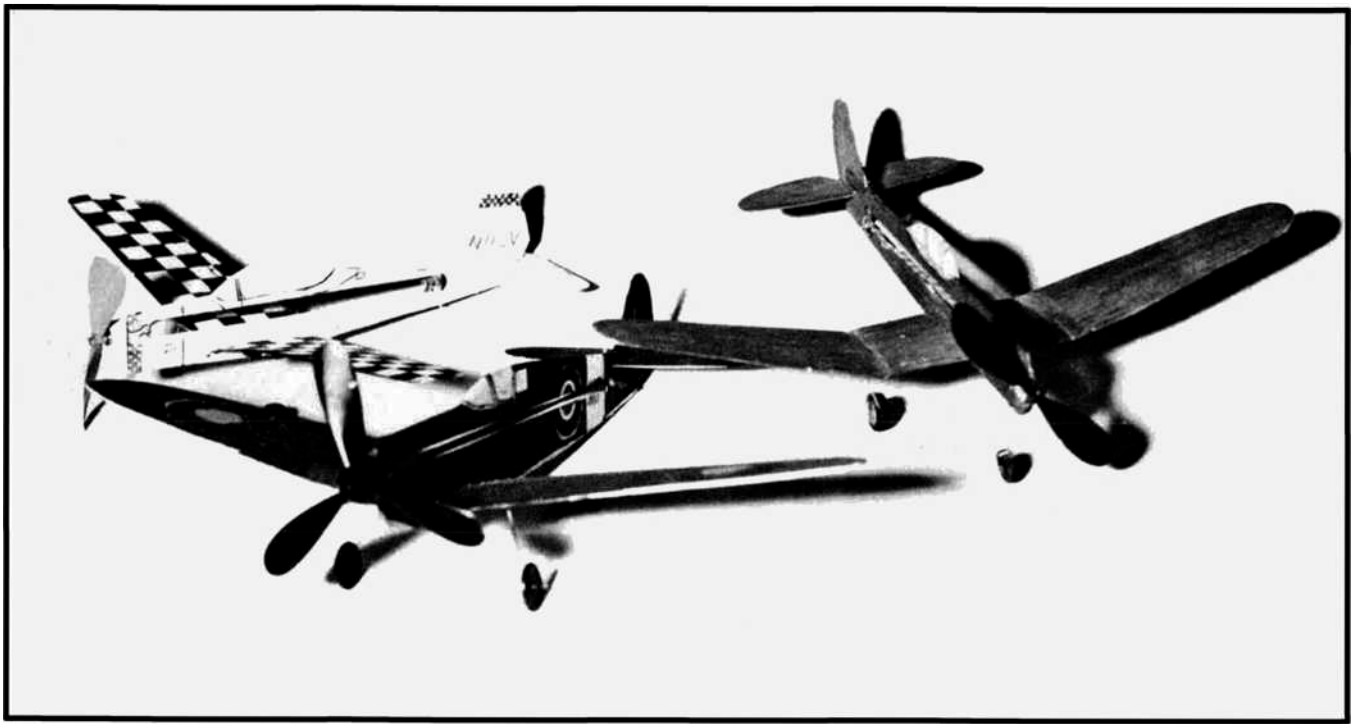

Profile Peanuts are a great way to get the young modelers going. Chipmunk, Spitfire, and Yak indicate that the variety is unlimited.

THREE PEANUTS IN ONE SHELL

Here's a small bag of Profile Peanuts that should delight the youngsters ... no matter how old they are! Walt, and chip-off-the-old-block, Curtiss Mooney, developed this interesting 3-in-1 project.

• Here are three quick simple Peanut Scale profile models. Each of them can be built in a very short period and each will give many hours of flying fun. Although decorating them will not make them fly any better, it is easy to color them in an authentic fashion using felt tip pens.

