged view of the tip **102** of the heat source **100** configured at a 45 degree angle. Because of the nature of the composition of leather hide, it is easily burned if the proper tip **102** is not used by the heat source **100**. As illustrated in **FIG. 1**, the process may use the mixture of gasses **104**, such as propane **106** and oxygen **108**, to ignite the flame tip when the pin pointed flame hits the leather in order to create a deep valley and seal the bubble around it. The process used may be a high heat, low oxygen process.

[0020] **FIG. 3** illustrates one example of a heat application pattern that may be used to apply the heat source to the leather and indicates where the raised areas will develop following this pattern. In other words, after the heated tip has passed the circular pattern (left to right) **302** in slow or fast circular motions over the leather **300**, a small medium or large bubble **304** will form in an upward direction and then be sealed and retain that shape.

[0021] **FIG. 4** illustrates a perspective view of one example of the appearance of leather fabric **400** after application of the heat source using a similar pattern to **FIG. 3**. In **FIG. 4**, the raised bubbles are illustrated as **402**. **FIG. 5** is a top view of the leather fabric **400** illustrated in **FIG. 4**.

[0022] **FIGS. 6-8** illustrate other example heat application patterns used to apply the heat source and the resulting contour. **FIG. 6** illustrates how the heat source may be applied in a continuous pattern that cuts through the fabric, creating a cut-through design. The leather fabric **600** is contoured by applying the heat source along the pattern line **602** in direction indicated by the arrows.

[0023] **FIG. 7** illustrates the application of the heat using parallel pattern lines spaced across the leather fabric in two directions. The leather fabric **700** is contoured using parallel, generally evenly spaced pattern lines across one axis of the fabric **702**. Opposing parallel, generally evenly spaced pattern lines **704** are also provided across the fabric **700** along the axis perpendicular to the axis of pattern lines **702**. By applying the heat source along these pattern lines **702** and **704**, raised bubbles **706** would form, creating a raised checker board type design on the leather fabric.

[0024] **FIG. 8** illustrates the application of a random flowing pattern design. The leather fabric **800** is contoured by applying the heat source along the pattern line **802** in the direction indicated by the arrows. Using this pattern for applying the heat source, raised bubbles **804** will form on the leather **800**. The bubbles in the leather fabric are created as a group of locks that formed from the heating process, which pushes the leather upward to form the bubble. The application of the heat source in a quick straight-up motion to the pattern illustrated in **FIG. 8** may be used to seal and form the bubbles. Such a flowing application pattern of the heat source can be applied to other areas of the fabric to continue the treatment processes. Further, the heat source may be applied to the bubbles created in the leather, which will result in other raised patterns (not shown) such as diamonds, squares, lines and images. Lines or valleys in the leather will form separate flow patterns. As illustrated, various bubble patterns may be created in various shapes and sizes, adjustable to any size or pattern and limited only by an artist's imagination.

[0025] In operation, the application of the high heat, low oxygen treatment shrinks the leather material when applied, which allows for the sculpting or contouring of the leather fabric. When contouring fabric for a specific purpose, consideration should be giving to the fact that the process will shrink the leather. For example, a process creating raised bubbles up to 2" in diameter may shrink the leather fabric 2 to 4" depending on the height and width of the leather fabric and the contouring process.

[0026] The contoured leather fabric created using the present invention creates a finished fabric. Further, either side of the contoured leather may be used. The contouring process is applied to the display side of the fabric. The opposing side of the fabric appears as the reversal of the raised bubbles, which appears as dimples or craters in the suede side of the leather. Because the reversed side of leather provides a suede finish, either side of the leather may be displayed and used as a contoured fabric. Products can be made displaying either side of the contoured fabric.

[0027] Optionally, the contoured leather fabric may be further treated to create a distressed leather look. The distressed leather look may be created by blasting the contoured fabric with powered sand or beaded glass. A light blasting spray can lighten the color of the leather fabric and create a new look from the original dye. Applying this distressing technique to the treated or contoured leather causes solid colors to become disbursed, breaking line out of color and fading after the blasting process is completed. One can then re-dyed the distressed fabric. This process can be performed on non-contoured leather. The contouring may then be performed after the leather is distressed. Addition-

ally, after the leather is contoured, a light coating of lanolin oil may be applied to add moisture back into the leather fabric.

[0028] The foregoing description of an implementation has been presented for purposes of illustration and description. It is not exhaustive and does not limit the claimed inventions to the precise form disclosed. Modifications and variations are possible in light of the above description or may be acquired from practicing the invention. The claims and their equivalents define the scope of the invention.

What is claimed is:

1. A leather fabric, the leather fabric having a display side and a suede side, the leather fabric including valleys and raised bubbles on the display side and craters on its suede side that correspond to the raised bubbles on display side.
2. The leather fabric of claim 1 where the leather fabric on the display side is distressed.
3. The leather fabric of claim 2 further includes dye applied on the distressed display side fabric.
4. The leather fabric of claim 3 further includes a light coating of lanolin oil.
5. A leather treatment process, the leather treatment process comprising the step of applying a directed heat source to select segments of one side of a piece of leather.
6. The leather treatment process of claim 5 where the select segments are defined by predetermined pattern lines.
7. The leather treatment process of claim 5 where the select segments are defined by the application of the heat source to random areas of the leather piece.
8. The leather treatment process of claim 7 where the application of the heat source to random areas of the leather is applied by following random flow lines on the leather piece.
9. The leather treatment process of claim 5 where the heat source is applied on the display side.
10. The leather treatment process of claim 5 further including the step of distressing the leather piece on at least one side of the fabric.
11. The leather treatment process of claim 10 where the leather is distressed on the side of the leather piece where the heat source is applied.
12. The leather treatment process of claim 11 where the leather is distressed on the display side.
13. The leather treatment process of claim 10, where the leather is distressed by sand blasting the leather.
14. The leather treatment process of claim 10, where the leather is distressed by blasting the leather with beaded glass.
15. The leather treatment process of claim 5 where the heat source is a high heat, low oxygen, heat source capable of maintaining constant temperature.
16. The leather treatment process of claim 5 where the heat source is applied to the leather at an angle.
17. The leather treatment process of claim 16, where the heat source is applied to the leather at a forty-five degree angle.
18. The leather treatment process of claim 10 further including the step of dying the distressed leather.
19. The leather treatment process of claim 5 further including the step of applying a light coating of lanolin oil to the leather.