

# Turn a Pumpkin Into a Period Leg Brace (Without the Help of a Fairy Godmother)

by Christina Johnson

Throughout my career as a costume designer, I have been challenged with fabricating hard-to-find items, ranging from dancing elephant butts to quick-change mermaid tails. Tasked with such a project, I often turn to online articles for examples of how to solve these problems in cost-effective and creative ways. When the item to be created is historical in nature, the job can be especially challenging.

In the summer of 2018, I was the costume designer and shop manager for the Mississippi Bend Players in Rock Island, IL. Early in the production process for *The Glass Menagerie*, it was decided that Laura would not need a leg brace as it is a memory play. However, once we began the rehearsal process, the director decided the actor needed the leg brace. Since it was worn by the actor throughout the play, it was determined it would fall under costumes rather than props.

## Research and ideas

I began researching leg braces of the mid-1940s and soon discovered that replicating them could be very costly. My next step was to contact local orthopedic specialists to see if I could find an office display or even a brace used for instructional purposes, but I had no luck. I found several types of leg braces online, but none of them matched the research images I had gathered. I reached out to my peers across online communities and, although I received many great ideas, they all had issues with costs or with the time needed to assemble.

With time running out, I broke down the key requirements for the leg brace: leather straps, metal rods, the ability to be worn over a shoe, and simple removal. It also needed to be lightweight and pliable enough for the actor to wear for long

periods of time. We considered that lighter-weight materials would be quieter onstage, and adding a rubber sole would limit the sound coming from the brace.

As an assistant costume designer to Alex Kosbab at the University of Alabama, I had crafted a similar-style, quick-change leg brace for Little Becky Two Shoes for a production of *Urinetown* directed by Stacy Alley. That brace also needed to be incredibly lightweight so it did not interfere with the dancing required of the actor, and it also needed to be taken off by the actor onstage in less than 45 seconds and then quickly put back on.

For that piece, I used wooden stir sticks painted to look like metal and bound with leather bands around the knee and ankle. It was visually appropriate for the large proscenium stage, but historical accuracy was not a factor with the distance between the audience and the stage, as well as the stylization of the show design. For this production of *The Glass Menagerie*, the space was much more intimate, so it required much finer detail.

## A craft store bargain

After checking the costume shop and the scene shop for materials and ideas, I opted to visit local craft stores. I wandered the aisles hoping for inspiration and stumbled upon a metal pumpkin in the fall decorations. The pumpkin was crafted with a semi-pliable, lightweight galvanized steel that had been distressed to appear rustic. Bingo! The price tag read \$15.99, and with my handy 40% off coupon code, it was a steal at under \$10!

I returned to the costume shop with my pumpkin prize and began dismantling the structure. With some help from the technical director and a few power tools, I was able to break it down to just the metal pieces. To cut off the stem and release the metal bars, we used a small angle grinder



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Laura, played by Marjorie Gast, wears a period leg brace crafted from a metal pumpkin in Mississippi Bend Players' production of *The Glass Menagerie*, directed by Corinne Johnson.

## Materials Needed

Metal pumpkin	\$15.99
Faux leather (1/2 yard was plenty)	15.00
Skirt hooks and eyes (box of 50 on Amazon)	6.99
Whopper snaps (2)	4.99
Epoxy	3.88
<b>Total:</b>	<b>\$46.85</b>

NOTE: Most items other than the pumpkin will be in your stock already.



### STEPS TO CREATE THE LEG BRACE

- Step 1: Acquire the found piece – the pumpkin.*
- Step 2: Dismantle the pumpkin. Use pliers to straighten the pieces.*
- Step 3: Measure the actor's leg from knee down to determine the length of the two longer bars; measure the width of the actor's arch for the bar under the foot.*
- Step 4: Bend a smaller piece into a U shape for the arch.*
- Step 5: Assemble the frame. I used 2-part epoxy to join pieces and clamped them for the suggested curing time.*
- Step 6: Cut the faux leather pieces and stitch together, remembering to create a 1" channel for the metal to go through.*
- Step 7: Give the brace a final fitting, adding hook and eye closures and a whopper snap for stability.*

with a cut-off wheel. All of the pieces were then deburred with a right-angle grinder with a flat disc, and the tops of the metal bars were rounded to protect the leather. This gave us two long bars that, based on measurements of the actor's leg, would extend from below the knee to the floor, and one small piece the width of the foot, with one inch added on both sides for attaching to the longer pieces.

The next step was to bend those one-inch tabs to create a U-shaped bar that would fit in the arch of the foot. I bent the tabs with pliers and a bench clamp to 90 degrees, leaving enough room for the actor's shoe. I joined the pieces with two-part epoxy and left them clamped for 24 hours, allowing the epoxy to cure.

With those pieces clamped, I began work on the leather bands. I cut and stitched the bands using brown pleather from stock. The upper band was 4.5" tall and sewn to allow for some give in the actor's movement. The lower band was 3" tall and sewn to the circumference of the actor's ankle.

The faux leather bands had pockets stitched in the sides for placement of the

long metal bands, and I secured the metal bars in the channels with more of the epoxy. Before finishing the bands, I fit the brace on the actor and asked the actor to complete the most difficult blocking. We then adjusted the straps with snap closures at the side, making it easier for the actor to put on and remove the brace. After two fittings, the brace was ready to be used in rehearsal.

After working with the brace in rehearsal, we realized that the metal was so pliable that it tended to warp with extended wear. I decided to reinforce the long bars by adhering thin metal rods to the interior sides. I inspected the brace throughout the dress rehearsals, performances and photo shoot to ensure that it maintained its shape. The pliability of the metal actually benefited the actor, allowing greater comfort and ease of movement.

We also realized the pleather bands

needed more strength, so hooks and bars were added. Our use of faux leather proved advantageous, as the bands stretched well while retaining their original shape.

### Inexpensive and unexpected

In the end, the brace met the needs of the production – at a total cost of about \$15, because we had all components in stock except the pumpkin and the epoxy.

Fabricating this leg brace reminded me of the importance of divergent thinking in design and how we must always be open to unexpected solutions. You never know, you may find yourself turning a pumpkin into a leg brace! ■



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