ORIGIN OF WOLSELEY—AUTOCAR OCT 1941

ORIGIN OF WOLSELEY CARS

Which was the First Car to be Built by Lord Austin ?

PEOPLE who enjoy the always fascinating process of establishing facts by means of studying evidence and making deductions therefrom will find some interesting reading in the following notes upon a controversial matter of motoring history. By way of introduction it may be recalled that the late Lord Austin essayed his first start at designing motor vehicles when in the employment of the Wolseley Sheep Shearing Machine Company, Ltd., of Birmingham, round about the year 1895. This is simple fact. The point at issue, however, has been to prove which was in truth the very first "autocar" that he made. Certain early vehicles have remained in the unbroken possession of the Wolseley Company, who have definite views regarding the sequence of their birth.

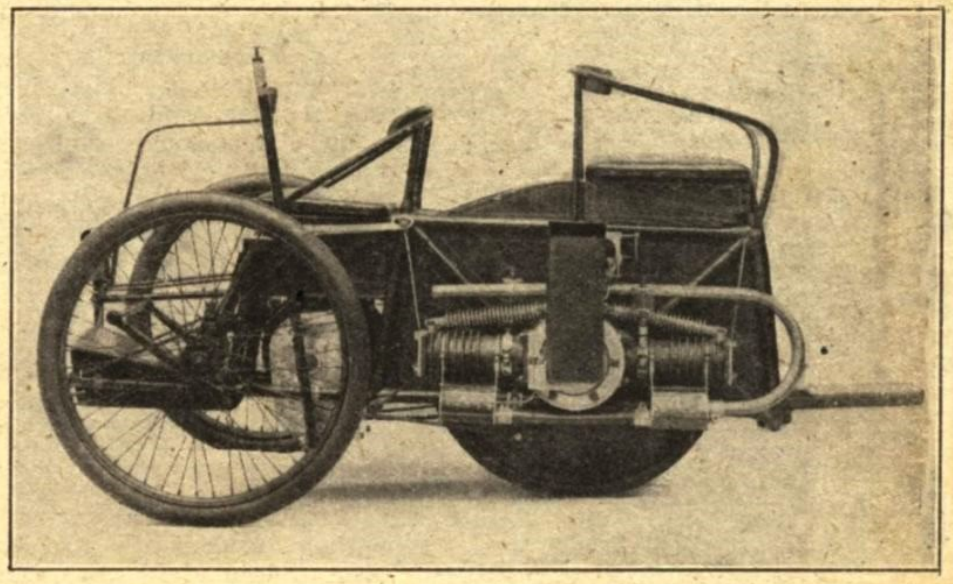
Evidence of a Small Part

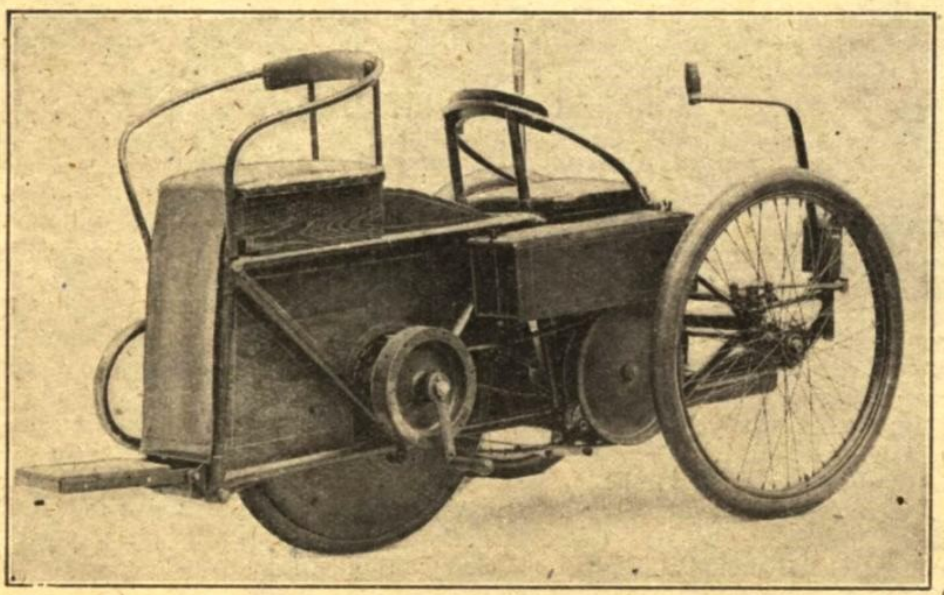
Of all the evidence now obtainable from expert examination, here is the most interesting and possibly the most conclusive fact, with the deduction to be drawn from it. Look at the photograph of the steel tubular frame of Car A. In passing it may be observed that for rigidity in comparison with size, modern unitary construction has no advantage over this early design! In the rear part of this frame on each flank two diagonal struts run down to a bracket attaching them to the bottom tube, and this bracket has a trunnion clip within the apex of the V, and a small lug projecting downwards below the bottom tube. On the complete Car A the trunnions carry the mainshaft of the engine, and the small lug is the home of a bolt attached to the crankcase to provide a torque reaction anchorage. Apparently in practice it was found that this torque anchorage was insufficiently strong, because the finished car shows a pair of diagonal metal straps locating each cylinder head to the top and bottom corners of the ends of the frame.

