This invention is an insole which consists of four layers: one layer of 100% alpaca fiber, one layer of burlap, and two more layers of 100% alpaca fiber. All layers are joined by densely needle felting them together.

The burlap is sandwiched between the felted alpaca layers. The insoles are made in four sizes: small, medium, large, and extra large. While additional and/or alternate sizes could be created, each size is designed to allow approximately ½-inch of excess insole around the heel and both sides of the foot. This allows the insole to cup the foot slightly if the wearer’s shoe or boot allows space for this.
ALPACA AND BURLAP FELT INSOLE

BACKGROUND

[0001] 1. Field of the Invention
[0002] The present invention is an article of footwear.
[0003] 2. Description of the Related Art
[0004] On first impression, felted wool insoles might appear to be a non-obvious invention. There are many felt insoles on the market, and none appear to be patented. A thorough search of US patent database for patents and patents pending revealed a handful of patents on felt insoles, none of which are current.
[0005] The core rationale for this patent application is that no other products exist of the same description as the item we are describing here, i.e., a burlap reinforced alpaca felted insole which is deliberately oversized for warmth and comfort.

DESCRIPTION OF THE INVENTION

[0006] Fiber is currently processed in 60- by 90-inch batts weighing 2 to 2.25 pounds per batt. To manufacture insoles from batts of this weight, three layers of alpaca fiber are needed. Drawing 1 shows that this insole consists of four layers: one layer of 100 percent alpaca fiber (10), one layer of burlap fabric (12), and two more layers of 100 percent alpaca fiber (14 and 16). Batting of proportionate weights and dimensions could also be used. All layers are joined by densely needle felting them together.

[0007] The dimensions of these insoles as they are currently manufactured are shown in Drawings 2, 3, 4, and 5, as follows:

<table>
<thead>
<tr>
<th>Drawing</th>
<th>Insole Size</th>
<th>Length</th>
<th>Reference #</th>
<th>Width</th>
<th>Reference #</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Small</td>
<td>10.125</td>
<td>18</td>
<td>4.32</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>Medium</td>
<td>10.875</td>
<td>22</td>
<td>4.64</td>
<td>24</td>
</tr>
<tr>
<td>4</td>
<td>Large</td>
<td>11.625</td>
<td>26</td>
<td>4.96</td>
<td>28</td>
</tr>
<tr>
<td>5</td>
<td>Extra Large</td>
<td>12.625</td>
<td>30</td>
<td>5.39</td>
<td>32</td>
</tr>
</tbody>
</table>

[0008] While additional and/or alternate sizes may be created, each size should allow approximately ½ inch of excess insole around the heel and both sides of the foot (Drawing 6, reference #34). This allows the insole to cup the foot slightly if the wearer’s shoe or boot allows space for this.

PROCESS OF MAKING AND USING THE INVENTION

Making the Invention

[0009] Raw alpaca fiber is processed into batting by traditional means. This batting includes fiber at a density that results in 2 to 2.25 pounds of fiber in a 60- by 90-inch batt. While batts of proportionate weights and dimensions can be used to sandwich the burlap, we describe here the most commonly used batting for illustrative purposes. As shown in Drawing 7, two batts are each cut into two pieces, one 30 by 60 inches (reference #36) and the second piece 60 by 60 inches (reference #38).

[0010] The two 30- by 60-inch pieces of batting are laid over one 60- by 60-inch piece so that the grains of the two layers are perpendicular to each other (Drawing 8). These two layers of batting are passed through a needle felting machine one time.

[0011] A piece of burlap is cut to 60 by 60 inches. The remaining 60- by 60-inch piece of alpaca fiber batting is laid over the burlap. These two layers are then passed through a needle felting machine one time.

[0012] The felted alpaca-alpaca layers are laid over the felted burlap-alpaca layers so that the burlap is sandwiched between alpaca layers. The two felted pieces are pulled, as necessary, to square the shapes and match the edges. The four layers are then passed through a needle felting machine a total of eight to ten more times, alternating the leading edge of the felt and alternating the top layer so that the resulting piece is felted from the top and the bottom and along both its length and width. This ensures a thorough tangling of the alpaca and burlap fibers. The finished felt will be approximately 3/8 inch thick.

[0013] Finally, insoles are cut from the felt according to the pattern for each size (Drawings 2 through 5).

Using the Invention

[0014] The wearer uses a normal kitchen or sewing shears to trim the insole to fit the wearer’s shoe or boot. The insole is slipped into the shoe or boot for use.

1. Alpaca is known to be warmer than wool. The insoles are therefore effective in insulating the foot from cold floors and weather.

2. Sizing the insoles to allow them to roll up the sides and back of the foot slightly adds further insulation by preventing the infiltration of cold air as the foot flexes.

3. Densely felting the insole prevents its compression with wear. The denseness of the felt ensures it will continue to cushion and insulate the foot over time.

4. Dense felting of the insole ensures that the insole will not felt to the wearer’s sock as a looser felt would be prone to do.

5. The layer of woven burlap stabilizes the shape of the insole so that it does not bunch up when worn or lose its shape when laundered.

* * * * *