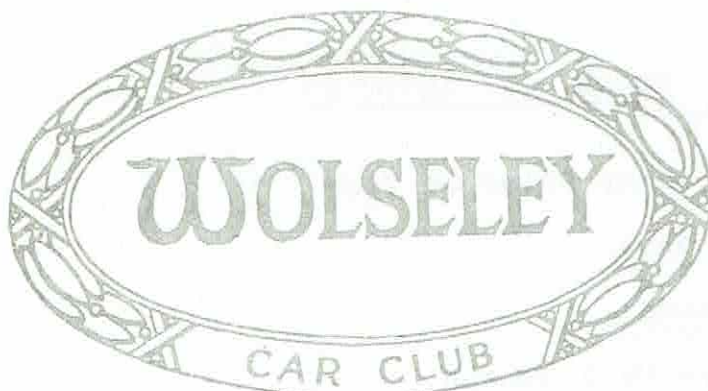


THE



WORD

N.Z. INCORPORATED

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NEWSLETTER

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COMMITTEE

PRESIDENT

John Parker,
3 Otaki Place,
CHRISTCHURCH, 7.
Ph. 883.034

CLUB CAPTAIN

Ernie Dalton,
131 Birdwood Avenue,
CHRISTCHURCH, 2.
Ph. 325.005

SECRETARY/TREASURER

Isobelle Hawthorn-Smith,
32 Cecil Street,
CHRISTCHURCH, 2.
Ph. 791.974

EDITOR

Colin Hey,
38 Te Rama Place,
CHRISTCHURCH, 6.
Ph. 894.533

SPARE PARTS

Peter MacDiarmid,
79 Tennyson Street,
CHRISTCHURCH, 2.
Ph. 39.103

Jack Milne,
51a Birdwood Avenue,
CHRISTCHURCH, 2.
Ph. 33.699

Bill Williamson,
80 Mathers Road,
CHRISTCHURCH, 2.
Ph. 382.516

CLUB PATRON

Max Higgins,
32a Field Terrace,
CHRISTCHURCH, 4.
Ph. 488.613

ASHBURTON ACTING AREA SECRETARY

Denis Carruthers,
167 Harrison Street,
ASHBURTON.
Ph. 83678 ASH.

CORRESPONDENCE

All correspondence should be addressed to:

The Secretary,
32 Cecil Street,
CHRISTCHURCH, 2.

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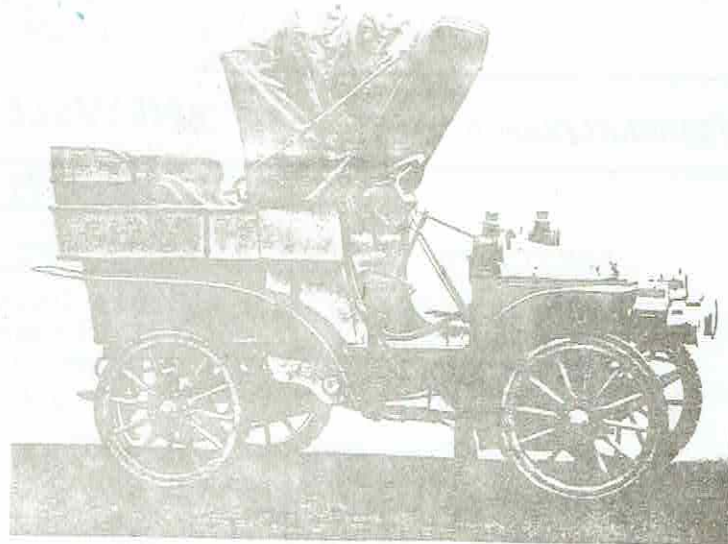
All newsletter material should be addressed to:

The Editor,
38 Te Rama Place,
CHRISTCHURCH, 6.

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ORDER OF ARTICLES

1. Editorial - From My Point of View
2. The President Says
3. Coming Activities
4. Rally to Selwyn Huts Domain
5. General Meeting Report
6. Car Care
7. Road Test - Wolseley 4/44
8. Know Your 4/44
9. For the Ladies
10. Spare Parts News
11. Buy, Sell and Exchange
12. General Notes



Twelve-cylinder 10-h.p. Wolseley car of 1901

1. Editorial - From My Point of View

Have you ever been driving along and then suddenly 'woken up' to the fact that you are driving on the verge or other side of the road, or are heading on a collision course with another vehicle? The chances are you had just woken up from a brief period of sleep, more commonly being termed 'micro sleep'.

This is a topic into which an increasing amount of research is being placed. There are increasing numbers of instances where an accident will occur inexplicably and mysteriously, and often with no tell-tale signs of what has occurred seconds before the accident. For example, an absence of tyre or brake marks to show where the driver has tried to get himself out of trouble, but in other cases marks left indicating that the vehicle has left the road gradually and at a shallow angle.

In England, Police and insurance investigators are coming across more and more puzzling accidents of this type. Some are undoubtedly attributable to fatigue. The Department of the Environment there (which fulfills the same function as our Ministry of Transport) does not seem to regard microsleep as an important factor in the overall road toll, but a survey by Police has revealed that no less than a quarter of the accidents on one stretch of the M6 motorway over a recent 12 month period were believed to be directly attributable to fatigue or sleep.

Microsleep is not sleep as we know it - eyes closed, oblivious to the world - but rather 'an unnoticed lapse into unconsciousness, into an almost trance-like state of drowsiness where, although the eyes may be open, the mechanisms which help keep us awake are momentarily switched off'.

A scientific description states 'the frequent drifts towards drowsiness which accompany monotony are associated with the slow E.E.G. (recorded pattern of electrical impulses from the brain) of drowsiness, and it is moments of E.E.G. slowing that reaction time is very prolonged. These brief naps are even more likely after alcohol, and an ordinary sleeping pill ... will increase such lapses during the following day for at least 14 hours after taking the drug'.

The times when this condition seems to occur most easily are when performing a monotonous task - a good example of which is open road driving, or during a time when a person is very short of sleep. Thus it can be considered a threat to us as road users, and it may be important for us to know and recognise the situations that lead up to this condition and know how to guard against it.

In a booklet for doctors, 'Medical Aspects of Fitness to Drive', Dr Ivan Brown, assistant director of the Medical Research Council Applied Psychology Unit in Cambridge, England, presents a 10 point guide for motorists anxious to stay alert on the roads.

1. Don't set out on a long journey immediately after strenuous physical exertion.
2. Don't drive immediately after a shattering emotional experience like a fierce row, sudden shock, or - worst of all - intense fear.
3. Don't eat too heavily before or during a long trip; equally, don't starve yourself. Light meals are safest.
4. Alcohol and some drugs can lead to drowsiness, inaccuracy and impaired judgement and a false sense of confidence. Keep off drink, and if in doubt about drugs seek advice from your GP.
5. Avoid driving too long into the period when you would normally be asleep.
6. If on a long run, you feel your attention beginning to wander introduce some fresh form of stimulus like switching on the radio to keep yourself alert.
7. Take regular rest stops - especially important on trips over 3 hours and for drivers aged 45 or more.
8. Do not go short of sleep. Driving suffers after only one or two bad nights.
9. Have second thoughts about rushing away on holiday the night you finish work.
10. Monitor your own performance. If you miff a gearchange, say, or have a near-miss, admit to yourself that you are beginning to feel the effects of fatigue and boredom. Pull off the road as soon as possible.

2. The President Says

Dear Member,

Firstly, may I extend a warm and sincere welcome to new members and hope that the Club has many things to offer you, whether it be spare parts, new friendships, social contact or competitive interest.

To all members, I'm sure many of you know someone else who owns a Wolseley vehicle, or park in a street every day close to one. If so, then we, as your Committee, have decided to have a membership drive and we seek your cooperation in bringing home to other owners of Wolseleys the advantages of our Club. Attached to this newsletter you will find a membership form; all we ask is that if you see a Wolseley, or know the owner of one, that you either place the form under the wiper or present it to the owner along with your name and phone number. As you will see, my name and those of our Secretary and others of the Committee are also shown and several of our objects and activities are mentioned. Many of us have nominated members to the Club in the past and established new friendships, etc. With your support in this project our Club will continue to grow and flourish.

I apologise for the late notification of the General Meeting on 19 February. This was due to difficulty in getting a place to hold it. Currently we are looking at a venue which we can use on a regular basis and at a reasonable cost. Once established, then meetings etc., can be held on a chosen night each month or as decided.

I would like, at this point, to urge all members to attend our meetings, rallies, runs etc. Remember, this is your Club. Any thoughts you may have on how we can improve our Club will be greatly appreciated by me. I will be happy to discuss any ideas you may have personally. Please contact me any time. My phone number and address is on the front of this Newsletter.

Isobelle, our Secretary, is taking orders for the accessories in Buy, Sell and Exchange of this 'Wolseley Word'. The Wolseley Car Club N.Z. (Inc.) badge which was born from our last Annual General Meeting is just beautiful, and after the General Meeting on 19 February 10 members placed firm orders for them. I must, at this point, explain our rules regarding the badges. Rule 78 states that "Club badges or emblems may be provided for a nominal deposit to display on members' vehicles. Badges and emblems remain the property of the Club, to be returned on the member's resignation or expulsion." It has been decided that members may order these badges, pay the cost price of \$16 and after resignation or expulsion must return them. A small charge will be deducted and the balance refunded. It is necessary at this stage, because of the cost factor involved, for members to pay the cost price. However, in the future as funds permit, we will be able to purchase badges and provide them to members for a deposit. Your membership number will be stamped on the badge. I urge you to contact our spare parts man, Peter MacDiarmid, before buying any

spares for your car. Even if the part you want isn't available within the Club, Peter may be able to help you get it for less than you would pay elsewhere.

Also attached to this newsletter is your copy of our Constitution and this format was decided after assessing costs of printing etc., in booklet form. I'm sure you are enjoying the supplement 'Wolseley Years'. The time spent by Bill Williamson in compiling the supplement is very commendable indeed and I'm sure you share with me in appreciating the finished product of many hours of work.

That's all from me; remember to drive safely; see you at our next fixture.

JOHN PARKER

3. Coming Activities

SUNDAY 11 MARCH - Run to Okain's Bay

Leaving Lincoln Road Supervalu at 11 a.m. Picnic lunch.

Like many other bays, Okains was named through a trifling incident. Captain Hamilton, who traded around the Peninsular, was sailing past the bay on one occasion while he was reading a book by the Irish naturalist, Okain. A fertile bay, it remains just as inviting and unspoiled. At the eastern end of the broad, safe and sandy beach, near the cliffs are still traces of the old wharf which was demolished several years ago. Only one and a half hours run from Christchurch to one of our country's finest displays of Maori artifacts, including a meeting house, plus a well established working colonial museum that includes a Totara, slab cottage, local stable, wheel wright, a smithy at the rear of an old cheese factory used now for housing early forms of transport used in the bay, and in addition all the nicknacks of early pioneering life.

MONDAY 26 MARCH - Wine and Cheese Evening

Possibly to be held in the Senior Citizens Hall at 30 Hastings Street. Details will definitely follow.

TUESDAY 3 APRIL - Committee Meeting

To be held at Jack Milnes, 51a Birdwood Avenue, at 7.30 p.m.

Please note that all coming activities are now to be advertised in the Christchurch Star on the Saturday prior to the event, so keep a look-out in the Motor Cars for Sale column.

4. Rally to Selwyn Huts Domain

On Sunday 28 January the events for the year got underway with a Car Rally run out to Selwyn Huts Domain. This particular rally was planned early in 1978, but had to be cancelled due to very bad weather, and held in reserve.

This time we got a good day for it, fine and clear but with a cool wind. Cars began assembling at Haywrights, Sydenham, about 12.50 and finally got underway about 1.10. We had a turnout of about 13 cars of varying models, and one truck (Trev Hawthorn-Smith was there to see us off on his way home from work).

Cars were set off at two minute intervals, and followed the instructions (or tried to) for what turned out to be a most interesting and enjoyable Sunday drive. The course went up through Cashmere to the Sign of the Kiwi, along the Summit Road and down Gebbies pass, through Motueka, Leeston and then on to Selwyn Huts. Distance covered was something like 30 miles.

Unfortunately, Vicki McCauley had fuel problems with her 6/99 and decided it best to head for home soon after setting out, but apart from her everyone else made it to their destination alright. However, a few were seen to miss vital turning signs, notably Keith Orchard and Bill Williamson who were so enthralled with looking at each others 6/110s, they both passed a turn off at high speed.

Once at the domain, Bill Williamson put out on display the various items the Club has had made, including grille mascot badges, cloth badges, a wall plaque and the item which attracted most attention, the Wolseley Car Club bumper badge. This was tried on different members cars, and it looks very good, too.

This was also the first rally the Dalton Rally Trophy has been presented, and the first to take it away, with first prize, was Rex Fielding with 99 out of a possible 100 points. Second and third went to John Inkster and Isobelle Hawthorne-Smith respectively.

Quite a few stayed for a picnic tea, but most left soon after that, after a very cool wind blew up. Thanks must go to Earnie Dalton who put a lot of work into organising the rally but also to those who attended making it a far from disappointing turnout and rally.

