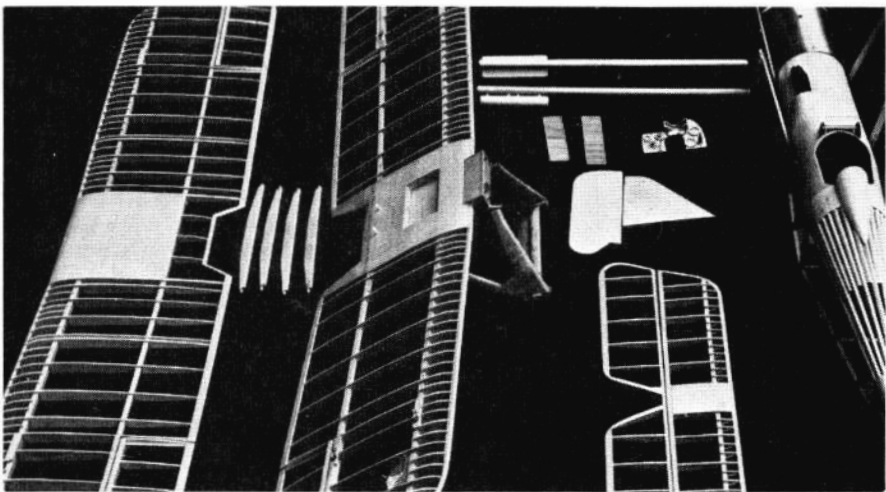




Family effort here, John's daughter Judy holds transmitter while Pop explains the very many functions of the various switches, knobs and levers.



And here we have all the sundries found in the Top Flite's kit box fully assembled and ready for covering.

## FIELD AND BENCH

**TOP FLITE SE-5a  
CITIZENSHIP DV-4  
DIGITAL  
PROPORTIONAL  
TAIPAN .61 R/C**

BY JOHN CLARE

► What red-blooded American boy during the "Thirties" didn't dream of flying a fighter in World War I? The next best thing, now that time has moved us inexorably along the day-dreaming route, is being asked to build something like Top Flite's new S.E.5a R/C kit for Field and Bench testing. Along with Top Flite's new offering is the Australian Taipan 61 R/C engine, so ably reviewed by Peter Chinn in the April 1969 issue of M.A.N. The exciting new Citizenship DV-4, 4 channel Digital Proportional Radio Control equipment

is used for control.

The S.E.5a is an aircraft many people see mentally when "The Great War" is mentioned. It's the airplane that stayed together when it was dived for extended periods while other ships were shedding fabric, if not wings and other important parts. So many British Aces flew the S.E.5a that individual markings are legion, even though olive drab was still the basic color on almost all later R.F.C. aircraft.

This kit designed by Dave Platt, recently of "Jolly Old" and winner of

many scale contests, is a credit to the people of Top Flite Models. Box cover has a picture of the built-up model and it's truly realistic, right down to the lacing along the sides of the fuselage. When I opened the carton I felt like Hugh Hefner when the new crop of Bunnies come into the club . . . I almost didn't know where to start.

First thing out of the box was the waxed plans . . . they nearly slipped out of my hands, Whew! And they work, no more using that old waxed-paper with  
*(Continued on next page)*

## FIELD AND BENCH CONTINUED

the mustard stains and the smell of salami. Decals were next, they have a matte finish and are really big. It's nice to see a W.W. I model with roundels that don't look like linoleum. Now to the hard stuff... the balsa and plywood parts were beautifully die-cut. The parts stay put until needed and only required a slight pressure to pop out cleanly. I have a scrap basket near the work-bench, by the time the frame work of the model was finished it seemed as though the basket was filled with the remains of the die-cut sheets. Top Flite took care to see that the wood used in the kit was right for the job intended, this applies to the strip wood too.

There is bass wood for the wing spars, stamped aluminum for the cowlings and, of course, formed wire for the landing gear. The "for real" rigging has thin wire, dowels for the exhaust stacks and they are pre-drilled along with the semi-formed motor blocks. Full scale S.E.5a had shutters in front of the engine radiators, these were necessary when flying at high altitudes where cooling from the radiators was over compensating because of the cold temperatures. The S.E.5a was a high flyer, James McCudden, the great British Ace, used to wait for enemy observation craft at altitudes in excess of twenty thousand feet. The simulated shutters on our model are so simply made and so realistic that it's a wonder no one has made them this way before. There is also a neat innovation for biplane rigging with special nylon strut fittings, but we'll get to that later, after general construction.

