Tippy TIM

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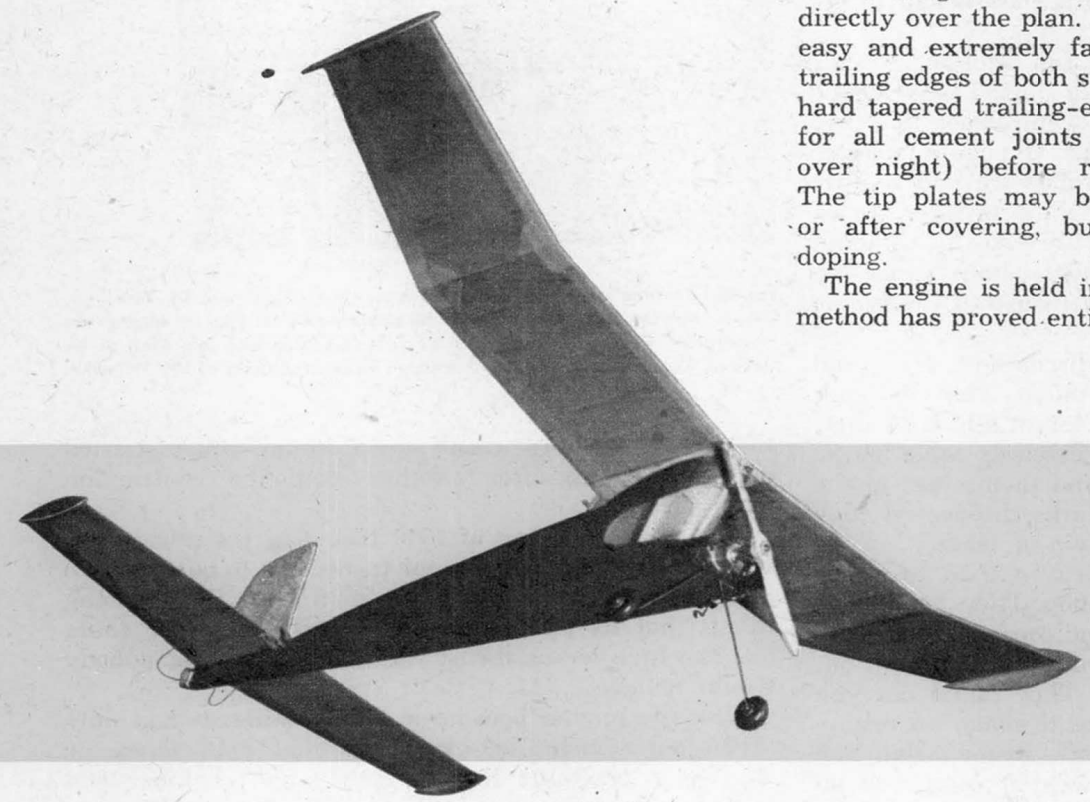

Wing-tip end plates which has all the best

■ Why not a model that will have the consistent non-erratic qualities of the cabin model and still retain the climbing ability of the pylon job? The end product of this line of thought is *Tippy Tim.* Its performance is even better than anticipated. It will handle all the power of a really hot .074, and presents no tricky adjustment problems such as down thrust, side thrust, wing warping etc.

The model, although a compromise between cabin and pylon ships, flies to the right under power. The diameter of this circle is controlled by the pitch of the propeller. An Aerobatic 7/3 prop resulted in a circle of approximately 75-feet diameter. Tilting the stabilizer down on the left side (looking at the model from the front) will cause a left circle in the glide. A 1/16″ shim under the right side of the stabilizer is about right. Numerous flight tests using various sized wings and stabs both with and without tip plates proved that the shorter span surfaces with tip plates greatly increased performances in both the climb and the glide.

Construction is fairly simple. The fuselage is built on a crutch of medium hard ⅛″ x ⅝″ balsa. Pin these crutch pieces directly over the top view and cement all formers in place including the firewall with landing gear installed. The keel piece should be cut very accurately as it controls the wing incidence. If a flight timer is to be used, install it at this time. The fuel tank should fit snugly between formers #1 and #2.

If care is taken, a single sheet of 1/16″ x 6″ x 36″ along with pieces of the 1/16″ x 3″ x 36″ sheet required for ribs, formers etc. will cover the entire fuselage. Prebend where necessary via the cement and water method. Cement the wing and stabilizer hold-down fittings in place before adding the bottom sheeting. For extra strength and to prevent splitting on contact with trees or fences, cover the fuselage with lightweight paper and apply at least two coats of clear dope.

The wing and stabilizer should also be constructed directly over the plan. The sparless type, they are both easy and extremely fast to build. Leading edges and trailing edges of both surfaces are formed from medium hard tapered trailing-edge stock. Allow plenty of time for all cement joints to dry thoroughly (preferably over night) before removing from the workboard. The tip plates may be added either before covering or after covering, but before water shrinking and doping.

The engine is held in place with wood screws. This method has proved entirely dependable and is an added safety factor under hard impact loads. The screws will pull out, thereby reducing damage to the engine or the fuselage.

The finished model should weigh between 7½ and 8 ounces. The C.G. location is approximately one inch in from the trailing edge of the wing.

Don't forget to key the wing and stabilizer to the fuselage. The model is equipped with a dethermalizer; use it even during test flights. Too many models are lost simply because owners are either too lazy or simply forget to insert or light the fuse before launching. And a little care means a lot more fun.

BILL OF MATERIALS—TIPPY TIM

2 pcs. ⅛″ x ⅝″ x 36″ med. hard. 2 pcs. ⅛″ x ¾″ x 36″ tapered T.E. stock, med. hard. 2 pcs. 3/16″ x ½″ x 36″ tapered T.E. stock, med. hard. 1 sheet 1/16″ x 3″ x 36″. 1 sheet 1/16″ x 6″ x 36″. 1 sheet ⅛″ x 2″ x 36″. 1 sheet 3/32″ x 3″ x 36″. 1 pc. 1/16″ dia. wire. 1 pr. 1″ dia. wheels. ⅛″ dowel, celluloid, 1/16″ plywood, paper, bandage, cement, clear dope etc.