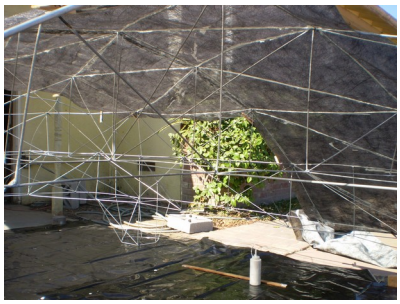
Carport

Early this summer my wife said she would like a carport – simple enough. But then, it probably would not be practical, since she would still need room to turn the car around on the bricks beside the driveway when the street traffic was heavy. No problem says I, I'll just build one that cantilevers out over the driveway so there will be no support post in the way – just a little more complicated.

Cantilever: So I will need something with a high strength-to-weight ratio. This will need a truss-work of some kind – could get complicated. By cutting a few corners I wound up with an oval. After three days of calculations I came up with a parabolic oval for the shape of the shell – with only a handful of errors to be discovered later. But then I still had the internal truss-work to deal with, and then on to the material.

I decided to try heavy wire (#9), like they use for tension on the bottoms of chain link fences. But first I needed to stretch it to work-harden it and take the bend out of it. The entire framework as shown here, weighs a little over fourty pounds.

After spending the summer in my driveway welding in 3-digit weather, this two-week project finally began to take shape. For a covering, I decided to paint a polypropolyne weed block material with a ten-year warranteed roof coating.



As for the initial status, it looked like a three-legged space shuttle has crash landed in our driveway. The design challenge continued, as I figured out how to make skinny, complicated legs strong enough to withstand the expected weight and winds.

## So here comes the update:

A suitable wire structure was developed, equipped with a 140 lb shoes, and adorned with garnish. Two of these were made and served as cantilever points, while a pile of cement blocks served to tie the third point down.


All appeared happy until a freak sequence of 80 mph gusts ripped it from its moorings, and in bending dozens of wires, converted it into 10 X 17 feet of very unique white elephant.

Even so, I have found myself with wire pillar structures of amazing strength, and experience in building a structure of #9 steel wire of scale and strength far beyond what might have been imagined – not to mention the calculations to produce significant ovoid domes