



CRUISER

This slick free-flyer takes either rubber or carbon dioxide engine. Has flown 21 minutes

By CHARLES HOLLINGER

HERE'S a little sport ship fully flight-tested that will give you real performance as a rubber-powered model or with a CO2 motor in the nose. Most modelers agree that the "ideal" model has between 100 and 150 sq. in. of wing area. Ships this size seem to be extremely consistent and very easy to handle. After all, a pound of rubber isn't required to get them into the air.

Our first Cruiser wasn't designed with contests in mind. Nevertheless, it proved its capabilities by putting in flights as high as twenty-one minutes out of sight. The one in the photos has more than two hundred flights to its credit with only a few rips in the covering as the result.

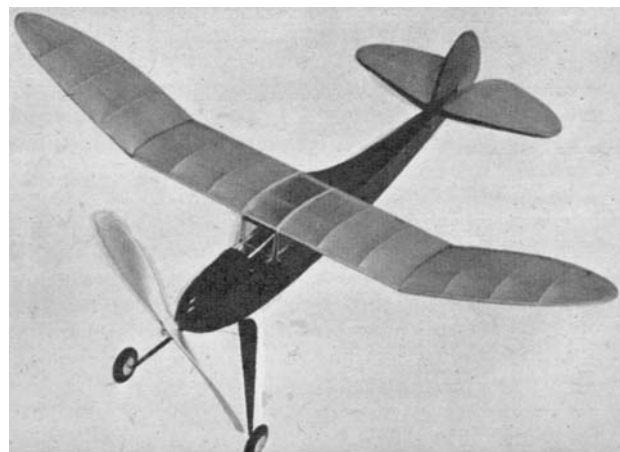
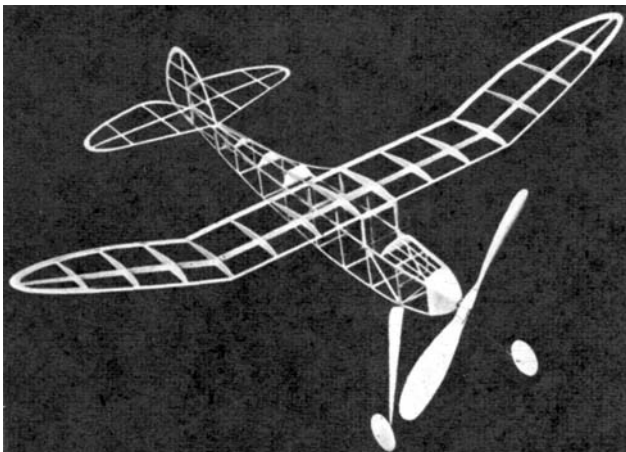
The construction is so simple that with the full size plans the little ship can easily be completed in two evenings' work. If you

intend powering your Cruiser with a Herkimer O.K. CO2 engine, use hard balsa throughout, while if it is to be rubber-powered with T-56 use medium stock for the longerons and spars and soft sheet for the bulkheads and wing ribs. When joining the two fuselage sides together first turn them upside down and cement the cross-pieces in place at the widest part of the fuselage. Check for squareness with a right angle then pull the rear together cementing in the remaining braces.

The landing gear is bent right over the layout and fitted to the fuselage with the extra brace strip and plenty of glue. Carve the nose block from hard balsa, sand to final shape and cut (Continued on page 84)

• Construction is easy. Read instructions, follow plans carefully.

The Cruiser model shown here has made more than 200 flights.



Cruiser

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apart. Cement small circular block to the rear of the front nose block. Drill a hole 3/32" in diameter with 3 degrees right thrust in the nose section. Insert the aluminum tubing which acts as a bushing and use plenty of cement.

Soft 1/16" x 3/32" strips are used for the complete tail assembly. When constructing the wing make it in one unit After ribs and tips are dry cut the leading and trailing edges at the dihedral breaks and raise tips to the correct dihedral.

Cover the complete ship with rubber model Silkspan tissue using full strength clear dope as the adhesive After model is covered spray the tissue with water and allow to dry, then thin out the clear dope and apply two light coats

Don't hurry the carving of the prop. All the experts will tell you that the propeller is one of the most important parts of any flying model. The number of inexperienced modelers who don't know a rubber motor must be lubricated amazes me. The best bet is to get a small bottle of rubber lube at your local hobby shop, but if this isn't possible rub some castor oil into the strands and your new model will not disintegrate because of a broken motor. Like the majority of rubber models the Cruiser performs best when adjusted to fly to the right under power and in the glide.

This is achieved by the three degrees right thrust built into the nose block and a slight amount of right rudder. If the model still makes too large a circle or flies straight, twist the wing slightly askew so the right tip is back about half an inch Don't forget that the center of gravity location determines the flight characteristics, so be sure the Cruiser balances perfectly level when supported on the finger tips at the spar.

For the CO2 version use only two degrees right thrust but balance at the wing spar same as noted above Before applying power, hand-glide first, adjusting wing and rudder for a slight right turn. Start the rudder model's test flights with about seventy-five turns, gradually building up the number.

Your first power flights with the CO2 should be done on a partially spent cartridge And above all be sure the prop is pulling and not pushing, for even the "experts" have made the boner of launching with the prop going in the wrong direction

Why not get out the camera and take shots of your Cruiser on the ground and in the air? We recommend a minimum shutter speed of one hundredth of a second for gliding flight and two hundredths of a second for take-offs