That little torque reaction lug is important. This is the reason. Car B has an exactly similar bracket brought into its construction. But the little lug is not used for any purpose, and is not machined for a bolt. If car B was the first to be made, why is that lug in existence at all? On the other hand, if Car A was the first, then it is quite reasonable to suppose that some of the components designed for it could be used when making up a fresh model. And that undoubtedly is what did occur.

Before leaving A to examine B it should have been mentioned that the Daimler Company took up the Bollée rights in this country in May, 1896, and it was probably this fact which brought Austin to abandon further development of Car A and change to another design, namely, Car B.

Three early cars are in the possession of the company. Car A is a three-wheeler, one wheel behind, with a two-cylinder horizontally opposed engine outside the frame. Car B is a three-wheeler with one wheel in front, and has a single-cylinder engine. Car C, which does not enter much into this discussion, is a four-wheeler, the first Wolseley four-wheeler, with a single-cylinder engine. Wolseleys are satisfied that Car A was the genuine first, and certain old-timers assert that Car B was the first.



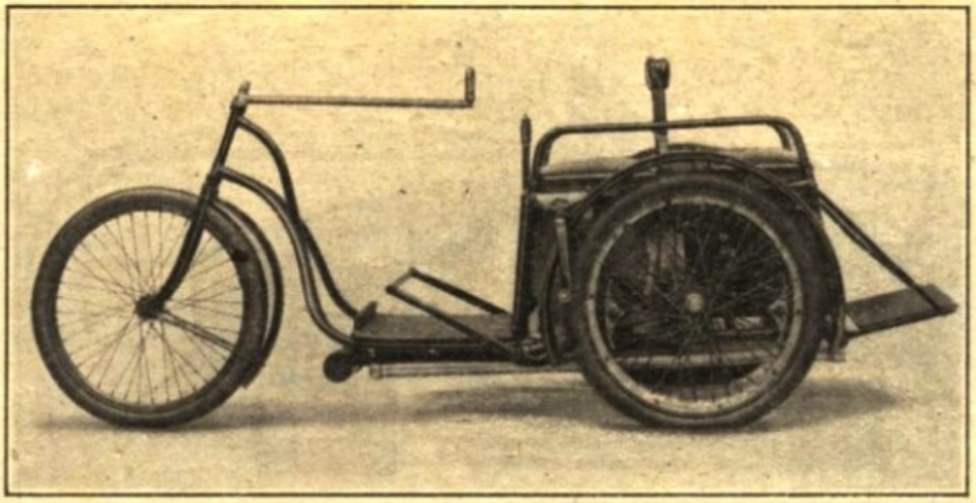


Car A, which proves to be the first car Lord Austin built. The engine was an opposed twin with common combustion space and transmission consisting of a belt forward to a gear box below the front seat and a chain back to the rear wheel.

