

# Teddy Dropper

I would like to offer my home made teddy-launcher which weighs in at under 1.5oz. Parts to make it are as follows:

Spine of carbon tube, 16cms x 5mm.

Piston tubes, both 4mm, and 4cms and 3cms long respectively.

Piston of 2mm solid fibreglass or carbon fibre, 14ms long.

Cut up match sticks to serve as spacer pieces to permit free travel of Trigger beneath spine.

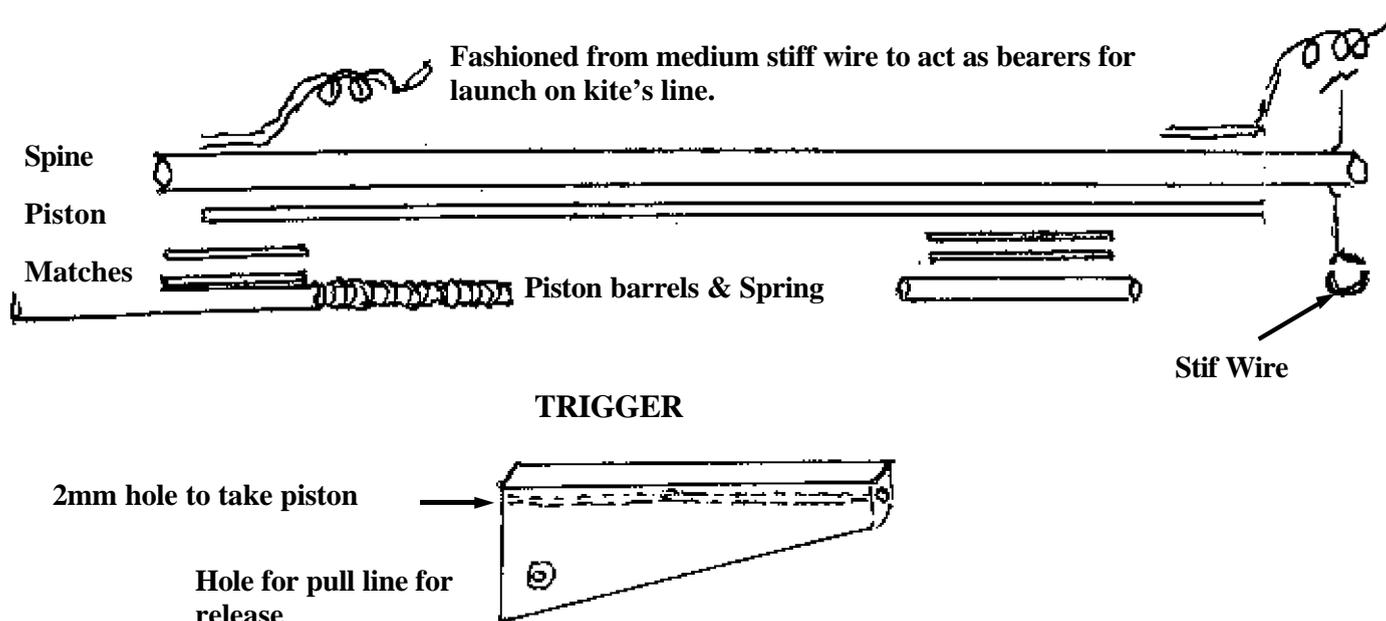
Releasing trigger to activate the withdrawal of the piston when pulled upon by the pull line by the ground control.

Stiffish Wire. Standing off below the front end of the spine. For attaching the hoist-line, which leads into the pivot set in the derrick attached above on the kite line, before returning to the ground control for pulling on to raise the whole launcher.

Less stiff wire perhaps but still somewhat springy is preferred. Secured to each end of the spine - by wound-on thin wire and Araldite then, using a 6mm spar merely as a form to shape it on, make three coils around the spar before leading the end away at an angle to clear line. Discarding spar used as form, then pull slightly apart the coils. These two, when attached will be the suspension for the launcher. Attachment is achieved by getting kite up perhaps 50' then temporarily anchoring it. Then with the slack line behind the anchor, attach the two end-eyes of the Derrick to the kite line. Before paying out much more line, lay the slack line into the wire coils, just like twisting line into the grooves around a wood-screw. When both are attached, the line will allow, when straight, a free travel along it by the launcher. Now, attach the hoist-line to front of launcher and do this after you have threaded the end through the pivot of the derrick with the remainder of the hoist-line remaining free to unravel but with ground-end secured. Next, attach the return pull line to the lower and back-end of the trigger, for operating teddie's release, keeping free end secure at ground control.

