Fantasy Kite
Non-Commercial Use Only

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Fantasy Kite

The ”horns” were inspired by George Peters ”Flying Man” kites; the rest of the kite is my own creation. It is about 2m by 1.5m and made of Polyant (40g per sq.m.), 6mm/4mm carbon, 2mm fibre−glass, bamboo and rattan.

The construction isn't particulary innovative. The only tricky bit is the attachment of the little auxiliary sails to the main sail and frame. It also took me a while to figure out what material to use for framing the little disks – even 2mm fibre−glass was too rigid for that size. I finally resorted to using rattan, which bends easily and has performed very well, even in quite strong winds. Consult the plan for further details.

The bridle also required some experimentation: At first the legs were too far down the spine resulting in a somewhat instable kite...moving the attachment points a bit further up solved that problem. It now flies well with a simple 2−legged bridle. Of course, it's not a terribly efficient kite, achieving an elevation of maybe 50 degrees. But in this case aesthetics take precedence over efficiency.

This was my first kite made from Polyant. I have heard contradictory opinions about this material.

Plus points seem to be:

- good, saturated colours
- not as crinkly as Icarex
- less stretchy than Carrington

Negative aspects seem to be:

- absorbs moisture
- colours fade faster than Icarex or Carrington

This plan describes the construction of my Fantasy Kite exactly as I built it. It is very likely that you will disagree with some of the design choices – I don't claim to be a master kite builder so please feel free to adapt it.

If you build this kite I would very much appreciate hearing from you.

Material

Sail	• Any type of quality ripstop nylon or polyester.
Spars	• spine: 6mm carbon • main horiz. spreaders and 'horns': 4mm carbon • secondary horiz. spreaders: bamboo or 2mm fibreglass • framing for crescent—shaped aux. sails: 2mm fibreglass • framing for disc—shaped aux. sails: rattan
Connectors	• Eddy connectors (2): for main horiz. spreaders • plastic tubing: for all other connections • ferrule (1): for spine (if you wish to split it)
Miscella-neous	• bungee • tensioning line • dacron for reinforcement • assorted endcaps and split caps

Construction

Sail

The sail measurements are specified in Fig.: 2. Measurements do not include any seam allowance.

The construction of the main sail is straightforward. Don't forget to add pockets for the secondary horiz. spreaders, tabs for the bungees and tensioning line, and reinforcement patches where required. The 'horns' should have a hollow seam or fabric tunnel running along most of the leading edge to accommodate the spreaders. Refer to Fig.: 3.

The auxiliary sails require a bit of fiddly sewing, since you have to create curved, hollow seams; see Fig.: 4. Don't forget to leave a gap in the middle for inserting the spar and connecting it to the horizontal spreader.

Frame

The construction should be obvious from Fig.: 1. The details of attaching the aux. sails to the horiz. spreader and connecting the 'horns' to the spine are illustrated in Fig.: 4

I split the spine into 2 pieces (just below the main horiz. spreader) to make transportation easier. I use an external ferrule as a connector. All of the spars which are inserted into connectors should be reinforced with approx. 10cm of snugly fitting spar, glued into place. Add end caps and split caps as necessary.

Final Touches

Slide the aux. sails onto the main horiz. spreader as shown in Fig.: 4. Adjust the tensioning lines — the horiz. tensioning lines should, of course, be located behind the aux. sails.

When disassembling, I never bother to remove the aux. sails from the spreaders; I simply stow the 2 spreaders plus attached sails in a large plastic bag. You should definitely avoid disassembling the aux. sails — it's such a bother that you would probably never fly your kite because it takes so long to assemble.

The bridle is a simple affair with 2 tow points. If your kite tends to the left or right, adjust the positioning of the aux. sails until it is properly balanced. If you still experience stability problems, consider moving the lower tow point up a bit or simply add a tail.

