Fabric Conveyors and the Scrolling Panorama

Curtains that move parallel with the stage, or travel, are so common in western theatre that facilities normally come equipped with all the hardware necessary to do so. In fact, the ability to rig fabric to travel across the stage is generally taken for granted. However, we are frequently pushing our venues beyond their given capacities, or producing in theatres of poor means, or creating site-specific productions. At these times, designers and technicians are faced with expensive and often proprietary equipment that can be out of reach physically or financially. These situations call for a simple solution for the common task of supporting traveling fabric.

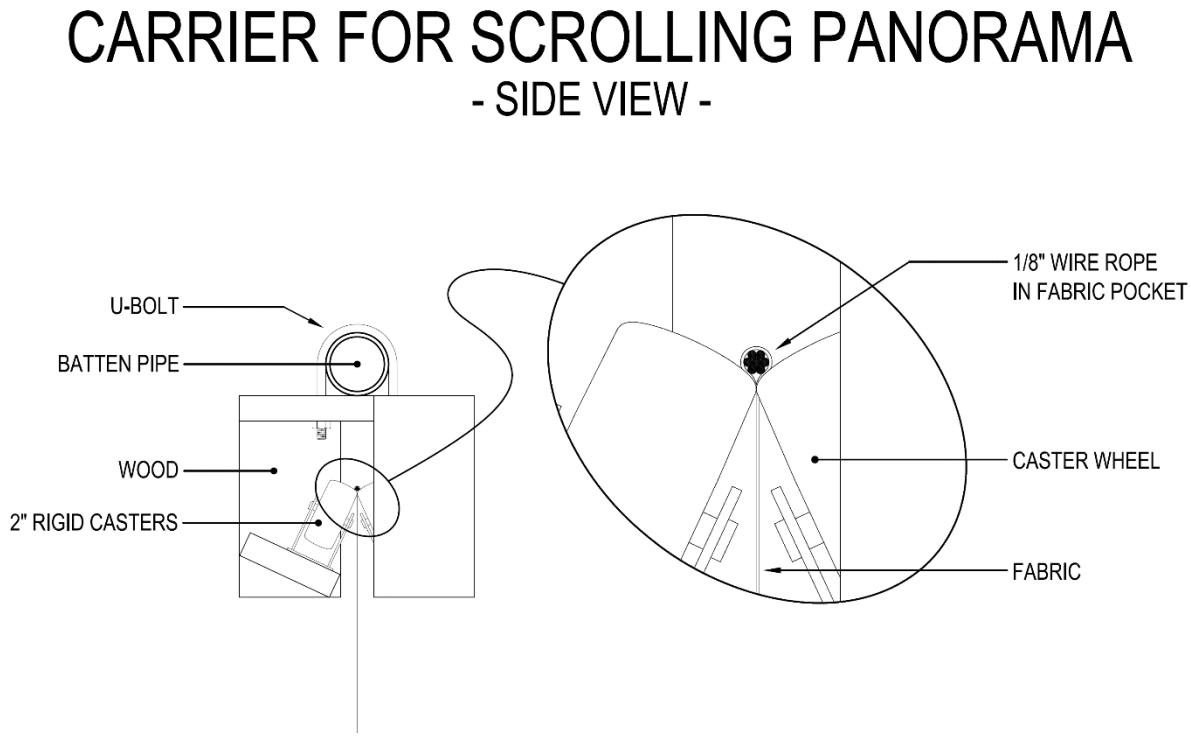
Production Photo

At The Ohio State University, I was faced with an additional challenge for our production of *The Three Spinners* adapted from a folk tale by Joe Brandesky, as the fabric needed to travel across our stage was three times wider than the stage itself. I had designed a scrolling panorama—a drop one hundred feet long, both painted and translucent, that needed to travel seamlessly across the stage depicting Lidushka's travels across her fanciful countryside. Scrolling panoramas are mostly relegated to children's toys and puppet theatres where the scale is manageable. By contrast, our drop bridged a twenty-foot-wide opening and required some very creative engineering.

Traditional hardware and tracks for traveling curtains would not accommodate the eighty feet of excess fabric on either end. Also, no amount of tension would keep the fabric taught across the span without additional support in the middle. Despite the unique nature of the design, the underlying challenge was again very common: create a

simple and inexpensive method to support fabric from above as it travels across the stage. The solution I developed for this purpose is the fabric conveyor.

As opposed to conventional traveling hardware that requires carriers to be attached to the fabric across its full length, fabric conveyors remain stationary and allow the fabric to roll through them while still supporting the weight of the fabric itself. This is achieved by attaching a thin rope to the top of the fabric which is carried along pairs of rollers that support the rope securely yet allow the fabric to pass between. Each conveyor is constructed using readily available materials and hardware including two small casters, a U-bolt and about two feet of common lumber.



In the development process, I engineered the conveyors in a number of different ways. The simplest distillation of the assembly involves a single piece of wood, around seven inches across, with two similar pieces attached on opposite edges, offset from one another and oriented downward. Each two-inch caster is fastened to a short block of wood and attached to each of the vertical pieces at an angle that allows the casters to touch at the tip of their wheels but with sufficient space between them for fabric. The top board is fastened to a pipe or batten with a simple U-bolt, although anyone with spare “C” clamps from lighting fixtures may find these connectors preferable.

For our production, we sewed a pocket onto the top of our fabric inside which we ran a thin wire rope. This rope was held aloft between the caster wheels while the fabric drop travelled across below. We also built tall spindles to roll up the excess fabric on one side of the stage while doling it out on the other. While the panorama travelled toward the right, shadow puppets behind the translucent fabric appeared to travel toward the left as they journeyed through the scenic countryside.

Backstage Photo

The conveyors I developed are more than just a simple and economical alternative for a common practice on the stage. They open possibilities unavailable using conventional technology. For our production, they allowed the use of fabric far larger than would have been possible otherwise. Because they don't require a rigid track, they can also convey fabric in straight lines, curves or circles. This capacity might suit a curved cyclorama or a playfully winding path in an installation. As both a designer and a technician, I find unique value in technical solutions that not only answer a given design challenge but might also inspire another.