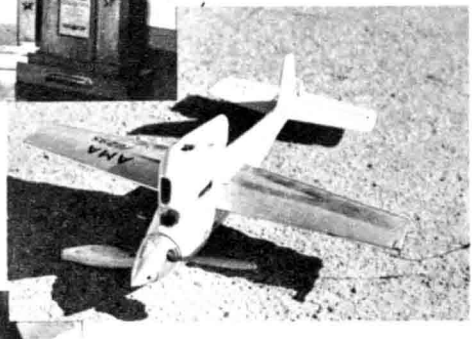
National Speed Picture

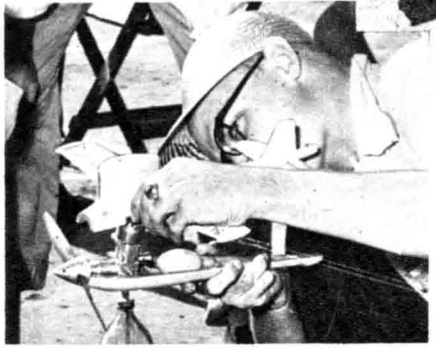
Flashbacks to the colorful Los Alamitos competitions

Erick Moline (left) of Oakland, Calif., flew this inverted engine Cl. D speedster at last Nats. Ship handled well, completed all flights, has done 140 plus so far. Note simple lines on dolly.

Violet and M. G. Hoyt (below) of San Diego. Violet won Women's High Point Championship as well as open jet event in which she did 144 plus, and M. G. fourth. This Cl. C entry of hers did 120.

Sgt. Mark Brown, USAF, (left) is the remarkable young chap who copped three "firsts" in senior speed flying: Class C with 125.17 mph; Cl. A at 117.18 mph.; and Cl. B with 130.15 mph. In Cl. D he did not do well—only 2nd with 140.84!





"Champion in Repose" (above) fits George Mueller's Class A speed model of 131.77 mph first-place fame. Design will be presented in a coming Air Trails.

Frank Stone (left) of Dallas fills balloon tank of Class B which took open honors with 131.77 mph—exactly same speed as Mueller! McCoy .29, original design.

Speed Bug-

You gotta get around that pylon a lot faster now that the A/2 jobs are "official"

■ By doing a bit of cutting and filing on the Space Bug engine, it is possible to produce a speed model in the Half-A class that will compare in appearance with the larger speed jobs.

There is nothing startling about the *Speed Bug* with respect to basic speed layout. It represents what can be done in the A/2 speed class when all the latest items are used.

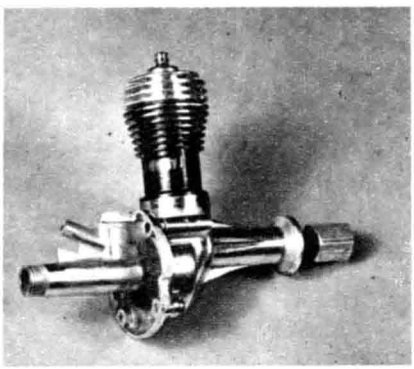
When speed is the objective, the model should be kept light, but still strong enough to hold up under the high-speed conditions. By using those grades of balsa specified, the model's weight will be held to a reasonable figure, providing you do not overload it with the "paint" job.

The Space Bug was used on the original model. However, other engines are quite suitable. For example, by moving the firewall ⅛" forward, the Wasp can be used.

If you choose the Space Bug it is necessary to cut off the tank at the point shown on the drawings. Also, cut away the web that joins the fuel line with the air intake tube so that regular fuel tubing can be used to connect the balloon tank to the engine as shown. It is also recommended that the reed valve be removed from the engine before the above cutting and filing is done. After the job is finished, rinse the engine in gas to remove filings. Be careful to test-run the engine after the reed is replaced to make sure it works properly.

It is also a very good idea to acquaint yourself with the engine's characteristics before installing it in the model.

