MIDGE MAGAZINE

36 YEARS

Spring 2020

Graeme's Midge

MOBC. the Midge Owners and Builders' Club

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Hello All.

Well we seem to be being noticed by the other motoring magazines, with Peter in the January edition of the Triumph Sports Six Club and Keith in the February Practical Classics. Of course we managed to scoop them but they don't seem to be holding it against us. Peter Moss Barfield has highlighted that he and the Moss Club are hosting the National Kit Car club at Stoneleigh on the 2nd & 3rd of May and the Newark Kit Car festival 2020 is at Lincoln Road, NG24 2NY Newark, 25th & 26th July. Midges and Midgers welcome

Update, 25th March. Owing to the corona virus most public gatherings are being cancelled. I haven't heard yet of any changes to the ones referred to on the events page, but I would advise checking before turning up. Ever assuming the travel restrictions have been lifted by then. JH.

There are a few Midges for sale on the sales and wants web page http://mobc.co.uk/Sales-and-wants.html from parts to whole Midges

Welcome to lots of facebook members, remember it's only a one off payment of £10 for full membership.

Stories and photographs to Secretary Jim Hewlett at jim@jimhewlett.com or The Old Manse, Tarbrax, West Calder, West Lothian, UK EH55 8XD

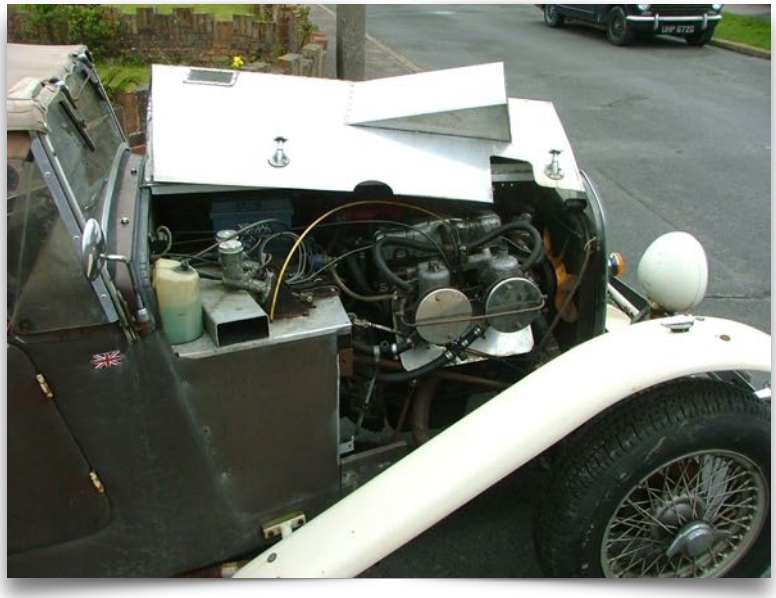
Well, first off let's see how Mark Powell has been doing since last time.

Slow progress at the moment... I have clad the footwell area in aluminium, primed and painted in black and fitted the master cylinder brackets.

Be aware, if purchasing new brackets, the brake item is only available as suitable for Spit / GT6. Different height and angle... Luckily my old bracket was not too far gone.

I think it will not be long before mating the body to the chassis…

The small photo shows difference between brackets, I have to have the higher item to be able to fit the heater air inlet pipe (3rd picture). Later I felt brave, so turned the tub round on the work platform and with the aid of adjustable trestles and lifting tackle I have carefully lowered it on to the chassis. No pictures yet. I forget to clean the top faces of the chassis, so will have to chock it up a bit and take the airline to it...!



More progress from Mark. In fact I think three pages may be required. JH.

The body is bolted to the chassis, three bolts each side and a hardwood bridge with two bolts across the rear body mounts under the rear seat.

Attention turned to the petrol tank. The LPG tank has already been mounted to chassis extensions, so I needed to make up mounting brackets for the Spitfire tank. The original brackets were unacceptable, so I welded up new ones out of 20mm 'L' section steel. Lots of measuring has found them fitted and with the tank bolted to them, the filler neck is exactly where I want it!

