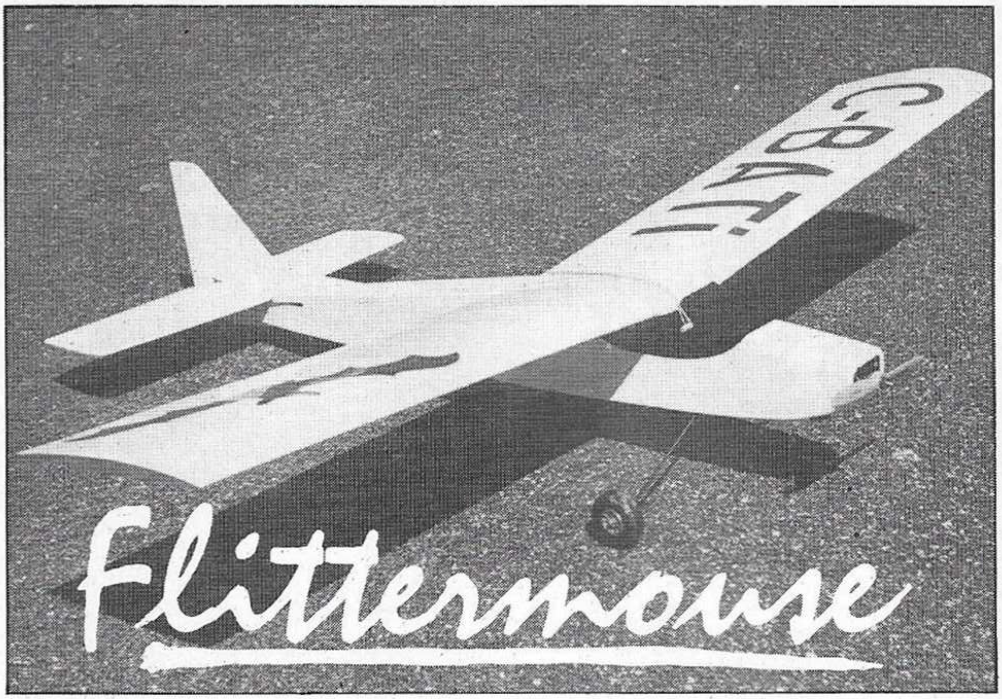


DERECK WOODWARD reviews this effective electric powered trainer

Don't tell my friends but, on the quiet, I've always fancied a dabble at electric flight! However, despite being the try-anything sort of modeller, I've always been put off by marvellous articles by dedicated folk. These leave the impression that one needed a whole bunch of expensive motors, chargers and sundry widgetry, plus degrees in hard sums and black magic to even get the affair to the runway. This outlook was rudely shattered by my 15 year old son, Darrell, dismembering an old electric buggy then lashing the motor, battery and a switch plus servo onto a two metre glider. This somewhat agricultural lash-up actually flew! This revelation was followed by being offered the Mole Technology Flittermouse for review. Now not even electric flight is safe from dabblers, Paul Channon eat your heart out!

Mole are well known for high class electronic gadgetry and have a firm involvement in electric flight, so how does their entry into the model side of "'lectric aviatin' " check out? A 57in. high winger of pleasant lines. Light weight and loadings utilise the power available well and some very clever features address the unique problems of electric power.

To avoid sprinkling the article with too many repetitive superlatives, I'll get this subject over with by saying that every kit manufacturer should measure up his product alongside Mole's Flittermouse and see where his is found wanting. It has been pleasant indeed to build a home grown kit that can stand comparison with any competition, from home or overseas.

Open The Box

To find a rolled plan, two booklets — one of instructions, one of illustrations, masses of balsa and a very complete accessory pack. Yes folks — this is a real wooden airplane!

Now, whether you're expert or raw novice, read those booklets. If you've never seen a sheet of balsa before they'll teach you how to build a light and true model that will fly well. If you think you don't need instructions, read them anyway — they're well worth the time. Try the pre-build headings "Flittermouse" — gives a description of the model's appeal range, resumé of electric power capabilities and the airframe's match to this, equipment and controls needed and even the fact that a glow motor can be fitted. Then setting out the stall (read the instructions) "a building board" — what to make it on. "Sanding blocks" and "A shooting board" to ease sanding tasks. "Adhesives and their uses", "Other materials" (This is a very short list!) Start at one end with the kit and a desire to built it, don't forget patience (mentioned in the instructions) and come out at the other end with a light, straight, good flying model aircraft. So I'm not going to bother telling you how to build Flittermouse — Mole do that well enough — I'll just give an idea of what's in store for you.