Coil spring, see \* below.

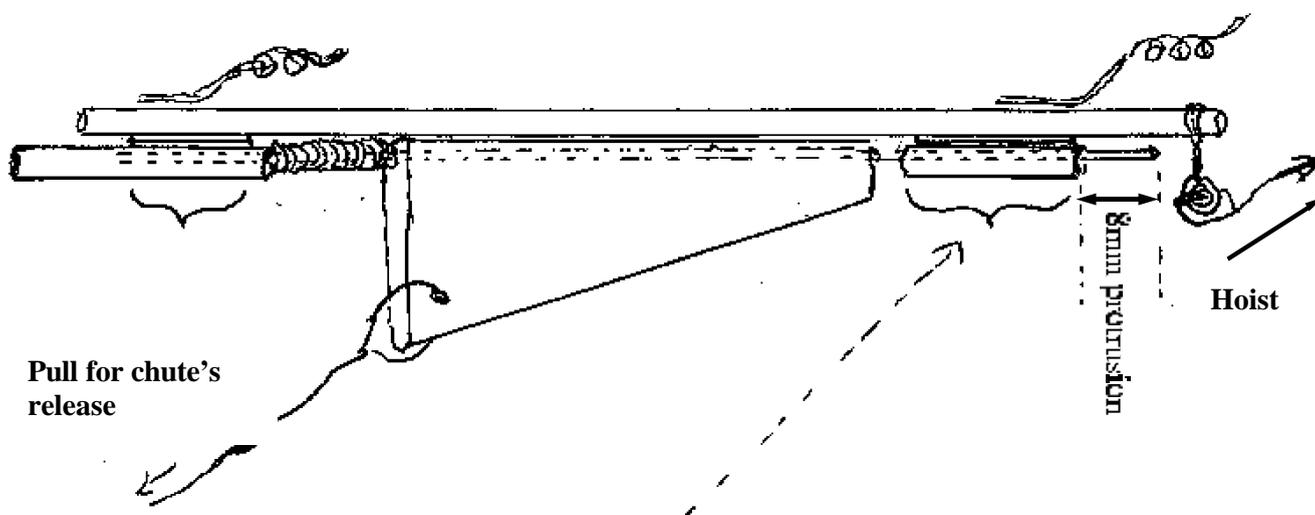
For Derrick. I made mine of two pieces of 2mm solid fibreglass spar, each 14.5" long, and to each end I attached an aluminium ring 1/2 inch diameter by means of wire and Araldite - place them at right-angles to the line of the kite's line; and these will be attached to kite's line by Larks head knots. At the inner angle you will have to fashion a roller for your hoist line to run around, not less than 3/4" diameter to



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reduce friction. What you make this of will depend upon the materials to hand and your ingenuity. Finish off the Araldite with a second coat to ensure smooth aerodynamic outline. My trigger was made from an offcut left behind by workmen installing UPVC windows, but DO NOTE; 1) Piston must be glued when inserting into trigger, and 2) Do not use any glue until all is assembled correctly, i.e. both piston's barrels and piston and trigger in place at same time.

(\*) My coil spring is a salvaged & recycled spring from the interior of a disposable biro pen, a use Mr Biro could never have dreamed of, but is adequate for the job. You will have to look around for one to fit loosely over the 2mm piston. NB After drilling trigger but before assembly round off all edges of trigger both for clearance and aerodynamics.



Where the inverted bracket is shown in sketch, use araldite and wind around tightly with thin wire (fuse wire will do), then wire wind to hold the launch bearers above the spine. When all dry add liberal coat of araldite to both strengthen the unit and make for least wind resistance. Do make sure to round off the top edge of the trigger, to ensure that should it rotate at all the corners will not foul the triggers action.

Kite line attached by larks heads

**Doug Henly**