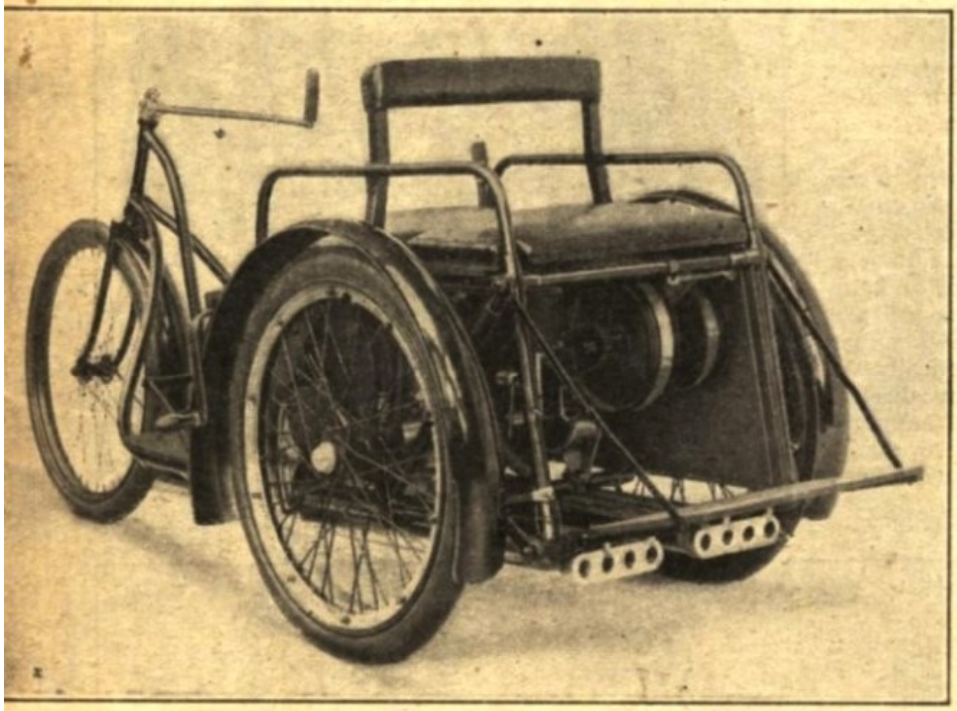
The assumption on the part of the memorisers that Car B was the first is based on several points. Its outward appearance tallies very closely with illustrations which appeared in the Press in 1895 and 1896 relative to the first Wolseley car to be on public view at a Crystal Palace Cycle Exhibition. The same car is illustrated in the first Wolseley Catalogue, which calls it Wolseley Autocar No. 1.

Now for the Wolseley evidence to refute this assumption. Old employees recollect Car A and are convinced that it was the first. To find proof of this it is necessary to look back at the first association of Lord Austin with the early company.

In October, 1889, a company was formed with the title of Wolseley Sheep Shearing Machine Company, Ltd., with the object of acquiring patent rights for Great Britain and other countries of a sheep-shearing machine. That company was formed by Mr. F. Y. Wolseley, a brother of General Sir Garnet Wolseley. Many of its machines were sold in Australia. At that time the then Mr. Herbert Austin served part of his apprenticeship with a relative in Australia who controlled a Melbourne branch which handled the Wolseley products. Experience of these machines in actual use led Herbert Austin to foresee many possible improvements, and his pertinent criticisms led the W.S.S.M. Company to invite him to return to England and see what he could do about it. Austin took the job on.



Car B, still in existence, has a single-cylinder engine. This was the first Wolseley to be exhibited, and was described as No. 1 Wolseley Autocar in the first catalogue, whereas actually it followed the A car and there is no evidence that it was ever sold.