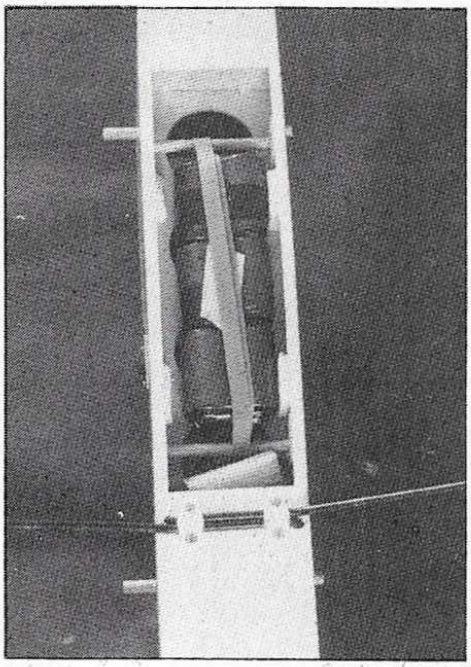
Wings — lots of area (513 sq.ins.) with a classic Clark Y section. Built up structure is light, rigid and builds easy and fast. The novice can do himself a favour here, this sort of wing makes learning to fly streets easier than the heavy and so called quick build foam/veneer jobs. Mole designed this wing to fly primarily, not just to be easy to hotwire out of old loft insulation.

An example of this kit's completeness (and a hint to read those instructions!) There's three sheets of 1/16in. balsa in there, the instructions tell you to use the two soft ones to sheet the wing leading edges and use the heavier one for the centre section sheet. Guess what? Two sheets of light, one of medium as promised. If all else fails — read the instructions!

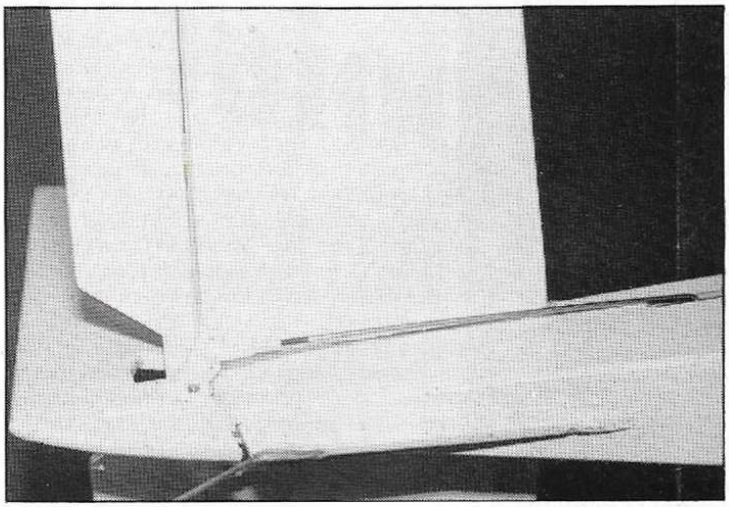
These panels are joined by epoxying together with PVA soaked bandage reinforcement. Tips are carved from soft triangular stock to complete a wing with "Good flying manners" written right through it — a la "Brighton rock" goes all the way through that famous confection.

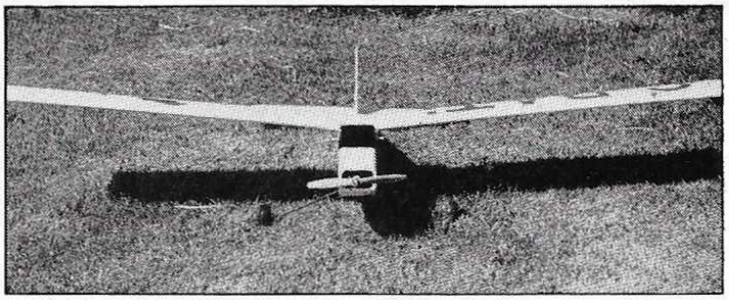
This 57in. beauty sits atop a sheet sided fuselage. Ply doublers, with weight saving cut outs, stiffen up the sides well. If you prefer a noisier powerplant, all the mods for an 09 to 15 size engine are in the kit. Electric or glow — this is a performer, come on Mole — bring out a dedicated

Neat way to secure battery — gives cooling, quick-change facility and a quick escape route for emergencies!



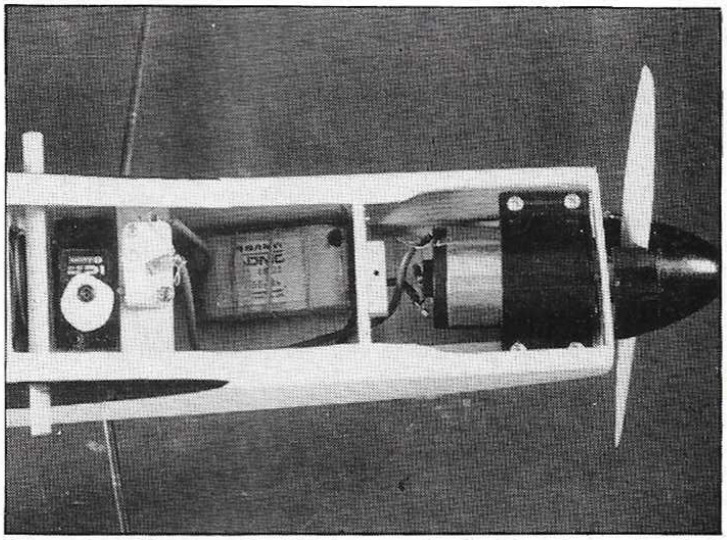
Beryl, head balsa dust tolerator, hangs on to Flittermouse in Cornish howling gale, to give scale to this smart model.



