

FLYING IS FUN

EVERY summer produces a new crop of model aircraft enthusiasts. Most of them are attracted to the hobby after watching a model flying in the local park or on the common, after which they tear off to the local model shop to spend their pocket money on the latest thing in model kits!

At this point, a lot of would-be modellers come unstuck because they haven't the slightest idea of what sort of model they *ought* to buy. Unfortunately, many retailers are unable or unwilling to offer advice on this and it's only too easy to make a poor choice. There are so many different and equally attractive kits on the market, that a wrong selection is, in fact, very likely!

Picking a suitable kit from which to build your very first model is the most important step a modeller ever takes. The model must be easy to build; the design must be tolerant of slight constructional inaccuracies, which will inevitably creep into it because of the builder's inexperience. It must be easy to fly and, above all, **TOUGH** to resist the knocks and minor crashes, which it will inevitably suffer while you are learning how to fly it.

An otherwise good model, which falls down on any one of these requirements, is a waste of time to the newcomer, for if his first model is unsuccessful, even to a limited degree, he may very well give up the idea of modelling aeroplanes. So, the vital thing is to *get something airborne*.

Rule 1: Avoid all scale models of full size aeroplanes.

Such models ARE attractive and experts CAN make them fly, but more would-be aero-modellers have been lost to the hobby because they started with an unsuccessful scale model, than from any other cause. After building one or two simpler models and proving to yourself that you CAN make a model that flies, THEN by all means try a scale model, but please don't start with one!

Rule 2: Choose a kit with die-cut parts

Most good kits these days are pre-fabricated to some extent. To have most of the parts ready cut out removes one of the newcomer's main problems and greatly improves the chances of success.

Rule 3: Read the building instructions carefully

As you read them, compare each building stage with the drawing and *mentally* build the model. It's almost as exciting as *actually* building it and the better you understand the method of assembly, the fewer difficulties you will experience when you start sticking pieces together.

The above notes apply equally to free flight and control-line models, but depending upon which types you decide to build first, there are some further points to note.

Free flight models

These can be divided into four types:

- 1: GLIDER.
- 2: RUBBER POWERED.
- 3: ENGINE POWERED
(Diesel or Glow-plug.)
- 4: JETEX.

The best choice for a 'first model' is without doubt the glider. With this type the novice can learn to trim (balance and adjust) a model for flight much more easily than with any other. Since this ability is vital to success with any free flight model, it is obviously beneficial to master the art at the outset, with a type of model that will forgive the newcomer's errors and yet survive to give him another chance.



The model in the top picture refers to Rule 1. Below is a good starting kit. See Rule 2.

Meccano Magazine gives the beginner a guide to all sides of model aeroplane flying and building ...



A glider is the answer. NO rubber motors to break, NO propellers to carve or adjust, NO expensive engines and fuel to buy; easier construction and lots of fun-while-you-learn into the bargain.

The glider should never be regarded as in any way inferior to the other types. Some of the world's most advanced flying models are gliders. Many experts build nothing else, and in its more advanced forms the glider or sailplane is a challenge worthy of any master model builder.

When you are choosing your first glider kit, don't choose one that is smaller than 30 in. wingspan. Small models are generally trickier to build and are certainly less tolerant of clumsy handling when flying.

Even a kit for a three-foot wingspan model is not very expensive, and such a model can look very imposing. Towed up rather like a kite and then released, it will stay in the air for minutes on end! You'll need your address on it!

Control line models

Many modellers have nowhere large enough to fly a free flight model and, even if they have, often prefer to build

Continued on page 11

SPECIAL AERO MODELLING SECTION

control line models. Such a model, connected by two thin steel wires (usually between 25 and 50 ft. long) to a handle held by the flyer is invariably engine-driven. As it flies round the 'pilot' at anything up to 50 m.p.h., he can control its attitude in flight by moving the handle gently up or down. This, in turn, moves the hinged 'elevator' on the tail of the model through a very simple crank linkage and the model responds by climbing or diving in exactly the same way as does a real aeroplane.

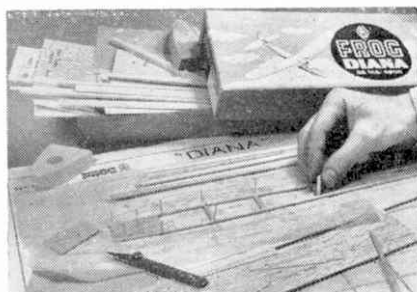
It is possible to buy completely finished ready-to-fly, plastic control-line models, but generally speaking, they do not perform as well as a model built from a good kit. Some of them can hardly stagger into the air. There's certainly more satisfaction in building the model yourself. It's lots more fun and cheaper too!

If you are not very good at tissue covering, or have never done it before, you can buy very good beginners' control line kits, which are made all from sheet balsa and therefore require no such covering.

