

'Twelve' remained in production until 1921. The last Haynes was the Model 60, a 5219cc six, available with roadster, tourer or sedan bodywork.

HB/USA 1908–1909

A 10 hp high-wheeler built by H. Brothers of Chicago.

HCE/England 1912–1913

An underslung cyclecar with 6 hp Buckingham engine.

HCS/USA 1920–1925

Harry C. Stutz left his Stutz Motor Car Co. in Indianapolis in 1919 to head a new concern in the same city, the first HCS automobiles being introduced for 1920. A relatively expensive machine, the HCS resembled the Hispano-Suiza and was highly regarded by sporting car aficionados. The cars were powered by a four-cylinder Weidely engine; in 1924, this was augmented by a Midwest six. The Weidely four was dropped for 1925 which was the last year of HCS passenger-car production. The company remained in business as a taxicab manufacturer into 1927.

HE/England 1920–1931

Financed by Herbert Merton and designed by R. J. Sully, the HE was built in Reading, Berkshire, by the Herbert Engineering Company. The first model was a sv 1795cc four, though it was soon succeeded by the 14/20 of 1920; two years later a sporting model, the 14/40, appeared. A six-cylinder model, a 15.7 hp of 2.3 litres, was added in the 1927 season. The four was dropped in 1928 and a 1½-litre six appeared in 1930, a few being sold in supercharged form, though it featured quarter-elliptic springs all round, a sign of the times!



1927 HE Six at Brooklands

HEADLAND/England 1898–c1900

Front-wheel-drive electric broughams and phaetons 'of not unpleasing appearance'.

HEALEY/England 1946–1953

A highly accomplished driver and experienced engineer, Donald Healey formed plans for the production of a car bearing his name whilst in



1948 Healey Westland two-seater

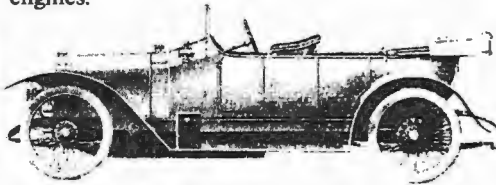
the employ of Humber; he had already left his stamp at Triumph, being responsible for the birth of both the Gloria and Dolomite. Production of both the Elliot (closed) and Westland (open) grand touring Healeys began in October 1946. Later, yet more sporting models were produced, the Nash-Healeys finishing with distinction at Le Mans and the Healey Silverstones finding great favour with the club racers at home. The Nash was the most widely produced of the Warwick-built Healeys, 253 being made altogether, as against 105 Silverstones.

HEBE/Spain 1920

A 6/8 cv cyclecar built in Barcelona: unusually for this type of vehicle, saloon bodies were offered.

HEDEA/France 1912–1924

Made in Paris by M. Accary (and sometimes sold under his own name) these were medium-sized cars with 1795cc Chapuis-Dornier engines.



1919 10/12hp Hédéa tourer

HEIFNER/USA 1920–1922

Located first in Chester, Penn., and later in Geneva, Ohio, the Heifner was developed into a few pilot models at best and just drawing-board plans at least. Announced were six-cylinder models featuring a Continental engine in 1920 and 1921 and a Wisconsin four for 1922. The six-cylinder models, in touring car form, were listed at \$3595.

HEILMANN/France 1897–1900

Monstrously complex, the Heilman (from Le Havre) had a twin-cylinder opposed-piston engine driving a dynamo which powered hub motors. In 1899, this maker of electric locomotives offered a four-wheeled electric *avant-train* to convert horse carriages.

HEIM/Germany 1921–1926

Made by former Benz engineer and racing-driver Franz Heim, these 20 hp, 30 hp and 40 hp

touring cars had own-make four-cylinder engines of 1569cc, 2009cc and 2100cc with side valves; 1924 saw the introduction of an ohc 2385cc six-cylinder. Production of Heim cars was limited, especially of an ohc 1960cc sports six-cylinder, which was built in 1925–26.

HEINE-VELOX/USA 1906–1909, 1921–1922

The initial phase of the car carrying this name was a conventional four-cylinder type built by the Heine-Velox Motor Co, of San Francisco, California. The second line of automobiles—enormous and highly expensive machines—was produced by the Heine-Velox Engineering Co, of the same city. These later cars rode on a wheelbase of 148 inches and used a modified Weidley V-12 engine with 6383cc displacement. Hydraulic four-wheel brakes were included and both open and closed models were built. Price of the five-passenger touring model was \$17,000, making it America's most expensive motor car at the time.

HEINIS/France 1925–1930

Made in Neuilly by M. Heinis, these cars were offered with various engines, from an ohc 799cc four designed by Heinis, through various proprietary 1100cc, 1170cc, 1690cc and 1947cc units to a 5000cc Lycoming eight.

HEINKEL/Germany 1955–1958

Formerly famous for their military aircraft, Heinkel built three-wheeled 174cc 'bubble cars'; from 1957 a four-wheeled minicar with ohv 198cc and 204cc single-cylinder engines was also available. In 1958 Heinkel sold the design and production equipment to Ireland and England respectively.

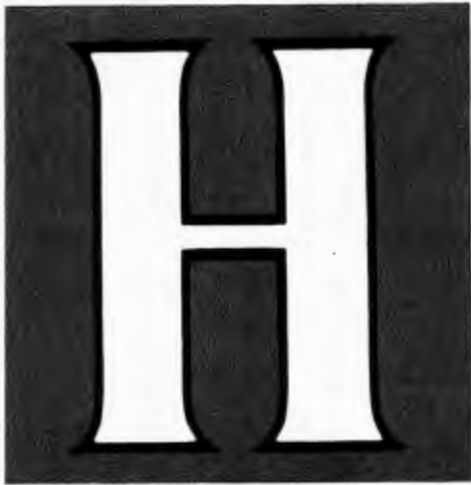
HELBE/France 1905–1907

The Helbé ('LB', for Levêcque and Bodenreider, its constructors) was an assembled light car using De Dion engines of 4½ hp, 6 hp and 8 hp and Delage components.

HELIOS (NORDEN)/Sweden 1901–1906

Södertälje Verstäder built railway rolling stock, but started importing Kuhlstein, NAG, Protos and Ducommun cars from Germany. Any of these cars could probably have been sold under the Helios name in 1901–02. From 1902 the American Northern car was assembled and marketed as Norden. The venture was not profitable and production ceased in 1906.

Second page 28
Haynes



HAASE/USA 1904-1905

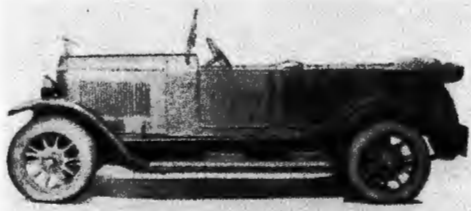
Filler-steered twin-cylinder cars of 6 hp and 8 hp from Milwaukee.

HACKETT/USA 1916-1919

A prideful car, distinctively different, the \$888 Hackett 'Ultra Four' was built in Jackson, Mich., as successor to the Argo. In 1920, it was reborn as the Lorraine.

HAG (HAG-GASTELL)/Germany 1922-1927

Cars of advanced design with ohc 1305cc four-cylinder engines. When the Darmstadt HAG factory closed down in 1925, production was resumed at the Gebr. Gastell railway-carriage works at Mainz-Mombach, where sports-racing cars with 1496cc engines were also built in small numbers. Harry Stumpf-Lekisch was the leading Hag-Gastell racing driver.



1924 HAG 1305cc touring car

HAGEA/Germany 1922-1924

A little-known 1017cc four-cylinder Steudler-engined car with friction drive.

HAL/USA 1916-1918

H. A. Lozier, brother of E. R. Lozier, left the Lozier company in 1913 to build the HAL Twelve, which had a 6383cc V-12 engine with cylinders cast in threes. Prices ranged from \$3600 for the tourer to \$5000 for the Limousine and Town Car.

HALL/England 1918-1919

An unusual device, the Hall was built by H. E. Hall and Company of Tonbridge, Kent, with a 20.6 hp horizontal eight-cylinder engine. A Talbot radiator and Studebaker rear axle were incorporated. Only two Halls were made.

HALLADAY/USA 1905-1922

The first dozen years of manufacture of these cars designed by L. P. Halladay was centred on Streator, Illinois. The cars were subsequently made in Lexington, Attica and Newark, Ohio. For a small-production assembled car, the Halladay was singularly long-lived, nearly all of them using a Rutenber engine. Four-cylinder models were phased out permanently in 1914 in favour of sixes. Control of the Halladay was gained by Albert Barley who, in 1916, three years following his acquisition of Halladay, introduced the Roamer. Barley sold Halladay in 1917 to concentrate his attention on the Roamer, and the Halladay survived as a manufacturing entity through 1921. Although 1922 models were built, these were probably pilot models only. In addition, a handful of smaller Falcon cars was made by Halladay until production was terminated early in 1922.

HALLAMSHIRE/England 1900-1907

The early cars built by Durham, Churchill & Company, of Sheffield, used a 'friction clutch change speed and reverse gear', apparently an epicyclic transmission adapted from a marine unit. In 1902 the range consisted of a 7 hp and 14 hp, while in 1905 there were a 5/8 hp and a 10/16 hp. The last year of car production was 1907, when an Aster-engined 14/18 hp was offered, still with the same two-speed transmission. Thereafter, the company concentrated on its 'Churchill' commercial vehicles.

HALL & MARTIN/England 1905

A 10/12 hp car with twin-cylinder Aster engine and armoured wood chassis, built in Croydon, Surrey.

HAMLIN-HOLMES, HAMLIN

USA 1919-1929

This company attempted to perfect and market a front-wheel-drive car between 1919 and 1929. Approximately one experimental model per year was completed in this span of years, none looking exactly like another; a production model, announced in 1923, failed to get beyond the experimental stage. One racing version of the car did manage to get into the Indianapolis 500 race in 1926. The name was simplified to 'Hamlin' for 1930. The 1930 Hamlin was very similar in design and appearance to the front-wheel-drive Gardner of the same year. While the Gardner prototype was actually built, there is some doubt concerning the Hamlin.

HAMMER/USA 1905-1906

Like its counterpart, the Sommer, this was a 12 hp twin-cylinder light car, though Hammer did bring out a 24 hp four-cylinder in 1906. The two marques had cloned off the 1902-04 Hammer-Sommer.

HAMMOND/England 1919-1920

The Hammond, made at Finchley, London, had a long-stroke 2243cc engine and was designed to sell at about £400. Very few were built.

HAMMOND MOUTER/France 1912-1913

A cycle builder from Paris who offered two voiturette models, both four-cylinders, one of 1888cc, the other of 2474cc.

