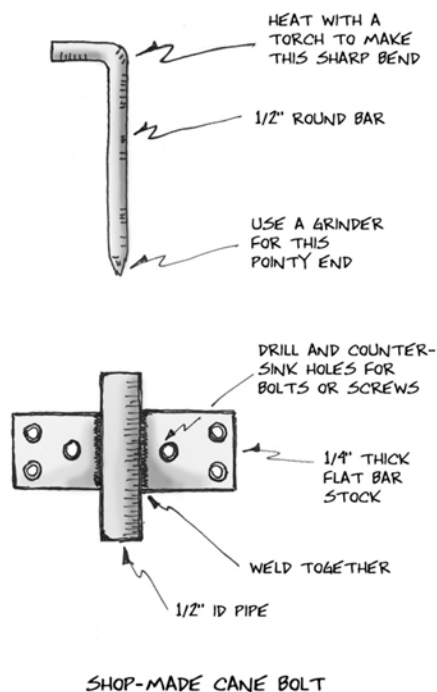


How Do You MAKE ...

CANE BOLTS

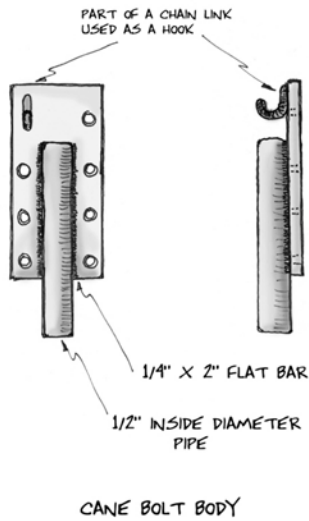
Cane bolts are used to position and secure rolling units to the floor when the action of the play is such that the unit would lurch unpleasantly without them. When viewed from the side, it is easy to see where this item got its name. There are really two parts to a cane bolt: the bolt itself and the sleeve that is used to connect it to the decking unit. The latter is a section of pipe for the bolt to run through and a welded-on flange with screw holes in it. Cane bolts are commercially available, but in keeping with Murphy's Law, I have found that the flange is almost always the wrong size to fit on my platform, or the bolt is just not quite long enough to reach the stage floor. They also aren't as heavy-duty as the shop-built version. Making the hardware yourself is not too difficult and ensures a sturdy product and a great fit.



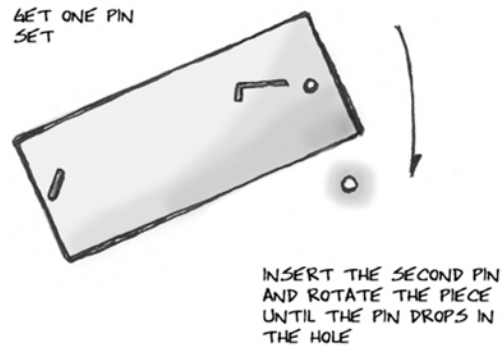
It is best to use at least $\frac{1}{2}$ " stock for the bolt. This size is hard to bend into the cane shape, but it is also less likely to bend when pressure is applied during the show. You may need to heat the metal with a torch to make it more malleable. If necessary, weld a handle onto the shaft at an angle instead of bending. The $\frac{3}{8}$ " size of bolt may be okay for some lightweight applications, but I have been disappointed by how easily it can be bent. It's always disquieting to sit at a rehearsal and see two actors run across the stage and fling themselves on a bed being held into place by bolts that are too small. Of course in the production meeting, the director said it just had to sit there!

If you would like for the bolt to remain with the unit while it rolls, a chain link cut in half and welded into place on one of the flanges can be used for this purpose. Make sure

that the bolt is retained high enough to keep from dragging.



Grinding the end of the pin so that it is slightly pointy will make it easier to insert it into the deck. Never use more than two bolts, because it will be far too hard to line the piece up, and besides, it is just not necessary. If you concentrate on getting one pin into its hole, it is fairly easy to rotate the unit so that the other simply drops in on its own.



Sometimes it is possible to just drill through a unit and use that hole as a means of pinning the unit to the floor. This won't work if there is a large gap between the bottom of the unit and the floor because there will be too much play in the assembly.

If you want to use a cane bolt on scenery that has metal framing, you can often omit the attachment flange, and just weld a section of pipe directly to the unit.