It would be inappropriate to finish off without a word about Chris Bowden. He has a reputation for turning up in a different 6/80 or 4/50 every rally. This time he appeared in a 4/80, or more correct, a 4/50 with a Bedford motor and 6/80 gearbox and diff. This is a car into which he has put a considerable amount of work, and I think he must be congratulated on the job he has done. It looks and goes extremely well, and is a credit to his engineering ability. We look forward to seeing your next creation, Chris.

COLIN HEY

5. General Meeting Report

The last general meeting was held on Monday 19 February in the Senior Citizens Hall in Hastings Street, and was attended by approximately 20 persons.

The business section of the meeting was preceeded by a film brought along by Bill Williamson on Police Driver training in England. As you can probably guess, it had many Wolseley police cars featuring in it, but it was more concerned with defensive driving and proved informative as well as enjoyable.

Business consisted first of a report from the Committee, and then a general discussion on topics ranging from spare parts to future general meetings.

Once business was concluded, two more films were shown; one on controlling a vehicle in skids and the second on general vehicle maintainance.

The evening was concluded after supper and a chat with most people having enjoyed both the evening and fellowship with other members.

Incidentally, someone left a plate behind (white with pink magnolias around the outside) and if it belongs to you, Isobelle Hawthorne-Smith would be happy to forward it to you.



Before fitting a new set of seat covers, try this trick: Lay them out in the sun or in some other warm spot for at least 15 minutes before you put them on. That way you'll get the material to stretch fully without wrinkles. If the covers are installed cold they'll be sure to stretch when warmed up by the body heat or when the car is parked in the extreme heat of summer sunshine. The result of course would be ugly and uncomfortable wrinkles.

** ** ** ** ** ** ** **

A French journalist recently asked British rally drivers on a tour of Europe if they did any special type of training to keep themselves fit. 'Just crumpet' one good humoured type remarked. The journalist took it all down. Back in the office he looked up the Oxford dictionary. His story duly appeared and roughly translated came out this way. "The English rally drivers train mainly on a type of hot buttered toast"!

6. Car Care - by Tommy Thompson

Radiator Pressure Caps

It is well known that an engine performs better running hot. Everyone has felt the need for the choke and the hesitating of the motor on a cold morning.

Before the days of water pumps, pressure caps and thermostats, engines warmed the water up slowly as there was plenty of it to allow for hot weather conditions. Cooling was purely by large radiator area.

However, today's compact engines have relatively small radiators which heat quickly and run at high temperatures.

Engines can be made to run at near boiling point by the use of thermostats and pressure caps. The boiling point of the water is raised considerably by increasing the pressure of the vapour over it in the system. As the overflow pipe is connected to the filler above the pressure cap seat there is no water loss until the pressure valve lifts.

This can be caused by:

Head gasket leaking, allowing compression into the cooling system thus over-pressurising the system and the cap.

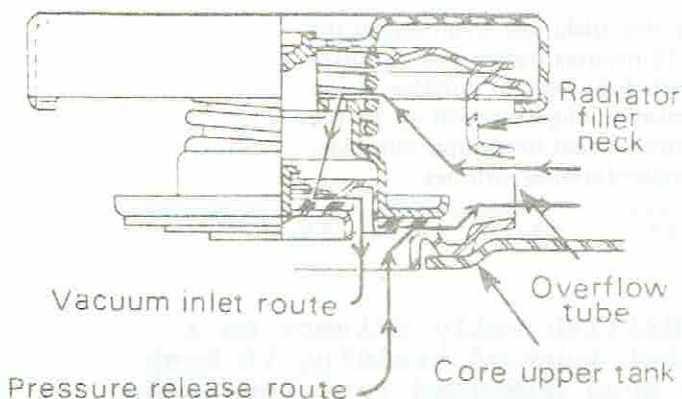
Overheating, due to a hose or radiator leak making the engine boil due to low level of water.

Faulty pressure cap, like most parts, they have a limited life and lose their resistance to pressure.

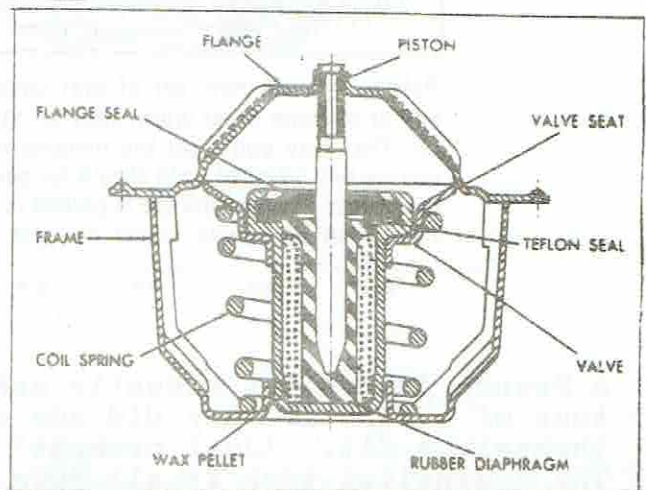
So if you have to add water regularly, check for the above faults.

Radiator and heater hoses in a pressure system need to be checked regularly. If a leak occurs the water gushes out under pressure. The pressure cap is an important item of efficiency. Check yours now and replace if necessary.

FOOTNOTE: Any inquiries on car maintenance will be answered for readers who care to phone



Pressure-type radiator cap pressurizes cooling system. The vacuum valve opens when the pressure drops below atmospheric.



Standard pellet-type thermostat
The wax pellet expands when heated and in turn moves piston to open valve.



7. Road Test - Wolseley 4/44

Making its debut at Earls Court last autumn, the Wolseley Four-Fourtyfour, successor to a car of the same proportions with a slightly larger and less efficient engine, drew attention by the obvious Italian influence in its styling. Where previous Wolseleys had been generally conceded as having a thoroughly sound character but rather conservative appearance, the designers had suddenly, and without apparent effort, brought right up to date their slogan "Gracefully modern - distinctly Wolseley."

As the Four-Fourtyfour is fitted with an engine similar to that of the $1\frac{1}{4}$ -litre M.G.'s there will be some who seek a comparison. The emphasis, however, is entirely different. In its new and more economical form, the Wolseley, although still lively, is essentially a car for the man who wants comfort and refinement rather than performance, with plenty of passenger and luggage space and a quite exceptional quality of finish.

This matter of finish, too often regarded as a mere afterthought, is so outstanding that it deserves to be mentioned straight away. The test car with which we were supplied was painted an unusual and attractive shade of dark metallic green, quite free from the rippling, "orange-peel" effect commonly found with many pastel-colour finishes. Only four colour schemes are available: grey or green with green upholstery, and black with either a brown or maroon interior. The seats are trimmed with thick, soft leather on a foam rubber overlay, and the facia and door fillets with well chosen polished walnut. The first impression, which only increases on further acquaintance, is that the Wolseley is a job well done; a car of quality which, by restricting its size and using standard Nuffield parts, can be sold for much less than the usual 'quality' price.

From the figures on the opposite page it will be seen that the Four-Fourtyfour is by no means startling in its acceleration, particularly in top gear under normal conditions of traffic driving. It is, however, quite possible to trickle along through traffic in a high gear, a tribute to the flexibility of the comparatively fast-revving engine. Comfort and silence have usually to be paid for, and the Wolseley weighs 22 cwt. at the kerb, but the advantage is apparent in fast open road driving. The smooth body contours undoubtedly contribute to a maximum speed just short of 73 m.p.h., corresponding to 5,000 r.p.m., with very little excessive wind noise, and 50 m.p.h. in third is comfortably within its range.

This silence is general throughout the car, only one stretch of temporary road surface in several hundred miles of motoring making the monocoque body structure drum unpleasantly.

The only really disappointing feature of the Wolseley is the gearbox, which is worthy of something much better than the woolly and unsatisfactory steering-column gearchange which has been added to it. The long and rather flexible lever moves through an arc of 90°, and while it is difficult to over-ride the syncromesh it is equally difficult to make a quick, precise change, even by double declutching. The effect is to discourage the driver from

The result, unaccustomed at first, but pleasant when one is used to it, is that the driver is literally and effectively on top of his job. Two faults which remain, and which could be easily corrected, are insufficient legroom and seat squabs at the wrong angle for some drivers. The front seats are of the split bench type, with the outer edges of the squabs curved forward a little and enough 'give' to stop the passengers sliding about on a corner, but adjustment for rake and another three inches of legroom for the driver would make all the difference to comfort on a long run.

Forward visibility is quite good, but the excellent practice of sloping the bonnet has not been carried far enough, and the near-side wing is still out of sight. A tall driver looks through the upper half of the windscreen and finds a blind spot in the right-hand corner which is not swept by the windscreen wiper, but the rest of the screen is very well cleared.

The hanging pedals are comfortable to use, and there is space beside them to rest the left foot on the floor, although the foot-operated dip-switch is mounted in a rather awkward position on the vertical bulkhead. The hydraulic clutch control works smoothly, and the brakes are reasonably powerful and light, but heavy braking produces a curious judder through the pedal, whatever the road surface. The handbrake is of the pull-out variety.

It is a fairly safe assumption that the owner of a Wolseley is one who appreciates good taste and attention to detail, and the Four-Fourtyfour is unlikely to disappoint him. The finish and interior trim have already been mentioned; they are supported by an almost complete range of fittings and instruments. Speedometer, clock, water thermometer, oil pressure gauge and fuel gauge are fitted, although a red warning light has to do duty for an ammeter. Red pointers on white dials with a black background may not be to everyone's taste, but the instruments are easily read, with the possible exception of the oil pressure gauge which has a rather short pointer. The speedometer includes a mileage recorder and trip.

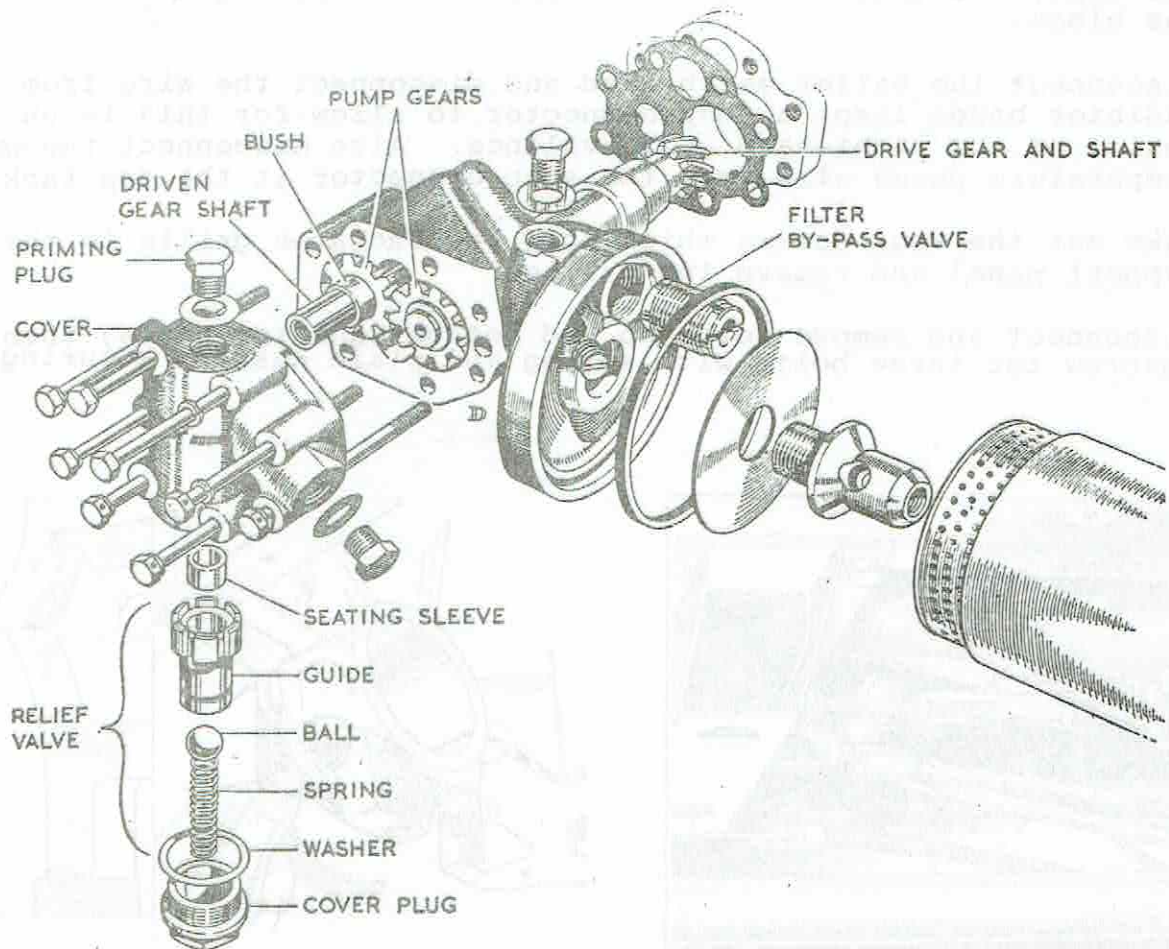
All the minor controls are arranged in a row of six knobs at the bottom of the panel, similar, but sensibly placed so that those in the greatest use are most easily found. Reading from left to right they control the windscreen wipers, twin fog lamps which are an optional fitting and can be switched on singly or together, side and headlamps, starter, panel light and choke. The starter has an uncommon and convenient push-switch.