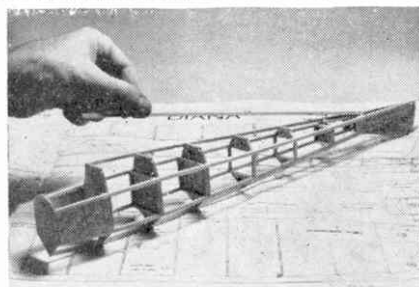
Choosing a kit

The model you choose will depend very much on which engine you intend to use and, when you go along to your model shop, you will find that the kit boxes always tell you which engine size (specified in cubic centimetres: c.c.) is most suitable for that particular model. For instance, on the Veron Colt box (incidentally, a good beginner's subject, since the balsa parts are so extensively pre-formed) you will find this note: 'For 0.75 c.c. to 1.49 c.c. Diesels'. The smallest recommended engine (0.75 c.c.) would just provide enough power to fly the model, whereas a 1.49 c.c. engine would give a very lively performance! It might even be a bit *too* hot for a learner to handle, so something between the two extremes should do nicely. A 1 c.c. engine would, in fact, be just right and this is a very popular size—economical to buy and easy to operate. Unlike a free flight power model, in which a low powered engine will often simplify the initial trimming problems, a control line model that is underpowered is just as difficult to fly—perhaps even more so than one with a surplus power reserve.

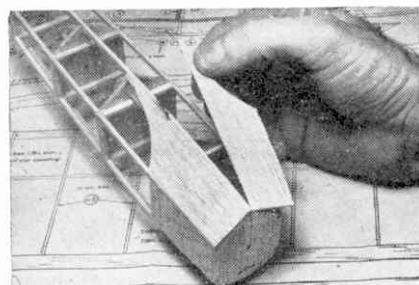
This is because, without sufficient speed the model, flying round you, will have insufficient outward 'pull' to keep the control lines tight—particularly flying across the upwind leg—and slack control lines mean loss of control, very shortly followed by the inevitable crash! Many plastic, ready-to-fly models suffer from being underpowered for their weight and, consequently, are difficult to fly well.



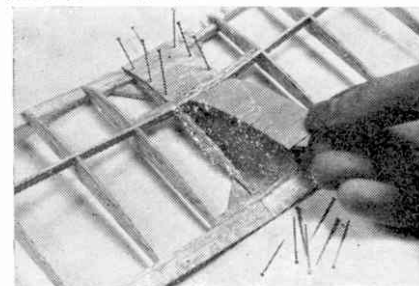
Here the fuselage is being built from strip balsa over the plan. Notice the greaseproof paper to prevent the parts from sticking to the plan



The two sides are assembled with pre-cut fuselage formers and two additional top longerons are fitted



Sheet balsa parts should be "dry fitted" before finally cementing in place

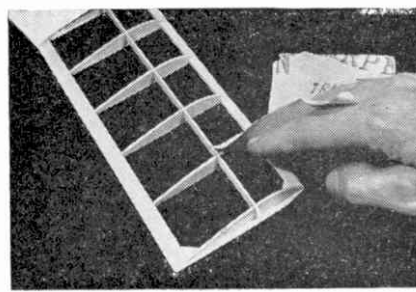


The centre reinforcing sheet is being fitted to the wings. Pins are used until the cement has dried

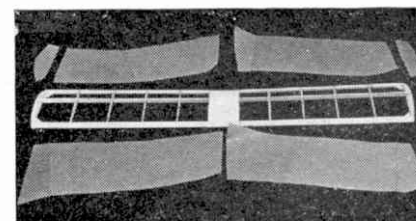
FREE FLIGHT TRIMMING

Let's say you have just completed your glider and, having applied the last lick of dope to the wing and carefully positioned the decorative transfers, you are anticipating your first exciting flight. Remember that all new, full size aeroplanes, no matter how big or small, go through lots and lots of testing on the ground before they ever venture near a runway. Even then, they don't just open the throttle and take off. No, they go through hours of taxiing tests up and down the runway without ever leaving the ground and then if—and only if—

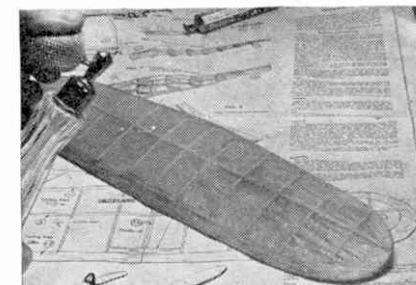
PICTURE TIPS



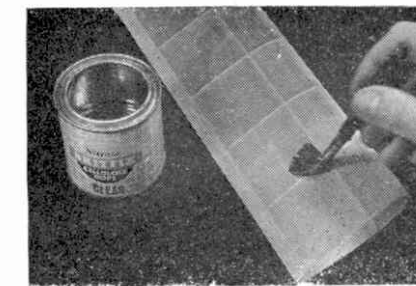
Smooth out irregularities with fine sandpaper



Never try to stretch the covering over two curves at the same time



Spray the tissue with water. As it dries out, it will tighten up to give a smooth surface



Finally give it a coat of clear dope. This strengthens the tissue

everything is just right, the pilot will gently ease her off the runway for a few yards only, before carefully setting down again. Each time the 'hop' gets longer, until the test pilot is certain his aeroplane is perfect—then he makes the first real flight.

FIRST THE GROUND TESTS

1: Assemble the wing and tail to the fuselage. Most likely, rubber bands are used for these fixings and they should be tight enough to hold everything securely without being *over* tight and thus risking damage to the structure.

Continued on page 17