

Lighting the Virgin's Way: A Gothic Candelabra

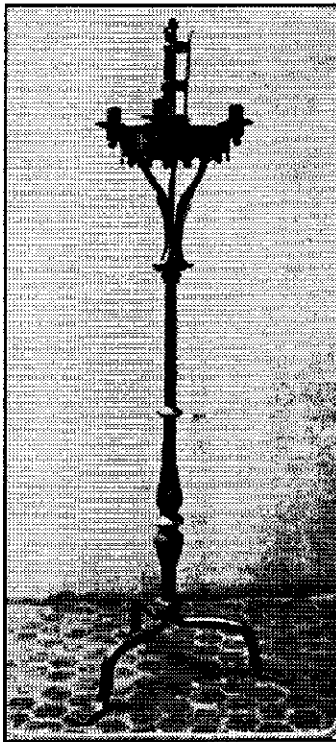
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Lord Richard von Arlesberg

In preparation for the reconstruction of lighting instruments that might have been found in Chartres cathedral, I settled on the design, below, as a hybrid of the two standing candelabras shown. Although one is Spanish and 16th century, and the other French, of the 15th century, they illustrate well my source's conviction that primitive lighting instruments of this period "bore the mark of other countries." France, especially, was likely to have borrowed much from the master iron workers of Spain. The French used candelabras with or without ornamental "crowns" in either circular or hexagonal form, which they often

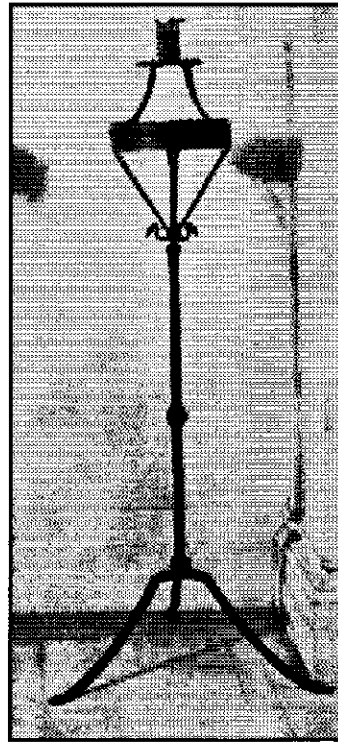
referred to as "Torcheres."

While I have made several alterations to make the reconstruction simpler and to keep costs low, the overall look and "ambience" of the piece has been retained. Be aware that the computerized drawings are misleading. All curves are smooth, not made with straight lines as the sketches suggest. When completed, this candelabra should look and operate just like the originals.

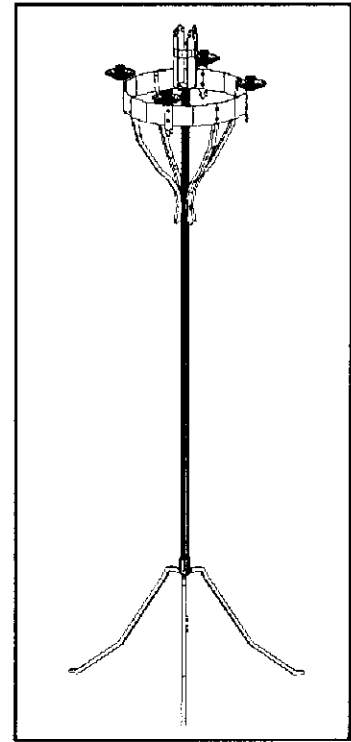
For those with training in drafting or metalsmithing, the plans are complete, and should provide you with all the information you need to build the candelabras. I have designed them so that they break



A 16th century Spanish version of an earlier Gothic type of wrought iron candelabra with the crown indented on the lower edge only



A 15th century French wrought iron "couronnes de lumieres pediculees," with tripod feet flattened at the ends



My version of a typical candelabra such as might be found in Chartres, France, A.D. 1507

into three sections for easy portability. The top section is by far the most complex, consisting of four small, individual candle holders, and one central cylinder to hold a single large candle. The middle consists of a piece of pipe (described below) and the base is simply a hub with three legs.

The Reconstruction

You will need the following materials. I have not supplied lengths, but you can survey these from the accompanying measured drawings.