Model structure is very true to scale, the only real departure being in the forward fuselage area where we have strong plywood construction for good engine mounting and vibration damping.

Along with the many goodies furnished in the kit is a sixteen page building guide booklet. It says that if you follow the construction guide you can't go wrong. I decided for once to work as closely by the book as I could, and darned if everything didn't turn out



Now for the moment of truth, will it or won't it, and it did and all of it very beautifully with little adjusting.

nicely. Construction begins with the fuselage and as noted this is the only real departure from "old time" practice. The basic fuselage crutch is built up-side down. Adding the parts for the boxy look is easy and fast. There are eight die-cut pieces for covering the forward area around the cockpit and such, every thing fit perfectly...

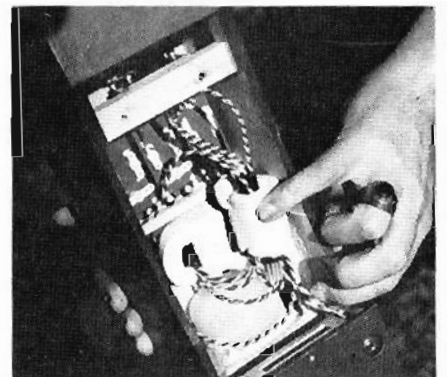
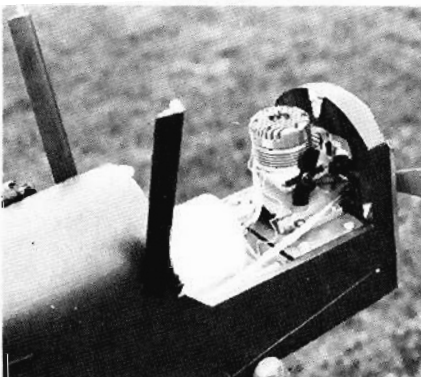
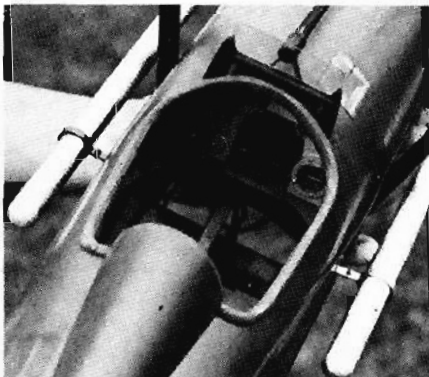
Stab and elevator were built next, followed by the wings. Aside from the basswood spars, the wings were conventional and with just a little care will turn out great. Center section of the bottom wing should be very carefully looked-to, for here the landing gear must be bolted and both front and rear attaching points to the fuselage are located. Nylon bolts are used for the wing hold-down along with built-up plywood going into a front former.

Previously mentioned nylon wing fittings are very interesting and with the help of the airfoil shaped hardwood cabane and outer wing struts the biplane set-up can be rigged with ease. These fittings consist of a nylon ball-joint with a threaded end, a flat nylon plate with two holes for screwing it to the hard-

wood wing platforms along with a third (center) hole for the nylon ball-joint. This is a press fit so it must really snap into place.

Cabane struts are fitted first. Start with left front strut drilling a 7/64" hole in the top to accept the nylon ball-joint fitting which is epoxied in place and when set the strut is glued into the slot in the fuselage side which has been carefully cut to size. A snug fit here is helpful, for with the aid of the height gauges shown in the assembly guide booklet you'll be able to hold the top wing in place while this first strut dries. The three other struts are a "piece of cake" after this and with the incidence too. Inter-plane struts are very easy to make after this and everything lined-up perfectly.

The airfoil is scale and it's thin. Small metal fittings are furnished and attached to the nylon plates and fuselage tie-points for rigging that is very scale and effective also necessary. Piano wire is tension strung between these points to give the wings the strength associated with box kite construction. It's really impressive, but requires complete accu-



Construction details shown clearly in above photos, at left all of the cockpit details supplied with kit, center the engine and right radio installation.

racy in bending and forming as was found out during test flights.

The waxed plans are very complete and in addition to the model building drawings, there is a one half inch to the foot general arrangement presented along with a full-sized drawing of the instrument panel. Many details can be incorporated to dress-up a model like this S.E.5a. Speaking of details, I put the lacing on the sides of the fuselage . . . with two hundred and fifty pins for each side . . . so you really get the point.