The headlamps, which have a high beam red warning light on the instrument panel, are just adequate for the performance of the car, and the tinted driving mirror gives a view through the whole of the wide rear window. A Trico vacuum operated windscreen washer can be had as an extra, although the nozzles themselves are a standard fitting on the bonnet, while an efficient heating and demisting system is fitted as standard except in certain tropical areas. There are twin sun vizors, and two shelves of fair size flank the instruments, the left-hand shelf housing the radio when this is fitted. In addition there is an exceptionally large shelf behind the rear seats. The rounding off of the body shell at this point, incidentally, makes it difficult for a six-

foot rear passenger to lean back without fear of hitting the roof on a rough road, but this also may be altered with the rubber overlay on the seats has had time to settle with use. Draught sealing and water proofing are good.

The luggage locker is of useful size, with the spare wheel mounted vertically at the side. The push-button petrol filter cap may be very simply locked by tightening a thumbscrew inside the locker. Engine accessibility is good, and all electric fittings are mounted high up; the only part which might be more easily reached is the cartridge-type oil filter, bolted to the side of the crank-case. Forward mounting of the engine puts the cast aluminium sump in a rather vulnerable position low down ahead of the front cross member.

Briefly, the Four-Fourtyfour makes its greatest appeal by quality of workmanship and materials, an appeal which is unexpectedly borne out by roadholding which gives it that rarest of properties, good manners.



The components of the oil pump.

8. Know Your Wolseley 4/44

The Wolseley 4/44 was introduced to the Australian market in 1953 and replaced the 4/50 model, which had been in production since 1949.

The engine, patterned on the MG TD, has a four-throw crankshaft which is carried in three replaceable main bearings and dowelled into the block. Thrust is taken on the centre bearing.

Pistons are of aluminium alloy with two compression and one oil control (slotted) ring. The three camshaft bearings are also replaceable, and they are a press fit in the block.

Engine Removal

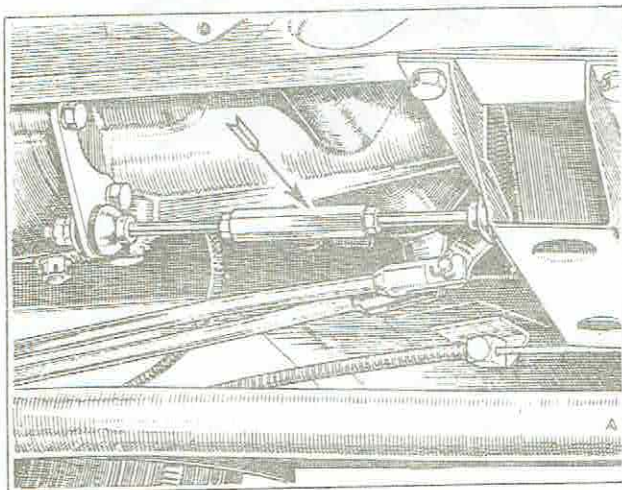
The engine can be removed from the car, either singly or as a complete unit, together with the gearbox. Where a major overhaul is contemplated, it is simpler to remove the two sections together as this allows easy inspection of the rear engine mounting and also the clutch plate and assembly.

If only the engine is to be removed, first detach the bonnet hinge bolts and remove the bonnet. Drain the cooling water, using the two taps, one under the radiator and one on the right-hand side of the block.

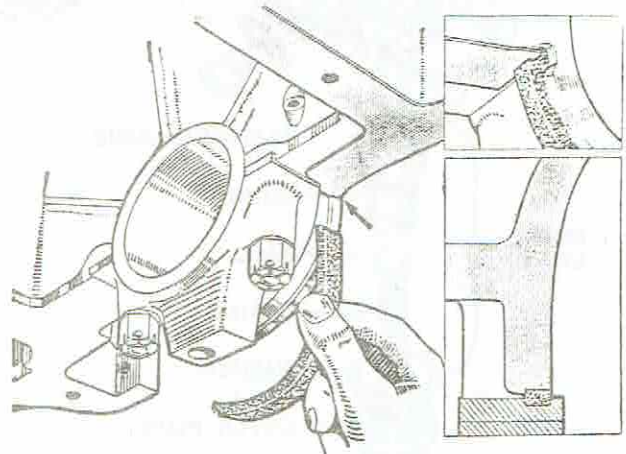
Disconnect the battery earth lead and disconnect the wire from the radiator badge lamp; a snap-connector to allow for this is on the inside of the right-hand guard valance. Also disconnect the water temperature gauge wire from the snap connector at the top tank.

Take out the four screws which hold the radiator grille to the support panel and remove the grille.

Disconnect and remove both top and bottom radiator hoses, then unscrew the three bolts with spring and plain washers securing the



The engine control link adjusting nuts.



When fitting the cork seal for the rear main bearing it is important that the stepped end be in proper engagement with the sump gasket.

radiator core to the support panels and lift out the radiator, taking care not to foul the cooling fins on the fan blades.

If your model has a windscreen washer, detach the tubes and remove the reservoir. Disconnect the air cleaner pipe from the rocker cover, unscrew the nut from the upper supporting stud at the air cleaner and unscrew the two bolts that secure the air intake pipe to the carburettor flange.

Now remove the air cleaner and intake pipe assembly, taking care not to damage the carburettor flange gasket. Disconnect the throttle lever return spring and the operating rod ball-end from the throttle spindle, then withdraw the spindle from the bush on the scuttle. Detach both inner and outer cables used for the air/gas mixture, then disconnect the flexible fuel pipe where it connects at the right-hand inner guard valance.

If you have a screen washer fitted, detach it from the fitting on the inlet manifold. Disconnect the starter cable and unscrew the nuts and disconnect the exhaust pipe flange, then disconnect the heater hoses from the water pipe and cylinder head. Unscrew the two bolts used to attach the clutch slave cylinder to the bracket above the clutch housing and withdraw the cylinder and its operating rod from the bracket.

Remove the high tension cable from the coil and the spark plugs and remove the distributor cover. Disconnect the low tension lead at the terminal on the distributor and take off the main and field wires from the generator. Uncouple the oil-gauge pipe at the union on the left-hand side of the cylinder block and detach the horns from their brackets, not overlooking that an earth wire is connected to one securing bolt on each horn.

Detach the pipes from the fuel pump and remove the latter with its bracket from the mudguard valance.

Place a sling around the engine and gearbox and take the weight, then remove the front mounting rubbers. Unscrew the nut and lock nut and remove the plain washer, link cup and rubber from the front end of the engine control link below the gearbox, and raise the unit as far as possible.

Support the front of the gearbox on suitable blocks or with a garage-type jack, then unscrew and remove the ten bolts which hold the clutch housing to the gearbox, noting that the bolt which passes through the slave cylinder bracket is slightly longer than the rest.

Move the engine forward until the clutch shaft slides out of the clutch plate centre, then lift it upwards. Great care must be taken that the engine is not raised too much and to also see that it is sufficiently raised that there is no drag on the clutch assembly parts as it is drawn forward. The engine may need to be dropped a little or raised more as the case may be, until it will slide forward easily. The ideal position would be for the engine weight to be fully taken on the sling without lifting the gearbox from its jack or support.

Replacing Engine

When replacing the engine it will be found helpful if an assistant can turn the engine a little with the crank handle to line up the splines in the clutch hub with those of the primary shaft. Two dowels in the flange on the engine must line up with holes in the clutch housing face before tightening the bolts. Remove the block or jack under the gearbox after tightening the bolts and position the front engine mounting rubbers.

Lower the unit onto its mountings and continue the reassembly, which is a reversal of the strip-down procedure.

Removing Engine/Gearbox

If the engine and gearbox are to be removed as a complete unit, follow the procedure for removing the engine by itself to the stage where the fuel pump is removed. Where the fuel pipe runs from the radiator case, this pipe must be removed.

Now take off the bonnet lock operating rod from the side by detaching the split pin, unscrew and remove the four bolts which secure each side of the radiator support panel to the wing valance and the two bolts which secure the top of the panel to the wing valance. Also remove the five bolts which secure the starting handle guide-bracket to the support panel and the cross-member.

Take out the radiator support panel then fit a sling around the engine and gearbox so that when it is lifted the unit assumes an angle of about 45 deg., tilting at the front.

Before raising the engine, take the weight and remove the front mounting rubbers. Remove the engine earth strap and the gearbox dipstick and release the exhaust pipe from the bracket on the gearbox.

Take out the split pins and clevis pins from the gearshift control rods and levers and disconnect the speedometer cable at the gearbox and the reverse light wires where they connect at the snap-connectors on the bulkhead above the clutch housing.

Remove the bolts and self locking nuts from the front universal joint and lower the drive shaft and place it on a suitable support.

Next support the rear end of the gearbox with a jack and remove the four bolts securing the rear mounting cross-member to the underside of the body. Lift the unit until the flywheel housing is clear of the cross member, then move forward and upwards until the sump passes between the front ends of the mudguard valances. The assembly can then be lifted clear of the car.

Each car is fitted with a fore-and-aft control rod or link, the purpose of which is to limit the amount the engine moves backward and forward when the clutch is engaged or when the thrust load is greatest.

Pistons and Rods

To remove the piston and rods, it is best to remove the engine first

so that you have plenty of room to work and so that the sump can be refitted and packed properly.

After removing the nuts, bolts and bearing caps, the rods and pistons are withdrawn carefully past the crankshaft on the left-hand side of the engine. If there isn't sufficient clearance on any one rod, rotate the crankshaft as necessary.

To remove a piston from the conrod, the gudgeon pinch bolt must be removed. Never clamp the conrod in a vice and then attempt to unscrew the clamp bolt, as this will twist the conrod. The most suitable means of unscrewing the pinch bolt is to take two bolts and grind the corners from the hexagonal head until the bolts will slip inside the gudgeon pin. The bolts need only be about $\frac{3}{4}$ in. long, but see that sufficient metal is removed so that the corners cannot foul against the insides of the piston bosses. The heads must be protruding so that they can be clamped up in a vice without damaging the piston. It will now be clear that any pressure exerted by a ring spanner will not be transmitted either to the conrod or the piston itself.

Correct gudgeon pin fit is attained when the pin is a thumb-push fit for about three quarters of its travel and is finally tapped home with a raw hide mallet when both the piston and pin are cold.

It is imperative that pistons be refitted to their original bores, and the gudgeon pin clamp bolt must be on the right-hand side of the engine. Also, the same con-rod and cap complete with bearings must be refitted to the journal from which it was removed. Each connecting-rod has the cylinder number stamped on its side to ensure correct placing. A connecting-rod and its paired bearing cap is also stamped with a number and prefix letter, therefore reassembly of the parts so that they mate up correctly is a simple matter.

Both the main and big-end bearing shells are renewable and steel-backed white-metal shells and it is imperative that no adjustments are made to these precision machined parts.

The big-end shells are located in position with tabs on one side of each half bearing, and the big-end bearings are fitted so that the tabs come on the same side of the bearing housing.

The main bearings are located in place by dowels in the bearing caps and in the crankshaft housing. The bearings cannot be replaced until the crankshaft is removed.

Gasket Care

To remove the sump, the engine and gearbox should be removed, as the sump is attached to the gearbox as well as the cylinder block. When fitting a new gasket it will be noted that the two sides of the sump gasket are joined to make it one piece for convenience of packing. This gasket must be cut as shown. It is important to cut the gasket so that the small tongue is left on the end pieces, otherwise it will be impossible to stop oil leaks.

If the cork composition ring in the groove of the rear main bearing cap is damaged or unduly compressed, fit a new one, ensuring that the shouldered or stepped end of the seal fits perfectly flush into the tongue portion of the sump gasket.

Carefully examine the seal fitted into the front end of the sump and, if a replacement is indicated, make certain that the seal is flush or protrudes slightly.

From engine No. 24100, a modified sump gasket is fitted, together with a crankshaft one-piece front seal for timing case and sump.

Ignition Timing

The following procedure is adopted if the timing has been lost:

Turn the engine until the inlet and exhaust valves of No. 4 cylinder are 'rocking' - this will position No. 1 cylinder at approximately T.D.C. The exact position can then be found by lining up the pointer and the small hole in the timing pulley. Now adjust the contact points to .014 in.-.016 in. in their maximum opening position, then turn the octane selector knob to bring the advance scale into the central position. Place the distributor into its housing and engage the driving gears by slightly rotating the rotor arm. Position the distributor so that the suction advance gear side of the body is away from, and at an angle of, 45 deg. to the spark plugs.

Turn the distributor anti-clockwise until the points are closed, then slowly rotate it in a clockwise direction until the points just start to open. Secure the distributor body in this position by tightening up the clamping cotter nut. Finally, check that the rotor arm is opposite the correct mark for No. 1 cylinder.

Oil Pump Tip

When the engine is started after an oil change or after having remained stationary for a considerable period, the oil pump may fail to operate. If this happens, remove the plug adjacent to the oil filter cover on the top of the oil pump body (refer to diag.) and run the engine without load at 1500 to 2000 r.p.m. until oil appears at the hole, then replace the plug. If the plug is not removed, an air lock may occur and this will prevent correct operation of the pump.

However, from engine No. XPAG5142, an air release hole was added to the pump body, thus obviating the need to 'bleed' the pump.

