trols for freedom and sufficient movement. The stab is securely cemented to the fuselage and the rudder and fairing added. Sand the fuselage industriously and cover the entire ship with *Silkspan* or silk. The cowl alignment pins should be located and installed in addition to the cowl hold-down bolt.

Make the tank from .008 thick shim brass as shown on the drawings or select a commercial tank of the correct size. The tank is held in place with wood screws as shown on the drawings. For appearance, wheel pants and gear fairings are hard to beat. Properly made and installed, they will take a lot of contest punishment and still add sparkle and class to the old wagon.

Finishing: Two coats of wood filler with a fine sanding between coats will enhance the beauty of your version. Several coats of colored dope will give a light and durable finish. Cement a bubble canopy of generous size over the cockpit and fair the edges with a strip of silk. To simplify our trimming problem we chose Hobby Decal *Checkerboard* with *Trim* trim stripes. Two coats of Stanzel's *Tuff* hot-fuel proofer were used to protect the finish. The original ship sports a black-and-white paint job with red plastic spinner and trim.

lying: The model should balance near the ng spar and requires about one ounce of ght in the right wing tip. Initial flights y be attempted on .012 dia., 52' lines that lengthened to 65' for all-out air work.

Sweden Wins Wakefield

(*Continued from page 27*)

e most interesting new design trends. e long fuselage designs—which accommodate single skein motors 50 to 55 in. between hooks when unwound—have tremendous possibilities for real still air flying. They are just that bit inclined to get it in turbulent air however which can pull overall flight time right down. But for mal rate of climb, and particularly glide formance, they impressed everyone with experienced eye. In fact, reports of phenomenal glides on the evening before the contest led to a most involved argument amongst other nationals as to whether or not it optical illusion on account of the size e fuselage! It seemed impossible that Wakefield should glide so flat and sink owly!

re was also another very interesting about the American models. Foster's fuselage job, for example, had a comstructural weight (including prop) of 90 grams, which many other modellers difficult to believe. Fuselage was 1/8 th Warren-girder 1/8 x 1/16 bracing, most other spar sizes 'normal.' A Euroairframe built to similar specification be expected to weigh at least fifty per more.

ng into account the fact that Foster is oor builder, and therefore a real expert tweight construction, there is still a of weight to be accounted for. This, undoubtedly, is in the density of the wood available in America. For the trength the American modeller can undly obtain lighter wood of the same dimensions.

can be a great advantage next year. 51 American team more or less detheir '1952' model on the way back to d in the airplane. It is to have a long e, but with the motor terminating wo thirds of the way back. To get a otor, and use it taut between hooks gears are called for. The long rear e, virtually a tail boom, will make it to use a small stabilizer area and get to the wing. In other words, the sign' is to combine the best features eturn gear model (which at present about 39 in. fuselage length) and the elage single skein job.

can modellers can take the credit for he courage to produce the very long Wakefield and show that it really k. It has set a lot of people thinking other side of the Atlantic now. The tion of return gears, too, came in an c's Yearbook, although Ellila must credit for having emphasized their winning the Wakefield two years running. An American model at least justified itself this year in placing fifth and the subject is one which is currently receiving a lot of attention in England. Unfortunately two of the leading British 'gear-proponents' did not make the 1951 team and so it is really impossibly to judge their respective merits. All the data available, however, points to the fact that a motor taut between hooks is superior to one which is corded or spring tensioned—and the only way to get a long motor in a reasonable fuselage length and keep it taut between hooks is with return gears.

There is plenty of food for thought in the design of 1952 Wakefields and it seems that the real need now is not for a five minute still air model but a high-time model which will produce a consistent performance in still air and winds, *with no appreciable thermal assistance*. That, it appears, is going to call for fast prolonged climbs followed by a really good glide, but not so near the stall that turbulent air can upset it. All the European contestants will be looking forward with real interest to see how American designers are going to produce the answers to those questions for the 1952 contest in Sweden.

Weather summary:

First round, starting 7:30 p.m.
Calm to 100 ft., slightly turbulent air above, with drift 4-5 m.p.h. Slight but appreciable 'lift' at good heights.

Second round, starting 9 p.m.
Similar wind conditions, cooler, no appreciable 'lift.' Dampness setting in, but not excessive.

Third round, starting 3 a.m.
Overcast sky, windy—15-20 m.ph. at 100 ft. and above.

Model designs:

Almost exclusively slabsider. No startling design trends, except for American models. Diamond and rectangular section about equally favoured. Fuselage lengths slightly longer, on average, than 1950. A fair proportion of modellers used gears, but not as many as anticipated. More folding propellers than freewheelers, but higher proportion of freewheelers in the top places. Very few examples of feathering propellers.

END