



# The "Kelling Flier" No 6

Hi all, June already and how the time is flying! Thank you once again to all who have contributed to this issue and future ones!

Please continue to submit all items to me at [awjenkins@sky.com](mailto:awjenkins@sky.com). Thanks, Andrew

## STANS QUIZ CORNER



Another cartoon and quiz from our resident "Quiz Master" to amuse us and stir the "grey matter" – thanks Stan.



"Sorry, Ugg. They didn't have any F-ASST receivers!"

### QUIZ 6 - WHAT'S THE AEROPLANE ?

1. I have fish eggs in the house of the red rose.
2. A clanger by the royal snake.
3. A type of welding for an agriculturist.
4. You don't need long legs to walk across the sea at this point.
5. At the bottom of the garden, there is a sticky strip hanging.

Keep balsa bashing, Stan!

Answers to Quiz 5 - 1. Fairy Barracuda, 2. Miles Marathon, 3. Republic Lancer, 4. BA Nimrod, 5. Mitsubishi Raiden (Thunderbolt)

## BUILDERS BOARD



Here are some more pictures of Nick's Seagull FW190 currently under construction. He has now mounted three battery packs on the firewall in an attempt to get the model to balance. There is one for the ignition and two for the radio (Remember model will have 11 servos!). The dummy fan in the cowl has been made from aluminium, adding



additional scale appearance and detail and the hard demarcation of the camouflage on the tail has been softened dramatically with a can of Tamia spray paint which has achieved the desired effect. Next job on the list is to see if it balances in the correct place! Keep us posted Nick.

## And the build goes on.....



Following on from the last issue, Jim Watts has been making good progress with his SLEC "Sea Breeze" model boat and you can see the finish and detail that Jim has now added to the model. Currently, the hull has been painted in its primer. Jim adds that, trying to get the hard wood decking right was a nightmare and that to achieve this he applied laying strips over the existing Ply wood finish. Luckily he had managed to buy up lots of marquetry and veneer bits and pieces from car boot sales over the years. (Just goes to show

why, we, as modellers, hang on to all these bits and pieces "Just in case"!)

Some of the detail has been scratch built, like the exhausts and the instrument panel. The steering wheel comes in a white metal kit and



includes the flag pole flange, cleats, horn and fuel cap.

Jim still, has to install a motor in it with a speed controller and this is a marine type that allows the motor to be put in reverse.

All in all a really nice looking vessel and we all look forward to updates on it's progress and ultimate launch (with photos!)

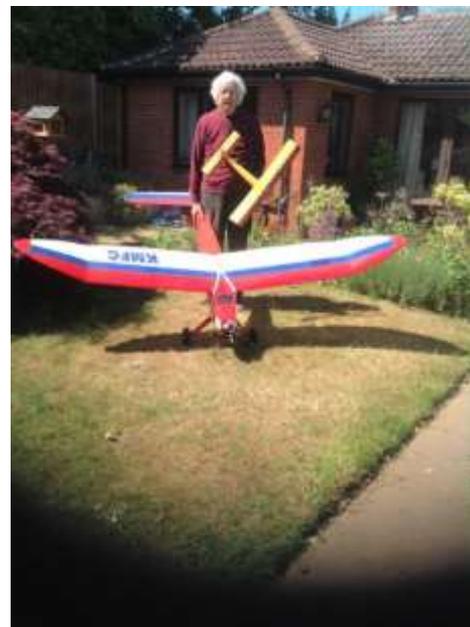


The last edition showed a picture of the Leprechaun. If anyone fancies building one, Stan has a fuselage you can have. As you will see from the attached picture, Stan has used the wings and tail-plane for his "Cabin-Cruiser" which he has now christened "The Terrorduktale"!

Apparently, the problem with the Leprechaun is the all up weight and should you want to build one, you must aim to build the aircraft, lighter than the specification. As Stan says – "Failure to do this will result in an aeroplane with a glide like a flying hippo!"

The small model he is holding is an electrified Mini-Madcap and again he feels that this may also have a weight issue, so again, err on the lighter side.