Timing Gear

The timing chain and case can be removed without lifting the engine out, but the radiator must be removed first. Slacken the generator mounting bolts and swing it towards the engine, then remove fan and belt. Remove the water pump, followed by the starting handle dog nut, taking care not to lose or misplace the packing shims behind the nut. Remove the crankshaft fan pulley (a suitable extractor will be needed for this), then remove the nine set screws securing the timing cover to the crankcase and sump, then withdraw the cover.

The face of the engine-bearer plate must be flat and smooth to ensure an oil tight jointing, also make sure that the oil thrower is in position on the crankshaft with the concave side facing outwards.

To improve oil sealing at the front of the engine, the crankshaft oil thrower has had its outside diameter increased to 2.812 inches this change taking place from engine No. 20901. The improved thrower can be fitted to earlier models and it is recommended to carry this out if the crankshaft needs to be removed for any purpose.

Check the asbestos oil seal for the crankshaft; the ends of this seal must be flush or protrude slightly above the mating face of the chain cover.

After smearing jointing compound on the mating surfaces, place the timing cover in position and hold it loosely with two or three fixing bolts, when the crankshaft-pulley boss can be pushed home so that the cover can be properly centralised. The seal should then have the same pressure on the boss around its circumference. This will ensure a good fit without danger of oil loss. The rest of the screws can then be fitted and the whole screwed up tight.

Clutch Service

As the clutch facings wear, the pressure plate moves closer to the fly-wheel face and the outer or shorter ends of the release levers follow. This causes the inner or longer ends of the levers to travel farther towards the gearbox, and decreases the clearance between the release lever plate and the release bearing.

The effect on the clutch pedal is to decrease the clearance or free travel: in other words, it reduces the distance the clutch pedal moves forward, away from the back stop, before the release bearing comes into contact with the release lever plate.

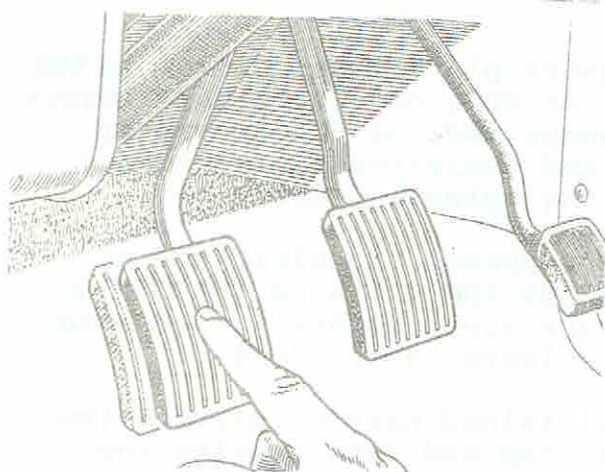
Some free movement must always be maintained here to prevent the clutch pedal riding against the back stop and thus causing the clutch to slip.

This essential free movement is restored by adjusting the clutch pedal position.

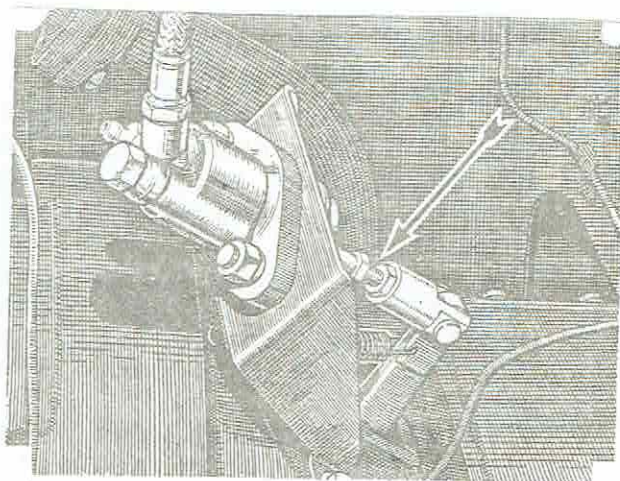
Excessive pedal movement causes coil binding of the springs and,

KEY TO CRANKSHAFT, CAMSHAFT, PISTONS, VALVES, ETC.

No.	Description	No.	Description	No.	Description
1.	Nut—bearing cap stud.	29.	Washer—spring—clamp screw.	56.	Rocker—R/H—inlet.
2.	Dowel—main bearing.	30.	Bearing—big-end.	57.	Rocker—L/H—inlet.
3.	Cap—front main bearing.	31.	Chain—timing.	58.	Bush.
4.	Cap—centre main bearing.	32.	Tensioner—chain.	59.	Spring—long—spacing.
5.	Cap—rear main bearing.	33.	Spring—tensioner.	60.	Spring—short—spacing.
6.	Tube—drain.	34.	Block—tensioner feed.	61.	Washer—spacing spring.
7.	Piston assembly.	35.	Bolt—feed block.	62.	Screw—rocker adjusting.
8.	Ring—compression.	36.	Camshaft.	63.	Locknut—adjusting screw.
9.	Ring—oil control.	37.	Gear—timing.	64.	Shaft—rocker.
10.	Pin—gudgeon.	38.	Key—gear.	65.	Plug.
11.	Seal—rear main bearing cap.	39.	Thrower—oil.	66.	Clip—shaft.
12.	Guide—exhaust valve.	40.	Bolt—gear to camshaft.	67.	Bracket—shaft.
13.	Crankshaft assembly.	41.	Washer—gear bolt.	68.	Bolt—10 mm.—bracket to head.
14.	Bush—drive gear.	42.	Lock washer—gear bolt.	69.	Bolt—8 mm.—bracket to head.
15.	Gear—timing.	43.	Plate—camshaft thrust.	70.	Lock plate—bracket bolt.
16.	Key—gear.	44.	Bolt—thrust plate to block.	71.	Washer—front and rear bracket.
17.	Thrower—oil.	45.	Washer—spring—thrust plate bolt.	72.	Washer—intermediate bracket.
18.	Pulley.	46.	Circlip—camshaft.	73.	Valve—inlet.
19.	Key—pulley.	47.	Bearing—front—camshaft.	74.	Valve—exhaust.
20.	Washer—pulley.	48.	Bearing—centre—camshaft.	75.	Spring—outer—valve.
21.	Dog—starting handle.	49.	Dowel.	76.	Spring—inner—valve.
22.	Shim—dog.	50.	Bearing—rear—camshaft.	77.	Cap—top—spring.
23.	Bearing—front and rear—main.	51.	Dowel—screwed—centre and rear bearing.	78.	Cap—bottom—spring.
24.	Bearing—centre—main.	52.	Tappet.	79.	Retainer—spring cap.
25.	Rod assembly—connecting.	53.	Push-rod assembly.	80.	Deflector—oil.
26.	Bolt—cap.	54.	Rocker—R/H—exhaust.	81.	Grommet—valve stem.
27.	Nut—cap bolt.	55.	Rocker—L/H—exhaust.	82.	Guide—inlet valve.
28.	Screw—gudgeon pin clamp.				

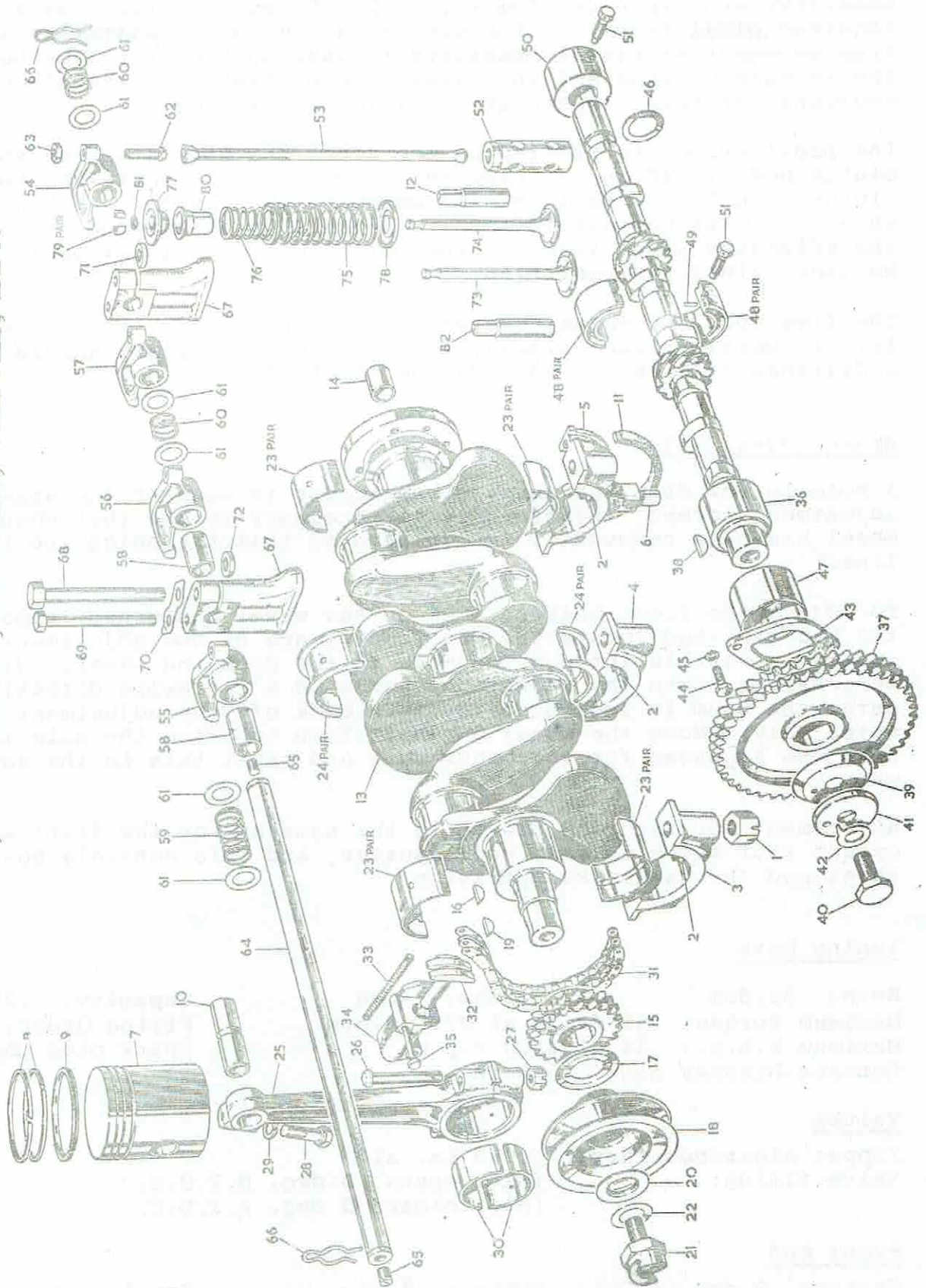


Free movement of the clutch pedal should be adjusted to $\frac{1}{4}$ in. (22 mm.).



The arrow indicates the threaded end of the slave cylinder push-rod and locknut.

CRANKSHAFT, CAMSHAFT, PISTONS, VALVES, ETC.



imposes an undue load on the bearing and on the crankshaft, causing excessive and rapid bearing wear. It therefore follows that the required pedal travel is the sum of the two movements; that is, the free movement or travel necessary to take up the clearance between the release bearing and the release lever plate and the effective movement, or travel necessary to release the clutch.

The pedal travel is limited by the front and back stops of the clutch pedal. If any difficulty is experienced in freeing the clutch when the correct release movement is provided, on no account should efforts be made to improve matters by attempting to increase the effective pedal travel. The actual cause of the trouble must be ascertained and rectified.

The free pedal movement, measured at the pedal pad, should be 7-8 in. To obtain clean release, the release lever plate should move a distance of 5-16 in. towards the flywheel.

Brake Adjustments

A hole in the drum and wheel gives access to each of the brake adjustment screws, therefore it is necessary to see that when a wheel has been removed it is replaced so that the holes are in line.

To adjust the front brakes, jack up the wheel concerned, remove the hub cap, and rotate the wheel until one of the adjustment screws is visible through the hole in the drum and wheel. With a screwdriver, turn the adjustment screw in a clockwise direction until the drum is locked solid, then back off the adjustment one notch only. Move the wheel one-half turn to bring the hole in line with the adjuster for the other shoe and treat this in the same way.

Adjustment for the rear brakes is the same as for the front wheels except that there is only one adjuster, and this controls both shoes and the handbrake operation.

Tuning Data

Bore: 66.5mm	Stroke: 90mm	Capacity: 1250cc
Maximum torque: 58 ft/lb at 2700 r.p.m.		Firing Order: 1,3,4,2
Maximum b.h.p.: 44 at 4500 r.p.m.		Spark plug gap: .020-
Contact-breaker gap: .015 in		.022 in

Valves

Tappet clearance (hot): .012 in. all
Valve timing: Inlet opens 5 deg. B.T.D.C.
Inlet closes 5 deg. A.T.D.C.

Front End

Caster: 2 deg. 40 min. Camber: $\frac{3}{4}$ deg. Toe-in: Nil
King-pin inclination: $6\frac{1}{4}$ deg.

Tensions

Cylinder head: 42ft/lb Main bearings: $62\frac{1}{2}$ ft/lb
Big-ends: $26\frac{1}{2}$ ft/lb

9. For the Ladies

RECIPE

Saltana Malties (Colin's Delight)

$\frac{1}{2}$ lb	butter
$\frac{1}{2}$ lb	sugar
1	H/Cup flour
1	tablespoon milk
1	tablespoon malt extract
$\frac{3}{4}$	teapsoon b/soda.

