

Country Motor

Australia



free
Magazine produced
for Pre-1960
motor enthusiasts

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Bill McKellar's Morris Cowley

Back copies of Country Motor
are available upon request

Country Motor is a E-magazine
created for and by country motor
enthusiasts who have passion for
ancient motor vehicles,
engines, in fact any motor that is
curious and old

Please forward all editorial
enquiries and contributions to
David Vaughan

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Country Motor Australia

Issue 11

Contents

There is no Substitute for Quality	3
1951/2 Chevrolet Styleline Coupe Utility Mistaken as an FJ Utility	4
Initial progress on a Bullnose Morris	5
Bullnose roadster at the Morris Garage	6
George Constantinesco's Automatic	7
Bits and Pieces	8
1962 Melbourne to Sorrento	13
	15

Editor's Entries

Welcome to the eleventh edition of Country Motor

Eleventh Issue

Thank you to several readers
who have forwarded a variety of stories
on their cars, they all make interesting
reading.

As you can see reports on
restorations or rallies can be written by
any reader. There is an open invitation
for you the reader to contribute your
story for the magazine.

A small study on George
Constantinesco's primitive automatic
was sent in by Bob McDonald. His
curiosity led him to the London
Science Museum's hidden gems where
many vehicles await restoration or
displaying in the public domain.

Several readers live in other
states besides Victoria. I would be
pleased to receive reports on rallies from
all states. Andrew McLintock has sent
me a report on a large show and shine in
Queanbeyan near Canberra for issue 12.
He included numerous photos of some
of the splendid cars that were on display.

On April 22nd. (Easter Monday).
Rheola Gala Sports Day - proceeds go to

local charities. Includes a vintage tractor
pull, over 70 classic cars on display,
stationary engines, trucks and motorcy-
cles. Lots of activities for kids and rural
displays of skill and control of animals.

Our local club will also be
supporting on May 19th (Sunday) the
Federation Picnic at 3 Rivers Picnic at
Atkinson Park, Murray Valley Highway,
Kerang. Featuring 100 years of Classic
Vehicles. BYO picnic lunch or onsite
catering will be available. Free
admission Federation members.
Enquiries to Ron 03 54536560. No dogs
allowed.

I am co-organising with Stuart
Mc Corkelle a Vintage Drivers Club
rally to Wedderburn on 6th. 7th & 8th
September. The main attraction will be
the Wedderburn engine club's weekend
rally which we will attend on Saturday
afternoon. Anyone interested in
participating in the run, either just for
one day or the weekend please let me
know and I'll send all relevant details.

Happy motoring, **David**

There is no Substitute for Quality



1969 Rolls Royce Silver Shadow

Andrew McLintock

know that Rolls Royce's don't break down, but they can on occasions 'fail to proceed'. Within a month of owning her, this occurred. Fortunately, in front of the garage at home but it took 3 people to push her in. There are no local Rolls

stamped at the bottom of the inspection report. I'd only had her a few days and didn't know what all the lights on the dash meant, especially those without a label (of which there are a few). A minute into the journey I noticed a bright yellow light on the dash, generally yellow isn't good. I pulled over, and in my mind I could all of a sudden hear strange noises and smell strange smells. After a moment's contemplation all appeared normal, other than the light, so I thought what's the worst that can happen.

We made it to our destination, Ruby passed with no issues at all and we made it

I've had an interest in old cars for as long as I can remember. I'm a member of a car club and a regular visitor to local events. With the competing pressures of work and family I haven't been able to give back to the old car movement as much as I feel I should. Given the opportunity to write something about one of my cars, I thought this might be one way to contribute.

Like a number of us, I do have more than the one old car, but interestingly only one has a name. Ruby is a 1969 Rolls Royce Silver Shadow, fixed head 2 door saloon. Ruby joined the family at the start of last year, up until then I'd only ever owned Holden's. Why a Rolls Royce, I'm not really sure.

Ruby is an Australian delivered car; the original owner was Sir Donald Trescowthick. Sir Donald founded Swann Insurance, later to become CGU. She is one of approximately 560 made before the 2-door version became the Corniche.

It has a RR in house body by Mulliner/Park Ward (MPW), the majority of them were. Apparently, James Young did a handful before they went out of business. The James Young cars had a slightly less curved rear quarter.

For a car designed in the 50's and built in the 60's she was ahead of her time. Electric windows, mirrors and seats, independent and self-levelling suspension, air conditioning and power steering. If I compare these features and the way Ruby drives to my Holden's of a similar vintage, you can truly appreciate the difference. But then again, she is the Rolls Royce of cars.

Not having had Ruby for very long I don't have a lot of stories to tell about her. While I suspect the majority of people who see her on the road don't pay too much attention, she can still turn a few heads. We



Royce dealers where I live, in fact I'm not aware of any specialist mechanics either. Thanks to the assistance of the local Rolls Royce club, they put me in touch with Phil Sproston relatively close by who could help. Without Phil's assistance, Ruby would still be in the garage, but he solved the 'failing to proceed' issue, along with numerous other small but important jobs. Phil knows his business.

Ruby came from interstate. Once she had arrived I needed to get her inspected for registration. This involved me rushing from work to drive her to an inspection station and then getting back to work. Ideally with a pass

home. It wasn't until that night that I got a chance to Google to find out what the light meant. It turns out that there is a significant distance the handbrake lever needs to travel after it disengages to when the warning light goes off.