*Thanks for the tips and advice and if any of you are interested in Stan's offer of the fuselage, please contact me and I will forward your details to him - Andrew*



**and on! .....**



Andrew Taylor has provided an updated picture taken in the landing mode of his modified magazine plan version of the Super Marauder as mentioned in issue No 3. This landing attitude could not be attained before with the nose slightly high and a reduced approach speed. This was due to the short moment between the distance of the wing and tail-plane which resulted in “dead” elevator feel through a lack of adequate leverage below an acceptable landing speed. He has also moved the

centre of gravity rearward to 30% mean chord which has resulted in very much improved and satisfying flying. Certainly looks nice on approach in the photo Andrew- thanks!.

**(More building projects in the next instalment!)**

## **A little known fact regarding the P51.....**



The plane that gave the American Airforce air superiority over the Luftwaffe was the North American Mustang. It combined American design, the Rolls Royce Merlin, lamina flow wing and the work of a British scientist on the engine cooling system.

The Mustang was a good, fast fighter, but it lacked power when above 11,000 ft. A Rolls Royce test pilot, who had flown the Mustang, recommended the Merlin engine and this turned the Mustang into a great

fighter. The lamina flow wing reduced drag therefore added more miles to the gallon. Using the work done by a scientist in England, the radiator was designed to utilise the heat from cooling the engine to generate thrust. The result being zero drag from the radiator.

BUT the twist in the tail is - the man who designed the Mustang was Ed Schmued, a German! He was a self-educated aviation engineer as his father could not afford the costs of a university education. However, Ed was bought all the books required and studied at home. There was no work in Germany and once he felt confident, followed two of his brothers to Brazil and from there, to the States. He obtained US citizenship in 1935.



All of this info. comes from a brilliant book entitled 'Mustang Inspiration' by Philip Kaplan, for anyone interested in reading more on this fascinating aircraft. Thanks for that Stan!



**“Your article”** – Could be here in the next instalment! So get scribing and emailing and share it with our fellow modellers.

## Something different from John Wells - His Electric bike project...

It was suggested that I write a bit about making an electric bike,.....

After not really enjoying long bike rides on the main roads anymore, I walked to some nearby woodlands and saw the mountain bike tracks there. That got me thinking about resurrecting my old pushbike and making it suitable for 'off road'. I had also heard about electric mountain bikes so decided to electrify it at the same time.

The bike was in good condition so I looked for, found and won some 27.5 inch S/H wheels and tyres from eBay. When they arrived I discovered that with the larger off-road tyres, they would not fit the frame!.... So I began looking for a frame that they would fit.... found a nice alloy one, but that was just a bare frame and had no front forks.... came across some rather nice Fox 34 forks at a very good price, that meant I had to source the matching headset bearings to suit....nothing is easy building a bike now, everything is specific with a host of different 'standards'.

Whilst waiting for the motor unit from China, (a Bafang BBS02B 750 Watt) I cleaned and repacked the wheel hub bearings. The battery pack arrived first from Poland, a 17.5AH 48Volt unit. This comes with a cradle allowing it to be easily removed from the frame but unfortunately it only just fitted the space available, with no space to remove it, so I had to make some alloy brackets for a 'permanent installation'. The Shimano XT M8000 derailleur setup with rear 11-46 tooth gear cassette and hydraulic brakes were bought new, along with stem, handlebars, grips and pedals.

When the Bafang motor eventually arrived, it fitted easily in place of the bottom bracket bearing assembly. Having read that the heavy motor can easily come loose in the frame, an extra bracket was fabricated to prevent this happening.

<https://youtu.be/PcQALKxUfzI>

The motor comes with a choice of LCD display, giving speed, battery voltage, trip computer etc. The only problem fitting it, is that the multicore cables from motor to handlebars are very long, I can't imagine why, or what sort of bike they would fit. I tried to neaten the installation by coiling the excess around the frame, didn't really fancy cutting and re-joining the multiple wires...as yet anyway.

The performance is phenomenal, able to climb very steep tracks off-road and a good turn of speed on the road, even with those fat, chunky tyres. I can have three exhausting visits to the local woodland tracks, about 1 ½ hrs each, before recharging, or a 40 mile road trip at over 15MPH average, depending how hard you pedal. It weighs 23KG.

After being rather sceptical about electric bikes, I can now recommend building or buying one.