HAMPTON/England 1911-1933

Starting life in Hampton-in-Arden, Warwickshire, the Hampton then moved to King's Norton, Birmingham, and finally to Stroud in Gloucestershire. The 1912 Hammond was the 12/16 model, with a 1726cc four-cylinder engine, while two years later a short-lived twin-cylinder two-stroke was announced and cyclecars powered by Precision or Chapuis-Dornier engines were offered. A Dorman 1496cc engine was fitted to the 10/16 of 1919; this was later increased to 1795cc. From 1923, Meadows engines were used, and in 1928 a six-cylinder model, the 15/45, appeared at the same time as a new 9 hp car. An excursion into unreality came in 1930 with an order, at the height of the Depression, for 100 straight-eight engines and chassis from the German Röhr concern. The subsequent model was offered with the 2262cc straight-eight, mounted in its own or in a Hampton chassis.



1913 11.9hp

Hampton two-seater

HANDLEY-KNIGHT, HANDLEY

USA 1921-1923

The Handley-Knight was one of a handful of American automobiles which used the Knight sleeve-valve engine, a four-cylinder type being used on this make. Early in 1923, the Knight engine was discontinued, the name was abbreviated to Handley and prices were sharply reduced. Successor to the Handley-Knight, the 1923 Model 6-40 Handley used a six-cylinder Falls engine and a pointed radiator, whereas the 6-60 retained the conventional flat radiator and featured a six-cylinder Midwest motor. Like the earlier Handley-Knights, the cars were distinguished by small handles or loops on the headlights and, despite the fact that Reo also boasted this feature, the Handley slogan was 'If it carries handles, it's a Handley'. Checker Cab bought out the make in May 1923.

HANDS/England 1922-1924

After G. W. Hands had produced the Calthorpe light car, he produced a vehicle under his own name with a 1100cc Dorman four-cylinder engine. It was joined in 1924 by a 15 hp overhead camshaft six, later to emerge as a Calthorpe after Hands returned to his own company.

HANOMAG/Germany 1924-1939

The little 499cc Hanomag, with its rear-mounted 10 hp single-cylinder, water-cooled engine, was the first true German 'people's car', popularly known as the 'Kommisbrot' ('army loaf'): it had an all-enveloping body—a lever between the two seats acted as starter. It was a cheap, but well-made car which performed well in rough and hilly country. It was even raced

fibre and aluminium bodies adorning tubular space-frames. Power came from a range of Ford engines. Performance was good, thanks to an all-up-weight of around 10 cwt.

JEM SPECIAL/USA 1922

Little is known of this make, but it is assumed to have been a one-of-a-type car built by or for John E. Meyer of New York City. Powered by a Continental six-cylinder engine, the Jem Special had a 128-inch wheelbase. Plans for further manufacture and sales came to nothing.

JENATZY/France 1898-1903

Belgian racing driver Camille Jenatzy was the first man to exceed 100 kph, on a streamlined electric racing car, *La Jamaise Contente*, of his own design. But the normal Jenatzy electrics, built by the Société Générale des Transports Automobiles of France, were square-rigged machines only capable of 12 kph.



c. 1900 Jenatzy electric 'dog-phaeton'

JENKINS/USA 1901-1906

Builders of steam and petrol cars, Jenkins of Washington, DC achieved fame in 1901 with the 'Littlest Automobile Ever', a 3 ft-long electric victoria 'guaranteed to run for 2000 hours', made for Chiquita, the 26-inch high 'Cuban Midget' who appeared at that year's Pan-American Exposition.

JENKINS/USA 1907-1912

A 6546cc four from Rochester, NY.

JENNINGS/England 1914-1915

Built by the Jennings-Chalmers Light Car Company of Birmingham, this was a neat 1094cc Dorman-engined two-seater.



1914 Jennings (1098cc Dorman twin)



The Jensen brothers with their 1937 sports tourer



1948 Jensen Saloon



Jensen Interceptor Convertible, 1969

202



JENSEN/England 1936-1976

Body stylists Richard and Alan Jensen's first car was a 3.6-litre Ford V-8-powered model fitted with a two-speed Columbia rear axle. Other engine options were available, including the 2.2-litre Ford V-8 and straight-eight Nash units. Although a Meadows-engined 3.8-litre straight-eight was planned for post-war production, it failed to materialize and a 4-litre Austin six was substituted. This engine was used to power the Interceptor of 1950 and also for the glass-fibre 541 saloon of 1964. The company reverted to American engines for the 1963 CV8—in this instance a 5.9-litre Chrysler V-8—while 1967 saw the announcement of the FF. The engine was now 6.3 litres, but the really sensational aspect of the car was the Ferguson four-wheel-drive layout used in conjunction with the Dunlop Maxaret anti-lock braking system. In 1968 Jensen was taken over by merchant bankers William Brandt from the Norcross Group, who had acquired the company in 1959. An outcome of this move was that Kjell Qvale became president and Donald Healey chairman of the reconstructed company. Consequently, when Jensen announced their new sports car in 1972, it was under the name of Jensen-Healey. The engine was a Lotus-built 2-litre twin-cam 16-valve four-cylinder based on the Vauxhall single cam block. Regrettably, the model failed to live up to expectations and, although a GT was announced in 1975, the company ceased production the following year.

JEWEL/USA 1906-1909

A two-stroke runabout from Massillon, Ohio. In 1909 the products of the Forest City Motor Car Company were renamed Jewel-Keeton.

JEWEL/England 1919-1938

John E. Wood Limited of Bradford, Yorkshire, assembled cars to bespoke order for local customers. The 1922 Jewel was a 9 hp Coventry-Climax-engined 1088cc four-cylinder selling at £255. Meadows engines were used from 1924.

JEWETT/USA 1922-1926

Named after Paige's president, H. M. Jewett, the Jewett was to all intents and purposes a smaller and cheaper version of the Paige. The six-cylinder engines were of Jewett's own make or by Continental; in all an estimated 40,000 cars were manufactured. In 1926, the Jewett was continued under the Paige emblem.

JG SPORT/France 1922-1923

A small cyclecar made by M. Janvier, with 970cc Ruby engine and chain drive.

JIMINI/England 1975 to date

This strange-looking, four- or six-wheeled, Mini-based utility vehicle is one of several kits filling the gap left by the moribund Mini-Moke. About ten Jiminis are made per month.

JL/England 1920

A 1.1-litre four-cylinder Decolonge engine powered the JL, a plywood-bodied light car from London's East Dulwich.

MB/England 1933-1935

These three-wheelers could be had with two- or four-seater coachwork: a 497cc single-cylinder engine was fitted and final drive was, predictably, by chain.

JOEL-ROSENTHAL/England 1899-c1902

A London-built electric carriage with a separate 2 hp engine for each rear wheel.

JOHNARD/England 1975 to date

Johnard manufacture the Donington, a Bentley Special based on the old Mk 6 and available with either V-8 or six-cylinder Bentley engines. Made by restoration experts, the Doningtons feature exquisitely finished glass-fibre bodies with aluminium bonnet and wings.

JOHN O'GAUNT/England 1901-1904

Built by William Atkinson & Sons of Lancaster, the 4 hp John O'Gaunt was 'made to meet the requirements of people who do not require a high-priced car'.

JOHNSON/USA 1905-1912

Beginning with steamers, by 1907 this Milwaukee company was offering a range of three petrol cars, the biggest a 50 hp.

JONES/USA 1915-1920

A 3848cc Lycoming-engined six built in Wichita, which sold for \$1150: factory capacity was 100 cars a month. From 1917, a Continental Six was fitted.

JONES-CORBIN/USA 1902-1907

The De Dion-engined Jones-Corbin from Philadelphia had double-chain drive and a honeycomb radiator. An 8 hp Runabout and a 9 hp Tonneau were offered, priced at \$1000 and \$1500 respectively.

JONSSON/Sweden 1921

Alfred Jonssons Motorfabrik, of Lidköping, specialized in marine engines, but experimented in 1902 with a twin-cylinder car. A more ambitious venture was the planned production of ten cars in 1921—to be followed by series

production. Everything was made at the factory, except electrical system, fuel pump, instruments and tyres. The engine was a water-cooled side-valve of little more than 2-litres capacity. Only one car was built, with an aluminium touring body.

JORDAN/USA 1916-1931

Ex-journalist and advertising man Edward S. Jordan was given \$300,000 to prove that the car market had not reached saturation point. The Jordan, a well-designed assembled car built in Cleveland, Ohio, always used Continental power units, initially a 4966cc six. By 1921 the 'Playboy' model was in the range, subject of one of the most famous advertisements in motoring history. Hydraulic four-wheel brakes were fitted from 1924, and in 1925 a 4408cc straight-eight was introduced. For 1927, 'the first truly fine American small car' offered a 'custom' range of 3259cc sixes with worm drive, which included 'Blue Boy' sports touring and 'Tom Boy' collapsible cabriolet, and the 'Air Line' 4380cc eight, still featuring a 'Playboy' coupé. Last new Jordan was the 5277cc Speedway Eight of 1930, with sporting coachwork and streamlined 'Woodlite' headlamps.

JOSWIN/Germany 1920-1924

Designer Josef Winsch modified war-surplus Mercedes six-cylinder, 12 spark plug aero-engines of 6462cc and 7269cc to power these big luxury cars built at his Berlin-Halensee works.

JOUFFRET/France 1920-1926

Made in Suresnes and then in Colombes, Seine, by M. Demeester, these cars were sometimes sold under his own name. They used 1172cc and 1616cc ohv engines from Ruby and SCAP. In 1923, Jouffret took over Sidea, and produced Sidea-Jouffret cars.

JOUSSET/France 1924-1928

Made in Bellac, Haute Vienne, by M. Jousset, these were CIME-engined sports and touring cars of 1099cc and 1496cc.

JOUVIE/France 1913-1914

A JAP-engined cyclecar from Paris.

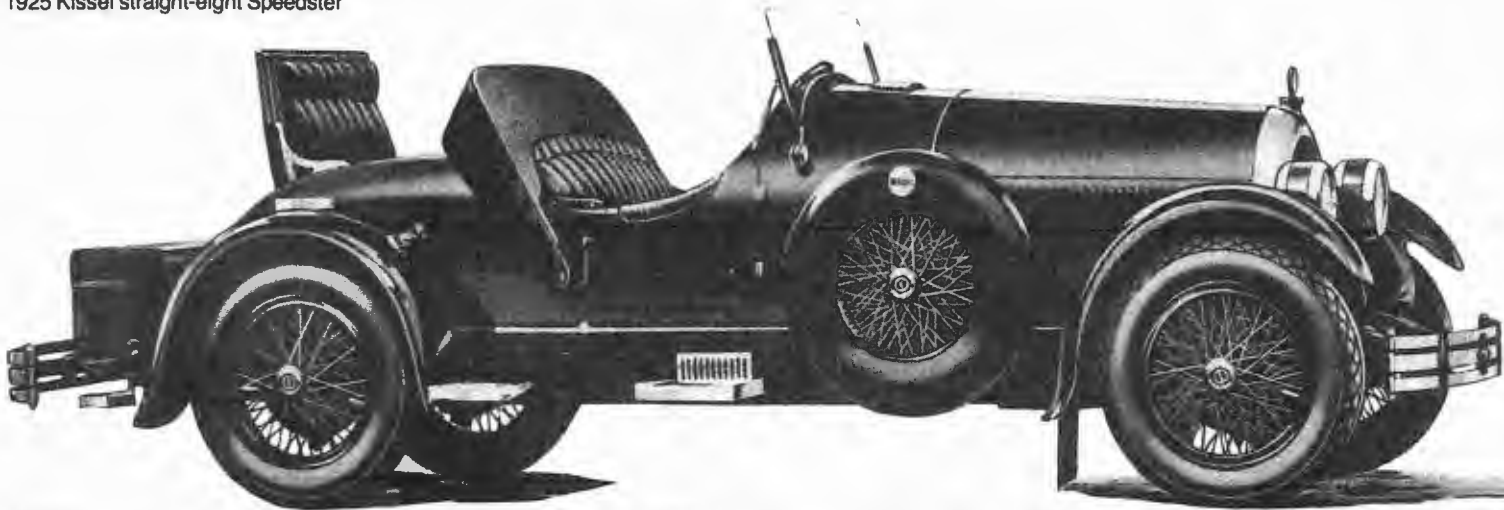


1905 JP 16/20hp tulip-seat tonneau

JP/France 1905

The Prunello brothers of Puteaux, near Paris, offered a range of Gnome-engined cars, shaft-driven 10/12 hp two-cylinder and 16/20 hp four-cylinder models and a 24/30 hp four-cylinder with chain drive.