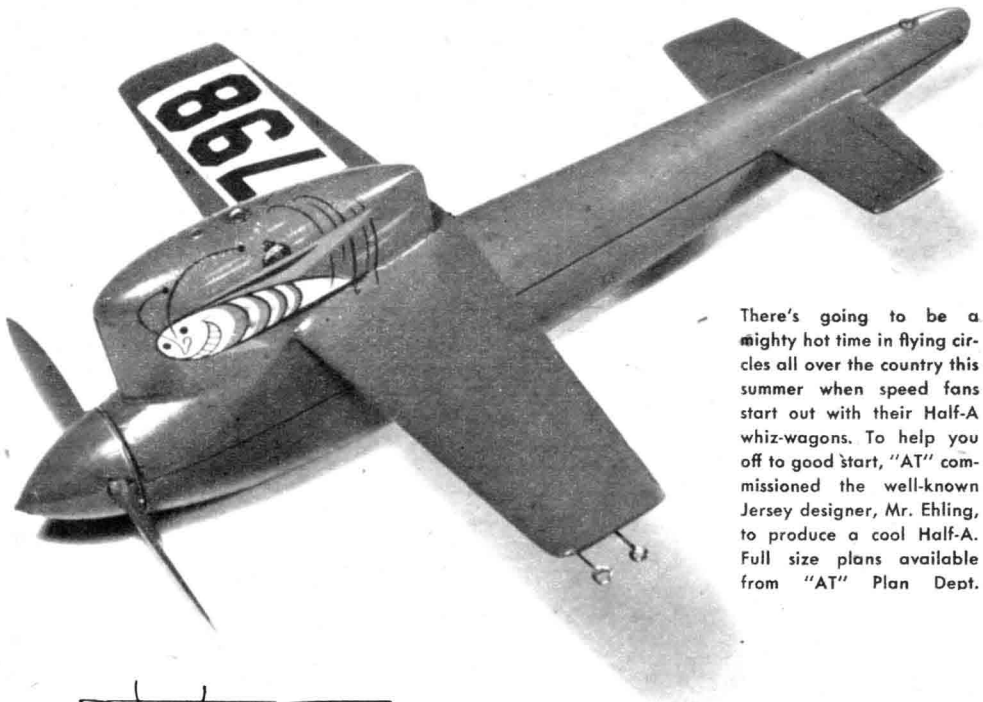
Start building the model by carving and shaping (*Continued on page* 68)



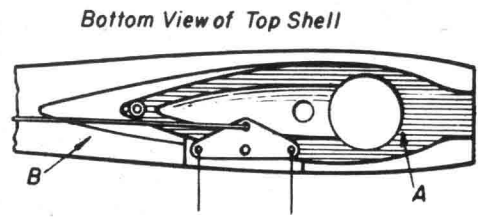
Stripped of its tank, the new Cox powerplant is a mighty small handful of high-powered dynamite.

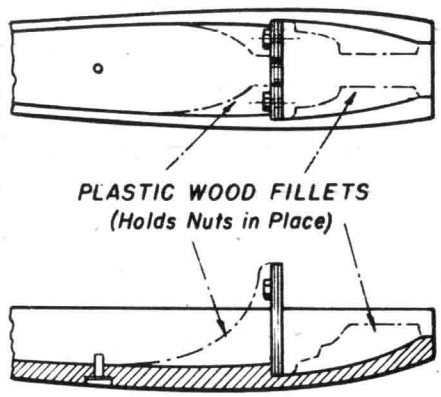
—FOR THE NEW A. M. A. HALF-A SPEED EVENT