Method

Beat sugar, malt and vanilla. Add soda dissolved in milk, then add flour and saltanas. Cook in a moderate oven for 15 mins. Roll into balls and press with fork.

CONTRIBUTED BY MARGARET WILLIAMSON
(These cookies are a force to be reckoned with! - Editor)

10. Spare Parts News

The spare parts section of the Club has recently received a good selection of BMC parts. To facilitate a fast turnover of the parts currently in stock I am providing a list. Much of the current stock was financed through the generosity of Bill and Margaret Williamson and Colin Hey. All is P.O.A. and enquiries are welcome.

Currently in Stock

Wolseley 4/44 master cylinder
18/85 door cappings, parcel shelf, etc.
A few gaskets for B series engines
Valve guides for A, B and C series engines
Advance/Regard vacuum units
Nuts, bolts, washers
Manifold studs - most models
Heat studs (short) A and B series models
6/110 tail light surround
Trim clips
Good second hand heater (ex 6/80)
Back end (complete) - 6/90
Track rods - 6/80 and 6/90
Brake drums - 6/90 series I and II
Front suspension assembly 6/90
Short block - 6/80 (reborable)
Condensers
Valve springs 6/80
Clutch parts 6/90

PETER MacDIARMID

11. Buy, Sell and Exchange

- SELL - 6/99. Needs work but running well.
Phone Vicki McCauley - 882.722.
- 4/44
1955. Extremely tidy and original condition. Only
71,000 miles. All Ashburton owners.
\$1,150.
Contact Neil Holland, bus. Ashburton 4779
priv. Ashburton 83865.

The Club is now able to offer the following items for sale to members:

- Cloth jacket "Wolseley" monograms \$5.20 ea
- Plastic grille mascot inserts \$6.50 ea
- Imitation grille mascot incorporating silver surround \$8.75
- "Wolseley" key rings \$1.25 ea
- Copper wall plaques with winged Wolseley emblem \$11.50
- "Wolseley Car Club" bumper badges \$16.00

Please see "President Says" concerning the purchase of these.

12. General Notes

On behalf of the Committee, I wish to welcome the following new members into the Club:

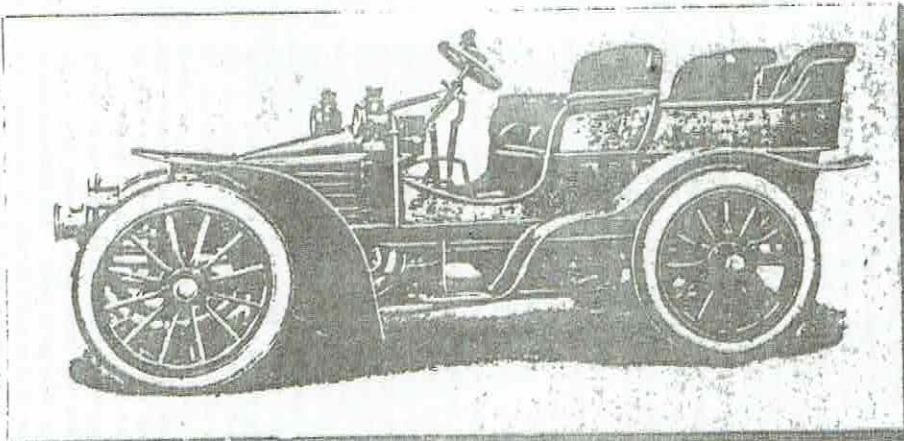
<u>Member No.</u>			<u>Model 1</u>
83/	Owen Smith	Flat 1, 41 Hastings Street. Ph. 324.077	6/110 MkI
84/	Peter Coleman	Flat 2, 162 Queensbury Street. Ph. 856.020	6/110 MkII
85/	C.H. Bethell	6 Dormer Street Ph. 529.528	6/110
86/	Robert Cullen	38 Sandown Crescent Ph. 885.214	18/85 (1970)
87/	Dave Woodhouse	266 Selwyn Street Ph. 62.640	15/50
88/	James Colville	22 Beach Road, Ashburton. Ph. ASH 4657	6/110 MkII
89/	James Collins	66 Palmers Road Ph. 885.559	6/90 Series II
90/	Dave Gibb	104 Rugby Street Ph. 555.268	6/110 MkII

- As always, any contributions for future newsletters will be gratefully accepted. The next one is due out in April, so be sure to let me have all items in plenty of time.
- Again, a reminder to keep an eye on Saturday night's paper for events coming up. Advertisements will always appear in the 'Motor Cars for Sale' column.
- Enclosed with this newsletter you will have found a copy of the adopted Club Constitution (excepting those people who were present at the last general meeting). Please look after it and become familiar with it.
- You will have also found an invitation for membership leaflet - don't look after that - please present it to someone you think may be interested in joining the Club.

COLIN HEY

THE "WOLSELEY."

SEVEN
GOLD
MEDALS.



SIX
SILVER
MEDALS.

30 h.p. TONNEAU. Price 1,000 Guineas.

WOLSELEY MOTOR VEHICLES can be fitted with any style of carriage body to suit the requirements of Customers.

STANDARD TYPES INCLUDE

Tonneau, Double Tonneau, Phaeton, Wagonette, Coupé, Shooting Brake, Touring.

ILLUSTRATED LISTS FREE.

THE WOLSELEY TOOL AND MOTOR CAR Co., Ltd.,
ADDERLEY PARK, BIRMINGHAM.

1903 Wolseley, priced like a thoroughbred at a thousand guineas.

"Peach's Motor Annual," 1905.

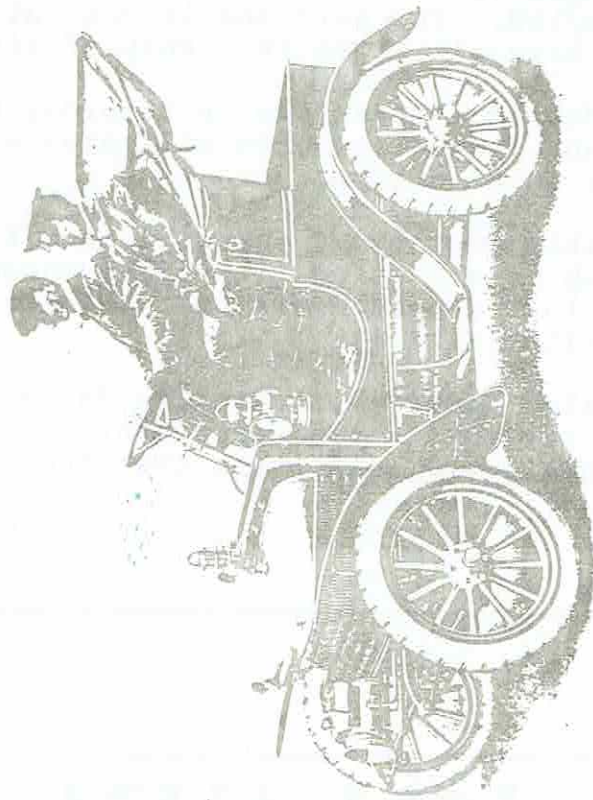
FRANK PEACH & CO., LTD., 43, HOLBORN VIADUCT, LONDON, E.C.

WHO WILL FORWARD ANY FURTHER PARTICULARS AND TERMS OF PURCHASE THAT MAY BE DESIRED.

THE WOLSELEY LIGHT CAR.—Its Possibilities as an Aid to Professional Men and Commercial Representatives.—In the selection of a car for other than purely pleasure use, the prospective owner's requirements need careful consideration. This is especially the case with doctors, for whom a vehicle must be, without doubt, absolutely reliable under all conditions. It is an almost equally important point to the owner who uses his car for business purposes. As accommodation is usually needed for only the driver and one passenger, or at most three people, a small car is more suitable than one of a larger type, and, moreover, permits of the motor and driving mechanism being simplified both in design and construction details as far as may be consistent with the main object, viz., reliability. In a brief consideration of the points which favour the use of a motor car for business purposes we must take as a comparison the method of travel which has hitherto been used by Doctors and Commercial men for making their "rounds." We refer to the horse and trap, which, of course, is still very largely used, but which must eventually be superseded by the newer means of conveyance, if only on account of the great saving in time taken to do a specified journey. In first cost the motor car represents a considerable outlay as compared with the cost of a horse and trap, but this is more than counterbalanced by the saving in upkeep and the very much larger area which may be covered with the car. This to a doctor is almost equivalent to doubling his practice, as he is able to reach patients at a distance of from fifteen to twenty miles in less time on a car than he could travel half the distance with a horse. In the matter of stable accommodation, a car again offers many advantages, as it can be safely housed immediately after a journey, only needing the switch, petrol tap, and lubricators being turned off until it is required to go out again. These operations are the matter of a few minutes, and can be attended to by the owner himself, whereas a horse necessitates keeping a man to groom and stable it, and to accompany the doctor on his journeys to take charge while waiting outside a patient's house. At times when the car is not in use no expense is being incurred for its upkeep; but a horse must be fed and exercised whether it is doing useful work or not. It will be seen, then, that the use of a motor car is practically a necessity to busy men in outlying districts. This need has been recognised by a very large number of professional men, and consequently the demand for a car which will meet their requirements has resulted in such a vehicle being placed on the market. We append a few particulars which have lately been forwarded to us by a medical man, after his first twelve months' experience in using a car for a country medical practice:

"My car was delivered to me at the works on July 14th, 1903, and after a very short preliminary instruction, I drove it the latter part of the journey home (about thirty miles). Up to the end of July, 1904, it had been run 3,125 miles, and during this time I had been delayed twice on the road; on the first occasion by a stuck inlet valve which was quickly remedied by squirting a little paraffin on to it; the second occasion was through grit choking the carburettor supply pipe, and took rather longer to remedy. The exhaust box blew out once, which I had repaired at a local cycle shop, and the following renewals have been required: four new asbestos washers on the exhaust pipe, three nuts replaced on the chain bolts, a grease cup replaced for one lost, and one bolt renewed on the front spring. The above indicates the expense of the renewals to the mechanism. The tyres have worn very well; at the end of the first six months the back cover treads were worn in places down to the canvas so I put on new covers and had the old ones re-rubbered. So far there has not been a puncture, and I have run for 500 miles without touching the tyres or making adjustment of any kind to the car. In addition to these expenses there is, of course, the license, pit, clothing, etc. I get the car washed by my gardener-groom, and do my own small repairs and adjustments when any are required. This car has done the chief part of its journeys in a large country practice, where all the roads are hilly, although the surface is good. I have also taken it for a long tour through Wales."

The foregoing serves to show that a properly constructed car can be relied on to do the work required by medical men without trouble, and will need only ordinary care in the adjustment of various parts from time to time to keep it in good order. The cleaning can be done by a gardener or a boy, and thus the expense of a groom's service is avoided. For sudden calls at night time a car is invaluable, as it is always ready to start away at a minute's notice. For commercial representatives who have to serve out-of-the-way districts the same conditions apply, and it is just as necessary that their car shall be in every way reliable.



The 8 hp. "WOLSELEY"—Net Cash Price £170-0-0. Without Road

THREE METHODS OF PURCHASE THROUGH FRANK PEACH & COMPANY, LIMITED.

No. 1. One Quarter of the Net Cash Price
in Advance, and the Balance when the
Car is Ready for Delivery.

No. 2. £43-15-0 Cash Down and Twelve
Monthly Payments of £11-18-3 commencing
One Month after Delivery.

No. 3. £43-15-0 Cash Down and Four Quarterly Payments
of £35-0-0 commencing Three Months after Delivery.

THE CAR BECOMES THE ABSOLUTE PROPERTY OF THE PURCHASER IMMEDIATELY ON DELIVERY.

THE "WOLSELEY."

THE WOLSELEY TOOL AND MOTOR CAR CO. LTD.

Telephone 1671 Victoria.

Works: ADDERLEY PARK, BIRMINGHAM, & CRAYFORD, KENT.

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Sales Department: VORK STREET, WESTMINSTER, S.W.
Telegrams: "SIDLEIGH, LONDON."

CHAPTER IV

The Winds of Change

Commencing in the years 1899-1900, we see a period where the motor car is beginning to assert itself and break away from the 'horseless carriage' that it had been in the last years of the nineteenth century.

Up to 1900 it had largely been a matter of getting a motor car to move at all. With that obstacle reasonably surmounted, sporting manufacturers turned their attentions to fitting bigger and bigger engines into almost non-existent bodies in the search for speed.

The giant Mors and Panhard cars of the period that succeeded in establishing phenomenal speeds over the toughest of courses, and one recalls Gabriel's performance when he drove his Mors to victory in the Paris-Madrid race of 1903 at an average speed of 60 m.p.h. As opposed to this, we had the other extreme of the small car, often with a single cylinder and solid tyres, which gave efficient, if dreadfully slow, transportation. It must be remembered, however, that the speed limit from 1896 to 1902 was twelve m.p.h., and this was raised to only twenty m.p.h. by the Act of 1903. In this era of police traps the small slow car had its uses therefore, and when one considers the savage fines exacted by the magisterial benches it is surprising that motoring survived in a horse-worshipping country, such as England.