The fuel outlet pipe is re-useable, as is the filler tube to the LPG tank unit. I purchased new LPG piping and have fed it next to the petrol and brake pipes to the rear where it is now installed with a new olive and tube nut.

Soon, I will have to think about my Reliant Robin seats... They will need complete refurbishment after the frames are mated to new runners. As they are, the base of the frames are just a bit too wide, so the welder will come out.

I seem to spend a lot of time offering things up and then thinking about fitting.... I'm sure it will get there eventually!

Colour scheme is another conundrum. The wings / mudguards will be black, but I have yet to make my mind up about the bonnet and 'fuel tank'. They used to be polished aluminium, but what a faff keeping them just so. So, blue to complement the body, or black to match the wings, See right. (Love those little MG's). MP

15 March

Plumbed in the LPG from the tank to the engine bay.

Overhauled a brake master cylinder with new seals etc and fitted together with new clutch master cylinder. Clutch slave cylinder overhauled and fitted.

New hydraulic pipes made up and fitted to both.

Fuel tap (LPG bypass) fitted

The coil bracket is being painted, there is a new battery holding tray (and battery), the solenoid is cleaned and ready.

I am going to do the dash next, (could do with a 135mm hole saw for the speedo...)

Now, if as a person of 70+ years, I am confined to quarters, then I will have no excuse to not crack on... It's a possible pain in the whatsits, as I am self employed and fit, with work waiting daily.

Oh well, keep calm and carry on, Virus permitting!

Great work Mark, keep it up and good luck. JH

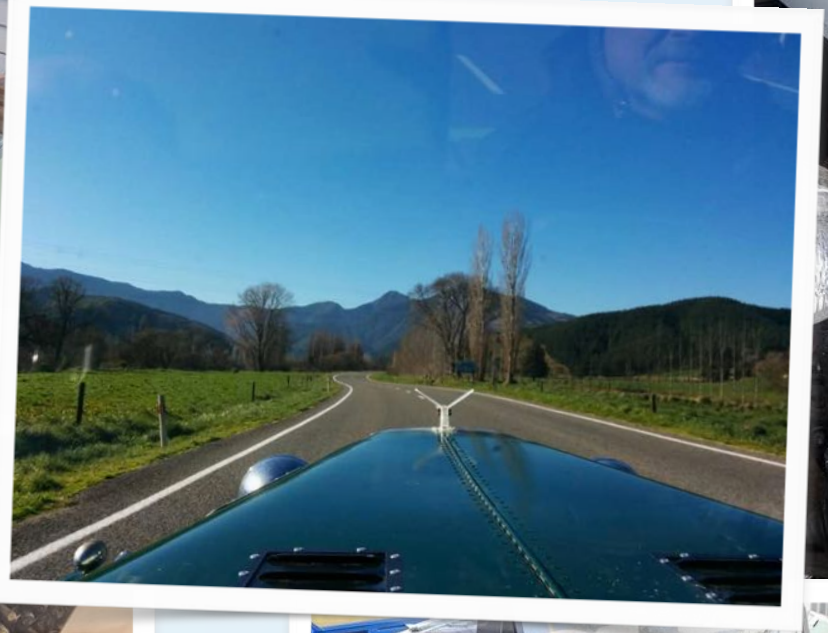
Next up, Graeme in New Zealand has been building a hard roof over the last year or two. The latest in a series of upgrades.

The vinyl skin and wood trim is now in place, which makes the Midge look complete from where I'm standing, however Graeme has made several major changes since 2014 (top left) and isn't showing any signs of slowing down so there may be more yet. New tunnel and handbrake mid left.

More on the next page

The engine is from a 1600 Mitsubishi Celeste which makes for easy driving when the road gets steeper.