- 3/4 -in. conduit pipe
- 14 gauge steel (for candle "cups" and crown)
- 3/4-in. wide, 1/8-in.-thick steel stock (several linear ft.)
- 3/8-in. bar stock (for tripod feet)
- 1/2-in. iron pipe (for shaft)
- 1/2-in. pipe coupler
- 3/8-in. nut and bolt (to couple sections of shaft)
- 1/2-in. iron rivets
- welding rods

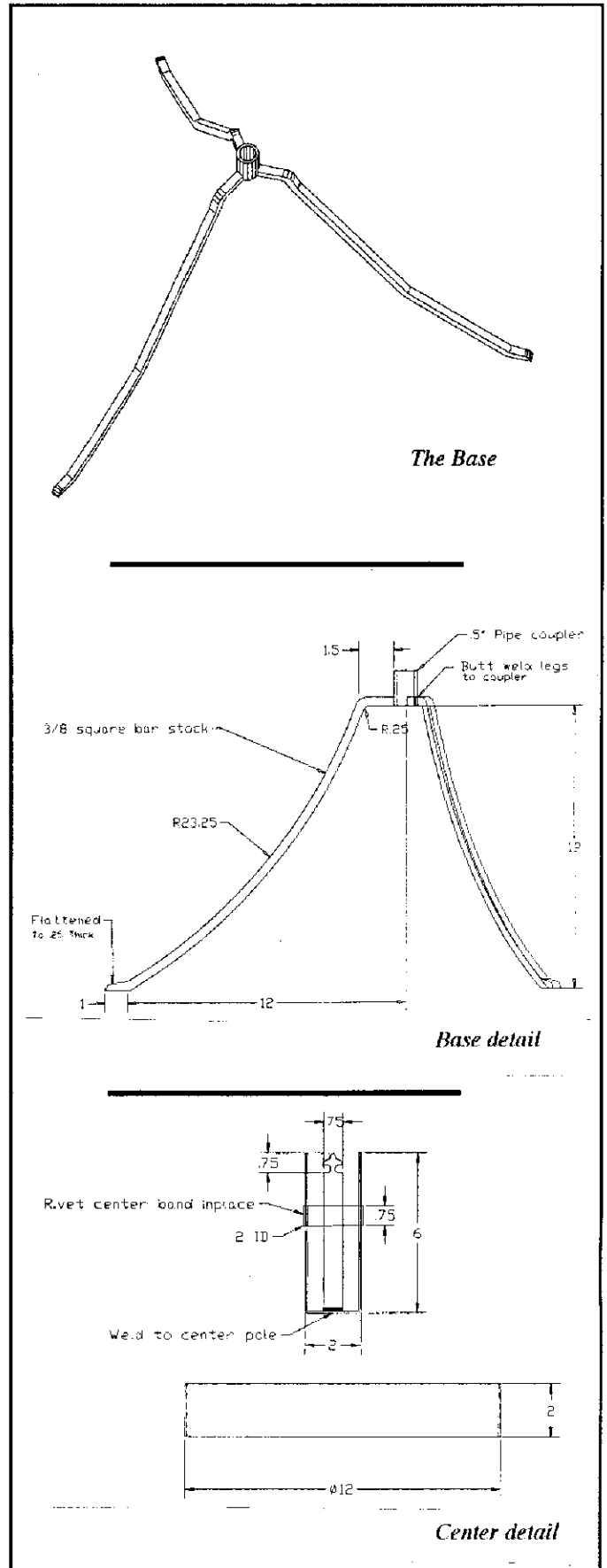
If you're like me, you will want to make the basic frame first, then do the detail work. Begin at the base, by bending the 3/8-in. bar stock to shape with a vise and/or anvil. You can determine the correct shape by using a piece of string and a pencil as a makeshift compass to draw a circle of 23 1/4-in. diameter. Once you have the legs shaped, butt them together and weld at the 1/2-in. pipe cap where the three legs meet.

Now take your pieces of 1/2-in. pipe, and weld a 3/8-in. bolt onto the female end of the main shaft. Weld a 3/8-in. nut inside the 12-in. section. Be sure these are centered, so that when the two pieces screw together the seam disappears.

This is where things get interesting. Your best bet is to build the center candle holder separately first. Use the 3/4-in. flat stock to create the sides and band as shown. You will need to use a metal jigsaw or scrollsaw and a rounded file to create the *fleur de lis* ornamentation. This takes time, but be patient, and do a good job. It will make all the difference in your final product. Once the pieces are complete, rivet them together, and weld the whole assembly to the top end of the 12-in. section of the main shaft.

Next, you will create the main "crown" from a piece of 14-gauge steel. Cut the 2-in.-wide strip long enough to create a 12-in. diameter hoop and butt-weld the ends. Grind the weld smooth.