In this time of experiment and change many new motor components appeared; some were good and formed a basis for modern motoring, but others, though ingenious, were hardly practical. Basic things that we nowadays take for granted, such as electrical systems, were notably absent, and high tension ignition was still very much in the experimental stage. Gearboxes - or as they were more readily called 'change-speed' - appeared normally in two forward speeds, and one was not expected to 'use the box' as we do nowadays. The lower gear was used only under the most exceptional of hilly conditions, and it was anticipated that most motoring would be in top gear only. Indeed, manufacturers vied with each other to complete journeys of hundreds of miles using only the top gear! This is perhaps fortunate, as gear-changing was a rather chancy haphazard process at the best of times.

At the turn of the century there was a general switch from tiller to wheel steering, for a tiller had a nasty tendency to jump out of one's hand on the appalling roads of the time. Several manufacturers, notably the famous Lanchester firm, retained tiller steering, however, for long after the others, for for what reason one cannot tell. Braking appeared to receive little serious thought, and four wheel brakes were unknown. Many otherwise advanced manufacturers considered them to be unsafe until well into the twenties. Normal braking was effected on the rear wheels by a band operated on a hub although for many years some makes favoured a transmission brake in addition. It is said that one manufacturer claimed that the brakes of his car were particularly effective in the reverse direction. This was important in an age when many brakes would hardly hold a loaded car on any but the gentlest of gradients.

Lubrication was the responsibility of the driver, as a drip-feed system was employed with a visual indicator on the dashboard, but without doubt the main bugbear of motoring in the early years was constant tyre trouble. Skill in tyre manufacture had lagged behind engineering skill and tyres were neither efficient nor cheap. Such an advancement as a detachable rim was to come at a later stage, and only then in the face of considerable opposition. Meantime, anyone who had enough money to buy a racer costing several thousands of pounds was faced with an annual upkeep of about £700; £400 of which would be on tyre replacements!

The First Four-Wheeler

Although the description of the first two Wolseley cars is highly interesting, it can only be compared to Daimler's first car of 1886 and Carl Benz' first production of a year earlier as regards to a place of honour in any Museum as the father of what has become a tradition in British automobilism. The reason why the general design of this car was not developed has been explained already, but in the second Wolseley car there can be traced a number of valuable seeds which bore fruit subsequently and flourished for several years in Wolseley productions. True, the mechanism of this vehicle, by virtue of the fact that it was used for experimental and general research work, hardly remained the same from one month to another; it was in a constant state of flux but for this very reason the service this car rendered to British automobilism was more valuable than that of its predecessor. It had, too, further virtues.

When a careful examination is made of early motor vehicles constructed in Britain, the fact is palpable that they were but a development of some foreign-built car. The early twin-cylinder Napier was inspired by, and a general improvement on, the early Panhard productions, and the same may be said of the first British built Daimlers and the M.M.C., while the 'Coventry Motette' was to all intents a French Bollee made in this country.

This is no suggestion that these cars were any the worse for being so, but the fact remains that they were not entirely original.

In the case of the Wolseley car No. 2, this is in a class by itself as being of entirely British design and manufacture. From this date onwards, in fact, all Wolseley cars were essentially individual in design, a fact which even as late as 1902 was emphasized in The Times edition of 'Encyclopedia Britannica'.

In the third Wolseley car of 1899-1900 the first of the four-wheeled vehicles of this make, we find the crystallization of ideas which were first traceable in car No. 1, and afterwards developed in the second three-wheeler. This third car incorporated features which were retained for many years by the Wolseley Company, and, in addition, this remarkable car proved to be a champion which, by reason of the marked success it achieved in the first great public trial ever held in this country, focused attention on what was then nothing more than a by-product of a company manufacturing mechanical

sheep-shearing machines and machine tools.

Described as a 'Wolseley Voiturette' the third Wolseley car was exhibited at a Motor Exhibition (termed the 'Midland Cycle and Motor Car Exhibition') from January 25th to February 3rd 1900. This Exhibition included certain trials for motor vehicles which were held on January 27th, 28th, 29th, 30th and 31st and although the modern motorist may well smile at the nature thereof, he should never forget the year in which they were held and the primitive designs then formulated by manufacturers who were doing little more than experimenting for the benefit of future productions.

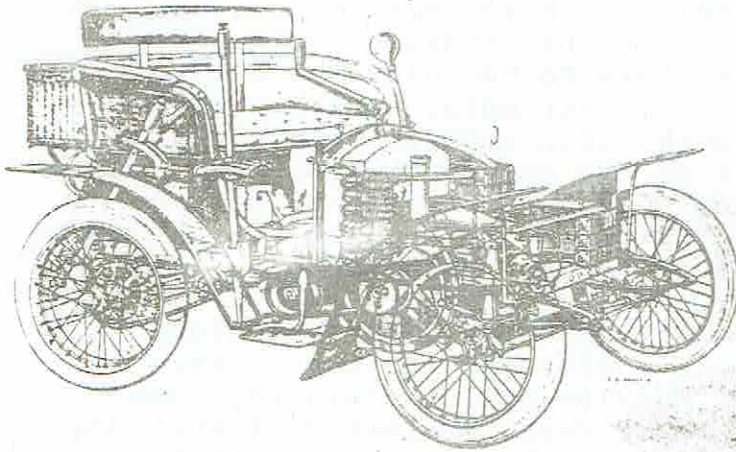
These trials consisted of nothing more strenuous than a journey from Birmingham to Coventry and back - distance of some thirty-eight miles - plus a hill climb at Mucklow Hill, Halesowen, some six miles outside Birmingham. In those days, as indeed it still is, racing on the public highways was illegal, but if the trials in question were not an organized race, they were something perilously near it, for each vehicle was timed over the course and the first car home was allotted the honoured place of No. 1.

The Wolseley car, driven by Herbert Austin, came home second. It completed the distance of 38 miles in 4 hours 58 minutes 45 seconds and it succeeded in climbing Mucklow Hill - about one mile in length - in 11 minutes 2 seconds, beating an Iveagh Phaeton by 46 seconds. For this creditable performance, it was awarded a silver medal, which was treasured by the Company as the first award ever won by a Wolseley car.

It was, however, the remarkable performance of this same Wolseley car in the famous Thousand Miles Trial of 1900 that demonstrated to the public its reliability and capabilities.

The 3½ HP Wolseley was among the 65 starters which successfully got away from Hyde Park Corner on that eventful April morning in 1900, and it was also among the 23 which successfully got back to the Marble Arch with an official record of having completed the whole trial. Of course all the cars had their troubles, but in the case of the Wolseley they were almost trivial: even some of the punctures seem to have been due to the fact that it had not been thought worth while to start with a new set of tyres. On the way to Bristol the belt fastening came undone and then between Bristol and Birmingham the belt itself broke, as well as 'the wire cord to the choking valve'. At one point they ran too fast over a level crossing and broke the top plate in the back spring, but otherwise really nothing happened except punctures. As for the test hills, the little car fairly romped up them, and it is noteworthy that contrary to a great number of other cars taking part, not once during the whole trial, including the test hills, did either of the two passengers have to dismount.

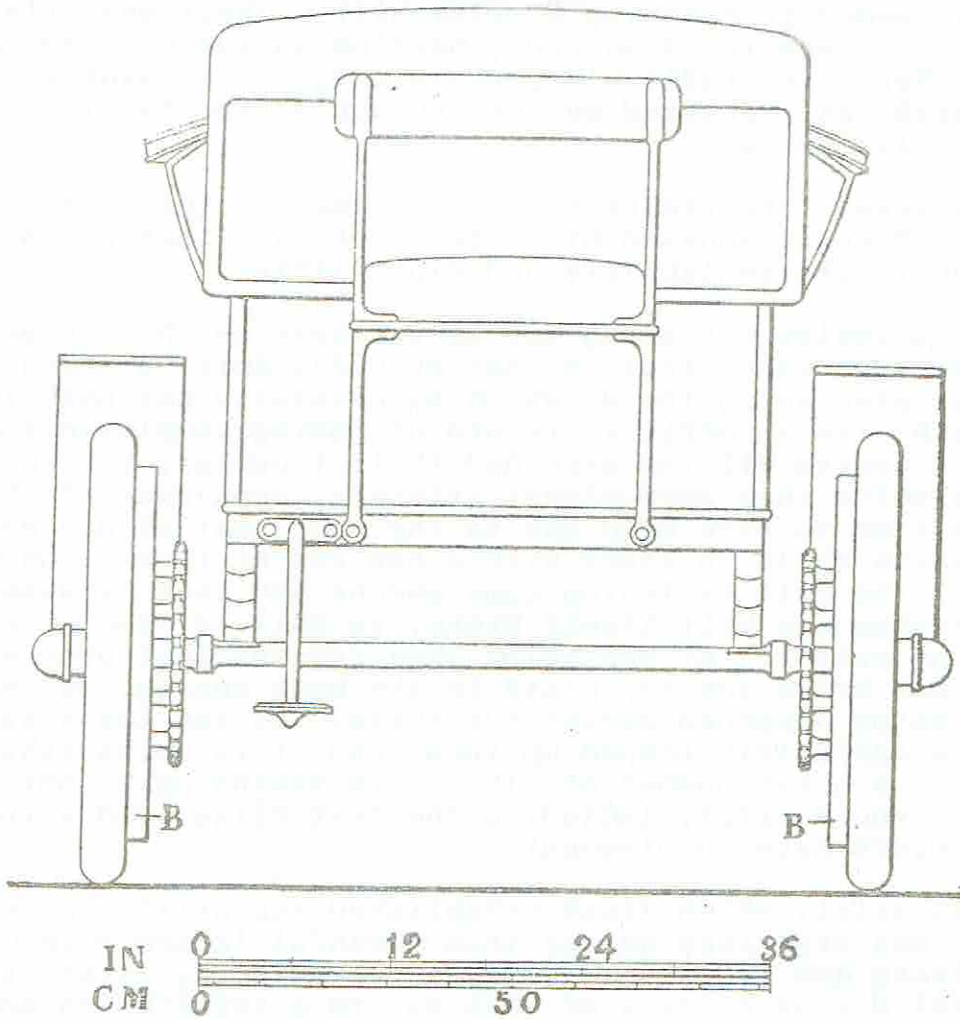
This great trial, which first established the British Motor Industry, was organised by the then youthful 'Automobile Club of Great Britain and Ireland', for a double purpose; first, to subject the general design of cars of that day to a trial which could not fail to hold a candle to every weakness they possessed, and secondly to introduce the motor car to districts and highways which



Cut-away drawing of the first four-wheel Wolseley car.



Certificates gained in the early years of the present century



WOLSELEY 5-HP. 3-SEAT CAR: BACK ELEVATION.

had so far remained almost immune from all forms of motor traffic. There were then thousands in England who had never seen a motor car, and so the decision to use this trial as an introduction to the masses of this new form of locomotion, was of epoch-making importance. The severity of this long trial, multiplied many times by the introduction of hill-climbing contests - some compulsory and some optional - up several of the most notable hills in England, taxed to its utmost the capabilities of every car entered.

The itinerary and main features of the Thousand Miles Trial were briefly, as follows:-

April	23rd	1900	..	..	London to Bristol
"	25th		..	..	Bristol to Birmingham
"	27th		..	..	Birmingham to Manchester
"	30th		..	..	Manchester to Kendal
May	1st		..	..	Kendal to Carlisle
"	2nd		..	..	Carlisle to Edinburgh
"	4th		..	..	Edinburgh to Newcastle
"	7th		..	..	Newcastle to Leeds
"	9th		..	..	Leeds to Sheffield
"	11th		..	..	Sheffield to Nottingham
"	12th		..	..	Nottingham to London

