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How to Make Alexander Graham Bell's Winged-Cell Tetrahedron Kite W. ?? 4' 'ty The Tetrahedral Principle in Kite Design In the hope that we may see again such strange and beautiful shapes in the skies o- ver Cape Breton, we offer here a portion of the story of Alexander Graham Bell's work in kite design, as well as one of the simpler methods he used in actually mak? ing kites. It is not intended as a full history. It is confined to what Dr. Bell considered his major kite achievement: the development of the tetrahedral winged- cell. He considered kites built of these cells to be the next important step on the road to an aeroplane. The automatic stability of these kites meant that it probably would not kill the experimenter. They had sufficient lift to carry a man and an en? gine aloft, and sufficient internal strength to not require added (weighty) supports. Kite interest in the western world had not developed much beyond the toy we are all familiar with-'the diamond shapped, four-sided plane with crossed struts that re? quired a tail. Then in 1892, Lawrence Hargrave of Australia developed the box kite. See drawing. Dr. Bell wrote: This represents, in my opinion, the high-water mark of progress in the nineteenth century; and this form of kite forms the starting point of my own researches.'* But a box, a rectangle, is not inherently stable, and Har? grave' s kite required added struts to prevent distortion, twisting or bending. And ' Cape Breton's Magazine/3 fee T?> 'r Ci&uer. ?