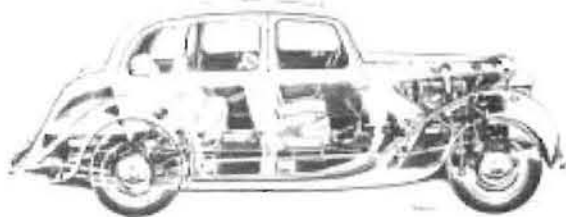


# Palmer

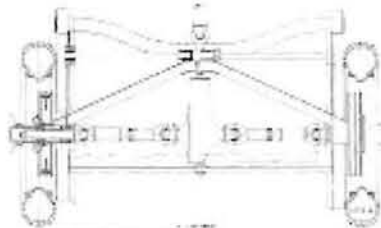
Gerald Palmer, a famous 'classic car' designer By Graham Robson



The Y series MG saloon designed by Palmer before the war.



The very first Jowett Javelin prototype. Compare it with a production car — half-frame doors, that grille, and a vee-screen all disappeared on the way.



De Dion suspension at the rear of the Deroy, in 1936: Springing was by transverse torsion bars.

LOOKING back it's extraordinary to me that I was given so little briefing. Nuffield just wanted a new MG saloon and a Riley saloon, to replace the RM, with no time targets and no size targets!" Gerald Palmer sat back in his chair, grinned incredulously at me, and added, "No designer could have asked for more."

That name should mean a lot to any "classic car" enthusiast. Palmer is rightly famous for his work on the Magnettes, Pathfinders, and Jowett Javelins. But in a motor industry career stretching from the 1930s to the 1970s he was connected with other equally interesting projects.

How many historians, for example, know much about the Deroy sports car? About the origins of the MGA Twin-Cam engine? About the still-born BMC vee-4 engines? About the history of the MG Y-type 1½ litre saloon? Gerald Palmer was involved in all of these. He was also tenuously connected with a much-modified Model T Ford, with massive six-wheel-drive, Scammell gun-tractors, and latterly with the better and more interesting Vauxhalls of the 1960s.

It was quite a career — though I'm not sure if I should say "was". Palmer is now officially "retired", and a disgracefully young-looking 66 years old, yet he still has ambitions with new types of motor vehicle which only require a backer and bit of vision to become reality.

The story of how the 27-year-old Gerald Palmer entered the MG design office at Cowley in 1938 tells us a lot about his skills, and something about Lord Nuffield's attitude to his most famous marque. The story of how he was hired to design an all-new Jowett in the depths of the Second World War is a fascinating saga of ambition, high hopes and — ultimately — some disappointment.

Gerald Palmer was born in England, but raised in Southern Rhodesia where his father was chief engineer of the railways system. His first car was a handed-down old Model T Ford, quickly given a stark two-seat racing body. When the young man came home in 1927 his burning ambition was to have a car of his own design running on British roads. It was a straightforward aim, not realised until 1937.

Palmer's father, however, insisted that he should go into the truck business, with the result that he was apprenticed to Scammells at Watford. Their brilliant chief designer was O. D. North, already well known as the designer of the air-cooled radial-engined North-Lucas car of 1922/23. "I call North the father of the VW," insists Palmer, "because several of his ideas were later taken up and modified by Dr Porsche." At Scammell he produced a series of gargantuan crawler tractors with articulated axles which could, it seemed, almost literally climb over walls!

North was a great inspiration to the young apprentice, who spent much time when "going through the works" building Palmer Specials.

"Then, through my wife, I met a young man — ex-Eton and Oxford — called Anthony Fisher — who would put up £1,000 for me to build a sports car prototype. The idea was that we would set up and manufacture cars, but though we completed a prototype the project never got off the ground."

The car was called the Deroy, after a place in Portuguese East Africa where Palmer's father had owned a tin mine! As Palmer said, with a wry smile: "No other reason, it just sounded a good name."

That car took shape in Penge, with a box-section chassis frame, proprietary Meadows gearbox and ENV axle, but with a 1100cc Scammell side-valve engine.

The main interest was in the suspension — independent at the front with a variant of the Dubonnet system, and improved de Dion type at the rear (made much of by Dr Fred Lanchester in a current learned paper) and used in modified form by Saab and Panhard in the 1950s.