Hill-climbing took place up:-

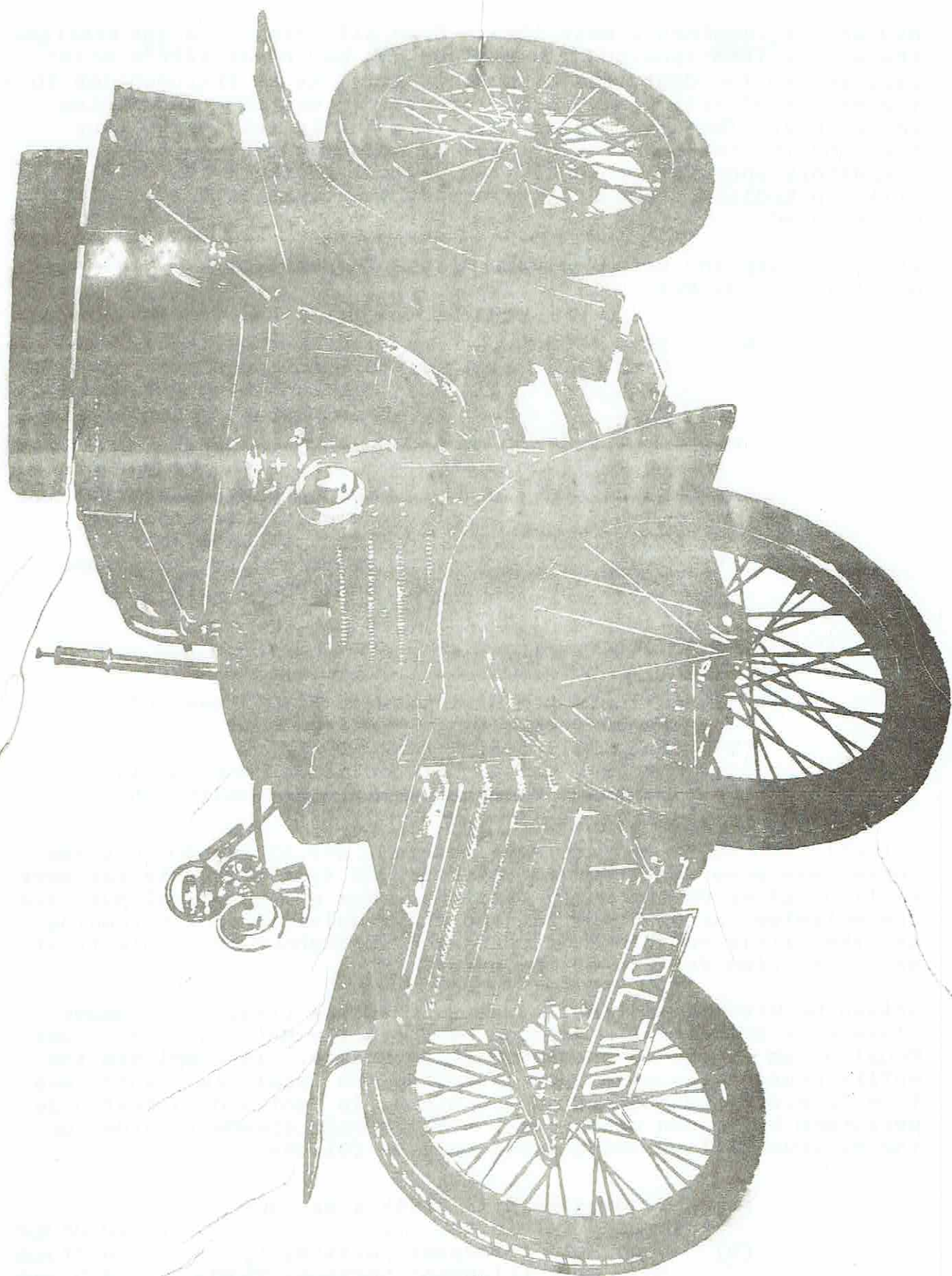
- (a) Taddington Hill between Birmingham and Manchester
- (b) Shap Fell near Kendal
- (c) Dunmail Raise, between Kendal and Carlisle
- (d) Birkhill between Carlisle and Edinburgh.

Actually two Wolseley cars were entered, Nos 53 and 40, but the former was never intended to complete the trial; it only ran over small portions of the early sections. For all practical purposes one Wolseley car (No. 40) ran and the regularity of its running and the little trouble it experienced throughout the whole trial was a striking feature of the event.

Driven by Herbert Austin, it was awarded the first prize under Class B, a prize of £10 awarded by The Daily Mail and the Silver Medal given by the Automobile Club de France. It completed the entire course at a speed not less than the legal limit which was then 12 m.p.h. in England and 10 m.p.h. in Scotland, a feat only performed by eleven other cars. The average speeds recorded on the various hill climbing tests were as follows:-

(a)	Taddington Hill, with a maximum grade of 1 in 12	.. .. .	10.08 mph
(b)	Shap Fell (Steepest portion) $1\frac{3}{8}$ mls	..	6.37 mph
	Shap Fell (Lightest portion) $7\frac{1}{4}$ mls	..	13.0 mph
(c)	Dunmail Raise, steepest portion (170 yards of 1 in 8.6)	.. .. .	7.9 mph
(d)	Birkhill	.. .. .	8.6 mph

The semi-official report of the cause of the various stoppages en



1899 Wolseley 3½ h.p.

route were as follows:-

Between London and Bristol the fastening of the belt came undone.

Between Bristol and Birmingham the wire cord to the carburettor broke, but this did not cause an actual stoppage. The belt broke, and one tyre, which was already worn, burst; 7 miles had to be covered on the rim.

Between Birmingham and Manchester a tyre punctured which caused a delay of 20 minutes.

Between Carlisle and Edinburgh there were several punctures, causing a delay of about an hour.

Between Edinburgh and Newcastle more punctures were experienced, causing a delay of three-quarters of an hour.

Between Nottingham and London a tyre burst; 10 minutes delay.

The parts that had to be replaced during the trial were:-

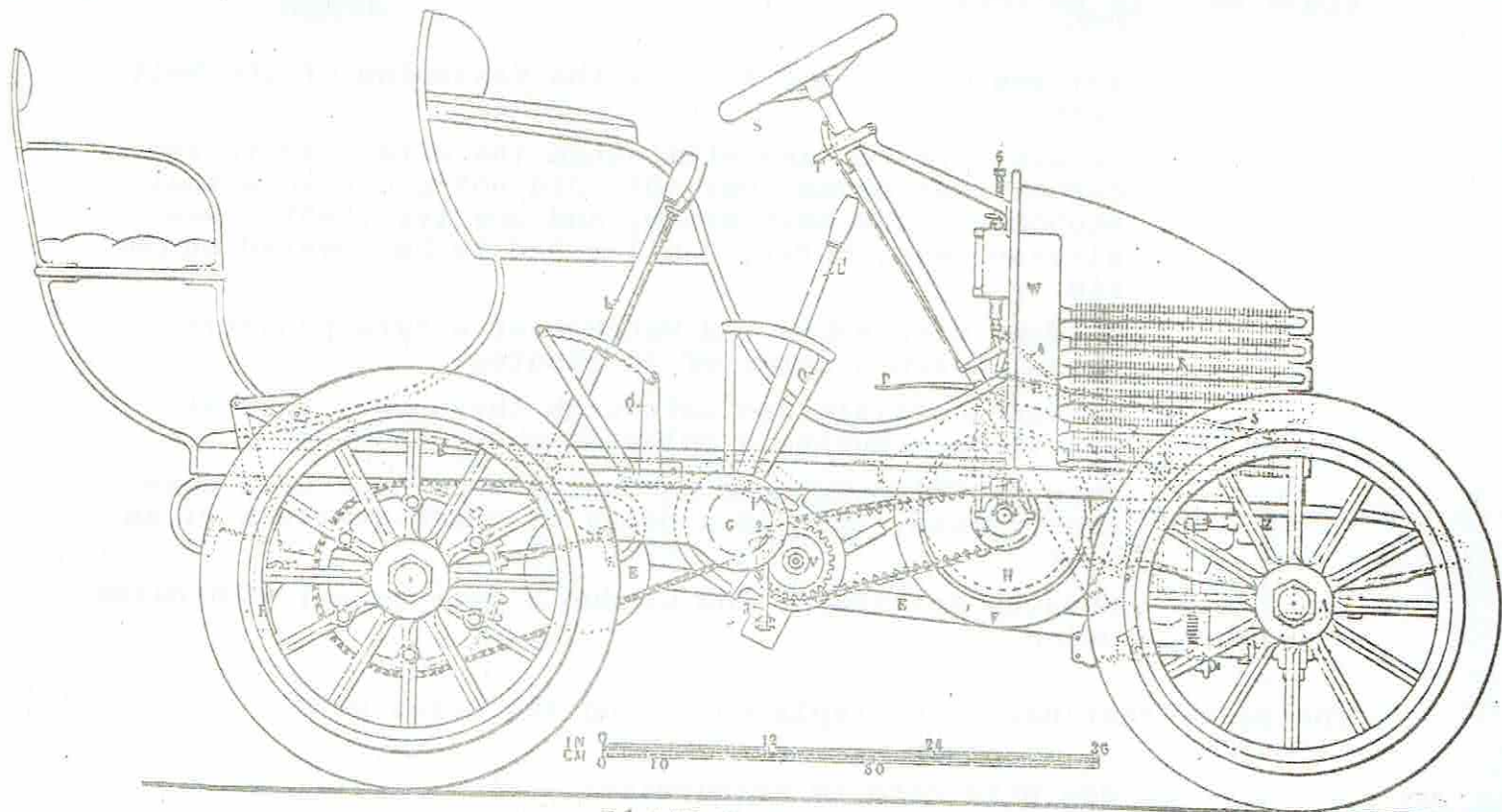
- New wire cord to carburettor.
- New belt.
- New cover to rear tyre.
- New top spring plate.
- New cover to rear tyre at Edinburgh.
- New cover to rear tyre at Northampton.
- Belt re-fastened at St Albans.

It was indeed a triumph for the Wolseley car, and its success was rendered all the more striking by virtue of the fact that contrary to more than one other make of car taking part, there was no second string on which to fall back in the event of failure from any cause. Had this car, driven by its designer, failed, the name of Wolseley would have been unknown in the trial, or at the most, it would have been mentioned only as one of the 'might-have-beens.' Driven by another veteran of that same trial, the late St. John Nixon, it re-enacted this achievement on three later occasions - in 1950, in 1960 and also a few weeks before Nixon's death in 1970. It is not too much to state that its success laid the foundationstone of the whole Wolseley Organisation. Let us examine the general design of this remarkable car.

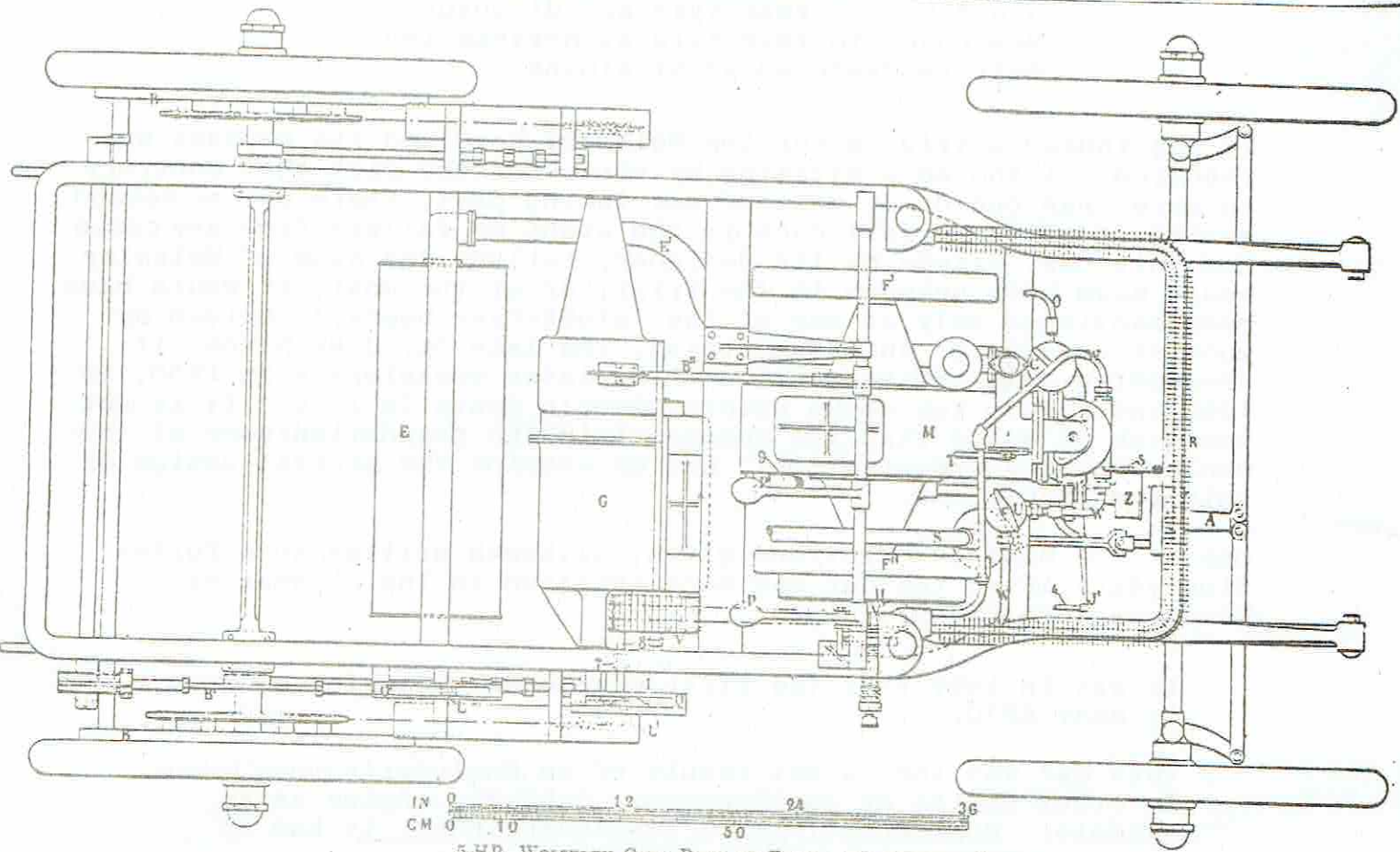
One of the best descriptions given, although written some forty-five years after the car was made appeared in The Autocar of November 16th, 1945,

It was in 1899 that the first four-wheel Wolseley emerged; it cost £270.

This car was the direct result of an Engineer's experience in other fields of engineering. Take the engine as an example. Horizontal, and a single-cylinder, it had an



THE 5-HP. WOLSELEY 3-SEAT CAR: ELEVATION.



5-HP. WOLSELEY CAR: PLAN OF FRAME AND RUNNING GEAR.

inlet valve opened by the depression on the inlet stroke and closed when the piston began to return on the compression stroke. Only the exhaust valve was operated mechanically by a cam on a shaft running along for all to see. The cylinder had a wet liner of cast iron making a watertight joint at the top of the water jacket through a conical machined seat, and at the other end bedding down upon a proper packing. The crankcase into which this liner fitted was of bronze, and later of aluminium alloy.