One, or I should say three things that go a long way for scale appearance are the Williams Brothers' Vickers and Lewis guns and their W.W. I wheels. The Vickers gun is bolted to the instrument panel "just like real" . . . and it all can be seen easily thru the cockpit or from the instrument panel skylight. These little details can be time consuming, especially if you sit back and gaze at your handi-work for thirty minutes or so after each glue joint. Add what detail your temperament allows, it's very therapeutic and keeps the whole family quiet . . . there just isn't any talking allowed with such delicate work going on.

The S.E.5a was a very easy aircraft to service and much of its advanced design was blunted for the sake of front-line maintenance requirements. The model though, poses a problem as far as engine accessibility is concerned as the stamped metal cowling is screwed in place and all engine work must be done before "batting down the hatches". The engine should be one which can start easily in low motor speed, as the booklet states "an engine will occasionally spit burning fuel onto the model and might set it afire". We went straight ahead as shown in the booklet and encountered no trouble at all.

Speaking of engines, our Taipan 61 R/C fit the bill perfectly. From the first flip it has proved to be a flexible and dependable power plant. It starts just right for this type scale ship where big frontal area makes a touchy engine a real drag. I fill the tank, choke it a couple of times, put a good squirt of fuel in the carb and the Taipan 61 starts just as nicely as you would want. Overheating could be a problem with some



Important that flying wires be correctly bent and properly installed as these are all that retain the wings.

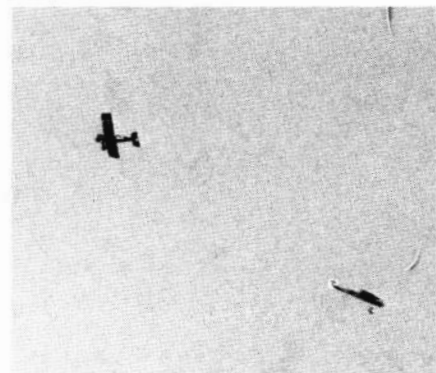
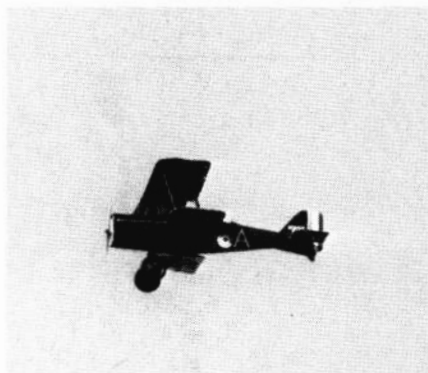
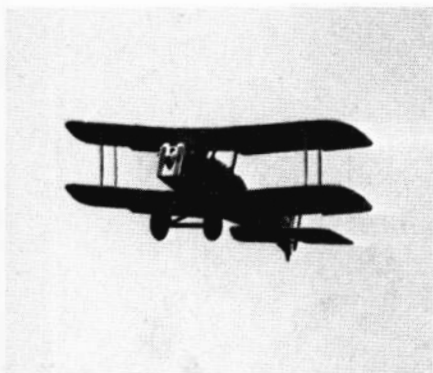
engines, so choose yours carefully. If you read the April issue with Peter Chinn's review of the Taipan 61 R/C you'll know why the engine was a good choice for our model of the S.E.5a. The engine is very well made, the castings and machining being really top work.

After general frame work I covered the wings, stab and open work of the fuselage with light weight silk. The sheeted areas were covered with Silkspan. Some people are a little hesitant covering seemingly fragile wing structures with silk. It really is no "perspiration" though if the silk isn't pulled too tight before doping. Also, make sure the weave of the fabric is straight so it won't pull unevenly as the dope dries. The under-cambered wing is slow motion stuff. I used some Duco cement in clear dope to make a good bond between the silk to the ribs. Three issues of M.A.N. are placed about a sixteenth inch from the center rib, the thickened dope applied and let dry. The books are then moved out towards the tip one rib at a time following this procedure. It's slow, but "it really sticks to the ribs, Billy".

After covering the model, I gave everything 5 coats of clear dope, sanding after each coat. When everything looked smooth I brushed on 3 coats of cream colored dope for the under side of the wings and stab. Everything else was given 3 coats of Aero Gloss olive drab.

All the little details can be added after the general color doping . . . such as wind shield, gun sight, Vickers gun, skylight, exhaust stack holders, any decals you might want and thread bracing wires. Then you are ready to go.