1925 Kissel straight-eight Speedster



KISSEL

USA 1906-1931

'Every Inch a Car', the Kissel Kar, from Hartford, Wisconsin, began as a pair-cast 26 hp four-cylinder of 4952cc, increased to 5517cc for 1908. Apart from accessories, the entire car was made in the Kissel factory. A six of 8276cc appeared in 1909, and by 1912 the range consisted of fours of 30 hp, 40 hp and 50 hp, and the 60 hp six; prices ranged from \$1300-\$3000. By 1913 electric lighting and starting were standard; in 1917 a new range, the '100 Point Six', with a monobloc 4078cc available as tourer, sedan or staggered-door all-year Sedane, made its debut, as did a short-lived V-12. Conover T. Silver developed a 'Silver Special Speedster' six, and the 4660cc 'Custom-built Speedster' of 1919 was a direct development of this. Painted chrome yellow, it was named 'Gold Bug' as the result of a \$5 contest in the *Milwaukee Journal*, whose editor owned one of the first of this model. There were 'Custom-built' tourings, 'urban-sedans', 'coach-sedans' and coupés, too. A Lycoming eight appeared in 1924. In 1929 came the 'White Eagle' speedster, with six- or eight-cylinder engine and internally expanding hydraulic brakes. Plans to revive Kissel to build a Lever-engined car in 1933 came to nothing.

KITTO / *USA 1903*

The Kitto Mobile Light Car was available with either an 1107cc 8 hp vertical twin or an 8 hp horizontal power unit.

KLAUS / *France 1894-1899*

A three-wheeled belt-drive tricycle, the Lyon-built Klaus incorporated a 'dead-man's handle' engine cut-out in the steering tiller.

KLEIBER / *USA 1924-1929*

The Kleiber was an assembled car produced by a well-known West Coast truck manufacturer. The cars were strictly assembled affairs, using proven components throughout, and were sold in small numbers on the Pacific Coast. Continental engines were used on the six-cylinder Kleibers until 1929, when a Continental eight was substituted. Two sedans marked the company's entire passenger-car output in this last year of production.

KLEINSCHNITTGER / *Germany 1950-1957*

A 123cc Ilo single-cylinder two-stroke engine powered this basic car built by ex-employees of East German factories who had emigrated to West Germany.



1950 Kleinschnittger 123cc two-seater

KLINE KAR / *USA 1910-1923*

The Kline Kar was initially built in York, Pennsylvania, with operations moving to Richmond, Virginia, in 1913. Although the company initially used engines of its own design and manufacture, the product gradually took on the aspect of an assembled car. Continental engines were used during the company's last years.

KLINGENBERG / *Germany 1898-1900*

Designed by Georg Klingenberg, a professor of the Berlin-Charlottenburg High School, this pioneer car did not go into serious production until NAG took over the design. The cars made by Klingenberg were (more or less) prototypes.



1929 Kleiber six-cylinder sedan

KLINK / *USA 1907-1909*

A 30 hp four of 4417cc built in Dansville, NY.

KNAP / *Belgium/France 1898-c1909*

A three-wheeled voiturette built in Liège with a 4 hp engine was Georgia Knap's first production car. He returned to Troyes (France) and built prototypes with up to six cylinders before settling on a single-cylinder four-wheeled voiturette in 1904.

KNICKERBOCKER / *USA 1901-1903*

This was the petrol car line built by the makers of the Ward-Leonard Electric.

KNIGHT JUNIOR / *England 1914*

A bullnosed 11 hp two-seater with a 1743cc engine built by Knight Brothers of Chelmsford, Essex, for motor agents Friswells of London. It sold for £185 complete.

KNIGHT OF THE ROAD

England 1902

A single-cylinder 5 hp voiturette intended for commercial travellers.

KNIGHT OF THE ROAD

England 1913-1914

From the same maker as the Knight Junior, this was a 15.9 hp 2654cc four-cylinder sold exclusively by Friswells at 350 guineas.

KNOLLER / *Germany 1924*

Produced a 980cc four-cylinder car in very small numbers.

KNOX / *USA 1900-1915*

The 'waterless' Knox was designed by H. A. Knox and built in the old Waltham Watch Tool Factory at Springfield, Mass. The first experimental Knox cars appeared in 1895-97. Production did not begin until 1899, initially by the Overman cycle company, the Knox company not being founded until 1901. These were three-wheelers with the famous air-cooled 'porcupine' engine, with pegs instead of fins on the cylinder. In 1903, a hydraulic damper was incorporated in the tiller steering. The 'waterless' Knox was built to special order until 1908, but by then big four-wheeled cars with four-cylinder engines

LEACH/USA 1899-1901

There were three models of this steam car from Everett, Mass. — mail phaeton, Stanhope and delivery wagon.

LEACH/USA 1920-1923

A large assembled automobile, the Leach (initially termed 'Leach-Biltwell') was a popular car with Hollywood stars in the silent screen days. It was a large and expensive automobile: prices ranged from \$5200 for the cheapest model. Open cars sold with the 'California top', the device combining a permanent top and sliding plate-glass windows. Sedans were also available; some of the sportier models included a golf bag and holder as standard equipment. A Continental six was the 'house engine' although an option could be had with a different six, which may have been designed by Harry Miller. Although Leach automobiles were shown in both New York City and Chicago, almost the entire output went to California buyers.

LEADER/England 1904-1909

Charles Binks, who achieved greater fame as a maker of carburettors, sold Leader and New Leader cars from 1904. The first models were 10 hp and 14 hp four-cylinders with pressed steel chassis, but by 1906 Mr Binks was offering a V-8 with a cubic capacity of 15.5 litres, almost certainly the biggest eight-cylinder car ever sold.



1907 Binks (Leader) Voiturette

LEA-FRANCIS/England 1904-1906, 1920-1935, 1937-1953, 1960

The first Lea-Francis had a three-cylinder 15 hp horizontal engine, though their manufacture was soon taken over by Singer. However, Lea and Francis, who had initially made bicycles, began making motorcycles in 1911, and in 1920 car production started up again, 11.9 hp and 13.9 hp models being offered. The year 1922 saw the appearance of a Coventry-Simplex-engined car of 8.9 hp, while the following year a Meadows ohv power unit was fitted. A sports car, the 12/40, was announced in 1925 and remained in production until 1935. In the early 1920s the company amalgamated with Vulcan of Southport and some of the heavier six-cylinder Vulcans were sold under the Lea-Francis name. Far more exciting was the Hyper Sports of 1928, having a Cozette-supercharged 1½-litre Meadows engine. The Ace of Spades model appeared in 1931, being powered by a 2-litre six-cylinder ohc engine. This remained in production until the company's demise in 1935, alongside the faithful 12/40. Lea-Francis was

1930 Lea-Francis 12/40hp fabric saloon



reconstituted in 1937 with two models of 1½- and 1.6-litre capacity and the engines by Hugh Rose (who had designed the Riley 12/4) bore a striking similarity to that unit. Production continued after the war, with the 14 hp 1.6-litre car predominating, smartly followed by a tuned sports model in 1948. In 1950 a new 18 hp 2½-litre car was introduced with torsion-bar front suspension which had also featured on the earlier 14 hp model. But production dwindled and ceased completely in 1953. In 1960 the controversially styled Ford Zephyr-engined Leaf-Lynx was displayed at that year's Motor Show, but no orders resulted from this automotive kite-flying. In 1978, Barry Price of Studley, Warwickshire, announced that Lea-Francis was about to resume limited production with motive power supplied by Jaguar.

LEANDER/England 1901

Fitted with a De Dion engine, the Leander was built by Jas. Walmsley's Union Carriage Works of Preston, Lancashire. Its five-seater tonneau body, with 'V-shaped cut-wind, canopy of elegant design, luncheon basket and stick basket' won Dr. Hele-Shaw's special medal at the 1901 Royal Lancashire Show. 'Collins splendid unpuncturable tyres' were standard. There was also a 'Palatine' Siamese Phaeton with 'alternative light delivery van body suitable for wine merchant or the like'.

LEBRUN/France 1896-1906

A two-seater car with a rear-mounted Daimler engine was this firm's first offering.

LEC/England 1913

Built by a firm of telephone manufacturers, the Phonopore Company, of Southall, Middlesex, the LEC was a cyclecar with a water-cooled twin-cylinder 1003cc power unit.

LECOY/England 1921-1922

The friction-drive Lecoy was built in Harrow, Middlesex and powered by an 8 hp vee-twin JAP engine. The front coil springs were an unconventional feature.

LEGROS/France 1900-1913

René Legros, of Fecamp (Seine-Inférieure), initially built cars of 4 hp (single-cylinder) under

the 'La Plus Simple' label, followed by twins of 6 cv and 12 cv. From 1906, he offered two-stroke cars. Two models were available, a 10/12 hp twin and a 20/24 hp four. By 1912, the range had been expanded to two twin-cylinder and two four-cylinder models, still all two-strokes.

LEIDART/England 1936-1938

This Anglo-American model used the ubiquitous Ford V-8 as its power unit. Built in Pontefract, Yorkshire, the Leidart was also available with a Ford 10 supercharged engine.