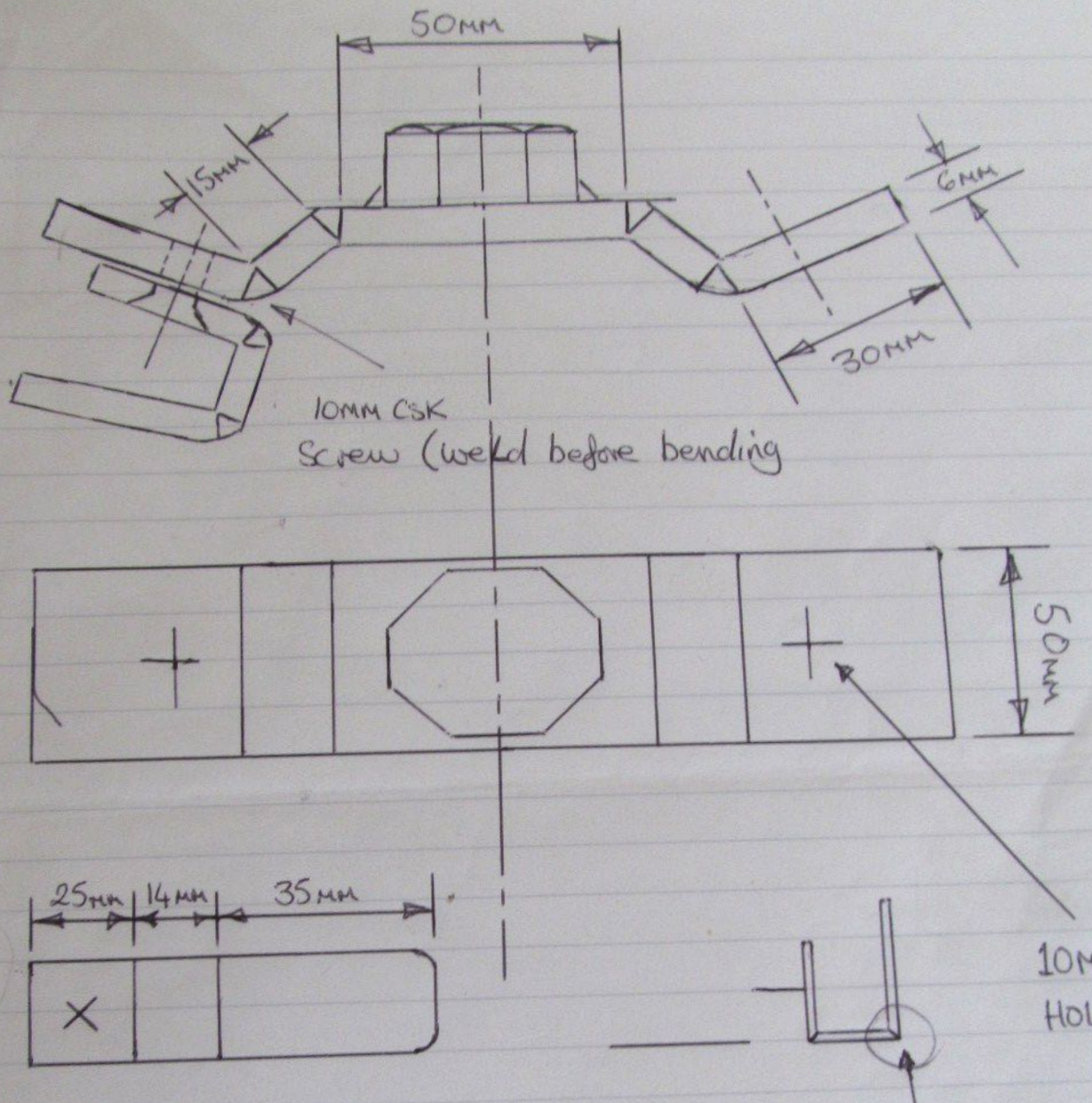
Graeme's back yard looks scenic like Scotland, but it looks a bit warmer and drier.



A spinner spanner from Keith Warren:-

Here is a tool I made and designed myself. I did do the ply wood one many years ago but due to space thought this would be better, also you can use torque wrench on it.

The 10mm nuts will need loosening so that you can adjust the wing bracket angles when doing the wheels on the opposite side and when changing from releasing to tightening the spinner. The tightening torque is variously described as between 220lb/ft and 260lb/ft. Other opinions are available, but they are supposed to be self tightening in use.