(Left) Also Car B, which is in the Wolseley Museum. The rear wheels of this vehicle have a form of independent suspension.

For some time he had been interested in the possibilities of mechanical transport, chiefly with the object of making life easier for people who had to work, and he vowed that one day he would build motor vehicles. In 1895 he visited Paris to look at the early cars. It is thought that he was particularly interested in the Bollée, and believed that he could produce something on similar lines but much better. This may have been the inspiration of Car A, which undoubtedly was made at about this time.

Various illustrations of Car A appear in these pages, and here is a brief description of it. Two-cylinder horizontally opposed air-cooled engine of approximately 2 h.p. with two-throw crank; cylinders had a common combustion chamber, with an inlet and exhaust valve both mechanically operated and controlled by a governor, which is missing. Both cylinders fired together. A pipe from the exhaust valve ran down to a pair of silencers filled with gravel and coke. The frame was of steel tube girder formation. A tiller controlled two Ackermann-steered front wheels. There was one rear wheel embraced by the frame. The engine was fixed to the outer near side of the frame, co-axially with the rear wheel, and the flywheel was on the outer off side. Power was transmitted to a three-train gear box by means of a belt, and brought back to the rear wheel by a chain. The whole gear box was slung in the frame, and the engagement of a gear and the tightening of the belt was achieved by a tall lever on the left side of the driver. The gear ratios were top 4 to 1, second 8 to 1, and low 17¼ to 1. In changing from low to second it was necessary to pass through the top gear, but the slackened belt gave the same effect as a modern free wheel.

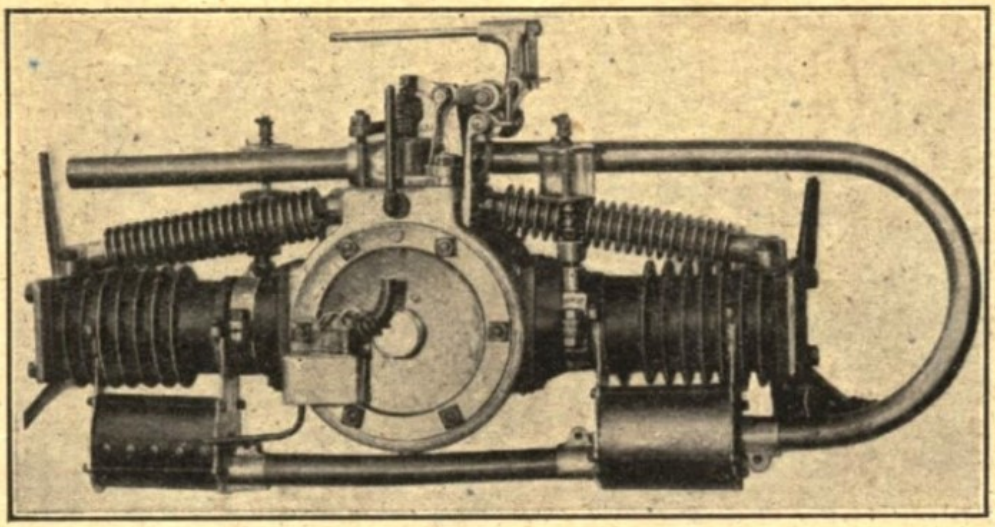
Side light on the Subject

With regard to this engine, which, by the way, has been "re-invented" many times since 1895, here is an interesting side light. The first volume of *The Autocar* contains several references to newly invented engines that attempted to balance the explosion pressure—in some by firing the charge between two pistons. From these references, also, it is obvious that engineers in Birmingham were working along such lines, the object being, of course, to reduce some of the thumping vibration which was a feature of first attempts to make motor car engines. It is logical to presume that Herbert Austin was well aware of what was proceeding in other quarters in Birmingham, and set about solving the same problem in his own way.