Cut four more sections of 3/8-in. bar stock to serve as the crown supports. Bend them using the same method used for the feet, and weld them directly to the

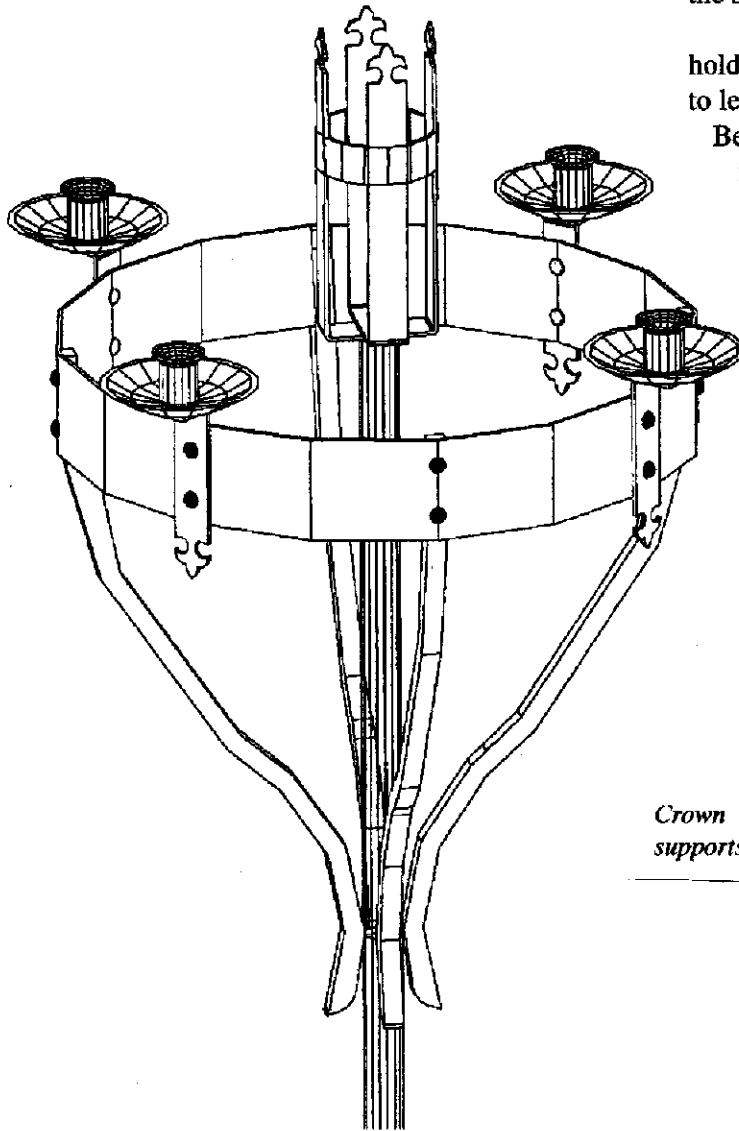


crown. When you are satisfied that they have been placed properly, weld the other end of each support to the short section of 1/2-in. pipe.