There are easier routes to ownership than that which I took! If converting an existing bike, buy a motor and battery that suits your need, as I use mine primarily off road, I could have saved a lot of weight (and expense) with a smaller battery and more frequent recharging. The road setup motor limit is I believe still, 250 watts, motors built into a standard rear wheel make for a simple road conversion.

*There you have it, get converting those bikes! – thanks John*

### ***The birth of our hobby.....***



***This is Nikola Tesla—the father of R/C and much of today's electronic technology.***

Whilst trawling the internet, I found this article by Frank Gudaitis surrounding the roots of our past time. The very First example of radio control was demonstrated in New York City in 1898. Its inventor—Nikola Tesla—was a 43-year-old immigrant who was duly awarded U.S. Patent no. 613,809 on November 8, 1898. It was only one of 113 U.S. patents that this prolific genius received during his lifetime. Many electrical engineers and historians regard his basic inventions as the foundation of the 20th century as we know it. In the decades that followed, the military and its suppliers attempted to implement Tesla's work in various R/C projects—including boats and aircraft—without very much fanfare.



***Ross Hull and Clinton DeSoto—early R/C pioneers.***

By the middle of the 1930s, miniature airplanes were just beginning to be powered by very small gasoline engines. An R/C contest event was even scheduled for the 1936 model aircraft Nationals in Detroit. It was a little premature; not one entrant showed up! The following year however, must be regarded as the true beginning of R/C.

Several men who were active in amateur radio became interested in the possibility of controlling model planes by radio. Two of these early pioneers were Ross Hull and Clinton DeSoto. Both were officials of the American Radio Relay League (ARRL), which is the governing body of ham radio operators. Hull was a very gifted radio designer whose achievements include the discovery and eventual explanation of the tropospheric bending of VHF radio waves. Since his youth in Australia, Hull also happened to be an avid modeler. Hull and his associate DeSoto successfully built and flew several large R/C gliders in the first public demonstration of controlled flights. Their sailplanes made more than 100 flights. Tragically, Hull died one year later in 1939 when he accidentally contacted 6,000 volts while he was working on an early television receiver. DeSoto died a decade later.



## Geoff Cleall's Citroen 2CV Rebuild. (Part 1)

Geoff gives us an insight into his other passion of restoring vintage vehicles.



I acquired the car, a 1987 2CV Bamboo Model in 2003. It was difficult to get home because the engine kept flooding, petrol running out profusely and the split starter solenoid was sending sparks in all directions. I have no idea why it didn't catch fire. I sorted out those problems but the car still wouldn't run. If I turned the ignition key, the engine would spin and it would fire up but as soon as I released the key the engine died. It had to be the switch.

While I was experimenting with the ignition switch I heard a rasping sound from under the bonnet. I found the car now jammed in gear and realised that the tired old gearbox had 'unscrewed' itself. A problem that some worn out 2CV boxes get. I was sitting casually in the driver's seat with the door open and my legs outside while continuing to play with the ignition switch. Suddenly the starter spun and with the 'unscrewed' gearbox, I was off across the lawn, narrowly missing a tree and jumping on the clutch and the brake, came to a halt with the nose of the car nuzzling an old beech hedge. I jumped out, head spinning round to see if anyone had witnessed my stupidity. Yes yes, I know, always disconnect the battery.

The next major job was to remove the body. After taking off the doors/boot lid/bonnet/window glass and removing a few screws, two of us just picked up the tub and carried it away. As I told my non 2CV owning friends, "The 2CV is light, every part is designed to be light, how else can a four seat

car with an engine that only produces 29 bhp pull the skin off a rice pudding and still do 46 miles to the gallon? Just don't have an accident!"

Rust in the chassis and the body tub was now plain for all to see. The forward arms of the chassis were so rusty that one side had bent down under the weight of the engine and the other was so rusty that I could easily bend it by hand. It quickly broke off. (See Pic). No wonder the steering felt heavy with steering column pressed into use in resisting the droop-snoot effect. The sills were shot away together with the bottoms of the 'A' and 'C' posts. The adjacent nearside and offside floors also had holes, one big enough to put a foot through. The inner and outer bulkheads were full of perforations, part of the metal that holds up the rear seat deck had also gone, the rear seat belt mountings had rusted out and there were holes through the spare wheel tray.



