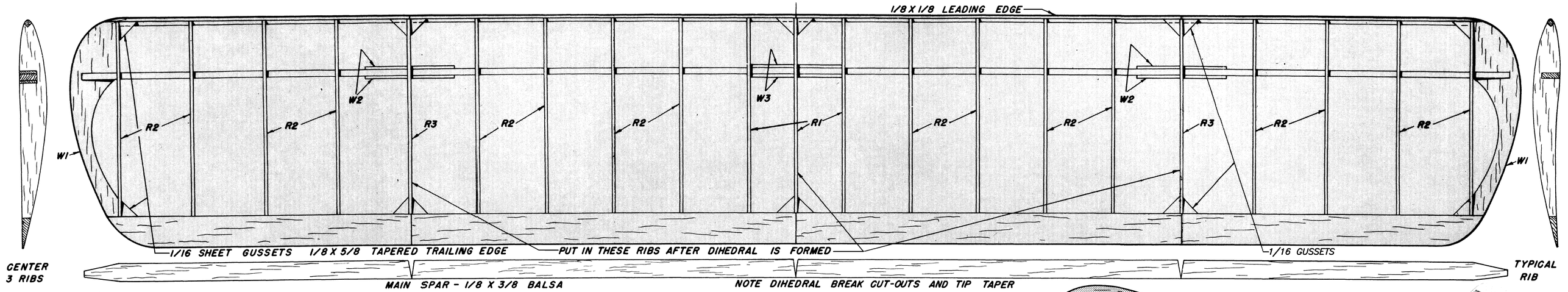

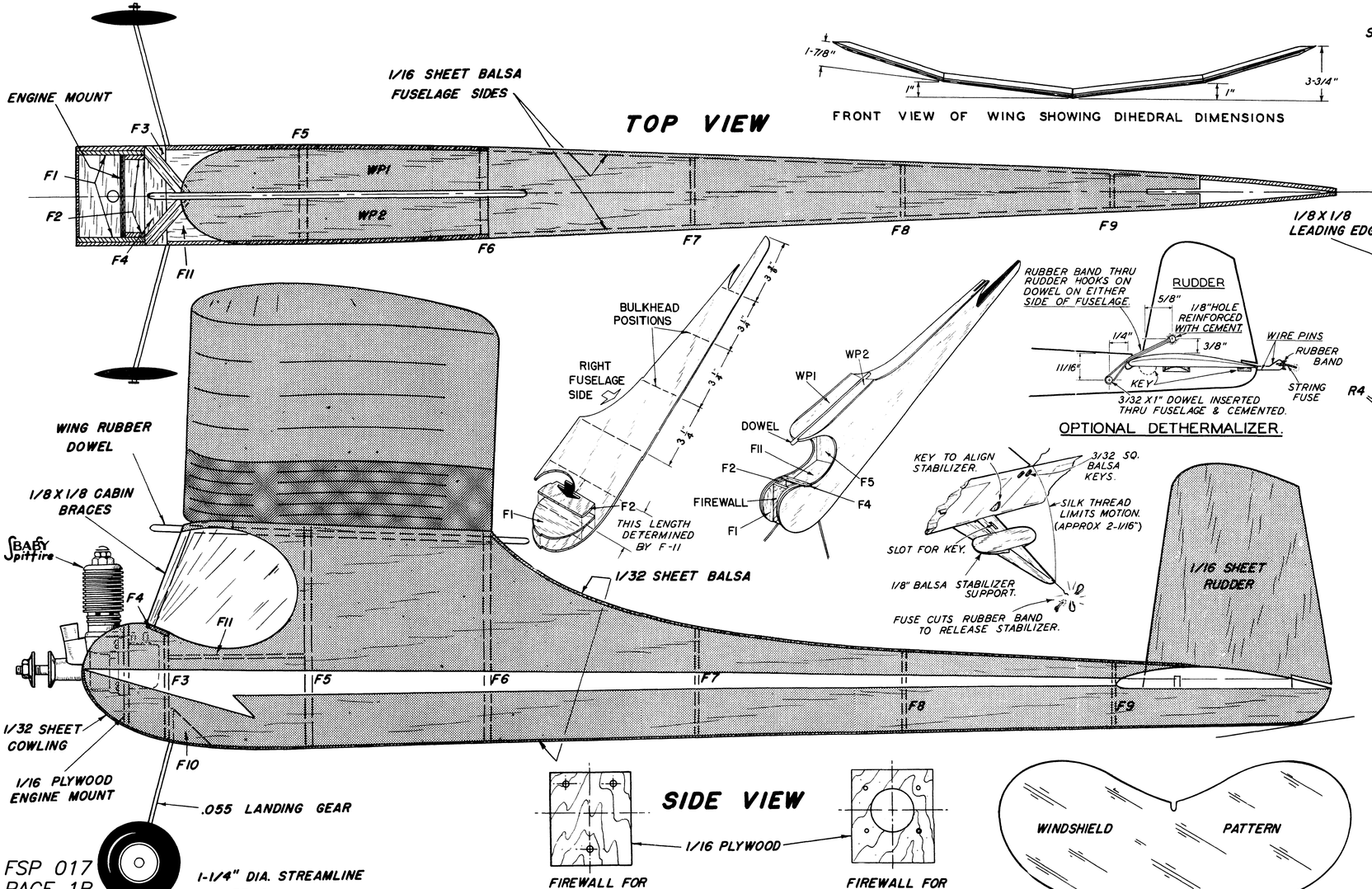

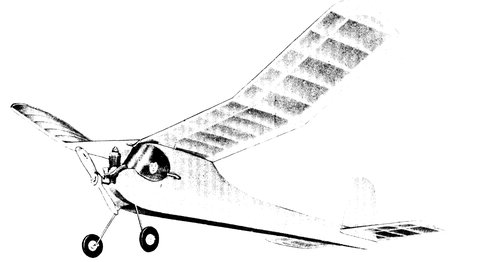

"Sniffer" - so named because of its thermal sniffing qualities -- is a small, stable cabin model designed around the Anderson "Spitfire" and the O.K. "Cub". Ample volume has been provided for whatever engine timing device and/or dethermalizer that the builder may wish to install.