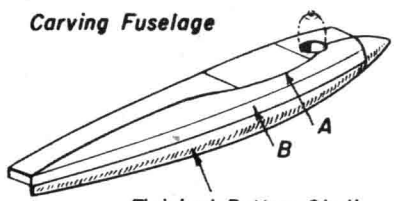
By FRANK EHLING

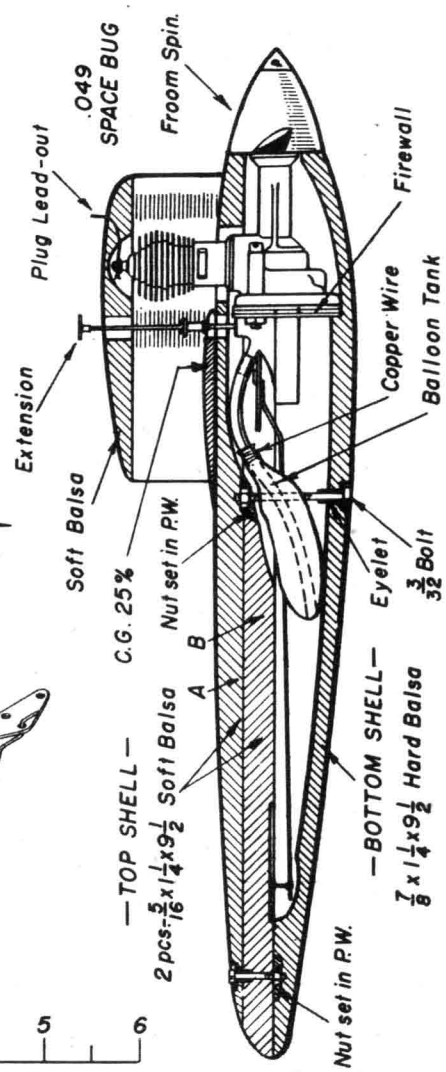


There's going to be a mighty hot time in flying circles all over the country this summer when speed fans start out with their Half-A whiz-wagons. To help you off to good start, "AT" commissioned the well-known Jersey designer, Mr. Ehling, to produce a cool Half-A. Full size plans available from "AT" Plan Dept.









Speed Bug

(*Continued from page 40*)

the bottom shell. Cut top and side to outlines with rectangular cross sections. Scoop out as illustrated so that the firewall bulkhead will fit snugly against the shoulder and sides. Bolt the engine to the firewall, using only two bolts on the top. Now align the bulkhead on the shell, cement it in place with slow-drying cement. Then apply Plastic Wood to form fillets behind the firewall and under the engine. The fillets behind the firewall will reinforce it and also prevent nuts from turning when the engine is removed. The Plastic Wood under the engine will make up a very strong unit which will take a lot more abuse than the shell would by itself. Put bottom shell away overnight to give cement and Plastic Wood time to dry completely.

The wing is shaped from 1/8" sheet balsa. Cut it to outline and sand to airfoil shape. Cement wing guide in place after using clear dope.

The cowling is made by cutting two sides to outline shown. The two sides are held apart to correct dimension by cementing them to the "cap." The "cap" can be shaped after cowling is cemented to fuselage.

Cut stabilizer to outline and sand to streamline section. Install horn when cementing cloth hinges in place.

After the bottom shell has set properly, fasten the spinner to the engine. Then start carving from the spinner towards the rear. The proper cross section will come almost automatically. Just be sure not to thin the wall too much.

The top shell is made from two 5/16" sheets. Before cementing them together, cut out holes for engine and needle valve extension in the "A" piece. And in piece "B", cut out area as shown to give enough room to tank and pushrod wire. Tack-cement the top blocks to the bottom shell. Place wing on top block and mark its position; remember to leave this area flat when carving the upper shell to shape.

Cement wing in place. Next, fit the cowling in position. Check to assure engine alignment for ease of removal. It is advisable to place shim stock along the inner cowling wall where balsa may touch fins.

Cut upper shell to fit stabilizer which is secured with cement. Install bellcrank and pushrod. Make sure that they operate smoothly and freely.

Drill holes for tie-down bolts. Locate eyelets and cement them in place. Spread P.W. where nuts will be. Place nuts on bolts at proper distance, and bring the two shells together. Hold them so until P.W. has had a chance to set well enough to hold the nuts in place when the bolts are unscrewed. Next, sand entire model smooth with 400A paper. Now, lightly wet the entire model with water. When dry, re-sand with 400A. Apply a light coat of clear dope. Sand, and finish with two light coats of fuel-proofed colored dope.

After doping, separate the two shells. Attach lead-out wires to the bellcrank, and also a lead-out from the tip of the plug. Install the balloon tank which is held to the fuel line with copper wire. Cut spinner to fit the prop.

If the engine has to be test-run now, be sure you do so without the top shell in place to provide ample cooling.

Prop size and pitch are a critical point in any speedman's career. If the model is light and the engine "hot," the pitch can be increased and the blade area decreased. This combination can be used until the speed begins to decrease. When this point is reached, it is necessary to back off a bit by decreasing the pitch and increasing the blade area. By going through this procedure, the best possible prop pitch/area combination will be found or determined for your model and engine. A good start for the Speed Bug is a 5" dia. and 6" pitch. The area can be sanded off and pitch increased by steaming.

Before flying, make sure that all controls are moving freely and engine is running well. By doing so, you will "feel" the response of the model despite its small size and low weight.