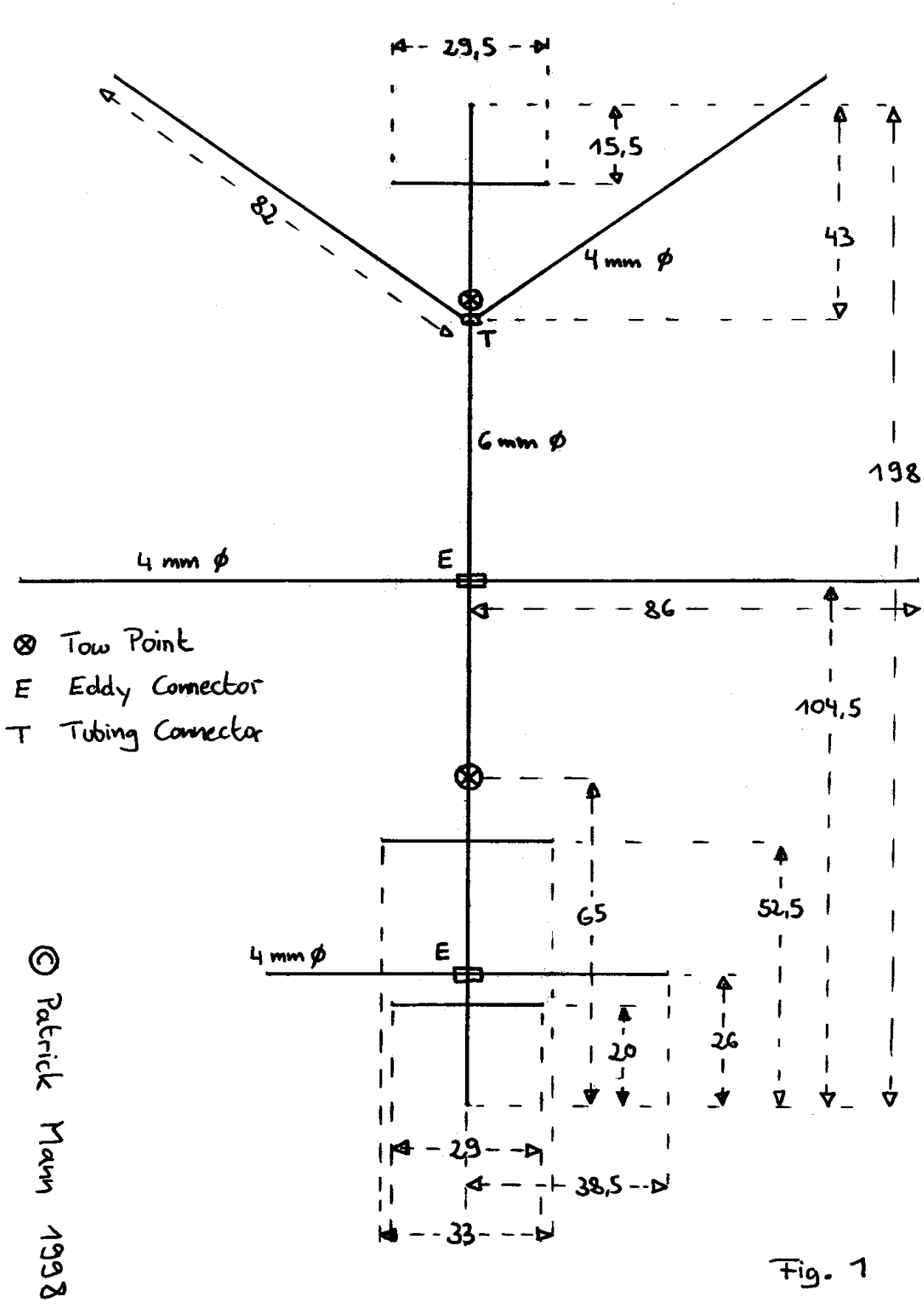

Fig.: 1 Sail measurements