At over 2 tonnes and 17 foot long, she is not a car you rush about in. But there is a unique feeling that goes with driving her, one that probably just means I'm getting old. I have young kids and their affection for Ruby is genuine, which is probably why she has a name in the first place. My hope is that their time with Ruby will go some way in passing on the love for old cars that I have. **Andrew**

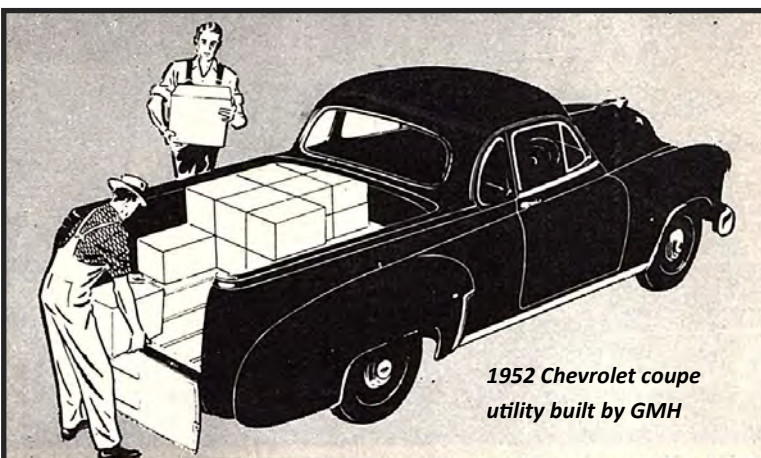


Rolls Royce Silver Shadow I & Bentley TI

The engine was an 8 cylinder, 104.4 x 91.44 — 6,320cc (1965 -1970) Three speed automatic replaced the four speed automatic in 1968. Wheelbase 119.5" or 123.5 inches. Number made: 20,604 Silver Shadow I's and 1,867 Bentley TI's. At first the Silver Shadow was made only as a four door saloon, a few variations appeared over the next four years. James Young converted 50 cars to two-door saloons. Some with Bentley radiators. Using the same body lines as the standard four door model. More individual in appearance was the two-door saloon from H J Mulliner/Park Ward which was introduced in March 1966 and joined by a convertible in September 1967.

In 1973 Rolls Royce Motors Ltd separated from the Rolls Royce Aero Engine Division (which was nationalised) as the whole company was heading to be bankrupt.

1951-1952 Chevrolet Coupe Utility



1952 Chevrolet coupe utility built by GMH

The models available were the Styleline De Luxe sedan and Styleline Coupe Open Utility with tonneau cover. The common engine was 6cyl, ohv, 216.5 cu, compression ratio 6.7:1, RACV hp 29.4, 92 bhp @ 3,400 rpm and maximum torque hp 176 @ 1,000-2,000 rpm. Wheelbase 115". Tyre size 670x15 4 ply on sedans, 6.50x15 6 ply or 710x15 6 ply on utility. 4 wheel hydraulic brakes. 3 speed manual gearbox with gear lever on steering column.

The 1951 catalogue states — The Chevrolet Coupe Utility is available as an open utility with tonneau cover. The basic lines are unchanged from 1950 but the new radiator grill and the mascot give a lower, broader appearance.

A new colour range and several mechanical refinements add to the attractiveness and safety of the new Utility. A large capacity load compartment of approximately 50 cubic feet is constructed of pressed steel. The painted wood floor is protected by steel skids strips.

The interior is trimmed with Polyvinyl Chloride covered fabric seating and match coloured fabrics, which combined with the paint finishes, gives a very pleasing appearance.

David

Mistaken as a FJ Holden



Australian 1952 Chevrolet Styleline Special Coupe utility

Alan Shilton of St Arnaud's 1951 (or Canadian 1950) Chevrolet utility is often mistaken as a FJ Holden utility. Those in the know can see it is clearly not, however you have admit there are similarities.

Alan bought his 1952 Chevrolet ute in about 1973. He restored it during 1975-6. His son used it for a couple of years. After use the engine was completely reconditioned and the body resprayed. However as can be seen above the car was getting a bit ratty. Last year Alan decided it was time the workhorse was tidied up.

In order to make it presentable for re-registration he stripped the chrome work off and prepared the utility for a re-spray with 2 pack paint. He converted it to 12v system barring the starter motor. As it is very nice to drive he was keen to have it on the road again.

Australian assembly was undertaken by General Motors Holden Ltd of the four-door sedan in Special trim as well as a locally designed two-door coupe utility variant.

David Below: The utility being prepared for painting and the renovation completed on the Chev's first run for many years





Initial Progress on a Bullnose Morris

Trevor Corlett

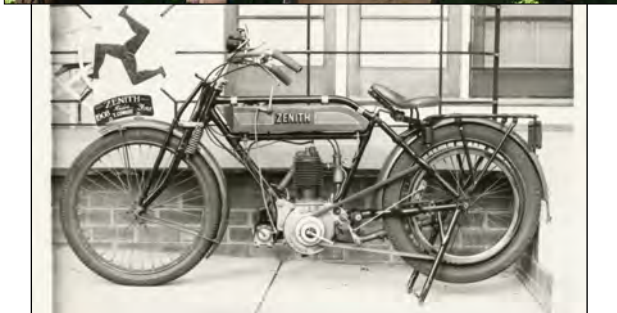
I particularly noticed the photos of the Golden Fleece Melbourne to Queenscliff Rally 1961. We are located on the shores of Lake Macquarie south of Newcastle, however in around 1965 I was living and working in Sydney, being an engineer with Golden Fleece NSW Branch, and involved in country fuel depot and service station construction.

Golden Fleece NSW also sponsored an annual Vintage and Veteran Car Rally from Sydney to Blackheath and return in the Blue Mountains, and the VMCCA was invited. My older brother and I were involved in these runs, he riding a 1914 Douglas whilst I rode a 1908 Zenith. Traffic at that time, whilst challenging, was nothing like today's mayhem, so it was quite a pleasant event. It wouldn't happen today!.

Best Regards, *Dianne and Trevor Corlett*

Jenny Fawbert, Vice President and Editor of Vintage Motor Club Bulletin has advised us of your Magazine. I have enjoyed greatly reading edition #9. I would be delighted if you could include us on your email list.

I am **slowly** restoring a 1925 Bullnose Morris Cowley 4 Seater Tourer which I acquired in 1965 for 60 pounds! I only made start in about 2012.



From top: Bullnose during demolition, wheels have been painted with new tyres. Going forward at last (note the Golden Fleece grease tin) The Zenith. My 1927 Scott 500cc twin water cooled, needs mainly some cosmetic restoration. I can recall being a pillion passenger on this machine when I was about 10 years old in 1946, my brother being 17 years old then.



A Bullnose Roadster at the Morris Minor Garage

During our club's visit to the Morris Minor Garage in February, being a compulsive sticky beak I wandered around the back to see if any other cars of interest were hidden away. I was rewarded by finding in the workshop on a hoist a Bullnose Morris. Richard McKellar sent me these photos and story of his dad's Morris.