"But this came to a grinding halt in 1937," Palmer told me, "so I got an introduction to Cecil Kimber at Abingdon. He sent me over to Cowley, where Vic Oak took a look at my Deroy car, thought I had something, and asked me to take over the MG drawing office work at Cowley!"

Anyone who has read Wilson McComb's MG book will know that Abingdon's design office had been closed down by Lord Nuffield in 1935, and that the exciting but loss-making sports cars were gradually being replaced by Nuffieldised machines. By the time Palmer arrived, his total team was no more than five designers. The big SA/WA saloons were in production, and no new sports car was in prospect.

"We were actually designing the YA 1½ litre saloon for 1940, but the war stopped that. Alec Issigonis had designed the independent front suspension, but my first job was actually to design a cheaper beam axle alternative, based on the M 10 layout done by H. N. Charles!"

All body engineering was carried out by "Bodies Branch" in Coventry (which is now a Coventry-Climax factory), and the engine/transmission line-up was fixed. Work on the YA was completed in 1939, but the car was not announced until 1947. Its chassis, of course, formed the basis of prototype TD sports cars, and that suspension would see much use in future years.

After three years of war work for Nuffield, which included Palmer designing a portable anaesthesia machine for field use, he suddenly spotted an advertisement from Jowett for a new Chief Designer.

"I hesitate to say that I moved in 1942, and immediately started on post-war car design — because in those days that was supposed to be unpatriotic. But Jowett had a very forthright chief — Calcott Reilly — who realised that it was no good fighting and winning a war if there was to be a complete blank afterwards,

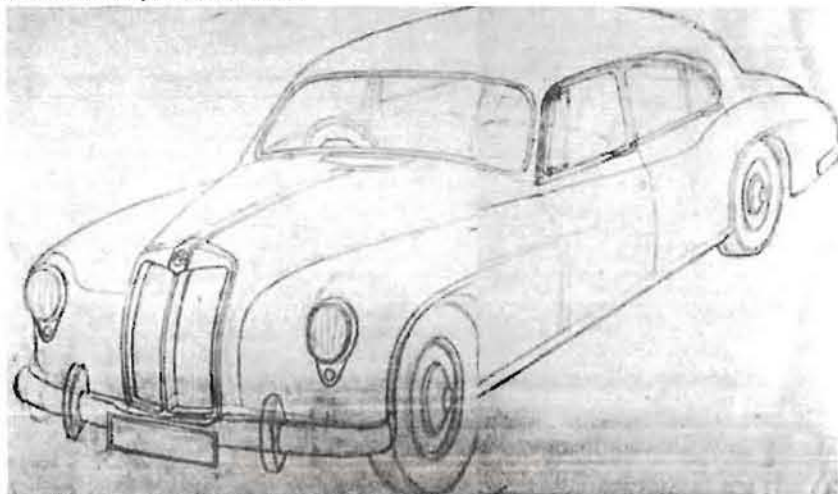
"I applied for the job, went up to war-time Bradford, and was not impressed by what I saw. I didn't like the city, and the factory was tiny compared with Nuffield, so I said 'No thanks' when I was offered the job. But a fortnight later Reilly pursued me to Oxford, and eventually persuaded me up there."

The persuasion was £500 a year instead of the £325 he was earning at Cowley, and a free hand to design a post-war Jowett. The salary itself was no fortune, even for 1942, but the "free hand" was a great inducement. Palmer's first thoughts were of a simple but advanced car for what he thought would be an austerity post-war world (he was right!), and the car which he particularly admired was the traction avant Citroën.