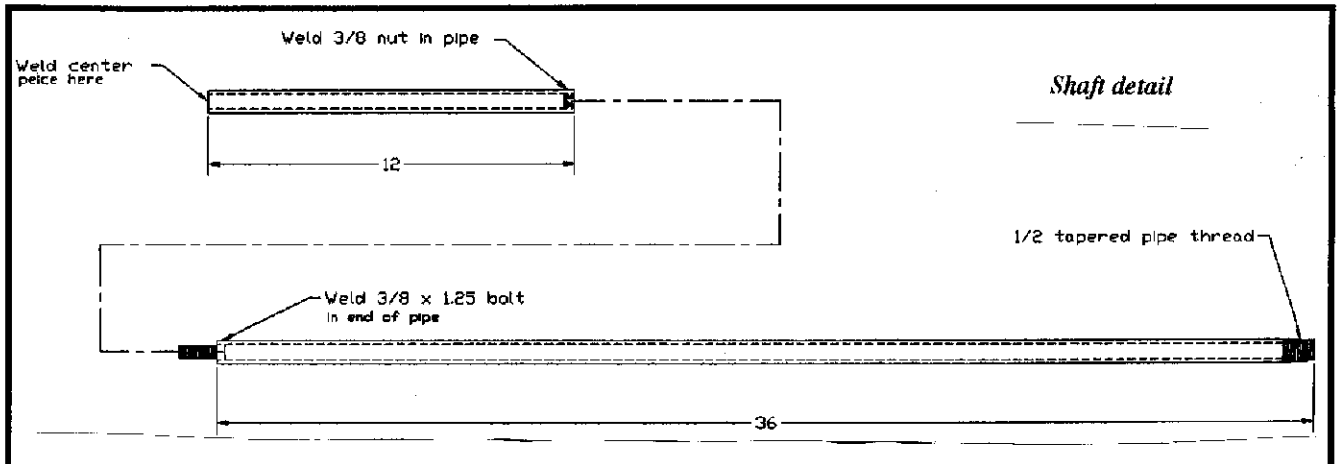
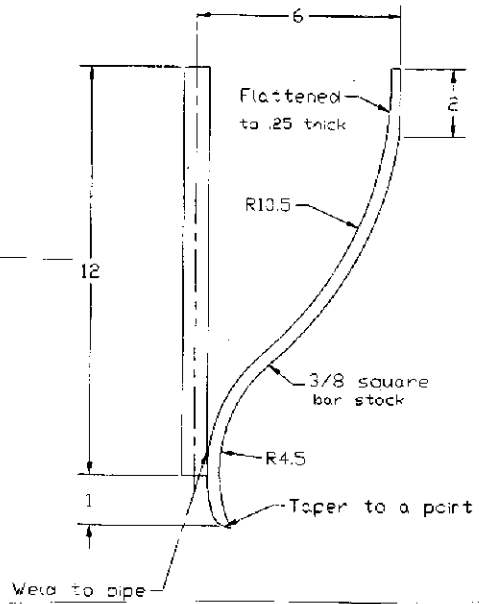
Finally, you will build four independent candle holders. Start by cutting sections of 3/4-in. flat stock to length, and adding fleur-de lis patterns to one end.

Bend the other end to 90 degrees as shown. Cut four 3-in. diameter disks from 14-gauge steel and dish them on a dishing stuff, then planish them to remove any lumps. Drill a 3/16-in. hole in the center of each disk and rivet it to the support piece you just finished bending. Flair the end of a 1-in. piece of 3/4-in. conduit, and weld the other end inside the disk to hold the candle. Finally, rivet the whole assembly to the crown. Paint or distress the candelabra as suits your fancy. ■

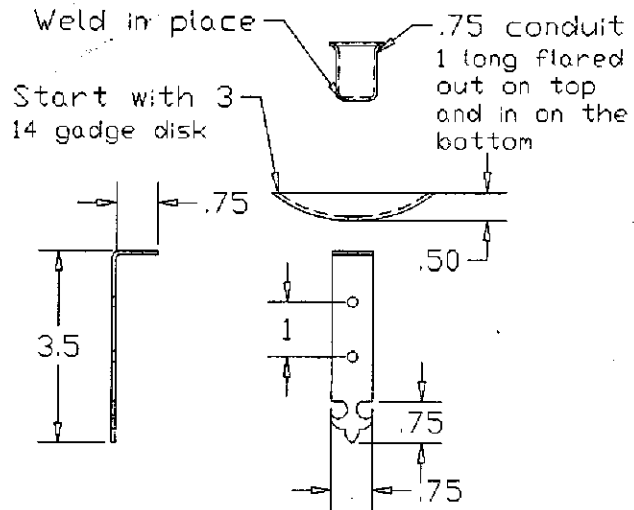
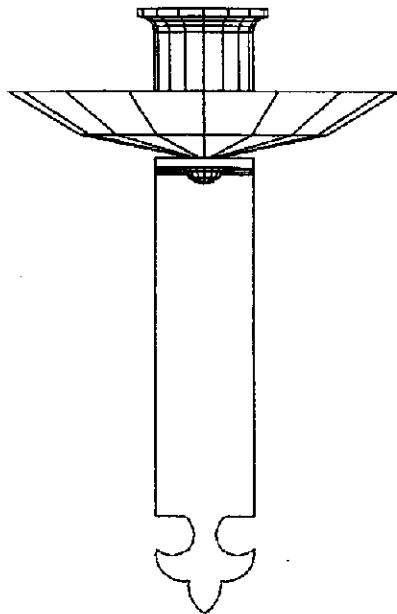
††† Special thanks to *Rosa Tilton* for the detailed CAD drawings shown.



Crown supports



CANDELABRA (CONTINUED)



Candle holder detail