1926 Chevrolet two-door sedan outside the Morris Minor Garage

1925 Morris Cowley

Car no: 120310, Type: MC 11.9hp, Chassis no: 117310 and Engine no: 139336

The Morris left the factory as a chassis on the 16th November 1925, having been built four days earlier. The body was built in Sydney by Properts Ltd, Missenden Road, Camperdown, to the order of the then distributors (now defunct) - Light Car Ltd. They were located in Phillip Street Sydney. The Morris was sold by the sole agents Williams Bros Ltd of Sydney.

As far as is known the Morris is in original condition and has never been restored. From April 1944 the registration number was 675. The owner or owners up to this date are unknown. Since 1944 it had nine owners. The one immediately prior to the Higgins was Alan Haggarty of Griffiths NSW from 1957-77.

£49.43 was spent on the car in September 1958 on some panel work, respraying and new hood. Since then the car was only routine maintenance, with an engine over haul in 1986.

It was used at regular intervals over some years in club runs of up to 150 miles all over the Riverina area of southern NSW, quite often with four adults in board.

It was used in the Lower Blue Mountains of NSW where it had regular outings with the various car clubs of Sydney. Previous owners included Chris and Cath Higgins of Yellow Rock, NSW.

Bill McKellar purchased the car from Peter Misford, a resident of Taradale in Victoria in 2015. Peter had owned the car for several years prior to Bill.

Bullnose Morris's were made from 1912 to 1926 when the radiator and shell gave way to a less distinguished flat front similar to most cars of the period. The Cowley was a cheap edition of the Oxford. In 1923 the Oxford was supplied with a larger engine. The models to 1923 had a sv 1½ litre engine and 3 speed gearbox. The Oxford's engine was increased to 1.8 litres.

It was not until 1928 when the models were supplemented by the ohc 900cc Minor and Isis with a 6 cyl, ohc 2.4 litre 18hp engine. The potential power of both engines were further exploited by MG.



George Constantinesco's 1926 Automatic Transmission Car



I thought this might be of interest to your readers. I was told in the early 1990's that the Science Museum in London was restoring a Constantinesco. I have family in London and on regular visits to the Science Museum I have never seen any sign of it.

My curiosity got the better of me and three years ago I formally contacted the Science Museum prior to a UK visit and discovered that the vehicle (less body) was

located at their Annex at Wroughton near Swindon.

Arrangements were made to view it and five supporting photographs are attached.

Sadly, it and many other veteran and vintage cars located there, will, I suspect, never see the light of day. They are housed in hangars of a disused WW2 airfield.

Bob McDonald
Model A Ford Restorers Club (Australia)



George Constantinesco's 1926 Automatic Transmission Car

Automatic transmission is taken for granted in this modern age of motoring. Many makes and models only come in auto and even if manual is available most purchasers opt for an auto box. Many autos can be switched over to manual and a flick of a lever will give you a manual gear change. Many motorists believe they get a more engaging driving experience with manual and a clutch to operate. I'm inclined to think that way even though our latest modern has an auto. With a proper manual you can use the gears for controlling acceleration and reducing speed. My last manual car did 165,000k without having to change the rear rotors or brake pads. Cars are becoming easier to use and as we know they will be eventually driverless.

Going back into the veteran period attempts were made to make driving easier by experimenting with automatic gear changes and the inventiveness of later engineers developed their ideas to revolutionise the manual gear box.

George Constantinesco was one such inventor. Although his version of an auto gearbox was an innovation applicable to motor cars he had a more significant claim to fame. The gifted engineer provided the Allied air forces of World War I with a synchronising gear that enabled a machine gun to be fired through the propeller arc of an aircraft.

George was born in Romania, a naturalised Briton and produced his car with a unique transmission in Paris. He showed a 5CV (494cc, 2 stroke twin cylinder engine) voiturette at the Paris Salon. The car featured a variable-torque transmission. The torque converter was in a housing between the two cylinders. He believed his transmission enabled a really small engine to propel a car of normal size effortlessly under all conditions. However the diminutive size of the underpowered engine stalled the success of the venture.

Following is an article from a 1926 'The Motor' that describes the fundamentals of George's idea and a road test of his unusual car. For those who have a curiosity of his invention a full exposé and patents can be seen on the internet, some 33 pages devoted to it.

It states 'The car was built in Paris with the gearbox (on the rear axle for forward, neutral and reverse) built in England. It was exhibited at the Paris Motor Show but only a few were made. General Motors signed a 'lucrative' royalty agreement to manufacture the torque converters, giving George a \$100,000 advance on royalties, but didn't make any, leaving the inventor deeply in debt and the mechanical torque converter sidelined' *David*

Wikipedia — Modern automatic transmissions can trace their origins to an early 'horseless carriage' gearbox that was developed in 1904 by the Sturtevant brothers of Boston, Massachusetts. This unit had two forward speeds, the ratio change being brought about by flyweights that were driven by the engine. At higher engine speeds, high gear was engaged. As the vehicle slowed down and engine RPM decreased, the gearbox would shift back to low. Unfortunately, the metallurgy of the time wasn't up to the task, and owing to the abruptness of the gear change, the transmission would often fail.

One of the key developments in arriving at an auto transmission was the use of planetary transmission in the vehicle's gearbox. Probably the first use of which was in the Wilson-Pilcher made 1900 to 1907. The Wilson-Pilcher used two epicyclic gear trains allowing 4 forward gears to be selected by moving a single gear

change lever. In this form of gearbox the planetary gears are in constant mesh and all that is required is to use a mechanism to fix or release the rotation of the outer gear ring. The action of the gear change lever mechanically locked or freed the outer ring of each epicyclic gear by an internal brake/clutch. The vehicle also had a separate cone clutch operated by a foot pedal which could be latched in position to run the engine when stationary, e.g. for starting. Like more modern auto transmissions the gears were helical to reduce noise and were sealed inside an oil-filled gearbox. There are no reports of the manufacturer seeking to automate the changing of the gears, though the design eliminated the requirement for using the foot clutch except when starting or stopping.