In Volume 1 of *The Autocar*, the first reference to a Wolseley car appeared in December, 1896, and relates to a vehicle exhibited at the Crystal Palace Cycle Exhibition. The *Engineer* for the same month published a similar reference, and both papers had the same illustration of the vehicle. Three weeks later, January, 1897, *The Autocar* gave a more full account of the same car. Again, the first catalogue of "Wolseley Autocars" is still in existence, though not dated. It shows the same illustration. It does not state how many cylinders "Wolseley Autocar Number 1" had, which is an important point, as will be seen later, and it gave the price as £110 to carry two persons, and £150 to carry four persons.

Because it was the first Wolseley to be exhibited and to be described in the Press, and also named Number 1 in the first catalogue, this B type car is claimed by some early members of the motoring world to have been the first, whereas it actually followed the A car. Incidentally, there are no records or Press references to show that any B car was ever sold.

In the full description of car B in Vol. 1 of *The Autocar* the engine is described as having two cylinders; the



The first engine (in Car A) ; on the top of the crankcase is the combustion chamber with both valves mechanically operated. The ribbed pipes connect combustion chamber and cylinder heads.

Engineer of about the same date also mentions two cylinders, but the B type car, still in existence at Wolseley's although its outward appearance is exactly the same as in early illustrations, except for one or two minor details, has a single-cylinder engine and belt transmission.

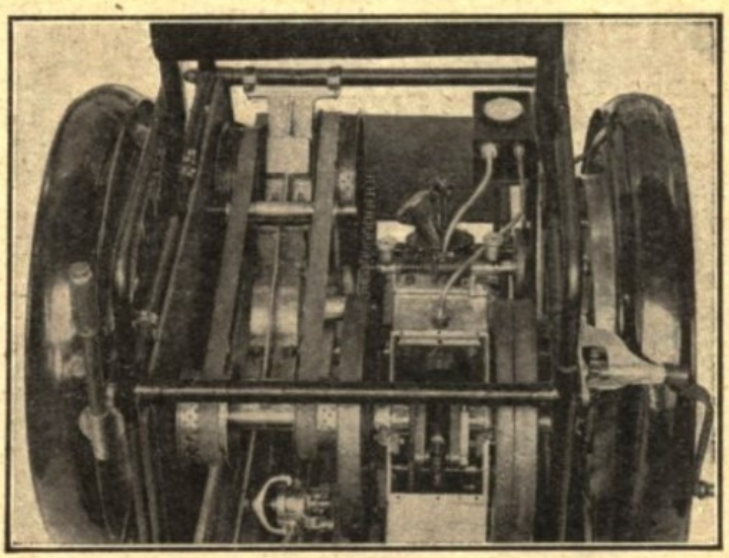
From this the natural conclusion is that it is the same chassis, probably the only B car built, but that experience with the first engine and transmission led Lord Austin to abandon them in favour of something more simple. Moreover, it is known that he engaged a designer whose name is not on record, from the Crossley gas engine firm, and the single-cylinder engine in the car bears evidence of gas engine practice. In this connection there is another fact which rather clinches matters: this engine is practically the same as the one in Car C, the first Wolseley four-wheeler, and the main points of its design, plus gradual improvements, continued in Wolseley cars for years afterwards.

From chronology it is evident that Lord Austin was experimenting to evolve a sound all-round design of "autocar." He had tried rather unorthodox two-cylinder engines, and abandoned them, changed his B car to a more orthodox single-cylinder engine, persuaded the car to go fairly well, to the point where he could realise that the short wheelbase narrow track three-wheeler design was unpractical and unstable. All this occurred in the years 1895 to 1897-98. In late 1898 he turned over to four wheels, and built the famous Wolseley Voiturette, which afterwards won the Gold Medal in the 1,000 Mile Trial organised by the A.C.G.B.I. in 1900. This car, still in the possession of the present Wolseley Company, was the forerunner of success as a production model, or "best seller."