1903 Lems No 1 Electric Runabout

LEMS/England 1903-1904

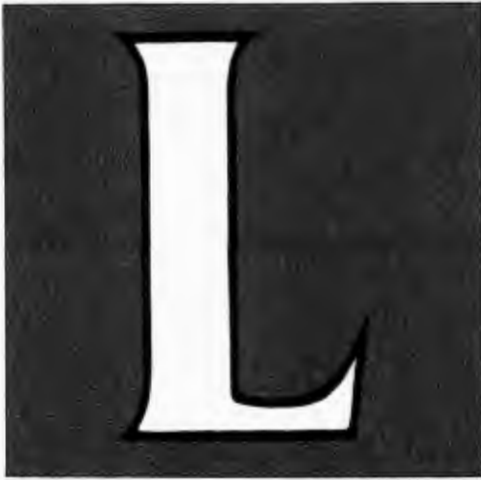
The London Electro-Mobile Syndicate offered a two-seater electric runabout ('40 miles on one charge') for 180 guineas.

LENAWEE/USA 1903-1904

A left-hand-drive tonneau with horizontal single-cylinder engine beneath the front seat.

LENHAM/England 1969 to date

Once known only for their meticulous restorations, the Lenham Motor Company expanded during the 1960s to produce glass-fibre panels and accessories for a variety of cars, as well as special bodies for Sprites and Midgets and their own Lenham GT, a futuristic mid-engined vehicle designed primarily for racing. Since 1978 they have made a spartan kit for rejuvenating tired and rusted Healey 100/6s and 3000s. The kit features an aluminium and glass-fibre body, special wheels, twin aero screens, an outside exhaust and handbrake lever and even vintage-style bonnet straps.



LABOR / France 1907–1912

Built for cycle manufacturers de Clèves et Chevalier, of Neuilly-sur-Seine, in the Weyher et Richemond works. The most popular Labor was the 20/30 hp four.

LACOSTE & BATTMANN

France 1897–1913

Builders of chassis and components, Lacoste & Battmann, of Levallois, Seine, rarely marketed cars under their own name, but supplied them to erstwhile 'manufacturers', e.g. Gamage, Napoléon, Speedwell and Jackson. De Dion and Aster engines were used. Their last offering was the Aster-engined 1.8-litre Simplicia.

LACOUR / France 1912–1914

Successor to Lurquin-Coudert, Lacour catalogued a Torpédo Sport vee-twin belt-drive cyclecar in 1912.

LAD / England 1913–1926

One of the longer-lived cyclecars, the LAD came from Farnham, Surrey, and was normally built as a single-seater with rear-mounted engine. Two models were available in 1923—a 350cc single (£78) and a 688cc twin (£110).

LADA (ZHIGULI) / Russia 1970 to date

Built in the Togliattigrad works (established with Fiat aid) the Zhiguli car is known outside Russia as the Lada. It is based on the obsolete Fiat 124, with engines of 1200cc to 1600cc. In 1978, a 4wd model, the Niva, appeared on Western markets.

LADAS / England 1906–1908

J. Bowen of Albert Street, Didsbury, Lancashire, showed this 7 hp two-seater, named after a Derby winner, at the 1906 Manchester Motor Show.

LAD'S CAR / USA 1912–1914

'More a real working toy than a go-anywhere motor car', this 3 hp single-seater was made by the Niagara Motor Co. of Niagara Falls, NY.

LAETITIA / France 1922–1923

Cyclecar made in Asnières, Seine, by M. Conelli with a 1000cc Anzani air-cooled engine.

LAFAYETTE / USA 1920–1924

The LaFayette was designed by D. McCall White, who was responsible for the Cadillac V-8 of 1915. The LaFayette, itself a V-8, combined luxury and breeding with endurance and excellent craftsmanship. An expensive car, with prices in the \$4000–\$7000 range, the powerful LaFayette (which was fast as well as luxurious), had an engine developing 100 bhp and thermostatically-controlled radiator shutters, a novelty in its time. LaFayette was absorbed by Nash Motors in 1923 and for a time was continued as Nash's luxury line.

LAFER / Brazil 1972 to date

The Lafer brothers of São Paulo built their first 'replicar' based on the MG-TD in October 1972, and by 1975 were building 350 cars annually. Apart from the VW-powered 'MP' replicar, they offer the modern-styled 'LL' 4097cc six-cylinder sports coupé.

LAFITTE / France 1893–c1898

A famous Bordeaux coachbuilder, Henri Lafitte built a few cars, starting in 1893. One, with a De Dion engine, competed in the 1898 Bordeaux-Biarritz race.

LAFITTE / France 1923–1928

Curious cyclecar from Genevilliers, Seine, with 736cc sv three-cylinder radial engine, later enlarged to 895cc. Instead of a gearbox there was a strange friction device: the engine pivoted to obtain the different ratios. Most Lafittes were sold as delivery vans.



A 2-litre Lagonda tourer, 1928

LAGONDA / England 1906–1963, 1978 to date

Wilbur Gunn was an American of Scots descent who began by building twin-cylinder tricars in the greenhouse of his home in Staines, Middle-



1962 Lagonda Rapide

sex. By 1907 the tricars had been superseded by four wheels, with four-cylinder 20 hp and six-cylinder 30 hp models being offered: much of the production went to Russia. In 1913, Gunn scrapped his previous models and decided to adopt just one line, an 1100cc 11.1 hp car with unit-construction gearbox and transverse front suspension, a marketing policy and design clearly inspired by the Ford Model T. Another progressive feature was the integral body/chassis construction. After World War One, the 11.1 became the 11.9, so that in 1920 Lagonda was clearly chasing the same market as Morris. As the 1920s progressed Lagonda gave up the unequal struggle, chancing their luck in the sports car field, 1927 seeing the appearance of the 2-litre dohc Speed Model; a pushrod 2-litre later appeared. From 1934 the Meadows six-cylinder 4½-litre engine was fitted, this engine powering the company's winning car at



1978 Aston Martin Lagonda

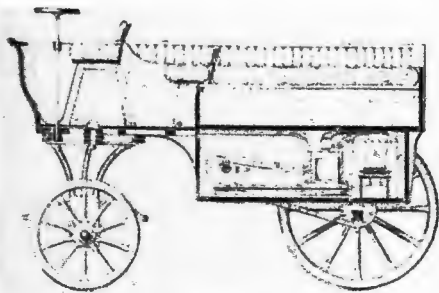
Le Mans in 1935. The twin-cam 1100cc Rapier also appeared in 1934, but the following year the company went broke and was purchased by solicitor Alan Good for £67,000. The Rapier was hived off and Good brought in W. O. Bentley as technical director. The range was refined and the Meadows engine quietened, but the V-12 of 1937 was Bentley's design (though the inspiration and much of the detail of this short-stroke 4½-litre engine came from ex-Rolls-Royce engineer Stewart Tresilian). Lagonda was sold to the David Brown group after World War Two, this 1947 deal allowing Brown to fit a Bentley-designed dohc 2.6-litre six-cylinder engine to the Aston Martin DB2 of 1950. The Lagonda marque name reappeared in 1961. The Rapide was DB-engined, but production ceased in 1963. An Aston Martin-based Lagonda with elaborate electronic controls began to reach private owners in 1978.

LAHAUSSOIS / France 1907

An obscure manufacturer from Paris, who offered both chassis and complete cars.

LAMBERT / USA 1905–1916

In 1891, John Lambert of Ohio City built — and attempted to market — America's first petrol car, a three-wheeler with a four-stroke single-cylinder engine. He built a number of prototypes powered by his Buckeye gas engines in 1898–1901, and began full-scale manufacture in 1902 with the Union car, a tiller-steered four-wheeler with friction drive. About 300 are thought to have been built before the Lambert Automobile Company was formed, taking over Union's Anderson, Indiana, factory. By 1910, production of the friction-drive Lambert cars was said to be running at 3000 a year: trucks and tractors were also built. Apart from engines of their own make, Lambert used Rutenber, Buda,



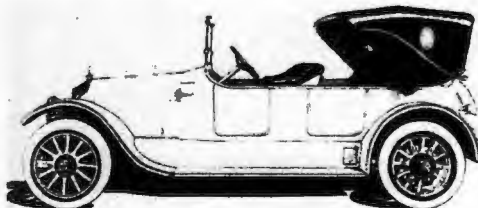
The 1863 Lenoir hydrocarbon carriage

LENOIR/France 1862–1863

Belgian inventor J. J. Etienne Lenoir built the first practical 'hydrocarbon carriage' in Paris in 1862, and made a number of short, slow journeys with it before selling it to Czar Alexander II

LENOX/USA 1909–1918

The 'uncommon' Lenox was, claimed its makers, 'the only car built in Boston'. Starting with electrics, the company eventually built elegant petrol cars in its Hyde Park factory.



1917 Lenox Victoria

LEO/France 1897–1898

An early design by Léon Lefèvre, the Léo was a belt-drive car with a Pygmée paraffin engine.

LEO/England 1912–1913

A fwd 8 hp cyclecar sold by Derry & Toms of Kensington, London.

LEON BUAT/France 1901–c1908

Buat, of Senlis (Oise), who began by building 8 cv light cars designed especially for doctors, also offered a De Dion-like voiturette ('La Polaire') in 1902, as well as larger cars with 12 cv twin and 16 cv four-cylinder engines: all power units were supplied by Aster.

LEON LAISNE/France 1920–1937

The Léon-Laisne (Harris-Léon-Laisne from 1927) had tubular chassis side-members which housed hydraulically damped coil-springs giving all-round independent suspension. Power was by SCAP, CIME or Hotchkiss.

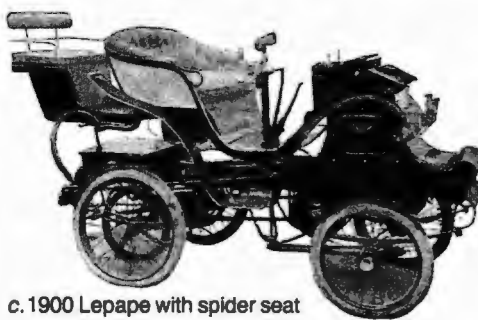
LEON PAULET/France 1921–1927

Made in Marseille, these were luxury cars powered by an ohc six-cylinder 3445cc engine, later enlarged to 3920cc. Very well made, they attracted a lot of local custom. The marque resumed during the war with some small electric cars.

LEON RUBAY/USA 1922–1924

Sometimes erroneously termed 'Rubay', this marque was named after Leon Rubay, a coach-

work specialist who, like Brewster, had been a carriage builder. Leon Rubay cars were small (118-inch wheelbase) and used a four-cylinder engine of their own manufacture. In many ways the Leon Rubay was the same type of car as the contemporary Brewster, although it was cheaper, the sedan selling for \$5200: it featured four-wheel brakes. Very few Leon Rubay automobiles were produced and the assets of the company passed to Rauch & Lang in 1924. The name Rubay is more commonly associated with bodies than with the specific make.



c. 1900 Lepape with spider seat

LEPAPE/France 1898–c1901

'Elegant and comfortable', the belt-driven Lepape had its twin-cylinder engine at the front, behind glass windows, so that the driver could see it was working properly.

LEROY/Canada 1902–1904

Having built trial-and-error prototypes from 1899, the Good brothers of Berlin (Kitchener), Ontario, took the easy way out by copying the Oldsmobile for their production cars.