140mm x 50mm flat bar…… 1 off

30mm AF Nut or equivalent ……1 off

30mm x 74mm x 3mm alloy strip….2 off

10mm CSK set screws 25mm long 2 off

10mm Nyloc nuts ……..……2 off

Mike Carter writes

I had a little extra space so here's an extra advert or two

I have bought another Midge project and have separated the body from the chassis. There's an advert for the rolling chassis in the club Sales and Wants section. The running gear is Triumph Herald 1200, disc brakes, I have not started the engine which turns freely by hand, wheels are possibly Marina and have spacers on the hubs also included is what I believe is a Maxi radiator. Price is £275.

No V5C, there is a number plate and a chassis plate but I could not find it on DVLA Website. It is a Triumph chassis and I assumed it to be a Herald given the running gear and as you can see it has been modified to suit the Midge.

I will be listing on eBay but I shall wait for a couple of weeks to allow club members first chance. Location is 10 miles south of Horncastle Lincs.
Tel 07970 207123.

UK 2020/21 Events

The Car and Classic site does event prediction so much better than I can, there seems little point in copying their web page, especially as they can update as the months go by.If you go to

http://www.carandclassic.co.uk/car_events.php

You can get the information direct, that's where I get it. If something you know about isn't on it, tell me and I'll add it to our pages.

Peter Vivian has a rare purpose built folding Midge windscreen for sale.

Don't forget, most Midge and many Triumph parts are available. Windscreens, Wire wheels, Steering, Body panels, Mudguards, Dashboard (1) Some are on facebook, some on the MOBC website and many are just hanging around in member's sheds and garages. Just ask. JH.

What on earth…? A cautionary tale by Chris Bird

"What on earth….?" A good question, though I confess that I put it a little more forcefully when I found that my rear indicators had stopped working and had transferred their duties to the completely separate brake lights….! I had just driven 46 miles and fortunately the failure, as reported to me by my friend, following in his JBA Falcon, had occurred just as we turned into our lane. But by the time I reached home, half a mile later, I had nothing at all in the rear light department.

After some pondering and consulting on the Facebook group, the consensus was that it was an earthing fault, so the following day I went straight to what I thought was the common earth to the chassis. Well it was a black wire and it went to the chassis – and the screw and contact point were rusty. That's it, I thought, and cleaned the chassis and wire and added a new stainless self-tapper with copper washer. It did get me the rear lights and the brake lights so that was progress, but the rear flashers just glowed faintly.

The strange thing was that the front flashers and the dash repeater worked perfectly, so I started checking voltages in the light fittings at the back. I was getting around ten volts at peak and I thought this might not be enough, but then I checked the front ones and they were the same! I then located the earth wires from the rear flashers and re-soldered the connection. I now had both rear flashers just glowing, which ever way the switch was positioned. And when I tried running a live to one rear flasher light – both just glowed dully.

I blamed the flasher unit, then the switch – I mean how else could the lights be connecting? A new "Lucas" switch that I had in stock turned out to be faulty (later found to be grease in the works) so I gave the existing switch a good clean with switch cleaning spray and put it all back together. I gave it one more try and both rear flashers just glimmered at me despondently. I was just about to give up and wait for new parts to arrive when the correct light suddenly lit up – they were all working perfectly.

I was happy – but not totally convinced. And the next morning I was not convinced at all! I went back to check the circuit to trace the earth properly. So now it is confession time. When I built the car 32 years ago I relied, for some crazy reason, on the earth via the mudguards, through the brackets to the aluminium cladding (which was earthed). I had just connected the earths from the twin core cable to each other. They were not earthed to the chassis, so when one earth contact failed in one light, it just used the other one. And when they both failed……. I connected a new, heavy duty wire to the chassis and the job was done (I think!).

Just how a bad earth can create such effects between different circuits I have no idea – and why it should all choose to fail after 32 years. What I do know is that whether you built your Midge or not, it is worth checking and renewing your connections as the strangest problems can turn out to be – well - down to earth…..