Construction is begun by cutting the two fuselage sides and all parts marked with an 'F' from the printed sheets. Note that there is a right and left-hand side. The first step in building is the cementing - with plenty of cement - parts F-1 and F-2 on each side piece. Note from the top view, that these pieces extend only as far as the location of the former F-3. In effect, these give the model a "plywood" nose.

After the two sides are dry, on one of the sides, formers F-3, F-4, F-5, and F-11 can be cemented. Notice that F-11 forms a sort of floor to the cabin. The second side can now be cemented in place and the two pcs. ends brought together and cemented securely. Check at this time to be sure that the sides are square with each other. If they are true, add the rest of the formers.

The landing gear is next cemented in place on the rear of F-3. The gear is locked in place by the addition of the two F-10's, which are firmly cemented to each side. Give the completed landing gear attachment section an extra coat of cement after the first is dry. The next step is the mounting of the 3/32" diameter wing-attachment dowel and the wing platforms #1 and #2 (which are cut from the printed 1/8" sheet). Cement the dowel in place, first, in the center of the tops of F-5 and F-6, and when this is nearly dry, on each side place WP-1 and WP-2. Note that a shallow groove is formed. This will act as a keyway on the center wing rib to help keep the wing aligned.

The die-cut firewall can next be cemented into place. Use plenty of cement on this operation - preferably with a cement that will resist the action of glo-fuel. If it is planned to use the O.K. "Cub", holes will have to be drilled in the plywood furnished as shown on the plan.

Covering the top and bottom of the fuselage with 1/32" sheet balsa is the next step. Note that the bottom is covered (at this time) from F-3 to the rear. (The cowling can be added after thrust adjustments are made). The only trick in covering with balsa is to work rapidly, putting the cement first on the bulkheads and then on the sides, and holding the piece either by hand or with pins until the cement sets. When dry, the excess can be trimmed off with a razor and the completed fuselage sanded smooth all over.

The wing and stabilizer are built directly on the plan. Cut out all parts from the printed sheets and sand lightly. Shape the wing spar as shown and pin in place. Cut the four lengths of trailing edge and pin them also in place, blocking up the front edge with scraps of 1/32" wood. This will maintain the airfoil correctly. The ribs can be then cemented in place (note the ribs at the dihedral breaks are not put in until the dihedral is formed). When this assembly is dry, block-up the tips and the center panels the amounts shown on the small front view. Then using plenty of glue add the dihedral braces W-2 and W-3. With the wing still blocked-up add the remaining ribs, the leading edge and the tips. When the wing is dry, glue in the small triangular gussets in each corner of the dihedral breaks. Sand off all excess glue, then sand off the leading edge and tips to make a more perfect section.

The stabilizer is made in the same manner, but not having dihedral, can be completed flat on the plan. Note the 1/32" sheet fill-in on the bottom. This is done in 4 small pieces so the bottom of the stabilizer will be flat.

The rudder can be completed by sanding to a gentle streamline section and setting aside to cover. The first step in any covering job is a good, smooth framework. Go over the entire model with a medium sandpaper making sure there are no protrusions. Begin by cutting 8 pieces of tissue -- each a little larger than the wing panel on which it is to go, with the grain of the tissue running spanwise. Cover the bottom of the wing first, using thick dope or thin cement to hold the tissue against the bottom of the ribs. Work from the trailing edge to the leading edge. On the upper surface, it is not necessary to dope the tissue to any other than the end ribs and those at the dihedral joints. Cover the upper surface of the tips with a small separate piece of tissue.

The stabilizer is covered in a like manner again using small pieces for the tips. It will be necessary, however, to dope the tissue to the 1/32" fill-in, and on the upper surface, to the center ribs and tip ribs. The rudder is covered on both sides with tissue.

The entire fuselage is covered with tissue including the sheet sides. Starting from the nose cover towards the tail, using only convenient sizes of tissue. This is especially important around the cabin. Do not put on the 1/32" sheet nose cowling till after the model is flown as it may be necessary to make thrust adjustments.

The entire model is then lightly sprayed with water. When dry dope with 2 or 3 coats of clear dope, followed by 2 coats of MIDWEST Fuel Proofer, sanding lightly between coats. Add the windshield and the wheels. The wheels are held in place with a cemented or soldered washer. This completes the model, so, bolt on the engine and prop; grab your battery and fuel can; and go out and see what cooks.

The original "Sniffers" balanced at a point about 1-3/4" forward of the trailing edge of the wing. It was found that the models could be circled either way both in the power and the glide, but, for general flying it is recommended that the model be set to glide in an approximate 50' diameter circle to the left, (this is accomplished by offsetting the rudder tab about 1/32 to the left), and to climb to the right in about the same size circles. (This can be accomplished by adding washers under the left lugs of the engine). There is about 1° of downthrust built into the nose to prevent power-on stalls. If this is insufficient more can be put in with washers under the top lugs of the engine.

Start your flight tests by gliding the model from shoulder height and make all trim adjustments before trying power flights. If your model should be tail-heavy -- add weight to the nose. DO NOT TAKE OUT INCIDENCE. Make your first power flight with reduced RPM till you are sure of the flight characteristics - then "wind her up" and put on your running shoes. Happy landings!!

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