LEROY/France 1927–1928

A pioneer of the two-stroke in France, M. Leroy created some strange two-stroke engines for experimental purposes. With the assistance of the prolific M. Violet he made some sports cars in Courbevoie, Seine, with four-cylinder two-stroke engines.

LESTER SOLUS/England 1913

An 8 hp JAP-engined single-seat cyclecar.

LEUCHTERS/England 1898

A De Dion-type motor tricycle 'made entirely in Leeds'.

LEVERE-PORTAL/France 1907

M. Levere-Portal entered a 15 hp four-cylinder of his own construction in the touring class at the 1907 Evreux Trials.

LEWIS/USA 1899–1902

'Chicago inventor' George W. Lewis established a factory in Philadelphia in 1899 to build 'gasolene wagons' with horizontal single-cylinder 4178cc engines and friction drive by 'compressed papers'.

LEWIS/Australia 1900–1906

After building a single-cylinder buggy in 1900, Vivian Lewis produced a series of lightweight cars, as well as a range of motorcycles. Car production ceased in 1906 but the motorcycles were built for several more years.

LEWIS/USA 1913–1916

Designed by René Petard, who also designed the 1913 Mitchell, and backed by William Mitchell Lewis, of the Mitchell company, the Lewis—also known as 'LPC'—was powered by a long-stroke six of 5676cc.

LEWIS/England 1923–1924

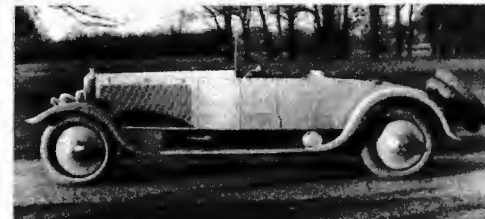
A MAG 10 hp vee-twin engine powered the Lewis which was built in London's Abbey Wood. Although a four-cylinder model was announced simultaneously, neither vehicle went into production.

LEXINGTON/USA 1909–1928

Founded in Lexington, Kentucky, this manufacturer of quality assembled cars moved to Indiana within its first year. Only fours were built up to 1915, when the first six-cylinder models appeared, sixes remaining in production for the rest of Lexington's existence. Output peaked at 6000 in 1920; in 1921, Lexington adopted Ansted power units. The most popular Lexington models were the Lexington tourer and Concord sedan of the early 1920s: the Minute Man Six also traded on War of Independence legend surrounding the battle of Lexington-Concord, though the battle had no connection with the marque's Kentucky origins. Though Lexington went into receivership in 1923, small-scale output continued for five years.

LEY/Germany 1906–1929

Designed by Albert Ley, whose brother Rudolf had founded this company at Arnstadt (now East Germany), the first cars bearing the name Ley—also known as Loreley—had 1559cc four-cylinder engines. In 1907 a six-cylinder was in production. Other pre-war models included 1132cc, 1545cc and 2068cc four-cylinders and a 2599cc six-cylinder. There was a unique six-cylinder Ley (Loreley) with a small five-bearing sv 1559cc engine developing 18 hp at 1800 rpm. Ley returned to production in 1919 with a 3134cc 40 hp six-cylinder car, but afterwards concentrated on four-cylinder models with sv engines of 1530cc, 1990cc and 3070cc. Ley (Loreley) cars had a good reputation for quality and advanced design. Designer-Director Gockenbach tested, together with Rudolf Ley and Paul Jaray, Ley cars with Jaray streamlined bodywork; there was also the TO sports model of 1924, which housed an ohc 1498cc four-cylinder engine.



1920 prototype Leyland Eight

LEYLAND/England 1920–1923

Leyland Motors, who had been commercial vehicle builders since 1897, decided to enter the luxury car market with the Leyland Eight of 1920. Designed by J. G. Parry-Thomas, it was

20/8

the first British production straight-eight and was of 7.3-litres capacity. This magnificent car bristled with individuality. Servo-assisted brakes, leaf-valve springs and torsion-bar-assisted suspension were just some of its unusual features. Unfortunately, at a price of £3050 there were few takers and only 18 were built. Thomas, however, actively campaigned tuned examples at Brooklands.

LEYLAND/Australia 1973-1975
Leyland Australia was born out of the merger of the former Austin and Morris (BMC) subsidiary companies. In post-war years they had launched a series of locally designed cars, such as the Austin Lancer, Morris Major and Austin Freeway, all based on British designs. In 1970 the newly formed Leyland concern decided to compete against Holden and Falcon. Called the P76, the entirely new car proved to be a very large sedan with a 2825mm (9ft 3in) wheelbase, powered by a conventional six-cylinder engine. An optional Rover-based alloy V-8 was also offered. Body styling was by the Italian specialist Michelotti. Leyland Australia ran into sales difficulties and the manufacturing facilities were closed during 1975. By that time they had just started to build coupé versions of the P76 and six-cylinder versions of the Morris Marina.

LEYAT/France 1913-1925
This very strange car was remarkable for the use of a propeller at the front, and for steering by the rear wheels. Leyats used ABC motorcycle flat-twin engines at the beginning, later supplanted by a radial three-cylinder Anzani.

LIBELLE/Germany 1922-1924
Founded by ex-Daimler employees, this small factory at Sindelfingen built a few 990cc two-seater cars.

LIBERIA/France 1900-1902
The four-seater Libéria 'Light Voiture' had a 5 hp water-cooled Aster engine, a three-speed and reverse transmission and chain final drive. It sold in England for £250.

LIBERTY/USA 1916-1924
The Liberty Six had a 3394cc monobloc six, and sold for \$1095. Included in the standard equipment were fitted tools and a clothes brush. The company was bought by Columbia late in 1923.

LIFU/England/USA 1899-1902
Henry Alonzo House, formerly with the Liquid Fuel Engineering Company, of Cowes, Isle of Wight, moved to Bridgeport, Conn., where he showed his paraffin-fired 'Lifu' steam carriage in 1899. The Cowes factory could build 30 heavy steam cars and 20 steam launches a year, and in 1899 a Birmingham branch factory was also established in the former Starley & Westwood Cycle Works at Adderley Park. House joined the Automatic Steam Motor Supply Syndicate of New York late in 1899, but the first American Lifu did not appear until 1901. Lifus were mostly heavy commercials, but a number of tiller-steered 10 hp cars were built.

LILIPUT/Germany 1904-1908
Designed by Willi Seck for Georg Wiss, owner

of the SAF (Suddeutsche Automobil Fabrik), the 567cc single-cylinder 4 hp Liliput had friction drive. Plans to build it in large numbers, not only at the Gaggenau works but also at the Schilling arms factory at Suhl (which in the 1920s produced Rennsteig motorcycles), did not materialize.

LILLA/Japan 1923-1925
The Jitsuyo Automobile Company of Osaka built Gorham twin-cylinder light three- and four-wheelers from 1920, then produced the utilitarian Lilla and Lilla Peaton four-cylinder,

which had 2-litre water-cooled engines.

LINCOLN/Australia 1919-1924
Built in Sydney, New South Wales, the Lincoln Pioneer Six featured a Continental six-cylinder engine and a radiator suggestive of the Packard. Wire wheels could be had at extra cost, although most Lincolns already had them. In 1923 the company was requested to drop its name by the Lincoln Motor Co. of Detroit, Mich., but the plea went unheeded and Australia's Lincoln went out of business a year later. Two examples survive.



c. 1924 Lincoln phaeton



Clark Gable with his 1948 Lincoln convertible

LINCOLN/USA 1920 to date
Named after Henry Leland's boyhood hero, the Lincoln car appeared at the end of 1920, its fine engineering offset by dull coachwork styled by Leland's son-in-law, ex-milliner Angus Woodbridge. Power was by a 5.8-litre V-8, but many of the chassis components were bought-in assemblies. A bill for alleged tax arrears plunged Lincoln into financial crisis, and the company was bought by Ford, the Lelands resigning soon after. Under the control of Edsel Ford, the Lincoln soon acquired the elegance to match its engineering. Its rapid acceleration made it a favourite with police and gangsters alike, and a police model with four-wheel brakes (not generally available until 1927) was offered in 1924; that year, Calvin Coolidge became the first US President to own a Lincoln. Engine size was increased to 6.3 litres in 1928, and a further engineering innovation came in 1932 with the V-12 KB model, one of only seven V-12 cars on the US market. Sales, however, were disappointing, and in 1936 a new low-priced range, the ultra-streamlined Lincoln-Zephyr styled by John Tjaarda, made its debut. Of 18,994 Lincolns sold that year, 17,715 were Lincoln-Zephyrs. The Lincoln-



A 'dream car' of the mid-1950s, the Lincoln Continental 'Nineteen Fifty-X'



1914 SP Highwayman

PERLING / USA 1921-1923

The Sperling was an export automobile and, as such, equipped with right-hand steering. It featured a four-cylinder Supreme engine and a highly pointed radiator. Both open and closed models were available, the five-passenger touring model being listed at \$980.

PER HIGHWAYMAN / England 1974-1975

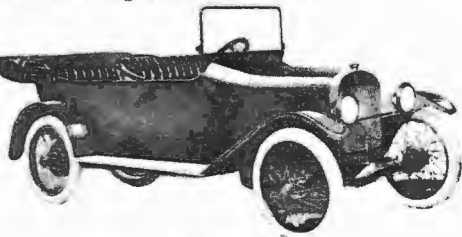
Built by established restorers, Hooe Garage of Sussex, the SPs were the brainchild of Bugattian Jack Perkins. The first was open, the second closed in by a unique tinted glass roof. Both featured Rover power and clever negative-tilt front suspension.

PERLIX / France 1912-1925

Built in Courbevoie, then in Asnières, Seine, by M. Forster and Terrier, these were cyclecars with 1399cc twin Forster engines; they were also available with the 6 hp single-cylinder Aster. After the war they also made a four-cylinder 327cc Altos-engined car.

PERLIX / USA 1914-1915

The Sphinx was built as a five-passenger touring car; an estimated 250 to 300 units were produced of this sole model. A four-cylinder incoming engine was employed, and wood or wire wheels were available. It has been stated that the advent of the 1916 Overland (a car similar to the Sphinx but giving better performance for less price) was responsible for the demise of this marque. The Sphinx Motor Car Co., of York, Pa., was succeeded by the DuPont Motor Car Co., which briefly continued the Sphinx under the DuPont name, an estimated 10 to 50 being sold later in 1915.



1914 Sphinx (US) 2932cc touring

SPHINX / Germany 1921-1925

A more-or-less home-made small car with a six-cylinder engine of 1320cc.

SPIDOS / France 1921-1925

Made in Lyon, this was a 902cc Ruby-engined cyclecar.

SPINELL / Germany 1924-1926

Equipped with an ohv 496cc Kuhne single-cylinder motorcycle engine, the Spinell was just another chain-driven cyclecar.

SPITZ / Austria 1901-1907

Originally a car dealer, Spitz entered car manufacture (at the Gräf & Stift works in Vienna) with a four-wheel-driven design. Otto Hieronymus, famous as a designer and racing driver, later designed a 24 hp four-cylinder car, which won many races. Production versions included 16 hp, 20 hp and 24 hp models.