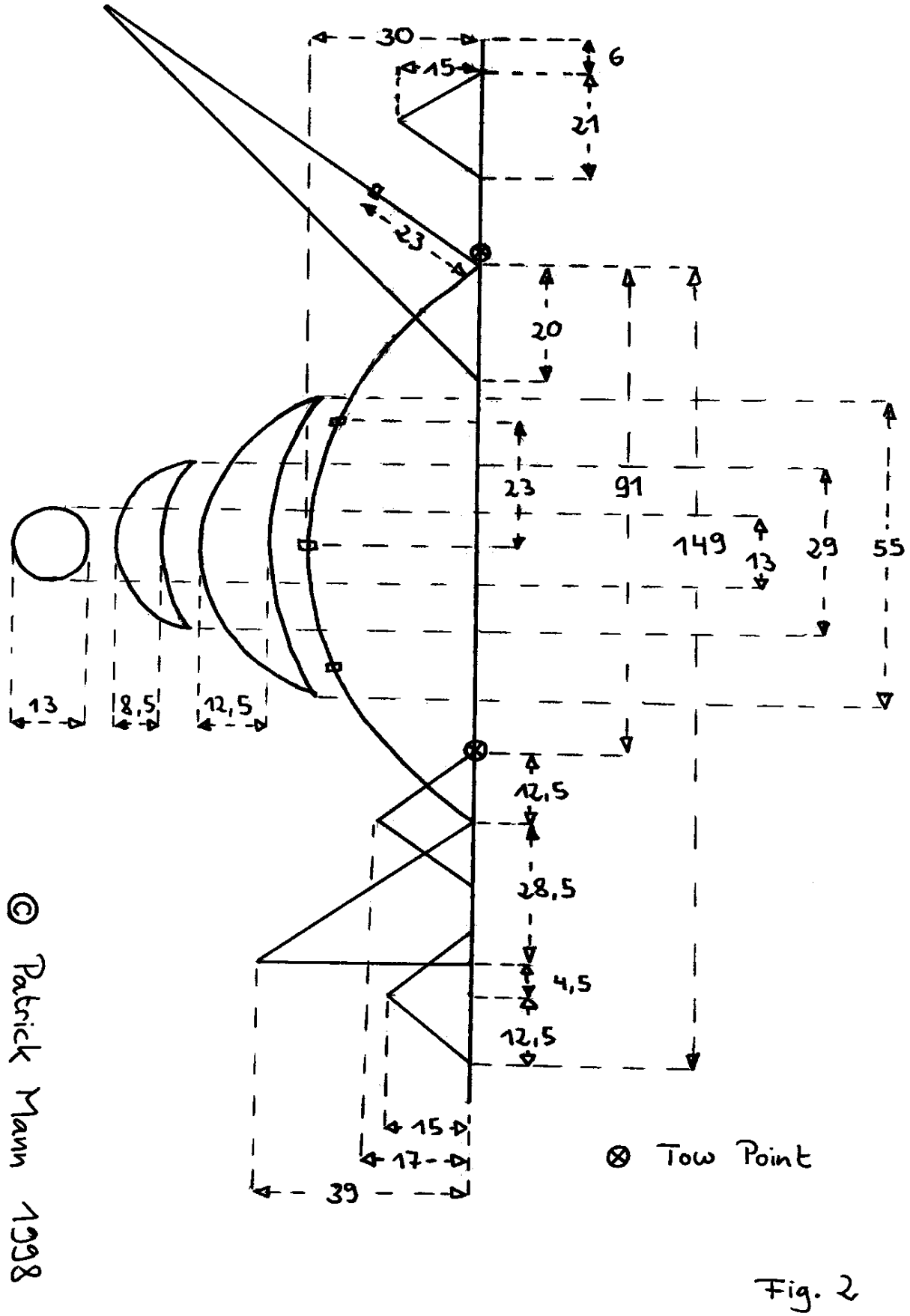

Fig.: 2 Construction plan

