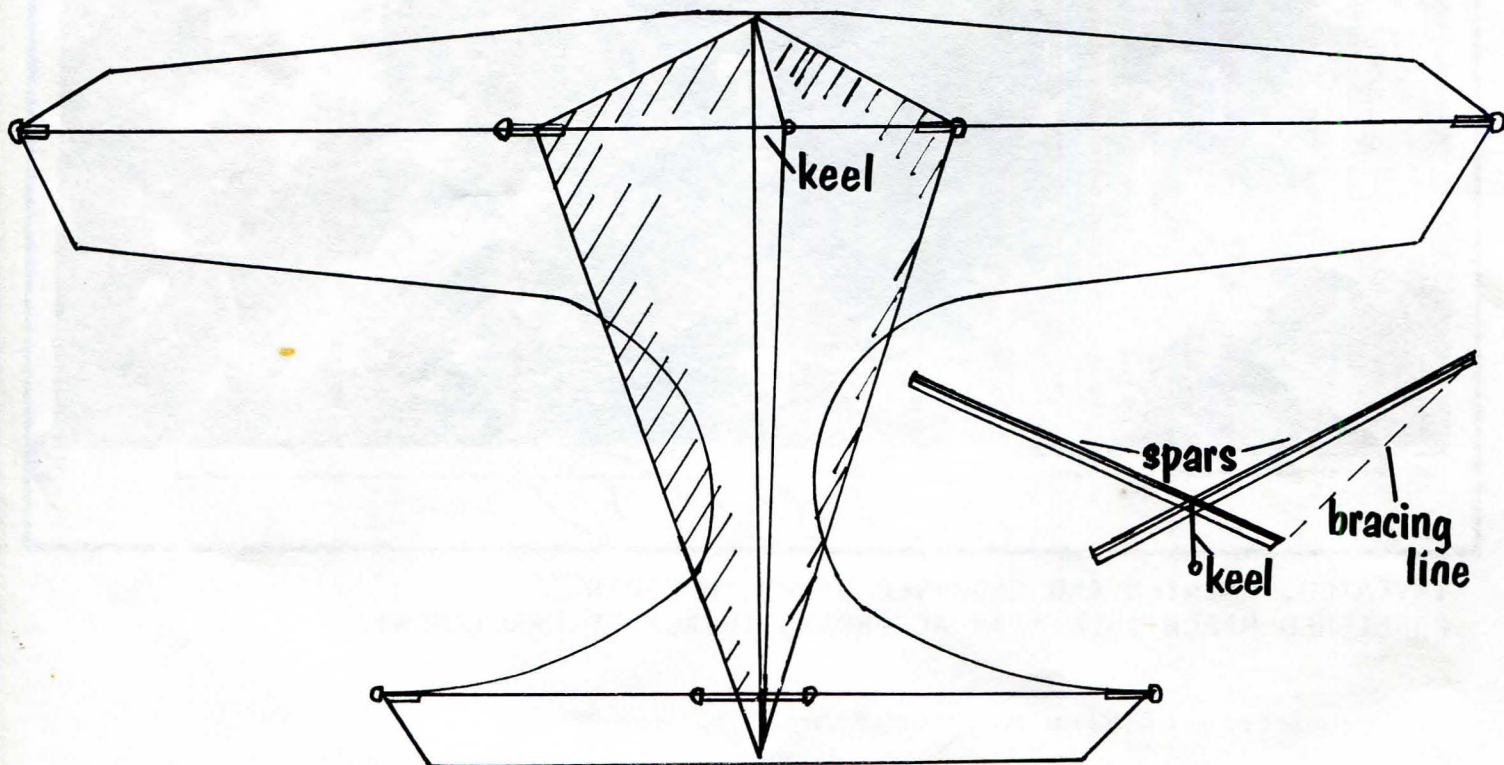
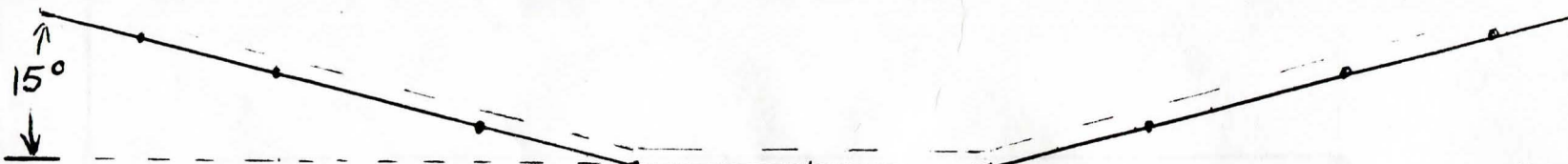


Please find enclosed a 'to scale' drawing of my new kite. You will notice that I have included a drawing of the kite in it's original form. (Below, not to scale). I wanted a winged kite but of my own design and started off with the wings only fitted with a spine and two spars going straight across from wing-tip to wing-tip but found that it simply tipped from one side to the other without rising from the ground. I checked it for balance and finding it alright in that respect decided to put a backward angle (I don't know the technical terms) on the wings thinking that it might overcome the problem and so I fitted, what amounts to, a keeled diamond to the front of the wings with the spar in two pieces. I fitted each spar to, say, the right wing-tip then passed it back along the back of the wing to a point just to the left of the spine where it passed through a hole in the left wing and then along the back of the diamond to the left tip. I did the same on the other side so that the two spars crossed each other immediately behind the spine. I then fitted the bracing, in the form of two equal lengths of nylon line, from each tip of the diamond to the corresponding tip of each wing to prevent the kite from folding up. However it was all a waste of time because it still wouldn't fly. Again it simply sped along to one side or the other about a foot up from the ground on it's side before crashing to the ground. I tried altering the towing point and tried flying it in different wind strengths but to no avail.