Time to turn to the expert Mr Hewlett! CB

SPARKS on 'ghost lights'

Older cars have odd characteristics and one of them is earth wire failure. Usually when any part of a circuit is broken the lights go out. That can be the bulb or the wiring or the switch. Start by changing the bulb and cleaning the contact points with particular attention to the bulb holding frame

However there is a type of circuit that can produce odd effects when an earth fault on one bulb causes extra bulbs to light unexpectedly. This usually happens with twin filament headlights (which go dim) and tail light bulbs. Also, occasionally indicators if they share earth connections.

A circuit is just that, to operate there has to be a circle, usually battery**+ve** to switch, to wire, to bulb, to wire, to chassis and back to battery**-ve**.

In the event of an extra light coming on, usually side or brake, I would first tend to check the earth contacts for the bulb on the other side. Commonly the earth has failed owing to corrosion (remember rust is a poor conductor) and the electricity can't get to first the chassis and then the negative pole of the battery. There it has an alternative route through the other filament in the bulb, across to the other side of the car and earth on the other light fitting. Because the current has to go through three filaments the bulbs will appear dim. Headlights are a bit different as they pull more power. One yellow headlight and one bright one is a dead give-away that the earth has failed on the dim side. In-headlight sidelights and indicators can share earth wires and will complicate matters but generally if a bulb lights unexpectedly on the right hand side, check the earth wire on the left.

Midges have the added complexity of non-conductive wooden bodies, wobbly headlights and unconventional mudguards and so generally have extra earth wires running back to the chassis or the **-**ve battery terminal. Another area of possible failure that is worth checking. If you know what you are doing it can be worth rigging a wire (eg a jump lead) from the suspected bulb's earth to the battery **-ve** thereby bypassing the whole earth part of the circuit.

If there's a loud bang you have connected some part of the positive (**+**ve) straight to earth. Commonly referred to as a short circuit this often involves smoke, swearing and occasionally fire. That is why I always put an isolator on the earth or negative (**-**ve) pole of the battery. The other useful bit of kit is a meter that will show voltage and continuity, ie if you put the leads across a possible continuity break it will only beep if the continuity is ok. They can also show if an unknown bulb is 'good'. Remember the casing is the earth, so clean off any corrosion and the two solder pads are positive (+) for brake and side respectively.

There are a few oddity circuits. Reversing lights (see page 12) horns and interior lights (if you have them) on door switches. These all work by having them go 'live' with the ignition but only operate when the earth of the circuit is completed. ie the horn button or gear linkage switch.

That's odd… There are a few somewhat strange elements to car electrics, although I'm only referring to pre electronic systems. Modern ones are beyond simple electrician skills, I, as a simple electrician know that and it is why modern cars have granny stoppers like special head screws and covers that cover the method of attachment. You therefore, can only tell how the clip works after you have wrecked the cover. A granny stopper, usually on a nature trail, like the height bar on a multi storey car-park indicate that if she can't pass this, then progress will be difficult or impossible later. Ergo, If you can't access the engine, don't.

Indicator flash speed. The old style flasher unit uses a heated bi-metallic strip that bends when warmed by the current flowing through it. Bending breaks the contact so the current stops flowing until the metal has cooled. Thermal lag means it takes a while to cool down so if one bulb has blown then the current is reduced, it doesn't bend as far, cools faster, and the next flash is earlier than expected. This is also why LED indicators need a special flasher unit and adding more incandescent bulbs slows the flash rate.

Perverse spark plugs. Very occasionally a spark plug will not work when the cylinder head is under compression. Nobody knows why.

Incapable Capacitors. Cheap ones absorb water from the atmosphere, so old 'new' stock often don't work.

Charging light stays on. This is a bit complicated but stay with me. When you turn the ignition on the red light goes on, this is because it is supplied with 12 volts from the battery. When generating electricity the alternator or dynamo supplies 12 volts to what was the earth side of the bulb, the forces balance out and so the bulb goes out. If you have to raise the engine speed to get the light to go out check your voltage output, either the generator is failing or there's an extra load or a short circuit.

Flickering lights. Usually seen on cars coming toward you. Either a loose bulb or a dud earth. Also LED 'bulbs' don't draw much current, so an iffy connection will flicker when an incandescent would have 'flashed over' small intermittent breaks. The hot bulb appears to smooth the gap but the intermittent flow will blow the bulb sooner or later.