A detachable cast iron head carried the valves. The inlet valve seat was not in the head proper, but in a special detachable chamber, part of the inlet pipe. The piston was of cast iron with three rings, and the tubular connecting rod was secured to the piston by a gudgeon pin held at either end from the piston crown by what amounted to eye-bolts of which the nuts were in the combustion space above the piston top.

Another point of interest was that the crankshaft was not only substantial, but also had large plain bearings and a flywheel at each end. On the exposed camshaft there were gears which drove a water pump, and this pump circulated water round the wet liner, the cylinder head itself and then to a water tank provided with two tiers of finned cooling tubes to form, as it were, a double radiator.

Since electrical ignition was preferred to the much-vaunted tube, a contact maker was driven from the end of the camshaft, rather a crude contact maker by later knowledge, and this was wired up to an accumulator and coil, carefully housed out of the way of oil and dirt under the front seat, whilst the plug was in the centre of the cylinder head. A little later on the coil was moved to the dashboard.

As the engine, which was of $4\frac{1}{2}$ in. bore by 5 in. stroke, ran at a maximum of 750 r.p.m. and gave $3\frac{1}{2}$ to 4 h.p., though later this was increased to 5 h.p., the lubrication system was simple. A small oil tank mounted on the dashboard fed pipes leading to the bearings and crankcase through what were called 'sight-feed' lubricators.

In days when the argument between the merits of the wick or surface carburettor and the jet was extremely violent it is interesting to find that from the beginning Wolseleys had a single-jet carburettor which was surprisingly modern.

Again, the modern critic has to remember that the legal limit of speed was set at 12 m.p.h., and although some vehicles, this one for example, could attain 20 m.p.h., over a timed mile, the relatively low pace permitted transmissions which would not be entertained today. Partly because of that, and partly because of the simplicity and lightness, the earlier Wolseleys of this type

had a belt drive from the crankshaft to the gearbox, soon to give place to a roller-chain and then to an inverted-tooth chain as the engine power increased.

The gearbox itself was a plain, normal three-speed standard fitting. The shafts were on roller bearings and the main shaft, driven by the engine, drove the layshaft through the gears, whilst the layshaft, through a spur gear differential, in turn drove sprockets for the chains to the rear wheels. There was no necessity to provide for what today we call a direct drive, nor was a clutch necessary, because the belt could be moved gradually from a free to a power pulley to obtain the necessary effect.

The design foreshadowed the possibility of the gate for the gear lever, as the lever which shifted the gears moved sideways as well as forward in a series of long slots. The sideways movement meshed the required gear, the forward movement pushed the gearbox back on a pivot and so by tightening the belt took up the drive.

Naturally, the steering on the earliest vehicle of this type was by tiller, but the steering mechanism was more involved and certainly better than usual. The tiller projected from a shaft running up the dashboard, but below this shaft was a gear which operated a horizontal shaft with universal joints, in turn operating the worm of an encased worm and worm wheel on the front axle itself.

Chain adjustment was effected by pushing back the rear axle by means of adjustable radius rods, which were a trap for the unmechanical in that it was possible to reset the rear axle out of parallel with the front.

After the Thousand Miles Trial, which had the effect of establishing on a sound basis the infant British motor industry, it became obvious that the Wolseley car, by virtue of the performance it had accomplished, was destined to take its place among the motor cars of the world. A catalogue showing 'The Wolseley Voiturette' was issued, orders for cars began to come in apace and it soon became clear that the Sheep-Shearing Machine Factory in Alma Street, Birmingham, would be unable to cope with the demand.

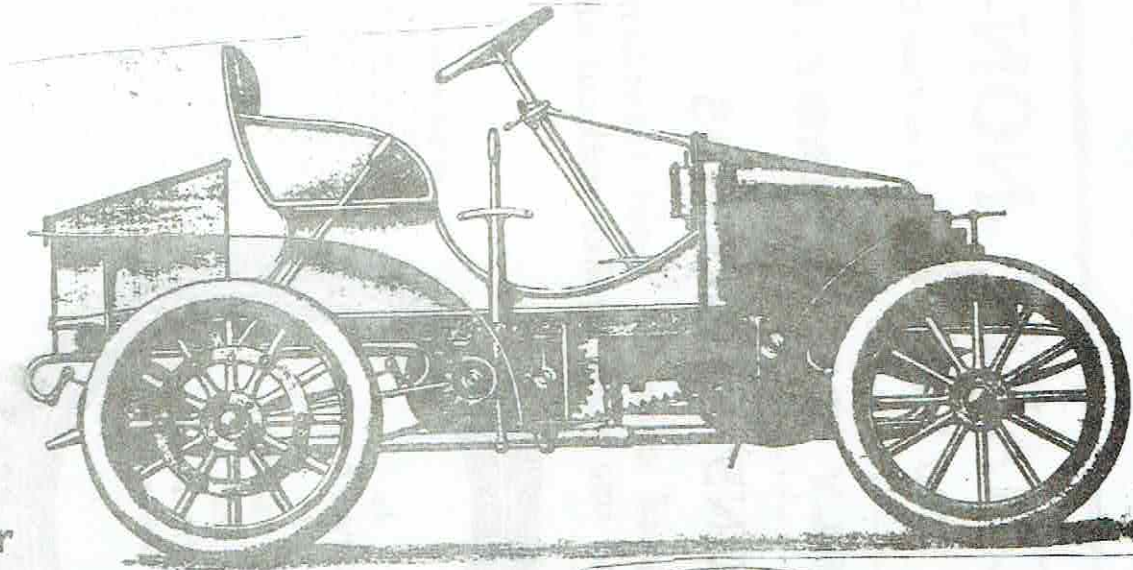
After the experience gained in the Thousand Miles Trial, the many lessons learnt were incorporated in an improved model introduced during June, 1900. It was the first Wolseley car ever fitted with wheel steering. The general lay-out will be gathered from the drawings.

Later at least one major improvement in the general design was the adoption of an inverted-tooth chain drive from the engine to the gearbox, in lieu of the broad belt used on the earlier vehicles. This did away with the gearbox swinging on a pivot to enable the belt to be tightened or slackened when gear changes were required.

A friction clutch of the leather-to-metal cone type was used and the general appearance of the car was an improvement on previous Wolseley productions.

Braking of the vehicle is controlled by three brakes, a brake pedal operates a transmission countershaft band brake. The hand lever, through equalising links, is connected to shoes acting on drums attached to the rear road wheels.

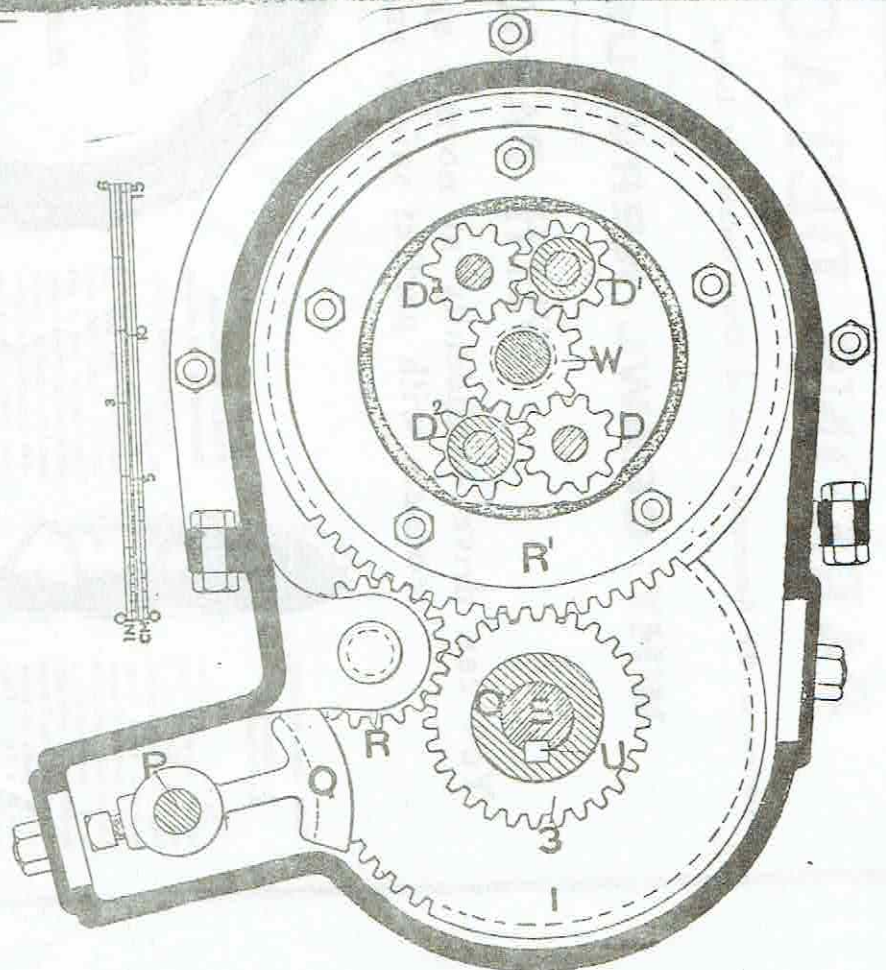
It is satisfactory to know that all three cars described in this and the previous chapter are in the private museum of the British Leyland Motor Corporation.



1900

Wolseley Racer

Nowadays we do not think of the sophisticated Wolseley as a racing car, but for many years powerful Wolseley racers enjoyed successes at all the principal meetings. Note the enormous flywheel and the chain drive. Chain drive, incidentally, was retained for a long time on the racing cars after normal cars had gone over to shaft drive.



GEAR AND DIFFERENTIAL GEAR WOLSELEY 5-HP. CAR

PARSONS DETACHABLE NON-SKIDS

Winners of the Automobile Club of Great Britain and Ireland £100 PRIZE and the Auto Cycle Club GOLD MEDAL.

WHY CRAWL NERVOUSLY ON GREASY ROADS?

WITH PARSONS NON-SKIDS

You can drive confidently at normal speed over the most treacherous surface, take corners with perfect safety, and use your brakes without skidding.

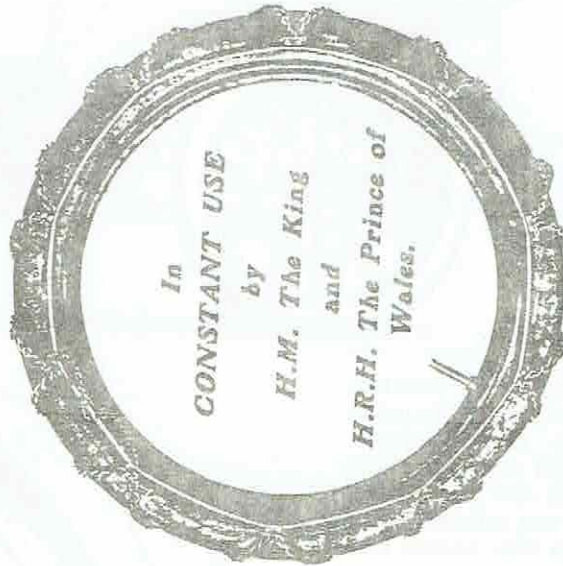
Motor Cycle Non-skid.
An Opinion of
the Parsons.

Sir,
In reply to "Skid-der's" letter in your issue of May 17th, I have now had a Parsons non-skid fitted to my back wheel for three or four months, and have never experienced a suspicion of side-slip, although before I have had as many as three falls in a day. They certainly save the tyre a good deal of wear, and do not interfere with the brake.
Yours faithfully,
"BK70."



Fitted in five minutes.
Detached in two minutes.

21st September, 1904.
Dear Sirs,
I consider your claims completely get over all trouble from side-slip. They can be put on and off in two or three minutes, and I have had no trouble with them of any sort after more than a year's use, and only about three broken chains.
Yours faithfully,
F. C. Sturson.



CONVENIENT FOR TOURING.

TAKE UP VERY LITTLE ROOM IN THE CAR WHEN NOT IN USE.

THE PARSONS NON-SKID CO., Ltd., 175a, Manor St., Clapham, London, S.W.

Telephone: 220 BATTERSEA.

Wire: "CHAINWORK, LONDON."

Perfect on Grease.
20th September, 1904.
Sir,

I find your Non-skids are the only ones that really hold my car on greasy roads. I have tried other devices but they are not so efficient. Yours faithfully,
C. Heyworth Savage
(Lt. Col.)



Satisfactory in Snow.
A doctor writes us on Nov. 25th, 1904: "The Non-skids have enabled me to travel with great ease through the snow, so that I have been able to do all my country work in my car this week."

Another customer writes: "It will no doubt interest you to know that we were enabled to cross the Mount Cenis with a foot and a half of snow, whereas, without the Non-skids we could not advance."

All Right on Solids.

Nov. 26, 1904. In reply to "G.D." I have been using the Parsons chains on Sirdar's solids with excellent results, being able where the traffic permitted to drive on the Old Kent Road on top speed without a sign of slip when the road was at its worst. I kept the skids on all the way to Folkestone without damage. The one thing necessary is to have the chains quite loose, otherwise the rim cuts the chains, as there is not much clearance between the rim and the road in these tyres.
F. J. H.