A better known car that also used planetary transmission was Henry Ford's Model T of 1908. The Model T, in addition to being cheap

and reliable by the standards of the day, featured a simple, two speed plus reverse planetary transmission using straight cut gears whose operation was manually controlled by the driver using pedals. The pedals actuated the transmission's friction elements (bands and clutches) to select the desired gear. In some respects, this type of transmission was less demanding of the driver's skills than the contemporary, unsynchronized manual transmission, but still required that the driver know when to make a shift and get the car off to a smooth start.

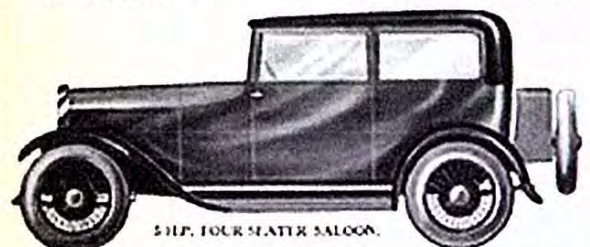
The first auto transmission using hydraulic fluid was developed in 1932 by two Brazilian engineers, José Braz Araripe and Fernando Lehly Lemos. Later, the prototype was sold to General Motors, who introduced the technology in the 1940 Oldsmobile model as a "Hydra-Matic" transmission

THE CONSTANTINESCO CAR
NO CLUTCH NO GEARS

Only One Control THE ACCELERATOR



1. P. Constantinesco's Automatic Motor Car showing the general arrangement of parts.

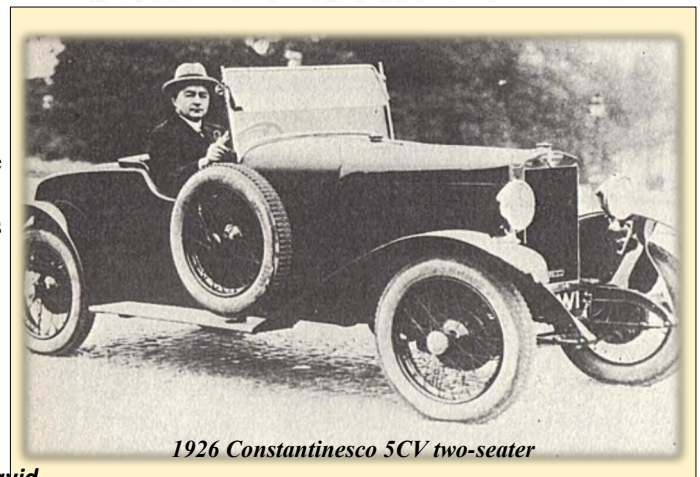


5HP. FOUR SEATER SALOON.

THE CONSTANTINESCO CAR IS FITTED WITH THE CONSTANTINESCO TORQUE CONVERTER (COMBINED IN ONE UNIT WITH THE ENGINE) AND CLASH OR SLIPPER ARE BELONGED THE CONVERTER HAS THE POSITIVE CHARACTERISTIC OF BEING A PRESSURE AND THE GREAT DANGER AT THE RIGHT TIME TO SET THE PRESSURE ROAD CONDITIONS WITHOUT THE AID OF CONTROLS OF ANY KIND BEYOND THE THROTTLE CONTROL OF THE ENGINE. THE CONVERTER ENABLES A SMALLER ENGINE TO BE USED.

THE CAR FREQUENTLY AUTOMATICALLY TAKES CONSIDERABLE ECONOMY IN FUEL CONSUMPTION IF TAKEN ON BACKWARD WHEELS IN FORWARD GEAR ON AN UP GRADIENT.

G. CONSTANTINESCO,
7, GROSVENOR GARDENS — LONDON, S.W.1.



1926 Constantinesco 5CV two-seater

The Motor

The National Motor Journal

Constantinesco's Car Tested.

A Trial Run in Traffic on a Car Devoid of Gearbox and Clutch.
Automatic Transmission Provides Infinite Range of Ratios.

TWO and a half years ago we gave considerable prominence to an entirely new form of transmission evolved by Mr. George Constantinesco, which it was intended should replace the ordinary clutch and gearbox and which afforded an infinite variation of gear ratio, adjusting itself automatically in accordance with engine output, load and gradient. From time to time we have kept our readers informed of the progress made and are now able to announce that we have tested a car on the road fitted with Mr. Constantinesco's torque converter.

A 500 c.c. Engine.

This remarkable vehicle consists of a chassis fitted with a 500 c.c. engine built in unit with a torque converter; from the latter a propeller shaft extends to a simple back axle with a 1 to 1 final drive. Owing to the abolition of the clutch and gearbox the controls are of the simplest possible character, consisting of an accelerator, a brake, and a lever with three possible positions—forward, neutral and reverse. In the ordinary way this lever is left in the forward position and the car is controlled solely by the accelerator and brakes.

Perhaps the easiest way to describe the functioning of this vehicle is simply to set down our experiences when we took it over for a short trial in heavy London traffic. The engine was ticking over and the car was stationary, although the lever was in the forward position, it being a feature of the torque converter that no power is transmitted when the engine is running light. Incidentally, the car is fitted with a speedometer and an engine revolution counter, which enable one to get a clear idea as to what the mechanism is doing.

First of all, we opened the throttle wide, and the engine revolutions increased to about 1,200 r.p.m. in a matter of about a second, the car remaining stationary meanwhile. So

soon as this engine speed was reached, however, the gear commenced to operate and the car got under way in a smooth and irreprouchable manner.

Now came the unusual experience of acceleration in a car requiring no gear changing, the ratio between engine and back axle adjusting itself automatically and without any abrupt alterations of speed. The most curious feature, from the driver's point of view, is that as the car speed increases the engine speed gets less and less. Consequently, acceleration is carried out to the sound

rate of travel of which the vehicle is capable is attained—in the 500 c.c. car tested, with two up, this is about 39 m.p.h.

In traffic we found the car remarkably easy to control, alterations in speed being simply effected by opening or closing the throttle. At first it was disconcerting not to be able to change down when desiring to accelerate rapidly in order to get round another vehicle, but so soon as we grasped the way in which the transmission was doing this for us we had every confidence in its capabilities.

Accelerating in Traffic.

On one occasion, for example, we were following a bus, the Constantinesco car running at about 20 m.p.h. on half-throttle. When an opportunity to pass presented itself it was merely necessary to open the throttle wide, whereupon the engine revolutions picked up, the transmission automatically lowered the gear and the car shot ahead in quite a lively fashion.