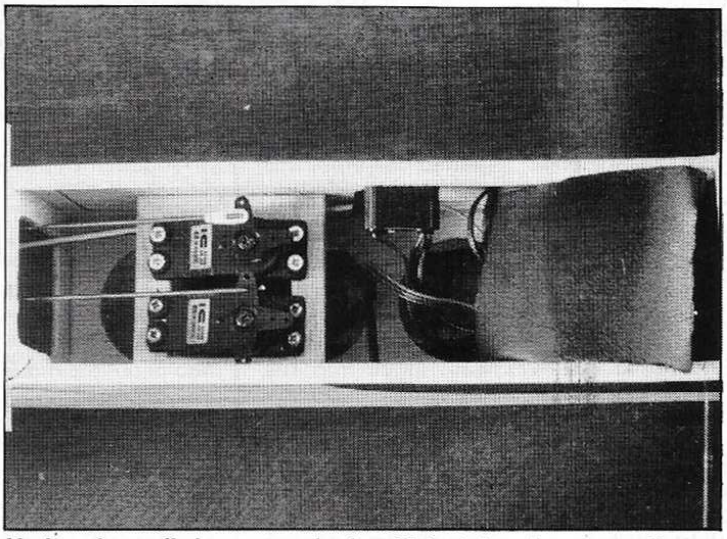


Above, head on shot shows relatively clean lines and good, wide undercarriage.

Left, neat tail end. Detailed instructions make getting radio fitted a snip.



Motor bay. Neat moulded 540 mount backed by plenty of switch gear space.



Under wing radio bay — gear looks a bit lost. A real no-drama fit.

glowplug version and do the novice a favour!

One of the problems of electric is that hefty Nicad. It's got to be firmly secured in flight, during landings and, perish the thought, we'd prefer it to leave gracefully in the event of a crash 'cos anything in it's way gets mangled! Oh yes, it'll get hot in use so how about cooling air and can we have quick change facility too? Mole likes to say "Yes" and all these problems have been cleverly and simply overcome.

At the back end the tailfeathers are built up — lighter and as rigid as the more usual solid sheet efforts. Here I confess to a small Mod. — a piece of bent wire for a skid to protect the ply skid from tarmac rash. This was the only thing I could see as an improvement.

At the sharp end there is plenty of hatch access to the motor plus a large area to rig up a motor switch. The nose is very rigid, yet hatch access is superb and there is plenty of air cooling ducting to keep things from getting all hot and sweaty. To terminate flights in a orderly fashion there's a torsion bar undercarriage of splendid width secured into ply plates in the fuselage bottom.

Guidance And Go Dept.

The plan will not only show the novice how to built Flittermouse it will also show him how to fit his radio too. All locations are shown and bearing in mind the variations in sizes and shapes of radio involved it's difficult how the instructions could be any more complete. For example, there is no need to work out lengths for the pushrod rear ends. Just bend them to the dimensions given in the illustrated book, cut out their exit holes as per the plan and they'll fit.

There's a neat 540 size motor and a vast range of options for getting the power to it. At the bottom end is a plain on/off switch, for use with the two function buggy radio and powerpack, up to the MoleTechnology MT04 Electric flight switch. Follow these and it would be hard to go wrong, indeed.

Bats

Are usually covered in fur but film is recommended for this species. As covering progressed I realised that what I'd thought of as a nice little model was in fact a pretty big one (O.K., at least by my standards!), but soon Flittermouse was sitting there in gleaming white with gold film trim. A model with a clean power source should look clean, for how long I don't know, as we share our flying site with sheep!

Ready To Go

(But this bat prefers daylight to nighttime) She weighs in at 3¼lbs., with the sort of wing loading that works well. C.G. is achieved without resort to ballast and stated control throws are readily set. I've got a cooking 540 up front with stock gear to waggle and switch things around, sole concession to special gear is a 225 Nicad, pinched from my scale ship. The many holes in my knowledge of getting electricity in and out of a six cell pack have been patched over by the local model shop's tame buggy expert.

So do all the good things, like range checks, and away into the recommended and provident light breeze. From a hand launch the old adage "If it looks right, it'll fly right" is proved as Flittermouse climbed steadily away. She handles well with smoothly harmonized controls. She exhibits little of the ballooning so often seen in trainers these days and the stall is straight and drama free. Rudder response is fast and smooth, nearly as quick as with ailerons, so one can pick up a low wing quickly or roll precisely and smartly into and out of turns.

Loops and a rather barrelly roll were practised and I gained the overall impression of a vice-free, agile model that is a real pleasure to fly.

Back In The Batcave

A good value kit with excellent flying qualities. Add a complete building course to give an ideal beginners model, either in electric or glow power form. If you're an experienced flyer who fancies a dabble at electric flight without spending a fortune for the experience, take a look at Flittermouse — you won't be disappointed. This kit is a market leader in all building and flying respects, being objective about this model has been difficult — I have enjoyed the job of reviewing this model a whole bunch. This is one highly recommended — nice one Mole!