SPO / France 1908-1911

The Société Française du Petit Outillage was a manufacturer of engines and components at Clichy (Seine). They also built complete chassis.

SPORTS JUNIOR / England 1920-1921

This was a 10 hp two-seater with a four-cylinder Peters engine and detachable disc wheels.

SPRINGFIELD / USA 1908-1911

Springfield built in limited numbers—1910 production was 100 cars—but for 1911 offered a 'made-to-order car for 300 exacting people', though the main choice offered seemed to be in the colour scheme. This shaft-drive car sold for \$2500, with 'touring or torpedo body'.

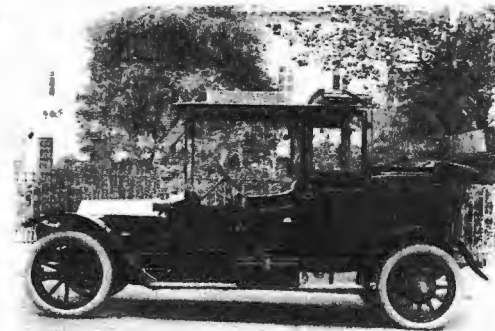
SPRINGUEL / Belgium 1907-1910

Springuel of Liège, who merged with Impéria in 1910, built a 24 hp pair-cast four. It was manufactured in small numbers.

SPYKER / Holland 1900-1925

The Spijker brothers, carriage-builders based at Trompenburg, built a two-cylinder car in 1900. As early as 1903 they completed a one-off four-wheel-drive, four-wheel-brake, six-cylinder racer designed by the Belgian Lavolette, though a small number of 40 hp four-wheel-drive tourers were subsequently completed. That year a 16 hp twin and a 20/24 hp four were introduced. In 1904 they introduced the 'Dustless' chassis, with liberal undershielding to minimize dust-raising on unmade roads. The entire output of four-cylinder cars for 1904-06 was exported to

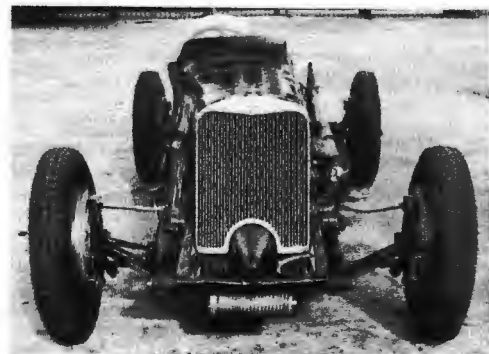
England, where there were also many twin-cylinder Spyker taxis in London. An 80/100 hp Spyker won the Pekin-Paris race in 1907, the last year of Spijker family involvement, while from 1909 all models were fitted with worm-driven transverse camshafts, for smooth running. The post-war Spyker C4, with a 5741cc Maybach engine and French chassis, was designed by aero-engineer Fritz Koolhoven; a curious aeroplane-styled 'Aerocoque' sports, with vestigial tail surfaces, was listed. Over-expansion during the war proved Spyker's downfall. Attempts to market Mathis 1.2-litres as Spykers and to assemble American trucks failed to delay the inevitable demise.



1913 Spyker 20hp landaulette

SQUIRE / England 1934-1936

Adrian Squire built his visually exciting sports cars at a small garage at the top of Remenham Hill, near Henley-on-Thames. Powered by a potent supercharged 1½-litre R1 Anzani engine, the Squire had a preselector gearbox for good acceleration. Available in two chassis lengths, with bodywork by Vanden Plas or Ranaiah, the Squire was one of the best-looking British sports cars of its day. Unfortunately there were snags. Prices began at £1195 and the engines proved unreliable unless regularly maintained. Even the announcement of a cheaper two-seater, with body by Markham of Reading, failed to attract buyers, and only seven cars were built during the two years of production. However, another two cars were subsequently built up by Val Zethrin, owner of one of the two long chassis examples. The Squire made brief appearances at Brooklands in 1935, driven by Luis Fontes, who only managed to finish once, being placed in a Mountain Handicap race at the track.



1935 Squire raced by Luis Fontes



1925 Steiger sports two-seater

STEIGER/Germany 1920-1926

Superb Paul Henze-designed four-cylinder cars with ohc 2604cc (later 2824cc) long-stroke engines, which were also built as sports cars with neat two-seater bodywork, and gained many successes. Steigers were hand-made and expensive. Noll of Düsseldorf—known also as a Bugatti driver—supplied Steiger parts after the works (at Burgrieden, near Laupheim) closed.

STEINMETZ/USA 1920-1927

Said to be the only electric car produced south of the Mason-Dixon line, the Steinmetz from Baltimore, Maryland, was named after the crippled 'Electrical Wizard', Charles Steinmetz (who drove a Detroit Electric).

STELA/France 1941-1948

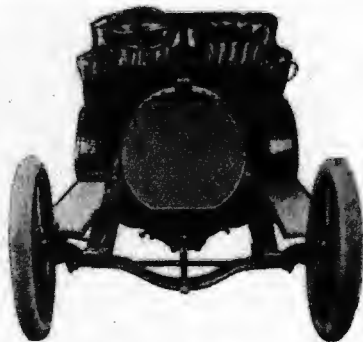
Electric cars made in Villeurbanne, Rhône, during World War Two; most of them were delivery vans.

STELKA/Czechoslovakia 1920-1922

A machine works at Pímbřam, which started light car manufacture with very limited technical and commercial possibilities. The Stelka, designed by Rudolf Stelšovský, the owner of the factory, was a 1080cc twin-cylinder with a high, narrow body.

STELLA/Switzerland 1906-1913

Successors to the CIEM, Stella cars were distinguished by a round radiator, and used a conventional transmission. Initially a 3-litre 10 cv was built, followed by other four-cylinder models of 14/16 cv, 18/20 cv and 24/30 cv.



1908 Stella 16/20hp - 'a perfect gem'

STELLITE/England 1913-1919

The 1100cc Stellite was built by Electric Ordnance and Accessories of Birmingham, a Wolseley offshoot. The chassis of this £157 car was of fitch-plated wood, and up to 1915 only two speeds were available.

STEPHENS/England 1898-1900

R. Stephens, a Clevedon, Somerset, cycle engineer, built about a dozen 8 hp twin-cylinder cars with belt and chain drive and independent suspension—the prototype still survives.

STEPHENS/USA 1916-1924

An offshoot of the Moline Plow Company, the Stephens was always built as a six-cylinder—the 'Salient Six'—of 3671cc, with ohv from 1918, after which the company switched from Continental engines to their own make power units.

STERLING/USA 1908-1915

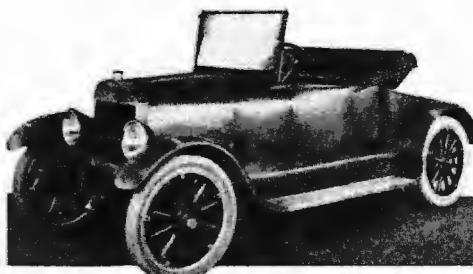
Forerunner of the Elcar, these were fours of 30 hp (4185cc) and 40 hp (5808cc).

STERLING/England 1913

A belt-driven, JAP-engined cyclecar from Leeds.

STERLING/USA 1917-1923

The Ams-Sterling of 1917 was a roadster with an ohv 2081cc LeRoi four-cylinder engine. Later models also used a Herschell-Spillman six.



1917 Ams-Sterling roadster



1924 Sterling-Knight

STERLING-KNIGHT/USA 1921, 1923-1926

Sterling-Knight started in Cleveland, Ohio, with 1921 models, but suspended production that year owing to lack of capital. After re-organization, with a factory in Warren, Ohio, production started anew in 1923 and continued until mid-1926. The cars featured a Knight-type six-cylinder engine and bodies by Phillips. Between 425 and 450 were built.

STEUDEL/Germany 1903-1909

Best known as producers of car and marine engines, Steudel in their early years built small two- and four-cylinder cars with proprietary engines made by De Dion, Aster and Fafnir, of up to 16 hp.

STEVENS/England 1976-1978

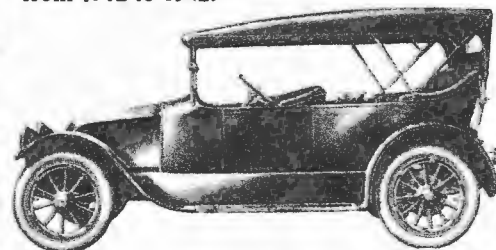
Already involved in the manufacture of custom-built delivery vans, Tony Stevens ventured into the realm of sports car manufacture with the two-seater Sienna in 1976. Based on the Reliant Kitten, the Sienna was capable of 60 mpg. Despite interest from Reliant, the project never got off the ground.

STEVENS-DURYEA/USA 1900-1927

J. Frank Duryea, having quarrelled with his brother Charles, joined Stevens Arms & Tools, of Chicopee Falls, Mass., who began production in the Overman factory of a 6 hp horizontal-twin Victoria Stanhope with tiller steering, joined in 1905 by a 20 hp four of conventional appearance. In 1905 came the 9-6-litre Big Six with three-point suspension of its engine/gearbox unit. From 1907, the company concentrated on big sixes. The last new model was the 1915 Model D 7-7-litre. Frank Duryea sold his share in the company that year, and production was suspended until 1920, when the Model D was revived—as Model E. Later, in 1923, the marque was taken over by Ray M. Owen (of Owen Magnetic), and the plant built Raulang electric cars and coachwork. Few Stevens-Duryeas were built after 1924.

STEWART/USA 1915-1916

The Stewart, like the Renault, sported a sloping hood and had its radiator mounted at the rear of the engine. Roadsters and touring cars were available, and a Continental six-cylinder engine was used. Price of the touring model was \$1950. The Stewart Company is better known for its commercial vehicles, which were manufactured from 1912 to 1942.



The 'Distinctive' Stewart Six, 1913

STEWART/USA 1922-1923

The petrol-powered Stewart was successor to the Stewart-Coats Steamer, which itself was connected with the Coats Steam Car. Stewart offered three models, a four (using a Herschell-Spillman engine) and two sixes, the 'Royal Palm' which featured a Rutember, and a larger model powered by what purported to be an engine of Stewart's own design. It is thought that no more than a single pilot model of each type—if that—made up the total production.

STEWART-COATS/USA 1922

An offshoot of the Coats Steam Car, operations were located in Columbus and Bowling Green, Ohio. Only a pilot model was made.

STEYR/Austria 1920 to date

Hans Ledwinka, famous creator of Nesselsdorf and Tatra cars, joined the Steyr armaments works in 1917. Their first car appeared on the



1925 Steiger sports two-seater

STEIGER/Germany 1920-1926

Superb Paul Henze-designed four-cylinder cars with ohc 2604cc (later 2824cc) long-stroke engines, which were also built as sports cars with neat two-seater bodywork, and gained many successes. Steigers were hand-made and expensive. Noll of Düsseldorf—known also as a Bugatti driver—supplied Steiger parts after the works (at Burgrieden, near Laupheim) closed.