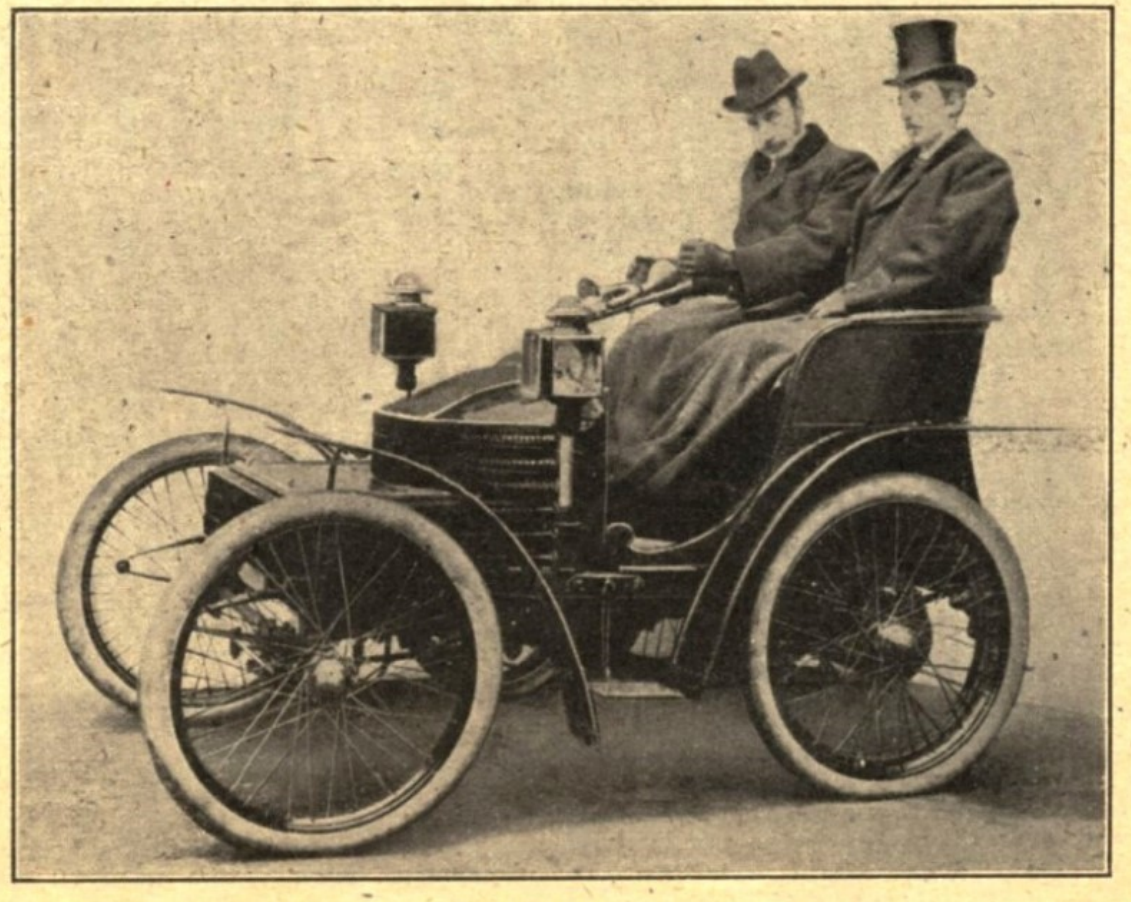
In February, 1901, Vickers bought up the car manufacturing rights, patents, goodwill of the Wolseley Sheep Shearing Machine Company, changed the name to the Wolseley Tool and Motor Company, Ltd., purchased the Adderley Park works, and got going strongly.

To sum up, Lord Austin built in all a sequence of four experimental cars. A type, one off ; B type, which started with two cylinders and was reconstructed with a single-cylinder engine ; and C type, the first four-wheeler.

In conclusion, it may be remarked that these notes are very little more than a synopsis of all the data available, and are believed to be a true reading of voluminous evidence.



Details of the transmission on Car B, with single-cylinder engine.



Car C, the first Wolseley four-wheeler, which has a single-cylinder engine. The late Lord Austin, then Mr. Herbert Austin of Wolseley's, is in the driving seat.