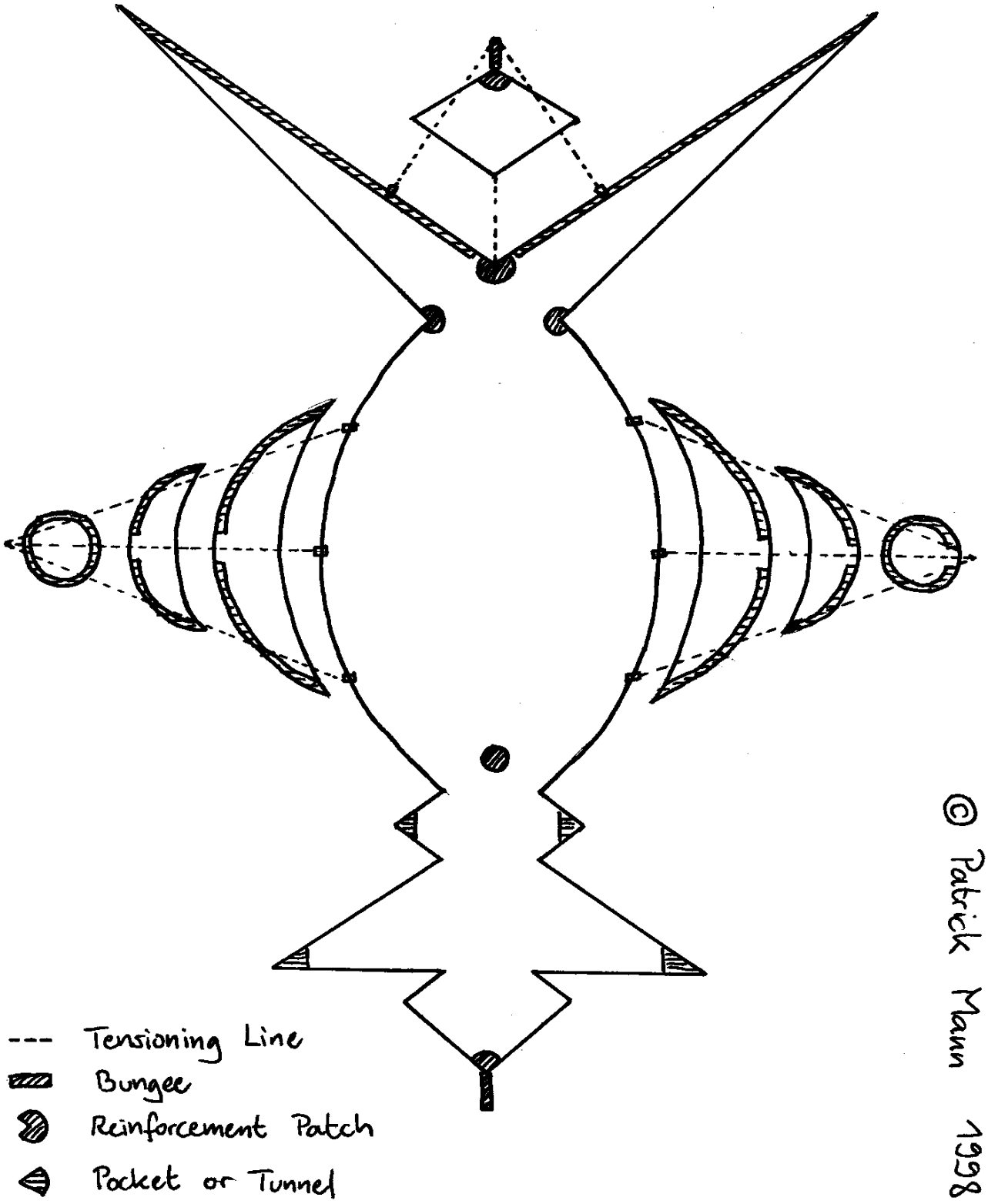

Fig.: 3 Tensioning and reinforcement

Fig.: 4 Spars