Reversing Light stays on. Many reversing light are automatic when the car is in reverse. The car doesn't 'know' when it is in reverse so the mechanicals inside the box press the switch for you. Many simply earth the circuit, so the power to the bulb is permanently on with the ignition. Either way a sticky switch will leave the light permanently off or on. Some modern cars will reduce their power output if they 'think' they are in reverse.

Electricity is actually hot smoke. If, as in a short circuit, you cause too much to go through a wire it will break out of the insulation and look for other wires to use. Once the electricity is free of the insulation that holds it in, it will escape through the air. How it gets back to the battery is currently unknown. This is not true, but close enough. JH

What not to do and how not to do it.

One of my Midges very nearly caught fire last summer, so I thought I'd tell you about it.

The radiator grille has a smart looking mesh insert with small square holes for the air flow. It hides the machinery behind it and also protects the radiator from stones, small children and distracted (male) sex crazed pheasants. Unfortunately it restricts the air flow too. That's the first part.

2. The exhaust manifold is directly underneath the single carburettor. There is a heat deflector but it's not very big and some hot air gets past.

3. The radiator is high so there's not much unheated airflow over the top of it. It is also wide and tall so ditto on the sides and underneath. Not much cool air hits the carb.

4. The bodywork is shaped neatly around the engine as per the original design, so there is less air flow than you'd expect around that of the smaller MGJ2 engine.

This sub-optimal combination of heat dissipating conditions encountered an unusual day when the sun was melting the tarmac and our conventional shopping car had failed. (Electronic over-complexity). But stocks of vittals, especially the cold canned type like beer, were low and shopping was the only answer.

We went shopping. The two of us and the shopping were perhaps a bit more than the poor wee beastie was expecting There was also a steep hill, winding roads, and not much wind speed. Never-the-less we managed about 4/5ths of the trip with narry a squeak and many an admiring glance.

Perhaps it was the sin of pride, or the warm blush that unexpected admiration can provoke, but It all got a bit too much, there was a sudden smell of petrol, loss of power and some whimpering from the passenger seat. Fortunately the crowds had dispersed. Quite suddenly, now I think of it.

What had actually happened, in the relatively still air, was the rising heat from the exhaust boiled the petrol in the float chamber which, because the vapour was at the bottom, vomited the petrol out of the air vent at the top. The ejected petrol then dropped onto the exhaust. … It made a little pfft, pfft, pfft noise, you'll know it from drops of water in an iron or hot plate. Not a nice noise…

Ironing and cooking now induce PTSD like panic attacks, so I don't do them.

So, if you haven't already, I would recommend keeping your conventional car in good condition and letting your wife do the shopping. After I explained that to my wife she said she was going to talk to a solicitor, presumably he wants to join the club. JH

Well that's about it for now. Up here in Scotland the vegetation is sprouting, birds twittering and snow melting, so it'll be comparatively high summer for most of those more southerly members. Garages and slumbering Midges will be looking more interesting as the winds reduce. Of course the virus gaining popularity around the world may curtail some activities but will provide ample opportunity for Midge work and the writing of articles and taking of photographs which can be sent to me for publication in the summer issue. More obvious hints will be available later.

Salesman. "AND WHAT KIND OF HORN WOULD YOU LIKE, SIR? DO YOU CARE FOR A GOOD LOUD BLAST?"
Haughty Customer. "NO; I WANT SOMETHING THAT JUST SNEERS."

Hopefully by the time the weather is nice enough to go Midgeing the restrictions on movement will be reduced, but in the mean-time keep washing your hands and self isolate in the garage.

I was going to add that we now have the opportunity to avoid visiting parents in law, grand parents and other elderly relatives, and go and work under the car with the excuse of the health risks. Then I remembered many of us <u>are</u> now the elderly relatives, parents in law, etc……

So no matter how young you feel, you'll have to decide for yourselves.

Keep calm and drive carefully. JH

Midges for sale at the time of going to press

Bill's Mk2 is now sold

<u>http://mobc.co.uk/midge-sales-page-3.html</u>