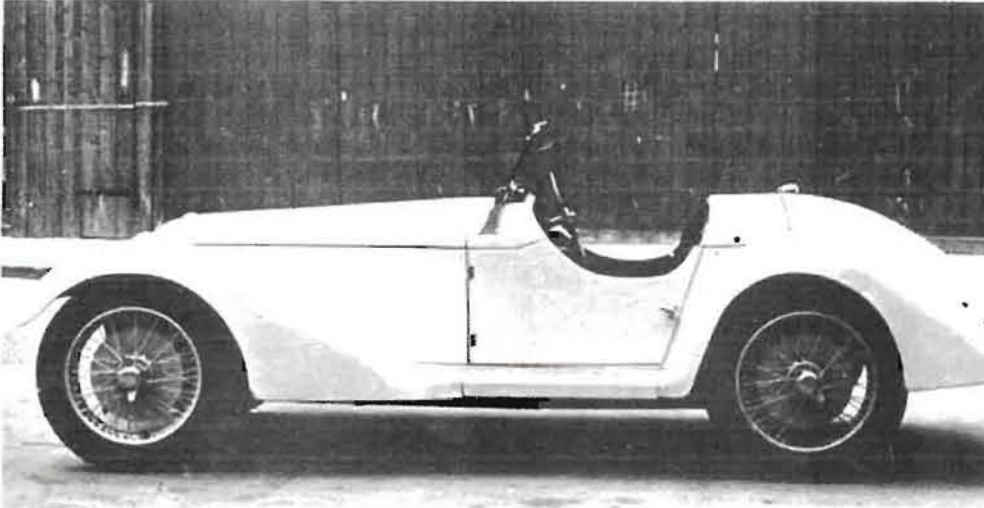
"I wanted to design a good 'universal car', which would be a good exporter. Jowett had few resources when I joined them, and we went through all kinds of exercises to make the body by knife and fork methods. The idea we carried through was that the external panels would be the only ones for which dies were laid down."

All this, mark you, was carried out by Palmer and two draughtsmen, with one good body designer — Reg Korner — at a time when it was almost impossible to get non-military work done. The flat-four engine was chosen only partly for political and traditional-Jowett reasons, but also because Palmer reasoned that it would leave more space for carrying people." One of the inspirations for the Javelin engine was the flat-four Steyr unit, which carried a radiator above the engine. I also liked the Fiat Topolino's layout, with power pack in front of the wheels and a radiator up above. You may not know that before the war Jowett had been moving away from flat engines, and I found a very conventional in-line "four" prototype there which was quickly suppressed!"

The styling was by Palmer himself, with the aid of a wooden buck and mock-up, and he gave the car a prominent prow because "without it, the car would have looked like a man with a weak chin." In the end, with Jowett rather richer as a result of essential war work, there



Gerald Palmer's original sketch, made in 1949 of the MG Magnette project



The Palmer designed Deroy sports car of 1937. Only this one car was built.

was money to spend on body tooling after all — and Briggs got the job. Their factory at Doncaster, which also turned out upright Anglia shells for Ford, was conveniently close to the Idle, Bradford, factory.

"We had the first prototype running by the middle of 1944. There was a lot of development work to the engine — we started off with a monobloc two-bearing cast-iron crankcase. The gearbox was the only existing component, a Jowett 10 synchromesh design introduced after the outbreak of war.

"Yet it was easier to get things done somehow. We only had about four prototypes — they were great days.

"I modified the flat-twin Bradford engine as well, and we also built a coupé version of the Javelin as a sports car, but I had nothing to do with the Jupiter. In fact I disagreed with it as a project — the company was more or less forced into it to get more export potential and therefore more sheet steel supplies. The Javelin's export record wasn't, in fact, all that good although there was an insatiable home market demand.

"It's interesting, by the way, that the first export Javelin went to Chrysler in Detroit, and undoubtedly influenced their adoption of torsion bar suspension ..." By 1949, however, Gerald Palmer was on the move. Through the good offices of F. G. Thacker, of

Lucas, Palmer heard that Nuffield were looking for a new man, and — having retained his house in Oxford — Palmer was anxious to return. After an interview with Reggie Hanks, he re-joined Nuffield, with a most extraordinary brief:

"All I had to do was to produce new cars for Riley and MG. There was no product planning, nothing. All I had to do was to come up with ideas, which I hoped would be accepted. Luckily they were!"

After the small-town atmosphere at Jowett (with no prospect of new models for years to come due to lack of capital and cash flow), the vast potential of Nuffield was exciting. All Cowley's post-war efforts had gone into bread-and-butter Morris and Wolseley projects (including the successful Issigonis-designed Minor), but nothing at all had been done about new MGs or Rileys.

