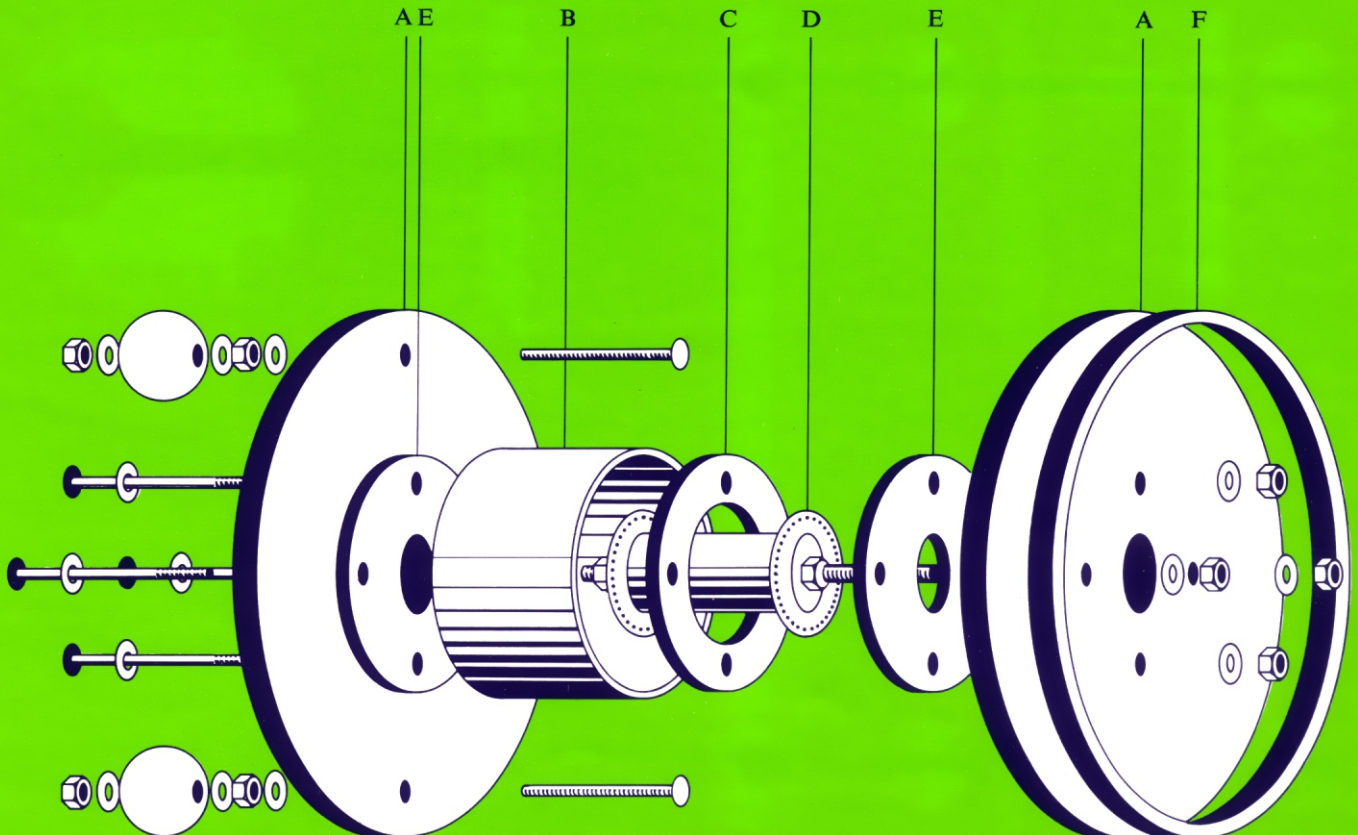


A sturdy and efficient 'deep sky' reel can be made by using a bicycle wheel spindle as an axle. This gives an extremely easy movement, which is essential for high altitude flying. The reel can be made in either wood or aluminium, and though the hand-held version is shown, it can be secured to posts etc.

Abbreviations o.d. and i.d. refer to outside and inside diameter.

- A Seven-ply wooden disc 20.5 cm (8 ins.) diameter
- B Plastic pipe 11 cm ($4\frac{5}{16}$ ins.) o.d. \times 10.3 cm ($4\frac{1}{32}$ ins.) i.d.
- C Three-ply wooden ring 10.2 cm (4 ins.) o.d. \times 5 cm (2 ins.) i.d.
- D Standard bicycle spindle
- E Three-ply wooden ring 10.2 cm (4 ins.) o.d. \times 2.5 cm (1 in.) i.d.
- F Seven-ply wooden ring 20.5 cm (8 ins.) o.d. \times 17.5 cm ($6\frac{7}{8}$ ins.) i.d.
- G Three-ply wooden ring 17 cm ($6\frac{3}{4}$ ins.) o.d. \times 12 cm ($4\frac{3}{4}$ ins.) i.d.
- H Seven-ply wooden disc 15 cm (6 ins.) diameter
- I Leather or webbing hand loop
- J Rectangular aluminium washers



Construction Line

The choice of flying line can greatly influence the performance of a kite, as the line itself is every bit as susceptible to drag as is the kite itself. Too heavy a gauge tends to draw a kite backwards and downwards towards the horizon, while too light a gauge will result in a line break. In order to avoid unwanted wind friction the smallest gauge of line possible should be used, though this of course should be consistent with the anticipated strain. Determining the anticipated strain only comes with experience, though even then it is a somewhat hit and miss affair. Different wind-speeds and bridle settings can vary the pull enormously, therefore lines should never be subjected to stresses beyond one third of their break strength. As an experienced sailor knows when to reduce sail, so a good kite flyer should be able to judge in

good time when wind pressure is about to threaten the reserve strength of his line. In order to avoid losing too many kites while gaining this experience an arbitrary, though quite dependable, rule for determining what gauge of line to use, is to measure the surface of the kite in square feet, then choose a line with a break strength at least three times greater – in pounds – to the total area. For example, when flying a surface of, say, 5 sq. ft, a line of certainly no less than 15 lb break strength should be used. Normally the strength of the line is printed on the reel or spool by the manufacturer, but, if in any doubt, a simple spring scale and a little ingenuity should establish the break strength of at least the lighter gauge lines. Heavier kites tend to be flown on lines of twine, string, cord, upholsterers' linen thread, Dacron or nylon line – either braided or twisted – and shark-line; depending upon the size of kite and what is available, or within one's budget.