The DH Chipmunk, the Yak 18PM, and the Speed Spitfire were designed and built by Douglas Mooney during a single weekend and they have all proven to be excellent flyers. As can be seen in the photographs, several different propellers were used. These were a Kaysun on the Chipmunk, a North Pacific on the Yak, and a Kielcraft 2 blader on the Spitfire. All worked well, but since the 3 blader is probably impossible to obtain, the North Pacific (Sleek Streak) propeller is shown for all. Just cut it down to a suitable diameter.

All the models are constructed in an identical fashion. Choose light wood if you want them to fly well. The drawing looks a little confusing with the three models superimposed on one another but by looking closely the proper outlines for each one can be easily determined. The Chipmunk's surfaces are the most angular, the Spitfire's surfaces are the most elliptical, and those of the Yak 18PM are in between.

Cut the vertical tails, the horizontal tails and the wing panels out of one thirty-second sheet balsa.

Cut the fuselages, the nose doublers, and the landing gear support pads out of one-eighth sheet balsa. Note that all the horizontal tail slots in the fuselages are on the same line. Make the slot only long enough to accommodate the proper horizontal tail. The wing slot for the Chipmunk and for the Yak are also in the same place. The front of the Yak slot is indicated by a "Y", and the aft end of the Chipmunk wing slot is indicated by a "C". Sand the edges of the parts smooth. Put the aluminum tube bearing in place at the front of the fuselage and cement the doublers on either side of it. Make sure that this joint is secure but don't get cement in the lube.

Now give all the surfaces and the fuselages a light coat of sanding sealer or thin dope. Standard Brands paint stores have a brand of lacquer known as "Magic" which includes sanding sealer in spray cans. This works really well, but other brands will undoubtedly work also. After this is thoroughly dry, sand off the balsa fuzz with 320 or finer sandpaper.

When the parts are smooth, they are ready for whatever decoration the builder cares to add. Felt tip pens which are available in whatever color you can think of, provide a very lightweight way to color the models.

Canopy outlines, surface hinge lines, cowl and exhaust system outlines are easily drawn in with a thin black felt marking pen. If your flying weather is dry it won't be necessary, but if your model is likely to get in the dew, a light spray coat of lacquer or dope will keep the ink from running. Don't overdo it cause the dope can make it run too!

The curvature of the wing slots determine the airfoil section of the wing. Simply cement the wing halves into the slot and block up the tips for the proper dihedral and let the cement dry. In the case of the Yak, cement the center section in place and then cement the outboard panels to the center section after forming the proper airfoil section by bending them around your fingers. As they are drying, check to see that the wing panels are maintaining the correct airfoil and dihedral.

Cement the horizontal tail in the slot. Check to see that it is properly aligned and does not lean either side of horizontal. Cement the vertical tails carefully in place. They must be exactly vertical and exactly centered on the top of the body.

Bending the landing gear legs out of 1/32 piano wire. Cement them to the support pads.

Use several coats of cement and if desired, cover the surface with a layer of tissue paper. Use wheels of your choice and retain them on the wire with a drop of cement.

Cement the landing gear support pads to the wings in the proper position. The Yak has a nose gear that is pushed into the fuselage and cemented in place.

A straight pin is pushed down vertically through the body to act as a rear motor peg. This must be done carefully so it is in the exact center of the body. A thin skin of cement on the sides of the body in this area will strengthen it.

Slide a prop hook through the bearing tube. Slide several washers or a bead onto the hook to act as a thrust bearing. Put on the propeller and bend the front end of the hook so it will turn the propeller.

For test flying, use one eighth flat rubber. Make a loop approximately the length of the motor base and slip it over the prop hook. Pull the aft pin halfway out, slip the loop over it and re-insert it. Check to see that the model balances at the C.G., (center of gravity), shown. Balance it, if required, with modeling clay added at the nose or tail.

Test glide the model. It should not nose up and stall nor should it nose dive into the ground. Bend the trailing edge of the horizontal tail to get a good glide. Start test flying with a small number of turns and work up to the capacity of the motor. The rudder can be bent to control the turn as can the trailing edge of either wing. For maximum duration experiment with longer loops of rubber and use an indoor winder to pack in the turns.