Shortly after this we reached a block in the traffic, the car being on an up-grade at the time. In order to stop, it was merely necessary to close the throttle, at the same time applying the brake in the ordinary manner, whereupon the car came to rest with the engine ticking over, there being no need to touch the forward-neutral-reverse lever. In our inexperience, the car being on a slope, we continued to apply the brake after it had come to a stop, until reminded by the inventor that this was quite unnecessary, because

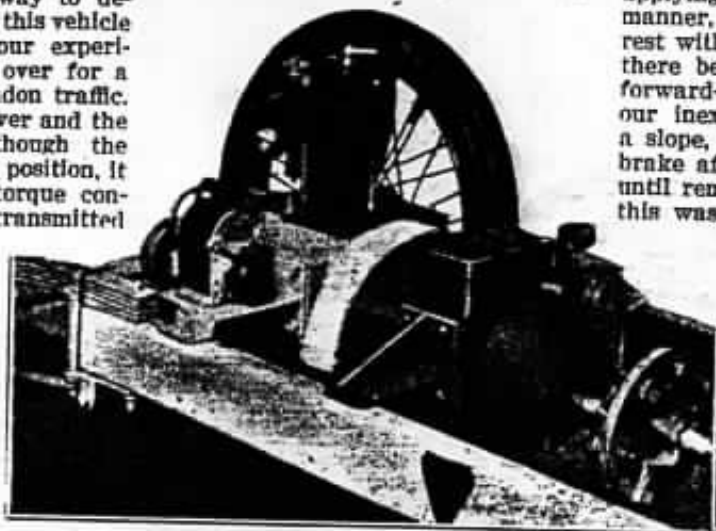
the transmission also constitutes a spragging device, absolutely preventing the car from running backwards downhill. This extremely useful feature was subsequently demonstrated on a steeper hill in a most conclusive fashion.

Incidentally, this hill afforded an opportunity for studying the working of the transmission on an upward gradient. The

The Constantinesco torque converter is a novel transmission which replaces the ordinary clutch and gearbox. It is automatic in action and provides an infinite range of speed ratios. The Constantinesco car is controlled entirely by the throttle, no clutch pedal or gear lever being fitted.

of a "dying" engine note instead of being accompanied by a noise of rising pitch.

This arises from the fact that the gear ratio gets higher and higher as the car speed increases, finally reaching a limit when the maximum



The engine and torque converter unit as fitted to the chassis shown at Wembley. The power unit is now of the two-cylinder two-stroke air-cooled type but the chassis is practically unchanged.

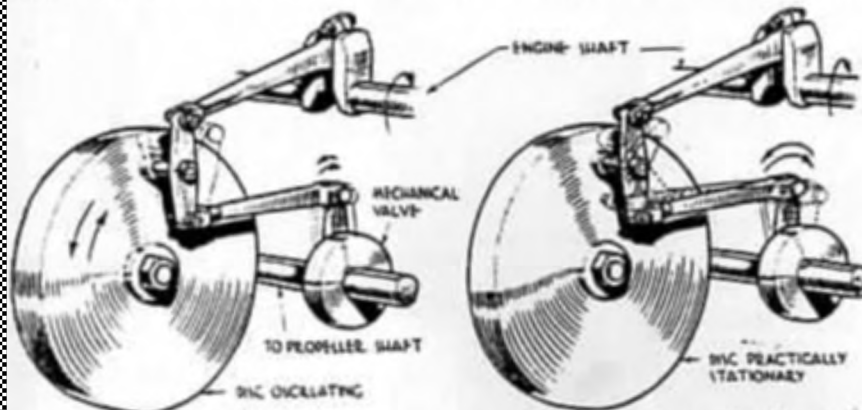
CONSTANTINESCO'S CAR TESTED.—Contd.

gradient was about 1 in 15, and was approached at, perhaps, 25 m.p.h. at all throttle. As the car commenced to climb the speed fell off slightly, but simultaneously the transmission automatically altered the ratio, enabling the engine to keep up its rate of revolutions and so maintain the full power output.

Consequently, the climb was made without the slow-speed slogging which would have been necessary in the ordinary small car in top gear, and without any of the fuss and noise which such a car is apt to make if second gear is employed. In other words, the transmission auto-

was shown at the Wembley Exhibition, but it is now fitted with a two-cylinder two-stroke air-cooled engine of 500 c.c. cubic capacity. The torque converter is neatly fitted to the forward end of the frame forming a single unit with the engine and driving the rear axle through an open propeller shaft. This converter provides all the speed reduction required, the final drive giving a 1 to 1 ratio and being, therefore, very compact.

One of the bogies brought forward by the critics of this transmission is to the effect that the torque might be built up to an extent sufficient to



Two diagrams which illustrate the action of the torque converter under differing conditions. (Left) When the car is getting away the resistance is high and the oscillations of the disc are large; this corresponds to a low "gear." (Right) When the resistance is small the disc is almost stationary, a condition corresponding to the use of a "high gear."

atically selected the right intermediate ratio for the job in hand.

Before the top of the hill was reached the throttle was closed, whereupon the car slowed down until it came to rest. And there it stopped, not running back so much as a millimetre, although the brake had not been touched. Getting away again was simplicity itself compared with the usual awkward process of handling the clutch, brake and gear lever. Leaving the brake alone, it was simply necessary to open the throttle and, when the engine speed had increased sufficiently, the car got under way, the gear ratio subsequently changing to the figure most suitable for the hill in question.

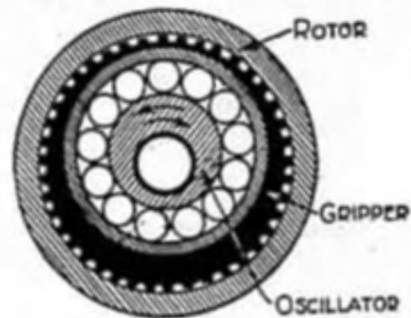
Silent Transmission.