I have a copy of both David Pelham's and Ron Moulton's books and so had a look through both to try and find an answer and finally settled for a copy of David Pelham's "Winged Box Variant" on page 199 using my wings and his triangular box. What I didn't take into account however was the fitting of the spars to keep the wings angled back at 15 degrees. I've read somewhere that that is the the ideal angle for kite wings. Anyway, that is my problem. How and where do I fit spars to give me the wing angles that I need. I will be most grateful if someone can come up with an answer. With NINE failures out of eleven designs behind me I am getting desperate.

RON REEVE

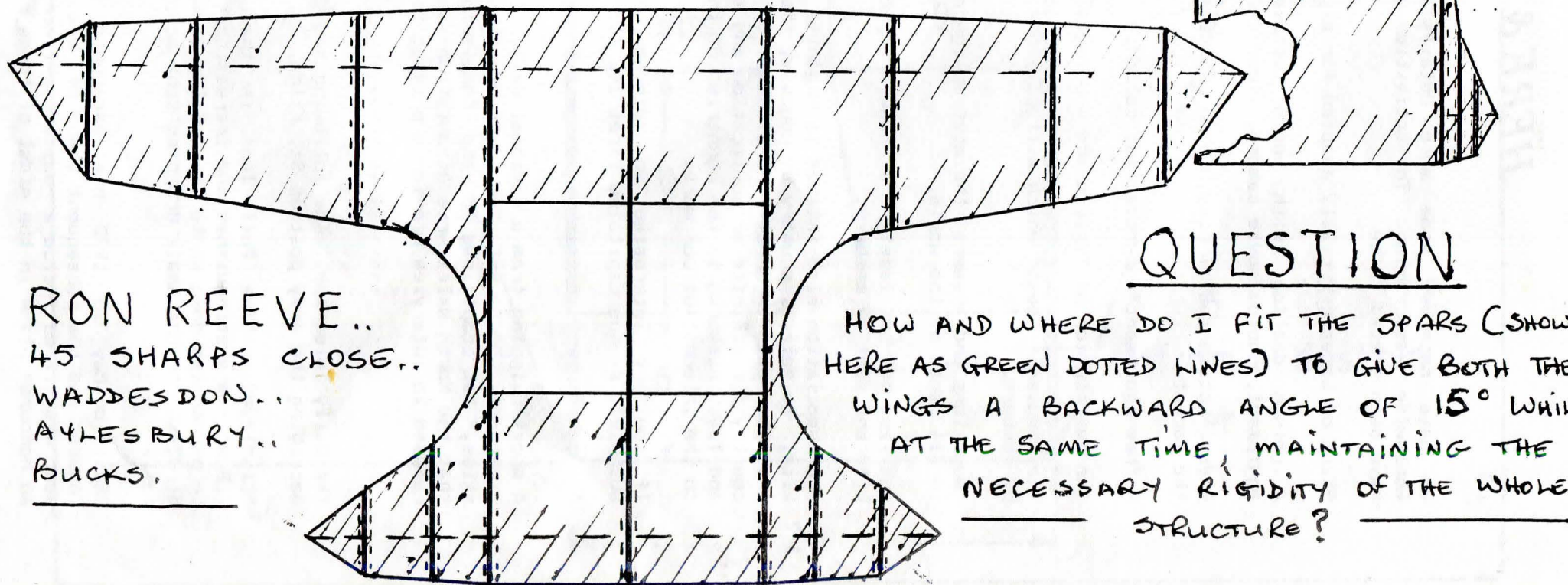




RED SHADING = RIPSTOP NYLON
 RED DOTTED LINES = SKEEVING
 BLUE LINES = $\frac{3}{8}$ IN. WOOD DOVELLING
 BLACK LINES = $\frac{3}{8}$ IN. ALUMINIUM TUBE
 GREEN DOTTED LINES = SPARS
 (SEE ATTACHED)

SCALE = $\frac{1}{10}$ IN. TO 1 IN.
 OVERALL DIMENSIONS =
 HEIGHT 39 INCHES
 WIDTH - MAIN WING 84 INCHES
 TAIL WING 43 INCHES

ALL THREE SIDES OF CENTRAL TRIANGLE = 19 INCHES WIDE X 13 INCHES HIGH



RON REEVE..
 45 SHARPS CLOSE..
 WADDESDON..
 AYLESBURY..
 BUCKS.

QUESTION

HOW AND WHERE DO I FIT THE SPARS (SHOWN
 HERE AS GREEN DOTTED LINES) TO GIVE BOTH THE
 WINGS A BACKWARD ANGLE OF 15° WHILST,
 AT THE SAME TIME, MAINTAINING THE
 NECESSARY RIGIDITY OF THE WHOLE
 STRUCTURE?