Of course, installation of the R/C equipment should be planned long before this. Our Citizenship Digital 4 worked so smoothly on the bench it was installed without further thought. Rudder, elevator & throttle servos were fitted side by side in the conventional manner and if you have done one installation you'll have no trouble doing the S.E.5a for everything is open for you. I didn't put a switch on the outside of the fuselage ala Dave Platt's cover photo because the C/S Digital 4 comes with a shorting plug. This was installed  
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Final proof of whether it does or doesn't is right here in the 3 pix above. Photo at right shows SE-5a about chandelle in on Stu Lovell the Red Baron.

In the meantime it would also be wise to seek French support for the proposal. The CIAM would be more receptive to a French request than to one from the U.S. To look at it another way, it would be unwise for the U.S. to offer a proposal that did not have the strong support of the French, since it is basically their event." Sincerely, John Worth Executive Director

## Field and Bench

*(continued from page 31)*

inside the cockpit out of sight.

Citizenship's DV-4 Digital Proportional System is a first class production. It is a four channel system with each channel completely independent, fully proportional and simultaneous. The transmitter has the contemporary two stick face, with gold anodized stick assemblies while the transmitter case is covered in traditional C/S red vinyl. All four channels are trimmable in flight. Servos are of medium size and are very secure in their molded nylon cases. There are six possible take-off connections available on each servo. Citizenship has increased effectiveness of the already very reliable equipment by incorporating integrated circuits making the receiver exceptionally small with single deck simplicity.

Transmitter is equipped with built in chargers for it and the receiver. Batteries are of course supplied. My unit is on the 72 MHz band and functions beautifully . . . truly top-notch equipment you can fly with complete confidence.

Well, came the day to fly the S.E.5a. We went to the field, including your R/C editor and proceeded to pre-flight the ship and take pictures. With this ship it's nice to have a station wagon that works so you can have the plane fully assembled at home. Those wing bracing wires blend in beautifully with the grass when you drop them. But it does look impressive doing the bit at the field and it really builds suspense both for the spectators and yourself, whew!

We finally got around to starting the engine, it worked great just as I said, and then we were ready to go. Let me say I didn't fly it the first flight. I think you can get too emotionally involved for that . . . and besides it helps if you know what you're doing and your R/C editor had the "honor". We had all the control surfaces set at neutral in spite of the advice from Dave Platt that we should put in right trim. Throttle was applied and in what seemed about four feet the S.E.5a was climbing smoothly off the field. There was a steady 15 m.p.h. breeze blowing and it was found necessary to put in some down trim and right rudder trim but nothing out of the ordinary for a biplane, the ailerons seemed to be all right in neutral. We flew numerous flights, with me getting in my licks, too. The ship was flown all around the field letting the camera-man get flight shots of the ship. Controlling the plane in all attitudes and at all altitudes was easily accomplished. Throttled down, the S.E.5a made many low passes around the field. Flying speed should be kept up during landing approaches for as with any biplane it can stall abruptly if the nose is not kept down. With normal caution you should encounter much enjoyable flying.

One thing that interested me was the ability of the new wing mounting fittings to withstand the flying forces. They worked fine . . . although I didn't do the whole stunt pattern dives, loops, zooms and tight turns were accomplished with no ill effects . . . up to a point.

Three of us flew the S.E.5a that day and it was great fun. All landings happened to be on the smooth side and after the first flight, when trim adjustments were made, flying was very matter-of-fact. The Citizenship Digital 4 worked faultlessly, smooth and with excellent range. We had the S.E.5a up very high and all

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## **Field and Bench**

*(continued from page 64)*

around the field, every command was responded to perfectly.

I'm afraid spins were our undoing. Fortunately, although the top wing popped out on the pull-out, we are in pretty good shape right now with the repairs. Flying wires really have to be formed exactly, carefully adjusted and firmly stretched. The ball joints should be checked for real snap too. I had one of the first run kits and had to send for another ball joint because of one that was not quite right, it may be others in the set were defective as well. Sid Axelrod of Top Flite was contacted and felt this may have been possible. Other S.E.5a's are being flown (saw one week after) and they did all maneuvers without strain. My failing was either incorrect forming of the wires, or I had some bad sockets. Either way, follow the instructions, that in the area of the wire forming need some improvement, and with the good snappy balljoints in your kit you'll have no trouble.

In summing up the whole project, which took me ththe best part of the summer, (or should I say the worst part of the summer because of our long rainy spell) and I really had a great time. The products involved, Top Flite's kit, The Taipan 61 R/C engine and the Citizenship Digital 4 R/C equipment are all well worth the money and effort to combine them into this beautiful airplane. ■