The TD sports car had just been hastily cobbled up from the bare bones of the YA saloon. Harry Rush of Riley had designed the RM-series Rileys in 939, which were now in production at Abingdon. Their bodies, of traditional ash and pressed steel construction, were built by Morris Bodies Branch in Coventry, and until 1949 final assembly had been at the Riley works in Coventry too.

"It wasn't too difficult deciding what to do for MG," says Palmer, "but Riley was going to be tricky as Rush was still working in Cowley and in fact we shared

the same office. Tragically, though, he was killed in a road accident when driving up to Coventry one day early in 1950."

Palmer evolved his first proposal which was to build not one, but two new models. He proposed an MG/Wolseley combination, where the Wolseley would be built two inches higher off the ground — which could be achieved fairly simply with modified under-door sills, wings and suspension pick-up points.

"I should say that in the meantime I had been to several Continental shows, and had realised that those Italian styles were really wonderful. British styling, by comparison, was just pathetic. As with the Javelin, so with this new car, the styling was all mine. This time I wanted to get the height down, and approach Italian themes. With the Javelin I always said I wanted to see a frame under the body: with this new car I had to get the roof and the floor pan right down, which partly explains the unit construction. Another thing was that Pressed Steel were doing the body engineering, and it all made volume-production sense."

Palmer had to use existing engines, gearboxes and axles, but it is a fact that both Wolseley 4/44 and MG Magnette were intended to have the 1¼-litre MG engine. In the middle of the design period, however, the BMC merger arrived, and Palmer was asked to install the B-Series BMC engine into the later (MG) car.

Nuffield's attitude to rationalisation was that the Wolseley should be built at Cowley, and the MG at Abingdon, from bodies made on the same track at Pressed Steel John Thornley and Sid Enever didn't really know much about modern "tin-top" design, but were happy to have the new Magnette built alongside the TFs and later the MGAs.

Palmer's total design office comprised only ten people, but their work load was reasonable as they could farm out all body shell engineering, and they had to use existing mechanicals from other parts of the Nuffield or BMC empire.

After the Magnette job, Palmer's team then started on a new Riley, though a six-cylinder C-Series Wolseley car (the G/90) was designed alongside it. The concept of two cars sharing one body, one low and one not so low, was again accepted, but Palmer's assumptions of body construction were wide of the mark.

"I was instructed to use the 2½-litre RM



The Palmer-designed (and styled) MG TF replacement of 1953/54. It could have been built on one base with full width styling ...



... with "traditional" wings and nose. Were BMC right to reject this ingenious idea?

Riley engine — a very fine unit — and the BMC big gearbox, which must have weighed 700lb in all, so I simply daren't propose a unit construction shell, I designed a box-section chassis with another Italian-style four-door body on top of it.

"We had a lot of trouble over Riley traditions. Every Riley, it seemed, had to have a torque tube, but I had to use a Nuffield axle which wouldn't adapt, so I compromised by giving it radius arms and a Panhard rod, with coil springs. The Wolseley version which followed a year later was just the same. In 1957, though, when the Riley became the '2-6', it reverted to leaf springs — the Wolseley got them in 1956.

"I was always proud of the Pathfinder's perimeter frame, as that idea was later adopted, slightly modified, by the Americans. I also designed a right-hand gear change, which was very 'classic', even though I really did it to allow for a bench front seat and three-abreast seating! The Morris gearbox had side selectors, which made the linkage easy to arrange.

"Now, the body mix-up. The RMs had been of composite build, and I planned for a new body of similar construction. But everybody liked the full-size mock-up so much that it was suddenly decided to tool-up properly for pressed-steel construction at Nuffield Metal Products in Birmingham — if I'd known that, I might not have designed it the same way!"

Nuffield, and BMC, seemed to operated happily in this haphazard way, but Palmer soon got a chance to find out more when, at the start of 1954, he was promoted.

"Alec Issigonis had gone to Alvis, Oak had retired, and Johnny Rix at Austin moved out, so suddenly I became Group Chassis and Body Designer, and joined the Morris Board of Directors. After that I was really an administrator, and spent half my week at Longbridge, and the other half at Cowley.

