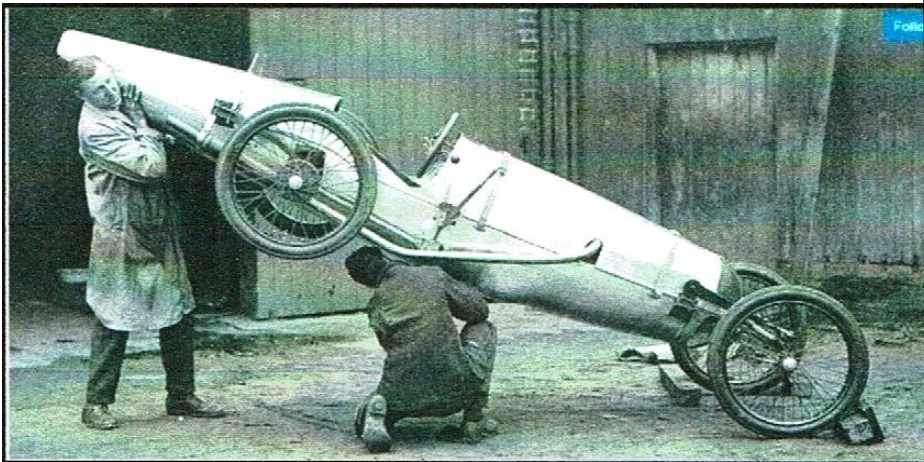


Design: using the rim, tyre size enabled the development of a sizing scale to create technical drawings for the chassis, and major components. Steel and aluminium were laser and water cut from CAD drawings.

The first items to be created were the

The chassis is a multi-lamination of three strips of Ash timber, each glued and clamped into the former. There are four chassis beams, two for each side, with the rear facing beam on top of the forward-facing beam, overlapping at the drivers' cockpit, where they are again



Jappic, 1925 with a mechanic at work

front and rear axles, with the rear axle being a solid shaft, chain driven from the gearbox, the sprocket was dimensioned from a photo by counting teeth. Since the axle requires supporting at the drive sprocket to stop flexing, there is a unique tri-axis support employed, with three support arms radiating from each of the wheel brake hubs to the central axle bearing support. The axle is supported by 2 and a half elliptical springs, and radius rods with friction dampers, modified donors from an Austin 7 rear spring set.

The front axle is of basic design, without brakes; it has no camber adjustment, with camber set perpendicular to the ground, however there are toe-in and caster adjustments, the axle is held in position by two forward facing half elliptical springs with dampers which supports the spring to keep rigidity. The axle is forward facing out in front of the car, the springs modified donors from the rear springs of an Austin 7.

laminated together, with a 'biscuit' between each beam, along with steel support plates to ensure rigidity. The support plates are 'L' shaped to control the rear axle control arm and dampers. Separate steel fitch plates are attached to the rear chassis to clamp each of the forward-facing springs, and at the front of the chassis are two additional fitch plates to attach the forward-facing springs, dampers and axles.

Central to the vehicle is a steel cross member which lies under the driver's knees and it houses the hand brake shaft to connect the other rear brake assembly, and also houses the mechanical components for the gear selector lever and finally supports the gearbox.

Part 2, will continue and appear in the May Chronicle. R H

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A collection of interesting items for friends and supporters of 'The Coach House'

Military Drums

For those of you who watch the T V programme, 'The Repair Shop', will have seen the skillful restoration of a World War 1 military drum. The story the 'repair man' told made me want to learn more about the drummer boy and the use of drums in war-time.

Prior to modern day communications, drums had been used throughout the history of warfare. They were used to synchronize the march of the soldier, but it wasn't the most important role. Soldiers marched to battle to the sound of the drums and used the beat to load and reload their weapons during battle. Drummers played music to raise morale during the battle.

On the battlefield drums were used in many ways, communication between ranks, drills, military ceremonies, and honour music. They were used to convey commands from the officers to the soldiers, such as 'attack' or retreat'. One beat meant: to rest; two beats meant move forward; three, retreat and four attack. They used the beat of the drum to regulate the loading and re-loading of their weapons. While on a long march the units often created quaint ditties that were sung by the soldiers to help boost their morale, some being 'Over There', 'Soldiers of the Queen', Tipperary', 'Pack Up Your Troubles', and 'Lili Marlene'.

Boys as young as fourteen years joined

the army and were often deployed in the role of drummer. They may have used up to 40 different beats to convey their commander's orders to assemble for formation. When not drumming he would help as a stretcher bearer or assist burying the slain.

A snare drum was commonly used because it hung on a 'sling' at the player's side. His drum was often decorated with



Darron Mathiassen of the Royal New Zealand Airforce Band, 2017.

the units' insignia, coat of arms or national symbols. These were originally of a rope-tension design with wide wooden hoops, a wooden shell and an animal-skin head. While in camp players of the fife and drums used to regulate the working day, waking up, eating meals,

and performing camp duties. The soldiers often marched into battle accompanied by horns, fifes, drums, or bagpipes.