The new galvanised steel chassis arrived (See Pic) and it shows the start of the rebuild. Many people think that the 2CV has torsion bar suspension but the picture shows the actual arrangement. The car has independent suspension with rods coming from the

suspension arms and going into a cylinder shown on the side of the chassis. In the cylinder there are two springs that are linked. When the front wheel hits a bump it rises and pulls the rod which compresses the front spring. That influences the rear spring which, in effect, knows there is a bump coming. You can see the shock absorbers also set horizontally along the side of the chassis. There are no suspension components impinging on the inside of the car.

I marshal for the Classic Sports Car Club and followed the National 2CV Racing scene, even present at the 24-hour endurance events at Snetterton.

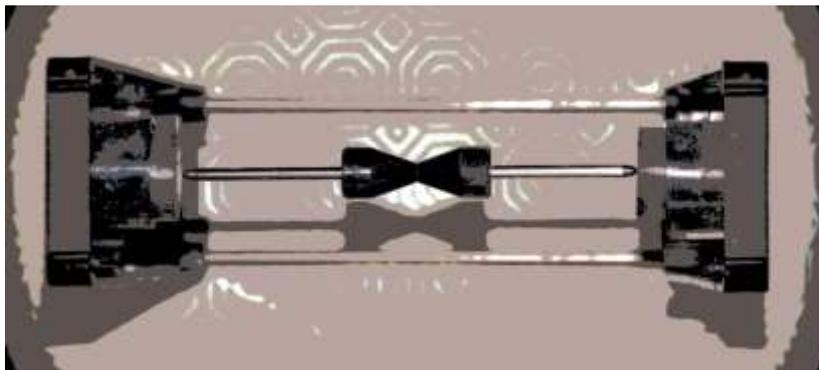


However, my project was still in its early stages but optimism is everything.....more of that anon.  
*Great article – thanks Geoff, we look forward to the next instalment!*

## Identify the Item!

So what was the item in the last newsletter? John Wells identified it correctly as a magnetiser/demagnetising coil. Steve says that it belonged to his father who was a clockmaker and used it to ensure that his tools were demagnetised. He now uses it occasionally to magnetise a screwdriver so that it can hold screws on the blade tip when inserting them into awkward places; an oddball curiosity heirloom if ever there was one!

This issue's item is firmly from the aeromodelling world and hopefully should prove a little easier to identify despite the Photoshop trickery.



## and finally..... A word from our Chairman



Well Guys, you have certainly responded to the request for some more varied articles to go in the newsletter. Please keep them coming. I can add a little to that variety this week with the attached photos of something of my own. You may remember that a year or so ago I experimented with a working scale model of Thunderbird 1. Well, I'm afraid that that plus my son's influence has got the little lad

well and truly hooked on Thunderbirds. He has got a set of die-cast Matchbox Thunderbirds and requested a Tracy Island to go with them. I couldn't turn down that challenge and the pictures show the end result. Yes, the swimming pool does retract, the trees move and the ramps all work..... I obviously have too much time on my hands.



Several of us were at the airfield on Tuesday making the best of the good weather. Geoff was there taking photographs and got this great shot of my 2.8m Silent Dream coming in for landing. Thank you for sending in the picture Geoff. I realise that not everyone feels comfortable with going to the airfield until the virus situation has significantly improved, if you are one of those I hope that this newsletter is helping to keep you entertained and up to date with what your club mates are doing. When this is all over we will have to organise a celebration fly-in at Muckleburgh.



I'll sign off this week with the following link to 'Philtech Enterprises' an Australian engineering company who are developing a model 4 stroke V12. We can all dream!

Cheers, Steve

[http://www.philtech.com.au/Model\\_Engines/Lesley\\_V12/lesley\\_v12.html?fbclid=IwAR1FdCFCjX2RJ3fiQIPUbc1tDGkTrem\\_WrriqibEuPD7iqNiWk5qkW\\_sROg](http://www.philtech.com.au/Model_Engines/Lesley_V12/lesley_v12.html?fbclid=IwAR1FdCFCjX2RJ3fiQIPUbc1tDGkTrem_WrriqibEuPD7iqNiWk5qkW_sROg)