Unfortunately, the engine of the car we tested was somewhat noisy, owing to an inefficient silencer, so that one could not detect whether any noise was being emitted by the torque converter. We listened closely, however, when running at part-throttle openings and when allowing the car to coast with the throttle closed, without hearing the torque converter at work. The models of the converter, also, are notably silent in operation.

The chassis of the car which we tried is very similar to that which

cause fracture of some of the parts. In other words, they suggest that it needs some safeguard against overloading. Mr. Constantinesco proved to us that this is not the case by a convincing demonstration in his works with an electric motor driving a winding drum through the medium of a small torque converter.

The cable wound on this drum was taken up to a pulley situated some 15 ft. from the floor, and was then brought down to floor level, terminating in a hook to which a 56-lb. weight was attached. Upon starting the motor the weight was picked up from the floor, accelerated and

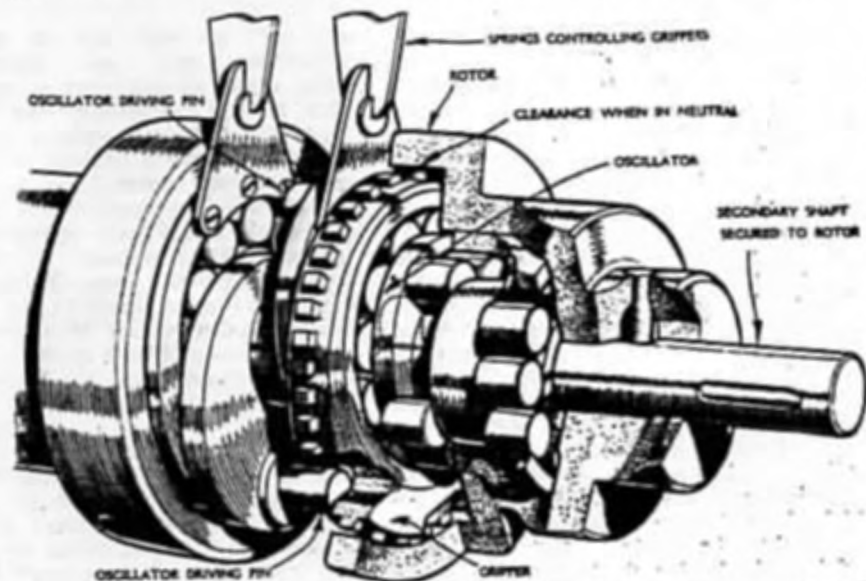


A section of one form of "mechanical valve." Oscillating movements of the central shaft are converted into continuous rotary motion at the rotor when the gripper is brought into action (see text).

then lifted at considerable speed towards the pulley at the top.

No controls were touched, so that the hook met the pulley with considerable force and remained jammed, preventing any further movement of the cable and drum. The electric motor and torque converter, however, continued to run as though nothing had happened, and did not show any signs of damage from the shock. This demonstrated the fact that if, in the case of a car, the rear wheels became firmly embedded in soft ground, or if the back axle seized, the engine would continue to run owing to the action of the converter and no damage would be done to the transmission.

While at the works we saw many ingenious applications of the principle, one of particular interest to amateur mechanics consisting of a



One of the ways in which a pair of "mechanical valves" can be mounted. The springs controlling the grippers are actuated by a "forward-neutral-reverse" lever in the case of a car.

screw-cutting lathe driven by an electric motor through the medium of the torque converter.

Mr. Constantinesco informs us that a number of cars are in course of construction designed on lines similar to the chassis which we tested, and that these are to be available for demonstration to all and sundry during the period of opening of the Paris Salon in Octo-



Swinging a walking stick to illustrate the action of the converter (see text).

ber this year. In this way the capabilities of the transmission will be demonstrated, and it is hoped that at a not much later date cars will be built for sale to the public. The experimental and research work has necessarily occupied a considerable time, as the transmission is so novel in principle and daring in conception.

How the Converter Works.

A brief recapitulation of the principles on which it works seems called for owing to the time which has elapsed since they were last described in *The Motor*. There are many ways in which the essential parts can be arranged so as to obtain the best results as regards balance, etc., but the diagrams reproduced will suffice to show the mode of working.

To a shaft driven by the engine is secured a crank driving a connecting rod, which, in turn, operates a lever pivoted to a heavy disc. On the other side of the pivot there is a second connecting rod driving what we may term a mechanical valve, as it conveys motion to the shaft upon which it is mounted when moved in one direction, but "free-wheels" when moved in the other direction. It should be mentioned that, in order to work properly, the wheel mechanism is duplicated, there being two discs, two valves and so on; the shaft on which the valves are mounted is connected to the propeller shaft and so drives the back axle, in the case of a car.

Now suppose that the engine is

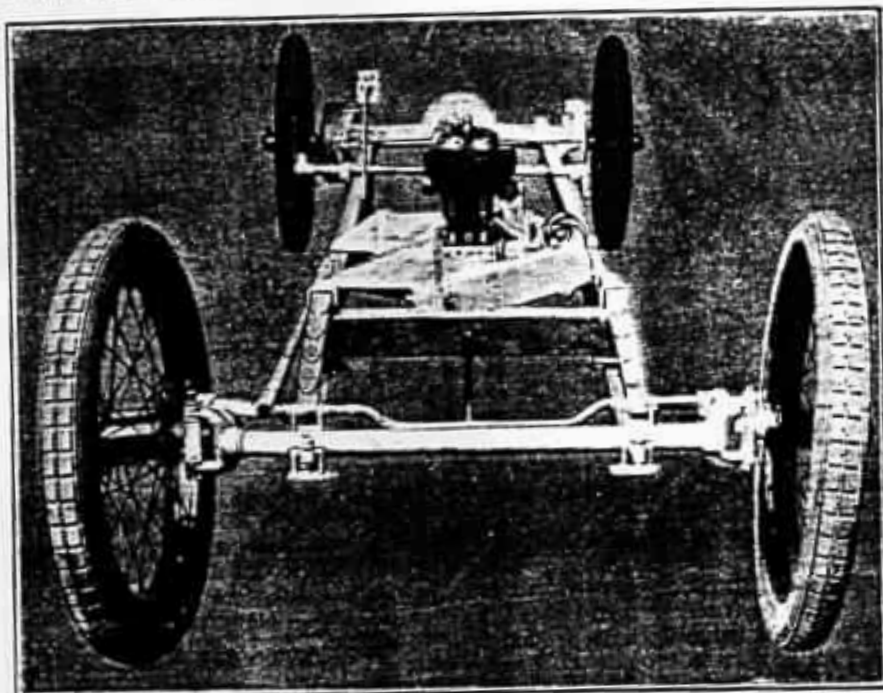
idling at a low speed and that the stationary car is imposing considerable resistance to any movement of the propeller shaft. The upper connecting rod will reciprocate to and fro, causing the lever to pivot around the small end of the lower connecting rod and making the disc oscillate.