STEINMETZ/USA 1920-1927

Said to be the only electric car produced south of the Mason-Dixon line, the Steinmetz from Baltimore, Maryland, was named after the crippled 'Electrical Wizard', Charles Steinmetz (who drove a Detroit Electric).

STELA/France 1941-1948

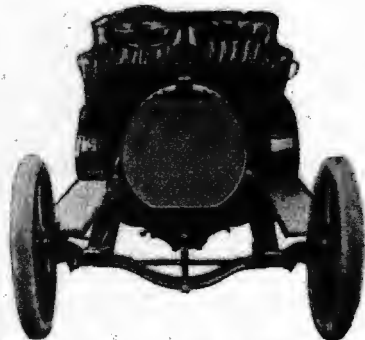
Electric cars made in Villeurbanne, Rhône, during World War Two; most of them were delivery vans.

STELKA/Czechoslovakia 1920-1922

A machine works at Pšimbram, which started light car manufacture with very limited technical and commercial possibilities. The Stelka, designed by Rudolf Stelšovský, the owner of the factory, was a 1080cc twin-cylinder with a high, narrow body.

STELLA/Switzerland 1906-1913

Successors to the CIEM, Stella cars were distinguished by a round radiator, and used a conventional transmission. Initially a 3-litre 10 cv was built, followed by other four-cylinder models of 14/16 cv, 18/20 cv and 24/30 cv.



1908 Stella 16/20hp - 'a perfect gem'

STELLITE/England 1913-1919

The 1100cc Stellite was built by Electric Ordnance and Accessories of Birmingham, a Wolseley offshoot. The chassis of this £157 car was of fitch-plated wood, and up to 1915 only two speeds were available.

STEPHENS/England 1898-1900

R. Stephens, a Clevedon, Somerset, cycle engineer, built about a dozen 8 hp twin-cylinder cars with belt and chain drive and independent suspension—the prototype still survives.

STEPHENS/USA 1916-1924

An offshoot of the Moline Plow Company, the Stephens was always built as a six-cylinder—the 'Salient Six'—of 3671cc, with ohv from 1918, after which the company switched from Continental engines to their own make power units.

STERLING/USA 1908-1915

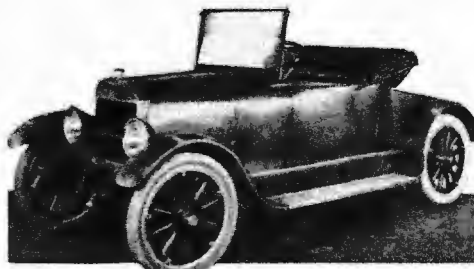
Forerunner of the Elcar, these were fours of 30 hp (4185cc) and 40 hp (5808cc).

STERLING/England 1913

A belt-driven, JAP-engined cyclecar from Leeds.

STERLING/USA 1917-1923

The Ams-Sterling of 1917 was a roadster with an ohv 2081cc LeRoi four-cylinder engine. Later models also used a Herschell-Spillman six.



1917 Ams-Sterling roadster



1924 Sterling-Knight

STERLING-KNIGHT/USA 1921, 1923-1926

Sterling-Knight started in Cleveland, Ohio, with 1921 models, but suspended production that year owing to lack of capital. After re-organization, with a factory in Warren, Ohio, production started anew in 1923 and continued until mid-1926. The cars featured a Knight-type six-cylinder engine and bodies by Phillips. Between 425 and 450 were built.

STEUDEL/Germany 1903-1909

Best known as producers of car and marine engines, Steudel in their early years built small two- and four-cylinder cars with proprietary engines made by De Dion, Aster and Fafnir, of up to 16 hp.

STEVENS/England 1976-1978

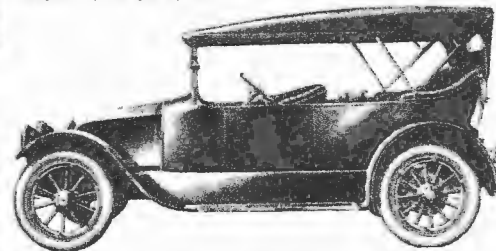
Already involved in the manufacture of custom-built delivery vans, Tony Stevens ventured into the realm of sports car manufacture with the two-seater Sienna in 1976. Based on the Reliant Kitten, the Sienna was capable of 60mpg. Despite interest from Reliant, the project never got off the ground.

STEVENS-DURYEA/USA 1900-1927

J. Frank Duryea, having quarrelled with his brother Charles, joined Stevens Arms & Tools of Chicopee Falls, Mass., who began production in the Overman factory of a 6hp horizontal-twin Victoria Stanhope with tiller steering, joined in 1905 by a 20hp four of conventional appearance. In 1905 came the 9-6-litre Big Six with three-point suspension of its engine/gearbox unit. From 1907, the company concentrated on big sixes. The last new model was the 1915 Model D 7-7-litre. Frank Duryea sold his share in the company that year, and production was suspended until 1920, when the Model D was revived—as Model E. Later, in 1923, the marque was taken over by Ray M. Owen (of Owen Magnetic), and the plant built Raulang electric cars and coachwork. Few Stevens-Duryeas were built after 1924.

STEWART/USA 1915-1916

The Stewart, like the Renault, sported a sloping hood and had its radiator mounted at the rear of the engine. Roadsters and touring cars were available, and a Continental six-cylinder engine was used. Price of the touring model was \$1950. The Stewart Company is better known for its commercial vehicles, which were manufactured from 1912 to 1942.



The 'Distinctive' Stewart Six, 1913

STEWART/USA 1922-1923

The petrol-powered Stewart was successor to the Stewart-Coats Steamer, which itself was connected with the Coats Steam Car. Stewart offered three models, a four (using a Herschell-Spillman engine) and two sixes, the 'Royal Palm' which featured a Rutenber, and a larger model powered by what purported to be an engine of Stewart's own design. It is thought that no more than a single pilot model of each type—if that—made up the total production.

STEWART-COATS/USA 1922

An offshoot of the Coats Steam Car, operations were located in Columbus and Bowling Green, Ohio. Only a pilot model was made.

STEYR/Austria 1920 to date

Hans Ledwinka, famous creator of Nesselsdorf and Tatra cars, joined the Steyr armaments works in 1917. Their first car appeared on the



1936 Steyr 22PS streamline saloon

market in 1920 with a 12/40 hp six-cylinder ohc engine of 3325cc; a sv 1814cc four-cylinder model followed. The Six underwent much development until 1929, Ledwinka returning to Tatra in 1923. In 1926 a smaller six-cylinder model of 1560cc appeared, followed by yet another ohc version, this time of 4014cc. The first models had pointed radiators, later cars flat coolers; most engines used a single overhead-camshaft. The range of models also included ohv 2078cc sixes and also the ohv 1990cc Steyr 120S. In 1929-30, Ferdinand Porsche designed a new luxurious Steyr, the straight-eight 'Austria', which never went into production. In 1934 the factory merged with the Puch combine, of which Austro-Daimler was part—that was the end of Austro-Daimler cars. The first small Steyr was the Type 100 of 1934, with a sv 1385cc four-cylinder engine; in 1937 came the 1498cc Type 200, which was also available (as Type 220) with an ohv 2260cc power unit. The 1158cc Steyr 55 of 1938 was small and very streamlined. It had a sv flat-four engine, and was the successor to the Type 50 984cc of 1936. From 1949 onwards, Steyr assembled Fiat cars from Austria; from 1957 onwards they built the Fiat 500 as the Steyr-Puch 500 with an own-make flat twin-cylinder engine, built mainly at the Graz (Puch) factory. Steyr was also connected with the assembly of Opel cars in the mid-1930s. In 1979 they began manufacture of 4wd vehicles for Mercedes.



The Steyr-built Mercedes 4wd G

STILSON/USA 1907-1910

Stilson offered big Herschell-Spillman-engined sixes with an early form of hydraulically controlled clutch.

STIMSON/England 1972 to date

A six-wheeled, mini-powered, open-topped, go-anywhere vehicle with fully independent suspension. Available complete or in kit form.

STIMULA/France 1907-1914

This company, from St Chamond, Loire, offered an 8 hp single, as well as fours from 10/12 hp to 16/20 hp.

STIRLING/Scotland 1897-1903

Stirling, of Hamilton, Lanarkshire, were old-

established coachbuilders who built their first 4 hp Stirling-Daimler in January 1897, on Coventry-Daimler lines. Until 1900 they built their own dog-cart and waggonette bodies on Coventry-Daimler chassis, and then imported the archaic Clément-Panhard voiturette, which they sold as the Clément-Stirling or Stirling-Panhard. After 1903 they only built lorries.

STIRLING/USA 1920-1921

An assembled car, the Newark, New Jersey-built Stirling featured a six-cylinder Continental engine; the five-passenger touring car was priced at \$2350. Only six Stirling cars were built.

STODDARD-DAYTON/USA 1904-1913

The first examples of this highly-regarded marque from Dayton had 4605cc Rutenber engines; sixes were available from 1907. Stoddard-Dayton became part of the US Motor Company, and went down when that failed. The final range consisted of three fours—the 3707cc 'Savoy', the 4766cc 'Stratford' and the 5808cc 'Saybrook'—and a massive Knight sleeve-valve six of 8691cc.

STOEWER/Germany 1899-1939

Emil and Bernhard Stoeber were pioneers of the German car industry. They owned an iron-works at Stettin (now in Poland) and produced first De Dion-engined three-wheelers and then rear-engined 2080cc twin-cylinder cars. Other twin-cylinder models had 1526cc and 2280cc power units. The first four-cylinder Stoeber was of 3052cc; 1906 saw a new 5880cc four-cylinder and even an 8829cc six-cylinder. Four-cylinder models of 1501cc and 2544cc followed. In 1910, Stoeber cars were built under licence by Mathis of Strasbourg. An ohv 11,160cc six-cylinder, which had a modified Lutzky-designed aero-engine. This model was built soon after World War One in which Stoeber had produced these aeroengines under Argus licence to use up surplus parts. A racing version of this was successfully driven by works-driver Emil Kordewan. A smaller racing car of 2490cc had a four-cylinder ohc engine and streamlined bodywork. Production after 1918 included 1570cc, 2120cc and 2292cc four-cylinder models and sv six-cylinder cars with 3107cc and 3383cc engines. The year 1928 saw the introduction of 1997cc and 2462cc straight-eight models. There was also the 3974cc eight-cylinder Gigant (also available in a 3633cc version), while the Marschall had eight cylinders displacing 2963cc. The last big Stoeber was the beautiful 4905cc 100 hp straight-eight Repräsentant. Stoeber was for many years a typical family business, with the founder-owners and their families taking an active part. Unfortunately



1930 Stoeber fwd saloon

the factory ran into financial difficulties after a reorganization in the early 1920s when founders left the works. Economic reasons led to the manufacture of cheaper cars in the early 1930s. The first, in 1931, was an 1188cc V-4 with wheel drive. The Greif-Junior was built under Tatra licence, with an ohv air-cooled flat-four engine from 1936 to 1939. Own engines were used in 1354cc, 1460cc and four-cylinder models, the ohv six-cylinder 3585cc Arcona and the 2488cc V-8. During World War Two, Stoeber supplied cars to the German forces, but the works were rebuilt after extensive damage in an air raid.

