

# THE "FINISH"

by VICTOR SWIERKOWSKI

Do you have a surplus type sailplane such as a TG-3, LK or P-R, which you are ready to recover?

Let us look at a few methods of finishing your sailplane to obtain a fine high quality surface with a view to saving time, money and unnecessary hard work. The following is one

An enamel type paint will go well over both Butyrate and Nitrate, but they must be well dried and aged.

For best results in all phases of the painting, temperatures between 70° and 80° are ideal.

Before recovering your ship, be sure all wood surfaces to which fab-



Vic Swierkowski is now well known for the beautiful finishes he has produced on the Nimbus sailplanes. He is shown here putting the finishing touches to the one he flew at the 23rd National Contest at Grand Prairie last year.

of the most successful methods for finishing a wood sailplane.

Consider first the type of dope to be used. Two types which should be evaluated are Butyrate and Nitrate, which both come in clear form and a variety of colors. These two dopes should *never* be mixed together. In repainting, Butyrate can be put over Nitrate providing the Nitrate is well dried. *Never* paint Nitrate over Butyrate. If you are uncertain of the type of dope on your ship—make several test patches before refinishing. Nitrate is about 30% cheaper than Butyrate but also its durability is shorter.

ric will be applied are well pre-doped. New wood may require three or four coats of clear dope. On small areas, such as ribs or trailing edges, use fabric cement. Intermediate grade fabric should be used. Stretch fabric tight enough to obtain an even tension (guard against stretching it too tight), and always shrink it with water, allowing it to dry before doping. Great care should be exercised in this step, thereby helping to keep the trailing edges straight since the fabric on both sides will have the same tension.

Attach fabric to trailing edges only

with fabric cement. When cement is very dry, use sponge and water to shrink the remainder of the fabric.

Thin the dope for brushing so it applies easily, using a 4 or 5 inch brush—*pure bristle*. Allow 1½ to 2 hours drying time between coats. About 4 or 6 coats will be sufficient to obtain the desired tension in the fabric. Of course this depends on how much the dope has been thinned. Allow this to dry overnight if the fabric does not have sufficient tension, then two or three coats more, again drying overnight if necessary.

The next step is to tape over the ribs and other critical places. Using rather heavier dope than before, paint over these tapes and the rest of the fabric four or five times to impregnate the fabric. This should dry overnight before wet sanding the surfaces with 320 grade wet or dry paper. Care must be taken not to cut through the fabric.

To protect your fabric against the sun's rays, spray at least one coat of aluminum pigment to one gallon of clear dope. Sand this very lightly with 360 grade paper and wash thoroughly. If you want that nice finish—you must fill all uneven areas with laquer putty, and spray the wings and fuselage with "primer surfaces" or "filler." At this stage the assistance of a good auto painter will pay off. It is the good filling that counts, for the smooth final paint. Two heavy coats are better than several coats thinned down. The surfaces must be well aged dried for two to three weeks and then sanded with 360 paper. Be careful—do not sand through the aluminum coat. If you are not getting gloss-like finish with this wet-sanding it may be necessary to spray more filler, age it and sand again.

Now you are ready for the finish paint. If you are going to use Butyrate or Nitrate laquer, spray it rather heavy—two coats are usually enough, depending on your choice of colors. For the best results I like to use a two-gallon paint container with about 45 pounds constant pressure, thus spraying more evenly and with little overspraying. Thinning your paint too much would make it necessary to spray more coats for good color depth.

To obtain good gloss you can use a buffing machine in the same fashion as the auto-polish people use. Plan your filler color to be nearest to your finish color. For example:

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