"One interesting job I did get done at the time was the original twin-cam MG engine. I originated the policy and laid this out on my own drawing board at Cowley, it was detailed by Jimmy Thompson's team at Courthouse Green Coventry, where Eddie Maher was the testing chief. It had a 90 degree valve layout as I designed it. Later, of course, prototypes raced in the Dundrod TT."

The production Twin-Cam, came along in 1958, and had been re-worked according to Harry Weslake's recommendations, with an 80-degree head. "It

was disappointing to me that the engine was dropped so soon, as it seemed the right kind of unit for the MG sports cars."

Palmer's two years at the top in BMC were not very happy for him. We know now that there was considerable friction between the Austin and Morris camps, that Sir Leonard Lord sometimes surpassed even himself for rudeness and lack of consideration to his subordinates, and made it almost impossible for many to work for him.

"It was nothing for us to be working, say, on a new Minor at Cowley, and for Lord to arrive our day with a stack of drawings to say 'Here you are, Dick Burzi and I have designed this new Minor at Longbridge!'

"Longbridge, of course, converted that 'new Minor' into the Wolseley 1500/Riley 1.5, which had Minor floor pan and suspensions."

Not that this stopped Palmer and his fertile-minded Cowley team. In the same short period they designed a very pleasant little sports car, which might have become an MG instead of the MGA, and which could have been built with traditional-style or full-width panelling, depending on the market, and all by the use of bolt-on skin panels. It was Palmer's opinion, then, that the North Americans still preferred traditional styling.

Palmer himself planned a twin-cam conversion of the six-cylinder C-Series engine for the Pathfinder, meant to "out-Jaguar the Jaguar". One of these engines was built, as I recounted in my prototype MG stories of 1976. He also suggested a very compact little 90-degree vee-4 engine for BMC, of about 900cc, which could have been used in a transverse-engine front-drive layout:

"It had only a two bearing crankshaft and slanting-head machine faces, with semi-side-valve horizontal valves operated by pressed-steel rockers from a central camshaft.

"You see, Alec had already built a transverse-engine (side-valve) front-wheel-drive Morris Minor before he left us in 1952, which was a very impressive little car."

That engine was never built, but BMC at Longbridge did go to considerable expense to design and develop a whole family of vee-4 and vee-6 engines at Longbridge in the 1960s — these were still-born.

The political manoeuvrings, the feeling of being an outsider in his own firm, and the impossibility of working in any logical manner with the mercurial Len

Lord caused Palmer to leave BMC abruptly in 1955. He moved for the rest of his full-time career to Vauxhall, where he was Assistant Chief Engineer — Passenger Cars.

The much improved Victor FB and its VX4/90 variant, replacing the original GM-Detroit-designed 1957 Victor, were much to Palmer's credit, he being in charge of that project. He was much involved in the first Viva HA and its successor the HB. "Product planning, timing, and cost control were better managed, and visits to the Detroit headquarters were always sobering and tremendously informative."

He looks back with nostalgia and a wry smile at the work his team managed to get through in the 1940s and 1950s. The entire Nuffield design office of 100 people managed to turn out more new models in five years than British Leyland have achieved in ten: "But you didn't have to worry about legislation or homologation. There was much more fun in designing cars then. It's all gone now ..."

The man deserves his memories, and he certainly gave years of enjoyment to thousands of others. Perhaps it is predictable that, in "retirement", he is still designing road vehicles.

Most of all, though, we envy him the contents of his garage at Ifley. Alongside a Bugatti being restored, stands that magnificent 1924 Targa Florio Mercedes which is so familiar to the vintage movement. But any man with a design record like Gerald Palmer's deserves that sort of car for fun!

#### Cars designed by Gerald Palmer:

<b>On his own account</b>	
Deroy sports car	1936/37
<b>For Nuffield, pre-war</b>	
MG YA 1½-litre saloon	1938/39
<b>For Jowett</b>	
Jowett Javelin	1942/49
<b>For Nuffield/BMC</b>	
MG Magnette ZA/Wolseley 4/44	1949/52
Riley Pathfinder/Wolseley 6/90	1950/53
First MGA twin-cam engine	1954
— and other still-born prototypes (Group Chassis and Body Designer, BMC, and on Morris Motors Board, 1954/55)	
— hereafter joined Vauxhall Motors, as Assistant Chief Engineer — Passenger Cars.	