STOKVIS/Holland c1913

Built by W. J. Stokvis of Arnhem, the Stokvis is believed to have been a prototype only.



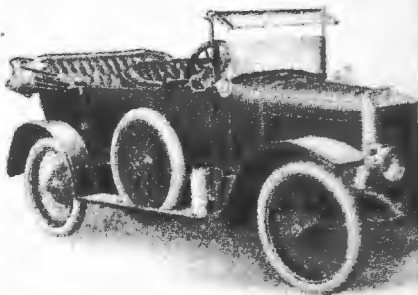
1925 Stolle

STOLLE/Germany 1925

An advanced design, the ohc 1494cc four-cylinder Stolle sports car developed 40 hp. It was the work of the famous motorcycle designer Martin Stolle (of BMW, Victoria and Norton fame). Only a few Stolle cars had been built when Hugo Stinnes, who was backing the venture, died suddenly; Vorster & Stolle's Munich-based factory, had to close.

STONEBOW/England 1900-1902

Named after an ancient gateway near the premises of its begetter, R. M. Wright of Lincoln. The Stonebow dog-cart, available with 5 hp or 7 hp engine, was probably built by Wright & Bates of Coventry, makers of the Goddard.



1913 2016cc Knight-engined Stoneleigh dog cart

STONELEIGH/England 1912-1914, 1922-1924

A 12 hp four-cylinder model, the Stoneleigh had a conventionally-mounted radiator, unlike its sister marque, Siddeley-Deasy, which had a dashboard cooler. The post-war Stoneleigh light car had a vee-twin 1-litre power unit reputedly designed to use up war-surplus engine cylinders.

WARTBURG/Germany 1898-1904

The Fahrzeugfabrik Eisenach was founded by Henrich Ehrhardt's arms factory to build Wartburg cars at Eisenach in Thuringia (now East Germany) under French Decauville licence. From 1903 onwards, the works became an independent car factory. The first cars had air- or water-cooled 479cc twin-cylinder engines of 4hp, 5hp, 8½hp and 10hp. Later four-cylinder models were up to 3140cc. Former Scheibler and Cudell designer Willi Seck joined Eisenach in 1903 and created new cars, which became known as Dixi. BMW took over the Dixi works in 1928, and produced the Austin Seven under licence in 1929-31, calling it the BMW 'Wartburg'.

WARTBURG/Germany 1956 to date

This three-cylinder two-stroke car, built by the nationalized (former Wartburg, Dixi and BMW) works at Eisenach in Thuringia (East Germany), has front-wheel drive. Originally with a 900cc engine, from 1957 on power output was increased from 37 bhp to 50 bhp. In 1962, a 991cc engine was specified. The 1979 version of the Wartburg still used this three-cylinder unit.

WARWICK/England 1960-1962

Bernie Rodgers left Peerless to produce this Triumph TR development of his design: a 3.5-litre Buick V-8 was also offered in 1961.

WASHINGTON/USA 1909-1911

Built by the Carter Motor Car Corporation, of Washington, DC, (former maker of the Carter Twin Engine) the Washington car was guaranteed for five years. Embarrassingly, it only survived in production for two.

WASHINGTON/USA 1921-1924

Built in Eaton, Ohio, the Washington was a typical assembled car of its time, featuring two six-cylinder models in 1921 and 1922, using Falls and Continental engines. The Falls engine was dropped for 1923; the last gasoline Washingtons were built that year and used the Continental power plant. For 1924, a steam car was announced and one pilot model was built. An estimated 65 units constituted the entire production of this make.



1964 Wartburg saloon



1972 Wartburg Knight

WASHINGTON/USA 1923

This car was announced but never built. Operations were centred on Washington, Penn. This car had no connection with the contemporary Washington from Eaton, Ohio.

WASP/England 1907-1908

The Wasp was a 3064cc shaft-driven six-cylinder model selling at £500 complete.

WASP/USA 1920-1925

Built by Karl H. Martin of Bennington, Vermont, formerly the designer of the Roamer, Deering Magnetic and Kenworthy auto-

mobiles, the Wasp appeared as a four-cylinder car between 1920 and 1924 and as a six afterward, using Wisconsin and Continental engines exclusively. Relatively high-priced (the fours selling for \$5500 each), the entire output of 18 Wasp cars carried Victoria coachwork. Elaborate plans for a complete line of other open styles as well as a complete line of formal closed cars did not materialize. Mr Martin, a devout Episcopalian (Anglican), had designed and cast a handsome St. Christopher Medal during World War One which had proved popular with US Armed Forces: all Wasp automobiles carried one of these medals on the dashboard as standard equipment.



1924 Wasp Victoria



1960 Warwick GT

AUNTON/Belgium 1914-1922

Lacked by British capital, this Liège company does not seem to have started production until 1921, when an 1800cc four-cylinder was introduced.

AUNUS/Germany 1907-1909

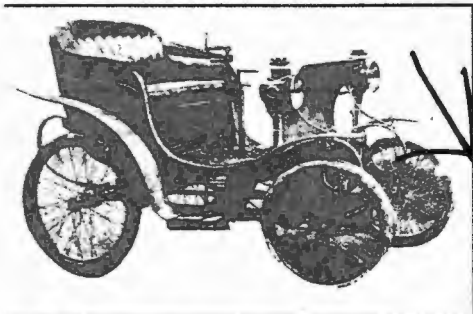
ix-Adler employees founded this small company to manufacture a small 12 hp car with a twin-cylinder engine.

AURINIA/Italy 1902-c1908

Named after the ancient tribe who founded Torino, this factory offered a 12 hp and a 4/20 hp, both four-cylinders.

AUZIN/France 1898

A twin-cylinder voiturette with direct drive on 11 three speeds, by triple crown-wheels and motions controlled by levers on the steering column.



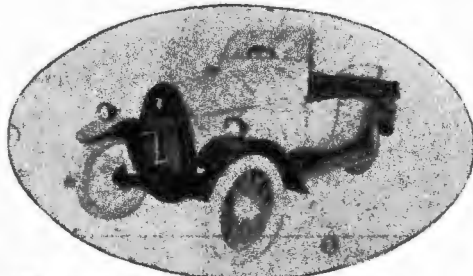
898 Taubin twin-cylinder

AYLOR, GUE/England 1904

A three-wheeled chassis sold complete, apart from the power unit, which was left to the buyer's discretion. This company later made Veloce motorcycles (the origin of Velocette).

AYLOR/England 1923-1924

Built by Taylor Motors of Newcastle upon Tyne, the Taylor was an assembled car fitted with a 14 hp Meadows engine and gearbox.



1920 TB three-wheeled cyclecar

TB/England 1920-1924

One of the more attractive three-wheelers, the TB (Thomson Brothers) had an air-cooled 80cc twin-cylinder engine and Bugatti-style humpy radiator.

TECO/Germany 1924-1925

A motorcycle producer at Stettin (now Poland), which also built an ohv Selve-engined 1501cc four-cylinder car of sporting appearance and advanced design.



1911 10/12cv Terrot 1593cc four-cylinder bodied by Py-Laroche of Dijon (M. Py-Laroche seated at the rear)

TEMPERINO/Italy 1919-1925

The Temperino was a small car with a rotund body and a sv vee-twin 746cc engine, which was later superseded by an ohv 1096cc version. Production was on a small scale.

TEMPLAR/USA 1918-1925

Billed as the 'Superfine Small Car', the Cleveland-built Templar was a four-cylinder ohv sports model capable of some 45 mph. Its price of \$2685 included a gradient meter, compass . . . and a 1-A Junior Autographic Kodak camera.

TEMPLE-CROWSLEY/England 1906-1907

A tricar built in London with wheel-steering, bucket seats and 5 hp Peugeot engine.

TEMPLE-WESTCOTT/USA 1921-1922

Virtually nothing has been discovered about this elusive make, other than the fact that a six-cylinder engine was used and an estimated 10 to 20 cars were built. The car is frequently erroneously listed as 'Temple-Woodgate'.

TEMPO/Germany 1933-1935

Tempo, after building commercial three-wheelers for many years, introduced a small car, the Pony, with a 198cc Ilo two-stroke engine in the 1930s. There was also the Tempo-Front T 6 and a Combi, which could be used as a delivery van as well as a private car. There were 596cc twin-cylinder versions as well, but few were built or sold.

TENTING/France 1896-1899

M. Tenting was an early protagonist of the infinitely variable friction drive. His opposed twin-cylinder engine used a primitive form of fuel injection.

TERRAPLANE/USA 1932-1937

This 2.6-litre sv six replaced the Essex; it was joined in 1933 by a straight-eight of 4 litres, which was the basis for the original Railtons. A swept-back grille and ifs characterized the 1934 models, which had the 3.5-litre Hudson six (export models retained the 2.6-litre engine). Hydraulic brakes were added in 1936.

TERROT/France 1912-1914

Better known as cycle and motorcycle builders, Terrot of Dijon also built 10 hp light cars with 1460cc four-cylinder monobloc engines.

TET M/France 1920-1922

Pushbike makers Tremblay et Malençon made some single-cylinder 500cc cyclecars with belt drive.

TEXAN/USA 1918-1922

The Texan was as assembled a car as one could imagine, even the prototype being an Elcar with a new emblem. Texans featured Lycoming four-cylinder engines and were built as open models only, the five-passenger touring car selling for \$1495. Although standard components were featured, oversize tyres were provided, ostensibly to make the car suitable for service in the Texas oil fields. An estimated 2000 cars and 1000 trucks were manufactured.

TEXMOBILE/USA 1920-1922

Centred in Dallas, Texas, where it was built by Little Motors Kar Co., the Texmobile was also billed as the 'Little Kar'. With a wheelbase of 102 inches, the four-cylinder Texmobile sold in touring car form for \$750. Very few were marketed.

TH/Spain 1915-1922

Talleres Hereter of Barcelona, founded in 1905 to make spares and accessories for motor cars, began building light cars to the designs of the brothers Claudio and Carlos Baradat in 1915, initially under the name 'Ideal'. In 1918 an improved design, the 15 cv 'TH', with a four-cylinder 2121cc monobloc engine in unit with its gearbox, appeared. The company also built aero and marine power units.

THAMES/England 1906-1911

The Thames Ironworks, Shipbuilding and Engineering Company of Greenwich built commercials before launching a 45 hp six and a 40/45 hp four at the 1906 Olympia Show. Few cars seem to have been built until 1908, when a worm-drive twin of 1961cc and a four of 3922cc were offered alongside sixes of 6981cc, 7778cc,