This motion continues while the engine is speeded up, but, as the disc oscillates faster and faster, it exhibits a stronger and stronger disinclination to do so. In other words, its inertia results in the production of a very strong push and pull on the lower connecting rod which is converted by the valve into the form of a heavy torque on the propeller shaft of the car, causing it to get under way. This state of affairs is

right hand. So long as it is swinging slowly there is no difficulty in holding the left hand stationary, but if an endeavour be made to swing it very fast, one can distinctly feel the heavy push and pull which are exerted by the top end of the stick in an endeavour to make the left hand move from side to side.

One top of mechanical valve is shown in section in the drawings reproduced, and it will be seen that it consists of an oscillator, a series of rollers, a gripper and a rotor; the oscillator, of eccentric shape, is the part driven by the lower connecting rod, while the rotor is secured to the shaft driving the propeller shaft and back axle.

So long as the parts remain free, movements of the oscillator simply cause the gripper to turn within the rotor without conveying any drive,



The Constantinesco chassis as shown at Wembley. A different engine unit has since been fitted.

shown in the first of the two diagrams, the disc oscillating through a considerable angle while the lower connecting rod is only moving a small distance each way.

If the process is continued while the car accelerates, the gear gets higher and higher—in other words, the propeller shaft turns faster and faster in relation to the engine crankshaft—until finally a point will be reached when the disc is practically stationary, the lever then pivoting wholly about its central point and the movement of the lower connecting rod being at a maximum.

The peculiar action of the oscillating disc may best be understood by dangling a walking stick with a heavy knob from the left hand, as shown in the sketch reproduced, causing it to swing with the

there being a clearance space between the two. If the crescent-shaped gripper, however, is moved slightly to one side—this movement occurs when the forward-neutral-reverse lever is actuated—movements of the oscillator in one direction are conveyed to the rotor by a wedging action, while in the opposite direction no drive is transmitted. If the gripper is shifted to the opposite side of the neutral position the movement of the rotor is reversed.

Mr. Constantinesco is to be congratulated in the perseverance which he has shown in tackling difficulties inseparable from the development of so novel a piece of mechanism, and everyone will look forward with interest to the further demonstration of his "torque-converter cars" at the time of the Paris Salon.

Bits & Pieces

Hello David,

My name is Bruce Cunningham, President - Alvis Car Club of NSW. I own a TC21, silver like your TA. My late father was editor of the NSW ACC magazine called Alvibatics. I am aware of the hours one has to put in to producing a publication.

I have a fuel filler hose @ \$40.00 + p&h. This hose goes between the fuel filler cap and the petrol tank. Four years ago, I went to a National

rally in the Barossa, with the Alvis. Whilst there, my fuel filler hose split. I had a spare back in Sydney so I had to suffer losing a litre or so every time I refuelled. I had the hose replaced and decided to get another spare. I nearly fell of my chair when Red Triangle told me the price, so I thought I could get them made locally at a cheaper price. The English ones are priced @ equivalent to AU\$300.00 + p&h, from Red Triangle in UK. I had these made by



Mackay Rubber in Melbourne.

Looking forward to many more "CM" issues. Regards, **Bruce**

MAFFRA SHED

A good destination for anyone who lives Dandenong way is the Maffra Shed motor museum. Address being 1A Sale Road, (cnr Railway Place) Maffra. Opening times

Friday, Saturday, Sunday & Monday or any-time by appointment for groups.

See web site:

www.gippslandvehiclecollection.org.au, ph: (03) 5147 3223 or mob: 0409 667096

Copies of their newsletter 'Shed

Torque' can be chased up via Email: cdurdu@bigpond.net.au

From Sunday 3rd March to end of June the theme is 'Lost American Brands' such as Studebaker, Hupmobile, Auburn, Hudson, DeSoto, Cord, Nash etc.

David Trunfull noticed a little mistake in the 'Bits and Pieces' column about the Riley Nine at Kalorama.

The person who is the current

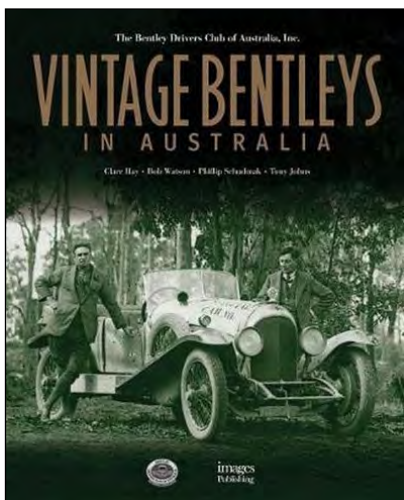
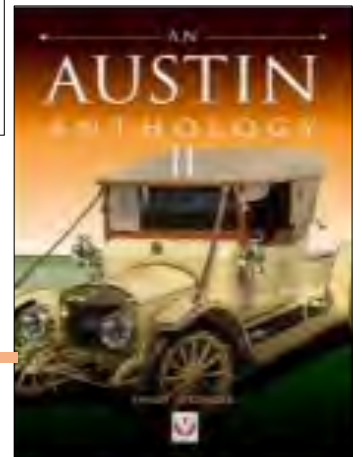
re-timbering expert for Rileys is not, as shown, Bruce Jennings, it is Keith Phillips who is the son of the man who built the car in the 1950s in Sydney.

Many thanks for your latest edition of Country Motor which is always a most enjoyable and informative read.

You may be interested to know that my second book, "An Austin Anthology - II" is due

to be released around April. The publisher, Veloce, were so pleased with my first book that they commissioned a further two, book 3 is nearing completion. With very best regards.

