

Plenty sweet—and no foolin'! Yes, sir, the Kinner Envoy model packs the beautiful flying lines every model builder seeks. And she boasts all those at-home-in-the-sky qualities that make a ship first choice on the model tarmac!



Remember that song—"Just Like a Melody From Out of the Sky"? Well, here's a flying model that's just like a melody into the sky as well as out of it! This snappy C-7's got everything, fans. So clear your production lines for action!

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Build the Kinner Envoy

By Felix Gutmann

THE 1936 Kinner Envoy is a trim, four place machine with many improvements over the old model. At first glance one can see that the cabin windshield slants back from the bottom whereas that on the old model slanted the opposite way. The general performance is better due to the improved streamlining. The engine used is a Kinner C-7 which develops 300 h.p. at 1800 r.p.m. The plane weighs 4,000 pounds gross.

The model presented here is a close copy of the prototype with the exception of larger tail surfaces, larger propeller, and longer landing gear. The engine on this model is very realistic due to the crankcase which is a copy of that of the original engine. In all, the model provides a very trim appearance, with flights to match. The climb is quite steep and rapid and high altitudes may be obtained on sunny, semi-calm days. Of course, the warmer the day the better the possibilities for topnotch flights.

BUILDING THE FUSELAGE

IT is advisable to make all the bulkheads first. The majority are made of 1/16" sheet balsa. A few near the nose are cut from 1/4" by 3" sheet stock. Note that the bulkhead used to hold the tail hook is comprised of three parts glued together, (see Plate 4). When the bulkheads are finished make two master longerons (shown in black on side view). They are of 3/32" square stock and on them mark in pencil the divisions between the bulkheads. Make one longeron exactly like the other. Now clamp them together at the tail end and starting from the nose, assemble the bulkheads in order along them, cementing in place right away. When these are dry, the rest of the stringers may be assembled. These are all of 1/16" square stock. Note that the cowling (indicated in Plate 1) is independently built from the main body with separate master longerons. Note that bulkhead E is fitted with plugs, as shown in Plate 2, and bulkhead D has small holes to fit these plugs.

This set-up permits a removable cowling, which in turn permits the stretching of the rubber when winding. It is best not to glue A & B onto C until the finished motor is glued in place on C.

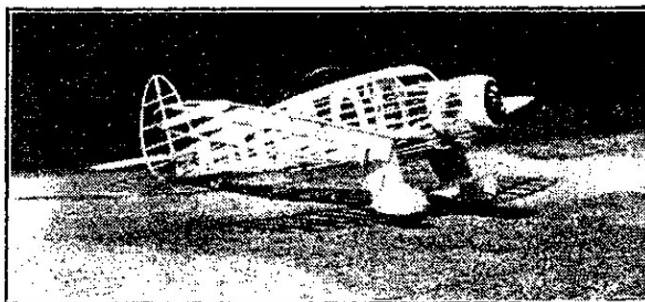
THE MOTOR

THE crankcase is carved from a single piece of balsa with the grain running from the nose back. It is very simple to make. First cut a heptagonal (seven-sided) prism shape of required thickness and diameter.

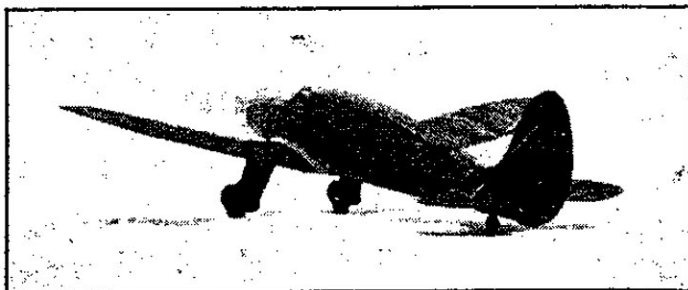
Then make a circle of the diameter of the hardwood nose-plug to be later fitted in that place. Make seven radiating lines from the center. Then cut the angles as shown.

The main gusset plates are easily cut now. Leave them about 1/16" thick. Then the intermediate gusset plates are made of index file card, or the equivalent, and glued in place. A circular hole is now cut in the center to accommodate

the plug of the hardwood nose piece, which is then glued in place. Seven cylinders are made of 1/4" strip, rounded, and wrapped with heavy thread. The cylinders are now glued in place and when dry the whole motor should be glued onto the 1/32" disk which fits into bulkhead B. This is now glued onto C and the cowling fitted over that, as shown in the side view. The whole motor is now given two good coats of black paint which should leave the crankcase with the desired gloss. A bushing may now



This picture tells the "inside" story. Excellent skeletal workmanship makes the Kinner model tops, and Mr. Gutmann's clear-cut instructions enable you to get the same fine structure that features his original ship.



And now we twist 'er around to get a rear-quarter view. Note the wing fillet work, the tail rigging, and the built-in dihedral which gives the craft that anxious-for-the-air smack.