Today the drums are played on ceremonial occasions or at concerts. R H

Learning to Play the Recorder

The notorious recorder has been feared by parents and called an 'instrument of torture'. But what has this instrument given us that we might not realise?

Research shows that learning a musical instrument improves memory, language learning, teamwork, and brain function. Visual, hearing, and fine motor skills also developed and strengthened with repeated practice.

The recorder has been played in primary schools since the 1930s. Many students have had the chance to learn music because of its availability and reasonable price. One early study revealed the benefits of using the recorder including reading music notation, breath and finger control, and musical expression.

Additionally, the recorder family has different sizes — descant, treble, tenor, bass, and more. When played together, harmony, timing is developed. Students learn to listen and react to the sounds around them. Despite its bad rap, the recorder has made a significant contribution to our schools' music education, and cultural life

In the 1950s our teacher taught us to make our own recorders using bamboo. They were cut about 320 mm long. Down the centre we marked out the square 'window' and then the note holes, and thumb hole, and filed them out using 'rat tail' files, until we got the correct note when we blew. The mouthpiece

was shaped THEN, we were ready to squeak, whistle and blow to our hearts content—but not our long suffering, mostly tolerant, parents.

I remember 'Three Blind Mice' being one of the first tunes we learned.

With patient practice we learned to finger the correct notes and blow the right pressure, and that year twenty of us presented a Christmas Carol at the end of year concert.



How pleased we were to be taught to model and play our own recorders, then to perform in front of our proud parents. They never knew where these basic lessons may lead their talented children. But I'm sure many were happy to see us grow out of that phase! RH.

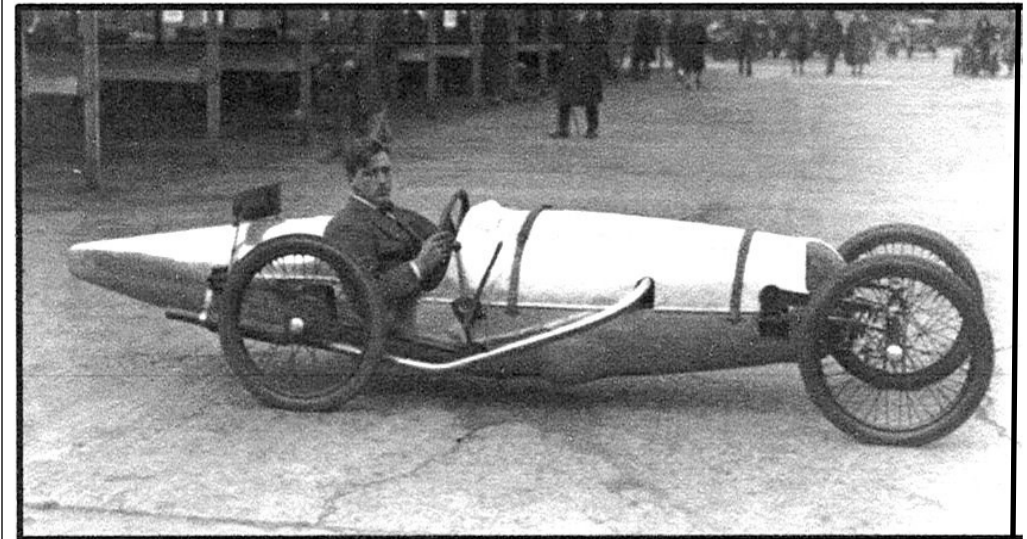
A Jappic Racing Cyclecar

Recently attendees at Smoko were treated to a wonderful surprise, a Jappic Racing Cyclecar, designed and built by Garth Thomas, over 2014 to 2018.

Advertised in racing literature as the 'World's Smallest Racing Car', it was designed in 1925 by H M Walters, and built by the coach building firm of T B Prestwich and driven by Walters. The car was powered by a 344cc JAP motorcycle engine and lapped the course at 66.8 mph. Jappic also secured several other UK and World class records.

There was a vision to market production vehicles with a price of 150 pounds, however this was never made. Initially owned and raced by Walters, the car eventually sold in 1928 to Douglas Hawkes and Gwenda Stewart, and raced as the 'H S Special', also setting Speed Class J records.

Jappic met its demise in 1932 in a garage workshop fire under track banking at Linas Montlhery Paris. The vehicle was totally consumed, with no parts being recovered.



Jappic - 1925 - Brooklands Track

The car weighed under 4 cwt or 203 kgs, The builder of this replica vehicle is Garth Thomas, who raced and drove the car in May 2019 at Autodrome Linas-Montlhery, Paris, France.

Much time was taken scanning the internet for any information regarding dimensions, engine gear box types, wheels and tyres, and mechanisms to support a true to scale replica. A search for key information uncovered basic dimensions; height, length, ground clearance and other information such as rim/tyre diameter, engine type cc, gearbox type.

At the point of its racing life, Jappic had an engine change to 495cc. which was presumably to capture additional records within the 500cc class. Kay Don had several records with the 500cc, with a 10-mile class at 69 mph.

The body is long and sleek skinned in aluminium with a perforated round nose to enable a flow of cooling air to the engine.