Jim Stringer (UK)



PITSTOP ONLINE <https://www.pitstop.net.au/pitstop>

A new book called **Vintage Bentleys in Australia** has been released.

Bentley Drivers Club of Australia by Dr Clare Hay. Hardback / 420 pages Code: 51881 / \$235.00

This book is the story of Mr W O Bentley and his cars that have come to Australia. Of the enthusiasts who have owned them and their stubborn determination to record the history of WO's in Australia before it disappears forever.



FOR SALE 1912 Argyll 15HP "Colonial" Model

This car was purchased by Bob Gibson in 1960 on the recommendation of Dr. Paul Moni who was an enthusiastic member of the VCCQ.

This Argyll is the only one left on the globe apart from half a one in the USA. It was purchased new in Brisbane in 1912 by Dr. Charles Marks who was a motoring pioneer and one of the founders of the RACQ in 1905. It is very big and tall and has a minimum 10.5 inches clearance perfect for negotiating boulder and corpse strewn roads. Bob has completed the car

recently with new upholstery and hood and it is ready to rally.

Aluminium body, originally retailed in Brisbane, believed to be the only restored vehicle in the world, original condition with full history. Many accessories which include Rushmore head lights and gas generator, three kerosene lights, Delco horn, Stepney Spare Wheel, J.M.A. dampers and the original owner's manual. P.O.A

Phone: Bob Gibson 0418 886 051

email: bob.gibson@bigpond.com

(both items from the *Vintage Car Club of Queensland* "The Vintage Car" Newsletter)



Lagonda V12 Exits Australia

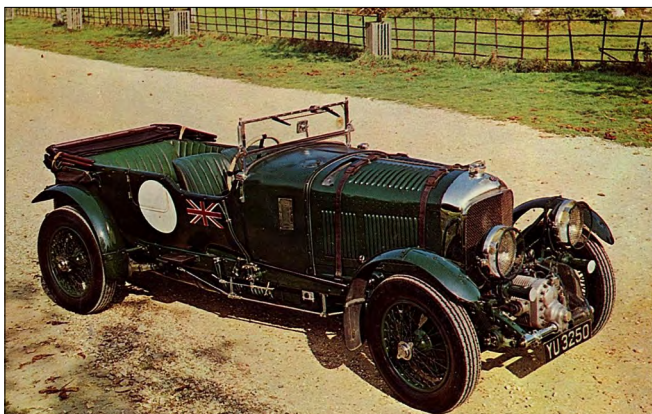
This story came from Doug Young who Brian McMillan advises is the man when it comes to motoring politics. He is getting things done. Now working on luxury car tax and asbestos. He has just got Impromptu events introduced into Qld - and he changed the seat belt laws here. Re. V12 Lagonda 1939 Car was one owned by Mark Whitehead, inherited from his father. Advertised in 2015. Super rare with 4 carb Le Mans engine etc. Bought by a WA collector. He had it restored by AutoRestorations in NZ. Won its class at Pebble Beach. Owner wanted to bring it back to Australia. LCT stopped that. Had the reform allowing cars refurbished overseas to be reimported LCT exempt as announced in the 2018 Budget, been enacted and in force by 1 January 2019, it would have come back. However, the law has not yet been passed; stuck in Senate and owner has had enough of delays etc. has now

Two more items from the VCCQ NL

A rare Turcat Mery that was advertised in last months mag (QVVC) has been sold overseas. This was a very good car albeit with a rather uninspiring body. In the latest "Edwardian" there was a new body, built a few years back, for a Delage with about the same wheelbase. Asking price \$5000. I think it would have worked well on the Turcat Mery.



decided to sell it by auction in the USA. Last one to sell in USA was at Pebble Beach auction in 2015, for USD\$1,650,000. This one should sell for much more as it is a recent PB winner. So if say US\$2m (AUD\$2.8m), LCT would be over \$900k and GST 280k - so a lazy \$1.2m to get your own car back into the country. The thing is had the reform been in place, he as owner would be the only one who could bring it back LCT exempt. It's not available to any subsequent owner. Doug Young - 0418 719 430 (<https://lagondaforum.com/showtopic.php?id=934> <https://thewest.com.au/lifestyle/motoring>)



Autographs

In issue 10 I showed photos of the 1964 Kalorama Rally and my debut in a vintage car, a 1928 Austin 12/4.

Present at the event were two visitors from the Montague Motor Museum, the late Lord Montague and the late museum's curator Michael Sedgewick. On the Friday night prior to the Saturday rally, (brought forward a day to enable royalty to attend) enthusiasts were able to attend an evening at a central town hall to meet the distinguished guests. They talked about the museum then were open to questions.



Eventually the guests sat behind a table to sell books and postcards of the Beaulieu museum of which they were happy to autograph. I took up the offer and bought a postcard above of a supercharged Bentley and had it autographed.

I have just noticed Michael may have been jet lagged and thought he was not only in a distant country but in a different time zone as he signed it 14/2/63; it was 1964.

When I was a boy in the 1950s my parents took our family to Beaulieu Abbey, later to the weatherboard car museum. **David**

Conference & Fafnir Visit I am heading of the Hague and the Louwman Museum in a couple of weeks for the 2nd European Conference of the Society of Automotive Historians. I was originally heading over just for 3 days and coming home, but I am now staying for 8 days. One of my German correspondents

noticed I was attending and has organised for me to go to Aachen after the conference. Aachen is the home of Fafnir and they are organising a tour of the original factory, view what archives remain and visit the couple of remaining Fafnir cars still in Germany. Many regards, **Daryl Meek**, Ballarat

1962 Melbourne to Sorrento & Back



I was 15 years old when I had ride in Sam Lord's Model T cab from Lansdowne Street in Melbourne to the Frankston recreational ground, from there I caught a train home.
1907 Swift 1 cyl 7hp owned by Jean Shield
VCCA's Treasurer Norm Smith examines J Taylor's 1915 Talbot
1912 FN owned by J Van Sckank
17-18/11/62



1911 FN 4 cyl motorcycle of J Van Sckank

*1914 Austin 20hp tourer owned by the
Ward brothers*

*1914 Isotta Fraschini owned by L A Duckett.
Believed to be a Bugatti design.
Only one of five in the world*

1913 LaBuire owned by Ernie Cobb

