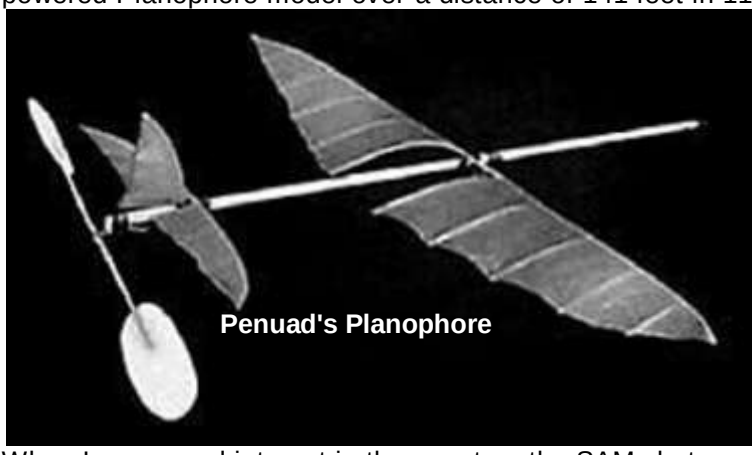
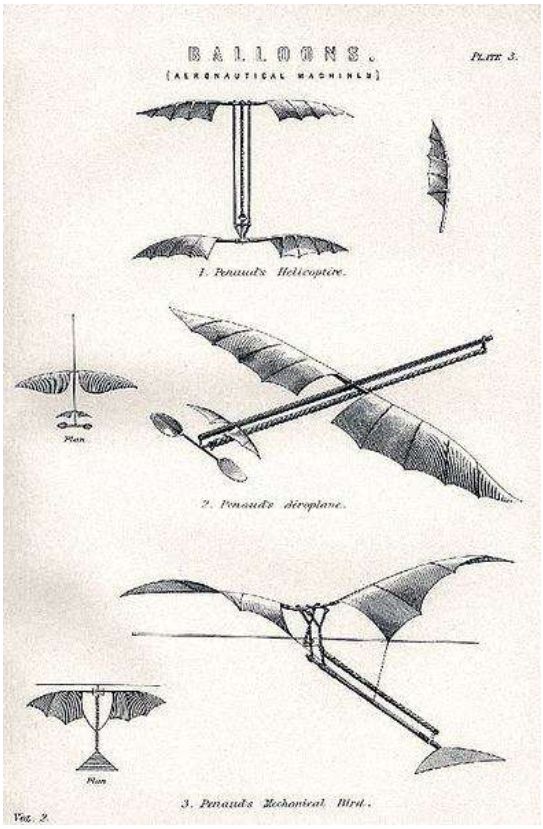
Yet another Aeronautical Challenge

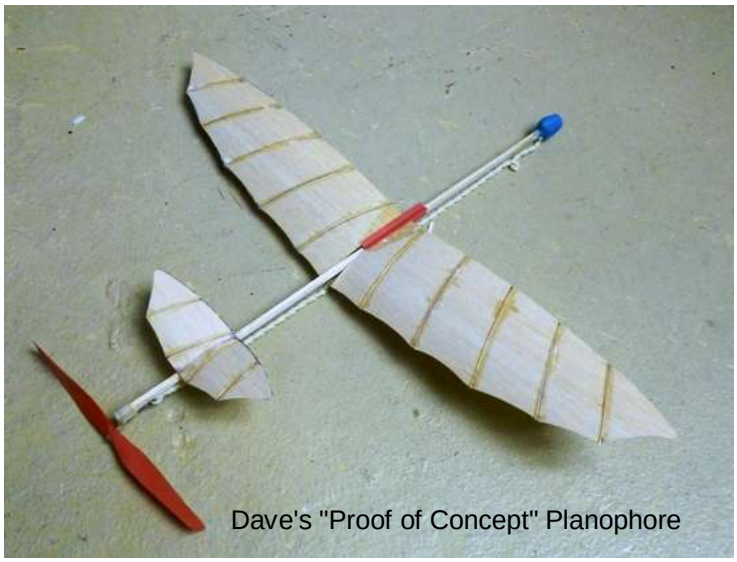
For the last ten years I have been competing at the Southwest Regionals SAM contest in Eloy Arizona, about half way between Phoenix and Tucson Anyway, I just heard they are holding a special free flight event this year for Alphonse Penuad's Planophore model.

Alphonse Penaud is credited with the first successful model airplane flight when he flew his rubber powered Planophore model over a distance of 141 feet in 11 seconds in 1871 at the Tuileries Garden in Paris.





When I expressed interest in the event on the SAM chat group Greg Tutmark from SAM 8, Seattle told me he built one but couldn't trim it into stable flight. He said he thought it might be the pusher propeller. I told him pusher props are stabilizing; he was not amused!



What to do? Yikes, just realized it is our first indoor meet this evening, an ideal place to try something like this. So thinking I was only building a proof of concept model (even though it had been already proven 142 years ago). It would be easy if I could make it from solid balsa and use some of the parts from one of those dime store all balsa rubber models; I have the parts. So I built it in a few hours before the meet and flew it late in the evening. At first it was way tail heavy due to the plastic prop, but adding more and more modeling clay to the nose brought it into trim and I achieved two magnificent flights. Aero design proved. Subsequent discussions with Greg revealed another fellows suggestion that he add downthrust. Sure enough, my model with the dime store prop has downthrust, well, up-thrust actually, but the effect is the same. Now to build a proper one with all the original materials, balsa, bamboo, piano wire, tissue paper and cotton thread and do some more testing before launching off to Arizona.

Dave