A THOUGHT FOR BENDING SECTIONS.

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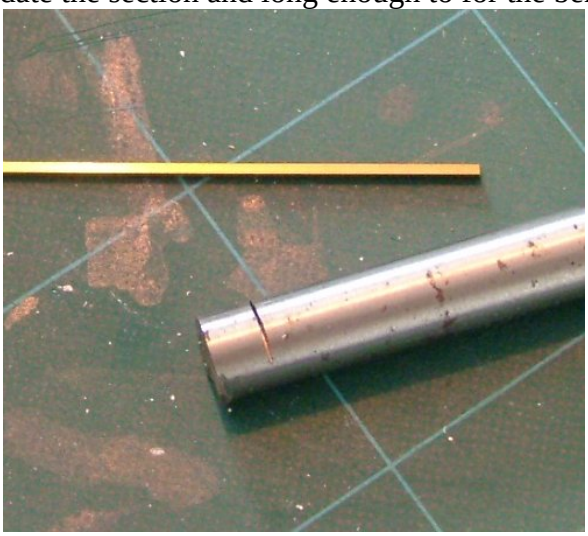
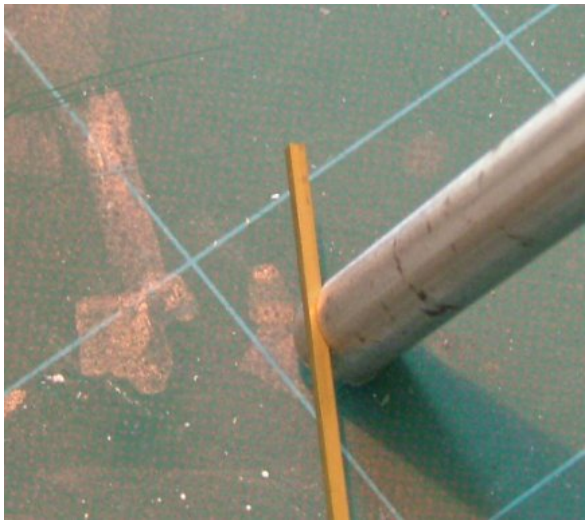
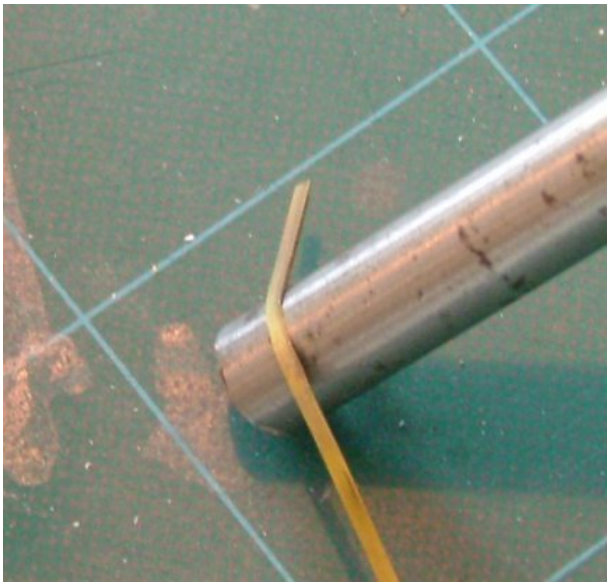
I have recently been constructing a signal box. One of the details that were challenging me was the three brackets that held up the walkway and safety rail. They needed to be metal rather than plasticard as the rest of the model. They were to be a tee section too with a radiused return at the bottom. The question was how to create the radius without distorting the section. If you try and make a bend the geometry of the section causes rotation of the item even with annealing.

My solution was to cut a slot in a suitable diameter of silver steel. This was to hand but brass or mild steel would have done. The slot has to be narrow; the thickness of the section has to be a close fit. Lacking lathe skills (and a tool) to cut a groove well under a millimetre wide I used the piercing saw. With a quality blade the steel cut easily if not too square to the axis but this is not an issue. The slot has to be deep enough to accommodate the section and long enough to for the bend.



I annealed the brass section by heating to dull red and allowing it to air cool. The edge was fitted into the slot and the section gently pushed around.





Depending on the amount of bend it may be necessary to anneal it again. In spite of the support from the slot the demonstration “L” section still rotated slightly (the “Tee” on the model less so as it is a symmetrical section.). All that remains after the bend as been satisfactorily made is to straighten it up. A pair of broad flat nose pliers is useful here. The finished(?) example shows a little distortion still on leg but this is easily straightened.